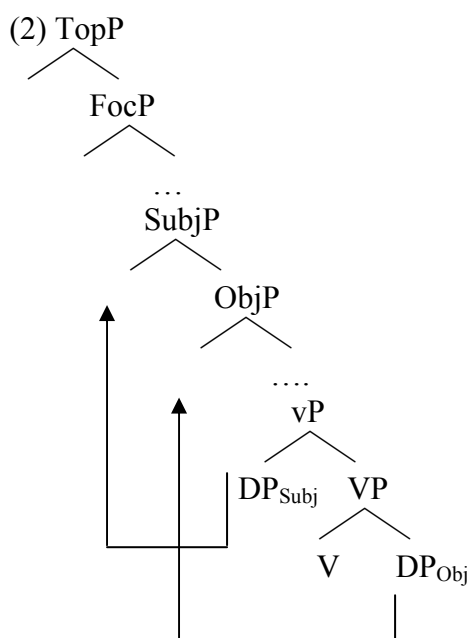


- Hoshi (2005) also proposes pied-piping and remnant movements for his analysis of association with Focus in Japanese.

More generally, other SOV languages have been analysed within the same framework:

- Koopman (2005) provides a syntactic account to some Korean and Japanese morphology by showing that inflected words are derived from head-initial structures by phrasal movement and agreement can be triggered under pied-piping.
- Wh-phrases in Bangla, another SOV language analysed as SVO merge order (Bhattacharya & Simpson 2003).
- Wh-phrases and Foc DP's in *Malayalam*, an SOV language, by Jayaseelan (2004).

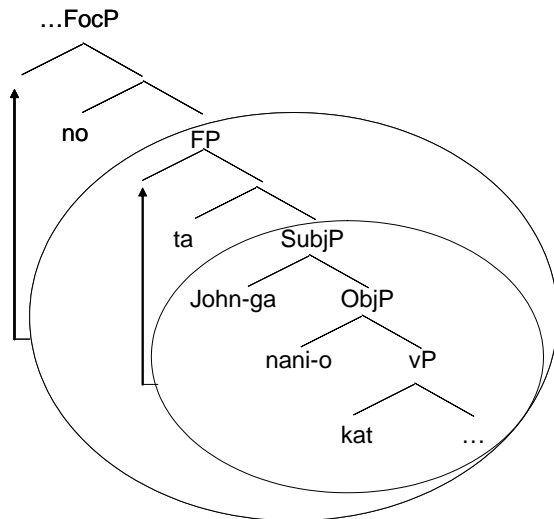
Following Kayne's antisymmetry hypothesis, the structure of Japanese clause is the one given in (2) below.



Kayne (2003) suggests that as far as *the object position* is concerned in an OV language, it must have moved to some specifier position higher than V and most plausibly higher than certain classes of adverbs in Cinque's (1999) hierarchy ⇒ see section 2.5.

Kayne (1994:54) suggests an analysis based on pied-piping that can account for the lack of wh-movement in Japanese:

- (3) a. *John-ga nani-o katta no?*
 John-Nom what-Acc bought Q
 'What did John buy?'
 b.



- Kayne (2003):
 OVX languages (where X corresponds to other constituents within VP) ⇒
 leftward preposing of the object alone to a particular Spec
 *XVO languages (O is a single object and X everything else within VP)

Some cases of right-dislocation, which constitute old information (Kuno 1978)²:

- (4) a. Hanako-wa Izumi-ga dekaketa to itta
 Hanako-Top Izumi-Nom left C said
 ‘Hanako said that Izumi left.’
 b. Hanako-wa itta Izumi-ga dekaketa to
 Hanako-Top said Izumi-Nom left C
- (5) a. John-ga kai-ni itta.
 John-Nom buy-ni went
 ‘John left to buy.’
 b. John-ga itta, kai-ni
 John-Nom went, buy-ni
- (6) a. John-ga LGB-o yonda yo.
 John-Nom LGB-Acc read
 ‘John read LGB.’
 b. John-ga yonda yo, LGB-o.

- Kayne fn 3:143 suggests that *wa* and *ga* (and *o*) are overt heads whose overt complements follow them.

Along these lines one may suggest that such heads have an EPP property associated with them.³ This captures Tomioka ‘s (2001:557) idea that “true case particles, such as *-ga* (nom) and *-o* (acc) must be replaced by *-wa*.”

² Bhattacharya & Simpson (2003) point out that in Hindi finite CP’s always fill a position after the verb, whereas in Bangla such a CP apparently shows optionality of CP positioning. However, if a *wh*-element in the embedded clause is intended to have matrix scope, the finite complement must occur in pre-verbal position.

Endo (2006) discusses the multiple functions *wa* may have: in (15a) *kyoo-wa* = scene-setting adverbial, *Mary-wa* = Top in the left periphery; in (15b) *kyoo-wa* = Foc_{contr}

- (15) a. *Kyoo-wa kinoo-to chigatte Mary-wa hima soo-da.*
 Today-Top yesterday.unlike Mary-Top free seems
 ‘Today Mary seems free/has nothing to do, unlike yesterday.’
 b. ??*Mary-wa kinoo-to chigatte kyoo-wa hima soo-da.* ok under a Foc_{contr}
 reading of *kyoo-wa*

2. Short ‘Scrambling’ and IS in Japanese

2.1. ‘Scrambling’...

- Scrambling is a strictly optional operation following Kuroda (1988), Saito (1989, 2004), Fukui (1993), Saito and Fukui (1998).
- Miyagawa (2005, 2006a, 2006b), Ishihara (2000), Endo (2006) argue that scrambling is no optional operation.
 - Ishihara (2000) shows for instance that the syntactic component yields a syntactic derivation to two interface levels, PF and LF;
 - Miyagawa (2001) claims that scrambling is a syntactically obligatory operation driven by an EPP feature on T and assumes following Chomsky (1998) that case features are checked in situ by virtue of AGREE. The optionality of scrambling is reduced to optionality of either DP, subject or object, to move for EPP;
 - Endo (2006) discusses more in detail the left periphery of the clause and shows that Japanese exhibits focalisation and topicalisation in the sense of Rizzi (1997, 2002).

2.2. The SOV order

- (18) a. *Swuni-ka ku si-lul ss-ess-ta.* Korean Choe 1995 (10a)
 Swuni-Nom the poem-Acc write-Past-M
 ‘Swuni wrote the poem’.
 b. *Ku si-lul Swuni-ka ss-ess-ta.* Choe 1995 (11a)
- (19) a. *Nin-ne aarə talli?* Malayalam Jayaseelan 2004 (1)
 You-Acc who beat(Past)
 ‘Who beat you?’
 b. **Aarə nin-ne talli?*
- (20) a. JOn [*kon boi-Ta*] poRlo. Bangla Bhattacharya&Simpson2003 (6)
 John which book –Cl read
 ‘Which book did John read?’
 b. JOn [*ke cole gEche*] bollo.
 John [who left gone] said
 ‘Who did John say left?’

- (21) a. JOn [ki meri-ne *kyaa xariida*] kahaa. Hindi
 John [that Mary-ERG what bought] said
 ‘What did John say tat Mary bought?’
 b. *JOn kahaa [ki meri-ne *kyaa xariida*].

Back to Japanese...

- (22) *Taroo-ga hon-o katta.* Miyagawa, 2005 (52)
 Taroo-Nom book-Acc bought
 ‘Taroo bought a book.’

(22) is a possible answer to (23) below (Miyagawa 2005, Ishihara 2000, Endo 2006):

- (23) a. *Nani-o atta no?*
 ‘What happened?’
 b. *Taro-ga nani-o katta no?*
 ‘What did Taro buy?’
 c. *Taro-ga nani-o sita no?*
 ‘What did Taro do?’

- ⇒ the subject DP *Taro-ga* in (22) fills the Rizzi’s (2004) Criterial Subject position, i.e. it functions like *Topic-aboutness*. The subject DP *gets frozen in place*.
 ⇒ since (22) may also be an answer to (23b), the DP *Taro-ga* is some sort of *given information* and fills therefore Spec SubjP, whilst the object DP moves to SpecObjP, which is necessarily associated with $FocP_{NewInformation}$ in the sense of Belletti (2001, 2004) though a Voice adverb may follow the object.
 ⇒ since (22) also constitutes a possible answer to (23c), the ObjP containing the DP and the verb pied-pipes to the higher ObjP associated with $FocP_{NewInformation}$.

2.3. The OSV order

- (24) *Hon-o Taro-ga katta.*

(24) constitutes an appropriate answer to the questions in (25) following Miyagawa 2005, Ishihara 2000:

- (25) a. *Dare-ga hon-o katta no?*
 ‘Who bought the book?’
 b. *Nani-ga atta no?*
 ‘What happened?’
 c. **Taro-ga nani-o sita no?*
 ‘What did Taro do?’

⇒ in (25a), the DP *hon-o* represents given information, and thus fills an ObjP associated with the old information, some sort of *Mittelfeld-internal Top-feature* in the sense of Belletti.

The subject DP *Taro-ga* moves to a low SubjP position necessarily associated with $FocP_{NewInformation}$ in the Mittelfeld.

But OSV is a tricky order...

Context: Mary and her friend know that there is going to be a race car today in which several cars will take part. Mary has to leave before the race starts and later on she asks John.

(26) Q: Nani-ga atta no?

What-Nom happened Q

A1:???%Ferrari-o Sauber-ga oikosita.

Ferrari-Acc Sauber-Nom overtook

'The Sauber overtook the Ferrari.'

Endo (p.c.)

Context: Mary and her friend John meet up in the street, John looks a bit pale.

(27) Q: Doo sita nodesu ka

How did polite Q

'What happened (to you)?'

A1:???Kogitte-o syain-ga otosita.

Check-Acc office.stuff-Nom lost

'One of the stuff member lost some important check'

A1:??? \$300,000 syain-ga otosita. → *cardinality interpretation*

Context: Three kids who are working on their homework in the room and their father comes in and asks:

(28) Q: Nani yatteru no?

What doing Q

A:???Yatto 30-page-o Taro-ga owatta.

Finally page 30-Acc Taro-Nom finished (=Taro finally finished with the problem on page 30) → *cardinality interpretation*

Context: The three kids have problems to solve from page 30 to page 40 and the father asks:

(29) Q: Nani yatteru no?

What doing Q

A: Yatto 30-page-o Taro-ga owatta.

Finally page 30-Acc Taro-Nom finished → *presuppositionality*

Thus OSV cannot be an answer to (25b) unless some presuppositionality is involved.

Further evidence for a fairly low $Foc_{NewInformation}$ position comes from the ungrammaticality of (30):

(30) Q: Dare-ga hon-o katta no?

A:*Taro-ga hon-o katta.

Consider again (24):

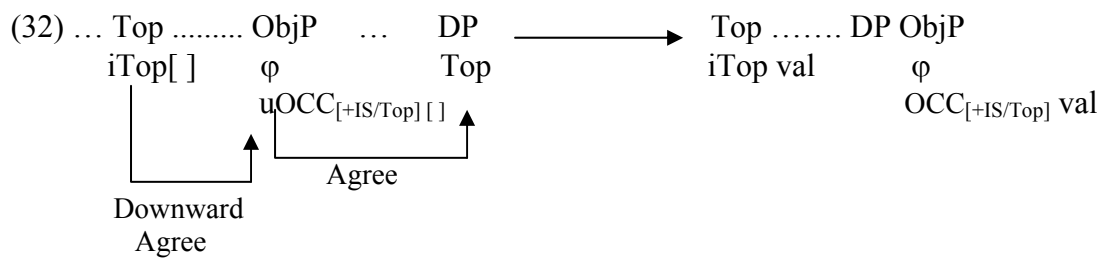
(24) *Hon-o Taro-ga katta.*

⇒ the same object DP may also function as a Topic, thus filling Rizzi's *Spec Top* in the left periphery, as shown in Endo (2006). In such a case, an intonational break follows the DP with the remaining part of the sentence constituting the comment regarding *the book*.

⇒ the object DP may be read with a distinct specific stress, which means that it has undergone movement to a *contrastive FocP* in the left periphery (Endo p.c.). In all these last three cases, the subject DP fills SubjP associated with new information Focus.

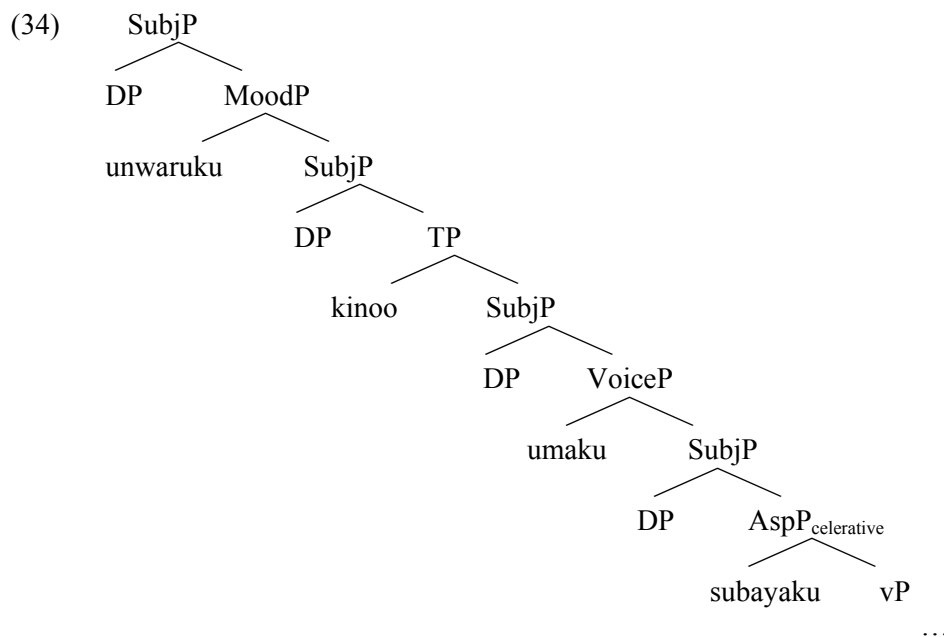
(31) ...Top > Foc > Criterial Subj > Top (Belletti) > Obj > Foc_{New Information} > Adv ... > vP

Suggestion based on an observation in Endo (2006):



2.4. Subject DP and Adv interaction in the SOV order

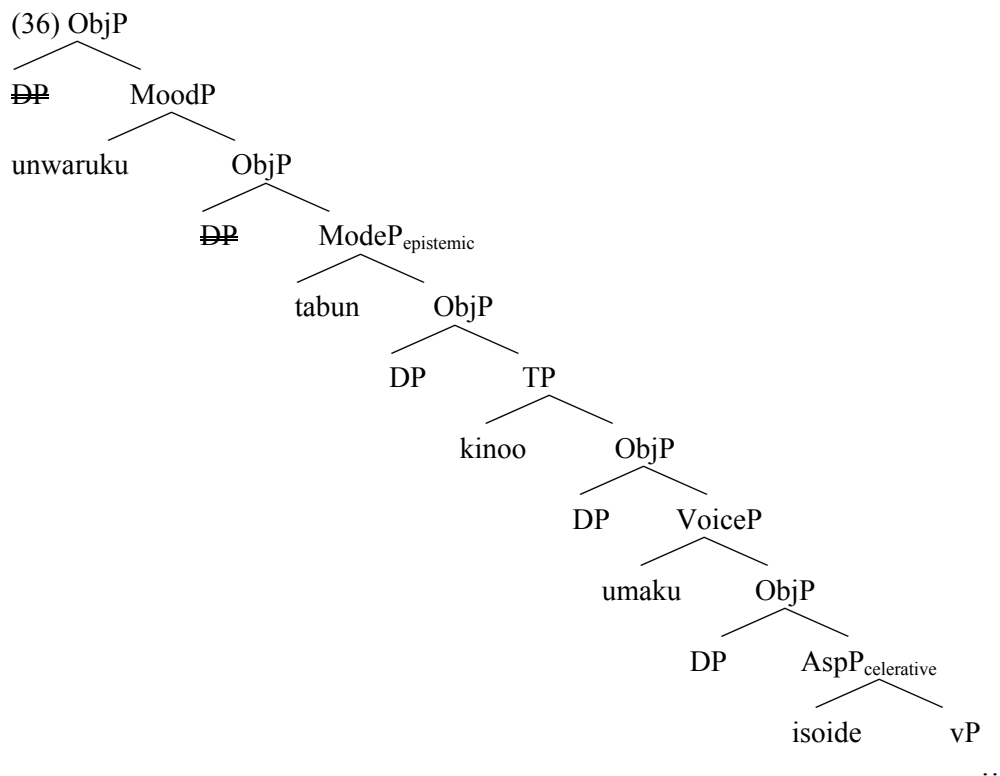
- (33) a. Gakusei-ga *unwaruku* sannin sono ziko-ni atta. Ono (2001)
 Students-Nom unfortunately three that accident met
 'Unfortunately, three students were involved in that accident.'
- b. Gakusei-ga *kinoo* sannin hon-o yonde-ita. Ono (2001)
 Students-Nom yesterday three book-Acc were reading
 'Yesterday, three students were involved in that accident.'
- c. Gakusei-ga *umaku* mondai-o toita.
 Gakusei-Nom well problems-Acc solved
 'The students solved the problems well.'
- d. Gakusei-ga *subayaku* mondai-o toita.
 Gakusei-Nom quickly problems-Acc solved
 'The students quickly solved the problems.'



2.5. Object DP and Adv interaction in the OSV order

- (35) a. ??(?) *Sono ziko-ni unwaruku gakusei-ga ate.*
 That accident unfortunately students-Nom met
 ‘Unfortunately the students were involved in that accident.’
- b. ??(?) *Sono ziko-ni tabun/osoraku gakusei-ga atta.*
 That accident perhaps students-Nom met
 ‘Perhaps the students were involved in that accident.’
- c. ? *Sono ziko-ni kinoo gakusei-ga ate.*
 That accident yesterday students-Nom met
 ‘Yesterday the students were involved in that accident.’
- d. *Sono ziko-ni saikin gakusei-ga ate.*
 That accident recently students-Nom met
 ‘Recently the students have been involved in that accident.’
- e. *Sono mondai-o umaku gakusei-ga toita.*
 Problems-o well students-Nom solved
 ‘The students solved the problems well.’
- f. *Sono cake-o isoide gakusei-ga tabe-ta.*
 The cake-Acc quickly student-Nom ate
 ‘The students quickly ate the cake.’

The object DP scrambling possibilities in the OSV order are given in (36):



3. Scrambling of wh-phrases and intervention effects

The important question to ask is: Are wh-phrases really in situ? Following Kayne, they are obviously not.

3.1. The interaction of Subject wh-phrases and adverbs

- (37) a. Hanako-ga subayaku nani-o sita no?
 Hanako-Nom quickly what-Acc did Q
 ‘What did Hanako quickly do?’
- b. Hanako-ga sinsetu-ni-mo nani-o sita no?
 Hanako-Nom kindly what-Acc did Q
 ‘What did Hanako kindly do?’
- c. Hanako-ga sibasiba/hinpanni nani-o sita no?
 Hanako-Nom often what did Q
 ‘What did Hanako often do?’
- d. Hanako-ga saikin nani-o sita no?
 Hanako-Nom recently what-Acc did Q
 ‘What has Hanako recently done?’
- e. Hanako-ga kinoo nani-o sita no?
 Hanako-Nom yesterday what-Acc did Q
 ‘What did Hanako do yesterday?’
- f. Hanako-ga tabun/osoraku nani-o sita no?
 Hanako-Nom probably what did Q
 ‘What did Hanako probably do?’
- g. Hanako-ga kooun-ni-mo nani-o sita no?

Hanako-Nom fortunately what-Acc did Q
 ‘What did Hanako fortunately do?’

3.2. The interaction of Object wh-phrases and adverbs

- (38) a. ?Hanako-ga nani-o *subayaku* kaiketusa no?
 Hanako-Nom what-Acc quickly solved Q
 ‘What did Hanako quickly deal with?’
 b. Hanako-ga nani-o *umaku* kaiketusa no?
 Hanako-Nom what-Acc well solved Q
 ‘What did Hanako well deal with?’
 c. Hanako-ga nani-o *sibasiba/hinpanni* sita no?
 Hanako-Nom what often did Q
 ‘What did Hanako often do?’
 d. Hanako-ga nani-o *saikin* sita no?
 Hanako-Nom what-Acc recently did Q
 ‘What has Hanako recently done?’
 e. Hanako-ga nani-o *kinoo* sita no?
 Hanako-Nom what-Acc yesterday did Q
 ‘What did Hanako do yesterday?’
 f. ???Hanako-ga nani-o *tabun/osoraku* sita no?
 Hanako-Nom what probably did Q
 ‘What did Hanako probably do?’
 g. ???Hanako-ga nani-o *kooun-ni-mo* sita no?
 Hanako-Nom what-Acc fortunately did Q
 ‘What did Hanako fortunately do?’
 h. ???Hanako-ga nani-o *sinsetu-ni-mo* sita no? ⇒ subject-oriented reading
 Hanako-Nom what-Acc kindly did Q
 ‘What did Hanako kindly do?’

3.3. Is there any optionality proper with wh-phrases?

Miyagawa (2005) suggests that scrambling of a wh-phrase over another affects the interpretation possibilities.

- (39) a. *Itsu doko-de Hanako-ni atta no.*
 When where-Prt_{loc} Hanako-Dat meet.Past Q
 ‘When did you meet Hanako where?’
 b. ??*Doko-de itsu Hanako-ni atta ka.* Ok if wh₁ is D-linked
- (40) a. *Itsu donoyô-ni Hanako-ga hataraita no.*
 When how-Prt Hanako-Nom work.Past Q
 ‘When did Hanako work how?’
 b. ??*Donoyô-ni itsu Hanako-ga hataraita no.* Ok if wh₁ is D-linked
- (41) a. *Doko-ni donoyô-ni Hanako-ga chûsha shita no.*
 Where how Hanako-Nom parked-his-car Q
 ‘Where did Hanako park his car?’

b.??*Donoyô-ni doko-ni Hanako-ga chûshashita ka.* Ok if wh₁ is D-linked

(42) *itsu* ‘when’ > *doko-ni* ‘where’ > *donoyô-ni* ‘how’

The order of wh-arguments marked for the feature [+Animate]:

(43) a. *Dare-ga dare-ni atta no?*
Who-Nom whom-Dat met Q
‘Who met whom?’
b.?(?)*Dare-ni dare-ga atta no?* Ok if wh₁ is D-linked

(44) a. *Dare-ga dare-o tataita no?*
Who-Nom who-Acc hit Q
‘Who hit who?’
b.?(?)*Dare-o dare-ga tataita no?* Ok if wh₁ is D-linked

(45) a. *Dare-ga dare-ni kimi-o shônoi shita no?*
Who-Nom whom-Dat you-Acc introduced Q
‘Who did you introduce to whom?’
b.?(?)*Dare-ni dare-ga kimi-o shônoi shita no?* Ok if wh₁ is D-linked

(46) a. *Dare-ni dare-o Ken-ga shônoi shita no?*
Whom-Dat who-Acc Ken-Nom introduced Q
b.?(?)*Dare-o dare-ni Ken-ga shônoi shita no?* Ok if wh₁ is D-linked

(47) *dare-ga* ‘who’ > *dare-ni* ‘whom’ > *dare-o* ‘who.Acc’

The hierarchy in (47) constitutes a hierarchy of Case-related positions, given the hierarchy SubjP>ObjP_{IO}>ObjP_{DO} (cf. Laenzlinger & Soare 2005).

Scrambling of a bare wh-phrase over another, i.e. reversing the hierarchy, leads to a SP list interpretation (Miyagawa 2005, Kitagawa, Roehrs & Tomioka 2003).

+Animate Arg			Adverbs/Adverbials		-Animate Arg	Adv
<i>dare-ga</i> who	<i>dare-ni</i> whom	<i>dare-o</i> who.Acc	<i>itsu</i> when	<i>doko-ni</i> where	<i>nani-ga/nani-o</i> what.Nom/Acc	<i>donoyô-ni</i> how

Table 1

Conclusions:

- With wh-phrases no optionality is involved as A-scrambling affects interpretability;
- Like Romanian and Bulgarian (Krapova & Cinque 2005, Laenzlinger & Soare 2006), Japanese exhibits the same ordering of wh-phrases but unlike them it allows for switching the order with the same interpretive possibilities, i.e. D-linking.

4. Asymmetries...old and new. Subjacency effects in Japanese

Since Huang (1982), LF movement does not obey Subjacency in Japanese (Lasnik and Saito 1984, Nishigauchi 1990), nor does it in Chinese. *Issue to be revisited...*

- (48) a. John-wa [nani-o katta hito]-o sagasite iru no? Watanabe 1992 (5a) citing
John-Top [what-Acc bought person]-Acc looking for Q Lasnik & Saito 1984
'What is John looking for the person who bought?'
b. ?/??John-wa [Mary-ga nani-o katta kadooka] siritagatte iru no?
John-Top [Mary-Nom what-Acc bought whether know.want Q
'What does John want to know whether Mary bought?'

→ (48b) is marked ? by Lasnik & Saito 1984

→ (48b) is marked ?? by Watanabe 1992 (14) and Ura 1993 (5b)

4.1. No Argument – Adjunct asymmetry

The wh-adjunct *doo* 'how' does not show strong island sensitivity. It only shows sensitivity to the wh-island (Ura 2003).⁵ Compare (49)-(50)-(51) to (52):

Doo in a CNP island

- (49) a. Kimi-wa [John-ga doo nagutta hito]-o hihansi-masita ka?
You-Top John-Nom how hit person-Acc reproach-Polite Q
*'How did you reproach [the person John hit t]?' Ura 1993, (8a)

Doo/Doko-ni in an Adjunct island⁶

- (50) a. Kimi-wa [John-ga doo Mary-o kizutuketa noni] kare-o kabai-masita ka?
You-Top John-ga how Mary-Acc hurt though he-Acc defend-Polite Q
*'How did you defend him [though John hit Mary t]?' Ura 1993, (8c)

Doo in a Manner-of-Speaking Verb island

- (51) Kimi-wa [kimi-no haha-ga doo kimi-mo koibito-o nagutta to] sasayaki-masita ka?
You-Top you-Gen mother-Nom how you-Gen lover-Acc hit C whisper-Polite Q
*'How did you whisper [that your mother hit your lover]?' Ura 1993, (b)

Doo in a Wh-island

- (52)*Kimi-wa [John-ga doo Mary-o nagutta kadooka] sitte-imasu ka?⁷
You-Top John-Nom how Mary-Acc hit whether know-Polite Q

⁵ The wh-adjunct *doo* 'how' patterns differently from *naze* 'why', in that the latter systematically shows island sensitivity.

⁶ As briefly discussed by Richards (2000), not all Adjunct islands have the same status. For instance, *doo* in an adjunct island introduced by *atode* 'after' gives an ungrammatical result (Endo, p.c.)

⁷ It is important to mention that in (52) the special intonation of *deaccenting* cannot go through till the scope marker *ka*. To my knowledge this remains a mystery in the literature on prosody-scope effects.

*‘How do you know whether John hit Mary?’

Ura 1993

Consider, however, other wh-Adjuncts, like *itsu* ‘when’ and *doko-ni* ‘where’ which seem to display some fairly marginal deviancy but if this is true, more research needs be done:

Itsu/Doko-ni in a CNP island

- (53) a. ?Kare-wa [Taroo-ga *itsu/doko-ni* katta hon]-o yonde-iru no?
He-Top Taro-Nom when/where bought book read-prog Q
‘When/where is he reading [a book that Taro bought t]?’ Endo’s jud.
b. Kare-wa [Taroo-ga *dono hi/ dono basyo* katta hon]-o yonde-iru no?
He-Top Taro-Nom which day/which place bought book read-prog Q
‘Which day/which place is he reading [a book that Taro bought t]?’

→ if the wh-Adjunct is D-linked, the sentence is perfect

Doko-ni in an Adjunct island

- (54) a. ?Taroo-ga [*doko-ni itta kara*] umaku itta no?
Taro-Nom where-Dat went because well went Q
‘Where did things go well because Taro went t?’ Endo’s jud.
b. Taroo-ga [*dono basyo itta kara*] umaku itta no?
Taro-Nom which pace went because well went Q
‘Which place did things go well because Taro went t?’

→ a D-linked Adjunct gives rise to perfect grammaticality

- However, ***Japanese is well-behaved in that it systematically shows Subjacency effects with overtly moved (wh- and lexical) Adv***, as shown by the impossibility of XP-Adjunct extraction out of any island type. This is exemplified below:

CNP Island

- (55) **Doo* kimi-wa [John-ga nagutta hito]-o hihansi-masita ka?
How you-Top John-Nom hit person-Acc reproach-Polite Q
*‘How did you reproach [the person John hit t]?’ Ura 1993, (9a)

Adjunct Island

- (56) **Doo* kimi-wa [John-ga Mary-o kizutuketa noni] kare-o kabai-masita ka?
How you-Top John-ga Mary-Acc hurt though he-Acc defend-Polite Q
*‘How did you defend him [though John hit Mary t]?’ Ura 1993, (9c)

Manner-of-Speaking Island

- (57) **Doo* kimi-wa [kimi-no haha-ga kimi-no koibito-o nagutta to] sasayaki-masita ka?
How you-Top you-Gen mother-Nom you-Gen lover-Acc hit C whisper-Polite Q
*‘How did you whisper [that your mother hit your lover]?’ Ura 1993, (9b)

Wh-Island

- (58)a. **Doo* kimi-wa [John-ga Mary-o nagutta kadooka] sitte-imasu ka?
How you-Top John-Nom Mary-Acc hit whether know-Polite Q
*‘How do you know whether John hit Mary t?’ Ura 1993, (9d)

The same ungrammaticality obtains with *itsu* and *doko-ni*:

(59) **Itsu* [Taroo-ga *t* sore-o te-ni ireta kot]-o okotteiru no?
 When taro-Nom it-Acc obtained fact-Acc be-angry Q
 ‘When are you angry about the fact that Taro obtained it t?’ Endo, p.c.

(60) **Doo* kimi-wa [John-ga Mary-o nagutta kadooka] sitte-imasu ka?
 How you-Top John-Nom Mary-Acc hit whether know-Polite Q
 *‘How do you know whether John hit Mary t?’ Endo, p.c.

- Ura observes that long-distance scrambling of the CNP island, of the adjunct island and of the compl of *whisper* containing *doo* has the same status as the wh-island effect with a wh-Argument, i.e. fairly marginal, but not yet totally ungrammatical, whence his account of the long scrambling of the island in terms of the **argumental nature of the chain that pied-pipes at LF**, much in the spirit of Nishigauchi’s (1990) analysis:

Pied-piping of the long-scrambled CNP under ‘know’

(61)??Kimi-wa [John_i-ga [PRO_i *doo* t_j egaita] t_j -o] yabuita] kadooka sitte-imasu ka?
 You-Top John-Nom how drew picture_j broke whether know-Polite Q
 *‘How_k do you know whether John_i broke (the) picture_j which he_i drew t_j t_k?’

Pied-piping of the compl cl of Manner-of-Speaking V under ‘know’

(62)??Kimi-wa [kimi-no haha-ga *doo* kimi-no koibito-o nagutta to]_k sasayaita kadooka] sitte-imasu ka?
 You-Top you-Gen mother-Nom how you-gen lover-Acc hit C whispered whether know-Polite Q
 ‘How do you know whether your mother whispered that she hit your lover t?’

- However, contrary to Ura, a wh-island can front by long scrambling:

(63)??[John-ga *doo* Mary-o nagutta kadooka]_i kimi-wa t_i sitte-imasu ka? Endo p.c.

4.2. The overtly moved wh-Arg - overtly moved wh-Adjunct asymmetry

Compare overt scrambling of the wh-Arg in (64)-(65) to (58)-(59) repeated below as (66)-(67). Such asymmetry is treated as a case of RM.

(64) *Nani-o* John-ga [Taroo-ga katta *ka*] siritagatteiru.
 What-Acc John-Nom Taro-Nom bought Q want.to.know
 ‘John wants to know what Taro bought.’

(65) *Nani-o* John-ga [Taroo-ga katta *ka*] sitteiru no?
 What-Acc John-Nom Taro-Nom bought Q want.to.know Q
 a. Preferred r: ‘What does John want to know whether Taro bought?’
 b. Dispreferred r: ‘Does John want to know what Taro bought?’

→ recall the D-linking interpretation of *nani-o*

(66) **Itsu* [Taroo-ga *t* sore-o te-ni ireta kot]-o okotteiru no?
When taro-Nom it-Acc obtained fact-Acc be-angry Q
'When are you angry about the fact that Taro obtained it?'

(67)**Doo* kimi-wa [John-ga Mary-o nagutta kadooka] sitte-imasu ka?
How you-Top John-Nom Mary-Acc hit whether know-Polite Q
'*How do you know whether John hit Mary t?'

⇒ Japanese is like Fr, E in *that overt wh-Arg mvt from an island is permitted, whereas overt wh-Adjunct (and lexical Adv) mvt from an island is not.*

And yet...

Are there Subjacency effects with a wh-island? What psycholinguistics tells us about it.

On the basis of experimental design, Kitagawa & Fodor (2006) point out the essential role played by **prosody-scope** and argue that *wh-in-situ* in an example like (68) below can only have **matrix scope** when uttered with the appropriate (i.e. what they call *long-EPD*, *emphatic prosody*,) intonation. ⇒ experimental evidence that **Subjacency is not operative with wh-in-situ**

However, for those speakers able to interpret *kadooka* 'whether' as a scope marker the wh-phrase will only have the **embedded scope** interpretation *under a short-EPD*. ⇒ hence the source of the Subjacency effects extensively discussed in the literature

(68) Keesatu-wa [Mary-ga ano-ban *dare-ni* denwasita-*kadooka*] imademo sirabeteteiru-*no*?
Police-Top Mary-Nom that-night who-Dat called whether even.now investigating-Q
'*Who_i* is such that the police are investigating whether Mary called him/her_i that night?'
(K&F 2006 (9))

- Deguchi & Kitagawa (2002) also cast doubt on the validity of the so-called *Additional-Wh effect* discussed by Watanabe (1992) and Richards (2000,2001):

(69) John-wa [Mary-ga *nani-o* katta-*kadooka*] *dare-ni* tazuneta-no?
John-Top Mary-Nom what-Acc bought whether who-Dat asked Q
'What did John ask whom whether Mary bought t?'

⇒ they point out that if the appropriate *complex EPD* is supplied the two wh's have the **same scope**

Examples like (69) above have been produced and analyzed to contrast with the one below (Watanabe 1992, Richards 2000, 2001):

(70)??John [Mary-ga *nani-o* katta-*kadooka*] *Tom-ni* tazuneta-no? Watanabe 1992 (15b)
John-Top Mary-Nom what-Acc bought whether Tom-Dat asked Q
'What did John ask Tom whether Mary bought t?'

Crucially when the appropriate EPD intonation is properly assigned, even the multiple wh-phrases within an island can be interpreted as **a matrix multiple wh-question**:

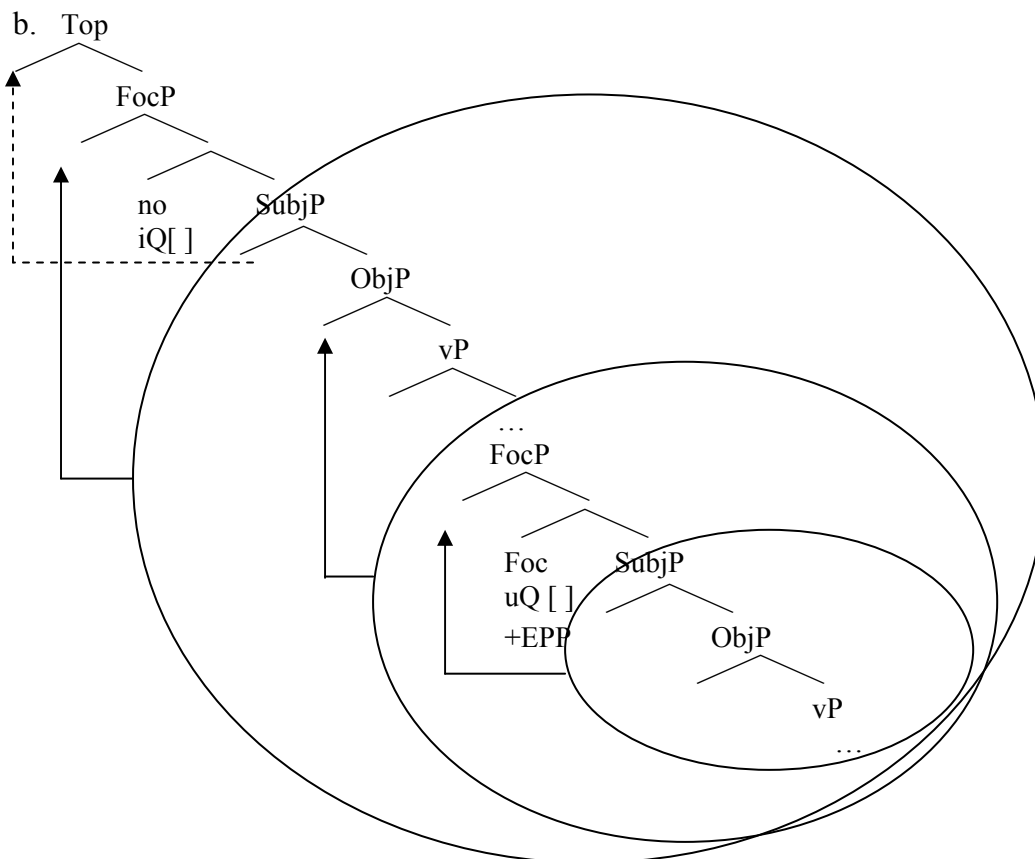
Simpson & Battacharya (2003) point out that in languages like Basque, Quechua, Marathi, all clausal pied-piping languages, wh-feature percolation may be possible *not only from the left-peripheral position in the pied-piped constituent but also from the clause-internal position*.

Conclusions

- There is no need to posit covert island mvt to avoid island violations (Richards 2000) as overt pied-piping of an island or of any material comes for free;
- Richards (2000) suggests that internal mvt of the wh-Op to Spec XP (at least at LF) is what triggers pied-piping; but that brings in a complication related to *the level at which this wh-Op takes place*, i.e. this would imply some **optionality** in Basque, Quechua, Bangla.

In (77) below, *nani-o* has only **matrix scope**.

(77) a. Naoya-wa [Mari-ga *nani-o* nomiya-de nonda to] imademo omotteru **no**?
 Naoya-Top Mari-ga what-Acc bar-Loc drank that even.now think Q
 ‘What did Naoya still think that Mari drank at the bar?’ (Ishihara 2004 (3b))

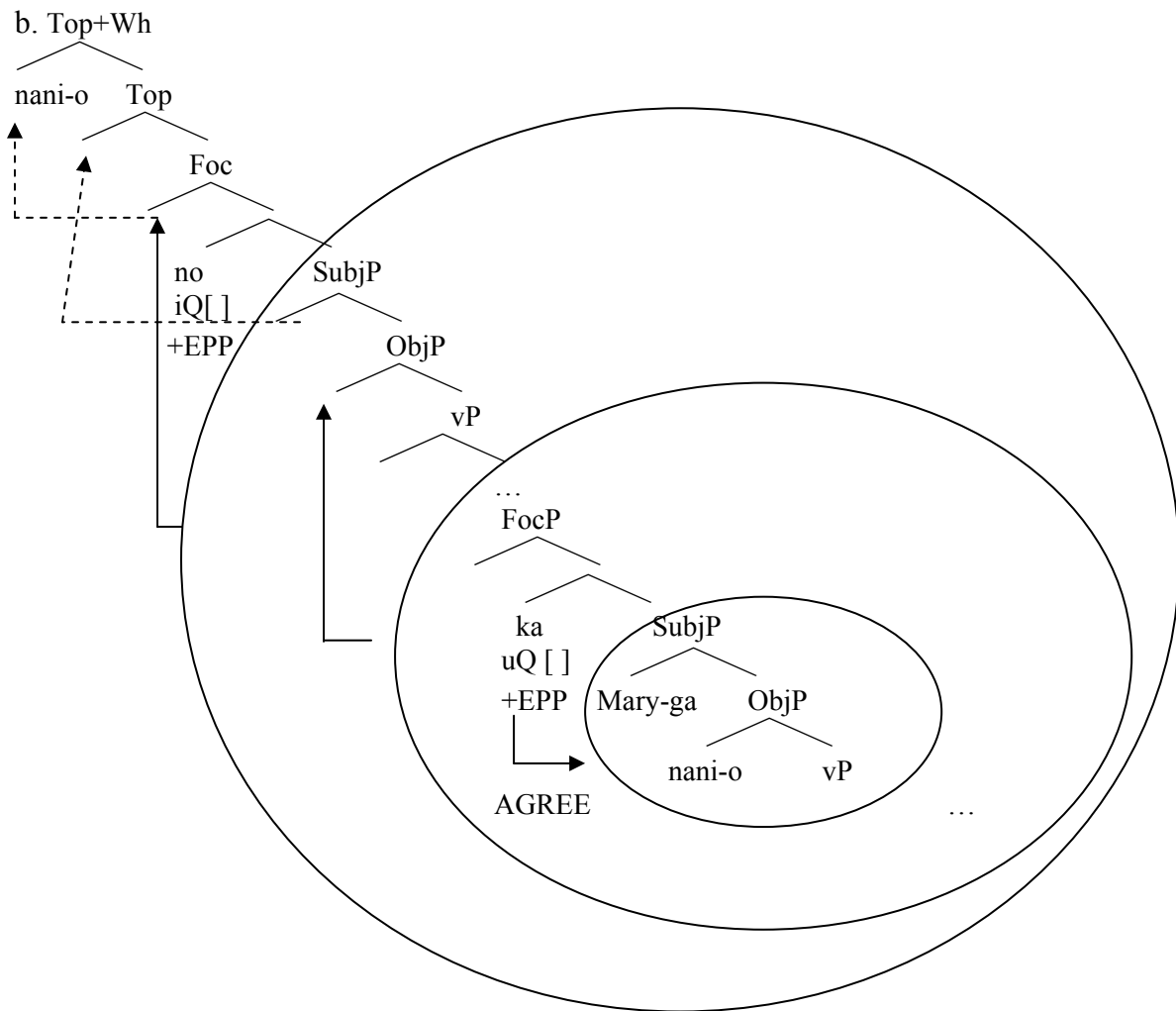


⇒ the embedded Foc head has uninterpretable unvalued feature Q, uQ [] to which an EPP is associated, which accounts of the successive cyclic movement
 ⇒ the pied-piped material moves to ObjP and at this point SubjP is probed by the matrix Foc, having iQ [] + EPP

⇒ wh-activation takes place on the matrix Foc, the only available location

Consider the example below:

- (78) a. *Nani-o* John-wa [Mary-ga tabeta-*ka*] siritagatteiru-*no*?
 What-Acc John-Top Mary-Nom ate-Q wants.to.know-Q
 a. Preferred r: ‘*What* does John want to know whether Mary ate?’
 b. Dispreferred r: ‘Does John want to know *what* Mary ate?’



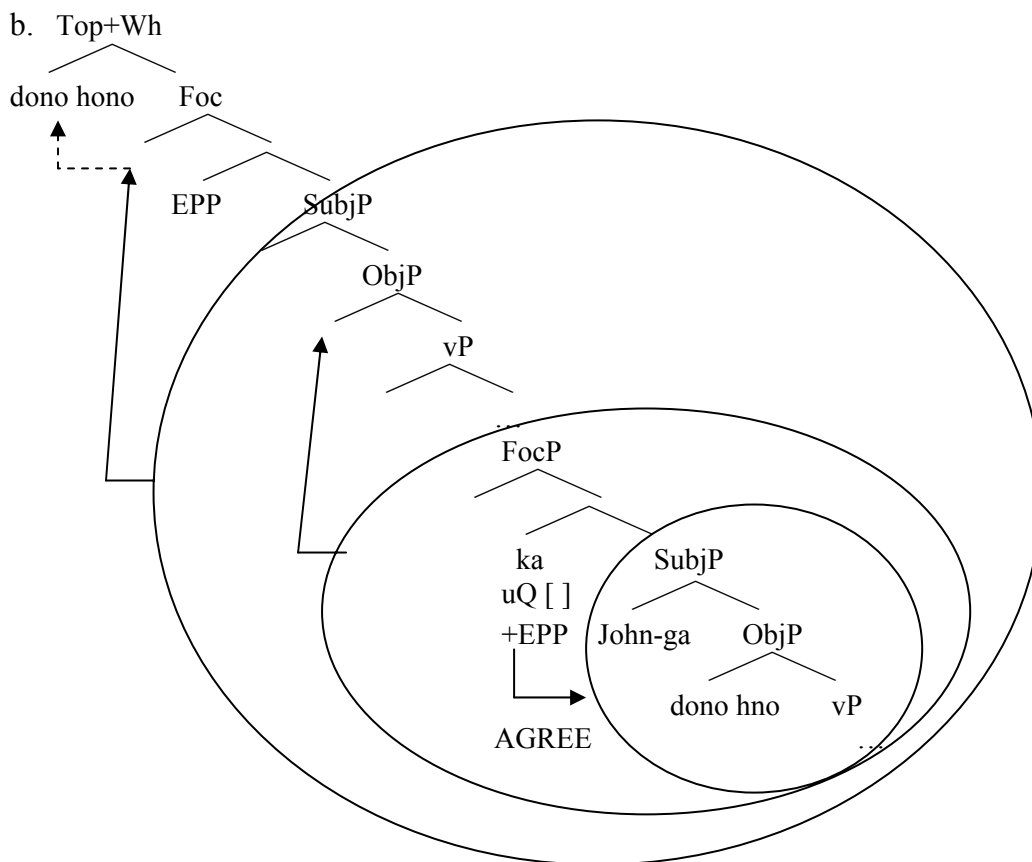
⇒ if the embedded *ka* is not a substantive Q-feature, but a purely formal one, the wh-element is further probed by the higher *no* and therefore interpreted in this latter higher position; conversely, if embedded *ka* has a substantive Q-feature, it receives the embedded interpretation and can further move to check a Top-feature in the left periphery;

⇒ the embedded pied-piped material moves to matrix ObjP and is probed by the matrix Foc with the iQ feature which also has an EPP specification;

⇒ the Obj wh-phrase is not frozen in place as it is contained into a larger pied-piped constituent and thus following Rizzi (2006) it can get extracted and moves to a higher position;
 ⇒ however, no violation of RM is involved as *nani-o* bears a special interpretation, it is Top+Foc/wh (see also Miyagawa 2005, 2006 for the D-linked reading of the scrambled wh-phrase).

Consider Saito's (1989) radical reconstruction example:

(79) a. *Dono hono-o Mary-ga [John-ga t tosyokan-kara karidasita ka] siritagatteiru koto.*
 Which book Mary-Nom John-Nom library-from checked.out Q wants.to.know fact
 'The fact that Mary wants to know which book John checked out from the library.'



⇒ the wh-element reconstructs or the lower copy is interpreted on the embedded Foc by virtue of the fact that *ka* has a substantive Q-feature;

Conclusions so far:

- AGREE is not sensitive to Subjacency, at least in the case of an Argumental wh-phrase;
- Optionality of the long wh-scrambling disappears with pied-piping; optionality is movement triggered by the interpretable unvalued Q-feature on Foc with an associated EPP-feature; the matrix vs. reconstructed reading is associated with the status of the *ka*-feature on the embedded Foc, i.e. FF vs. Criterial feature;

- Matrix Spec Foc is a criterial position but the goal can further extract by virtue of being included in a larger, pied-piped constituent.

5. Intervention effects

5.1. Agree and RM

Both local AGREE (Adger 2003 following Chomsky 2000, 2005ⁱ) and A'-movement are subject to Relativized Minimality (Rizzi 1990, 2001, 2006a).

It has been observed in the literature and as seen above, 'wh-in-situ' are less sensitive to barriers than overt (phrasal) A'-movement, which in our framework means that AGREE is less sensitive to barriers than overt A' movement is.

We adopt Adger's (2003:168) definition of AGREE which is a constraint on the locality of feature matching (Adger 2003:218):

(80) An uninterpretable feature F on a syntactic object Y is checked when Y is in a c-command relation with another syntactic object Z which bears a matching feature F.

(81) AGREE holds between a feature F on X and a matching feature on Y only if there is no intervening Z (F).

We also adopt Rizzi's (2006) *feature*-based definition of RM and his Criterial Freezing approach:

(82) Criterial Freezing: The criterial goal is frozen in place.

(83) a. ?*Daremo-ga nani-o notta no?

Everyone-Nom what-Acc bought Q

'What did everyone buy?

b. [TP [Daremo-ga nani-o not] -ta] [SubjP ... [ObjP ...



c. ...no Foc ... [TP [Daremo-ga nani-o not] -ta] [SubjP ... [ObjP ...

uwh iwh

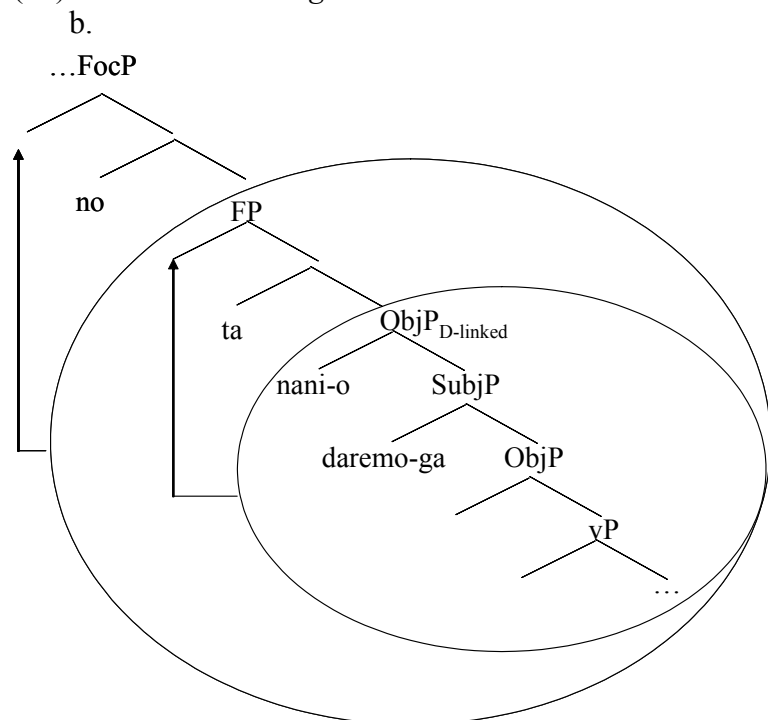
uQ iQ → gives it its semantic interpretation, i.e. question



AGREE

As shown in the literature (Hoji 1985, Miyagawa 2004, Miyagawa & Endo 2005), intervention effects are cancelled under conditions such as *embedding*, *D-linking* and *scrambling*:

(84) a. *Nani-o daremo-ga notta no?*



(85) a. *Ken-wa daremo-ni nani-o ageta no?*

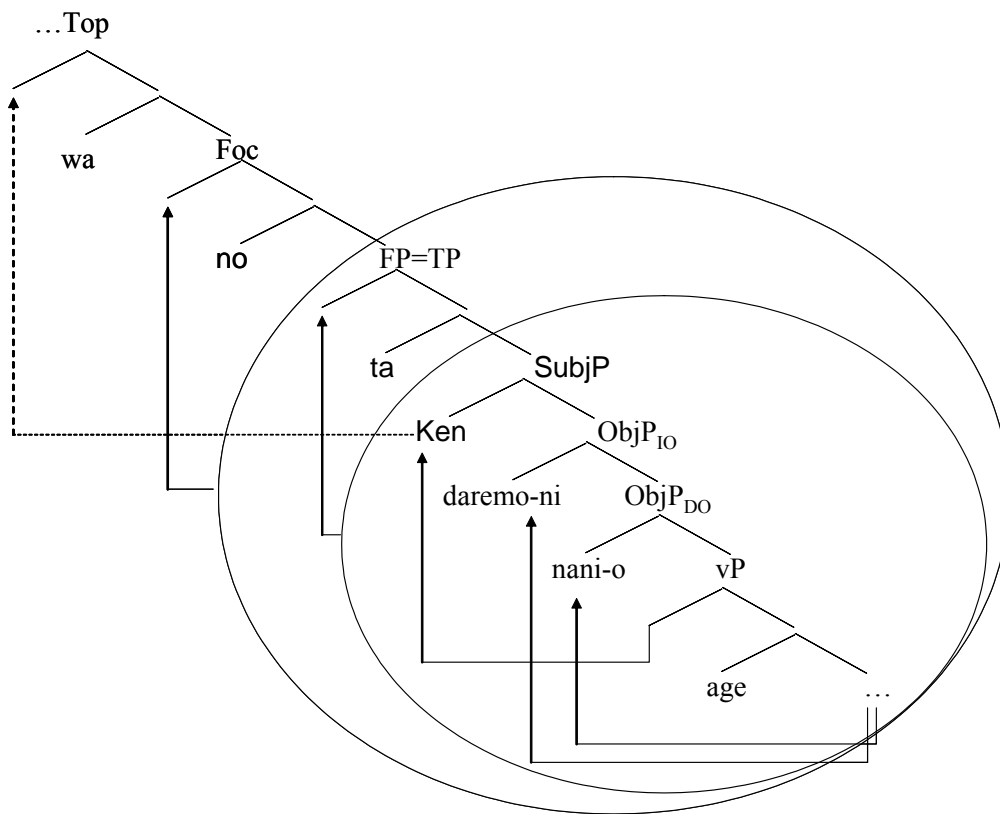
Miyagawa & Endo 2005, (10)

Ken-Top everyone-Dat what-Acc gave Q

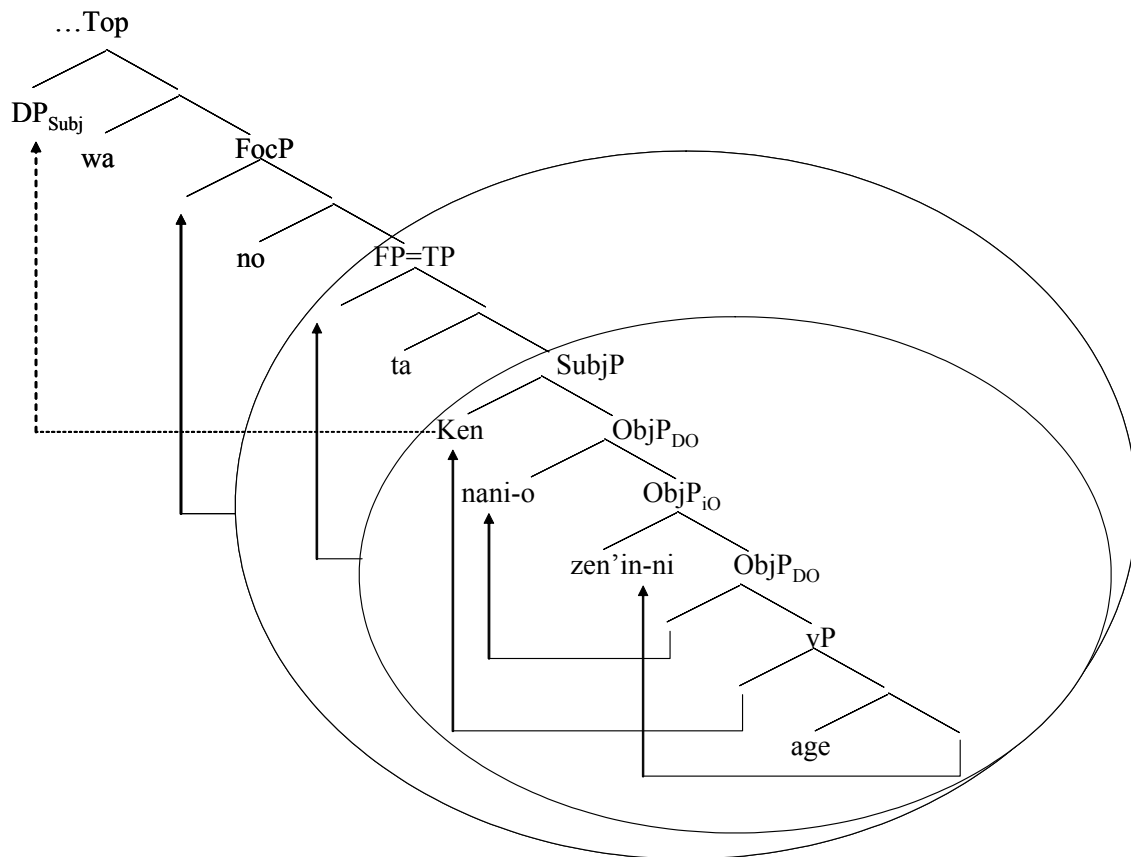
‘What did Ken give to everyone?’

→ As discussed by Miyagawa & Endo (2005), under D-linking, a quantificational non-subject QP such as *daremo-ni* ‘everyone-Dat’ cancels the intervention effect.

b.



- (86) a. *Ken-wa nani-o zen'in-ni ageta no?*
 Ken-Top what-Acc all-Dat gave Q
 'What did Ken give to everybody?'
 b.

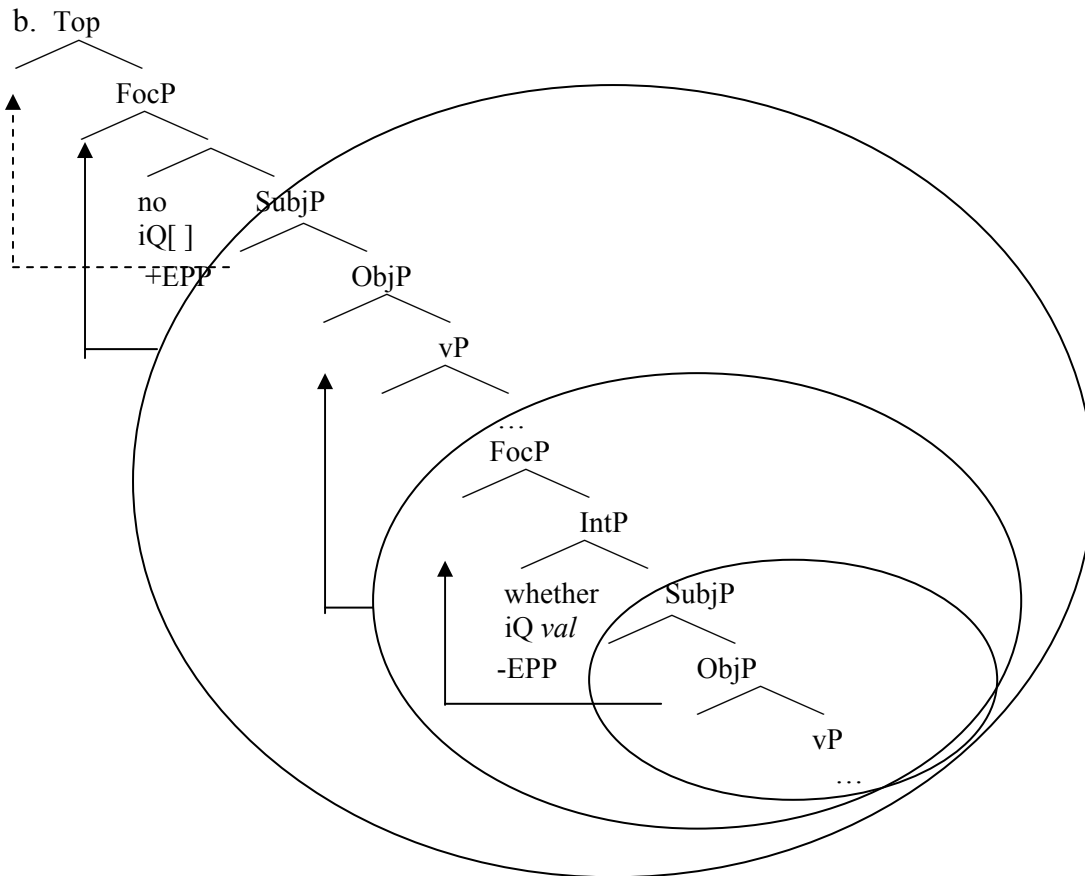


5.2. More complex cases of intervention

- (87)a. Keesatu-wa [Mary-ga ano-ban *dare-ni* denwasita-kadooka] imademo sirabeteteiru-*no*?⁸
 Police-Top Mary-Nom that-night who-Dat called whether even.now investigating-Q
 ‘*Who_i* is such that the police are investigating whether Mary called him/her_i that night?’

Kadooka = Q + how + Q → [-Argument]

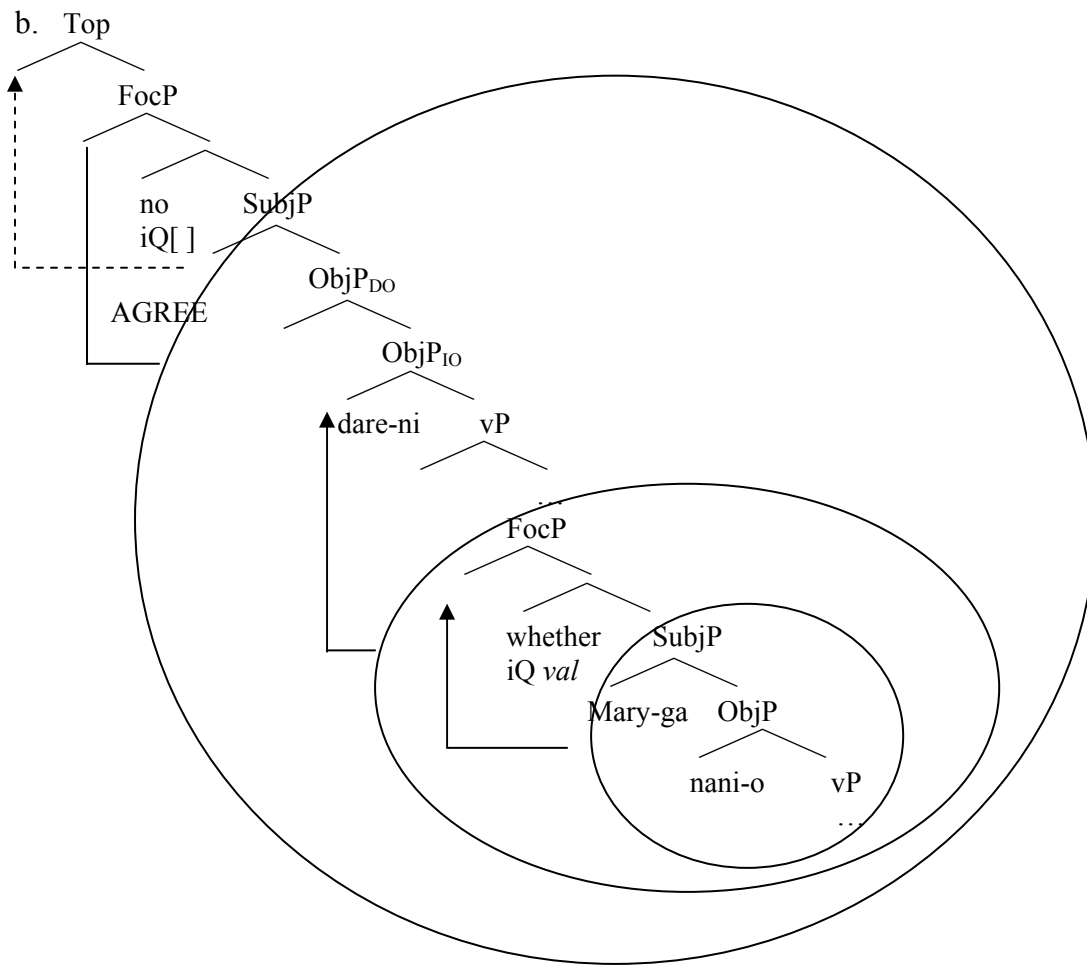
⁸In this paper we consider the dialect where *kadooka* ‘whether’ is not a scope marker.



⇒ below Foc we assume there is *IntP* (Rizzi 1999) headed by *kadooka* which is interpretable and valued (Pesetsky & Torrego 2004)

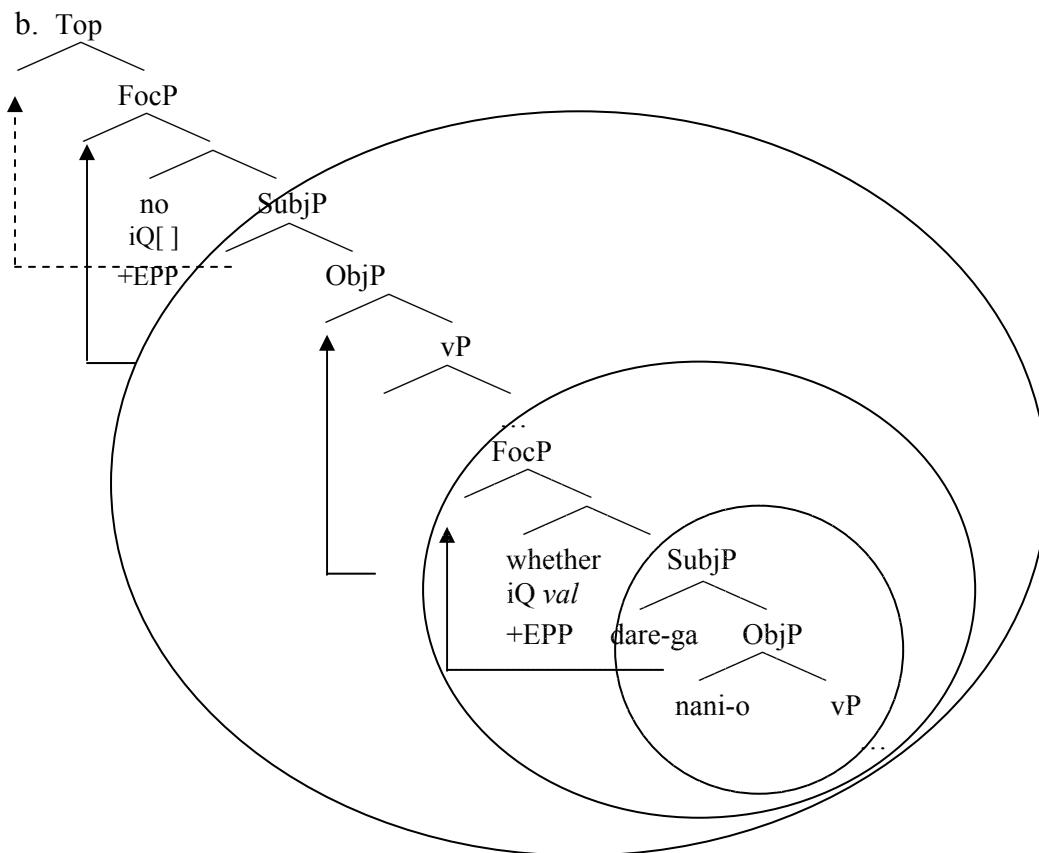
⇒ within such an account the wh-island introduced by *kadooka* ‘whether’ successfully moves to matrix Spec Foc

- (88) a. John-wa [Mary-ga nani-o katta-kadooka] dare-ni tazuneta-no?
 John-Top Mary-Nom what-Acc bought whether who-Dat asked Q
 ‘What did John ask whom whether Mary bought?’



⇒ at some point in the derivation, Foc probes for its goal and “sees” the DO with which it Agrees; permutation of the objects is possible due to scrambling

- (89) a. John-wa [*dare-ga nani-o katta kadooka*] Tom-ni tazuneta-no?
 John-Top who-Nom what-Acc bought whether Tom-Dat asked-Q
 ‘What did John ask Tom [whether who bought]?’



⇒ as discussed in Kitagawa, Roehrs & Tomioka (2004), the wh-phrases in such an example both take matrix scope

ⁱAGREE (Chomsky 2000, 2001, 2005) is defined as below:

(i) An unvalued feature F (a probe) on a head scans its c-command domain for another instance of F (a goal) with which to agree.

(ii) If the goal has a value, its value is assigned as the value of the probe

⁷If Move is considered an epiphenomenon of Agree, such a conclusion is expected.

References:

- Adger, D. 2003. *Core Syntax. A Minimalist Approach*. New York: Oxford University Press.
- Bhattacharya, T and A. Simpson. (2003). Obligatory overt wh-movement in a wh-in-situ language, *Linguistic Inquiry* 34:127-142.
- Belletti, A. 2001. Inversion as focalisation. In *Inversion in Romance and the theory of Universal Grammar*, A.Hulk and J.Y.Pollock (eds), 60-90. New York: Oxford University Press.
- Belletti, A. 2004. Aspects of the low IP area. In *The Structure of IP and CP. The Cartography of Syntactic Structures*, vol.2. L. Rizzi (ed.), Oxford University Press.
- Choe, H.S. 1995. Focus and Topic Movement in Korean and Licensing. In *Discourse Configurational Languages*, K. E. Kiss (ed.), 269-335. New York: Oxford University Press.
- Chomsky, N. 1998. Minimalist Inquiries: The Framework. *MIT Occasional Papers in Linguistics* 15.
- Chomsky, N. 2001. Derivation by phase. In Michael Kenstowicz (ed.), *Ken Hale: a Life in Language*, 1-52. Cambridge, MA: MIT Press.

-
- Chomsky, Noam. 2005. On phases. Ms., MIT, Cambridge, Mass.
- Chomsky, N. 2000. Minimalist Inquiries: The framework. In *Step by Step: Essays on minimalist syntax in honour of Howard Lasnik*, R. Martin, D. Michaels, and J. Uriagereka (eds.), 89-156. Cambridge: MIT Press.
- Chomsky, N. 2001. Derivation by phase. In *Ken Hale: a Life in Language*, M. Kenstowicz (ed.), 1-52. Cambridge, Mass.: MIT Press.
- Cinque, G. 1999. *Adverbs and functional heads: A cross-linguistic perspective*. New York: Oxford University Press.
- Cinque, G. (ed.). 2002. Functional Structure in the IP and DP. In *The cartography of Syntactic Structures*, vol 1, New York: Oxford University Press.
- Cinque, G. (to appear) Complement and Adverbial PPs: Implications for Clause Structure. In *Restructuring and Functional Heads. The Cartography of Syntactic Structures*, vol.4, New York: Oxford University Press, 2006.
- Deguchi M. and Y. Kitagawa 2002. Prosody and Wh-questions. In M. Hirotsu (ed.), *Proceedings of the Thirty-second Annual Meeting of the North-Eastern Linguistic Society*, 73-92.
- Endo, Y. 2006. *A Study of the Cartography of Japanese Syntactic Structures*. PhD Dissertation, University of Geneva.
- Fukui, N. 1993. "Parameters and optionality." *Linguistic Inquiry* 24:399-420.
- Hoshi, Koji. 2005. Deriving Association with Focus in Japanese within the Single-Cycle System. Ms. Keio University.
- Huang, J. 1982. *Logical relations in Chinese and the theory of grammar*. Doctoral dissertation, MIT.
- Ishihara, S. 2000. "Stress, focus, and scrambling in Japanese." *MIT Working Papers in Linguistics* 39:151-185.
- Ishihara, S. 2004. Prosody by Phase: Evidence from Focus Intonation-Wh-scope Correspondence in Japanese. In Ishihara, S., M. Schmitz and A. Schwartz (eds.) *Interdisciplinary Studies on Information Structure* 1, 77-119.
- Jayaseelan, K.A. 2004. Question Movement in Some SOV Languages and the theory of Feature Checking. In P.P Pica (ed.), *Linguistic Variation Yearbook 2003.2004*, 69-99.
- Kayne, R. 1994. *The Antisymmetry of syntax*. Cambridge, Mass.: MIT Press.
- Kayne, R. 2003. "Antisymmetry and Japanese." *English Linguistics*, 20, 1-40.
- Kitagawa, Y., D. Roehrs and S. Tomioka 2004. Multiple Wh-Interpretations. *Proceedings of GLOW Asia* 2003.
- Kitagawa, Y. and J. Fodor 2006. Prosodic Influence on Syntactic Judgments. In G. Fanselow, C. Fery, M. Schlesewsky, and R. Vogel (eds.) *Gradience in Grammar: Generative Perspectives*, OUP.
- Ko, H. 2007. "Asymmetries in Scrambling and Cyclic Linearization." *Linguistic Inquiry* 38:49-83.
- Koopman, H. 2005. Korean and Japanese Morphology from a Syntactic Perspective. *Linguistic Inquiry* 36, 601-633.
- Krapova, I and C. Cinque. 2005. "On the order of wh-phrases in Bulgarian multiple wh-fronting." To appear in *Proceedings of the Fifth Conference on Formal Description of Slavic Languages*, Leipzig.
- Laenzlinger, C. and Soare, G. 2005. "Multiple Wh-Fronting in Romanian: A Cartographic Approach." *Bucharest Working Papers in Linguistics* 1: 23-60.
- Lasnik H. and M. Saito. 1984. On the nature of proper government. *Linguistic Inquiry* 15:235-289.
- Miyagawa, S. 2001. "EPP, scrambling, and wh-in-situ." In *Ken Hale: A Life in Language*, M. Kenstowicz (ed.), 293-338. MIT Press.
- Miyagawa, S. 2005. "Locality in Syntax and Floated Numeral Quantifiers in Japanese and Korean." In *Proceedings of the 14th Japanese/Korean Linguistics Conference*, Stanford, Calif: CSLI Publications.
- Miyagawa, S. and Y. Endo. 2005. "Intervention effects are syntactic." http://ocw.mit.edu/NR/rdonlyres/Linguistics-and-Philosophy/24-946Fall-2004/EEAF0DF3-2082-446B-9A20-2BD53764F156/0/ho_19b_invn_sypg.pdf
- Miyagawa, S. 2006a. "On the 'undoing' property of scrambling: a response to Bošković." *Linguistic Inquiry* 37 :607-624.

-
- Miyagawa, S. 2006b. "Moving to the Edge." *Proceedings of the 2006 KALS-KASELL International Conference on English and Linguistics*, 3-18. Pusan National University, Busan, Korea.
- Ono, H. 2001. EPP-driven XP Movement in Japanese. In *Proceedings of WECOL '99*. Department of Linguistics, California State University, Fresno.
- Pesetsky, D. 2000. *Phrasal Movement and its kin*. Cambridge, Mass.: MIT Press.
- Richards, N. 2000. An Island Effect in Japanese. *Journal of East Asian Linguistics* 9, 187-205.
- Rizzi, L. 1997. "The fine structure of the left periphery". In L. Haegeman(ed.) *Elements of Grammar*, 281-337. Dordrecht: Kluwer.
- Rizzi, L. 2001. "Relativized minimality effects." In *The handbook of contemporary syntactic theory*, 4, M. Baltin, and C. Collins (eds.), 89-110. Blackwell: Oxford.
- Rizzi, L. 2004. "Locality and the left periphery." In *Structures and Beyond. The Cartography of Syntactic Structures*, A. Belletti (ed.), vol. 3, 104-131. New York: Oxford University Press.
- Rizzi, L. 2006a. "On Intermediate Positions: Intervention and Impenetrability." Paper presented at Ealing2006, Paris.
- Rizzi, L. 2006b. "On the Form of Chains: Criterial Positions and ECP Effects." In *Wh-movement: Moving on*, L. L.-S. Cheng et. al. (eds), 97-134. Cambridge, Mass.: MIT Press.
- Saito, M. 1985. *Some asymmetries in Japanese and their theoretical implications*. PhD dissertation, MIT.
- Saito, M. 1989. Scrambling as semantically vacuous A'-movement. In *Alternative Conceptions of Phrase Structure*, M. Baltin and A. Kroch (eds), 192-200. Chicago: University of Chicago Press
- Saito, M. 1992. "Long distance scrambling in Japanese." *Journal of East Asian Linguistics* 1: 69-118.
- Saito, M. 2004. "Scrambling and the functional interpretation of wh-phrases." In *Explorations in generative grammar: festschrift for Dong-Whee Yang*, Y.-S. Kim, B.-C. Lee, K.-J. Lee, H.-K. Yang, and J.-Y. Yoon (eds), 571-588. Seoul: Hankuk.
- Saito, M. and Fukui, N. 1998. "Order in phrase structure and movement." *Linguistic Inquiry* 29: 43-474.
- Tomioka, S. 2001. Information Structure and Disambiguation in Japanese. WCCFL 20 Proceedings, MA: Cascadia Press, 552-564.
- Ura, H. 1993. Extraction of *Doo* and Its Implications," *Journal of Japanese Linguistics* 15, 139-150.
- Ura, H. 1995. *Multiple Feature-checking: A Theory of Grammatical Function Splitting*. PhD Dissertation, MIT.
- Vermeulen, R. 2005. Possessive and adjunct multiple nominative constructions in Japanese. *Lingua* 115, 1329-1363.
- Watanabe, A. 1992. Subjacency and S-Structure movement of *wh*-in-situ. *Journal of East Asian Linguistics* 1: 255-291.
- Whitman, J. 2001. Kayne 1999a:P. 143, Fn. 3. In G. Alexandrova (ed.) *The Minimalist Parameter*. Amsterdam: John Benjamins, 77-100.