九州大学学術情報リポジトリ
Kyushu University Institutional Repository

On Argument-Adjunct Asymmetry of Wh-Extraction out of Wh-Island

Suzuki Yubun
Faculty of Languages and Cultures, Kyushu University

https://doi.org/10.15017/1315349

出版情報：英語英文学論叢. 54, pp.1-19, 2004. 九州大学英語英文学研究会
バージョン：
権利関係：

KYUSHU UNIVERSITY

On Argument-Adjunct Asymmetry of *Wh*-Extraction out of *Wh*-Island[1)]

Yubun Suzuki

1. Abstract

The present article is an attempt to explain the weak-island status of *wh*-island in a way that would avoid a serious flaw of the Minimal Link Condition, which adjudicates argument and adjunct *wh*-phrases alike as equally unextractable out of the island. I will suggest that an argument *wh*-phrase, unlike its adjunct counterpart, can be directly generated in a clause-initial position and therefore does not cross the *wh*-island boundary.

2. *Wh*-Island as a Weak Island

Wh-island has been one of the central topics of generative literature since Ross (1967). Although the island is often treated in the recent minimalist tradition as an instance of intervention effect in which an intervening *wh*-phrase interferes with the relation between another moved *wh*-phrase and its trace in the island. A lot of researches such as Cinque (1990), however, discern between weak and strong islands accord-

1) This paper is based on my presentation "Yowai shima karano kou to hikou no toridashi no sani tsuite (On the extraction of arguments and adjuncts out of weak islands) at the 71st General Meeting of the English Literary Society of Japan held on May 29, 1999 at Matsuyama University. I apologize for the serious delay in writing out what I showed to the audience. I would like to express my deepest gratitude for discussion and comments to Ichiro Hirata, members of the Fukuoka Syntactic Circle, and the audience in the general meeting.

ing to the strength of barrierhood for extraction. *Wh*-island is considered by many to be a weak island along with factive island or the noun-complement case of complex-NP island, as we can observe in the following examples, where (1-3b), examples with the extraction of an adjunct *wh*-phrase, are ungrammatical while their argument counterparts in (1-3 a) sound more or less acceptable:

(1) a. ??who$_i$ do you wonder [whether we believe we can help t$_i$]
b. *how$_i$ do you wonder [whether we believe we can help Bill t$_i$]
(wh-island) (Rizzi 1990:81)
(2) a. ?who$_i$ do you regret [that Mary punished t$_i$]
b. *how$_i$ does he regret [that we behaved t$_i$ at the party]
(factive island) (a. Zubizarreta 1982, b. Browning 1987:339)
(3) a. ?*what$_i$ do you believe [the claim that John bought t$_i$]
b. *why$_i$ do you believe [the claim that John left t$_i$]
(noun-complement case of complex-NP island) (Rizzi 1990:125)

3. Traditional Accounts of *Wh*-Island

There have been plenty of attempts to explain *wh*-island effects in the history of generative grammar. Chomsky (1977), one of earlier attempts, depends on the Subjacency Condition, according to which a *wh*-phrase can not move across two bounding nodes at one fell swoop. This condition predicts (1b) to be ungrammatical: *how* crosses the matrix S and the S of the immediately embedded clause at the same time because Comp of the latter clause is filled with *whether* and is not available as an escape hatch for *how*, as illustrated in (4a). (4b), in contrast, is perfectly acceptable since *what* can make a stopover at the embedded Comp slot and never passes two S boundaries at one stroke:

(4) a. *how$_i$ [$_S$ ... wonder [$_{S'}$ [$_{Comp}$ whether] [$_S$ we believe ... t$_i$]]]

b. I am wondering what$_i$ [$_S$ Bill said [$_{S'}$ [$_{Comp}$ t '$_i$] [$_S$ you bought t$_i$]]]

This line of reasoning, although it sounds plausible, is defective in reality in that it erroneously predicts (1a) to be as ungrammatical as (1b), because those two cases are structurally equal to each other with respect to the bounding theory.

A more recent account of *wh*-island in the minimalist framework is found in Chomsky (1995), where the Minimal Link Condition (hereafter, the MLC), given in (5),

(5) The Minimal Link Condition
K attracts α only if there is no β, β closer to K than α, such that K attracts β. (Chomsky 1995:311)

prohibits a *wh*-phrase from being moved across another *wh*-phrase: if a *wh*-phrase skips a possible landing site occupied by another *wh*-phrase, the link of the pre- and post-movement positions is not minimal and therefore illicit. This is no solution to the asymmetry in (1), however: the condition in (5) wrongly rules out both (1a) and (1b).

These two approaches to *wh*-island phenomena are outstripped by a far-reaching approach to the bounding theory with the notion of barriers in Chomsky (1986) that originates from Lasnik and Saito (1984). In this framework, (1b) is an instance of severe violation of the Empty Category Principle (henceforth, the ECP), which requires a *wh*-trace to be either lexically governed or antecedent-governed: the trace of *how* in (1b) is an adjunct that is neither lexically governed by a verb nor antecedent-governed by its antecedent owing to a *wh*-island barrier. The ECP does not reject (1a), unlike the Subjacency Condition and the MLC: the trace of *who* in (1a) is lexically governed by *help*. But this is not the end of the story. (1a) is not perfect, if not ungrammatical. The degraded status of (1a) is ascribed to the Subjacency Condition, a condition imposed on a

movement process which is reinterpreted in Chomsky (1986) as producing degraded acceptability. This condition was once used to "rule out" unacceptable examples in the days of Chomsky (1977), but its effect is taken to be weaker in the framework of barriers.

4. Criticism of Traditional Accounts

We saw three historically major approaches to *wh*-island in the previous section. Two of them, the account based on the older version of the Subjacency Condition and the approach capitalizing on the MLC are too strong in that they reject examples with the extraction of an argument *wh*-phrase like (1a).

The framework of Chomsky (1986) appears at first glance to be quite promising in this regard, in contrast with the two other possibilities reviewed above. Further careful examination of *wh*-island phenomena, however, reveals empirical and theoretical problems of this seemingly favorable approach.

We begin with an empirical problem posed by the barriers approach. It attributes the "imperfect" status of sentences like (1a) to the (newly interpreted) Subjacency Condition, a constraint weaker in effect than the ECP, and therefore it predicts examples like (1a) to be neither perfectly well-formed nor utterly ungrammatical but located somewhere in between or moderately deviant. This prediction, though, fails to cover examples like (6):

(6) a. what$_i$ did you figure out [how to finance t$_i$]
b. * [to whom]$_i$ do you remember [what they sent t$_i$]
(a. Culicover and Wilkins 1984:157, b. Koster 1987:228)

Sentences like (6a) are often accepted as absolutely perfect with the extraction of a DP *wh*-phrase out of infinitival *wh*-island whose specifier position is filled with an adjunct *wh*-phrase, especially *how,* whereas it is often next to impossible, as observed in (6b), to extract a non-DP

wh-phrase out of tensed *wh*-island. The fact is that acceptability judgments of examples with the extraction of an argument *wh*-phrase out of *wh*-island vary from totally perfect to completely ungrammatical in accordance with various factors. This kind of fluctuation in judgments is not seen in examples with an adjunct *wh*-phrase. (7), for example, is as ungrammatical as (1b), although it has a similar felicitous syntactic context as (6a):

(7) *how$_i$ did you figure out [what to finance t$_i$]

In sum, the barriers approach suffers an empirical problem of being unable to cover the variation represented by the two extremes in (6). It seems that the factors aggravating the acceptability of examples with an argument *wh*-phrase include the tense of the island (notice the contrast in (8)), the type of an intervening *wh*-phrase (see (9)) , etc. (see works such as Kluender (1998) and Koktova (1996) for other factors and arguments):

(8) what$_i$ did you wonder whether *he fixed/?to fix t$_i$
(Coopmans and Stevenson 1991:359)

(9) [which books]$_i$ did he tell you why/?whether/??when he wanted to read t$_i$ (Ross 1967 as cited in Okuno 1989:281)

Furthermore, there are acceptability-enhancing factors such as D-Linkedness (see Pesetsky (1987) for the contrast between D-Linked *wh*-phrases and non-D-Linked ones). It sounds eminently inappropriate to maintain the (newly interpreted) Subjacency Condition as a syntactic constraint governing *wh*-extraction in general when considerable fluctuation of acceptability is observed.

Now we turn to theoretical problems the barriers approach poses. It is theoretically problematic for a central notion of a grammatical theory like the Subjacency Condition to give to examples a status of "mild" deviance, if we understand a linguistic theory in such a way that the computations carried out by a grammar can only deal with yes or no like

a digital mechanism, but not anything in between. In conclusion, the approach to *wh*-island in terms of barriers poses both empirical and theoretical problems.

5. A New Account

The purpose of the present section is to provide a new perspective to the *wh*-island phenomena that overcomes the problems discussed in the previous sections. We keep the spirit of the MLC as a strong constraint like the ECP and make a proposal that an argument *wh*-phrase can be base-generated in the forefront position of an interrogative clause so that it can evade movement and the MLC violation. As for the fluctuation of acceptability of examples with the extraction of an argument *wh*-phrase out of *wh*-island, we argue that it possibly derives from nonsyntactic factors independent of the MLC. We will not go into their details in this article, though.

(1b) is ruled out as a result of the violation of the MLC, because *whether* is closer to the sentence-initial C position than the adjunct *wh*-phrase *how* that is generated in the most deeply embedded clause when the uninterpretable *wh*-feature of the C tries in the course of the derivation to attract the "closest" *wh*-phrase in conformity with the MLC. As for (1a), we propose that an argument *wh*-phrase can be base-generated as the specifier of an interrogative C. If it is not "attracted" by C, it vacuously satisfies the MLC. This proposal is roughly illustrated in (10):

(10) who do you wonder [whether we believe [we can help]]
↑ ↑
base-generated no trace

At this stage of discussion, two important questions arise concerning the derivation of sentences like (10):

(11) a. How can *who* in (10) be licensed as a direct object of *help* with respect to Case, θ -role and selection when neither *who* nor its trace is located in the most deeply embedded clause to which *help* belongs?

b. Why is *how* in (1b) not directly merged as the specifier of the interrogative CP?

(11b) is much easier to answer. Modification relations are established in a local configuration and so *how* in (1b), if directly generated as the specifier of the matrix CP, would be too far from the most deeply embedded verb phrase to be interpreted as modifying the verb phrase. The intended interpretation of (1b) is excluded in this way.

(11a), in contrast with (11b), is a recalcitrant problem. We will show some advantages of our new analysis of *wh*-island phenomena in the next section, putting off the presentation of a possible solution to the problem in (11a) until section 7.

6. Evidence of the Absence of the Trace of Argument *Wh*-Phrase

In this section, we will show three pieces of evidence of the nonexistence of the trace of an argument *wh*-phrase in the presence of *wh*-island: noun phrases unable to move across *wh*-island, parasitic gap constructions, and across-the-board *wh*-extraction.

6.1 Noun Phrases Unable to Cross *Wh*-Island

In this subsection, we will demonstrate the first piece of evidence, three types of noun phrases whose *wh*-trace is required to be left for some reason or other. These noun phrases, since they must originate in their premovement positions, are expected to be subject to *wh*-island, just like an adjunct *wh*-phrase is bound to be base-generated within *wh*-island for the purpose of establishing the local modification relation between the *wh*-adjunct and the constituent it modifies and therefore is not exempt from *wh*-island.

The first type of such noun phrases is an idiom chunk. When some noun phrase is an idiom chunk, it can not have an escape from *wh*-island, unlike a regular argument noun phrase, even if an idiom including this chunk as its subpart is analyzable in the sense of Napoli (1988) and the chunk is detachable from the rest of the idiom as verified by (12a). This is corroborated by examples like (12b):

(12) a. [what headway]$_i$ do you think you can make t_i on this project
b. * [what headway]$_i$ do you wonder [how to make t_i on this project]
(Rizzi 1990:79)

We can easily explain the contrast between *wh*-questions with an idiom chunk noun phrase like (12b) and with a regular argument like (6a), if we assume with such works as Radford (1988:469) that an idiom chunk is required to be adjacent to the other part of the idiom (at "D-structure" in a traditional sense). The two subparts of the idiom in (12b), *make* and *what headway,* has to be contiguous to each other at some earlier stage of derivation, and therefore *what headway* is base-generated in the *wh*-island and does cross the island. The argument *wh*-phrase *what* in (6a), however, can be directly generated, according to our new account, as the specifier of the main clause and evades the *wh*-island effect.

The second type of a noun phrase needing to be generated within *wh*-island is an associate of the existential expletive *there*. It can not move beyond *wh*-island boundary as exemplified by (13b), although it is *wh*-moved in a simple interrogative sentence like (13a):

(13) a. [what kind of fish]$_i$ is there t_i in the lake
b. * [what kind of fish]$_i$ do you wonder whether there is t_i in the lake
(b. Frampton 1999:54)

The contrast between examples like (13b) with an associate of an existential expletive as a *wh*-phrase and examples like (6a) with an argument *wh*-phrase is explicable in the light of the operation of the

expletive replacement. Expletive *there* should be replaced with its associate noun phrase at the interpretative stage of derivation since it lacks interpretation and, if existent at LF, violates the Principle of Full Interpretation. Therefore, the associate must be base-generated in a position from which it can move (upward) to the position of the expletive *there*. If the associate *wh*-phrase were allowed to be base-generated as an element of the matrix clause, (13b) would wrongly be ruled in.

The third type of noun phrases which are obligatorily introduced within *wh*-island is a predicate nominal. A predicate nominal can be *wh*-moved, but not across *wh*-island, as clearly shown in the contrast in (14):

(14) a. [how big a man]$_i$ do you think John became t_i

b. * [how big a man]$_i$ does Bill wonder [whether John became t_i]

(b. Williams 1994:41)

The contrast between examples with a predicate nominal like (14b) and with a regular argument noun phrase like (6a) does not pose any serious problems in our theory. If it is correct to assume that a predicate nominal ought to be in a position proximate to a copula-like verb to form a unit assigning θ-role compositionally to its subject, the predicate is not immune to *wh*-island.

6.2 Parasitic Gaps

The second piece of evidence for the nonexistence of an argument *wh*-trace within *wh*-island is a parasitic gap construction. Parasitic gap constructions have been one of the central topics of generative grammar since Taraldsen (1981). A parasitic gap, unlike a real gap, is typically located in a position within an island out of which a *wh*-phrase can not be extracted. (15a) is a typical example of the parasitic gap construction in which t_i represents a real gap while e_i is a parasitic gap. An element occupying the position of a real gap undergoes regular *wh*-movement as is clear in (15b) whereas something introduced in the position of a parasitic gap fails to be moved as illustrated in (15c):

(15) a. what$_i$ did you file t$_i$ without reading e$_i$
b. what$_i$ did you file t$_i$ without reading it
c. * what$_i$ did you go home without reading t$_i$

Chomsky (1986) proposes an analysis of parasitic gap constructions in which the parasitic gap arises as a result of the movement of a null operator within the island rather than directly related with the fronted *wh*-phrase:

(16) what$_i$ did you file t$_i$ [OP$_i$ without reading e$_i$]

The null operator analysis is not free from problems. The analysis newly face such questions as how the null operator is interpreted as coreferent with the real *wh*-phrase and what are licensing conditions of the null operator.

Our nonmovement analysis captures the construction without having to answer these questions with the introduction of any additional device. According to our proposal, *what* in (16) is simply base-generated in the sentence-initial position and the two gaps are nonexistent. The Cases and θ-roles of *file* and *reading* are assigned to the sentence-initial *wh*-phrase in a way to be clarified in the next section. If one *wh*-phrase is generated in each clause, there arise two instances of the same *wh*-phrase and sentences with only one *wh*-phrase like (16) never result. In this way, the origin of the parasitic gap is not a mystery and no special licensing conditions have to be contrived.

Our theory surpasses any theory trying to capture the parasitic gap construction with a device similar to the across-the-board application which brings two occurrences of the same *wh*-phrase in two different positions to one. Our approach does not hinge on such a device: we will see in the next subsection that the device of the across-the-board application could be eliminated in a grammatical theory.

Our theory makes an encouragingly correct prediction that an adjunct *wh*-phrase is not possible for this construction, since an adjunct

wh-phrase can not be base-generated in the sentence-initial position of a sentence for the reason given in the previous section. This in fact is borne out:

(17) *when$_i$ did you leave London t_i [in order to visit Mary t_i]
(Browning 1987:253)

The ungrammaticality of (17) naturally follows in the light of the Principle of Full Interpretation, which requires an adjunct to be in a local configuration with the category it modifies for the purpose of interpretation.

Our theory is also advantageous in the explanation of the anti-c-command condition (first proposed in Engdahl (1981) according to Kiss (1985/86)), whose effect is exemplified in (18):

(18) *a man who$_i$ t_i looks old [whenever I meet e_i] (Chomsky 1986:54)

(18) is ruled out in the following manner. The traces are nonexistent and the v with accusative Case-feature in the adjunct clause must agree with the *wh*-phrase bearing the same feature in the sentence-initial position. This agreement, however, is unavailable because of the intervention of another unsatisfied Case-feature lying in the matrix I under the natural assumption that agreement is subject to locality. This is true whether *who* is base-generated in the specifier position of the relative CP or in the specifier of vP, the former being more likely since it is more economical without having to move the *wh*-phrase. In either case, the I with an unsatisfied Case-feature is closer to *who* in the specifier position of CP or

2) Examples like (i) are as problematic to our approach to parasitic gap constructions as other foregoing analyses: the matrix v with unsatisfied accusative Case-feature asymmetrically c-commands the embedded v with the same feature and therefore the *wh*-phrase in the sentence-initial position fails to check off the uninterpretable Case-feature on the embedded v.
(i) who$_i$ did you convince t_i that you would be happy to visit e_i
(Stowell 1985:315)

vP than the v in the adjunct clause is at some relevant stage of derivation, because the I asymmetrically c-commands the v.[2)]

6.3 Across-the-Board *Wh*-Extraction

Similar evidence is obtained from facts concerning across-the-board *wh*-extraction. An informant of mine finds (19b) to be ungrammatical under the interpretation where the adjunct *wh*-phrase modifies both of the two verb phrases in the conjoined structure in sharp contrast with perfect examples like (19a), where the *wh*-phrase in the sentence-initial position is related to the two main verbs:

(19) a. I wonder [which books]$_i$ [Mary hates t_i] and [Sam likes t_i]
b. *I wonder [how fast]$_i$ [she asked her father to run t_i] and [he actually ran t_i]

(19a) is recalcitrant to explain: one *wh*-phrase is related with two gaps. The only sensible proposal in the long tradition of generative grammar is the across-the-board rule application but this is a very special device that we do not want to adopt as one of the essential operations in a theory of grammar if possible. In addition to this, it is a mystery why the across-the-board *wh*-fronting is not applicable to an adjunct as we can see in (19 b). In our approach, in contrast, a *wh*-phrase that has traditionally been analyzed as resulting from the across-the-board rule application is simply base-generated as a specifier of some adequate interrogative C. A *wh*-phrase never moves in examples like (19a). Nonlocal agreement fulfills Case-marking and θ-assignment is also available as we will see in the next section. An adjunct *wh*-phrase, however, needs to be in a local configuration with the element it modifies and the ungrammaticality of (19b) follows.

7. Answering Possible Objections

This section is devoted to an attempt to provide a solution to the

problem of (11a) presented in section 5 in a natural way. Our basic idea is that an uninterpretable Case-feature of *help*, its θ-role, the selection of the object DP by *help* are all satisfied without moving the *wh*-phrase from the object position in the embedded clause to the sentence-initial position. We might capture selection as a checking process but we will limit ourselves in the present paper to considering Cases and θ-roles, understanding selection in a traditional sense.

7.1 Merge and Move

Assuming that Merge and Move, derivational operations, must fulfill checking of a formal feature, θ-assignment, selection, or modification, we start the derivation of (10) by merging v (an empty light verb selecting V(P)) and *help* without introducing the object *who*. This process is licit since the merge fulfills the selection of V by v. The initial process could be the merge of *help* with *who* because this also fulfills selection, but if this option is chosen the movement of the *wh*-phrase out of the *wh*-island invariably violates the MLC. The option of the merge of v with V leaves an uninterpretable Case-feature of v unchecked and an object θ-role undischarged at this stage of derivation, but we propose here that they could be satisfied later in a convergent derivation as long as Merge or Move fulfills checking, θ-assignment, selection, or modification and there are no other licit derivations that are more economical (**it you must buy* is ruled out because *you must buy it* is more economical in that *it* does not move). In sum, an option of generating a *wh*-phrase as the specifier of CP is available unless it is ruled out for independent reasons such as those given in the previous section. Even in a simple *wh*-question, a *wh*-phrase is preferably base-generated as the specifier of an appropriate interrogative CP since the other option of a regular *wh*-movement is less economical involving a movement operation that the derivation with base-generation lacks. The option with a regular movement is also necessary when we take noun phrases discussed in section 6.1 into consideration. Therefore, we do not claim that we should eliminate noun phrase *wh*-traces altogether in a theory of grammar.

7.2 θ-Assignment

What we suggest in the previous subsection amounts to claiming that features and θ-roles do not have to be satisfied as early as possible when the option of a derivation with v-V merge instead of V-Obj merge is chosen. We argue this is the case. There is no convincing evidence showing otherwise.

Once v-*help* merge takes place, *we* is introduced as the specifier of v satisfying a subject θ-role and [I can] is merged with vP satisfying selection. This means that a subject θ-role is discharged before an object θ-role is satisfied. This seemingly counterintuitive derivation should be permitted if we stick to our new proposal. We insist that an order of θ-role assignments does not have to be fixed as long as unwanted ill-formed sentences are not overgenerated. This means that an object θ-role could be assigned later in a derivation to a noun phrase as an instance of long-distance θ-role assignment, which is available when there is no intervening unsatisfied θ-role assigner or assignee, a consequence of capturing θ-role assignment as a "local" operation in a sense similar to feature checking but different from the strict locality required on the syntactic positions of a modifier and a modifiee. It might be worthwhile to make an attempt to grasp θ-role assignment as an instance of feature checking, but our framework needs a traditional conception of the θ-theory. We will not go further into the detail in the present article.

Let us consider (10), reproduced here for convenience as (20):

(20) who do you wonder [whether we believe we can help]]

It is usually taken for granted that the object role is assigned first to the noun phrase in the complement position of the main verb and then the subject role is given through v to its specifier. In our new framework, in contrast, *who* in (20) has an option of being base-generated in the left-most position of the sentence and the subject role is assigned first in the course of the derivation. When the derivation of (20) reaches the most deeply embedded vP = $[_{vP}$we $[_{v'}$v $[_{VP}$help]]] , v with a subject θ-role

asymmetrically c-commands *help* with an object θ-role and therefore v is required by the locality constraint on θ-role assignment suggested above to prevent *help* from assigning the object role to the subject *we* and the pronoun can only receive the subject role that v carries. We can now claim that our theory does not produce an unwanted interpretation of (20) in which someone can help "us". Later on, the object θ-role is given by *help* to *who* in the matrix clause. This long-distance θ-role assignment is licensed because, at the time the derivation reaches the matrix CP, *who* and the object role of *help* are the only unsatisfied elements and their relation is counted as "local".

This line of explanation is also applicable to the simplest examples like (21), where v fails to agree with, and assign *agent* to, *John* due to the intervention of another head with an unsatisfied θ-role, V, that is asymmetrically c-commanded by v and therefore is closer to the object noun phrase:

(21) *Brian (patient) hit John (agent)

Examples like (22) are also accommodated in our account:

(22) *Who (=obj of *tell*) did you tell him (=obj of *see*) that he must see

(22) is not acceptable under the parenthesized interpretation, although subject θ-roles are discharged in an appropriate fashion. This kind of unwanted interpretation could also be eschewed if we understand θ-assignment to be governed by locality as seen above. When the derivation reaches $[_{VP}$ him $[_{V'}$ tell $[_{CP}$ that ... see $]]]$, the object θ-role of *see* is prevented from being given to *him* by the intervening matrix verb with an undischarged θ-role that asymmetrically c-commands *see*. In this way, *who* is correctly assigned an object θ-role of *see* instead of *tell*.

7.3 Case Assignment

In the previous subsection, we saw that the counterintuitive order of

θ-assignment in which a subject θ-role is assigned earlier than an object θ-role in a derivation of a sentence is permissible so that an object *wh*-phrase can be base-generated in a sentence-initial position. We now turn to Case-assignment.

In (10), repeated as (20), the uninterpretable accusative Case-feature must be checked off under agreement between *who* in the specifier position of the matrix clause and the embedded v. When the derivation reaches [$_{vP}$we [$_{v'}$ v [$_{VP}$help]]] , v does not have to agree with *we* since the merge of *we* with v′ is licensed by the assignment of a subject θ-role by v. This v remains active with respect to the accusative Case-feature and is able to be in an agreement relation with the *wh*-phrase in the sentence-initial position. At this stage of derivation, there is no intervener, another verb or noun phrase with an unchecked Case-feature, and therefore the agreement in question is licit.

Once we permit this kind of "long distance" Case-checking, a question arises regarding how to rule out ungrammatical examples with an accusative subject like (23):

(23) *I am wondering who him likes

When the derivation reaches the stage [$_{vP}$him [$_{v'}$v [$_{VP}$likes]]] , nothing precludes the accusative Case-feature on v from agreeing with a Case-feature on *him*. When the structure is further expanded to reach the stage [$_{CP}$who [$_{C'}$C [$_{IP}$him$_i$ [$_{I'}$I [$_{vP}$t$_i$ [$_{v'}$v [$_{VP}$likes]]]]]]] , the nominative Case-feature on I agrees with a Case-feature on *who* since the intervening pronoun *him* has no unsatisfied Case-feature. These steps of derivation do not pose any problems as far as Case-features are concerned, but this derivation is ruled out when we take an EPP-feature into consideration. I bears an EPP-feature in addition to a nominative Case-feature. Features on the same syntactic head constitute a bundle and are expected to agree with the same head. Therefore, if the EPP- feature on I agrees with *him*, the nominative Case-feature on I must also be in agreement with the pronoun. This makes it impossible to generate (23). Note also that it is

all right for the EPP-feature and the nominative Case-feature to be checked in the same configuration of long-distance satisfaction by a *wh*-subject directly generated as the specifier of an interrogative clause, as shown in (24), which is not absolutely ungrammatical in comparison with examples with an adjunct *wh*-phrase like (1b):

(24) ?*who do you wonder whether we believe can help us
(Rizzi 1990:81)

These considerations lead to a conclusion that a subject noun is required to receive a nominative Case.

8. Conclusion

In this article, we have proposed a new radical type of analysis of the contrast between an argument and an adjunct as a *wh*-phrase undergoing *wh*-movement out of *wh*-island. Various questions remain and we need to accumulate more supportive evidence, but we will leave them to the future research.

References

Belletti, A., L. Brandi and L. Rizzi (eds.) (1981) *Theory of Markedness in Generative Grammar, Proceedings of the 1979 GLOW Conference,* Pisa, Scuola Normale Supriore.

Browning, M. (1987) "Null Operator Constructions," Ph.D. dissertation, MIT.

Chomsky, N. (1977) "On wh-movement," in Culicover, Wasow and Akmajian (eds.) (1977).

Chomsky, N. (1986) *Barriers,* Cambridge, Mass., MIT Press.

Chomsky, N. (1995) *Minimalist Program,* Cambridge, Mass., MIT Press.

Cinque, G. (1990) *Types of A′-Dependencies*, Cambridge, Mass., MIT Press.

Coopmans, P. and S. Stevenson (1991) "*How* Extraction from Funite and Infinitival Complements: A Surprising Asymmetry," *Linguistic Inquiry* 22.2., 359-367.

Culicover, P., T. Wasow and A. Akmajian (eds.) (1977). *Formal Syntax*, New York, Academic Press.

Culicover, P. and L. McNally (eds.) (1998) *The Limits of Syntax* (Syntax and Semantics vol. 29), New York, Academic Press.

Culicover, P. and W. Wilkins (1984) *Locality in Linguistic Theory*, New York, Academic Press.

Engdahl, E. (1981) "Parasitic Gaps," manuscript, Stanford University.

Frampton, J. (1999) "The Fine Structure of *Wh*-Movement and the Proper Formulation of the ECP," *The Linguistic Review* 16, 43-61.

Kiss, K. (1985/86) "Parasitic Chains," *The Linguistic Review* 5, 41-74.

Kluender, R. (1998) "On the Distinction between Strong and Weak Islands: A processing Perspective," in Culicover and McNally (1998).

Koktova, E. (1996) "On the New Theory of *Wh*-Extraction and Related Phenomena," *Theoretical Linguistics* 22, 207-230.

Koster, J. (1987) *Domains and Dynasties: The Radical Autonomy of Syntax*, Dordrecht, Foris.

Lasnik, H. and M. Saito (1984) "On the Nature of Proper Government," *Linguistic Inquiry* 15, 235-89.

Lasnik, H. and M. Saito (1992) *Move α: Conditions on Its Application and Output,* Cambridge, Mass., MIT Press.

Napoli, D. (1988) "Subjects and External Arguments: Clauses and Non-Clauses," *Linguistics and Philosophy* 11, 323-354.

Okuno, T. (1989) *Henkei Bunpoo niyoru Eigo no Bunseki,* Tokyo, Kaitakusha.

Pesetsky, D. (1987) "Wh-in-situ: Movement and Unselective Binding," in Reuland and Meulen (eds.) (1987).

Radford, A. (1988) Transformational Grammar: A First Course, Cambridge, Cambridge University Press.

Reuland, E., and Meulen (eds.) (1987) *The Representation of (In) definiteness,* Cambridge, Mass., MIT Press.

Rizzi, L. (1990) *Relativized Minimality,* Cambridge, Mass., MIT Press.

Ross, J. R. (1967) "Constraints on Variables in Syntax," Ph.D. dissertation, MIT.

Stowell, T. (1985) "Licensing Conditions on Null Operators," *Proceedings of th 4th West Coast Conference on Formal Linguistics,* 314-326.

Taraldsen, K. T. (1981) "The Theoretical Interpretation of a Class of Marked Extractions," in Belletti, Brandi and Rizzi (eds.) (1981).

Williams, E. (1994) *Thematic Structure in Syntax*, Cambridge, Mass., MIT Press.

Zubizarreta, M. (1982) *On the Relationship of the Lexicon to Syntax,* Doctoral dissertation, MIT.