The Factors of Licensing/Blocking Extraction out of Adverbial Clauses

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1. Introduction

English adverbial clauses have been generally regarded as adjuncts so that many linguists have insisted that it is impossible to move an argument such as whom and an adjunct such as how from the inside of adverbial clauses. The particular data are given in (1).

(1) a.*To whom did you leave [without speaking ti]?  
   b.*How was he fired [after behaving ti]?

(Cinque (1990: 1))

Cinque (1990) concludes that an adjunct which appears at the final position of a sentence is right-adjoined to VP. Based on this conception, it has been believed that postposed adverbial clauses are adjoined to VP while preposed adverbial clauses are adjoined to IP in English. Contrary to the general assumption, however, in recent years, some linguists have reported that it is possible to take an element from adverbial clauses and put it outside of those clauses. In fact, Taylor (2007) introduces that movement from sentence-initial conditional if-clauses is allowed in some cases. The examples are shown below in (2).

(2) a. *Which car, if Michelle buys ti, will her insurance premium increase?  
   b. ??* I wonder which car, if Michelle buys ti, her insurance premium will increase.  
   c. Rich’s sports car, if Michelle buys ti, her insurance premium will increase.
d. ?? This is [the kind of car] that if Michelle buys \( t_i \), her insurance premium will increase.

e. ?? Which play did you speculate/omit/interpret/comment that if the coach sees \( t_i \), then the Lions will win the game?

f. Which play do you say/believe/claim/think that if the coach sees \( t_i \), then the Lions will win the game?

(Taylor (2007: 190-192))

Consequently, it might be hasty to conclude that all adverbial clauses form adjunct structures before examining data from other positions. In this paper, we put the conditional into focus. Then, we will investigate the syntactic positions of different adverbial clauses and shed light on the mystery that some adverbial clauses do allow extraction.

2. Overview of Previous Work


Iatridou (1991) asserts that all if-clauses can be adjoined to VP or IP. According to this analysis, a sentence-final if-clause is generated if the if-clause is adjoined to VP and stays there. If the clause is adjoined to IP via A-bar movement from its original position which is the VP-adjunction site, a sentence-initial if-clause is created. Iatridou’s supposition is based on the following empirical data: c-command co-relation between if-clauses and main clauses (3), VP-deletion and do so insertion (4), extraction from islands (5), and reconstruction and Quantifier Raising (QR) at LF (6).

(3) a. *She \( t_i \) yells at Bill if Mary \( t_i \) is hungry.

b. If Mary \( t_i \) is hungry, she \( t_i \) yells at Bill.

c. If she \( t_i \) is hungry, Mary \( t_i \) yells at Bill.

(Bhatt and Pancheva (2006: 647))

As is clear from the (un)grammaticality of (3a-c), preposed if-clauses are not c-commanded by apodosis clauses and vice versa (3b, c). On the contrary, postposed
if-clauses are under c-command domain of their apodoses (3a).

(4) a. I will leave if you do and John will leave if you do, too.
   b. I will leave if you do and John will do so too.

(Bhatt and Pancheva (2006: 647))

VP-deletion is applied in (4a) and it is plausible to consider from its interpretation that the VP which includes the if-clause is under the ellipsis domain. In (4b), the inserted verb phrase do so in the second conjunct clause refers to the same meaning as the one in the first conjunct clause leave if you do.

(5) a. * If it rains Mary regretted/forgot/resented/recognized that Bill will come.
       [ Factive Island ]
   b. * If it rains Mary didn’t say that Bill will come. [ Negative Island ]
   c. * If it rains Mary heard the rumor that Bill will come. [ Complex NP Island ]
   d.* If it rains Mary wondered whether Bill will come. [ Wh-Island ]

(Iatridou (1991: 27))

Considering modifying relations, each if-clause in (5) must be interpreted in embedded clauses. As a result of the A-bar movement of if-clauses from islands, all the sentences in (5) are recognized as ill-formed because this movement violates island constraints.

(6) a. If his, mother is late, every boy, gets upset.
   b. John scolds every woman, if her, son is late.
   c. If her, son is late, John scolds every woman.
   d. If John scolds his, mother, every boy, gets upset.

(Iatridou (1991: 30))

In each sentence of (6), QPs must c-command their bound pronouns in order to obtain co-referential readings. This is achieved by applying the operation of QR after reconstruction of if-clauses at LF.

Taking the practical data from (3) to (6) into consideration, Iatridou’s analysis seems to be enough to explain the nature of conditional clauses. Yet, there are counter instances as posed by Taylor (2007).
In addition to (2) above, the grammaticality of (7) cannot be explained under Iatridou’s assumption due to the fact that those sentences do not signal island sensitivities.

2.2. Taylor’s (2007) Analysis and Her Problems

For the sake of elucidating the grammaticality in (2) and (7), Taylor (2007) insists that postposed if-clauses are adjoined to VP while preposed if-clauses create an adjunct structure to IP ab initio. Remember the examples in (2) and (7) where topicalization or wh-movement is performed and an argument such as Rich’s sports car or which play is displaced from adjunct clauses (if-clauses). Even if we suppose that sentence-initial if-clauses directly adjoin to IP, there does not seem to be a loophole to grant the grammaticality since such movement should offend the Adjunct Island Constraint. Notwithstanding, Taylor asserts that her framework is indeed valid to account for such acceptability because her analysis is also based on Sideward Movement advocated by Nunes (1995, 2004) and Hornstein (2001) in which it is possible to move an element from adjuncts only if the movement operation is necessary to avoid crashing derivations. Here we inspect how to produce a grammatical sentence such as the example in (8) in which the wh-phrase which book is moved out of the sentence-initial if-clause.

(8) Which book do you believe that if Ricardo ever reads he will give up linguistics? (Taylor (2007: 199))
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(9) \[L = \{ 'if', \text{Ricardo}, \text{ever}, \text{reads}, \text{which}, \text{book} \} \quad \text{CP} \]
\[M = \{ 'that', F, \text{he}, \text{will}, \text{give}, \text{up}, \text{linguistics} \} \quad \text{CP} \]
\[N = \{ v, \text{you}, \text{do}, \text{believe} \} \quad \text{vP} \]
\[O = \{ +Q \} \quad \text{CP} \]

Each category (L, M, N, O) in (9) represents each sub-numeration. An element \(F\) in the sub-numeration M is a functional head which checks relevant features of moved elements.

(10) \[J = \left[ \text{CP} \ 'if' \ \text{Ricardo} \ \text{ever} \ \text{reads} \ [\text{which book}] \right] \]
\[K = \left[ \text{FP} \ F^0 \ [\text{IP} \ 'he' \ \text{will} \ \text{give up} \ \text{linguistics}] \right] \]

The derivation is proceeding in a bottom-up fashion and the adjunct clause (the \(if\)-clause) and the main clause are separately created in parallel. (10) stands for the stage just before category J (the \(if\)-clause) adjoins to category K (the main clause). At this stage, the Copy operation is conducted in category J and the copy of the wh-phrase \textit{which book} is made and merged in the spec of FP.

(11) \[\left[ \text{CP} \ 'Which book' \ \text{do you believe that} \ \left[ \text{FP} \ 'if' \ \text{Ricardo} \ \text{ever} \ \text{reads} \ [\text{which book}] \ \left[ \text{FP} \ 'which book' \ \left[ F^0 \ [\text{IP} \ 'he' \ \text{will} \ \text{give up} \ \text{linguistics}] \right] \right] \right] \]

When the \(if\)-clause finally adjoins to its main clause, the other elements in the sub-numeration N and O in (9) set out to merge. The wh-phrase \textit{which book} is raised from the spec position of FP and the subject-auxiliary inversion is conducted at the same time in which a Q-feature in the sub-numeration O connects to the sentence. Eventually, all the copies of the wh-phrase \textit{which book} are deleted except for the one located at the beginning of the configuration.

It might be believed that Taylor’s explanation sounds plausible, but there are some critical problems in her way of explaining the syntactic nature of the conditional. Firstly, it is obscure why the copied wh-phrase is required to land on the spec of FP. Why must the copied one sit in the spec position? Clearly, her strategy of Sideward Movement does not satisfy the Last Resort Condition (cf. Hornstein and Nunes (2002)). Secondly, Taylor just uses the functional projection FP as a tentative shelter for a copied item. What we should question here is that she does not pose any conditions about where her functional projection FP becomes available or not, so
that her analysis cannot give an appropriate account for different grammaticality in each sentence of (2).

3. Proposals

3.1. Base-Generated Positions of Sentence-Final/Initial If-Clauses

Bearing the related data in mind, we assume that postposed if-clauses adjoin to VP just as Iatridou (1991) and Taylor (2007) do whereas preposed if-clauses are base-generated in the spec of CP domain. Under this assumption, it is possible to predict that extraction from sentence-initial if-clauses is generally licensed.

3.2. Various Landing Sites for Extracted Items

We argue that each displaced candidate is sorted by categories and is permitted to land on distinct spec positions of the articulated CP domain. This claim is fundamentally based on the articulated CP structure, to be more precise, a cartographic approach demonstrated by Rizzi (1997) and Haegeman (2000).

(12) The Fine Structure of the CP Periphery

\[ \text{CP: [ForceP Force [TopP* Top* [FocP Foc [TopP* Top* [FinP Fin ]]]]]} \]

(Rizzi (1997), Haegeman (2000))

<table>
<thead>
<tr>
<th>Extracted items</th>
<th>Final landing sites</th>
</tr>
</thead>
<tbody>
<tr>
<td>Topicalized arguments</td>
<td>Spec-TopP</td>
</tr>
<tr>
<td>Relative operators</td>
<td>Spec-ForceP</td>
</tr>
<tr>
<td>Wh-phrases (which go up to the main clause)</td>
<td>Spec-FocP</td>
</tr>
<tr>
<td>Wh-phrases (which stay within the embedded clause)</td>
<td>Spec-ForceP</td>
</tr>
</tbody>
</table>

The relevant feature checking drives these movements and moved items are requested to meet each criterion at the final landing sites. Otherwise, the derivation would crash.
3.3. Topic Features of Sentence-Initial *If*-Clauses

Ramsay (1987) claims that preposed *if*-clauses have much stronger topic properties by means of developing Haiman’s (1978) work that asserts that conditional clauses are identified with topics. Ramsay takes up data from written English discourse and argues for the differences of topicalities and scope relations between them. She also surveys a function of commas and declares that it is a marker for distinguishing new and old (or given) information. Furthermore, according to Ramsay’s report, the temporal *when*-clauses also behave just like the conditional *if*-clauses. That is, preposed *when*-clauses have strong topichood, too. (See Ramsay (1987) for details.) Incorporating the relevant information from Ramsay’s study into our own framework, we propose that preposed conditional marker *if* has a topic feature, and so does the preposed temporal marker *when*. We assume that this feature can be valued only if it forms the spec-head configuration with the relevant head. And the sentence-initial *if*-clauses and *when*-clauses are base generated in the spec position of TopP.

(13)  a. This book to ROBIN I gave.
      b. * THIS BOOK to Robin I gave.

(Culicover (1990: 33))

As shown in (13), a topic phrase can precede a focus phrase, but cannot follow a focus phrase in English. Based on the grammaticality in (13), the preposed *if*-clauses and *when*-clauses can only emerge at the upper site of TopP. This is depicted in a tree diagram (14).
3.4. Some Features of Wh-Phrases

In conformity with what the Minimalist Program hypothesizes, each wh-phrase has a wh-feature since it needs to be interpreted as the interrogative one. However, there is actually a feature difference between the interrogative wh-phrases and the relative wh-operators. This distinction is sharply revealed in the case of focalization. According to previous research about English focalization by Rochemont (1978), Horvath (1986), É. Kiss (1998) among others, it is natural that the wh-phrases in various languages should be recognized as focal elements. In fact, Kobayashi (2001) gives some evidence which seems to show that the interrogative wh-phrases behave just the same as other focal phrases do, not only syntactically, but also semantically. Have a look at the examples in (15) below.

(15) a. ‘What do you like to eat?’ – ‘FRIED EELS I like to eat t.’

b. ‘What did Sam give Helen?’ – ‘A BOOK he gave her t.’

(Kobayashi (2001: 214); cf. Fukuchi (1985: 77))

Relying on the assertions of Kobayashi (2001), we also suggest that all the interrogative wh-phrases in English have focus features. This is not, however, the case for the relative wh-operators.
4. Analysis and Theoretical Extension to the Temporal Clause

In line with what we have suggested in the previous section, we can grasp the licensing or blocking factors for extraction from related adverbial clauses. At the outset, we examine the case of conditional if-clauses. Recall the important claim which is made in Sections 3.1 and 3.2. We have demonstrated that there are two different base positions for conditional if-clauses. The postposed if-clauses are adjoined to the VP in the apodosis clause whereas the preposed if-clauses are base-generated in the spec position of TopP in the main clause. That means that moving an element out of the sentence-initial if-clauses should be licensed in principle. This is in line with the Phase Theory presented by Chomsky (2001, 2004, 2008), going through each spec position (what is called the successive-cyclic movement) is a necessary condition in the case that a certain phrase such as a wh-phrase gets across clause boundaries. Based on this notion, all items which leave from a preposed if-clause are supposed to drop into the spec position of CP. This is illustrated in the figure (16).
Recall that preposed *if* and *when*-clauses have a topic feature as given in Section 3.3. The lower Top-head is subject to check a topic feature attached on the markers *if* or *when*. Thus, the topicalized argument needs to move up to the spec of the upper TopP to satisfy the Topic Criterion because the lower Top-head is not actively checking a topic feature of the topicalized item any more. In any case, extraction from a preposed *if*-clause is generally allowed. Why then are there still ungrammatical instances in the case of moving an element from the preposed *if*-clauses? We mainly investigate this tricky issue in the following section. At the same time, we try to expand the present analysis to the temporal *when*-clauses.

### 4.1. Movement from TopP to FocP

First of all, we look into the case where a focus phrase such as an interrogative wh-phrase is taken out of a preposed *if*-clause locating in the spec position of TopP. There are exclusively two patterns; one is the case in which the interrogative wh-phrase moves but not get across any clause boundaries (short distance wh-movement) and the other is when the interrogative wh-phrase passes over clause boundaries and settles in the main clause (long distance wh-movement).

As for short distance wh-movement, all the examples in this case are recognized as ill-formed. The related instances are given again in (17).

\[ (17) \quad \begin{align*}
\text{a.} & \quad * \text{Which car}, \text{if Michelle buys } t_i, \text{will her insurance premium increase?} \\
& \quad (= (2a)) \\
\text{b.} & \quad * \text{I wonder which car}, \text{if Michelle buys } t_i, \text{her insurance premium will increase.} \\
& \quad (= (2b))
\end{align*} \]

In (17a), the wh-phrase *which car* is supposed to move out of the preposed *if*-clause which occupies the spec of TopP. The wh-phrase *which car* is required to climb up to the spec of FocP since it contains a wh-feature and a focus feature on their own and these features must be checked by an appropriate configuration. To be specific, the wh-phrase *which car* needs to get a spec-head configuration with the foc-head to satisfy the WH-Criterion offered by May (1985) and Rizzi (1996).
(18) WH-Criterion

(a) A WH-operator must be in a Spec-Head configuration with an X-[WH].

(b) An X-[WH] must be in a Spec-Head configuration with a WH-operator.

(May (1985: 17), Rizzi (1996: 64))

As depicted in (19) below, then, the wh-phrase which car tries to find the designated spec position (the spec-FocP), yet it fails since the preposed if-clause is base-generated in the spec of TopP which is above the FocP. Even though it moves to the spec of ForceP for the lack of an alternative, it is impossible to satisfy the WH-Criterion. Thus, the ungrammaticality in (17a) is attributed to the non-fulfillment of the WH-Criterion.

(19) \[\text{[ForceP Which car Force [TopP [CP if Michelle buys \(t\) Top [FinP Fin will \(\ldots\)]]]}\]

In (17b), this sentence is such a case where the wh-phrase is shifted from TopP but still left in the embedded clause. As for an interrogative wh-phrase in the embedded clause, it is requested to land on the spec of ForceP and this operation is good enough to fulfill the WH-Criterion because the verb in the main clause selects the ForceP as an interrogative one. This is why there is no demand to cause the interrogative inversion. The wh-phrase which car which is located in the spec of ForceP is, therefore, successful in checking its wh-feature. Regarding its focus feature, however, it cannot be checked by the Force-head because that head is no longer qualified to check features other than a wh-feature.

(20) \[\text{\ldots wonder [ForceP which car Force [TopP [CP if Michelle buys \(t\) Top [FinP Fin \(\ldots\)]]]}\]

It might be argued that the Force-head in (20) is eligible to check a focus feature with seeing the example in (21).

(21) I wonder what, John bought \(t\).

Just we have seen in (20), the wh-phrase what also remains in the spec of ForceP in (21). This wh-phrase what contains a wh-feature and a focus feature as well. Were
the focus feature not checked by the Force-head, the sentence would crash due to the non-fulfillment of the criterion. Indeed, the Force-head in (21) is eligible to check a focus feature, too. Notice that there is a crucial difference between (20) and (21). That is, the difference of whether a preposed if-clause emerges in the spec of TopP or not. To be more specific, the question is whether TopP independently projects its own projection. If there is no such projection, the functions of checking a wh-feature and a focus feature are amalgamated in the Force-head. However, the checking function can split away if there is such a projection. Thus, the wh-feature can be checked while the focus feature cannot in (20). Let us assume that the notion of this amalgam property is on the right track and reexamine the cases in (21). There is not a preposed if-clause in (21). In other words, the Force-head can work for checking a focus feature of the wh-phrase what since TopP and FocP still stick to ForceP and each checking function is not distributed. This is drawn in (22).

\[
\begin{array}{c}
\text{(22) \ldots wonder [\text{ForceP what Force [FinP Fin [TP John bought t ]]]}} \\
\text{[wh, foe]} \\
\text{[wh, foc]}
\end{array}
\]

Let us turn to the case of long distance wh-movement. The related data were given in (2e) and (2f), which are repeated in (23). These examples are tricky because both of them show opposite judgments in the grammaticality.

\[
\begin{array}{c}
\text{(23) a. ?? Which play i did you speculate/omit/interpret/comment that if the coach sees t, then the Lions will win the game?} \\
\text{b. Which play i do you say/believe/claim/think that if the coach sees t, then the Lions will win the game?} \\
\text{ (= (2e))} \\
\text{ (= (2f))}
\end{array}
\]

In (23a), the extracted wh-phrase which play contains a wh-feature and a focus feature in accordance with what this paper proposed in Section 3.4. This wh-phrase is supposed to move to the spec position of FocP in the main clause via the spec of ForceP in the embedded clause. At the final landing site, both the wh-feature and the focus feature are checked by the Foc-head. The sentence in (23a) might seem to be grammatical because both the relevant features are successfully checked by the Foc-head occupied by the inflected verb did. As for the movement of the inflected
verb *did*, there is no violation on the head movement, either. Then, what factor demotes its grammaticality? Take a look at the predicate in (23a). All of the verbs in (23a) are doubtlessly factive verbs. That means the predicate in (23a) forms the Factive Island. Extracting any phrases from this island should be not allowed. This is naturally followed by the ungrammaticality of sentences in (24).

(24) a. * How_i do you regret that you behaved t_i? (Cinque (1990: 2))
   b. * Who_i did John regret that Mary kissed t_i? (Truswell (2007: 171))

On the contrary, (23b) does not form that kind of island. Rather, the verbs used in that sentence are so-called bridge verbs. It is generally reported in the literature that extraction from the complement of bridge verbs is considerably acceptable. The specific derivation of (23b) is depicted in (25).

(25) \[
\begin{array}{c}
[\text{ForceP} \text{Force} [\text{FocP} \text{Which play} \text{did} [\text{FinP} \text{Fin} [\text{TP} \text{you say} [\text{ForceP} ]]]]] \\
[wh, foc] [wh, foc] [ Finite P ]
\end{array}
\]

Moreover, the theoretical account presented in this section is supported by the other examples which are similar to (23b). They are given in (26) below.

(26) a. Which book_i is it certain that if I read t_i I will understand physics better?
   b. Which book_i is it likely that if I read t_i I will understand physics better?

   (Taylor (2006: 10))

4.2. Movement from TopP to TopP

We will now take a closer look into the case where topicalization is applied to an element located in a sentence-initial if-clause. When we look at an ultimate representation of the structure in this case, we figure out there are two TopP projections at least. It is reported by Koster (1978) and Alrenga (2005) as prior research that multiple topicalization is not admitted in English. They argue that this multiple operation results in the breach of the Topic Island Constraint giving an example such as the one in (27).

(27) * John_j, the book_i, I gave t_i to t_j.

   (Alrenga (2005: 179))
Were it not for the permission of applying the multiple topicalization, the related
topicalization from the *if*-clause would not be licensed, either. Although Koster
(1978) and Alrenga (2005) claim that multiple topicalization leads to violation of the
Topic Island Constraint, now it is standardly assumed in the literature that the
projection TopP has recursiveness whereas the projection FocP has uniqueness (cf.
Rizzi (1997), Haegeman (2003)). Yet, there is a condition that only one argument
can be topicalized. On the contrary, this is not true of adjuncts. Plural topicalization
for adjuncts is permitted. The relevant examples are as follows in (28).

(28)  a. Around Christmas, this book, you should buy.
     b. This book, around Christmas, you should buy.

(Rizzi (1997: 331, fn.26))

Holding this argument in mind, let us turn to the case in (2c), which is repeated in
(29).

(29) Rich’s sports car, if Michelle buys *t*, her insurance premium will increase.

(30) \[ \text{ForceP Force} \left\{ \text{TopP Rich’s sports car Top} \right\} \left\{ \text{TopP} \left[ \text{CP if Michelle buys *t*} \right] \right\} \]

It becomes obvious that there is just one argument topicalization (*Rich’s sports car*)
and adjunct topicalization (the preposed *if*-clause) if we take a look at the figure in
(30). This never violates the rule that the multiple argument topicalization is not
permitted in English.

Next, we will consider opposite grammaticality in the case of extraction from
various islands. When we think of the examples in (7) (which are given by Taylor
(2007)) in line with our theory, it might be wondered whether there is a way to
ensure a modifying relation between a preposed *if*-clause and its apodosis clause.
The relevant examples are given again in (31).

(31)  a. Rich’s sports car, if Michelle buys *t*, Bill regretted/forgot/resented/
       recognized that her insurance premium will increase.  

(= (7b))
b. Rich’s sports car, if Michelle buys it, Bill heard the rumor that her insurance premium will increase. \((= 7c)\)

c. Rich’s sports car, if Michelle buys it, Bill wondered whether her insurance premium will increase. \((= 7d)\)

Based on the theory that a preposed \(if\)-clause is base-generated in the spec position of TopP in the root clause, it seems that there is no way to guarantee the modifying relation between the \(if\)-clause and its main clause. Yet, does each sentence in (31) inevitably call for such an interpretation under each island in (31a-c)? We first have to make out which clause is the apodosis of a preposed \(if\)-clause. We would rather assume that all sentences in (31) may not have an interpretation under the islands in (31a-c). In other words, all the preposed \(if\)-clauses in (31) have to modify root clauses as their apodoses. To illustrate this, we briefly look at the example in (31a). According to this idea, the interpretation of (31a) becomes ‘Bill regretted / forgot / resented / recognized that Michelle’s insurance premium will increase on condition that she buys Rich’s sports car.’ If the preposed \(if\)-clause modifies the embedded clause (namely if the interpretation becomes ‘Bill regretted / forgot / resented / recognized that if Michelle buys Rich’s sports car, her insurance premium will increase’), this sentence would be ungrammatical just as in (32a) which is given by Iatridou (1991).

\[(32)\]

a. * If it rains Mary regretted/forgot/resented/recognized that Bill will come. \((= 5a)\)

b. * If it rains Mary didn’t say that Bill will come. \((= 5b)\)

c. * If it rains Mary heard the rumor that Bill will come. \((= 5c)\)

d.* If it rains Mary wondered whether Bill will come. \((= 5d)\)

With regard to judgments in (31), in fact, almost all of my informants prefer the pattern where preposed \(if\)-clauses modify root clauses to the pattern where sentence-initial \(if\)-clauses are interpreted under embedded clauses or inside islands. Rather, they evaluate the instances in (31) as ungrammatical if they are asked to take the pattern in which preposed \(if\)-clauses get interpreted within islands.\(^4\) This ungrammaticality judgment is compatible with the one in (32). Therefore, there is no
contradiction between the data from Iatridou (1991) and Taylor (2007). To sum up, the notion that sentence-initial *if*-clauses are base-generated in the spec position of TopP is proved even in the examples (31) since preposed *if*-clauses of those sentences are supposed to modify root clauses.

It might seem that this notion falsely predicts the examples in (32) as grammatical. However, it will be obvious that all the preposed *if*-clauses in (32) are originally generated in the spec position of TopP of inner islands if we consider their interpretations. Although a topic feature of an *if*-clause has been already checked there, the *if*-clause moves even farther and lands on the upper position of a root clause. This is depicted in (33).

(33) * If it rains Mary heard the rumor that Bill will come. (= (32c))
The movement of the *if*-clause in (33) completely violates the Criterial Freezing (cf. Rizzi (2006)) and results in the ungrammaticality.

### 4.3. Movement from TopP to ForceP

In this section, we make a survey of the case where an extracted item from TopP goes up to the spec position of ForceP. Specifically, it indicates the instance where a relative wh-operator is displaced from a preposed *if*-clause. The example is shown in (34).

\[ (34) \quad ?? \text{This is } [\text{the kind of car}]_i \text{ that if Michelle buys } t, \text{ her insurance premium will increase.} \quad (= \text{(2d)}) \]

\[ (35) \quad \text{This is } [\text{the kind of car}]_{\text{[ForceP Op}}} \text{ that } [\text{TopP [CP } \text{if Michelle buys } t \text{] Top [Fin}} \text{[wh] Fin…}] \]

In (34), the relative wh-operator *Op* which originally exists in the complement of the verb *buys* raises up to the spec of ForceP to get co-indexed with the phrase *the kind of car*. Following the proposals we have confirmed in Section 3.4, this relative wh-operator *Op* is supposed to hold a wh-feature, but not a focus feature. Consequently, the instance in (34) is predicted to be well-formed because the wh-feature of the relative wh-operator *Op* is checked in the right manner. However, its acceptability judgment is somewhat lower. According to a majority of informants in this paper, this kind of sentence is regarded as marginal. To be fair, we asked our informants to check the examples similar to (34). Those examples and their judgments are presented in (36).

\[ (36) \quad \begin{array}{l}
\text{a. It is } [\text{the car}]_i \text{ that if Michelle buys } t, \text{ her insurance premium will increase.} \\
\text{b. This is } [\text{the TA}]_i \text{ that if the professor hires } t, \text{ the students will get higher grades in her class.}
\end{array} \]

On the grounds of the judgments for (34) and (36) by the informants, it is plausible to treat (34) as a marginally acceptable sentence.
4.4. Theoretical Extension to the Temporal *When*-Clauses

Remember that the temporal *when*-clause behaves just like the conditional *if*-clause. This leads us to guess that the temporal marker *when* also has a topic feature as well as the conditional marker *if*. If it is on the right side, the preposed *when*-clauses should be positioned in the spec of TopP to satisfy the relevant criterion.

(37) a. * Which car, when Michelle buys *ti*, will her insurance premium increase? (cf. (2a))

b. ?* I wonder which car, when Michelle buys *ti*, her insurance premium will increase. (cf. (2b))

c. ??* Which play, did you speculate/omit/interpret/comment that when the coach sees *ti*, then the Lions will win the game? (cf. (2e))

d. Which play, do you say/believe/claim/think that when the coach sees *ti*, then the Lions will win the game? (cf. (2f))

e. Rich’s sports car, when Michelle buys *ti*, her insurance premium will increase. (cf. (2c))

f. This is [the kind of car], that when Michelle buys *ti*, her insurance premium will increase. (cf. (2d))

Interestingly, all the judgments for each example in (37) indeed follow our predictions.

5. Conclusion

Throughout this paper, we have unraveled the factors of licensing/blocking extraction from adverbial clauses. Given the suggestions made in this paper, we can elucidate the syntactic configurations of some adverbial clauses which allow extraction from their own clauses with holding proper interpretation. Moreover, we argued that our suggestions can be extended to the temporal *when*-clauses.
Notes

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1. Bhatt and Pancheva (2006) argue that reconstruction to a sentence-initial position is obligatory whereas to a sentence-final position it is not. They cite the following example in which if-clauses must be interpreted within an embedded clause.

   (i) If John is sick Mary says that he should take aspirin.

   (Bhatt and Pancheva (2006: 650))

   Reconstruction of the if-clause to a sentence-initial position is good enough to obtain such an interpretation. Rather, we incorrectly predict the sentence (i) is ungrammatical because of a breach of Binding Principle C if reconstruction is applied at the sentence-final positions. See Bhatt and Pancheva (2006) for details.

2. In this paper, we do not go into the case of postposed ones any more since its ungrammaticality is predictable if we assume the Adjunct Island Constraint. The further research about this topic will be presented on another occasion.

   (i) a.* Which car, will Michelle’s insurance premium increase if she buys t_i?
   b.* I wonder which car, Michelle’s insurance premium will increase if she buys t_i.
   c.* Rich’s sports car, Michelle’s insurance premium will increase if she buys t_i.
   d.*? This is [the kind of car], that Michelle’s insurance premium will increase if she buys t_i.
   e.* Which play, did you speculate/omit/interpret/comment that the Lions will win the game if the coach sees t_i?
f. * Which play do you say/believe/claim/think that the Lions will win the game if the coach sees it?

(Taylor (2007: 191))

3. As argued above, the Force-head in the main clause has a function of checking a focus feature since there is no TopP there. We describe FocP for the sake of better understanding here. The idea whether FocP projects or not is irrelevant.

4. Many informants say that the tense within an if-clause needs to accord with the one in a root clause in order to get an interpretation that the if-clause modifies the main clause. The issue on the sequence of tenses is left for a future inquiry.

References


