On Occurrences of Left-Peripheral Elements in English*
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1. Introduction

The primary focus of this paper is to discuss occurrences of left-peripheral elements in English. Specific constructions this paper addresses are Topicalization (hereafter, TOP), Focalization (hereafter, FOC) and *Wh*-question, which are exemplified in (1).

(1) a. That book, John gave to Mary.
     b. THAT BOOK John gave to Mary.
     c. What did John give to Mary?

In these constructions, some element, typically an argument, is dislocated from the VP-internal argument position to the clause-initial position which is the so-called left periphery. Namely, in (1), the topicalized element *That book*, the focalized element *THAT BOOK*, and the *wh*-element *What* count as left-peripheral elements. Although quite similar on surface, the topicalized element and the focalized element are distinguished with respect to the presence of stress, that is, only the focalized element receives a stress. Throughout this paper, the focalized element is capitalized to signify the locus of the stress and to clearly make an apparent difference between TOP and FOC. Besides, this paper confines the discussion to cases where only arguments are left-peripheral elements.

The examples in (1) are simple cases where only one element is located in the matrix left periphery. The primary concern of this paper is whether or not more than one element can occupy the left periphery. It is true that a number of researches have rested on English data where multiple elements do occur in the left periphery, but the status of the data is not uncontroversial. On a closer scrutiny, a number of English speakers do not readily permit multiple occurrences of the left-peripheral elements.

This paper aims to clarify how far multiple occurrences of the left-peripheral elements are permitted in English, presenting informant data obtained from a questionnaire survey. Besides, this paper provides an approach to capturing their possible occurrences in terms of the basic framework of generative syntax. This paper is organized as follows. Section 2 will

clarify the possible distribution of the left-peripheral elements in English. It will be shown that multiple occurrences of the left-peripheral elements are basically rejected in English. Section 3 will turn attention to other languages such as Italian and Hungarian, in which multiple occurrences of the left-peripheral elements are generally permitted. This section will observe how general syntactic studies have accommodated the distribution of the left-peripheral elements. Section 4 will propose an approach to capturing possible occurrences of the left-peripheral elements in English and the other languages. Specifically, an approach will be proposed where English relies on a unique CP structure for the left-peripheral elements, whereas the other languages have an enriched CP structure. Section 5 will take a look at the embedded clause, demonstrating that almost the same structures as shown in section 4 must be true of the embedded left periphery.

2. The Distribution of the Left-Peripheral Elements in English

Section 2 addresses the question of whether or not multiple occurrences of the left-peripheral elements are permitted in English, demonstrating their possible occurrences. It is shown that a number of native English speakers reject multiple occurrences of the left-peripheral elements.

This section begins by clarifying whether or not the co-occurrence of the topicalized element and the *wh*-element is permitted in English. To my knowledge, the early description of the co-occurrence within the generative framework traces back to Reinhart (1976) and Chomsky (1977). They make the same judgment regarding the compatibility when the topicalized element precedes the *wh*-element. They state that the topicalized element is not compatible with the *wh*-element in the order of topic-*wh*.[1]

(2)   a. * Rosa, when did you last see?   (Reinhart (1976:91))
      b. * This book, to whom should I give?   (Chomsky (1977:94))

This fact leads them to conclude that both TOP and the matrix *Wh*-question involve A'-movement to the same projection COMP, which is later developed into CP.

However, the judgment on these sentences is challenged later and they are presented as acceptable examples by some researchers. As far as I know, the first of those who made an acceptable judgment is Langendoen (1979) and the one whose paper is often referred to for citing relevant examples is Delahunty (1983). Their examples are cited in (3).

(3)   a.   These prices, what can anyone do about?   (Langendoen (1979:429, fn.15))
      b.   To Bill, what will you give for Christmas?   (Delahunty (1983:384))

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[1] Also Ernst (2002) presents some examples in which the topicalized element is not compatible with the *wh*-element.

Almost with the same judgment, similar sentences are presented in Koizumi (1995), Haegeman (2000b) and Radford (2004). This disagreement on the judgment raises a question as to the status of those sentences, i.e., whether or not they are acceptable or how acceptable they are.

In addressing the question, a paper which deserves highlighting is Haegeman (2000a). Haegeman (2000a) uses almost the same examples as in Haegeman (2000b), where the examples in question are presented as if they were fully grammatical or at least they are assigned no sign of low or marginal acceptability. Unlike Haegeman (2000b), however, Haegeman (2000a) admits that judgments on those sentences are heterogeneous, assigning them a sign of %*. Look at the following statements and the examples:

(4) a. There is a lot of variation in speakers' judgment. My paper concentrates one particular idiolect, but additional variation is possible. For instance some speakers reject argument topicalization, as in [(4c)] ... .

(Haegeman (2000a:122, fn.2))

b. As pointed out to me by Gisa Rauh, judgments on sentences such as [(4c)] are not homogeneous. ... . The discussion in the body of the text is based on judgments by native speakers who accept [(4c)]. (Haegeman (2000a:132, fn.10)

c.%* A book like this, to whom would you give?   (Haegeman (2000a:132)

Based on the informant check she carried out, Haegeman (2000a:132-133) states that sentences such as (2a, b), (3a, b) and (4c) are not accepted by all native speakers. This amounts to saying that those sentences are considered as unacceptable by a number of native speakers.

In order to examine Haegeman's (2000a) statement on the judgment and to survey the essential degree of acceptability of those sentences, I conducted a questionnaire survey with five native speakers of English. All the informants are linguists who are thoroughly familiar with generative syntax. Four of them are Americans from the east coast and the other is Australian. The result was more extreme than that in Haegeman (2000a). All the informants shared the same judgment with Reinhart (1976) and Chomsky (1977). They judged (2a, b), (3a, b) and (4c) to be unacceptable. The result of the survey is in line with Haegeman's implication that such sentences are unacceptable for many native speakers.

In spite of the diverse judgments on (2a, b), (3a, b) and (4c), almost all researchers agree on the acceptability of the TOP-WH combinations in (5).

(5) a. * To whom, a book like this, would you give?   (Koizumi (1995:146))
     b. * To whom would a book like this you give?   (Haegeman (2000a:132))

As shown above, the topicalized element cannot appear right in front of or right after the

auxiliary verb in the matrix *Wh*-question.[2]   According to Haegeman (2000a), these examples are rejected by even those speakers who accept (4c).   They are completely rejected by my informants too.

So far the discussion has focused on the compatibility between the topicalized element and the *wh*-element.   It has shown that the co-occurrence of these elements is not readily permitted.   Now let us turn to other combinations of the left-peripheral elements.   The judgments below come from my informants, and as will be shown shortly, they permitted none of the combinations.   First, the focalized element is incompatible with the *wh*-element regardless of the ordering.

(6)   a. ?* THAT BOOK to whom did John give?
        b. * To whom THAT BOOK did John give?
        c. * To whom did THAT BOOK John give?

Second, the focalized element and the topicalized element are incompatible with each other under any orders.

(7)   a. ?* THAT BOOK to Mary, John gave.
        b. ?* To Mary, THAT BOOK John gave.

Related to the TOP-FOC combination is the iterability of the topicalized element and the focalized element.   As shown below, these elements are not iterable.

(8)   a. ?* That book, to Mary, John gave.
        b. ?* THAT BOOK TO MARY John gave.

The TOP-FOC combination and the iterability of the topicalized element and the focalized element are controversial as is the TOP-WH combination.   As for the TOP-FOC combination, Culicover (1991) claims that the combination is possible just in case the order is topic-focus, namely sentence (7b) is acceptable, but sentence (7a) is not.   This claim and the relevant examples are cited in other studies.   As for the iterability, Culicover (1996) claims that more than one element can be topicalized if the intonation is manipulated appropriately, although he makes no distinction between TOP and FOC.

Despite the claim that the intonation is of importance to multiple occurrences of the relevant elements, my informants rejected all the examples in (7) and (8).   For them, adjusting

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[2] Contrary to the topicalized argument, a certain type of adjuncts can appear right in front of the auxiliary verb and precede the *wh*-element.   See Tanigawa (2009) for sharp differences between arguments and adjuncts in the left periphery.

the intonation properties like stresses and breaks did not lead to any amelioration of the acceptability. Some of them point out that these examples cannot be produced except for a special occasion in which one needs manipulated phrasal divisions according to the music rhythm when writing lyrics. In fact, when discussing island effects, Culicover (1991:3, fn.5) makes a vague remark that FOC is marginally more acceptable than TOP. Besides, Culicover (1991:33) admits that the judgment difference between TOP and FOC is quite subtle. This implies a possibility that the examples which he presents as possible examples are far from grammatical and should be best considered as *less worse* than comparable examples.

In sum, this section has shown that regardless of the ordering, multiple occurrences of the left-peripheral elements result in quite low acceptability for a number of native English speakers. The following section will turn attention to Italian, Hungarian and Japanese for a comparison with English.

3. The Distribution of the Left-Peripheral Elements in Other Languages

Section 3 focuses attention on three languages other than English. First, this section highlights Italian and Hungarian, in which more than one of the left-peripheral elements are said to occur. While showing the distribution of the left-peripheral elements, this section observes that previous researches have postulated enriched CP structures to capture the possible distribution. Then, this section also takes a look at Japanese, in which the topicalized element is compatible with the focalized element and the *wh*-element, although the latter two elements seem not to be left-peripheral elements. It is shown that multiple projections should be necessarily postulated also in Japanese to capture the compatibility.

3.1. Italian and Rizzi's (1997) Analysis

Section 3.1 focuses on the left-peripheral elements in Italian. This section demonstrates their possible distribution and presents a brief outline of Rizzi's (1997) pervasive analysis.

It is considered in the literature that the Italian constructions in (9) correspond to the English constructions in (1).

(9) a. Il tuo libro,   lo ho comprato.
         your book-Acc Cl I   bought
         'Your book, I bought it.'   (Rizzi (1997:289))

     b. IL TUO LIBRO ho comprato *t* (non il suo).
         your book-Acc I   bought   (not his)
         'YOUR BOOK I bought (not his).'   (Rizzi (1997:290))

     c. Che cosa ha   fatto   Maria?
         what   has   done   Maria
         'What has Maria done?'   (Haegeman (2000a:130))

The clause-initial elements in (9) are the left-peripheral elements which are either dislocated from the VP-internal position or base-generated clause-initially. Sentence (9a) is the so-called Clitic Left Dislocation. In previous studies, a left-peripheral element such as *Il tuo libro* has been considered to have almost the same status as the English topicalized element (see Rizzi (1997)). Accordingly, this paper refers to this left-peripheral element as the topicalized element for simplicity and for comparable discussions with the English topicalized element. Sentence (9b) is a case of FOC, in which a left-peripheral element such as *IL TUO LIBRO* counts as a focalized element. Sentence (9c) is the matrix *Wh*-question, in which a *wh*-element such as *Che cosa* undergoes movement to the left periphery as in the case of the English *Wh*-question.

The primary concern of this paper is whether or not more than one of those elements above can occur in the left periphery. As illustrated below, multiple occurrences are generally allowed in Italian under some fixed orders. First, the topicalized element is compatible with the *wh*-element only when the former precedes the latter.

(10) a. Il premio Nobel,   a chi   lo   daranno?
         the Nobel prize   to whom   Cl   they-give.
         'The Nobel prize, to whom will they give it?'   (Rizzi (1997:298))

  b. * A chi,   il premio Nobel,   lo   daranno?
         'To whom, the Nobel prize, will they give it?'   (Rizzi (1997:298))

Second, the topicalized element can either follow or precede the focalized element, and the topicalized element can be iterable.

(11) a. (Domani,) QUESTO (a Gianni,)   gli dovreste   dire.
         Tomorrow THIS   to Gianni   Cl   you-should   tell
         '(Tomorrow) THIS (to Gianni), you should tell him.'   (Rizzi (1997:298))

  b. Il libro,   a Gianni,   domani,   glielo   darò   senz' alto.
         The book   to Gianni   tomorrow   Cl-Cl   I-give   for sure.
         'The book, to Gianni, tomorrow I'll give it to him for sure.'   (Rizzi (1997:290))

As shown above, multiple elements can occur in the Italian left periphery under some fixed orders. The remainder of this section demonstrates how this property of multiple occurrences is treated in previous studies. It is not too much to say that Rizzi (1997) is the most influential study of the left periphery in the recent era. His articulated CP structure has been adopted by a large number of researchers, some of whom pursue the discourse-syntax interface and others explore purely syntactic aspects. The articulated CP structure is further developed by Haegeman (2000a) and Rizzi (2004), in which a certain number of projections

are added to the original structure. Rizzi's (1997) articulated CP structure is schematized as in (12), and according to this structure, the examples in (9) are represented as in (13).

(12) $[_{ForceP}$ Force^0 $[_{TopP*}$ Top^0 $[_{FocP}$Foc^0 $[_{TopP*}$ Top^0 $[_{FinP}$ Fin$^0[_{TP}$ ...

(13) a. $[_{TopP}$ Il tuo libro   Top^0 ... lo $[_{TP}$ ho comprato]]

b. $[_{FocP}$ IL TUO LIBRO   Foc^0 $[_{TP}$ ho comprato t_{Foc}]]

c. $[_{FocP}$ Che cosa   Foc$^0=$ha $[_{TP}$ t_{AUX} fatto   Maria t_{Wh}]]

The CP structure in (12) consists of four projections: ForceP, TopP, FocP and FinP. While ForceP and FinP are assumed to be essential parts of the C system, FocP and TopP are assumed to be activated only if they are needed, i.e., they are optional. Despite their optionality, FocP and TopP are more significant for the discussion here. TopP hosts the topicalized element in its specifier, as shown in (13a). When TopP is projected, a notional relation is established where an element in the specifier serves as a topic and the complement part makes a comment about the topic. Analogously, FocP hosts in its specifier the focalized element and the *wh*-element in the matrix clause, as shown in (13b, c). When FocP is projected, a notional relation is established where an element in the specifier serves as a focus and the complement part represents presupposition for a focus. Rizzi assumes that in Italian, TopP can either precede or follow TopP and that it is recursive (this recursive property is indicated by * in (12)).

This structure successfully captures the multiple occurrences of the left-peripheral elements shown in (10) and (11). Sentence (10a), sentence (11a) and sentence (11b) are represented as in (14).

(14) a. $[_{TopP}$ A Gianni   Top^0 $[_{FocP}$ che cosa   Foc$^0=$hai $[_{TP}$ t_{AUX}...

b. $[_{TopP}$ Domani   Top^0 $[_{FocP}$ QUESTO Foc^0 $[_{TopP}$ a Gianni   Top^0 ...

c. $[_{TopP}$ Il libro   Top^0 $[_{TopP}$ a Gianni   Top^0 $[_{TopP}$ domani   Top^0 ...

The fact that the topicalized element is compatible with the *wh*-element and the focalized element follows from (14a, b), in which TopP can precede FocP. The fact that the topicalized element is iterable follows from (14c), in which TopP can be recursive.

Section 3.2 will turn attention to Hungarian, to which Rizzi's system is adopted in order to capture the possible distribution of the left-peripheral elements.

3.2. Hungarian

One of the languages which have been often said to have topic and focus configurations is Hungarian. Topic and focus constructions in this language have attracted a number of researchers, and a number of syntacticians have conducted their studies by putting forth topic and focus projections akin to Rizzi's (1997) articulated CP structure (see Kiss (2002, 2006)

inter alia).   In this sense, Hungarian A'-constructions have been treated on a par with Italian A'-constructions.   In fact, Kiss (2006:6) notes that Hungarian sentence structure represents a prototypical version of Rizzi's articulated CP structure, which is originally argued for based on Italian phenomena.

According to Kiss (1994), a characteristic property of Hungarian sentence structure is that the primary relation is established between the predicate and the topic.   This relation is understood as making a statement about the entity that the topic refers to.   Sentence (15a), which is adapted from Kiss (1994:15), is an example where the clause-initial element serves as a topicalized element i.e., this sentence corresponds to TOP in English.

(15) a.   A gyerekek-et   elvitte   János   a hegyek   közé.
           the children-Acc took   John   the mountains among
           'The children, John took to the mountains.'

    b. $[_{\text{TopP}}$ A gyerekek-et Top^0 $[_{\text{VP}}$ elvitte t_{Top} János   a hegyek   közé]]

In recent researches, TopP is assumed according to Rizzi's (1997) articulated CP structure in order to syntactically encode the topic-predicate relation and offer the landing site for topics. The topicalized element in (15a) is assumed to undergo A'-movement to Spec-TopP, as sketched in (15b).

Besides, Hungarian has a focus construction which is in line with FOC in English.   In the Hungarian FOC, the focalized element is an immediately preverbal constituent that expresses exhaustive identification and bears a pitch accent.   Syntactically, it is required to occupy an invariant preverbal A'-position, and recent researches identify the position with FocP in Rizzi's (1997) articulated CP structure.   A crucial point regarding the focalized element is its relative order with the topicalized element.   Look at the example below which is cited from Kiss (2002:77) with some adaptation.

(16) a.   Pétert   JÁNOS   mutatta   be   Marinak
           Peter   John   introduced   VM   Mary-to
           'As for Peter, it was John who introduced him to Mary.'

    b. $[_{\text{TopP}}$ Pétert$_j$ $[_{\text{FocP}}$ JÁNOS$_i$ mutatta   be t_i t_j Marinak]]

When the two elements co-occur the focalized element must follow the topicalized element. This ordering is ensured by the structure in which TopP is projected above FocP.

The focus position is occupied not only by the focalized element, but also the *wh*-element.   The *wh*-element is parallel to the focalized element in distribution: it must be preceded by the topicalized element, when the two elements co-occur.   Sentence (17a) is adapted from Kiss (2002:98).

(17) a.   A huzat   MELYIK SZOBA ABLAKAIT   törte   be
            the draft   which room's windows   broke   in
            'The windows of which room did the draft break?'

       b.   [$_{TopP}$ A huzat   [$_{FocP}$ MELYIK SZOBA ABLAKAIT   törte   be]]

Based on the parallel distribution between the two elements, Kiss (2002) analyzes *Wh*-question as a focus construction. She claims that also the *wh*-element occupies Spec-FocP, as shown in (17b). The same line of analysis is taken by Haegeman and Guéron (1999:342-344).

3.3.   Japanese

Another language which is often said to be sensitive to topic and focus configurations is Japanese. As a topic-prominent language, typical sentences in Japanese establish the topic-comment relation, and the topicalized element generally appears around the clause-initial position. An example of the Japanese TOP is illustrated below.

(18) a.   Sono hon-wa   John-ga   Mary-ni   ageta.
            that book-Top   John-Nom   Mary-Dat   gave
            'That book, John gave to Mary.'

       b.   [$_{TopP}$ [Sono hon-wa]   [$_{TP}$ John-ga   Mary-ni   ageta] Top^{0}]

In Japanese, the topicalized element is assigned a specific particle *wa*, which functions as a topic marker. In the literature, different analyses are proposed as to the derivation of TOP. Some studies such as Kuroda (1986) and Sakai (1994) claim that the topicalized element undergoes movement from the VP-internal position, and others such as Saito (1985) and Hoji (1985) claim that it can be base-generated clause-initially. This paper does not discuss the applicability of movement, as this issue would not be crucial to the aim of this paper. What is crucial here is the landing site of the topicalized element. Since the topicalized element occurs in the left periphery, recent researches identify its position with TopP in Rizzi's articulated CP structure (see Endo (2007)).

In addition to TOP, Japanese has a focus construction which is, by and large, in line with FOC in English. In Japanese, the focalized element is morphologically distinctive in that it is accompanied with one of the focus particles, e.g. *wa, mo, sae, sika* and so on, as shown in (19a, b).[3]

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[3] In Japanese, the particle *wa* can be attached to both of the topicalized element and the focalized element. Thus, the topicalized element and the focalized element with *wa* are sometimes indistinguishable on surface. However, as in the case of the other languages, the two elements are distinguished with respect to the presence of stress. The focalized element with *wa* is capitalized in order to signify the locus of the stress and distinguish it from the topicalized element.

(19) a.　John-ga　　　SONO HON-WA　yonda.
　　　　　John-Nom　　that book-Foc　　　read
　　　　　'John read THAT BOOK.'

　　　b.　John-ga　　　sono hon-mo/-sae　　yonda.
　　　　　John-Nom　　that book-also/even　read
　　　　　'John read also/even that book.'

　　　c.　[$_{TP}$ John-ga$_i$　[$_{FocP}$　sono hon-wa/ -mo/ -sae$_j$　[$_{VP}$ t_i t_j yonda] Foc^0] T^0]

In a number of researches, the focalized element is supposed to undergo syntactic movement to the preverbal position based on its relative distribution to VP adjuncts.　Among those researches, Yanagida (1995) would be the first to claim that also Japanese has a focus projection FocP and that the focalized element undergoes syntactic movement to Spec-FocP. In her analysis, FocP is projected between TP and VP to accommodate the focalized element, as sketched in (19c).

　　　Given that FocP is projected between TP and VP, it follows that the focalized element is not a left-peripheral element.　In this respect, FOC in Japanese would be slightly different from that in the other languages.　Nevertheless, it is worth showing its compatibility with the topicalized element for a comparative discussion with FOC in the other languages.　In Japanese, the focalized element can co-occur with the topicalized element.　If the focalized element has *wa*, one prefers the order of topic-focus, as pointed out by Kuno (1973).

(20) a.　Mary-ni-wa　　　SONO HON-WA　ageta.
　　　　　Mary-Dat-Top　　that book-Foc　　　gave
　　　　　'To Mary, I gave THAT BOOK.'

　　　b.　[$_{TopP}$ Mary-ni-wa ... [$_{FocP}$　SONO HON-WA　... [$_{VP}$ ageta]]]

This ordering is in harmony with the structure in which TopP is projected above FocP, as illustrated in (20b).

　　　Not only the focalized element but also the *wh*-element is compatible with the topicalized element, as shown in (21a).

(21) a.　Mary-ni-wa　　　John-ga　　　nani-o　　ageta　　no?
　　　　　that book-Dat-Top　John-Nom　　what-Acc　gave　　Q
　　　　　'As for Mary, what did John give to her?'

　　　b.　[$_{TopP}$ Mary-ni-wa [$_{FP}$ [$_{TP}$ John-ga　nani-o t_{Top} ageta] F^0 = no] Top^0]

One of the well-attested properties of the Japanese *Wh*-question is the non-obligatoriness of overt *wh*-movement:　the *wh*-element does not need to undergo overt movement to the left

periphery and can stay in situ. For this reason, no left-peripheral functional projection should be necessary as the locus of the *wh*-element. However, the Japanese *Wh*-question requires an appearance of question particles such as *no* and *ka*, and they must be located in a specific functional head. Therefore, as in the case of the Italian and Hungarian counterparts, two functional projections are necessarily projected for (21a). As sketched in (21b), TopP must be projected for the topicalized element and some projection FP must be projected below TopP as the locus of the question particle *no*.

In sum, section 3 has focused on Italian, Hungarian and Japanese. It has been shown that Italian and Hungarian permit multiple occurrences of the left-peripheral elements and that the multiple occurrences are captured by postulating multiple functional projections for the left periphery. It has been also shown that Japanese permits the co-occurrence of the topicalized element, the focalized element and the *wh*-element and that multiple functional projections should be assumed to capture the co-occurrence, although the focalized element and the *wh*-element do not count as left-peripheral elements.

4.   An Approach to Capturing Occurrences of the Left-Peripheral Elements

The discussion above has shown that multiple occurrences of the left-peripheral elements are not readily permitted in English, unlike in Italian and Hungarian. Section 4 discusses how to approach to this fact in terms of the basic framework of generative syntax. This section proposes an approach where the difference at issue is ascribed to the structural difference of the left periphery.

Witnessing the fact that multiple occurrences of the left-peripheral elements are not readily permitted in English, one would come up with two approaches to accounting for the fact and the difference between English and the other languages. One is an approach which appeals to Minimality constraints to the effect that multiple A'-movements in English give rise to a violation of Minimality. The other is an approach which parametrically varies the number of functional projections for the left-peripheral elements. The discussion below will show that the second approach is preferable and prospective.

In the first approach, English as well as the other languages would have articulated functional projections such as a series of TopP and FocP, but the application of multiple A'-movements is blocked due to Minimality constraints. In fact, this approach is adopted by Hatakeyama (1998). However, adopting this approach would lead to a serious problem. One would have a difficulty accounting for why Minimality constraints work for English, but not for Italian, Hungarian and Japanese. This problem would not be overcome without special stipulations. What is even worse, some definitions of Minimality constraints fail to exclude the ungrammatical data in English. For example, in the framework of Chomsky (1995), movement is driven by *Attract* and Minimal Link Condition (hereafter, MLC) is put forward as a Minimality constraint. Under this framework, the topicalized element undergoes

movement to Spec-TopP, as its feature is attracted by the feature with the same specification in Top^0. The focalized movement to Spec-FocP should receive an analogous analysis. If one follows Rizzi (1997) among others, the feature for the topicalized movement is taken as a topic feature [Top] and that for the focalized movement is taken as a focus feature [Foc]. Chomsky's (1995:311) definition of MLC in (22) does not suffice to exclude (23a).

(22)   K attracts α only if there is no β, β closer to K than α, such that K attracts β.

(23) a. ?* That book, TO MARY John gave?

  b. $[_{\text{TopP}}$ Top^0 $[_{\text{FocP}}$ TO MARY Foc^0 $[_{\text{TP}}$ ... that book t_{PP}]]]
      [Top]   [Foc]   [Foc]   [Top]

Note that the topic feature and the focus feature have different specifications and that they qualify as exclusive features. Namely, [Foc] in Foc^0 can attract an element with [Foc], but not one with [Top]. Conversely, [Top] in Top^0 can attract an element with [Top], but not one with [Foc]. Accordingly, in (23b), the focalized element in Spec-FocP *TO MARY* is not attractable for Top^0 and thus does not count as β in the definition of MLC. Under MLC, the topicalized element *that book* could successfully move to Spec-TopP across the focalized element, and sentence (23a) would be wrongly ruled in.

For the reason stated above, the approach of permitting articulated functional projections and resorting to Minimality constraints is not valid. On the other hand, the second approach is considered as a straightforward and valid one. According to this approach, the number of functional projections for the left-peripheral elements parametrically varies depending on languages. Given this approach, one can successfully account for not only the ungrammatical English data such as (23a) but also the difference between English and the other languages without stipulation. Specifically, English is capable of projecting only one projection for the left-peripheral elements and thus multiple occurrences of the left-peripheral elements are rejected. In contrast, some languages other than English are capable of projecting multiple functional projections in the left periphery. This is why Italian and Hungarian permit multiple occurrences of the left-peripheral elements. The remainder of this section puts forth this approach and illustrates how it works.

The second approach is elaborated into the following system. In English, the unique CP structure is in use for the left-peripheral elements and the unique CP structure can be represented in two different forms. One rests on a system akin to Rizzi's (1997) system, in which either TopP or FocP is projected per matrix clause. Specifically, TopP is projected for the derivation of TOP and FocP is projected for the derivations of FOC and *Wh*-question. The other utilizes the mono-label C^0 whose feature specification varies depending on the case. This form is represented as follows:

(24) a. [$_{CP}$ that book   C^0 [$_{TP}$ John gave t_{Top} to Mary   ]]

            [Top]   [Top]

    b. [$_{CP}$ THAT BOOK   C^0 [$_{TP}$ John gave t_{Foc} to Mary]]

            [Foc]   [Foc]

    c. [$_{CP}$ what   C^0 = did [$_{TP}$ John give t_{Wh} to Mary]]

            [Q]   [Q]

In (24), the functional head C^0 is inherently endowed with one of different features. When it has a topic feature [Top], its specifier is open for the topicalized element and TOP is derived (see (24a)); when it has a focus feature [Foc], its specifier is open for the focalized element and FOC is derived (see (24b)); when it has a Q-feature [Q] in the sense of Chomsky (2000), its specifier is open for the *wh*-element and *Wh*-question is derived (see (24c)). The system based on the mono label C does not use such labeling notations as TopP and FocP, but encodes such labeling differences as feature differences. This paper leaves open a question of which form is preferred, as we find no significant difference within the scope of this paper.[4]

Meanwhile, the other languages are supposed to project both TopP and FocP or multiple CPs in the fixed order when the left-peripheral elements co-occur. If we follow the Rizzi-style system, TopP is projected above FocP in Italian and Hungarian, as is illustrated in section 3. If we utilize the mono label C, C^0 with [Top] is merged in the topmost position of the left periphery and it is followed by either C^0 with [Q] or C^0 with [Foc].

(25) a. [$_{CP}$ C^0 [$_{CP}$ C^0 [$_{TP}$ ...   ]]]

            [Top]   [Q]

    b. [$_{CP}$ C^0 [$_{CP}$ C^0 [$_{TP}$ ...   ]]]

            [Top]   [Foc]

The same analysis could be exceptionally true of English. As section 2 has pointed out, a small number of native English speakers appear to accept multiple occurrences of the left-peripheral elements. Recall that some informants of Haegeman (2000a) accepted the TOP-WH combination under the ordering of topic-*wh*. Recall also Culicover's (1991) judgment in which the TOP-FOC combination is relatively accepted under the ordering of topic-focus. For such speakers, this paper assumes that they exceptionally permit multiple functional projections in the left periphery in the fixed order, as in the case of Italian and Hungarian. The diverse judgments on the relevant examples might be ascribed to the option of whether or not one can permit multiple left-peripheral projections.

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[4] Chomsky (2008) suggests that no feature matching is necessary for triggering A'-movements and that the interpretation of the left-peripheral elements varies depending on whether they target TopP or FocP. If this were correct, the way of resorting to the Rizzi-style system should be preferred. Nevertheless, this issue should await further research.

5. Some Remarks on the Embedded Clause

The discussion thus far has been confined to the matrix clause. Section 5 makes some remarks on the embedded clause. It is shown that multiple projections should be unavailable for the English left-peripheral elements also in the embedded clause.

In the English embedded clause, TOP and FOC can independently occur if the clause is *that*-clause selected by non-factive or assertive predicates such as *think* and *believe*.

(26) a. I think that that book, John gave to Mary.

b. I think that THAT BOOK John gave to Mary.

c. $[_{CP}$ $C^0 =$ that $[_{CP}$ C^0 $[_{TP}$ ... $]]]$
$\qquad$ [Top]/ [Foc]

For this case of the assertive *that*-clause, it is definitely necessary to postulate multiple projections. If we utilize the mono label C and the CP-recursion structure, the locus of the complementizer *that* is the upper C^0 and the locus of the topicalized element and the focalized element is the lower CP whose head is endowed with either [Top] or [Foc].

Nevertheless, on the basis of my informant data, multiple projections should be unavailable for the left-peripheral elements not only in the matrix clause but also in the embedded clause. As illustrated in (27), the topicalized element and the focalized element are incompatible in the assertive *that*-clause, and TOP and FOC cannot occur in the relative clause.

(27) a. ?* I think that that book, TO MARY John gave.

b. ?* This is the book which to Mary, John gave.

c. ?* This is the book which TO MARY John gave.

English is contrasted with Italian in this respect again. In Italian, the topicalized element and the focalized element can co-occur in the assertive complement, and TOP and FOC can occur in the relative clause.

(28) a. Credo   che   a Gianni, QUESTO,   domani,   gli dovremmo   dire.
I-believe   that   to Gianni THIS   tomorrow Cl   we-should   tell
'I believe that to Gianni, THIS, tomorrow, we should say.'   (Rizzi (1997:295))

b. Un uomo   a cui,   il premio Nobel,   lo   daranno   senz'alto.
a man   to who   the Nobel prize   Cl   they-give   undoubtedly
'A man to whom, the Nobel prize, they will give it undoubtedly'

$\qquad\qquad\qquad\qquad\qquad\qquad\qquad\qquad\qquad\qquad\qquad\qquad$ (Rizzi (1997:298))

c. Ecco   un uomo   a cui   IL PREMIO NOBEL   dovrebbero   dare
here   a man   to who   THE NOBEL PRIZE   they-should   give

(non il premio X).

(not   prize X)

'Here is a man to whom THE NOBEL PRIZE they should give (not prize X).'

<div align="right">(Rizzi (1997:298))</div>

Therefore, as in the case of the matrix clause, the unique projection should be available for the left-peripheral elements in the English embedded clause, while articulated functional projections should be in use in the Italian embedded clause.

Intriguingly, some researches present English examples in which TOP and FOC can occur in the relative clause (cf. (27)).

(29) a.   A university is the kind of place in which, that kind of behaviour, we cannot tolerate.   (Radford (2004:330))

b.   I picked up the books which on the TABLE Lee had put.   (Culicover (1991:32))

Notice that Radford (2004) and Culicover (1991) rest on the examples in which the left-peripheral elements co-occur in the matrix clause (see section 2).   The judgment on (29a, b) is captured by the assumption shown at the end of section 4:   a small number of native English speakers would exceptionally permit multiple projections for the left-peripheral elements in the matrix clause.   These speakers would apply almost the same structure to the embedded clause.   Hence, for these speakers, the examples in (29) could be as acceptable as those examples in which the left-peripheral elements co-occur in the matrix clause.

6.   Concluding Remarks

This paper discussed occurrences of the left-peripheral elements in English in comparison to those in the other languages such as Italian and Hungarian.   First, section 2 and section 3 clarified the fact that multiple occurrences of the left-peripheral elements are not readily permitted in English, unlike in the other languages.   Second, section 4 and section 5 claimed that this fact should be ascribed to the structural difference of the left periphery, proposing an approach where the structure of the left periphery parametrically varies depending on the language.   Specifically, an approach was proposed where the unique CP structure should be in use for the left-peripheral elements in English, whereas the articulated CP structure should be common for those in the other languages.

The approach of parametrically varying the structure of the left periphery would raise an issue which would deserve further study.   It is whether the approach can apply to other phenomena independent of what this paper discussed.   Discussing this issue would prove the validity of the approach, but unfortunately, no such phenomena have come up to mind so far. This issue will be left for future study.

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