A Locality Condition on AGREE and Multiple AGREE*

Jaecheol Lee
(University of Maryland, College Park)

Lee, Jaecheol. 2003. **A Locality Condition on AGREE and Multiple AGREE.** *Korean Journal of English Language and Linguistics* 3-1, 109-132. This paper argues that AGREE and Multiple AGREE are not distinct, and they are constrained by a single Minimality condition. It is argued, contra Chomsky (2001) and Hiraiwa (2000), that Multiple AGREE takes place not simultaneously but sequentially on the basis of a Minimality Condition. That makes it possible to assimilate Multiple AGREE to AGREE.

Key Words: AGREE, Multiple AGREE, Minimality Condition

1. Introduction

AGREE and Multiple AGREE are restricted by the Defective Intervention Constraint (DIC: Chomsky 1998, 1999) and the Intervention Constraint (Chomsky 2001), respectively. Chomsky (1998, 1999) proposes the DIC in order to account for the blocking effects on AGREE, which may be inherited from the Relativized Minimality proposed by Rizzi (1990) and the Minimal Link Condition (MLC) proposed by Chomsky (1991), Chomsky & Lasnik (1993), and Chomsky (1995). Thus it is a locality condition for constraining the AGREE relation between a probe and a goal. The Intervention Constraint is proposed by Chomsky (2001) in order to accommodate the blocking effects on Multiple AGREE taking place between a single probe and multiple goals.

*I am thankful to three anonymous reviewers of this journal.

Therefore, AGREE and Multiple AGREE are supposed to be separately constrained by the DIC and the Intervention Constraint.

The main purpose of the paper is to argue that AGREE and Multiple AGREE are non-distinct and are constrained by an identical locality condition.

The paper is organized as follows. Section 2 briefly makes a survey of the AGREE theory closely linked to the main issues. Section 3 raises some problems connected to the DIC and the Intervention Constraint. Section 4 provides an alternative for the problems. I, contra Hiraiwa (2000), claim that Multiple AGREE takes place sequentially but not simultaneously because of a Minimality Condition. I will further propose an Integrated Intervention Constraint based on ACTIVATION instead of the DIC and the Intervention Constraint, which will equally hold for AGREE and Multiple AGREE. The adequacy to the constraint will be examined by A-movement constructions. Section 5 summarizes the result.

2. Chomsky's (1998, 1999, 2001) AGREE Theory

Chomsky (1998, 1999, 2001) assumes AGREE to be an operation of deleting uninterpretable features under matching[1] of probe and goal, which removes the need for feature movements argued in Chomsky (1995).

(1) AGREE (Chomsky 1998, 1999, 2001)
AGREE (α, β), where α is a probe and β is a matching goal, and uninterpretable features of α and β are deleted.

---

[1]The requirements for the matching of probe and goal are as follows.
a. Match is non-distinctness rather than identity.
b. D (P) is the sister of P.
c. Locality reduces to 'closest c-command'.

Following Chomsky (1998, 1999, 2001), in order for a matching pair to induce AGREE, the goal β must be in the c-command domain of the probe α. α and β only enter into AGREE if the features are activated. It is further assumed that only uninterpretable features activate feature bundles.

According to Chomsky (1998, 1999), checked (i.e., valued) features remain visible to the narrow-syntactic derivation within their own phase prior to the Spell-Out. This serves to block further AGREE relations over these checked features at a distance. That means that features are deleted within the cyclic computation but remain visible until the phase level, which leads to the Defective Intervention Constraint:

(2) The Defective Intervention Constraint (DIC: Chomsky 1998, 1999)
$\alpha > \beta > \gamma$ (' > ' is c-command)
Locality condition yields an intervention effect if probe α matches inactive β which is closer to α than matching γ, barring AGREE (α, γ).

Chomsky (1998, 1999, 2001) further assumes that phases are CP and *v*P, but crucially not TP so as to define the cycle on which parts of LF and PF are built. He proposes the Phase Impenetrability Condition (PIC) as follows:

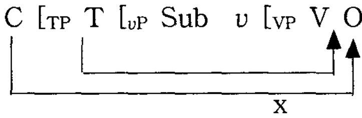
(3) PH = $[_{HP}\alpha\ [H\ \beta]]$
The domain of H is not accessible to operations outside HP, but only H and its edge.

According to the PIC, once a phase is spelled-out, any element outside the phase cannot interact with an element within the spelled-out phase except for its head and specifier, which implies that any operation including AGREE cannot penetrate into the spelled-out phase insofar as it doesn't involve its head and specifier. An immediate question that may arise at this stage is when Spell-Out of a phase exactly takes place. For answering the question, Chomsky (1999) assumes the following:

(4) a. Interpretation/evaluation for PH1 is at the next relevant phase PH2.
  b. Spell-Out must take place after interpretation/evaluation for PH1 at the next phase PH2.

Let's consider the following configuration.

(5) $[_{CP}$ C $[_{TP}$ T $[_{\upsilon P}$ Sub υ $[_{VP}$ V Obj]]]]



According to Chomsky's (1999) account based on the assumptions in (4), the object DP can be accessible to the probe T, but not to the probe C, as shown in (5). Those assumptions serve to allow the probe T to agree with the in-situ quirky NOM object within the υP in Icelandic. If the object is a wh-phrase, the probe C cannot agree with the wh-object in situ in the υP in (5) since the Spell-Out of the υP has to take place at the stage where the next phase CP is formed. Thus, the derivation has to determine whether or not the wh-object should move to the edge of the υ, after considering in advance whether or not it has a relation with the C at the next phase. However, the movement to the edge of the υ has to take place before the higher T merges in (5), in order for the movement to obey the extension condition. Therefore, although the υP can be spelled out at the next CP phase in (5), the object wh-phrase has to move to the edge of the υ prior to the higher T merging in the derivation. So, the derivation needs to consider a relation (AGREE or whatever) with a higher probe at the next phase which is not constructed yet, in order for the wh-object to move to the edge of *v*. On the contrary, suppose that the Spell-Out of the *v*P takes place just at the phase level, without waiting for the next phase CP to be formed. An immediate problem that is raised will be that the higher T cannot license the in-situ quirky NOM object within *v*P because once the relevant phase is spelled out, no syntactic operation including AGREE cannot penetrate into the spelled-out phase except for the edge. This logic of the PIC in conjunction with the assumptions of (4) plays a role in extending the domain for an application of the DIC, as in the following examples:

(6) a. *John seems that it is likely to solve the problems.
b. [$_{TP}$ T seems [$_{CP}$ that it is likely [$_{TP}$ John to [$_{vP}$ ...
uΨ Ψ Ψ
u[Case]

(7) a. *John was said that it seems to like dogs.
(cf. 'It was said that John seems to like dogs.')
b. [$_{TP}$ T was said [$_{CP}$ that it seems [$_{TP}$ John to [$_{vP}$ ...

If Spell-Out of the embedded CP takes place prior to a higher head merging in (6-7)(b), the DIC itself will not be applied across the embedded CP. However, given the assumption (4b), the matrix T is allowed to agree with an element within the embedded CP because the embedded CP will be spelled out at the next phase. Nevertheless, the uΨ of the matrix T are not allowed to enter into AGREE with the Ψ of *John* in (6-7)(b), since the inactive Ψ intervene between them, according to the DIC. That thus leads the derivation in (6-7)(a) to crash. This fact shows that the valued (i.e., inactive) phi-features cannot directly enter into AGREE with an active probe but they can interrupt the AGREE relation between a higher probe and a lower goal, which is also borne out by the following examples.

(8) a. *It was said [that t seems [John to like dogs]]
b. *John$_i$ is believed [Mary likes t$_i$]
c. *John is believed [t likes Mary]
d. Mary is believed [t to like John]

In (8a-c), the uΨ of the matrix T cannot enter into AGREE with the Ψ of the DP (i.e., *it* and *John*) since the u[Case] of the DP has already been valued by the embedded probe (i.e., the uΨ of the embedded T or the embedded *v*), and it cannot activate the Ψ of the DP. For (8d), the uΨ of the matrix T are allowed to enter into AGREE with the Ψ of *Mary*, activated by the u[Case], since there is no inactive phi-feature between them. Thus, the EPP on the T induces the pied-piping of *Mary* to the Spec,TP.

However, the DIC cannot account for the construction with participial passives like (9), which is known to be mainly permitted in Romance and mainland Scandinavian.

(9) a. ??There seem to have been caught several fish[2].
b. [C [$_β$ T seem [$_{TP}$ EXPL to have been [caught(PART)
uΨ u[person] uΨ(lacking [person])
several fish]]]] u[Case]
Ψ
u[Case] (Chomsky 1999)

Supposing PART bears uninterpretable phi-features and u[Case], lacking [person], following Chomsky (1999), the uΨ of PART are in the matching relation with the interpretable phi-features of *(several) fish* within its own c-command domain,

[2]Sentences like (11a) are awkward in English, since English bars surface structure of the form [V-DO], according to Chomsky (1999), where in such a case, it is assumed that DO should be extracted to edge of the construction by an obligatory Thematization/Extraction rule at PF.

which value the number and gender of PART, with the u[Case] of PART not valued, yet. When the derivation subsequently reaches the derivational point β in (9), according to Chomsky's (1999) account, the uΨ of T value the u[person] feature of EXPL, which is thus rendered inactive. Chomsky (1999) allows the uΨ of T to enter into the matching relation with the valued phi-features of PART, even though the inactive [person] of EXPL intervenes between them, in accordance with the Maximization Principle, thus the uΨ of T value the u[Case] of PART. Even if the inactive phi-features of EXPL and PART also intervene between the uΨ of the matrix T and the Ψ of *several fish*, they don't interrupt AGREE between the matrix T and *several fish* by means of the Maximization Principle. Thus, the uΨ of the T value the u[Case] of *several fish*, with the former also valued by the Ψ of *several fish*. Consequently, these facts show that the DIC is inert in this case (see Lee(2001) for more discussion about *there* constructions).

For the DIC to be inert, as in the above example, Chomsky (1999) has to assume the following unnecessary stipulations.

(10) a. Maximize matching effects.
b. The intervention effect is nullified unless intervention blocks remote matching of all features.

According to (10), the u[phi]-features of T are allowed to probe down and value the u[Case] of PART and *fish* in spite of intervening of the inactive [person] of EXPL *there* in (9).

Chomsky (2001) adopts Multiple AGREE in order to get rid of the stipulations above and assumes another Intervention Constraint, along with the DIC.

(11) Multiple AGREE (Hiraiwa 2000)
$\alpha > \beta > \gamma$ ('>' is c-command)

AGREE (α, β, γ), where α is a probe and both β and γ are matching goals for α.

(12) Intervention Constraint (IC: Chomsky 2001):
Intervention effects will hold only if the intervening element is not rendered inactive by P itself.

Following Hiraiwa (2000), Chomsky (2001) permits Multiple AGREE so that P may find any matching G in the same phase PH it heads, simultaneously deleting uninterpretable features. Hiraiwa (2000) assumes that a probe feature α, being [+multiple], continues to probe for all matching goals within its c-command domain at the same active phase, resulting in AGREE with β and γ simultaneously. Multiple AGREE takes place at the point of a derivation where the probe α merges. (12) is further proposed by Chomsky (2001) so as for Multiple AGREE driven by a single probe not to be blocked by an intervening element matching with the probe[3]. An immediate question that may arise is why Multiple AGREE must occur simultaneously. On application of Multiple AGREE, unlike AGREE, feature valuation of all goals matching with a single probe is supposed to take place simultaneously, according to (11) and (12). The reason may be closely linked to the DIC. If an intervening element becomes inactive early before a single probe enters into a matching relation with all the goals, it may inevitably block the further matching relation of the probe with the next goal due to the DIC. Therefore, apart from the stipulation that the DIC is only confined to a case where an intervening element becomes inactive by virtue of a probe derivationally different from a probe responsible for Multiple AGREE, we may need another

[3]Along this reasoning, Hiraiwa (2000) assumes that the DIC is restricted to a case where a probe for γ and a probe for intervening β are derivationally distinct.

constraint in order for an intervening element not to be inactive prior to the probe entering into a matching relation with all the goals. For this reason, Chomsky (2001) has to posit the stipulation that Multiple AGREE must take places simultaneously. At the moment of multiple feature valuation to take place, if the intervening element cannot be rendered inactive, that leads to violation of the IC (12).

Therefore, AGREE and Multiple AGREE are taken to be distinct and are restricted by the DIC (2) and the Intervention Constraint (henceforth, IC) (12), respectively.

Let's turn to (9).

(9) [C [$_{β}$ T seem [$_{TP}$ EXPL to have been [caught(PART)
    uΨ   u[person]   uΨ(lacking [person])
several fish]]]]   u[Case]
    Ψ
    u[Case]   (Chomsky 1999)

Under the Multiple AGREE analysis, the u[phi]-features of T as a probe, being [+multiple], locate all the matching goals in the active phase[4)], namely the u[person] of EXPL, the phi-features of PART, and the phi-features of *fish* in (9), thus valuing the u[person] of EXPL and the u[Case] of both PART[5)] and *fish*, with the u[phi]-features of T also valued by the interpretable complete phi-features of *fish*. The feature valuation of these elements is simultaneously induced by Multiple AGREE between the probe and the goals within the same active phase.

3. Some Problems Raised in the DIC and the IC.

---

[4]The *v*P in (9) is not a strong phase available to Spell-Out, since it is not taken to be a strong phase in passives or unaccusatives. So, all the constituents in β are in the same active phase.

[5]The u[phi]-features of PART have already been valued by the phi-features of *fish*.

Up to now I have briefly surveyed the DIC and the IC, which leads to the following consequences:

(10) a. The valued (i.e., inactive) phi-features cannot directly enter into AGREE with an active probe but they can interrupt the AGREE relation between a higher probe and a lower goal, which motivates the DIC.

b. On application of Multiple AGREE, a single probe has to simultaneously render all the matching goals inactive. Otherwise, the intervening element that is not rendered inactive in such a way would bring up Intervention effects by the IC.

However, there are some problems raised in the DIC and the IC: First, AGREE and Multiple AGREE are taken to be separate in that AGREE is restricted by the DIC (2) while Multiple AGREE by the distinct Intervention Constraint (12). That renders the Intervention Constraint undesirably disjunctive. Furthermore, according to Hiraiwa (2000), it is assumed that in application of Multiple AGREE, P is [+multiple]. However, it is not clear what it means: whether there are several probes or multiple features.

Second, this Multiple AGREE analysis of Hiraiwa (2000) and Chomsky (2001) may face a serious "look-ahead". According this analysis, an intervening goal should not be inactive early by means of AGREE until the single probe enters into the matching relation with all the goals. Otherwise, the intervening element would yield the DIC violation for further Multiple AGREE[6]. However, the following question has to be answered in order to justify this point of view: how can ′ t feature deletion take place

[6]There is no conceptual reason for Multiple AGREE, unlike AGREE, to be exempted from the DIC.

immediately as soon as a probe and a goal enter into a matching relation? If feature deletion does not take place in this way, that may make a "look-ahead" at work since the derivation has to in advance consider a matching relation of the probe with the next goal and delay the immediate feature valuation of the first matching goal.

Third, it is also unclear whether the classic notion of the Relativized Minimality and the Minimal Link Condition (MLC) can be maintained in application of AGREE and Move. Chomsky (1999, 2001) assumes that *υ* has the EPP-feature only in case the edge of *υ* is available for an intermediate position for a wh-movement. The reason is that if a DP or a wh-phrase moves to the edge of *υ* and stays there, the External Argument (EA) is not accessible to the higher category with which it must agree (i.e., C-T or *υ*) because that causes violation of the MLC. However, the following ECM examples show that the ECMed DP can move to the edge of *υ* and stay there, and that the movement of the EA into the Spec-T seems to override the MLC:

(11) a. The DA proved [two men to have been at the scene of the crime] during each other's trials.
b. *There DA proved [there to have been two men at the scene of the crime] during each other's trials.
c. I believe there to have been someone in the garden.

(12) a. The DA proved [no suspect to have been at the scene of the crime] during his trials.
b. *The DA proved [there to have been no suspect at the scene of the crime] during his trials.

(13) a. The DA proved [no one to have been at the scene of the crime] during any of the trials.

b. *The DA proved [there to have been no one at the scene of the crime] during any of the trials. (Lasnik 2001)

(11-13)(a) show that the ECMed element is forced to move to the edge of the matrix υ so that it may be high enough to c-command into an adverbial adjunct. In (11-13)(b), even though EXPL *there* moves to the edge of the matrix υ, the c-command requirement of binding cannot be satisfied (for much relevant discussion, see Lasnik 2001). If the ECMed element moves to the edge of the higher υ, the structure will be schematized as follows:

(14) $[_{CP}$ $[_{TP}$ T [ECMed element$_i$ $[_{\upsilon P}$ Sub υ $[_{TP}$ t_i]
uΨ/EPP Ψ uΨ
u[Case]

If the uΨ of the matrix υ enter into AGREE with the Ψ of the ECMed element, the EPP triggers the pied-piping of it to the edge of υ, as shown in (14). Given the DIC (2), however, the uΨ of the matrix T cannot enter into AGREE with the Ψ of the Sub DP due to the intervening inactive Ψ, then undesirably leading the derivation in (11-13)(a) to crash. Moreover, since the Ψ of the ECMed element are rendered inactive by the probe on the υ derivationally distinct from that on the matrix T, the AGREE relation between the matrix T and the Sub DP cannot be constrained by the Intervention Constraint (12). This problem also takes place in the following examples:

(15) a. Bill seems to me to be t smart.
b. Bill seems to me to t like Mary.
c. It seems to me that Bill is smart.

(16) a. Bill strikes me as t smart.
b. It strikes me that Bill is smart.

In order for the experiencer *me* not to block the raising of *Bill* to the Spec,TP in (15a-b), Boeckx (2000) assumes that *seem to* is reanalyzed into the complex verb at LF in English[7]. According to this assumption, the experiencer does not c-command *Bill* prior to the raising in (15a-b), and that assumption makes the raising of *Bill* obviate violation of the MLC in overt syntax[8]. However, he might need another stipulation for the experiencer *me* not to c-command *Bill* prior to the raising in (16a).

As Boskovic (2002) points out, if there are evidences that the experiencer DP can c-command outside of the PP[9], as shown in (17) below, how can we deal with the raising of *Bill* without violating the DIC and the IC in (15) and (16)?

(17) a. *It seems to *him*2 that *John*2 is in the room.
b. [$_{DP}$ Pictures of *any* linguist] seems to *no* psychologist to be pretty.
c. Pictures of *himself* to *John* seem to be cheap.

Suppose that the experiencer *me* is valued by the preposition *to* in (15) and is inherently Case-marked in (16). Given the DIC, the uΨ of the matrix T cannot enter into AGREE with the Ψ of *Bill* prior to the raising of *Bill* due to the intervening inactive Ψ. Thus it

---

7) Boeckx (2000) assumes that the counterpart of *seem to* in Icelandic is reanalyzed into the complex in overt component. In what follows, I will not make an attempt to parameterize blocking phenomena caused in raising constructions with an experiencer in several languages including English, Icelandic, etc. I limit my concern to such examples in English.

8) This is based on the following notion of 'closeness', proposed by Chomsky (1995):

(i) α is closer to β than γ is only if α commands β.

9) In order for the Condition (C) effects, the negative polarity licensing, and the Condition(A) effects to take, the experiencer DP has to command *John*, *any*, and *himself* in the course of the derivation in (17a), (17b), and (17c), respectively.

undesirably leads to violation of the DIC in (15a-b) and (16a). Even if we resort to the Intervention Constraint (12), the Ψ of the experiencer DP are not rendered inactive by the probe on the matrix T, and the AGREE relation between the matrix T and *Bill* cannot be constrained by the Intervention Constraint (12). Therefore, the raising in (15-16) cannot also be accounted for by the DIC or IC.

Lastly, the PIC may also raise a theory-internal problem, namely another "look-ahead". The reason is that after considering a relation (AGREE or whatever) with a higher probe at the next phase which is not constructed yet, as mentioned in Section 2, the derivation has to determine whether or not an element in the embedded phase moves to a phonological edge (Spec,CP or edge of *υ*). This "look-ahead" results from the postulation in (4) that the evaluation/interpretation of PH1 takes place at the next phase PH2, and thereafter PH1 is spelled out. Furthermore, such a stipulation as the phase evaluation cannot account for the scope relation of wh-in-situ in examples like (18).

(18) a. Who wonders where John bought what?
  b. [$_{CP}$ C [$_{TP}$ who [$_{\upsilon P}$ wonders [$_{CP}$ where C [$_{TP}$ John [$_{\upsilon P}$ bought what]]]]]]

As well known, in situ *what* can take embedded and matrix reading in (18a). As it takes matrix reading, it is definitely unclear how the matrix C can have a relation with in situ *what* across the three intervening phases within the current AGREE theory, as shown in (18b), even under the assumption on the evaluation/interpretation of a phase (for more specific discussion about the scope of wh-in-situ, see Lee (2002a, b, 2003). I will no longer discuss the scope of wh-in-situ for reason of space here).

In order to get rid of the problems caused by the stipulation for evaluation/interpretation of a phase, I instead assume that a phase (vP or CP) is spelled out at the phase level prior to a higher head merging in the derivation. I further argue that the PIC is a constraint only for restricting the pied-piping of an element induced by the EPP, but not for restricting AGREE. Along this reasoning, Lee (2002a,b, 2003) proposes the following hypothesis:

(19) The PIC is only sensitive to EPP properties.

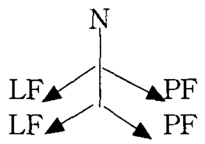
The hypothesis may be interpreted as follows: given that elements inside a domain D are linearized as soon as D is spelled out, then no element can be moved in and out of a spelled-out D, since the linear order among the objects in D is already fixed (see Uriagereka (1999) for relevant discussion). In this sense, the EPP cannot trigger the pied-piping of an element in the spelled-out phase except for one in the phonological edge. On the other hand, AGREE does not affect word order, so that it may be free to penetrate into a spelled-out domain (for more specific discussion about the PIC based on Microwave Principle, see Lee (2002b, 2003)). An immediate consequence is that uninterpretable features must be checked off until the whole derivation ends, contrary to Chomsky's (1998, 1999, 2001) position that they must be checked off until Spell-Out of the phase takes place. In what follows, this notion of the PIC will hold of A-movement[10]. The operating system in grammar, pursued in Lee (2002a, b, 2003), can be summarized as follows:

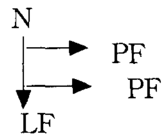
(20) Grammar Model

a. Chomsky (1998, 1999, 2001) b. Lee (2002, 2003)

Lexicon Lexicon

[10] For conceptual and empirical grounds of the hypothesis (19), see Lee (2002a,b, 2003) where he deals with A'-dependences in across-languages including English, Korean, Japanese, etc. along the line of this notion of the PIC.





4. An Alternative

Up to now, I have pointed out some theory-internal problems connected to the locality condition on AGREE and Multiple AGREE. Now, I will provide an alternative to solve them.

4.1. An Integrated Intervention Constraint and Minimality Condition

To begin with, in order to solve the disjunctive Intervention Constraint and the unclear notion of the MLC raised above, I propose an Integrated Intervention Constraint based on ACTIVATION instead of the DIC (2) and the Intervention Constraint (12), as follows:

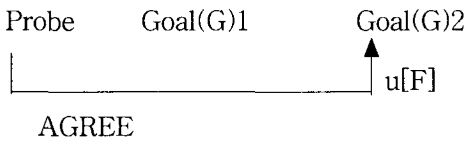
(21) Only activated features raise blocking effects on AGREE.
(Lee 2002b, 2003)

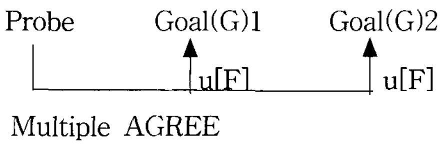
What activated features mean in (21) indicates features activated by an uninterpretable feature (henceforth, u[F]) when the probe-goal relation is established. For instance, even if the Ψ of a DP is interpretable, they may become activated features if they enter into a matching relation with the probe uΨ and are activated by the u[Case]. Accordingly, the Ψ of the DP activated by the u[Case] rather than the u[Case] itself become a potential candidate to induce Intervention effect on AGREE in my system. However, once the activator u[Case] is valued, the Ψ of the DP can no longer be activated and they cannot accordingly yield blocking effects on AGREE, according to this line. Given that AGREE is a relation between a probe and a goal, the Ψ of a goal may not be activated or reactivated until its probe merges in derivation. That means that the activator u[Case] should have the Ψ of the DP activated only at some point of a derivation when the probe uΨ emerges. Consequently, "activated features" are derivationally driven in the sense that they occur at a stage where the probe-goal relation is established. Along this reasoning, inactive features valued by earlier AGREE or an u[F] itself cannot yield Intervention effects on AGREE in my system (see Lee (2002a, b, 2003) for blocking effects on A′-dependencies along the line of this intervention constraint).

Lets′ turn back to (14). In (14), only the Ψ of the ECMed element will be activated by the u[Case] when the probe uΨ of the matrix *v* emerges. Then, the EPP triggers the pied-piping of it to the edge of the matrix *v*. As the matrix T merges, only the Ψ of the Sub DP will be activated by the u[Case]. Hence, the probe uΨ of T and the goal are allowed to enter into AGREE, even if the inactive intervening element exists between them, given the integrated Intervention Constraint (21). This is because there is no activated feature between them: since the activator u[Case] of the ECMed element is already valued and it can no longer activate the Ψ of the ECMed element, the intervening Ψ cannot raise blocking effect on the AGREE relation. Consequently, this fact shows that an active probe has to enter into AGREE with the closest goal able to be activated by an u[F], which lead me to propose the following Minimality Condition:

(22) Minimality Condition on AGREE (Lee 2003)
An active probe must enter into AGREE with the closest goal able to be activated by an u[F] feature.

That means that even if an inactive feature valued by earlier AGREE or an u[F] itself intervenes between a higher probe and a lower goal, it cannot be the closest goal to enter into AGREE with an active probe. Accordingly, such features cannot block the AGREE relation between a higher probe and a lower goal. It is assumed that (22) holds for both AGREE and Multiple AGREE.

(23)


(24)


According to the Minimality Condition (22), the intervening G1 interrupts neither AGREE nor Multiple AGREE of the probe with G2 in (23) and (24).

Let's first consider cases with the AGREE relation like (23). In (23), G2 is the closest goal able to be activated by the u[F] at some point of a derivation where the probe emerges, as far as there is no u[F] to activate G1, which is exemplified in the examples (15-16) as well as in the examples (11-13) with the structure (14). If this approach is on the right track, how do we account for the blocking effects in (6-8) under the Intervention Constraint (21)?

(6) a. *John seems that it is likely to solve the problems.
b. [$_{TP}$ T seems [$_{CP}$ that it is likely [$_{TP}$ John to [$_{vP}$ ...
uΨ/EPP Ψ Ψ
u[Case]

(7) a. *John was said that it seems to like dogs.
(cf. 'It was said that John seems to like dogs.')

b. [$_{TP}$ T was said [$_{CP}$ that it seems [$_{TP}$ John to [$_{vP}$ ...

(8) a. *It was said [that t seems [John to like dogs]]
b. *John$_i$ is believed [Mary likes t$_i$]
c. *John is believed [t likes Mary]
d. Mary is believed [t to like John]

Given the hypothesis (19), the uΨ of the matrix T may enter into AGREE with the Ψ of *John* in (6-7)(b), activated by the u[Case], even if the spelled-out CP intervenes[11]. Moreover, the Ψ of *it* are already inactive, and they cannot thus interrupt the AGREE relation in accordance with the Intervention Constraint (21). Nevertheless, the EPP in the matrix T cannot trigger the pied-piping of *John* since the PIC is sensitive to the EPP and the EPP cannot accordingly induce the pied-piping of it out of the spelled-out CP, which leads to ungrammaticality in (6-7)(a)[12]. For (8a-c), the uΨ of the matrix T cannot enter into AGREE with the Ψ of the relevant goal, since an active probe is not allowed to agree with an inactive goal according to the Intervention Constraint (21). In (8d), the matrix probe may enter into AGREE with the Ψ of *Mary* since the latter still has the unvalued u[Case] serving as an activator. Then the EPP triggers the pied-piping of *Mary* to the matrix Spec, TP.

Now, let's turn back to (24) where Multiple AGREE happens. Although Multiple AGREE takes place in (24), the probe has to enter first into AGREE with the closer G1 to it than G2, following the Minimality Condition (22). More precisely, I assume

[11]The long distance agreement across the embedded CP can be exemplified in Innu-aimûn (an Algonquian language spoken in northeastern Canada) where it is known that a matrix verb optionally agrees with either the embedded subject or the embedded direct object (see Branigan and MacKenzie (2002) for this matter).

[12]As well known, the EPP that lies in the finite T is obligatory in English (for further discussion of this matter, see Lasnik (2001)).

that in application of Multiple AGREE, a probe has a [+multiple] property as a sub-property of the probe[13]. I assume that a probe with a [+multiple] property is subject to the following condition (the EPP should also obey this condition if it is a property of a probe):

(25) An active probe cannot completely be valued or checked off until its sub-properties are all discharged.

Supposing that there are two goals G1 and G2 to enter into Multiple AGREE with a probe P with a [+multiple] property, as in (24), P has to enter first into AGREE with G1 due to the Minimality Condition (22), and then P subsequently with G2. As a result, following this line of approach, Multiple AGREE takes place sequentially rather than simultaneously. At that derivational stage, the intervening G1 cannot raise blocking effect on AGREE between P and G2, given the Intervention Constraint (21). This is because G1 is no longer able to be activated due to earlier valuation of its activator u[F]. However, P is still active when it enters into AGREE with G2, since it has a [+multiple] property, and it cannot completely be checked off until its sub-property is discharged, in accordance with (25). This account would hold true of the example (9)[14].

Consequently, the disjunctive Intervention Constraint and the unclear notion of the MLC that arise in Chomsky's (1998, 1999, 2001) AGREE theory seem to be resolved in terms of the Integrated Intervention Constraint (21) and the Minimality Condition (22) proposed in this paper, respectively. Furthermore, in the

---

[13]On the other hand, Hiraiwa (2000) vaguely assumes a probe itself to be [+multiple].

[14]In (9), EXPL *there* would be pied-piped by the EPP in accordance with the following Attract Principle: If the EPP property of a feature K becomes a 1-spec property, K attracts the closest one of the agreed DPs to K (Lee 2001, 2002a,b, 2003).

analysis of Multiple AGREE, following Chomsky (2001), a look-ahead problem was raised from the fact that feature deletion cannot take place immediately as soon as a probe and a goal enter into a matching relation, and the feature valuation is delayed until a single probe enters into the matching relation with all the goals, as already mentioned in Section 3. However, following the idea pursued in this paper, such a problem cannot arise since feature valuation takes place, even under Multiple AGREE, immediately as soon as a probe and a goal enter into a matching relation. Furthermore, following this line of approach, Multiple AGREE may be assimilated to AGREE in that they are constrained by the single Minimality Condition (22), according to which Multiple AGREE no longer takes place simultaneously. That makes it possible to remove the need for the definition (11) of Multiple AGREE proposed in Hiraiwa (2000).

If those assumptions are on the right track, a question that may arise is how the EPP triggers the pied-piping of the relevant DP across an intervening DP in both the examples (11-13) with the structure (14) and (15-16).

4.2. EPP and MLC

I assume that the EPP is not a feature of a head, but a property of feature[15], following Pesetsky and Torrego (2000), Boeckx (2002), and Lee (2001, 2002a,b, 2003). I further assume that the EPP, as a property of a probe, only induces overt

---

[15] I assume that there are two types of EPP, that is, "associate EPP" and "dissociate EPP". The former is taken to be a property of a probe, then inducing the pied-piping of an element satisfying AGREE with the probe. On the other hand, the dissociate EPP is taken to be not a property of a probe but an independent feature of a head, distinct from a probe of a head. Then, it does not require satisfaction of AGREE prior to inducing the pied-piping. A defective T may permit this kind of EPP only in case it provides an intermediate landing site for successive cyclicity (see Boskovic (2002) for need of successive cyclic movement through infinitive Spec,IP).

Internal Merge of an element satisfying AGREE with the probe. That means that this kind of EPP doesn't interact with an element dissatisfying AGREE with the probe. Given this assumption, even if an ECM subject that moves to the edge of *υ*P intervenes between the matrix T and the Subject DP in the Spec,*υ*P, as in (14), it cannot interrupt the pied-piping of the Subject DP to Spec,T, insofar as the uΨ of T are in AGREE with the DP in accordance with the Intervention Constraint (21). As a result, that notion of the EPP causes the pied-piping of the Subject DP to obviate violation of the MLC, in conjunction with the Minimality Condition (22). That the EPP is a property of a probe implies that it exists as part of the uninterpretable probe. Therefore, the probe cannot completely be valued by its goal until the EPP is discharged, just like a probe with a [+multiple] property cannot completely be checked off until the multiple property is discharged, according to (25).

Consequently, the definition of the EPP as a property of a probe serves to relegate the absolute notion of MLC into the relativized notion of MLC in that the EPP makes it possible to ignore an element not agreeing with the probe.

5. Concluding Remarks

It has been shown that AGREE and Multiple AGREE are constrained by the same Minimality Condition (22), which desirably leads Multiple AGREE to assimilate to AGREE, also removing the need for the definition of Multiple AGREE argued in Hiraiwa (2000). It is instead proposed that Multiple AGREE takes place sequentially rather than simultaneously by assuming that it, just like AGREE, has to be subject to the Minimality Condition (22). As a result of this approach, the theory-internal problem like a "look-ahead" from the previous analysis of Multiple AGREE can also be removed. It is claimed that all blocking effects on AGREE and Multiple AGREE are induced by "activated features" alone, which are derivationally driven. That notion of Intervention Constraint serves to resolve the obscure notion of MLC that can be raised in ECM and raising constructions as well as Multiple AGREE along the line of Chomsky (1998, 1999, 2001). It is further argued that the "look-ahead" resulting from the postulation on the evaluation/interpretation of a phase can be solved, given the Lee's (2002a,b, 2003) hypothesis that the PIC is only sensitive to EPP properties.

References

Boeckx, C. 2000. Quirky agreement. *Studia Linguistica* 54, 354-380.

Boeckx, C. 2002. Quirky Agreement Revisited, Ms. University of Illinois, Urbana-Champaign.

Boskovic, Z. 2002. A-movement and the EPP. *Syntax* 5, 167-218.

Branigan, P. and M. MacKenzie. 2002. Altruism, A'-movement, and object agreement in Innu-aimûn. *Linguistic Inquiry* 33, 385-407.

Chomsky, N. *The Minimalist Program*. MIT Press.

Chomsky, N. 1998. Minimalist Inquiries: The Framework, Ms. MIT.

Chomsky, N. 1999. Derivation by phase. *MIT Occasional Papers in Linguistics* 18.

Chomsky, N. 2001. Beyond Explanatory Adequacy, Ms. MIT.

Hiraiwa, K. 2000. Multiple Agree and the Defective Intervention Constraint in Japanese. http://web.mit.edu/hiraiwa/www/home.html.

Lasnik, H. 2001. Subjects, Objects, and the EPP. In W. D. Davis and S. Dubinsky, eds., *Objects and Other Subjects: Grammatical Functions, Functional Categories, and Configurationality*. Kluwer.

Lee, J. 2001. Dual roles of expletive 'there': Probe and goal. *Studies in Generative Grammar* 11, 405-446.

Lee, J. 2002a. A typological analysis of wh-questions and the scope of wh-words. *Studies in Modern Grammar* 28, 57-128.

Lee, J. 2002b. 'That-trace' effects, Aux-Inversions, and subject islands as Kin. *Studies in Generative Grammar* 12, 373-412.

Lee, J. 2003. Phase sensitivity in wh-dependencies. *Korean Journal of Linguistics* 28, 67-89.

Pesetsky, D. and E. Torrego. 2000. T-to-C Movement: Causes and Consequences. In Michael Kenstowicz, ed., *Ken Hale: A Life in*

Language. MIT Press.
Rizzi, L. 1990. *Relativized Minimality*. MIT Press.
Uriagereka, J. 1999. Multiple spell-out. In S. D. Epstein and N. Hornstein, eds., *Working Minimalism*. Cambridge, MA: MIT Press.

Jaecheol Lee
Linguistics Dept. University of Maryland
College Park, MD 20742-7505
U.S.A.
E-mail: jaecheol75@hotmail.com

received: 2003. 1. 6.
accepted: 2003. 2. 26.