# Agree to Move?*

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In Chomsky (1998), Move is defined as a composite operation consisting of three components: Agree, Identify and Merge. I will argue that the definition of Move as a composite syntactic operation cannot be maintained. In particular, I will claim that, as there is no composite transformation such as Passivization, there is no composite operation like Move as defined in Chomsky (1998). I will also argue that his definition of Move may give rise to a serious "look-ahead" problem. Furthermore, I will show that his Activization hypothesis that only the expression with an uninterpretable feature is accessible to syntactic operations leads us to make an *ad hoc* assumption that the expletive *there* merged to SPEC-T is an $X^0$ head. The present paper will present reasons why the operation Agree allows a probe to skip the expletive *there* in searching for its goal, whereas Move must raise the expletive located closer to the probe. On the basis of these observations, I will claim that Agree and Move should be regarded as separate syntactic operations; the task of Agree is to erase uninterpretable features of both probe and goal, and that of Move is to satisfy the EPP-feature. I will also claim that we do not need to keep the thesis that simpler operations (Merge, Agree or their combination) are chosen over Move, even though Move is analyzed as a more complex operation.

## 1. Introduction

Chomsky (1998 : 52) defines that Move of $\beta$, targeting $\alpha$, consists of the following three components:

(1) I. A probe P in the label L of $\alpha$ locates the closest matching G [goal] in its domain

II. A feature G′ of the label containing G selects a phrase $\beta$ as a

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candidate for "pied-piping"
III. $\beta$ is merged to a category K

In other words, he claims that the operation Move is a *composite* operation involving Agree (= (1I)), Identify (= (1II)) and Merge (= (1III)).[1] The present paper is to argue (i) that conceptually Move should not be analyzed as a composite operation like one of the traditional transformations such as Passivization, and (ii) that empirically there are no reasons to assume that Move is an economically more complex operation than Merge. In the following section, I will argue that the claim that simpler operations (that is, Merge, Agree or their combination) prevent Move from applying is conceptually incorrect, and that Move and Agree should be analyzed as independent syntactic operations. In section 3, I will show that the definition in (1) contains serious "look-ahead" properties. In section 4, we will examine the possibility that Move applies only to meet an EPP-feature of a relevant functional category. In section 5 it will be argued that empirically there is no need to assume that Move is chosen when nothing else (Merge or Agree) is possible. Section 6 will conclude the paper.

## 2. Agree and Move

Chomsky (1998) assumes that there are three computational operations in the grammar: Merge, Agree, and Move. The operation **Merge**, which is indispensible for any language-like system, selects two syntactic objects ($\alpha$, $\beta$) and forms a new syntactic object K ($\alpha$, $\beta$), as it has been since its inception in the grammar. The second operation **Agree**, which I believe is introduced for the first time in generative grammar as a formal syntactic operation,[2] establishes a relation between (a set of) features in a lexical item (LI) $\alpha$ and (a set of) features F in the domain of $\alpha$.[3] The third operation **Move** is defined as follows: it first establishes agreement between

[1] Identify may not be a syntactic operation, but it is claimed that its application adds to the complexity of Move.

[2] In fact, there is an operation very similar to Agree in Chomsky (1993, 1995): checking. But checking is treated as an ancillary process of the operation Move. I believe that checking should have been treated as one of the major computational operations, as Agree in Chomsky (1998).

[3] The domain of a head P is the c-command domain of P.

a *probe* of an LI $\alpha$ and a *goal* F in its domain and then merges P(F) to $\alpha$P, where P(F) is determined by F and $\alpha$P is a projection headed by $\alpha$. The notion of Move in Chomsky (1998) differs from that in Chomsky (1993, 1995) in two respects:

(2) a. Move is a combined operation of Agree(, Identify) and Merge
b. there is no longer covert feature Move

(2a) implies that conceptually Move is more complex than Merge. (2b) says that the phenomena that used to be analyzed in terms of covert Move must be accounted for by some other mechanism.[4]

According to the definition given above about Move, Agree must take place between an attracting lexical item $\alpha$ and a formal feature F contained in a phrase P(F), before Move applies to raise P(F) and merges it to $\alpha$P, a projection of $\alpha$. To understand how Agree and Move operate in Chomsky (1998), let's consider the derivation of sentence (3).

(3) An unpopular candidate was elected

Suppose that at some stage of the derivation of (3) we have the following structure:

(4) T-was elected an unpopular candidate

The structure in (4) contains three kinds of *uninterpretable* features: (i) the set of agreement features (i.e., $\phi$-features) of T, (ii) the EPP feature of T, and (iii) the structural Case of *an unpopular candidate*. The $\phi$-set of T acting as a probe seeks a goal, a set of "matching" features to establish agreement, erasing uninterpretable features of both probe and goal. This is called Agree. In (4) the goal is the $\phi$-feature set of *an unpopular candidate*, including the nominative Case. But the EPP feature of T must also be satisfied and erased; in this case, by raising the phrase P(G), *an unpopular candidate*, determined by the goal, to SPEC-T.

Chomsky (1998 : 42) claims, "The combination of selection of P(G), Merge of P(G), and feature-deletion under match (Agree) is the composite operation Move, which dislocates "an unpopular candidate," eliminating all uninterpretable features." I do not believe that Move is a composite

[4] This means that the grammar no longer needs the principle of Procrastinate.

operation which consists of the processes of seeking a goal for Agree, determining a phrase for Move, and moving the phrase to satisfy the EPP feature. As it is claimed in the earlier model of generative grammar that the three elementary transformations (i.e., movement, insertion, and deletion) happen to co-occur in English passive constructions, but there are no transformational rules such as Passivization, I claim that the three processes, described in (1), happen to occur together in the derivation of sentences like (4), but there is no such thing as a *composite* operation Move, as assumed in Chomsky (1998).

First of all, Chomsky's (1998 : 14) claim that "... Merge or Agree (or their combination) preempt Move ..." *conceptually* contradicts his definition of Move given in (1). If Move is a composite operation of Agree and Merge (plus Identify) as defined in (1), how do its subcomponents Merge and Agree (or their combination) prevent the operation of which they are parts from taking place? In other words, according to (1) Move of a phrase means that (i) the phrase must be selected by an uninterpretable feature in a goal for Agree, and that (ii) it is merged to SPEC-$\alpha$, $\alpha$ containing a probe. If his claim is true, human languages must not have any movement properties, because in his system Agree and Merge, which are subcomponents of Move, always *preempt* Move. Therefore, I claim that Move should not be regarded as a composite operation consisting of Agree and Merge (plus Identify) as defined in (1) but an independent syntactic operation.

Next, it is not difficult to find *empirical* evidence in which the P(G) that contains a goal for Agree does not coincide with a syntactic object that is moved by Move. Consider the following English expletive construction, which shows that Move has nothing to do with Agree:

(5) There seems [$_{TP}$ *t* to be someone in the backyard]

At some point of the derivation of (5), we will have the following intermediate structure:

(6) T-seems [$_{TP}$ there to be someone in the backyard]

Under the assumptions of Chomsky (1995), in order to derive (5) from (6) the expletive *there* first moves to SPEC-T overtly, and then the $\phi$-features of *someone* covertly raise and adjoin to matrix T (checking the relevant features). Under the assumptions of Chomsky (1998), however, the operation Agree applies first: the probe, the $\phi$-set of T, seeks a goal

(matching features of *someone*) for agreement, eliminating the uninterpretable $\phi$-set of T and the structural Case of *someone*. But what raises to SPEC-T in this case is not the phrase *someone* determined by the goal, but the expletive *there*. In other words, in (6) T agrees with *someone*, but identifies the expletive *there* as a phrase for dislocation. This expletive construction clearly shows that Move does not necessarily presuppose Agree. In other words, a candidate for Move is not always determined by the goal of a probe. If the above account is correct, structures like (5) clearly show that Move and Agree are independent operations.

The following simple expletive example also shows that the P(G) containing a goal for Agree is not identical with the phrase that merges to SPEC-T to meet the EPP:

(7) There is someone in the backyard

Before we merge the expletive *there* to SPEC-T, we will have the following structure:

(8) T-is someone in the backyard

In (8) the probe $\phi$-set in T takes matching features of *someone* as its goal, but the expletive *there* merges to SPEC-T instead of raising *someone* to SPEC-T, again indicating that Move and Agree are independent operations.

The following English ECM construction is another example in which a phrase containing a goal for Agree is different from a phrase that satisfies the EPP:

(9) He believes there to be someone in the backyard

At some stage of the derivation of (9), we will have a structure like (10) as its intermediate structure:

(10) $[_{v'}$ $v$ $[_{VP}$ believe $[_{TP}$ there T (= to) $[_{VP}$ be someone in the backyard]]]

In (10) the embedded T as a probe takes the $\phi$-features of *someone* (including Case) as its goal for Agree, perhaps erasing the uninterpretable [person] feature of T but not the uninterpretable accusative Case of *someone* according to Chomsky (1998), because the T of the complement of raising and ECM predicates is "defective."[5] Thus, we can say that "full"

[5] Chomsky (1998) assumes that T of complements of raising and ECM predicates is

agreement does not take place between the "defective" T and *someone*, meaning that the latter has to undergo further agreement with $v$ to eliminate its uninterpretable Case feature. But I do not see any connection between the P(G) (i.e., *someone*) containing the goal (G) of the probe (in this case, the embedded T or $v$) for Agree and the expletive *there* merged to embedded SPEC-T. To put differently, the goal for Agree selects *someone*, but what is merged to embedded SPEC-T to meet its EPP-feature is the expletive *there*.

In summary, I have argued that the definition of Move as a composite syntactic operation as in (1) cannot be maintained conceptually as long as it is assumed that the so-called "simpler operations" Merge and Agree preempt more complex operations like Move. I have presented English expletive constructions as empirical evidence that shows that Move and Agree are independent operations.

## 3. Global Properties of Move

In this section, I am going to argue that Chomsky's (1998) comments on the definition of Move in (1), repeated here for convenience, may give rise to a serious "look ahead" problem that he tries to avoid.

(1) I. A probe P in the label L of $\alpha$ locates the closest matching G [goal] in its domain
  II. A feature G′ of the label containing G selects a phrase $\beta$ as a candidate for "pied-piping"
  III. $\beta$ is merged to a category K

Chomsky (1998 : 52) adds to (1), "P and G′ are uninterpretable. P deletes if G is *active* (Suicidal Greed). G′ also deletes, but *it cannot delete in step* (I) *before carrying out its function in step* (II) [emphasis is mine]."

Suppose we apply (1) to (4), repeated here as (11).

(11) T-was elected an unpopular candidate

First, the operation Agree, step (I) of (1), applies to (11): the probe P, the $\phi$-feature set of T, takes the $\phi$-feature set of *an unpopular candidate* as

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defective, so that it has only [person] feature.

its closest goal G, and deletes (Suicidal Greed), because the goal is "active."[6] But G′, the uninterpretable nominative Case-feature of *an unpopular candidate*, which makes the goal active, cannot delete in step (I). If it were deleted, step (II) cannot apply to determine the DP as a candidate for "pied-piping", because G′ is no longer available.

He goes on to say, "There are reasons to suppose that G [HBL: G′] cannot delete before step (III), but I will defer the matter."[7] Step (III) is the final step of "pied-piping" a phrase selected by G′ of the label containing G (in this case, *an unpopular candidate*) to SPEC-T. Why does G′ have to remain until application of step (III)? To be "pied-piped," *an unpopular candidate* has to remain active by containing an uninterpretable Case-feature. He does not specify when and how G′ deletes. But, for the sake of discussion, let's suppose that the uninterpretable Case-feature deletes simultaneously with application of step (III).

Then, let's compare the derivations of the expletive sentence in (12a) and its corresponding non-expletive sentence in (12b).

(12) a. There seems [ *t* to be someone in the backyard]
b. Someone seems [ *t* to be *t* in the backyard]

At some stage of the derivation, both sentences in (12) will have the following intermediate structure:

(13) $[_{T'}$ $T_{def}$-be someone in the backyard]

Since Chomsky (1998 : 40) assumes that only a probe with a *full* complement of $\phi$-features is capable of erasing the uninterpretable feature that makes the matching goal active, the "defective" probe $T_{def}$, which is assumed to have just the [person] feature (see footnote 5), cannot delete the uninterpretable nominative Case of the associate nominal in (13). We can either merge the expletive *there* or raise the associate *someone* to SPEC-$T_{def}$; if the initial lexical array contains *there*, Merge applies, but if it does not, Move applies, deriving the structures in (14), respectively:

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[6] Chomsky (1998) claims that a syntactic object must contain an uninterpretable feature to be visible to an operation. Once it is deleted from a syntactic object, it becomes inactive and "frozen in place."

[7] I think G should be G′ in the above quotation, because G, being the set of interpretable features, must not be erased during a derivation.

(14) a. [$_{TP}$ there to be someone in the backyard]
b. [$_{TP}$ someone to be *t* in the backyard]

If we merge the verb *seem* and the functional category T to structures in (14), we obtain the structures in (15), respectively.

(15) a. T-seems [$_{TP}$ there to be someone in the backyard]
b. T-seems [$_{TP}$ someone to be *t* in the backyard]

Notice that both *there* and *someone* in (15) are computationally active syntactic objects, because their uninterpretable features ([person] in the former[8] and nominative Case in the latter) are not erased, as we have indicated above that the embedded T, being defective, is not capable of deleting relevant uninterpretable features.

The derivation of (12b) from (15b) exactly follows the steps described in (1): the $\phi$-feature set of nondefective T locates the $\phi$-set of *someone* as its goal, the nominative Case feature G′ of *someone* selects *someone* as a candidate for "pied-piping", and finally *someone* is merged in SPEC-T. As we have mentioned above, however, according to Chomsky (1998) we cannot delete the uninterpretable nominative Case-feature of *someone* in step (I), because we want it to remain active until we complete steps (II) and (III). The derivation of (12a) from (15a), however, is quite different from that of (12b) from (15b): the probe P of T takes the $\phi$-feature set of *someone* as its goal G (step (I)). But, unlike in (15b), the Case-feature G′ of *someone* can (perhaps must) delete at this point before step (II), because it does not play any role in determining the phrase for "pied-piping" in this construction. Instead, the expletive *there*, located closer to T than *someone*, is selected as a candidate for "pied-piping," and merged to SPEC-T. If this is true, it is obvious that we have to know in advance (or "look ahead") whether G′ functions in selecting a phrase for "pied-piping" or not, before we decide to delete G′ (i.e., Case-feature). If G′ determines the phrase for "pied-piping," it has to remain until the completion of step (III); if not, it deletes with application of Agree (i.e., step (I)).

In summary, I have argued that the definition of Move in (1) shows global (i.e., "look ahead") properties. When we apply step (I) of (1), we have

[8] Chomsky (1998) assumes that the expletive *there* contains an uninterpretable [person] feature, which makes the expletive computationally "active," so that it is visible to Merge and Move.

to know in advance whether a phrase containing a goal is to be selected and "pied-piped" or not, before we delete its uninterpretable features. If it is, we have to keep them intact until the completion of steps (II) and (III). Otherwise, they delete upon application of step (I).

## 4. Move and EPP-feature

Chomsky (1998 : 37) claims, "The EPP feature [of a head] requires that something be merged in [its SPEC] position." I believe that this requirement is enough for Move to apply; in other words, "something" does not have to agree with the $\phi$-set (i.e., the probe) of a head in order for it to move. The example in (12a) clearly shows the fact: the expletive *there* in SPEC-T does not undergo agreement with T. The syntactic object that is selected by a probe of a head for Agree (*someone* in this case) is different from the syntactic object for Move (*there*) to satisfy the EPP feature of the head.[9] If a goal for Agree is required to have matching features with its probe, what properties is a syntactic object required to have in order to be selected as a candidate for Move? I claim that a candidate for Move is simply a syntactic object with "phonetic content." I assume, contrary to Chomsky (1998), that the expletive *there* contains, except its categorial D-feature, no features that are accessible to syntactic operations, in particular Agree. In other words, in (15a) the probe of matrix T cannot see *there* that is located closer to it than *someone*, because the expletive does not contain any formal features accessible to Agree.

Then, let's consider how Chomsky's (1998) assumption that the expletive *there* contains an "activating" uninterpretable feature [person] complicates the grammar. First of all, in his system we have to make an *ad hoc* assumption to delete the [person] feature of *there* in structures like (7) and (12a).[10] Since the deletion of an uninterpretable feature is a property of Agree, not Merge, Chomsky (1998 : 44) assumes that *there* of SPEC-T in

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[9] In Chomsky (1993, 1995) the EPP feature is identified with the D-feature. But Chomsky (1998) assumes that a categorial feature cannot enter into a computational operation, eliminating features like V-feature and N-feature from the set of formal features for syntactic operations.

[10] Note that the [person] feature of *there* cannot delete in structures like (12a) as the Case-feature of *someone* in (12b) cannot, because the probe of T is defective. But see the discussion below.

structures like (7) and (12a) is an $X^0$ head, its uninterpretable [person] feature acting as a probe and the $\phi$-feature set of T as its goal.[11] It is obvious, however, that this assumption cannot hold: by the time that the expletive *there* moves to SPEC-T as in (12a), the $\phi$-feature set in T that has acted as a probe in (15a) has already been deleted, so that the T no longer contains features that can act as a goal.

Another question that Chomsky's (1998) account of *there* is related to the problem of whether we can give a similar account for the expletive *there* in ECM constructions like (9), repeated here as (16).

(16) He believes there to be someone in the backyard

As indicated above, (16) will have the following structure at some stage of its derivation:

(17) $[_{v'}$ $v$ $[_{VP}$ believe $[_{TP}$ there T (= to) $[_{VP}$ be someone in the backyard]]]

In (17), the expletive *there* does not raise to SPEC-$v$ so that it cannot be an $X^0$ head deleting the $\phi$-feature set of $v$. If this is so, $v$ has to bear the burden cf checking (i.e., agreeing) and erasing both the [person] feature of *there* and the accusative Case feature of *someone*. Furthermore, it is not clear why *there* in SPEC-$T_{def}$ in structures like (15a) does not act as an $X^0$ head, deleting the uninterpretable [person]-feature of $T_{def}$ and its own [person]-feature as well. He does not present any reason that the expletive *there* can act as a $X^0$ head only in SPEC-$T_{nondef}$.

It is interesting to note that in Chomsky (1998) we cannot find any discussion of the reasons that T in structures like (15a) selects *someone*, not *there*, as its goal for Agree, which is located closer to it. We cannot say that there is no matching set of features in *there*; if so, how can *there* in SPEC-T act as a probe for T in (12a), as he claims? However, as I have claimed above, suppose *there* does not contain any formal features that are visible to the operation Agree. Then, the reason that *there* is not selected as a goal is simple: Agree cannot see *there* as a candidate of either a probe or a goal. In (15a) the probe of matrix T selects the $\phi$-set

[11] If a T that has only [person] feature is defective, the expletive *there*, which is assumed to have only [person] feature, must also be defective. If it is so, *there*, cannot act as a probe, because only a head with a full complement of agreement features can.

of *someone* as its goal for Agree, skipping *there* located closer to it.

The immediate question that we may raise at this point is how then the operation Move selects *there* as a syntactic object for "pied-piping." The reason is straightforward: Move applies only to satisfy the EPP-feature of some functional head, and an EPP-feature can be met with "something with phonetic content." [12]

Probably, the thesis that an EPP-feature can be satisfied with something only with phonetic content is too strong. It seems that categorial features may also have something to do with an EPP-feature. We know that it is not the case that any category can be selected as a specifier of every functional category. In other words, functional categories c-select their specifiers, as they c-select their complements. [13] For instance, as the functional category C invariably selects TP as its complement, it selects a wh-expression as its specifier. [14]

(18) a. What did you buy?
b. *Something did you buy?

(18b) is ungrammatical, because a nominal expression without a [wh-] feature fills in SPEC-C.

It seems that under the assumptions of Chomsky (1998) we have to assume that we have overt Object Shift to SPEC-$v$ even in English. Consider the following wh-sentence:

(19) Who do you like?

(20) is an intermediate stage for (19).

(20) [$_{vP}$ you $v$ [$_{VP}$ like who]]

In (20) the direct object *who* must move to SPEC-$v$ before it moves to

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[12] Here, I tacitly assume that PRO does not move to SPEC-T in control structures. I further assume that the EPP-feature is not universal for T. I propose that we extend Chomsky's (1998 : 26) (8) to all CFCs (i.e., core functional categories, C, T, and $v$): an CFC may be assigned an EPP-feature.

[13] See Kim (1999), in which an EPP-feature is analyzed as an uninterpretable selectional feature.

[14] If we assume that SPEC-C is also position for topic, focus, scope-marking operator, etc., we may have to say that C with [Q]-feature selects a wh-phrase as its specifier.

SPEC-C because of the phase-impenetrability condition (Chomsky 1998 : 22): [15]

(21) In phase $\alpha$ with head H, the domain of H is not accessible to operations outside $\alpha$, but only H and its edge.
where, given HP = [$\alpha$ [H $\beta$]], $\beta$ is the domain of H, and $\alpha$ its edge.

According to (21), Move applying to phase CP cannot access to *who* in the domain of the lower phase $v$P in (22):

(22) [$_{C'}$ C [$_{TP}$ you T [$_{vP}$ $t_{you}$ like-$v$ [$_{VP}$ $t_{like}$ who]]

If it moves to SPEC-$v$ as in (23), however, Move applying to C can see the specifier (i.e., edge) of phase $v$:

(23) [$_{C'}$ C [$_{TP}$ you T [$_{vP}$ who $t_{you}$ like-$v$ [$_{VP}$ $t_{like}$ $t_{who}$]]

If this is true, in English the functional category $v$ may select a phrase with [wh]-feature as its specifier, whereas it invariably selects VP as its complement.

However, it does not seem to be the case that a functional category always directly selects its specifier, as in θ-role assignment of a verbal head. [16] For instance, as the functional category T generally allows a nominal expression as its specifier, it may also allow an expression of a particular kind as its specifier, depending on the kind of verbal element it takes as its complement. It is well known that T allows the expletive *there* as its specifier in case it has a projection of an unaccusative verb (e.g., *arise, appear, arrive, be, come, happen, go, occur, roll, stance, sit*, etc.) [17] as its complement:

(24) a. *There* **appeared** a ghostly face at the window
b. *There* **stands** a stature of the explorer in front of the building

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[15] CP or $v$P, but not TP, are regarded as phases.

[16] See Marantz (1984). He argues that although verbs directly select (i.e., assign θ-roles to) their internal arguments, it is not the verb but the V-bar that determines the θ-role assigned to its external argument. But as far as functional categories are concerned, selection must be understood as c-selection, but not as s-selection in substantive categories.

[17] Semantically, unaccusative verbs express movement, existence, coming into existence, and change of state.

(25) a. *When the train arrived late, *there complained* many passengers
b. **There apologized* Mr. Smith for his son's impoliteness

Another characteristic of unaccusative verbs is that they allow locative inversion as in (26):

(26) a. *Down the hill* **rolled** John
b. *At the table* **sat** three judges wearing dark robes

Collins (1997) points out that in a locative inversion construction the locative PP moves to SPEC-T. If this is true, it is obvious that categories of the expressions that may appear in SPEC-T are not determined by T alone, but by T-bar (i.e., T + verbal complement). He also argues that a verb that may have direct speech complement may have a quoted phrase in its SPEC-T, which he calls quotative inversion. Compare the sentences in (27):

(27) a. "I am so happy," Mary thought
b. "I am so happy," thought Mary

Sentences like (27b) indicate that T-bar rather than T c-selects expressions that can fill in SPEC-T to meet the EPP-feature.[18]

In summary, I have argued that Move is a syntactic operation that applies only to meet an EPP-feature of a functional category. In particular, I claim that an EPP-feature of a functional category should be analyzed as an uninterpretable c-selectional feature for its specifier.

## 5. Move and Economy Conditions

Next, let's consider how the operation Move is treated in the minimalist program under economy considerations. Of the three computational operations, Merge, Agree and Move, Merge is claimed to be indispensable in any language-like system, but Agree and Move are found only in human

[18] If Collins' (1997) account of locative and quotative inversion constructions are correct, these constructions also support the claim that Agree and Move are separate syntactic operations. In locative and quotative inversion constructions, T agrees with the post-verbal DP, but its EPP-features are satisfied by inverted locative and quotative phrases, respectively.

language. But it is interesting that in Chomsky (1993, 1995, 1998) only Move is an economically more expensive operation than either of the rest, claiming that simpler operations, Merge or Agree (or their combination), preempt Move. Therefore, if there occurs a situation in which Merge/Agree and Move compete for application, economy considerations require that Merge or Agree always win over Move.

In Lee (1997, 1999a), I have argued that the thesis that Merge is preferred over Move because the former is more economical than the latter cannot be maintained. Consider the following examples that Chomsky (1995) frequently uses when he argues for the preference of Merge over Move:

(28) a. There seems [$_{TP}$ *t* to be a man in the room]
b. *There seems [$_{TP}$ a man to be *t* in the room]

Chomsky (1995) claims that the grammaticality status of the examples in (28) presents the evidence that Merge is preferred over Move.

Then, let's consider why it is so. At some point of the derivation of (28), we will have the following intermediate structure:

(29) [$_{T'}$ T (= to) be a man in the room]

There are two possible ways to fill in SPEC-T in (29): we can either insert the expletive *there* as in (30a) or raise *a man* as in (30b).

(30) a. [$_{TP}$ there to be a man in the room]
b. [$_{TP}$ a man to be *t* in the room]

If we merge the verb *seem* and T to the structures in (30), we will obtain the structures in (31), respectively:

(31) a. T-seems [$_{TP}$ there to be a man in the room]
b. T-seems [$_{TP}$ a man to be *t* in the room]

Raising of the expletive *there* to the Spec position of the matrix T in (31a) produces the grammatical sentence in (28a), but merging of the expletive *there* to the Spec position of the matrix T in (31b) produces the ungrammatical sentence in (28b).[19] Chomsky (1995) argues that the result naturally

[19] Of course, we can obtain the grammatical expression, "A man seems [*t* to be *t* in the room]," by raising *a man* to the Spec of the matrix T. But this option cannot

follows if we assume that Merge is chosen over Move in (29), when we generate (30).

Lee (1997, 1999a) has presented an example that directly contradicts the claim that Merge has to apply over Move. Consider the derivation of superraising construction in (32).

(32) *John seems [that it was told $t_{John}$ [that he had to leave]]

At some stage of the derivation of (32), we will have the structure in (33) as an intermediate structure.

(33) [$_{T'}$ T-was told John [that he had to leave]]

As was the case in (29), we have two options for filling in the Spec position of T in (33): we can either insert the expletive *it* or move *John*. Suppose we choose the first option, inserting the expletive *it* to the Spec of the embedded clause, following Chomsky (1995 : 346). Then, we will obtain (34).

(34) [$_{TP}$ it was told John [that he had to leave]]

Next, suppose we merge (34) with the verb *seem* and T. We will get the structure in (35).

(35) T-seems [that [$_{TP}$ it was told John [that he had to leave]]

Clearly, there is no way of obtaining any convergent derivation from (35). If we raise the expletive *it* to the matrix SPEC, it violates one of the most important principles in the grammar:

(36) Last Resort
Move raises $\alpha$ to target K only if some feature F of $\alpha$ enters into a checking relation with some feature F′ of the target K.

Since features of the expletive *it* are all checked in embedded SPEC-TP, raising *it* to the matrix SPEC as in (32) violates (36).

Then, suppose we raise *John* to the Spec of the matrix T as in (37).

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be taken, because it does not exhaust the relevant Numeration, leaving the expletive *there* unused. By definition, the derivation that does not exhaust Numeration crashes.

(37) *John seems [that it was told $t_{John}$ [that he had to leave]]

(37) seems to satisfy the Last Resort Condition, both *John* and *it* entering into relevant checking relations with the matrix T and the embedded T, respectively. (37), however, violates another important principle of the grammar:

(38) Minimal Link Condition
A head H attracts $\alpha$ only if there is no $\beta$, $\beta$ closer to H than $\alpha$, such that H attracts $\beta$.

In (37), the expletive *it* is closer to the matrix T than *John* in $t_{John}$. Therefore, the expletive prevents *John* from raising to the matrix Spec position. This fact shows that if we choose the application of the "cheaper" operation Merge to (33), following Chomsky (1995), we have no way of generating any convergent expression.

Then, it is obvious that we have to choose the option of applying Move over Merge to (33), generating (39), which violates the thesis that Merge is preferred over Move.

(39) [John was told $t_{John}$ [he had to leave]]

Merging of the verb *seem* and T with (39) will produce (40).

(40) T-seems [that [John was told $t_{John}$ [he had to leave]]]

If we merge the expletive *it* with (40), then we get the grammatical sentence in (41).

(41) It seems [that John was told [that he had to leave]]

Chomsky (1995 : 295-297) offers a "global" account of the superraising construction in (32). He claims that what rules out superraising as in (32) is not economy considerations, because economy of derivation is taken into consideration at some stage $\Sigma$ of a derivation only if there is a convergent extension of $\Sigma$. Since in the minimalist framework the most economical (i.e., optimal) derivation is selected only from convergent derivations, it is claimed that economy has nothing to do with structures like (32), which do not lead to any convergent derivations. The conclusion we can draw from the analysis of the superraising construction given above is that whether

we apply Merge or Move to a structure is not determined by economy considerations, but by "looking ahead" which operation (that is, Merge or Move) will eventually lead to a convergent derivation.

Chomsky (1998) keeps the thesis that Merge (and Agree) is less expensive than Move, and thus Merge (or Agree) is preferred over Move by economy considerations.[20] But I do not see any reason that we keep the thesis. In Chomsky (1998), it is assumed that we provide a separate sublexical array for every cyclic node, called phase, CP and *v*P. For example, the sentence in (42) has four (bracketed) phases:

(42) [$_{CP}$ John [$_{vP}$ *t* thinks [$_{CP}$ that Tom will [$_{vP}$ t win the prize]]]

Derivations must proceed phase by phase. In other words, the phase impenetrability condition given in (21) requires that operations applying in a given phase cannot apply solely affecting some lower phases. Thus, if there is something to merge or move in a phase, we have to do it within the phase.

Consider the structure in (29), repeated here as (43).

(43) [$_{T'}$ T (= to) be a man in the room]

As we have discussed above, either the expletive *there* may be merged or *a man* may be raised, yielding (30a) and (30b), respectively. As Chomsky (1998: 18) indicates, the choice depends on whether or not the expletive *there* is included in the sublexical array for the phase under consideration: if it is, Merge applies, but if it is not, Move applies. If it is true, there is no motivation to maintain the thesis that Merge is preferred over Move, because the choice is entirely dependent upon the content of relevant sublexical array.

## 6. Conclusions

In Chomsky (1998), Move is defined as a composite operation consisting of three components: Agree, Identify and Merge (see (1)). I have argued that the definition of Move given in (1) cannot be maintained, because there

[20] See section 2 for the discussion of the subject. Chomsky (1998), for the first time, gives the reason why he thinks that Move is more complex than Merge. See Kitahara (1997) for the different motivations.

are cases (see (7), (9) and (12)) where the phrase for "pied-piping" is not identified by an uninterpretable feature in a goal for Agree. I have claimed that, as there is no composite transformation such as Passivization, there is no composite operation like Move as defined in (1). The derivation of sentences like (3) happens to follow the three processes in (1), as the three elementary transformations (i.e., movement, insertion and deletion) happen to occur together in English passive constructions. I have argued that his definition of Move in (1) and the added comments give rise to a serious "look-ahead" problem; we have to know "in advance" whether the uninterpretable feature G′ of a goal plays a role in selecting a phrase for "pied-piping" or not, before we delete G′. If it does, G′ has to remain until the phrase is merged to a category; if it does not, G′ immediately deletes. Furthermore, his Activization hypothesis that only the expression with an uninterpretable feature is accessible to syntactic operations leads us to make an *ad hoc* assumption that the expletive *there* merged to SPEC-T is an $X^0$ head. Chomsky (1998) does not give reasons that Agree allows a probe to skip the expletive *there* in searching for its goal as in (6) and (10), whereas Move must raise the expletive located closer to the probe. On the basis of these observations, I have claimed that Agree and Move should be regarded as separate operations; the task of Agree is to erase uninterpretable features of both probe and goal, and that of Move is to satisfy the EPP-feature. What properties is a syntactic object required to have in order to satisfy the EPP-feature? I propose that a syntactic object have "phonetic content" to meet the EPP-feature, with a possibility that a functional category c-selects an expression for its EPP-feature. I have also claimed that we do not need to keep the thesis that simpler operations (Merge, Agree or their combination) are chosen over Move, even though Move is analyzed as a more complex operation. As I have argued, the choice of an operation does not depend on economy considerations but the initial lexical choice for phrase.

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