1. Introduction

It has been a standard view in modern syntactic theories that syntactic processes are constrained to apply within certain local domains in the structure. A general concept that restricts syntactic relations to such domains is called Minimality. The investigation into Minimality has been a central topic of research in virtually every major theory of generative syntax. I give a brief review of some major shifts in the investigation in Chomsky's Principles-and-Parameters framework (see Chomsky and Lasnik (1993)) below.

In the Government and Binding (GB) theory, Minimality is concerned with the locality conditions on government. Specifically, it states that a governor cannot govern inside the domain of another governor. This means that in a configuration like (1), X cannot govern Y if Z intervenes between them as a closer potential governor of Y.

(1) ... X ...Z ...Y ...
This concept of Minimality is introduced in Chomsky (1986) in 'an asymmetric way' with respect to two kinds of government, head government and antecedent government, as discussed in Rizzi (1990: 1): an intervening head
governor blocks both kinds of government, whereas an intervening antecedent governor has no such capacity and allows either kind of government from outside.

In contrast with this, Rizzi (1990) proposes a symmetric approach to Minimality, called Relativized Minimality, in GB theory. He argues that an intervening potential governor has a blocking effect relative to the same kind of government relation. That is, if Z is a potential head governor in (1), it blocks only head government from X; if Z is a potential antecedent governor, it blocks only antecedent government from X. Furthermore, assuming with Chomsky (1986: 17) that antecedent government holds of a link of a chain, Rizzi distinguishes three subcases of it in the configuration in (1): when Y is a trace in an A-chain (NP movement), a potential governor Z is an A specifier c-commanding Y; when Y is in an A’-chain (wh movement), Z is an A’ specifier c-commanding Y; when Y is in an X°-chain (head movement), Z is a head c-commanding Y. This system then accounts for the following standard examples of ECP (Empty Category Principle) violations. In (2a), an example of Superraising, antecedent government of the trace of the A-chain is blocked by an A specifier it. In (2b), an instance of a Wh-Island violation, antecedent government of the trace of the A’-chain (How1, t1) is blocked by an A’ specifier which problem. In (2c), an illustration of the Head Movement Constraint violation, antecedent government of the trace of the X°-chain is blocked by a head could.

(2) a. *Johni seems that it is likely t1 to win
    b. *Howi do you wonder which problemj to solve tj t1
    c. *Havei they could ti left?

In the Minimalist Program, Chomsky (1993: 14–15) suggests that these examples of Relativized Minimality violations in (2) and that of a Superiority violation illustrated in (3) are explained in terms of economy considerations:

(3) *Whom2 did John persuade whom1 to visit t2

He indicates that in all of these examples, some element has failed to make ‘the shortest move.’ In each example in (2), movement has skipped a position that could have been reached by a shorter move if the position had not been occupied. In (3), movement of whom2 to the specifier of the matrix CP is longer (in terms of c-command) than movement of whom1 to the same position.

Pursuing the Minimalist approach, Chomsky (1995) proposes a more explicit analysis of Superraising in (2a) and the Wh-Island violation in (2b). He argues that these examples are subsumed under the Minimal Link
Condition (MLC) given in (4a). Specifically, as for (2a), raising of John to the matrix subject position is blocked by the shorter movement option that raises it to the same target. In the same way, moving How is barred by the option of moving the closer element which problem in (2b). Noting that the shorter movement satisfying the MLC does not yield a convergent derivation in Superraising in (2a), unlike the Wh-Island violation in (2b), Chomsky claims that the MLC should be part of the definition of Move, not an economy condition that chooses among convergent derivations (Chomsky (1995: 296)). Furthermore, suggesting that it is more natural to interpret the operation of movement as attraction by the target, he incorporates the MLC in the definition of Attract F in (4b). The relevant notion of closeness is defined as (4c):

(4)  
a. $\alpha$ can raise to target $K$ only if there is no legitimate operation Move $\beta$ targeting $K$, where $\beta$ is closer to $K$.

b. $K$ attracts $F$ if $F$ is the closest feature that can enter into a checking relation with a sublabel of $K$.

c. If $\beta$ c-commands $\alpha$ and $\tau$ is the target of raising, then $\beta$ is closer to $K$ than $\alpha$ unless $\beta$ is in the same minimal domain as (i) $\tau$ or (ii) $\alpha$.  


With this brief review, we can still note that there have been some controversial issues concerning Minimality in both conceptual and empirical domains. One of the conceptual problems is whether Minimality is a well-formed condition on representations, which is represented by Rizzi’s (1990) Relativized Minimality, or a derivational condition, which is illustrated by Chomsky’s (1995) Minimal Link Condition. In a later work, Chomsky (2001) gives a representational view of the MLC. Rizzi’s (1990) approach and Chomsky’s (1995) are also contrasted sharply with respect to what syntactic object Minimality is sensitive to: it is typology of positions in phrase structure for Relativized Minimality, whereas it is identity of features for the MLC. In a recent work, Rizzi (2001) notes that both approaches face some problems, and proposes an alternative idea.

Turning to empirical issues, it should be mentioned that there are some constructions whose status remains unresolved with respect to Minimality. One of these is the Head Movement Constraint violation, illustrated in (2c). Although this type of construction is studied extensively in GB theory (see Travis (1984), Baker (1988)), Chomsky (1995: 307) suggests that it may not fit into the Minimalist framework outlined there. Another construction under debate is Superiority violations, exemplified in (3). While Chomsky (1993) takes it as an instance of Minimality
violation, Chomsky (1995: 387, fn. 69) indicates that it has some unclear properties. It should be noted, however, that concerning Superiority phenomena, several important findings have been made in the studies of multiple wh-movement in Slavic languages in the last decade (see Richards (2001) and references cited therein). These works have motivated further inquiry into the phenomena and Minimality.

The book under review has been published with this background. It comprises an introduction by the editors, providing concise discussion on research questions concerning Minimality and the MLC, and twelve articles: eight among them were presented at the Workshop “Minimal Link Effects in Minimalist and Optimality Theoretic syntax” held at the University of Potsdam on March 21–22, 2002. Nine papers are written in the Minimalist framework proposed in Chomsky (1993, 1995, 2000, 2001), the other three in the framework of Optimality Theory (Prince and Smolensky (1993)). The empirical phenomena and the theoretical proposals concerning the MLC discussed by these articles are quite diverse, as we see briefly below.

Three articles by Bošković, Fischer, and Poole and Burton-Roberts are concerned with a phenomenon called Stylistic Fronting (SF), in which an element such as a participle or an adverb is moved to the front of the finite verb. Bošković (‘PF merger in stylistic fronting and object shift’) proposes an account of several puzzling properties of SF and object shift in Scandinavian under PF merger analyses of the constructions. He indicates that the proposed analyses provide support for the multiple spell-out hypothesis, which further provides an argument for a derivational model of grammar. Fisher (‘Stylistic Fronting: A contribution to information structure’) investigates SF in Old Catalan. Although SF is often claimed to be an effect of the MLC in previous studies, she proposes that it contributes to information structure. Poole and Burton-Roberts (‘MLC violations: Implications for the syntax/phonology interface’) study several word-order effects concerning SF in Icelandic and long head movement in Breton. They argue that an apparent conflict with the MLC found in these constructions does not constitute evidence against the MLC, proposing an account of them in phonological terms.

Two articles by Anagnostopoulou and Stepanov focus on apparent violations of the MLC found in A-movement and Case assignment. Anagnostopoulou (‘On clitics, feature movement and double object alternations’) investigates the distribution of dative arguments in Greek. She proposes that clitic doubling and cliticization provide a way to avoid the MLC effects
in A-movement, raising the formal features of an intervening element before a lower argument moves. Stepanov ('Ergativity, Case and the Minimal Link Condition') studies Case assignment to the objects of transitive verbs in ergative languages, in particular, Hindi. He argues that the ergative subject, which potentially interferes with the process, is introduced into the structure postcyclically and the MLC is not violated.

Three articles by Hale and Legendre, Lee, and Vogel argue for reconstruction of the MLC under Optimality Theory (OT). Hale and Legendre ('Minimal links, remnant movement, and (non-)derivational grammar') propose an alternative non-derivational account of incomplete category fronting in German, for which Müller (1998) provides a derivational analysis. Lee ('Minimality in a lexicalist Optimality Theory') examines Minimality effects found in a word order freezing phenomenon in Hindi, and presents an analysis of them in the framework of Optimality Theoretic Lexical-Functional Grammar (Bresnan (2000) among others). Vogel ('Correspondence in OT syntax and Minimal Link effects') explores an architecture for OT syntax based on the concept of correspondence (Jackendoff (1990)), and shows how such a system derives Superiority effects in English and German and word order freezing effects in German.

The other four articles by Fanselow, Haider, Lechner, and Müller discuss various conceptual issues concerning the MLC. Fanselow ('The MLC and derivational economy') examines operator movement phenomena that seem to violate the MLC in German and other languages. He argues that the MLC is obeyed strictly only when the structural alternatives have identical meanings: its effects are modulated when different forms of movement are inevitable to express different semantic relations. Haider ('The superiority conspiracy: Four constraints and a processing effect') considers wh-in-situ restrictions in Germanic languages and indicates that the patterns of wh-in-situ do not observe a simple concept of locality such as the MLC. He argues that the core patterns of wh-in-situ are determined by grammatical factors that are independent of the MLC. Lechner ('Extending and reducing the MLC') argues for refinement of the MLC in two ways. First, its scope is extended to capture certain aspects of Merge, and a new analysis of Case Freezing is presented. Second, by subsuming certain properties of the MLC into the Linear Correspondence Axiom (Kayne (1994)), he proposes an alternative analysis of Superiority phenomena. Müller ('Phrase impenetrability and wh-intervention') argues that in order to pursue a derivational approach to syntax, constraints that presuppose search space should be abandoned and those that minimize search domain should be strengthened. With this tenet,
he proposes a more restrictive version of the Phase Impenetrability Condition than Chomsky’s (2000, 2001), and develops an analysis of certain Superiority effects in English and German without recourse to the MLC.

Given this variety of topics, it would not be appropriate to examine each article in this review. Instead, I will focus on the three papers by Anagnostopoulou, Stepanov, and Müller and discuss some empirical issues concerning the MLC effects found with long distance A-movement and long distance agreement.

2. Long Distance Movement and the Minimal Link Condition

Anagnostopoulou studies A-movement in dative constructions in Greek and provides an account of it on the basis of the MLC in (4). I consider some relevant examples and her analysis given to them in 2.1, and raise two empirical questions about the analysis in 2.2.

2.1. On Clitics, Feature Movement and Double Object Alternations, E. Anagnostopoulou

Dative arguments in Greek can be realized in several different morphosyntactic forms. As shown in the ditransitive sentences in (5), the goal argument can be realized as a DP with morphological genitive Case or a PP:

(5) a. Edosa tu Janni to vivlio
    Gave-I the John (Gen) the book (Acc)
    ‘I gave John the book’

b. Edosa to vivlio s-ton Janni
    Gave-I the book (Acc) P-Det (to-the) John (Acc)
    ‘I gave the book to John’

(Anagnostopoulou (under review: 16))

The genitive DP in (5a) is considered to correspond to dative DP arguments in other languages, since Greek has generalized the use of genitive Case for both morphological dative and genitive Case. Anagnostopoulou argues that the alternation between the two constructions in (5) corresponds to the dative alternation in English: the genitive goal in (5a) is the counterpart of the goal object in the double object construction, whereas the se-dative in (5b) is the counterpart of the to-dative.

When the goal argument appears as a DP, it can be doubled by a pronominal clitic, as shown in (6a). However, doubling is impossible when the goal is a PP, as shown in (6b):
(6) a. Tu-edosa tu Janni to vivlio.
   Cl (Gen)-gave-I the John (Gen) the book (Acc)
   ‘I gave John the book.’
b. *Tu-edosa to vivlio s-ton Janni
   Cl (Gen) gave-I the book (Acc) P-Det (to-the) John (Acc)
   ‘I gave the book to John.’

(Anagnostopoulou (under review: 17))

Anagnostopoulou observes that the distribution of the dative arguments is restricted in A-movement constructions. When the theme arguments of ditransitive sentences move in passives, the dative arguments can appear as PPs, as shown in (7a). The datives cannot be realized as DPs in this context unless they are cliticized or clitic doubled, as illustrated in (7b) and (7c):

(7) a. To vivlio dothike s-tin Maria (PP)
   The book was given to-the Mary
b. *To vivlio dothike tu Janni apo tin Maria
   (Genitive DP without clitic)
   The book (Nom) was given the John (Gen) by the Mary
   ‘The book was given to John by Mary’
c. To vivlio tis dothike (tis Marias)
   (Genitive DP with clitic)
   The book Cl (Gen) was given the Mary (Gen)

(Anagnostopoulou (under review: 18–19))

However, a different pattern is observed with dative experiencer arguments in raising constructions. They are realized as neither PPs nor bare DPs, as shown in (8a) and (8b). They can appear only as clitic doubled DPs or clitics, as shown in (8c):

(8) a. *Ta pedhia dhên fenonte s-tin Maria na dhiavazoun (PP)
   The children not seem-3pl to the Mary SUBJ read-3pl
   ‘The children do not seem to Mary to study.’
b. *Ta pedhia dhên fenonte tis Marias na dhiavazoun
   (Genitive DP without clitic)
   The children not seem-3pl the Mary (Gen) SUBJ read-3pl
   ‘The children do not seem to Mary to study.’
c. Ta pedhia dhên tis fenonte (tis Marias)
   The children not Cl (Gen) seem-3pl the Mary (Gen)
   na dhiavazoun (Genitive DP with clitic)
SUBJ read-3pl (Anagnostopoulou (under review: 18–19))

Let us consider Anagnostopoulou’s account of these restrictions on the
distribution of dative arguments. She assumes that there are two features associated with T which are responsible for the A-movement operations in question, an EPP feature and a Case feature. She further assumes that these features are manipulated by Feature-Attraction and Move in the way defined in (4) by Chomsky (1995).

Given this, we first look at the contrast between (7a) and (7b) in ditransitive sentences involving the movement of the theme. As for the double object construction in (7b), Anagnostopoulou assumes with Marantz (1993) that the goal argument is introduced by a light verb corresponding to the applicative affix (vAPPL) in applicative constructions. The theme is generated as an argument of the lexical V, whose projection is merged with vAPPL. Moreover, the projection of vAPPL is merged with a causative light verb which introduces the agent argument. If the agent is not projected in passives, (7b) is assumed to have the structure in (9) before the theme moves:

(9) Double Object Construction

```
TP
  /\     
 /  \    
T'   TP
   /\     
  /  \    
T   vP
    /\     
   /  \    
v'   vP
      /\     
     /  \    
    V   vP
       /\     
      /  \    
     DP-Gen (Goal)   v'
        /\     
       /  \    
vAPPL   VP
          /\     
         /  \    
        V   DP-Nom (Theme)
```

(see Anagnostopoulou (under review: 23))

Anagnostopoulou claims that in this structure, the goal DP with genitive Case blocks the movement of the theme to the specifier of T, assuming that genitive DPs have an EPP feature (D feature) that can be attracted by T. The goal DP, being the specifier of vAPPL, is not in the same minimal domain as the theme, which is generated in VP. Neither is the goal in the same minimal domain as the target of the movement of the theme, i.e. Spec, TP. Thus, the goal DP counts as being closer to T than the theme under
the definition of *equidistance* in (4c), and prohibits the theme from moving across it according to (4a). Hence, the example in (7b) violates the principle of *Attract Closest* defined in (4b).

On the other hand, for the PP construction in (7a), Anagnostopoulou assumes that the goal and the theme argument are both generated within the projection of the lexical verb, and are *equidistant* from T, being in the same minimal domain. She claims that this analysis is supported by the fact that either the theme or the goal can undergo movement in comparable passive sentences in English, as shown in (10) (following Anagnostopoulou, we call (10b) dative inversion: see den Dikken (1995)):¹

(10) a. A book was given to Mary.
    b. To Mary was given a book.

(Anagnostopoulou (under review: 24))

Given this, she suggests that the PP construction in (7a) can have either of the two underlying structures in (11). The theme DP and the goal PP are in VP in both structures. However, the theme c-commands the goal in (11a) (see Larson (1988)), while the goal c-commands the theme in (11b) (see Pesetsky (1995)):

(11) PP Construction

\[ \text{PP Construction} \]

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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</tr>
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<tbody>
<tr>
<td>a.</td>
<td>b.</td>
</tr>
<tr>
<td>TP</td>
<td>TP</td>
</tr>
<tr>
<td>T'</td>
<td>T'</td>
</tr>
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<td>T</td>
<td>T</td>
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<tr>
<td>vP</td>
<td>vP</td>
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<td>v'</td>
<td>v'</td>
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<tr>
<td>v</td>
<td>v</td>
</tr>
<tr>
<td>VP</td>
<td>VP</td>
</tr>
<tr>
<td>DP-Nom (Theme)</td>
<td>V'</td>
</tr>
<tr>
<td>V</td>
<td>PP (Goal)</td>
</tr>
<tr>
<td>V</td>
<td>V</td>
</tr>
<tr>
<td>PP (Goal)</td>
<td>DP-Nom</td>
</tr>
<tr>
<td>(Theme)</td>
<td>(Theme)</td>
</tr>
</tbody>
</table>

(see Anagnostopoulou (under review: 24))

If the underlying structure of (7a) is (11a), no locality issue arises with re-

¹ Our informants reported that the construction in (10b) has a poetic or biblical style and can be used in limited contexts.
spect to the movement of the theme to T: it is the highest argument from the beginning. Anagnostopoulou claims that even if the structure is (11b), the theme can still move to T across the PP: the two arguments are *equidistant* from T, being in the same VP, according to (4c).

As for the ungrammatical raising sentence in (8a), Anagnostopoulou provides it with the underlying structure in (12):

(12) Raising Construction

```
          TP
             |
             T'
             |
            T   VP
             |
            PP   V'
             |
             V   IP
             |
            DP-Nom I'
             |
             I
```

(see Anagnostopoulou (under review: 25))

To derive (8a), the subject DP must be moved out of the embedded clause and raised to Spec, TP across the experiencer PP in the matrix clause. She claims that the example is correctly predicted to be ungrammatical because the DP and the PP originate in different minimal domains. Furthermore, she suggests that (8b), where the experiencer argument in the matrix clause is a DP, is ruled out on the same ground.

Next, let us look at the well-formed examples in (7c) and (8c) with clitic doubling and cliticization. Anagnostopoulou provides these examples with the structure in (13), where DP1 corresponds to the goal argument (in the double object construction) or the experiencer (in the raising construction) and DP2 represents the theme (in the double object construction) or the subject of the embedded clause (in the raising construction). She proposes that the clitic, generated as DP1 or a part of DP1, moves to T before DP2 raises:
Consider the situations where the DP1 is a simple pronominal dative clitic (without doubling). Since it has a D-feature as a DP, it is attracted by T. The DP2 is also attracted by T, having Case and phi-features. Anagnostopoulou indicates that in this circumstance, T attracts the clitic first because it is closer to it. Once the clitic moves to T and attaches to T (more exactly, the complex v-T head), it no longer blocks the movement of the DP2 to T. She proposes that this is why the examples in (7c) and (8c) are well-formed with cliticization.

Anagnostopoulou extends this analysis to (7c) and (8c) with clitic doubling. She claims that in these examples, the clitic removes the D feature of the full argument it doubles, i.e. DP1 in (13), when it attaches to T. Therefore, though the full argument remains between T and the DP2, it is ignored when the DP2 moves to T. She regards clitic doubling as an instance of D-feature movement without phrasal pied piping.

2.2. Discussion

Anagnostopoulou proposes a straightforward analysis of the obviation of the MLC effect with clitic doubling and cliticization in (7c) and (8c). However, questions arise about her arguments for the definition of locality that incorporates the notion of minimal domains and equidistance, which are concerned with the examples in (7a) and (10). Her analysis of the raising construction in (8a) also leaves a question about the raising construction in English. We consider these issues in this subsection.
2.2.1. Minimal Domains and Equidistance

She argues that locality is determined by minimal domains and equidistance rather than simply by c-command. In particular, as defined in (4c), when both $\alpha$ and $\beta$ are candidates for attraction by the same target and $\beta$ c-commands $\alpha$, $\beta$ is counted closer to the target than $\alpha$ except two circumstances: (i) $\beta$ is in the same minimal domain as the target and (ii) $\beta$ is in the same minimal domain as $\alpha$. The first clause is instantiated in her analysis of the examples in (7c) and (8c) with clitic doubling and cliticization: though the clitic originates in a higher position than the subject, the clitic does not block the movement of the subject because it moves to the minimal domain of the target first. On the other hand, the second clause does not seem to be motivated satisfactorily in the article. Let us consider details of this point below.

Anagnostopoulou appeals to the clause in (4cii) in accounting for the example in (7a), where the theme DP moves to the subject position leaving the goal PP behind. She proposes that the two arguments are generated in either hierarchical order in the same VP, Theme DP > Goal PP in (11a) or Goal PP > Theme DP in (11b). She suggests that if the correct structure is (11b), this example in combination with (8a) provides a strong argument for the definition of locality in (4c) rather than that in terms of c-command alone. That is, though movement occurs across a PP in both (7a) and (8a), it is well-formed only when the PP is in the same minimal domain as the moved element, i.e. (7a). However, in the article, she seems to provide no evidence for taking (11b) rather than (11a). If it is proved that (11a) is the correct structure, both (7a) and (8a) are explained by a more restricted definition of locality based on c-command alone.

Then, the only example in the article that seems to potentially support the notion of equidistance defined in (4cii) is the construction in (10), where either the theme DP or the goal PP appears to be able to move to the subject position to check the EPP feature. Anagnostopoulou assumes that the two arguments are generated in either hierarchical order in (11a, b), but the lower one can move over the higher one, being in the same minimal domain (see Anagnostopoulou (under review: note 7)). However, this analysis is not warranted to be on the right track. In what follows, we see our own examples indicating that the two arguments are generated in the Theme > Goal order in (11a). Moreover, they suggest that the dative inversion in (10b) is derived by moving the PP not directly to T, but by way of a specifier of VP.

Rizzi (1986) argues that a syntactic chain is required to contain ex-
actly one θ-position and one argument (Case) position (the Chain Condition). According to this condition, the following instance of A-movement in (14) is ruled out as involving an ill-formed chain, with a coindexed phrase β intervening in the sequence of c-command between the antecedent α and its trace:

(14) *α₁ ... [β₁ ... t₁ ...]

However, McGinnis (2004) observes that this kind of long A-movement is attested across languages and not always excluded. Furthermore, she identifies two types of long A-movement that have different derivations shown in (15a, b). In (15a), the moved element YP and the intervening element ZP merge with different heads. She indicates that in this circumstance, the two elements, YP and ZP, can be coindexed. On the other hand, in (15b), the moved element YP and the intervening element ZP merge with the same head, yielding a multiple specifiers configuration. It is this situation where the two elements cannot be coindexed. McGinnis argues that YP cannot be unambiguously linked with its trace (more exactly, its copy) in (15b) if YP and ZP have the same index, which she calls lethal ambiguity:

(15) Two types of long A-movement

a. W
   YP₁
   W
   X
   ZP₁
   X
   [... t₁ ...]

b. * X
   YP₁
   W
   X
   X
   [... t₁ ...]

(McGinnis (2004))

With this in mind, let us return to the dative inversion construction in (10). If the alternation between the two sentences in (10a, b) arises simply because the theme DP and the goal PP start from the same VP, as claimed by Anagnostopoulou, we predict that no lethal ambiguity effect would arise when the theme DP and the goal DP are coindexed. To be more precise, the lower argument, generated as the complement of V, would not have to stop at a specifier of VP when it moves to Spec, TP. However, this prediction is not borne out. The theme DP can bind a reflexive in the goal PP, as shown in (16), whereas the goal DP cannot bind a reflexive as the theme...
The sentences in (17) are minimally contrasted with the grammatical sentences in (18), where the goal DP binds a reflexive embedded in the theme DP:3

(18) a. To Maryi was returned a picture of herselfi.
    b. To Maryi was brought a picture of herselfi.

Given McGinnis' analysis which we saw above, this observation indicates the following two points about the dative inversion construction in (10). Firstly, their underlying structure is (11a), with the theme DP as the specifier and the goal PP as the complement in VP, and not (11b): if it were (11b), the goal PP would move to T without yielding the lethal ambiguity effect in (17). Secondly, when the goal PP raises to T across the theme DP in (11a), it moves through a specifier of VP, yielding a multiple specifiers configuration, as illustrated in (19):

(i) a. To every childi was brought hisi mother.
    b. *To heri was returned Mary’si book.

Note that it is independently observed that the DP object of a preposition is subject to Lethal Ambiguity effects in the same way as a bare DP (without being contained in a PP), as discussed by McGinnis (1998: 204), who attributes the observation to David Pesetsky (personal communication):

(ii) a. I spoke with Rosai about herselfi.
    b. *I spoke about Rosai with herselfi. (Reinhart (1983))
    c. John talked to the meni about each otheri.
    d. *John talked about the meni to each otheri. (Larson (1990))

McGinnis analyzes the examples in (iiia, c) as having their base order and those in (iib, d) as being derived.

2 The following examples indicate that in the dative inversion construction, the DP in the goal PP can bind an element outside the PP. When the DP contains a QNP, it can bind a pronoun inside the theme DP, as shown in (ia). Moreover, when the goal DP is a pronoun and co-indexed with an R-expression within the theme DP, an effect of a Principle C violation arises.

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3 Since the reflexives in (18) do not c-command the trace of the Goal DP, the goal DP is unambiguously linked with its trace (its copy). Thus, the grammaticality of these sentences supports the analysis of the examples in (17) in the text. I thank a reviewer for raising a question on this point.
For some reason, the first step of movement to the specifier of VP seems to be obligatory; otherwise the examples in (17) would be grammatical.

Note that these observations weaken Anagnostopoulou's argument for the definition of locality stated in (4c). She claims that the grammaticality of the example in (7a), where the theme DP moves to T leaving the goal PP behind, can be support for the definition if the underlying structure is (11b). Although the data in (16) and (17) are in English, the corresponding arguments in the Greek example in (7a) are assumed to be projected in the same structure as (11a) under the hypothesis that particular thematic roles are associated with particular syntactic positions (see Baker (1988, 1997), Hale and Keyser (1993)). Moreover, the first step of movement of the goal PP illustrated in (19), which is from the complement to a specifier within the VP, suggests that the two positions are not equidistant from T, contrary to Anagnostopoulou's analysis. It is often assumed in the literature that movement through a second specifier obviates locality violations (see Reinhart (1981) for A'-movement, and Ura (1996) and McGinnis (1998, 2004) for A-movement). The derivation of the dative inversion construction in (19) may be explained along the same lines.

2.2.2. The Derivation of Raising Constructions

As we saw above, Anagnostopoulou claims that the Greek raising sentences in (8a, b), where the subject DP of the embedded clause moves across the experiencer DP or PP in the matrix clause, are correctly predicted to be ungrammatical since the two arguments originate in different minimal
domains. However, the raising construction in English in (20a) is considered to have a similar derivation illustrated in (20b), where the subject DP moves across the experiencer PP in the matrix clause:

(20) a. John seems to Mary to be a genius.
    b. Johni seems to Mary [ti to be a genius]

The question arises why the construction is grammatical in English, while the corresponding one in Greek in (8a, b) is not.

There are pieces of evidence that the subject DP in (20a) can be moved from the embedded clause across the experiencer PP in the matrix clause, as illustrated in (20b). For example, the sentence in (21a) is ambiguous: the existential quantifier contained in the subject DP can take scope either over the matrix verb or under it. Fox (1999) argues that this ambiguity should be attributed to the availability of scope reconstruction to the position of the trace. Furthermore, as shown in (21b), a pronoun contained in the subject can be bound by the quantified NP (QNP) in the experiencer argument. Fox provides evidence that this should also be explained by reconstruction:

(21) a. A first-year student seems to David to be at the party.  
    (Fox (1999: 178))
    b. Hisi father seems to every boyi to be a genius.  
    (Fox (1999: 161))

One might claim that the experiencer argument does not block the raising of the subject because the DP in the experiencer phrase is embedded in a PP and does not c-command elements in the embedded clause (Rizzi (1986)). This account, however, would be difficult to maintain. The experiencer DP behaves as if it c-commands into the embedded clause. As shown in (22a), when the DP is a pronoun and coindexed with an R-expression in the lower clause, a violation of Principle C of the binding theory arises. Moreover, when the experiencer is a QNP, it can bind a pronoun in the complement clause, as shown in (22b):

(22) a. *Mary seems to himi to like Johni.  
    (Pesetsky (1995: 105))
    b. Mary seemed to no onei to like himi very much.  
    (McGinnis (2004: 51))

If we assume the definitions of locality of movement in (4), it is possible that the embedded subject can move across the experiencer argument in the raising construction in English because there is no legitimate operation moving the experiencer to the same target, i.e. T in the matrix clause. This line of analysis gains support from the following data discussed in McGinnis
As shown in (23), the experiencer DP, whether contained in PP or moved out it, cannot move to the subject position:

(23) a. Mary seemed to Bill to be clever.
    b. *Bill seemed to t [Mary to be clever].
    c. *To Bill seemed t [Mary to be clever].

(McGinnis (2004: 73))

The examples in (23b, c) may be ruled out because the Case feature of the embedded subject remains unchecked. However, McGinnis (2004) notes that movement of the experiencer argument is still impossible even when the embedded clause is finite, as shown in (24):

(24) a. It seemed to Bill [that Mary was clever].
    b. *Bill seemed to t [that Mary was clever].
    c. *To Bill seemed t [that Mary was clever].

(McGinnis (2004: 74))

The examples in (23c) and (24c) are contrasted with the dative inversion in (10b), in which the PP is assumed to be moved to the subject position.

Given these, in order to maintain Anagnostopoulou’s analysis of the raising construction in Greek in (8), it would need to be shown that the experiencer argument in the matrix clause does enter into a certain checking relation with (a sublabel of) T. If not, the experiencer could not block movement of the embedded subject and the examples in (8a, b) would be incorrectly predicted to be grammatical like the raising construction in English.

Furthermore, in order to extend her analysis to the raising construction in English, it would need to be explained why the experiencer argument in the matrix clause does not have a checking relation with T. As for the dative inversion construction in (10b), Anagnostopoulou assumes that the dative PP moves to the subject position because it has a D (EPP) feature that can be attracted by T (see Collins (1997) and Alexiadou and Anagnostopoulou (1998)). Then, the experiencer PP in the raising construction in English also has a D feature potentially, which would block movement of the embedded subject, contrary to fact. It is thus left to be explained what is the difference between the two constructions.4, 5

4 The discussion in section 2.2.2 implicitly assumes that the locality conditions adopted by Anagnostopoulou (under review), specifically, those in (4), restrict movement operations not only in Greek but also in other natural languages in the same way. However, this does not seem to be a straightforward matter. A reviewer referred me to Ura’s (1999) proposal, according to which there is a parametric difference concerning what fea-
3. Long Distance Agreement and the Minimal Link Condition

Stepanov proposes an account of a long distance dependency found in Case assignment in ergative languages. I give a summary of his analysis in 3.1, and consider long distance agreement facts in Icelandic and English that do not seem to follow the predictions of his analysis in 3.2.

3.1. Ergativity, Case and the Minimal Link Condition, A. Stepanov

Stepanov studies the mechanism of long distance Case assignment in transitive sentences in ergative languages, in particular, Hindi. As shown in the Hindi example in (25), when the subject of a transitive clause is assigned ergative Case, the object bears a morphologically unmarked clause, called absolutive:

(25) raam -ne roTii khaayii thii.
Ram(m)-erg bread (f.) eat (perf.f.) be (past.f.)
‘Ram had eaten bread.’

(Stepanov (under review: 367), cited from Mahajan (1990))

ture counts as the closest candidate for Agree (Chomsky (2000)) and induces the blocking effect for the MLC. In particular, he argues that languages differ with respect to whether Case-feature and φ-feature are independent of each other in syntactic computations: the two kinds of features induce an intervention effect independently from each other in some languages, while the two yield such an effect only when they are combined together in other languages. On the basis of this, Ura accounts for the fact that the experiencer argument of a matrix predicate induces a blocking effect in the raising construction in Insular Scandinavian languages (Icelandic and Faroese), while no such effect is found in the corresponding construction in Mainland Scandinavian languages (Swedish, Norwegian, and Danish). It should be noted that the difference between the two groups of languages is attributed not to a difference in the phrase structure or any elements contained in it, but to a parametric difference concerning which feature(s) a syntactic operation, i.e. Agree, is sensitive to. There is a possibility that the difference between the raising construction in Greek and that in English discussed in the text is also subject to the same analysis. I thank the reviewer for bringing this point to my attention.

5 There are some recent studies that address the question of why the subject can move across the experiencer argument of the matrix verb in the raising construction in English. McGinnis (2004) argues that the experiencer is ineligible for A-movement because it has inherent Case. Collins (2005) proposes that the construction involves a complex derivation with remnant movement: the embedded clause undergoes extraposition after the subject moves into the matrix VP, and the VP containing the subject moves past the experiencer by clause-internal VP-movement. It remains to be seen how this analysis accounts for the corresponding constructions in other languages that do not allow raising across the experiencer. Thanks to a reviewer for bringing Collins’s work to my attention. See also section 3 for Stepanov’s analysis of the raising construction in English.
Stepanov assumes that in Hindi transitive sentences, the object is assigned absolute Case as a structural Case by T, in parallel to nominative Case, whereas the subject is not assigned any Case from T (cf. Bittner and Hale (1996), Nash (1996), Woolford (1997), among others). He notes that this view is supported by the fact that object agreement, rather than subject agreement, is found in (25), given that agreement is interpreted as a reflex of structural Case (Chomsky (2001) in line with George and Kornfilt (1981)).

In this circumstance, a question concerning locality arises. Given that the ergative subject c-commands the object, the subject is closer to T than the object in (25). Then, the object would be assigned Case from T across the subject, apparently violating the Minimal Link Condition, as illustrated in (26):

(26) \[ T \ldots \text{Subj}^{ERG} \ldots \text{Obj}^{NOM} \]

(Stepanov (under review: 368))

Stepanov claims that despite the appearance, the ergative subject actually does not intervene between T and the object at the time of nominative Case assignment. In particular, he proposes that the subject is introduced into the structure after the dependency between T and the object is established. Following the hypothesis that ergative Case is inherent (Woolford (1997)), Stepanov assumes that the ergative subject in question also bears an inherent Case. Moreover, he proposes that inherently Case marked DPs are Merged into the structure by adjunction, according to the criterion in (27), formulated in Stepanov (2001):6

(27) a. A non-projecting syntactic object \( \alpha \) is Merged with a syntactic object \( \beta \) by adjunction iff the label of \( \alpha \) contains no active ('unchecked') uninterpretable feature(s).

b. A non-projecting syntactic object \( \alpha \) is Merged with a syntactic object \( \beta \) by substitution iff the label of \( \alpha \) contains active ('unchecked') uninterpretable feature(s).

(Stepanov (under review: 375))

Given that the ergative subject in (25) has no uninterpretable features in its label, unlike structurally Case marked DPs, it is assumed to be introduced

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6 Stepanov claims that the factor determining a particular mode of Merger belongs to narrow syntax rather than to theta-theoretic properties of the items to be Merged, i.e. the distinction between theta-theoretic arguments and non-arguments. Uninterpretable features in (27) are represented by structural Case features and wh-features (see Chomsky (2000, 2001)).
into the structure by adjunction.

Furthermore, Stepanov proposes that those syntactic items Merged by adjunction according to (27a) are subject to an economy condition when they are built into a structure. In particular, an instance of adjunction must not be followed by an instance of substitution because it changes a set of c-command relations inside the existing structure (see Stepanov (2001), cf. Chomsky’s (2000) economy condition of ‘Least Tampering’). Stepanov then argues that the ergative subject in (25) should be Merged postcyclically.

With this theory of postcyclic adjunction and the structural distinction between substitution and adjunction in (27), Stepanov illustrates the relevant steps of the derivation of the example in (25), as follows:

(28)  
[TP T raam -ne roTii khaayii thii]  

As can be seen in (28b), when the dependency between T and the object is established cyclically, the ergative subject is not introduced in the structure yet, and no intervention effect arises. The subject can be inserted in (28c) because the dependency has been deactivated by checking the structural Case feature.

Stepanov proposes that raising across the experiencer argument in English, which we discussed in section 2 and is repeated below, is subject to the same analysis:

(20)  
a. John seems to Mary to be a genius.

b. Johni seems to Mary [ti to be a genius]

He suggests that the experiencer DP in (20) also bears an inherent Case and is inserted into the structure by adjunction postcyclically. In particular, it is Merged after the cyclic movement of the embedded subject to the matrix subject position is completed. This is why no intervention effect arises in this construction.

3.2. Discussion

Given Stepanov’s analysis, we predict that long-distance agreement or movement across an intervening element is permitted if the element contains no active uninterpretable feature(s): this is because the (apparent) intervener is Merged by adjunction postcyclically. It is also predicted that such a
long-distance dependency is blocked if the intervening element contains active unintelligible feature(s): the reason is that the intervener is Merged by substitution cyclically.

Although Stepanov’s theory makes explicit predictions about when a long-distance syntactic dependency can be established, it seems to be challenged by data that contradict his predictions. Specifically, we consider some examples in Icelandic and English, which are discussed in Anagnostopoulou (2003). They show that long-distance agreement is tolerated if the intervening element is involved in agreement, indicating that it has an unintelligible feature. On the other hand, long-distance agreement is blocked if the intervener does not participate in agreement, without having unintelligible features.

Anagnostopoulou (2003) provides the following examples from Icelandic. In the infinitival construction in (29), the dative experiencer argument occupies the subject position of the matrix clause and the matrix verb optionally agrees in number with the nominative argument in the infinitival clause. If the matrix verb does not agree with the nominative argument, it appears in the default singular form:

(29) a. Mér póttu/pótti þær vera duglegar
    Me-Dat thought-3pl/dft they-Nom be industrious
    ‘I thought they were industrious’

b. Mér virtust/virtist þær vinna vel
    Me-Dat seemed-3pl/dft they-Nom work well
    ‘They seemed to me to work well’

(Anagnostopoulou (2003: 239), see also Sigurosson (1996))

However, when another dative argument intervenes between T in the matrix clause and the nominative argument in the complement clause in this construction, the matrix verb must surface with default singular form, as shown in (30):

(30) Mér fannst/*fundust henni leiðast þeir
    Me-Dat seem-3sg/*3pl she-Dat to-be bored they-Nom
    ‘I thought she was bored with them’


Following Chomsky (2000), Anagnostopoulou (2003) considers the default agreement in (30) a reflex of an MLC effect. That is, the intervening dative argument blocks agreement between T in the matrix clause and the nominative argument, and the matrix verb is forced to have the default
Furthermore, Anagnostopoulou (2003) contrasts (30) with the following examples of an expletive construction in Icelandic. In this construction, the matrix verb agrees in number with the nominative argument in the embedded clause even though a dative experiencer intervenes between them. The verb has singular morphology, agreeing with Jón in (31a), whereas the verb appears in the plural form, agreeing with þessir stúdentir in (31b). In both examples, agreement occurs across the dative argument sumum málfrœðingum:

\[(31) \text{ a. } \text{Pað virðist sumum málfrœðingum Jón} \]
\[
\text{there seem-sg some linguists-Dat John-Nom} \\
\text{vera duglegur} \]
\[
\text{be intelligent} \\
\text{‘John seems to some linguists to be intelligent’} \\
\]
\[
\text{b. } \text{Pað virðast sumum málfrœðingum} \\
\text{there seem-pl some linguists-Dat} \\
\text{þessir stúdentar vera duglegir} \\
\text{these students-Nom be intelligent} \\
\text{‘These students seem to some linguists to be intelligent’} \\
\text{(Anagnostopoulou (2003: 240))} \\
\]

Note that though the intervening dative argument blocks agreement in (30), no such effect is found with the dative argument in (31).

Anagnostopoulou (2003) attributes this difference to the fact that the intervening dative participates in an Agree relation with T in (31), whereas it does not in (30). She points out that in (31), what serves as the associate of the expletive in Spec, TP is the dative phrase rather than the nominative phrase. This is indicated by the observation that the Definite Restriction applies to the dative argument, but not to the nominative. The sentences in (31) are grammatical with the dative argument indefinite and the nominative argument definite. However, if the definiteness specification is changed in the opposite way, the sentence becomes ungrammatical, as shown in (32):

\[\]

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7 Anagnostopoulou (2003) assumes with Chomsky (2000, 2001) that the intervening dative argument in (30) is inactive, lacking a Case feature that matches T in the matrix clause, but it still blocks the agreement between the matrix T and the φ-features of the nominative argument, having interpretable φ-features (what Chomsky calls “a defective intervention effect”).
Following Chomsky (2000, 2001), Anagnostopoulou (2003) assumes that the relation between the expletive and its associate is mediated by T: the expletive agrees with T and T agrees with the associate. Given this, she indicates that the matrix T in the expletive construction in (31) has an agreement relation with three items, (i) the expletive, (ii) the dative associate, and (iii) the nominative argument, as illustrated in (33):

(33) \[
\begin{array}{c}
\text{(i) EPP} \\
\text{[[EXPL T DAT NOM]]}
\end{array}
\]

Anagnostopoulou (2003) argues that the agreement between T and the dative argument allows T to enter into a further agreement relation with the nominative. In contrast, the dative argument is not the associate of T in (30), and the dative and T do not Agree. This prevents T from having long distance agreement with the nominative phrase in (30).

Let us consider how these facts in Icelandic are accounted for under Stepanov’s theory, in particular, whether the contrast between (30) and (31) can be explained. Given that the intervening dative argument in (30) has structural Case feature and checks it in the embedded clause (Chomsky (2000, 2001)), it has an uninterpretable feature originally and should be introduced into the structure by substitution cyclically. The dative argument in (31) should also enter the structure cyclically if we assume with Anagnostopoulou (2003) that it enters an Agree relation with T as the associate of the expletive. It would then be predicted under Stepanov’s theory that the dative intervener blocks long distance agreement between the matrix T and the nominative argument in both (30) and (31), contrary to fact.

We now look at another set of data discussed in Anagnostopoulou (2003), which can constitute an argument against Stepanov’s theory and his analysis of the raising construction in English. As we saw above, Stepanov claims that in the raising construction, the experiencer PP does not block movement of the subject because it has an inherent Case and is inserted postcyclically. However, Anagnostopoulou (2003) notes that the corre-
sponding PP induces an intervention effect in the expletive counterpart of the construction, providing the following examples from Boeckx (2000):

(34)  
   a. The men seem to Mary to be the best.
   b. *There seem to Mary to be men in the room.
   c. There seems to Mary to be men in the room.
   d. There seem to be men in the room.


(34d) shows that the matrix verb can agree in number with the plural nominative subject in situ. However, as shown in (34b) and (34c), when an experiencer PP intervenes between them, the agreement is blocked, and the verb must appear in the default singular form.

This expletive construction in English is contrasted with the one in Icelandic in (31): the intervening dative experiencer does not block agreement between the matrix T and the nominative argument in (31), while it does in (34b, c). Anagnostopoulou (2003) argues that this difference is explained in the same way as the one between (30) and (31). She notes that in the expletive construction in English, the Definiteness Restriction applies to the nominative subject, and not to the dative experiencer, unlike the pattern found in the Icelandic construction in (31) and (32). As we can see in (34) and (35), though the dative experiencer may be definite, the nominative subject must be indefinite:

(35) *There seems to a linguist to be Mary in the room.

(Anagnostopoulou (2003: 243))

This suggests that the intervening dative does not enter into an Agree relation with T in (34b, c), in contrast with the dative in (31) and (33). Anagnostopoulou (2003) argues that this is why the dative argument blocks agreement between T and the nominative subject in (34b, c). In this sense, the dative intervener is comparable to the one in (30), which also does not enter into an Agree relation with T and blocks long distance agreement across it.

The examples in (34b, c) seem to be difficult to explain under Stepanov's theory. Stepanov assumes that PPs in general do not have structural Case feature in their label and are introduced into the structure by adjunction postcyclically (unless they have any other uninterpretable feature). The experiencer PP in this construction should also be Merged late after the matrix T agrees with the nominative subject. We then predict that the PP would not block the agreement, contrary to fact.

The ungrammatical status of the example in (34b) in particular would be a serious problem for Stepanov. It indicates that the PP must be Merged
cyclically though it is assumed to have no uninterpretable features. This in turn suggests that the definition of structural adjuncts in (27a) or the theory of postcyclic adunction cannot be maintained as it is unless an independent account is provided for the example.8,9

4. Cyclicity and the Minimal Link Condition

Müller argues that minimizing search space of derivation allows us to account for certain Minimality effects without recourse to the MLC. I give a summary of his proposal in 4.1, and indicate in 4.2 that there are examples suggesting that the search space permitted under his framework is too limited.

4.1. Phrase Impenetrability and Wh-Intervention, G. Müller

Pursuing a derivational approach to syntax, Müller argues that search space, that is, the amount of structure visible and accessible to syntactic operations at any given step, should be as small as possible since it is its representational residue (see Brody (2001)). With this goal, he contends that constraints that minimize search space should be strengthened, which are represented by the Phase Impenetrability Condition (PIC, Chomsky (2000, 2001)). On the other hand, constraints that presuppose search space should be discarded, among which is the Minimal Link Condition (MLC, Chomsky (1995, 2000, 2001)). In line with this, Müller attempts to demonstrate that Superiority effects found with wh-movement in German and English, which are usually attributed to the MLC, can be explained by a strengthened ver-

The data from Icelandic and English discussed in section 3.2 would not challenge Stepanov’s theory if they were given any independent account. For example, if there is any parameter with respect to what feature(s) Agree is sensitive to (see note 4 for Ura’s (1999) proposal), an Agree relation can be established across an intervening element Merged by substitution. Thanks to a reviewer for raising this point.

A reviewer pointed out that concerning the long distant Case assignment phenomenon in Hindi, Ura (2006) proposes a different analysis from Stepanov’s reviewed here. Ura argues that ergative languages are distinguished from accusative languages by the parameter that allows the subject argument generated as the specifier of v to check v’s feature at that position (see also Massam (2001)). The subject has ergative Case marking by this process and then moves to the specifier of T to check an EPP feature. At this stage of derivation, nothing intervenes between T and the object argument in its base-position (within VP). The object then enters an Agree relation with T and has nominative (= absolutive) Case marking. I leave comparisons between this analysis and Stepanov’s for future research.
sion of the PIC without recourse to the MLC.

Müller assumes that two kinds of features are involved in movement operations: \([*F^*]\) features that trigger movement and corresponding \([F]\) features on items that undergo movement. Moreover, a constraint called Feature Condition induces movement, as stated in (36), and another constraint named Last Resort requires all movement to be feature-driven, which is given in (37):

(36) Feature Condition
    An \([*F^*]\) feature on X requires movement of an item marked \([F]\) to the edge of X.

(37) Last Resort
    Movement requires matching \([F]\) and \([*F^*]\) at an edge.

(Müller (under review: 296))

Furthermore, Müller assumes that movement operations are subject to two constraints which contribute toward reducing derivational search space. One is the Strict Cycle Condition (SCC), which restricts possible positions for the target of movement, and the other is the PIC, which restricts positions where the item undergoing movement can be searched for. Müller suggests that since these conditions have complementary tasks, they are expected to have symmetrical local domain in an optimally designed system. He then proposes that the local domain should be the phrase for both. Specifically, he adopts a classical version of the SCC in (38) (see Chomsky (1973)) and presents a strengthened version of the PIC in (39) (cf. Chomsky (2000, 2001)):

(38) Strict Cycle Condition (SCC)
    Within the current XP \(a\), a syntactic operation may not target a position that is included within another XP \(\beta\) that is dominated by \(a\).

(39) Phrase Impenetrability Condition (PIC)
    The domain of a head X of a phrase XP is not accessible to operations outside XP; only X and its edge are accessible to such operations.

(Müller (under review: 297))

Note that the PIC in (39) is more restrictive than Chomsky’s (2000, 2001) in limiting search space to phrases rather than particular categories called phases (e.g. CP and vP).

In order to fulfill the PIC in (39), movement usually needs to take intermediate steps in the derivation, as it does under the PIC proposed in Chomsky (2000, 2001). Müller assumes that such steps are triggered by the constraint called Phrase Balance, stated in (40), which replaces the Optional
EPP Feature Condition in Chomsky’s (2000, 2001) theory:

(40) Phrase Balance
Every XP has to be balanced: For every feature [*F*] in the numeration there must be a potentially available feature [F] at the XP level. (Müller (under review: 297))

The concept of potential availability in this constraint is defined in (41):

(41) Potential availability:
A feature [F] is potentially available if (i) or (ii) holds:
(i) [F] is on X or edgeX of the present root of the derivation.
(ii) [F] is in the workspace of the derivation.

(Müller (under review: 298))

The workspace of the derivation D in (41ii) consists of the numeration N and material in trees that have already been created, using material from N, and not yet used in D.\(^\text{10}\)

According to Phrase Balance in (40), wh-movement must move through every XP to its ultimate target position, i.e. the C[*wh*] node. This is illustrated in the derivation of a simple wh-question in (42). There is a C with the feature [*wh*] in the numeration and a [wh] feature in the root VP of the derivation in (42a). Since there is no [wh] feature on any item in the workspace, non-feature-driven wh-movement has occurred from the domain of V to the edge of V (SpecV) at this stage. This is the only way to make the [wh] feature potentially available, according to (41), and satisfy Phrase Balance at the VP level. Further wh-movement occurs to the edge of v in (42b) and to the edge of T in (42c) to fulfill Phrase Balance at each level. The shaded material in (42b, c, d) is made inaccessible for further operations by the PIC:

(42) (I wonder) what John read
a. \( [\text{vP what}_1 \ \text{read}_3 \ t_1] \rightarrow \text{workspace: } \{\text{C[*wh*]}, \ \text{John, T[*D*], v} \} \)

b. \( [\text{vP what}_1 \ \text{John}_2 \ v+\text{read}_3 \ [\text{vP t}_1' \ t_3 \ t_1]] \rightarrow \text{workspace: } \{\text{C[*wh*]}, \ \text{T[*D*]} \} \)

c. \( [\text{TP what}_1 \ \text{John}_2 \ T \ [\text{vP t}_1'' \ t_2 \ v+\text{read}_3 \ [\text{vP t}_1't_3 \ t_1]]] \rightarrow \text{workspace: } \{\text{C[*wh*]} \} \)

\(^{10}\) Müller notes that movement triggered by the constraint in (40), without involving feature matching, violates the constraint of Last Resort in (37). He assumes that Last Resort is minimally violable if there is no other way to satisfy the other constraints, i.e. Feature Condition (36), SCC (38), PIC (39), and Phrase Balance (40), which are inviola-
Müller assumes that the intermediate wh-movement to satisfy Phrase Balance, which is not feature-driven, is permitted only when there is no other [wh] feature potentially available (see note 10). It is then predicted that if there is an accessible [wh] feature in the workspace, such non-feature-driven wh-movement is prohibited from applying to a wh-phrase and the PIC prevents the wh-phrase from undergoing any further operations. Müller argues that this prediction is borne out and it accounts for Superiority effects in English without resort to the MLC.

Let us consider how he explains a standard example of Superiority effects. As shown in (43), when there are two wh-phrases which are the subject and the object in the same clause and either one is potentially moved to a single target, i.e. C[*Wh*l, only the subject wh-phrase can actually undergo movement:

\[(43)\]

a. (I wonder) who₁ bought what₂

b. *(I wonder) what₂ who₁ bought t₂

(Müller (under review: 299))

In order for the ill-formed counterpart in (43b) to be derived, the object wh-phrase must leave the complement of the VP first, where it is merged, and move to the edge of V (i.e. SpecV) to fulfill the PIC. However, according to Müller’s theory, there is no chance for the object to do so. Unlike the situation in (42), Phrase Balance does not force movement of the object wh-phrase in (43) because VP is balanced with another wh-phrase, i.e. the subject, in the workspace. Moreover, vP is balanced when the subject wh-phrase is merged at the edge of v. TP is also balanced because the [*D*] feature of T requires movement of the subject, being marked [D] as well as [wh], to the edge of T. Thus, there is no reason for the object to leave VP, and only the sentence in which the subject wh-phrase moves to C is derived.

4.2. Discussion

As we saw above, Müller proposes that the local domain of the PIC as

\[\text{[CP what₁ \ C \ [TP t₁'' John₂ T \ [VP t₁'' t₂ V+read₃ \ [VP t₁’ t₃]]]]} \rightarrow \text{workspace: \{-\}}\]

(Müller (under review: 298))

Given that English has neither object shift nor scrambling, Müller suggests that there is no conceivable feature-driven movement independent of [wh] feature that could move the object wh-phrase to the edge of V in (43).
well as that of the SSC should be restricted to the phrase. From a conceptual point of view, this seems to have the merit of reducing derivational search space, compared with Chomsky’s (2000, 2001) phase. It would contribute toward constructing a theory that is more restrictive and has more predictive power. However, his theory seems to encounter an empirical problem. In particular, when we consider examples in which locality violations appear to be avoided because of movement of an intervener to a higher position, both the SCC and the PIC seem to be too strictly constrained.

We saw in section 2 that in the double object construction in Greek, the goal DP blocks the theme DP from moving to SpecT in passives. However, the blocking effect disappears if the goal argument is cliticized or clitic doubled. The relevant examples are repeated here:

(7) b. *?To vivlio dothike tu Janni apo tin Maria
    (Genitive DP without clitic)
    The book (Nom) was given the John (Gen) by the Mary
    ‘The book was given to John by Mary’

c. To vivlio tis dothike (tis Marias)
    (Genitive DP with clitic)
    The book Cl (Gen) was given the Mary (Gen)

(Anagnostopoulou (under review: 18–19))

Let us consider whether this contrast can be accounted for under Müller’s theory.

Müller assumes that the double object construction in English has the two objects merged in the lexical VP, with the theme DP in the complement and the goal DP as the specifier. If we suppose that the double object construction in Greek has the same structure, its passive counterpart would have the structure in (44) at the VP level:

(44) [VP DP Goal [v V DP Theme]]
     → workspace: {T[*D*][*Case*], v}
(see Müller (under review: 300))

Note that the theme DP is in the domain of V. In order to move to SpecT, the DP must shift to the edge of V first, according to the PIC in (39). However, there seems to be no reason to move the theme DP. Although T in the numeration is assumed to have [*D*] feature and [*Case*] feature, VP satisfies Phrase Balance in (40) for these features without any movement because the goal DP (or/and its clitic counterpart) is merged at
the edge with corresponding features. Given the strengthened version of the PIC in (39), the theme DP is excluded from search space at this level and becomes unavailable for any further operations. Müller’s theory then correctly predicts the ungrammaticality of the example in (7b), but could not account for the example in (7c).

As we saw in section 2, Anagnostopoulou (under review) proposes that the theme DP can move to SpecT in (7c) because the intervening goal DP (or its feature in the clitic doubling counterpart) moves to the same target first. This line of analysis could not be adopted under Müller’s theory. Once the goal DP leaves VP to move to the edge of v, the derivation enters the next level. It is then impossible to go back to the former level, i.e. VP, and move the theme DP to the edge of V, given the SCC in (38). Neither is it allowed for T to search for the theme DP stranded in VP, because of the PIC in (39).

Thus, the example (7c) seems to be difficult for Müller to explain because his theory imposes too severe a restriction on the derivational search space for the PIC and the SCC. In fact, this kind of phenomenon, where a locality violation is obviated because of movement of the intervener, is found in several constructions across languages. Müller’s theory would encounter the same problem with these as we indicated with (7c). For example, the movement of the theme DP in the double object construction in Greek is saved not only by cliticization of the goal DP, as we saw in (7c), but also by wh-movement of the goal, which is shown in (45):

\[(45)\] Tinos dhothike to vivlio ?

\[\text{Who-Gen gave-Nact-3sg the book-Nom ?}\]

`Who was the book given to?' (Anaunostono ulou (2003: 221))

Given that the two objects are merged in the same positions in VP as those in (44), the theme DP in the complement would be stranded there regardless of whether the goal DP at the edge of V has [wh] feature or not. Then, it would not be predicted under Müller’s theory that the theme DP can move

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12 Anagnostopoulou (under review) does not discuss Case theoretic properties of the genitive goal DP in the double object construction in Greek. However, Anagnostopoulou (2003: 66–69) observes that the DP has properties of both inherent and structural Case. Given this, I assume that the DP has [Case] feature.

13 Müller suggests the structure for the double object construction in (44) to explain Superiority effects found in the construction with wh-movement in English. The problem concerning the contrast between (7b) and (7c) discussed in the text would arise under his theory even if the construction is assumed to have the structure in (9) with vAPPL. That is, the theme DP would not have a chance to leave VP and (7c) would not be derived.
to the subject position in (45).

Another construction that would pose a similar problem for Müller is found in Italian. The raising construction in this language does not allow the embedded subject to move across the experiencer argument of the matrix clause, as shown in (46b). However, this effect is not found when the experiencer is fronted by topicalization, as shown in (46c):\(^{14}\)

(46) a. Gianni sembra [t\(_i\) fare il suo dovere]
   Gianni seems to do the his duty
   ‘Gianni seems to do his duty’

b.\(^{*}\)Gianni sembra a Piero [t\(_i\) fare il suo dovere]
   Gianni seems to Piero to do the his duty
   ‘Gianni seems to Piero to do his duty’

c. A Piero Gianni sembra t\(_i\) [t\(_j\) fare il suo dovere]
   To Piero Gianni seems to do the his duty
   ‘To Piero, Gianni seems to do his duty.’

(Anagnostopoulou (2003: 38, 221), see also Rizzi (1986: 75))

Under Müller’s theory, the ungrammaticality of (46b) would follow if it is assumed that the matrix VP satisfies Phrase Balance for the features of T, i.e. [*D*] and [*Case*], with the experiencer argument: the subject of the embedded clause then has no chance to move out of the clause. However, it would be difficult to explain why raising is possible in (46c). Given that the experiencer arguments in (46b, c) are merged in the same position, the embedded subject in (46c) would be excluded from search space when the derivation completes the matrix VP: the subject would then become unavailable for any further operations. Thus, Müller’s theory would incorrectly predict that (46c) as well as (46b) is ungrammatical.

Adopting Chomsky’s (2000, 2001) formulation of the PIC, Anagnostopoulou (2003) argues on the basis of the examples in (45) and (46) and others that countercyclic derivations should be tolerated within the boundary defined by the PIC, whereas the MLC is strictly observed. In particular, she proposes that in (45), the movement of the goal DP to C precedes the movement of the theme DP to T, in accordance with the MLC. In a similar way, the experiencer in (46c) moves to C before the embedded subject raises to T. Interestingly, this is completely opposite to the direction Müller’s

\(^{14}\) Anagnostopoulou (2003: 221) notes that obviation of locality violation is also observed in the raising construction in French when the experiencer undergoes wh-movement.
research takes, which attempts to dispense with the MLC by strengthening the PIC and the SCC. Thus, Anagnostopoulou’s (2003) work would present a fundamental empirical challenge to Müller’s approach.\(^{15}\)

5. Conclusion

In this review, I examined the analyses presented in three articles, focusing on long distance A-dependencies. In section 2, we considered Anagnostopoulou’s analysis of long distance A-movement in passives and raising constructions in Greek. I argued that the dative inversion construction by itself does not constitute evidence for locality based on minimal domains and equidistance, presenting data concerning the so-called Chain Condition effects. It was also indicated that in order to apply her analysis to the raising construction in English, some distinction needs to be made between the experiencer argument in English and that in Greek.

In section 3, we considered Stepanov’s analysis of long distance Case assignment in transitive sentences in ergative languages. Looking at examples in Icelandic where long distance agreement seems to be established involving the intervening element, we noted that those elements assumed to have uninterpretable features and to be merged cyclically do not always cause intervention effects. Moreover, considering agreement facts found in an expletive construction in English, we pointed out that even a PP can block agreement across it. With these observations, we indicated that the distinction concerning whether an element contains uninterpretable features or not does not always tell us whether it causes an intervention effect or not.

In section 4, we considered Müller’s proposal that the search space of the derivation should be limited to the phrase and Minimality effects should be derived without appealing to the MLC. We pointed out that the derivational search space permitted under his theory seems to be too small, considering examples of long distance A-movement in Greek and Italian. In these examples, a violation of the MLC appears to be avoided by moving the intervening element to a higher position. We noted that it is still controversial whether cyclicity is always observed strictly in syntactic derivation.

\(^{15}\) Anagnostopoulou (2003, Chapter 5) presents arguments that are directly concerned with the view that the MLC rather than cyclicity determines the order of operations within phases.
REFERENCES


Sigurðsson, Halldór Ármann (1996) “Icelandic Finite Verb Agreement,” Working Pa-
pers in Scandinavian Syntax 57, 1–46.

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