All Things Being Unequal: Locality in Movement

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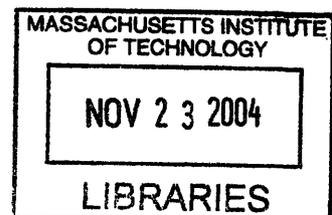
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ABSTRACT

In this thesis I demonstrate that a simplified theory of locality \ has greater success in accounting for locality in movement than more complicated alternatives that have been suggested. In particular, I argue that closeness should not be relativized to minimal domains, and that locality in movement follows from restrictions on Agree, but not on Move itself. Data is drawn from Locative Inversion in English, passivization in ditransitive verb phrases and constructions which involve movement to multiple specifiers of a single head. I show that the constructions that have previously been claimed to necessitate the notion of equidistance do not in fact provide motivation for this concept. Instead, further investigation of these constructions actually provides evidence for the elimination of equidistance from the grammar. I further argue that movement past a existing specifier to a higher specifier of the same head is grammatical, and that data which has been argued to show that this movement is prohibited can be given another analysis. This follows if Move, in contrast to Agree, is not subject to locality constraints. The streamlined theory of locality proposed here therefore ultimately accounts for a wider body of data than any of the more complicated alternatives.

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Abbreviations

ACC	accusative
ADN	relative clause/sentential complement verbal inflection
ANG	subject marker
APPL	applicative
ASP	aspect
AUX	auxilliary
BEN	benefactive
CAUS	causative
CL	classifier
CL	clitic
CPL	copula
CS	case (default, structural)
DAT	dative
FOC	focus
FV	final vowel
GEN	genative
INDIC	indicative
LOC	locative
NOM	nominative
NACT	non-active
NEG	negative marker
OBL	oblique
PAG	transitivity marker
PASS	passive
PERFQ	perfective
PRES	present
PST	past
Q	question particle
REFL	reflexive
TOP	topic particle

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Chapter 1:   Introduction

1.1   Intro

It is well known that movement is constrained by a locality constraint. Roughly put, each movement step must be as short as possible. The effects of this constraint are exemplified by the contrast between (1b) and (1c).

(1)   a.   Lloyd likes Diane.

        b.   [Lloyd] seemed __ to like Diane.

        c.   * [Diane] seemed Lloyd to like __ .

In the sentences in (1b-c) a DP from the embedded clause must raise to matrix [Spec,TP]. In (1b) the embedded subject has raised, while in (1c) the embedded object has. The ungrammaticality of (1c) provides evidence that the object DP cannot raise past the subject. This movement is prohibited because there is a shorter possible movement to [Spec,TP]: movement of the subject

In this thesis I intend to show that locality in movement is derived by the constraint in (2).

(2)   a.   Shortest Agree

                Agree between probe P and goal α is prohibited if β is a potential goal for P and β is closer to P than α.

        b. β is closer to τ than α if τ c-commands β and β c-commands α.

This accounts for the ungrammaticality of (1c). *Lloyd* c-commands *Diane*, while T c-commands both DPs. *Lloyd* is therefore closer to T than *Diane*. Consequently, Agree between T and *Diane* is prohibited. I assume the framework of Chomsky (2000, 2001), in which Agree between a probe and a goal is a necessary precursor operation to movement

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of that goal to the specifier of the probe. Since Agree between T and *Diane* is prohibited, movement of *Diane* to [Spec,TP] is impossible.

This simple version of locality has success in accounting for a wide body of data, including the sentences in (1). There are additional data, however, that initially suggest that the constraint in (2) is either incomplete or incorrect. The first type of data consist of derivations that are grammatical but apparently violate (2). One way to resolve this problem is to modify the definition of closeness in (2b) so that it is relativized to minimal domains. The second type of data suggests that there are derivations that satisfy (2) yet are ungrammatical. These facts might seem to indicate that the locality constraint in (2), which prohibits movement past another potential mover, is incomplete, and that movement past another potential landing site should also be prohibited.

In this thesis I argue that neither of these modifications to (2) are correct. Contrary to initial appearances, the locality constraint in (2) can account for all of the data under discussion, while the modified versions of locality can only account for a subset of the data. The streamlined theory of locality in (2) therefore actually accounts for a wider body of data than any of the more complicated alternatives.

1.2   Equidistance

Chomsky (1995) argues that Object Shift in Icelandic provides evidence that the definition of closeness in (2) is incorrect. This construction is exemplified in (3b).

(3)   a.   Jón las ekki bækurnar.

Jon read not the books.

'Jon did not read the books.

b.   Jón las [bækurnar] ekki __

▲_____⌋

John read books not.

'Jon did not read the books.'

It has been argued that in the derivation of a sentence like (3b) the definite object moves to a specifier of v. This movement has raised the object past the specifier of v in which

the subject is base-generated (4a). The subject then raises from this position past the object shifted DP to [Spec,TP] (4b).

(4)　　a.　　　　　　　　　　　　　　　　b.
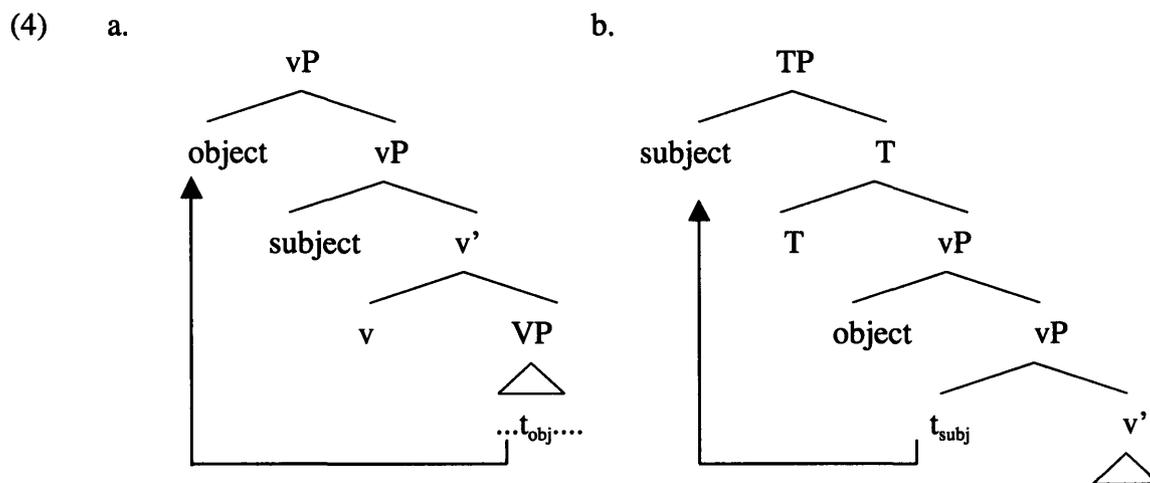
In each of the movements in (4) a DP has moved past another DP. Given certain assumptions to be made more concrete below, each of these movements proceed past another potential mover, and requires a precursor Agree relation to be established across another potential goal. Chomsky (1995) argues that in order to account for the grammaticality of these movements, the definition of closeness should be relativized to minimal domains as in (5).

(5)　　if β c-commands α and τ is the target of raising, then

β is closer to K than α unless β is in the same minimal domain as (i) τ or (ii) α.

(6)　　The minimal domain of a head H is the set of terms immediately contained in projections of H.

According to (5) two items within the same minimal domain are *equidistant:* they are equally close to another category.

The definition of closeness in (5) permits each of the movements in (4). Clause (i) of (5) allows the object (=α) to raise past the specifier in which subject sits (=β) to a higher specifier of the same head (=τ) because each specifier of v is contained within the same minimal domain. Because of this, the subject is not closer to v than the object.

Furthermore, clause (ii) of (5) allows the subject (=α) to raise to [Spec,TP] (=τ) past the specifier in which the object sits(=β) because each specifier of v is equidistant to T.

Although the definition of minimal domain in (6) predicts that equidistance holds both (a) among multiple specifiers of the same head and (b) between a specifier and the complement of the same head, the account of object shift outlined above relies only on equidistance among specifiers. Thus the original data that motivated the notion of equidistance only does so for multiple specifiers. To fully determine whether equidistance holds among all items contained within the same minimal domain, more complex constructions, such as ditransitive verbs, must be investigated.

Anagnostopoulou (2003) argues that data from ditransitive verbs *do* provide evidence for equidistance between the specifier and the complement of the same head. Her argument is based on the contrast between (7) and (8). In Greek, French and Italian, a DP can only raise from an embedded clause to matrix [Spec,TP] if a PP argument does not occur in the matrix clause (Boeckx, 2000, McGinnis, 1998). This is illustrated in (7).

(7)   Greek

    a.   [O Gianis]   fenete [__ eksipnos]

         The Gianis-NOM seems   intelligent

         'John seems to be intelligent'

    b.   ?* [O Gianis]   fenete stin Maria   [__ eksipnos]
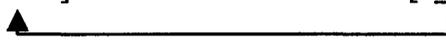
         The Gianis-NOM seems to-the Maria intelligent

         'John seems to Mary to be intelligent'   (Anagnostopoulou, 2003)

French

c.   [Jean] semble [__ avoir du talent]

Jean seems   to have of talent

'Jean seems to have talent.'

d. *? [Jean] semble à Marie [__ avoir du talent]

Jean seems   to Mary to have of talent

'Jean seems to Mary to have talent.'   (Chomsky, 1995)

Italian

e.   [Gianni] sembra [__ fare il suo dovere]

Gianni   seems to do the his duty

'Gianni seems to do his duty'

f. ?* [Gianni] sembra a Piero [__fare il suo dovere]

Gianni   seems to Piero to do the his duty

'Gianni seems to Piero to do his duty'   (Rizzi, 1986)

Anagnostopoulou argues that a derivation in which the DP raises past the PP violates locality constraints because the DP has raised past a closer potential mover, the PP.[1]

The ungrammaticality of this movement contrasts with the DP movement illustrated in (8), in which the DP once again raises to [Spec,TP] in the presence of a PP argument. In these sentences the PP is base generated within the same clause as the DP, and the movement is grammatical.

(8)   Greek

a.   To vivlio   dhothike   stin Maria   apo ton Petro

The book-NOM gave-NACT to-the Maria from the Petros

'The book was given to Mary by Peter'

---

[1] The PP in these sentences cannot actually move to [Spec,TP] itself. It can still be a potential mover in the sense relevant for locality constraints, however. See section 1.5.

French

b.   Un cadeau a été offert à Marie

        a gift has been given to Marie

        'A gift has been given to Marie.'

Italian

c.   Gianni è stato affidato a Maria

        Gianni is been entrusted to Maria

        'Gianni is been entrusted to Maria.   (Anagnostopoulou, 2003)

Anagnostopoulou (2003) argues that the contrast between (8) and (7) follows from equidistance. She claims that the PP and the DP are equidistant in (8). Specifically, she assumes the internal structure for VP that is illustrated in (9).

(9)   VP
          ╱   ╲
      PP   V
                 ╱   ╲
               V   DP
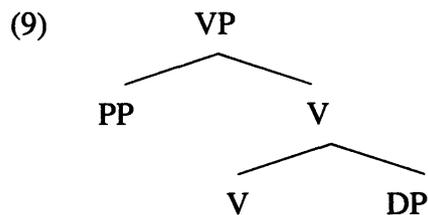
In (9) the PP is the specifier of V, while the DP is a complement of V. They are therefore contained within the same minimal domain, and, given (5), equidistant from T. Equidistance therefore accounts for the ability of the DP to passivize over the PP.

The PP and the DP in (7) are base generated in two different clauses, however; consequently they are *not* equidistant to T. Equidistance therefore also accounts for the inability of the DP to raise to [Spec,TP] past the PP in these sentences. Anagnostopoulou therefore concludes that this data supports equidistance between the specifier and complement of the same head.

The notion of equidistance thus apparently helps provide a plausible analysis for various data sets. It does so, however, at the cost of simplicity within the definition of closeness: the definition in (5) is more complicated than that in (2b). It is not clear why occurrence within the same minimal domain should make two or more items equally close to another item in the tree; the same could be said about items not contained within the same minimal domain, for example. Eliminating the notion of equidistance from the

grammar is therefore preferable. While this considerably simplifies the theory at hand, it raises a new challenge: accounting for those cases in which equidistance has been previously exploited. In this thesis I will show that the constructions that have previously been claimed to necessitate the notion of equidistance do not in fact provide motivation for this concept. Instead, I will argue that further investigation of these constructions actually provide evidence for the elimination of equidistance from the grammar.

1.3   Shortest Move

Richards (1997) presents arguments that the locality constraint in (2) is incomplete. While this constraint only prohibits movement past another potential mover, he argues that movement past another potential landing site is also ungrammatical. Specifically, he argues that the movement instantiated in (10) is ungrammatical.

(10)

```
                    XP
                 ___/\___
               YP        XP
               ▲      ___/\___
               |     ZP       X'
               |           ___/\___
               |          X       KP
               |                  /\
               |              ...t_yp....
               |_____|
```
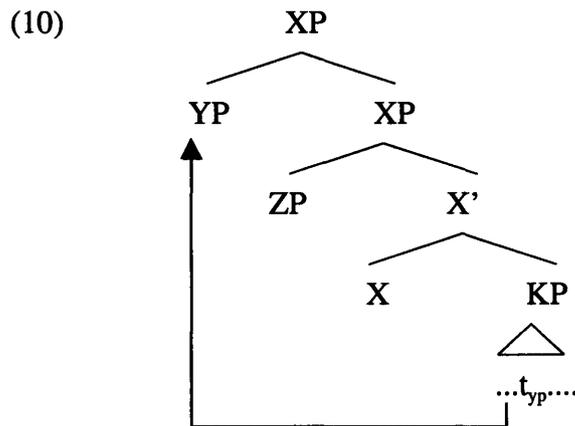
This type of movement was discussed in the previous section, where it was suggested that equidistance among specifiers is needed to account for why the precursor Agree relation it requires does not violate Shortest Agree. Anticipating the discussion somewhat, I argue that a specifier does not block Agree between its head and a lower object because it is not within the search domain of that head. Given this, X and YP can Agree in (10) without violating Shortest Agree; that is, the precursor Agree relation required for the movement in (10) is grammatical, whether or not specifiers are equidistant.

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Richards (1997) also assumes that an existing specifier of a head does not block movement into an additional specifier of that head. While this movement is possible, however, he argues that a locality constraint like that in (11) restricts its landing site.[2]

(11)   Shortest Move

Movement of α to β is prohibited if γ is a potential landing site for α and γ is closer to α than β.

If movement is constraint by Shortest Move and specifiers are not equidistant, the derivation in (10) would be ruled out because YP moves over the closest potential landing site: the specifier filled by ZP. Instead, Shortest Move would demand that YP 'tuck in' to a specifier position below ZP, as in (12). As a result of this movement the hierarchical order of ZP and YP is preserved.

(12)

If multiple specifiers are equidistant, however, Shortest Move is not violated in (10). The specifier in which YP resides is a close to the trace of YP as the specifier in which ZP sits; therefore, this movement is to (one of the) closest possible landing sites.

Richards argues that the movement step in (10) is ungrammatical, while the one in (12) is mandatory. Evidence for these claims is provided by constructions that involve movement to multiple specifiers of the same head. One such construction is multiple wh-movement in Bulgarian. When both the subject and the object have wh-moved in Bulgarian, the subject must precede the object, as shown in (13).

(13) a. Koj$_i$ kogo$_j$ vižda t$_i$ t$_j$?

who whom sees

'Who sees whom?"

  b. Kogo$_j$ koj$_i$ vižda t$_i$ t$_j$?

whom who sees

'Who sees whom?"   (Rudin, 1988)

Given Shortest Agree, movement of the object over the subject is prohibited. In order for a derivation of (13a) to converge, the subject must wh-move first and the object second. The preservation of word order argues that this second movement tucks in below the specifier in which the subject sits.

Shortest Move provides an elegant analysis of tucking in effects. Once again, however, it does so at the cost of simplicity. Under this theory, locality constrains both the Agree operation and the movements that it feeds. If we can reduce all locality effects to just the Agree relation, the grammar will be simplified. In this thesis I argue that Shortest Agree is the only locality constraint and that contrary to initial evidence, the movement in (10) is grammatical.

1.4   Outline of Thesis

In Chapters 2 and 3 I investigate equidistance between the specifier and the complement of the same head. One construction in which this type of equidistance has been claimed to be necessary is Locative Inversion. Locative Inversion in English is exemplified in (14).

(14)   a.   In the corner was a lamp.

       b.   Down the hill rolled Mary.

In these sentences a locative or directional PP occurs pre-verbally, while the DP argument of the verb that is normally found in this position occurs after the verb. I argue the PP occurs pre-verbally in this construction because it has raised from its base generated position within VP to [Spec,TP], as schematized in (15).

(15)

```
          TP
         /  \
       PP     T'
       ▲     /  \
       |    T     vP
       |        /  \
       |       v    VP
       |          /  \
       |        DP    V'
       |            /  \
       |           V    t_PP
       |_____|
```
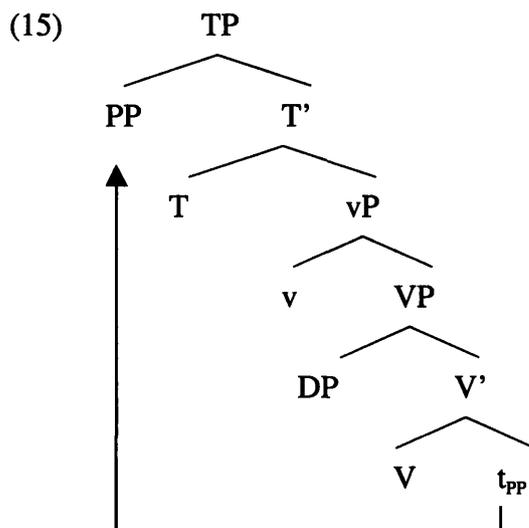
This movement raises a problem: it involves movement of one argument, PP, past another possible mover, DP. Given Shortest Agree, we expect that this movement is prohibited.

      One way around this problem would be to assume that closeness is relativized to minimal domains, and that the DP and the locative are therefore equidistant to T. The locative is thus able to raise to T past the DP because this movement step is as local as

movement of the DP to [Spec,TP]. This analysis is proposed in Anagnostopoulou (2003), Breuning (2001), Collins (1997), and Ura (1996, 2000).

In Chapter 2 I argue against this view of Locative Inversion, and present an alternative analysis. I argue that this analysis is superior to an equidistant approach because it is able to link a host of characteristics of the construction to the mechanism which allows the locative argument to raise past the theme DP to [Spec,TP]. Under an equidistance account, a derivation that involves DP movement to [Spec,TP] is no different than one which involves movement of the locative. The fact that the sentences that result from these derivations have very different properties is therefore left unexplained.

The analysis of Locative Inversion that I argue for crucially relies on the availability of the movement step schematized in (10) and repeated below in (16), in which one argument moves over an existing specifier into a higher specifier of the same head.

(16)

XP
YP   XP
    ZP   X'
        X   KP
              t_2
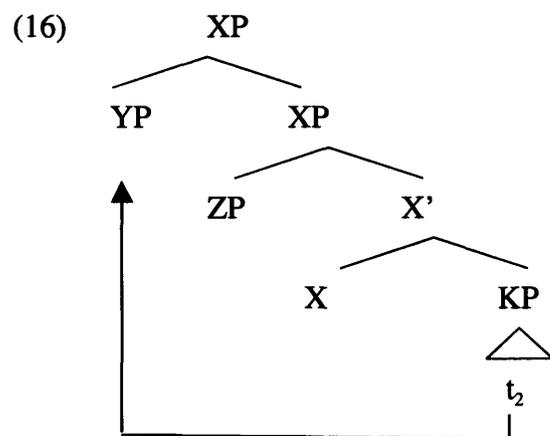
I claim that this instantiates a general *hurdling* movement that is available in language to allow a lower argument to raise over a higher one (Anagnostopoulou, 2003, McGinnis, 1998, Ura, 1996, Ura, 2000).[3] I further argue that this movement is exploited in many of the constructions in which equidistance was previously argued to be necessary.

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[3] McGinnis (1998) calls this movement leap-frogging. I call it hurdling in order to clarify that once YP has moved over ZP, ZP need not (and, in fact, cannot) move over YP.

In chapter 3 I investigate one of these constructions: long passives in ditransitive verb phrases. In this construction one object raises past a higher one, as schematized in (17).

(17)
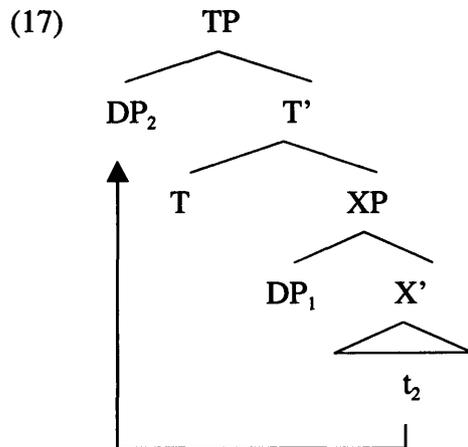
This type of movement raises the same locality problem that Locative Inversion did: one argument has raised past another higher argument. Not surprisingly, therefore, this construction has also received an equidistance analysis, in which it is assumed that the lower object can raise past the higher one because they are equidistant from T (Anagnostopoulou, 2003). In Chapter 3, I show that once recent developments in the domains of applicatives (Pylkkänen, 2001) have been taken into account, the data provided by these constructions actually argue against equidistance. In particular, I show that long passives are possible only when certain strategies are exploited to obviate locality considerations. This fact is incompatible with an equidistance account, but it is predicted if closeness is determined by strict c-command alone. Furthermore, I show that one of the ways a locality violation is circumvented is by hurdling the lower object over an existing specifier. The data from long passives therefore provides further evidence for the movement in (16).

In Chapter 4 I investigate equidistance among multiple specifiers. Specifiers are both potential moveable elements as well as potential landing sites; equidistance among specifiers is therefore relevant both when an item is moving from specifier position and when it is moving to a specifier position. This is reflected in the two clauses in the definition of closeness in (5). Consider the trees in (18).

(18) a.   b.

```
              XP                                        KP
             /  \                                      /  \
          YP      XP                               ZP       K'
          ▲      /  \                              ▲       /  \
          |    ZP     X'                           |     K      XP
          |         /  \                           |          /  \
          |       X'     KP                        |       YP      X'
          |             /\                          |             /  \
          |            /  \                         |            .  .t_ZP   ...
          |_____...t_YP...___|               |_____|
```
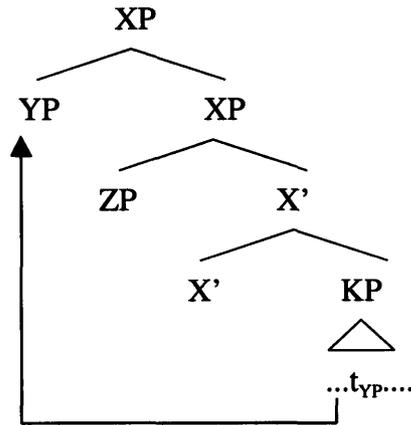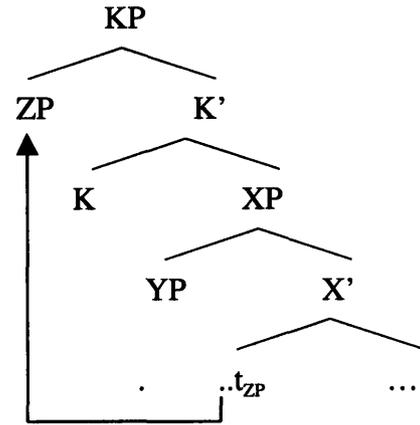
In both of the trees in (18), YP and ZP are in the same minimal domain, and so are equidistant. Clause (i) of (5) allows YP to come to reside in the specifier position it occupies in (18a) by moving from within KP, even though in doing so it raises past ZP. Clause (ii) of (5) permits ZP to raise [Spec,KP] even where YP is a potential goal, as exemplified in (18b).

In Chapter 4 I investigate both of the derivations schematized in (18) and ultimately conclude that neither of them provide evidence for equidistance among specifiers but instead argue against it. As already discussed, I argue that the hurdling derivation in (18a) is instantiated; it is an integral part of the analyses developed in Chapter 2 and 3. I claim that this movement is possible, however, not because specifiers are equidistant but instead because (i) specifiers do not block Agree between their head and a lower category and (ii) locality constraints prohibit movement past a potential mover, but not past a potential landing site. Locality of movement is derived via Shortest Agree alone. I further argue that hurdling is obligatory while tucking in is impossible, because of a requirement that all movement extend the tree. Ultimately, therefore, the grammaticality of hurdling does not provide evidence for clause (i) of (5), or for equidistance among specifiers more generally.

In most derivations that involve movement to multiple specifiers, hurdling results in reversal of the order of the moved items. This is because Shortest Agree forces the closest goal to move before a lower goal. The lower goal moves next and hurdles over the closest goal, reversing their base generated hierarchical order. If a probe enters into

Multiple Agree (Hiraiwa, 2001, to appear) however, Agree with a lower goal across a higher one is sanctioned. For this reason, movement of the goals with which the probe Multiple Agrees can proceed in any order and the resulting hierarchical order of the moved goals is variable. The result of these movements can be either order preservation or order reversal. I argue that mandatory order preservation does not follow from restrictions on movement but instead from independent properties of the constructions that display it.

I then review data that indicates that the derivation in (18b) is ungrammatical. In addition, I show that another analysis can be given for the constructions in which this derivation has previously been posited. This data indicates that clause (ii) of (5) should be eliminated. Ultimately, therefore, equidistance among multiple specifiers is unnecessary, and in fact, incorrect. This completes the argument began in Chapters 2 and 3 that equidistance should be eliminated from the definition of closeness.

1.5   The Framework

In this section I will outline the framework I adopt, which is essentially that proposed in Chomsky (2001). Certain items are merged into the syntactic tree with uninterpretable features that must be deleted by the interfaces (PF and LF). Deletion of these features is accomplished via the relation *Agree,* which is established between a *probe* P and category K, which is called the *goal.* Only those categories that contain features that match the uninterpretable features of P can enter into an Agree relation with P. Following work by Anagnostopoulou (2003), Rackowski (2003) among others, but contrary to Chomsky (2001), I assume that the goal does not need to have an uninterpretable feature in order to Agree; ie. there is no "activity condition".

An element α must have a complete set of ϕ-features (it must be *ϕ-complete*) to delete the uninterpretable matching features on an element β. Therefore, while an item α that is not ϕ-complete may enter into an Agree relation with another element β that carries uninterpretable ϕ-features, the Agree relation cannot delete those features on β.

Some features, namely EPP features, are not deleted by Agree, but instead can only be deleted by the occurrence of a goal in an appropriate configuration with the probe, usually, the specifier of the probe. The goal can come to reside in this position via

movement. Movement is a complex operation made up of Agree and Merge, where the probe and the goal enter into an Agree relation, and the goal is moved to the specifier of the probe. An EPP feature on a probe can also be deleted not by movement, but instead by pure Merge of an item into the specifier of the probe. This is what occurs in expletive sentences, where the EPP feature of T is satisfied by merging an expletive into [Spec,TP]. I assume that satisfaction of the EPP features of a probe by merging an item into its specifier is an option that is freely available. In addition, I make the stronger claim that *all* specifiers are created in order to check an EPP feature of their head. In some cases (specifier of v, specifier of V) the item that is merged into a specifier position to check an EPP feature also receives a theta role from that head, while in others (specifier of T) it does not. Some instances of Merge to satisfy an EPP feature are therefore illicit because of theta-theoretic reasons; that is, a phrase which has already received a theta-role cannot move to a specifier where another theta-role is assigned, while a phrase that requires a theta role cannot be externally Merged to a position where no theta role is assigned. I further assume that theta-roles must be assigned by a head as soon as possible; because of this the first phrase to move or Merge into the specifiers of a theta-assigning head receives that theta role.

Chapter 2:   A Unified Analysis of Locative Inversion

2.1   Introduction

Locative Inversion in English is exemplified in (19).

(19)   a.   In the corner was a lamp.

b.   Down the hill rolled Mary.

In these sentences a locative or directional PP occurs pre-verbally, while the DP argument of the verb which is normally found in this position occurs after the verb. Locative Inversion has been claimed to provide support for relativizing the definition of closeness to minimal domains, as in (20).

(20)   if β c-commands α and τ is the target of raising, then

β is closer to τ than α unless β is in the same minimal domain as (i) τ or (ii) α.

(Chomsky, 1995)

(21)   The minimal domain of a head H is the set of terms immediately contained in projections of H.

In this chapter I will argue that this construction does not provide evidence for the definition of closeness in (20), but instead argues against it.

I will focus on three main properties of Locative Inversion. First, Locative Inversion has a specific discourse function. As noted by Bresnan (1994), Locative Inversion sentences display 'Presentational Focus', in which the post-verbal DP is focused as new information. This focus is demonstrated in (22).

(22) A: I'm looking for my friend Rose.

B1:   #Among the guests of honor was sitting Rose.

B2:   Rose was sitting among the guests of honor.   (Bresnan, 1994)

In (22), B is an odd response to A. This is for two reasons: first, because it depends on a scene having been set which includes guests of honor, and secondly, because it reintroduces Rose, who has already been mentioned in A. The uninverted response in B2 is much more natural, because it does not "reintroduce" Rose in the way that B1 does.

Second, there is a transitivity restriction on Locative Inversion: the construction is not compatible with non-passivized transitive verbs.[4]

(23)   a.   * On the table placed John the books.

b.   * On the table placed the books John.

Finally, the pre-verbal PP displays certain behaviors that are characteristic of subjects. I argue that this behavior is due to the occurrence of the pre-verbal PP in [Spec,TP], the canonical subject position. Locative Inversion therefore differs from a non-inversion sentence of English in that the PP argument, instead of the DP argument of the verb, raises to subject position.

If this is the right characterization of Locative Inversion, then an immediate question arises: what allows the PP to raise to subject position instead of the DP argument? The canonical verbs that occur in Locative Inversion are unaccusatives and passives. I argue that within these verb phrases the DP argument occurs higher in the tree than the locative/directional argument (Collins, 1997, Hale and Keyser, 1993) as illustrated in (24).

---

[4] Two exceptions to this rule are reported in Levin and Rappaport (1995): the verb plus object combinations *take place* and *take root* have been found in Locative Inversion sentences. In both of these cases, the verb plus object is an idiomatic expression meaning, basically, to be. As noted by Hartvigson and Jakobsen (1974) such idioms are best analyzed as intransitive verbs in which the object has incorporated, as evidenced by the inability of *place* or *root* in these phrases to passivize. Under this analysis, these sentences do not form an exception to the generalization that transitive verbs are incompatible with Locative Inversion.

(24)

```
                    vP
                   /\
            roll_i-v    VP
                       /\
                    DP    V'
                    /\    /\
                 Mary  t_i   PP
                            /\
                        down the hill
```
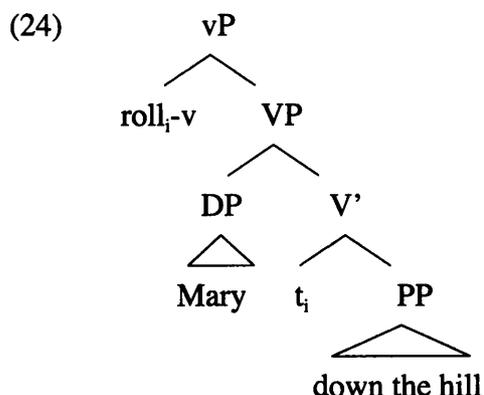
In this structure, movement of the PP to [Spec,TP] would require moving the PP over the DP argument. The DP is a category that can enter into an Agree relation with T; therefore, given Shortest Agree we expect that this movement is prohibited, as it moves the PP over a closer potential goal, the DP.

One resolution to this problem, which I will argue against, is to assume that equidistance holds between the PP and the DP. In (24) the locative PP and the DP are contained within the same minimal domain. Given the definition of closeness in (20), T can therefore Agree with the PP past the DP because the two arguments are *equidistant* from T; that is, neither is closer to T than the other. This analysis of Locative Inversion has been proposed in Anagnostopoulou (2003), Bruening (2001), Collins (1997), and Ura (1996,2000).

In this chapter and throughout this dissertation, I argue that closeness is not relativized to minimal domains, but is defined by strict c-command alone, as given in (25).

(25)   Closeness: β is closer to τ than α if τ c-commands β and β c-commands α.

My arguments for this are both conceptual and empirical. As discussed in Chapter 1, adopting the notion of equidistance into the definition of closeness is a further complication of the theory, and should be avoided if possible. In addition, I show in Chapters 3 and 4 that not only is equidistance unnecessary, it also makes the wrong predictions in a variety of constructions, including passivization in applicatives, movement to multiple specifiers, and Agree with multiple specifiers. Furthermore, while

equidistance could help explain why the PP can raise over the DP in Locative Inversion sentences containing unaccusative verbs, this explanation does not extend to those sentences that contain unergative verbs. In these sentences the PP and the DP do not occur within the same minimal domain: the DP is merged in the specifier of vP, while the PP is merged within VP. In sections 2.3.1.2 and 2.6, I argue that unergative verbs are compatible with this construction. Some mechanism other than equidistance is therefore needed to allow the PP to raise over the DP in these sentences. I therefore reject the hypothesis that the PP and DP in a Locative Inversion sentence are equidistant. The locality problem posed by movement of the PP to [Spec,TP] therefore remains.

I argue that a Locative Inversion sentence differs from a non-inversion sentence by only a single focus feature, and that this feature ultimately yields all of three of the properties discussed above. This focus feature derives the Presentational Focus of the construction while also mandating that the post-verbal DP occur in the right specifier of vP. The occurrence of the DP in this position creates an escape hatch for the PP; in particular, it allows the movement step outlined in (26).

(26)
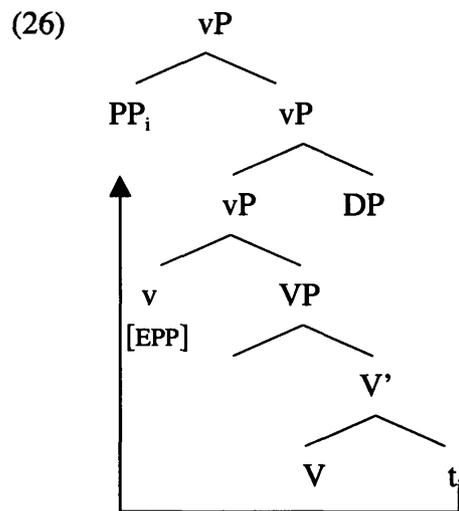
This movement raises the locative PP past the DP to a higher specifier of v, thereby reversing their base-generated hierarchical order and making further movement of the PP to subject position possible. I show that this escape hatch is only available for the PP if the PP is the only other argument for the verb; for this reason, transitive verbs are

excluded from the construction. All three properties of Locative Inversion are thus crucially linked together, and follow from a single mechanism.

The success of this analysis of Locative Inversion in itself further substantiates the elimination of equidistance from the grammar. It is superior to an equidistance approach because the characteristics of Locative Inversion are linked to the mechanism which allows the locative argument to raise past the theme DP to [Spec,TP]. Under an equidistance account, a derivation that involves DP movement is no different than one which involves movement of the locative; the fact that the sentences which result from these derivations have very different properties is therefore left unexplained. This analysis therefore provides evidence for the elimination of equidistance from the definition of closeness, while also providing insight into the mechanisms that are available to language to circumvent locality violations.

This chapter is organized as follows. In section 2.2 I further substantiate the claim that Locative Inversion poses a locality problem, and argue against analyses that have claimed otherwise. In section 2.3 I provide my resolution of this problem. Section 2.3.1 motivates the theoretical tools used in this analysis, while section 2.3.2 shows how this analysis extends to both unaccusative and unergative verbs, while at the same time accounting for the incompatibility of Locative Inversion with transitive verbs. In section 2.4 I discuss some possible extensions of this analysis, and finally, in section 2.5 I conclude.

2.2 There is a locality problem

I have argued that the derivation of Locative Inversion involves an apparent locality violation, in which the locative PP raises to [Spec,TP] past DP, a potential goal to T. In section 2.3 I argue that this is possible because the PP is able to hurdle over the DP prior to passivization. Other solutions have been proposed, however. As I have mentioned, it has been claimed that Locative Inversion is possible because the locative and the theme DP are equidistant from T. As noted, I will argue in this thesis that equidistance should be eliminated from the grammar. In this section I will outline two additional possible resolutions to the locality problem raised by Locative Inversion, and argue that they are not adequate.

2.2.1 The theme DP is higher than the locative PP

If the structure I gave in (24) is incorrect, and the PP was actually base-generated higher than the theme DP, then movement of the PP to [Spec,TP] causes no locality violation. This alternative structure for unaccusative and passive verb phrases is illustrated in (27).

(27)

```
            vP
           /  \
      roll_i-v   VP
               /  \
             PP     V'
            /  \   /  \
   down the hill  t_i   DP
                        /\
                       Mary
```
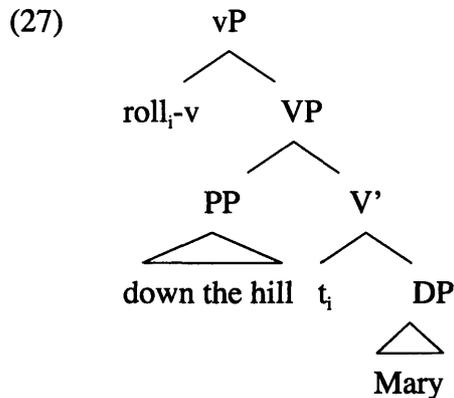
Under this view of the structure of vP, the fact that the PP can raise to [Spec,TP] in Locative Inversion sentences is no longer surprising, as PP is the closest argument to T. Instead, it is the movement involved in the derivation of a non-inversion sentence that is unexpected, as this involves moving the DP over the PP, another potential goal of T.

This analysis faces some problems. First, this explanation does not extend to sentences that contain an unergative verb, as in these sentence the DP definitely c-commands the PP from its position in [Spec, vP]. Secondly, sentences which contain Negative Polarity Items (NPIs) in English provide evidence for the structure in (24). An NPI is licensed by a c-commanding downward entailing constituent (Ladusaw, 1980). In the majority of cases, this corresponds to the downward entailing constituent linearly preceding the NPI. NPIs that are embedded within a more complex constituent, however, can be licensed even when they are not preceded by a downward entailing constituent, as illustrated in (28) (Linebarger, 1980).

(28)   [A doctor who knew anything about acupuncture]$_i$ was not available t$_i$.

Once account of the grammaticality of (28) argues that the constituent containing the NPI reconstructs into its base-generated position, where it is c-commanded by sentential

negation (Uribe-Etxebarria, 1996). If this account is correct, it provides us with a diagnosis for the base position of a locative PP with respect to the DP argument.

When it is in the appropriate structural configuration, the locative PP *nowhere near the table* is able to license the NPI *any*, as shown in (29).

(29)   a.   Nowhere near the table did Amy stack any picture.

      b.   Nowhere near the table were stacked any pictures.

If the locative PP were base generated in a position where it c-commanded the DP argument, then *nowhere near the table* should be able license a NPI contained within the DP argument even when this argument precedes it. This is not possible, however.

(30)   a.   * Amy placed a picture of any of her friends nowhere near the table.

      b.   * Any picture of Amy's friends was placed nowhere near the table.

The ungrammaticality of (30) indicates that the DP *a picture by any of her friends* does not reconstruct to a position below *nowhere near the table*. This provides evidence that the DP argument is base generated in a position above the locative PP, as in (24). The fact that the PP can raise to [Spec,TP] in Locative Inversion is thus surprising, as this movement involves an apparent violation of Shortest Agree.

2.2.2   PP is in [Spec,TP]

Another way to resolve the locality problem outlined above is by showing that the PP does not occur in [Spec,TP] after all, but instead in another position higher than T. This type of account has been proposed by Branigan (1994), Kuno (1971), Postal (1977), Lumsden (1988) and Coopmans (1989). Movement to this higher position would not violate locality, as the DP would not be a potential goal of this higher head. In this section, I argue against such a view. I claim that the PP does occupy [Spec,TP] and that the locality issue is therefore a real one.

Bresnan (1994) presents evidence that the locative/directional PP in Locative Inversion behaves like the grammatical subject of the sentence, summarized below. First, the fronted PP can be raised in raising constructions, just as subject DPs can.

(31)   a.   Mary seems __ to talk all the time.

        b.   [Over my windowsill] seems __ to have crawled an entire army of ants.

        c.   [On that hill] appears __ to be located a cathedral.

It also displays the well-known that trace effect that is exhibited by subjects.

(32)   a.   Its a child that we all believe __ was found in the park.

        b.   *Its a child that we all believe that __ was found in the park.

        c.   Its in the park that we all believe ___ was found a child.

        d.   *Its in the park that we all believe that ___was found a child.

I argue that the subject behavior displayed by the fronted PP of Locative Inversion structures is the result of this PP occurring in subject position (i.e. [Spec,TP]) at some point in the derivation (see also Collins, 1997, Levin and Rappaport Hovav, 1995).

      Kuno (1971), Postal (1977), Lumsden (1988) and Coopmans (1989), on the other hand, have all argued that the locative PP occurs in a fronted topic position, while [Spec,TP] is filled by an expletive, which is either phonetically null or is deleted when a locative or directional PP is preposed. Under this analysis, the apparent subject behavior of the fronted PP in Locative Inversion constructions is not due to the movement of the PP but is instead due to the additional movement of the null expletive from subject position. The raising behavior of the PP displayed in (31b-c) is therefore reduced to the ability of the expletive to raise, as exemplified in (33).

(33)   a.   [Over my windowsill] there$_i$ seems t$_i$ to have crawled an entire army of ants.

        b.   [On that hill] there$_i$ appears t$_i$ to be located a cathedral.

The expletive subject analysis has some empirical support. First, the overt expletive *there* can occur in subject position in many examples of Locative Inversion, as in (33). Second, Locative Inversion and existential sentences are similar in that in both of

these constructions the verbal morphology exhibits agreement with the post-verbal DP, not the constituent in [Spec,TP]. If an expletive subject is present in Locative Inversion, this pattern of agreement is expected.

This analysis fails to answer certain questions, however. First, as pointed out by Bresnan (1994), while the expletive subject analysis provides an explanation for the raising data in (31), it runs into problems explaining the restrictions on A-Bar extraction exhibited in (32). An *overt* expletive allows extraction of the PP when the expletive occurs adjacent to *that*. Contrast the grammaticality of (35) with the ungrammaticality of (32d), repeated here as (34).

(34)   * Its in the park that we all believe that was found a child.

(35)   Its in the park that we all believe that there was found a child.

In order for the null expletive analysis to account for the contrast between (34) and (35), further assumptions must be made. The main difference between these sentences is that in one the expletive is null, while in the other it is overt. Null expletives are not freely allowed in English; therefore, in order for them to occur in Locative Inversion constructions they must meet specific licensing requirements. Let us assume that these licensing requirements would ensure that the null expletive be adjacent to a locative/directional PP at some point in the derivation. Given this, the fronted PP in (34) would have to have passed through a position between the null expletive and the complementizer *that* of the embedded clause, on it way to the front of the sentence, as exemplified in (36). (In (36) the null expletive is represented by $\varnothing$).

(36)   [Its in the park]$_i$ that we all believe that t_i $\varnothing$ was found a child.

In sentence (35), on the other hand, the fronted PP would not have to pass through a position adjacent to *there*, as the licensing requirements apply only to null expletives. On the view that the that-trace effect simply rules out any configuration in which *that* is followed by a trace (Chomsky and Lasnik, 1977), the configuration in (36) is ruled out. For this reason, (35) is grammatical, while (34) is not.

While this extension of the null expletive hypothesis ultimately accounts for the that-trace effect in Locative Inversion, it also highlights the main weakness of this proposal; namely, the fact that a null expletive needs to be posited at all, and that, given the existence of this null expletive, a specific licensing condition would have to be proposed in order to restrict its occurrence to Locative Inversion.

An additional argument against the null expletive account comes from the observation that, while certain properties of Locative Inversion parallel those of *there* sentences, not all do. First, as originally noted by Hoekstra and Mulder (1990) the fronted PP can be questioned without auxiliary inversion, as shown in (37a), and is incompatible with the occurrence of unstressed *do*, as shown in (37b).

(37)   a.   Down which hill rolled a small child?

         b.   * Down which hill did roll a small child?

As shown in (38), this behavior parallels that of subjects.

(38)   a.   Which small child rolled down the hill?

         b.   *Which small child did roll down the hill?

When the subject position is filled by an overt expletive, however, auxiliary inversion is obligatory.

(39)   a.   *Down which hill there roll a small child?

         b.   Down which hill did there roll a small child?

This data provides evidence that the fronted PP in Locative Inversion does indeed occur in subject position, while the fronted PP in sentences with an overt expletive do not.

Secondly, the null expletive analysis is also unable to account for the fact that the locative PP displays properties typical of A-Movement and a not A-Bar Movement. A-Bar Movement , but not A-Movement is subject to Weak Cross Over (WCO) effects. As

pointed out in Culicover and Levine (2000), Locative Inversion sentences are not sensitive to WCO, as shown by (40).

(40)   In every dog's pen peered its owner.

This contrasts with presentational *there* sentences, in which the fronted locative does cause WCO effects:

(41)   *In every dog's pen there peered its owner.

This fact is explained if the locative PP has moved to [Spec,TP], an A position, but is mysterious if it has undergone A-Bar movement to a topic position, as is posited in the null expletive analysis.

    Finally, the two constructions behave differently when the post-verbal DP is conjoined. Existential and Presentational *there* sentences both display 'first conjunct agreement', in which the verb agrees with the DP in the first conjunct if the post-verbal DP is conjoined.[5]

(42)   a.   There was/ *were a man and a woman in the garden.

        b.   In the woods there was/ *were found a lost child and her teddy bear.

In Locative Inversion, however, the verb can agree either with the DP that occurs in the first conjunct, or with the conjoined DP as a whole:

(43)   a.   In the woods was found a lost child and her teddy bear.

        b.   In the woods were found a lost child and her teddy bear.

---

[5] Schütze (1999) claims that presentational *there* sentences do not display first conjunct agreement, but instead always require full agreement with the conjoined DP. These judgments do not correspond to my own.

An additional difference between expletive sentences and Locative Inversion is found in British English. In British English, syntactically singular group nouns can induce either plural or singular agreement when they occur in pre-verbal position.

(44)   a.   The committee is meeting today.

          b.   The committee are meeting today.

When these nouns occur in post-verbal position in *there* expletive sentences only singular agreement on the verb is possible (Elbourne, 1999, Elbourne and Sauerland, 2002).

(45)   a.   There was a committee meeting today.

          b.   * There were a committee meeting today.

When they are in post-verbal position in Locative Inversion sentences, however, both patterns of agreement are possible again (Paul Elbourne, Nick Everett, p.c.).

(46)   a.   In the room next door was meeting the committee.

          b.   In the room next door were meeting the committee.

Given these differences between *there* sentences and Locative Inversion constructions, an analysis in which they are both essentially reduced to the same construction becomes less attractive.

I therefore reject the null expletive analysis of Locative Inversion, and assume that the fronted PP occurs in [Spec,TP] at some point in the derivation.[6,7] This brings us back to the question posed at the beginning of the paper: what allows the PP to move to [Spec,TP]?

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[6] There are some facts that are difficult to reconcile with the analysis that the PP is in subject position. Locative inversion is incompatible with Subject Auxiliary Inversion in question formation.
(i)   * Has from the doorway run a small spider?
This is unexpected if the PP occurs in subject position. I have no solution to this problem, and leave it as a puzzle.
[7] I do not exclude the possibility that the PP moves from [Spec,TP] to a topic position later in the derivation. What is crucial to me is that it does occur in [Spec,TP] at some point.

2.3   The Analysis

The movement of PP to [Spec,TP] is surprising for two reasons. First, one might not expect that PP can enter into an Agree relation with T (and subsequently move to [Spec, TP]), as this is normally a relation that T has only with DPs. I will suggest that this Agree relation is possible because locative and directional PPs are like DPs in containing ϕ-features. Secondly, on the assumption that the DP is merged higher than the PP, movement of the PP over the DP to [Spec,TP] is in apparent violation of Shortest Agree. I argue that a focus feature on v both derives the focus properties of the construction and forces the DP to occur in a right specifier of vP. Its occurrence in this position instantiates the featural composition of v in Locative Inversion which ultimately provides an escape hatch for movement of the PP out of vP. This analysis unifies the explanation behind both the discourse function of the construction and the ability to avoid locality violations.

2.3.1   The tools

2.3.1.1 PP has a ϕ-feature

Locative Inversion is not the only construction in which it has been posited that a PP occurs in [Spec,TP]. Freeze (1992) proposes that in both Existential and Possessive constructions a locative PP moves to [Spec,TP]. This is exemplified in (47) for Russian.

(47)   Existential

      a.   [na stole]$_i$ byla kniga t$_i$.

          on table. LOC   was book. NOM.FEM

          'There was a book on the table.'

    Possessive

      b.   [u menja]$_i$ byla sestra t$_i$.

          at 1sg.GEN was sister.NOM

          'I had a sister'   (Freeze, 1992)

    In both Freeze's analysis and the analysis presented here the non-nominal constituent that occurs in [Spec,TP] is a locative PP. The ability to move into [Spec,TP]

is not a property of PPs in general; if it were, we would expect that the PP object of all double object unaccusatives could undergo movement of the type displayed in Locative Inversion. This is not the case, as exemplified in (48)- (51).

(48)   a.   The play appealed to Mary.

       b.   *To Mary appealed the play.

(49)   a.   Smith's name escaped us.

       b.   *To us escaped Smith's name.

(50)   a.   The correct generalization eluded Panini.

       b.   *To Panini eluded the correct generalization.

(51)   a.   The grade mattered to John.

       b.   *To John mattered the grade.   (adapted from Pesetsky, 1995:115)

This suggests that there is something special about locative/directional PPs that allows them to occur in [Spec,TP].

There is another way in which locative/directional PPs are unique compared to other PPs. There exists a locative/directional pronoun (*there*) which can replace them, a property which, like the ability to occur in [Spec,TP], is otherwise restricted to DPs. This is perhaps unsurprising, given the common observation in the literature that locative adjuncts are more referential than other adjuncts (Huang, 1982, Rizzi, 1990). It therefore seems reasonable to assume that just as locative PPs are more referential than other PPs, they are also more DP-like than other DPs. I propose that this similarity with DPs is reflected by the features that the PP contains: like DPs, locative/directional PPs have a ϕ-feature. They are therefore able to move into [Spec,TP], just as DPs are, because they contain a ϕ-feature and so can enter into an Agree relation with T.[8] As PPs, however,

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[8] Temporal PPs, like locative PPs, are more referential than other adjunct and can be replaced by a pronoun (*then*). Temporal PPs, unlike locative PPs however, cannot raise to [Spec,TP] in English, deriving a Locative Inversion word order.
       (i)   *At 6 o'clock arrived my mother.
The ungrammaticality of (i) is unexpected under the current analysis, as the existence of a temporal pronoun suggests the temporal PPs has ϕ-features, and so should be able to raise to [Spec,TP].
       The inability for temporal PPs to raise to [Spec,TP] appears to vary across languages, however. Bissell (2004), following Pinto (1997) suggests that certain cases of 'free inversion' in Italian are actually

they are still inherently distinct from DPs; I propose this difference is also reflected in the features that they contain. Unlike DPs, locative/directional PPs are not φ-complete; they contain only one φ-feature and so cannot delete the full set of φ-features on T. Therefore, when a locative PP occurs in [Spec,TP], T must enter into an Agree relation with a DP that is capable of deleting all of its φ-features. This explains why in Locative Inversion the verb agrees with the post-verbal DP.[9] I will assume for concreteness that the φ-feature they carry is a person feature.

(52)   Locative/directional PPs have a person feature.

The φ-incompleteness of locative/directional (non-pronominal) arguments is a property that can apparently vary across languages. In Locative Inversion in Chichewa, the verb agrees not with the post-verbal DP, but with the fronted locative argument (Bresnan and Kanerva, 1989, Bresnan, 1994)

(53)   **Ku** mu-dzi   **ku** na-bwér-á   a-lendo.

       17 3-village   **17**.SUBJ.REC.PST-come-FV   2.visitor

       'To the village came visitors.'   (Bresnan and Kanerva, 1989)

This indicates that the locative argument contains a full set of φ-features, and thus can delete all of the uninterpretable φ-features on T. In the discussion above, I suggested that what distinguishes locative/directional PPs from DPs is that they lack the full set of φ-features. If the locative argument in Chichewa does have a full set of φ-features, then it is predicted that this distinction between locative arguments and DPs does not exist. In fact, Bresnan (1994) argues that the locative argument in Chichewa is not a PP, but instead a nominal argument.

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instantiations of Locative Inversion. The PP which raies to [Spec,TP] in this construction can be either a locative or a temporal PP. This suggests that the hypothesis presented here that referential PPs contain a φ-feature is on the right track.

[9] This analysis parallels Chomsky's (2000, 2001) analysis of expletive sentences, in which it is proposed that expletives contain an uninterpretable Case and a single φ-feature, and for this reason can raise to [Spec,TP] but yet do not check T's φ-features .

In sum, I propose that locative/directional PPs contain a person feature which enables them to enter into an Agree relation with T.

2.3.1.2 The DP occurs in a rightward [Spec,vP]

As summarized in the introduction, Locative Inversion always has a certain discourse function not obligatorily evidenced in non-inversion sentences: it presents the post-verbal DP on the scene. I argue that a focus feature on v derives this Presentational Focus. I further argue that this focus feature forces the post-verbal DP to occur in the right specifier of v.

The issue of the location of the post-verbal DP in Locative Inversion goes hand in hand with another familiar debate: what kind of verbs are compatible with Locative Inversion. The canonical verbs that occur with this construction are unaccusatives and passives. This has led some to argue that only these verbs are possible in Locative Inversion (see Bresnan and Kanerva, 1989, Coopmans, 1989, Hoekstra and Mulder, 1990 among others). This hypothesis is compatible with the assumption that the post-verbal DP occurs in its base-generated position within the VP. The theme DP of both unaccusative and passive verbs occur to the right of v, the head in which the verb is pronounced; therefore, once the PP has raised to [Spec,TP], the word order of a Locative Inversion sentence, [PP V DP], has already been derived, without further movement of the DP.

Levin and Rappaport (1995) argue against this hypothesis however, showing that both unaccusative and unergative verbs appear in Locative Inversion. The unergative verbs found in Locative Inversion include various types of activity verbs with animate subjects (54), verbs of manner of motion with locative PPs (55), verbs of emission with locative PPs (56), and verb of body-internal motion with locative PPs (57). (The sentences in (54)-(57) are adapted from sentences from Levin and Rappaport, 1995).[10]

(54)   a.   In the back room worked a matronly woman with blue hair.

       b.   On the beach dozed scores of glistening sunbathers.

---

[10] The occurrence of some unergative verbs in Locative Inversion sentences has been noted and discussed in Hoekstra and Mulder (1990). They reconcile these facts with the unaccusative hypothesis by proposing that these unergative verbs allow a second meaning that is associated with an unaccusative analysis. The verbs have multiple meanings, and it is only on the unaccusative meaning that they are allowed into the Locative Inversion construction.

(55)   a.   Inside the pond swam many brightly-colored fish.

        b.   Around the enclosure pranced a young pony with a neatly groomed tail.

(56)   a.   In the front entryway ticked a recently polished grandfather clock.

        b.   From her ears sparkled two 14-carat diamond earrings.

(57)   a.   Among the foliage fluttered two small sparrows with white tails.

        b.   Beside the lake waved a profusion of feathery lilies.

The wide variety of unergative verbs attested in Locative Inversion demonstrates that unergatives are compatible with this construction. Further arguments for this conclusion are presented in the appendix, where I argue against Culicover and Levine's (2001) view that Locative Inversion is restricted to unaccusatives. Given standard assumptions about the base generated word order of unergative verb phrases, the DP argument occurs to the left of the verb. Once unergative verbs are allowed into Locative Inversion, therefore, it becomes less clear how to maintain an analysis of this construction in which the post-verbal DP occurs in its base generated position. In order to derive the correct word order further assumptions must be made.

One possibility would be to say that the verb raises to T in these constructions, thereby moving the verb to the left of the DP; this approach is taken by Rochemont and Culicover (1990). If this were true, however, it would be difficult to explain why verb raising occurs in Locative Inversion but not in non-inversion sentences in English.[11] Another possibility is to assume that the verb does not move, but that the DP argument ends up in a position to the right of the verb by some other means, either because it has moved rightward, or because it is merged in a right-specifier of vP and not a left one.

---

[11] A similar approach is suggested by the analysis of Quotative Inversion in Collins (2002), where it is assumed that the DP raises out of vP, and then the entire VP raises to a higher projection. The quotation, which is within the raised VP, is then free to raise to [Spec,TP] without violating locality constraints because it is now higher than the DP argument.
Extending this analysis to Locative Inversion, is non-trivial, however. In order to get the correct word order facts for Quotative Inversion sentences which contain a complement PP, Collins assumes that a PP must move out of VP before the VP raises, and suggests that this is a general economy constraint on movement. If this is true, this constraint should apply in Locative Inversion sentences as well, and the locative PP should have to move out of the VP before the VP raises, making VP unable to 'smuggle' the PP up. Extending this account to Locative Inversion therefore does not solve the locality problem, and another answer to how the PP can raise to [Spec,TP] without violating Shortest Agree must be found. See footnote 13 for a possible analysis which does solve the locality problem and involves remnant vP raising.

Evidence for the latter approach is provided by verb particle constructions. In non-inversion sentences that contain these constructions, a DP object can either occur after the verb particle, as in (58), or in between the verb and the particle, as in (59).

(58) a. Lloyd wrote down Diane's numbers.

b. The doctor spelled out my name.

c. Luke put down some books.

(59) a. Lloyd wrote Diane's number down.

b. The doctor spelled my name out.

c. Luke put some books down.

In Locative Inversion, however, the post-verbal DP can only occur after both the verb and the particle, as in (60). If the post-verbal DP occurs before the particle, the resulting sentence is ungrammatical, as shown in (61).

(60) a. In the notebook were written down the numbers.

b. On the blackboard were spelled out our names.

c. On the shelf were put down some books.

(61) a. *In the notebook were written the numbers down.

b. * On the blackboard were spelled our names out.

c. * On the shelf were put some books down.

The post-verbal DP in Locative Inversion is more restricted than the base-generated DP in non-inversion sentences. This suggests that the DP in Locative Inversion does not occur in the canonical object position (complement to V) but instead in a position to the right of the verb particle.

There is further evidence that the post-verbal DP in Locative Inversion occurs in a righthand position. First, there are restrictions on the extraction of the post-verbal DP that

are indicative of it occurring in a right focus position. In Locative Inversion neither the post-verbal DP itself, nor any subpart of it, can be extracted. This is exemplified in (62).

(62) a. *?What kind of mushrooms do you think on these trails can be found ?

     b. *? What kind of mushrooms do you think on these trails can be found

         specimens of ?   (Bresnan, 1994)

The inability to extract is a general property of categories that occur in a right focus position (Ross, 1967, Wexler and Culicover, 1980). This is exemplified by the following Heavy-NP shift examples.

(63) a.   What did you find a picture of __ in your attic?

     b.   * What did you find in your attic a picture of __?

The facts in (62) are explained under an analysis in which the post-verbal DP occurs in a right focus position.

I therefore assume that while the verb in Locative Inversion occurs in its canonical position (namely, in v), the DP argument does not; instead, it occurs in the right specifier of vP (see Bresnan, 1994 and Levin & Rappaport, 1995, for similar analyses, in which it is argued that the post-verbal DP in Locative Inversion in English has right-adjoined to vP).[12]

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[12] There is some evidence that in Locative Inversion the post-verbal DP argument occurs in the innermost specifier position, and not adjoined to vP. In Locative Inversion, the presence of an adverb between the verb and the post-verbal DP is odd.
(i) Locative Inversion
     a.   From the doorway ran a small spider.
     b.   ??From the doorway ran quickly a small spider.
If the post-verbal DP were right adjoined to vP, this would be unexpected, as the occurrence of an adverb between the verb and other right adjuncts is normally allowed. This is possible in other constructions in which the DP has moved rightward out of vP, in fact, such as sentences that contain an Heavy NP Shifted argument.
(ii) Heavy NP Shift
     a.   Mark gave to Betty a small bird with red and gray wings.
     b.   Mark gave to Betty yesterday/with love a small bird with red and gray wings.
If the DP occurs in the innermost specifier, however, this fact can be understood. The adverb adjoins to the vP after the entire vP has been constructed.

The question to ask now is how the DP comes to reside in this position, and further, why it occurs in this position in Locative Inversion sentences but not in non-inversion (discourse neutral) sentences. I suggest that this position is a focus position created by the occurrence of a focus feature, F, on v. F requires that a focused argument occur in the right specifier of the head that contains it. (I formalize this by assuming that F contains an EPP feature, which forces a specifier to be projected.) At issue here is what forces this specifier to be projected to the right instead of the left. Birner (1994) argues that inversion serves an information-packaging function, linking relatively unfamiliar information to the prior context via the clause-initial placement of relatively familiar information. That the focus position is to the right therefore seems to serve an information-packaging function (See Ndayiragije, 1999 for a similiar approach. He argues that focus projections have right specifiers due to prosodic properties of theme-rheme structures).[13]

In Locative Inversion, therefore, F requires that a focused phrase occur in the right specifier of v. As discussed in Chapter 1, I assume that all specifiers are created in order to check an EPP feature on their head. In some cases (specifier of v, specifier of V) the item that is merged into a specifier position to check an EPP feature also receives a theta role from that head, while in others (specifier of T) it does not. Some instances of Merge to satisfy an EPP feature are therefore illicit because of theta-theoretic reasons; that is, a phrase that requires a theta role cannot be Merged to a specifier position where a theta role is not assigned. In unaccusative and passive verb phrases, v does not assign a theta role to its specifier. Given this, F can only be satisfied by movement of a goal into the right specifier of v since merging another argument into this position would violate

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This argument is weakened, however, by the fact that the sentence in (iii), in which the adverb follows the post-verbal DP is also marked.

(iii)   ?From the doorway ran a small spider quickly.

[13] A version of this analysis which is compatible with Kayne's (1994) LCA is also possible. In this version, both the DP and the LOC would move to left specifiers of v, the specifier in which the DP moves being a focus position. The remnant vP would then move to a higher functional projection, deriving the word order in which the focused DP if rightmost. I see no way to clearly distinguish between these versions. I retain the rightward focus position version because it requires no additional functional projection for the vP to move to and because I believe further investigation will reveal a better understanding of the relation between rightward movement and focus.

the theta condition.[14] In Locative Inversion sentences with these verbs, therefore, F forces the DP argument to raise from its merged position to the right specifier of v. Unergative v, however, does assign a theta role to its specifier; therefore, pure Merge of an argument into the right specifier of v is a possible way to satisfy F. I propose that in Locative Inversion sentences the DP argument of unergative verbs is merged into this position, where it satisfies F. DPs can only occur in this position if they are focused; in this way the presentational focus of Locative Inversion is derived.[15]

2.3.1.3 EPP on v

Crucial to the analysis developed here is the assumption that all v's, in Locative Inversion and non-inversion sentences alike, contain an EPP feature. In transitive and unergative verb phrases this EPP feature on v creates the left specifier into which the external argument of the verb is canonically merged. In unaccusative and passive verbs phrases, it is less obvious what role this feature serves in non-inversion sentences.

In a framework in which phases exist, however, there is further evidence of an EPP feature on unaccusative and passive v. Chomsky (2000,2001) suggests that the mapping between syntax and the interfaces, PF and LF, takes place a various points in the derivation. This mapping takes place once a phase is completed, where phases include CP, vP and DP. He further makes a distinction between strong phases and weak phases: unergative and transitive verbs phrases are strong phases, while unaccusative and passive verb phrases are weak phases. The assumption that unaccusative/passive vP is a weak phase is supported by the grammaticality of *there* sentences in English (and many other languages) as exemplified in (64).

---

[14] Merge of an expletive into this position would be grammatical with respect to theta theoretic concerns. However, given that this specifier is a focus position, a derivation which merges an expletive here is excluded because of the incompatibility of expletives and focus.

[15] Bresnan and Kanerva (1994) argue that in Chichewa Locative Inversion the post-verbal DP is in the canonical object position. Their argument is twofold: first, no constituent can intervene between the verb and the post-verbal DP and second, phonological processes indicate that the verb and post-verbal DP are contained within a phonological phrase. They conclude that the evidence shows that the post-verbal DP is internal to "the minimal phrase containing the verb".

I agree with their conclusion that the post-verbal DP does not occur in an adjoined position external to the vP; I also argue that in English Locative Inversion the post-verbal DP occurs within vP, and not in an adjoined position. I disagree, however, that their evidence conclusively shows that the DP occurs in the canonical object position. The data they provide are also compatible with an analysis, such as the one presented here, in which the post-verbal DP occurs in the right specifier of vP, for in this position it is still internal to the vP.

(64) There [$_{vP}$ arrived a man].

In these sentences there is an Agree relation between T and the post-verbal DP, manifested by agreement between the verb and this DP. Given that English does not have verb raising, the occurrence of the DP after the verb indicates that it does not occur at the 'edge' of the vP, where edge is defined as the left specifier of vP. If vP were a strong phase, the Agree relation between T and the post-verbal DP would be in violation of the *Phase Impenetrability Condition* (PIC), given in (65).

(65) PIC: For HP a strong phase dominated by a strong phase ZP: the domain of H is not accessible to operations at ZP, but only H and its edge.

(Chomsky, 2001)

It therefore seems that unaccusative/passive vPs are not strong phases.

While separating transitive/unergative vPs from unaccusative/unergative vPs may be supported by the grammaticality of expletive constructions with unaccusative and passive verbs, it is not a conceptually well-motivated division. All types of verb phrases pattern together with regards to their isolability at the interface levels (Legate, 2001), a diagnostic of phase-hood suggested by Chomsky (2001). There is therefore no principled reason to separate them in the theory.

Given the conceptual motivation for unifying all verbal phrases, let us assume that all vPs are strong phases. The PIC therefore applies to unaccusative/passive vP, and constituents which move out of it must move to its edge prior to further movement. The v head of unaccusative/passive verb phrases must contain an EPP feature, in order to allow for the DP argument to raise to [Spec,TP] in sentences with SV word order.

(66)   [$_{TP}$ The flowers$_i$ [$_{vP}$ t$_i$ bloomed t$_i$]].

This therefore supports the proposal that unaccusative/passive v has an EPP feature.

In addition, the analysis given here suggests an explanation for the grammaticality of (64) which does not need to argue that unaccusative/passive vPs are weak phases. Let us suppose that edge is not defined solely as the left specifier of a phase, but can also be the right specifier of a phase. If the post-verbal DP in (64) occurs in the right specifier of v, then it occurs at the edge of the phase, and Agree between T and this DP does not violate the PIC.

In fact, there is evidence that the DP in sentences like (64) occurs in the right specifier of v. First, it has been noted that *there* sentence with unaccusative and passive verbs display a Presentational Focus similar to that of Locative Inversion sentences; these sentences are often called Presentational There sentences. This focus would be explained if the post-verbal DP occurs in a focus position. Second, word order facts are indicative of the DP in *there* sentences having shifted rightward. English marginally allows a transitive expletive construction, but only if the subject occurs after the object:

(67)   a.   There entered the room a man.

       b.   ??/*There entered a man the room.

This fact follows if the DP which Agree with T in an expletive construction must occur in a right specifier of v.

To conclude, I assume that all v's, unergative, unaccusative and transitive alike, contain an EPP feature. In the following sub-sections, I will show that the combination of this feature and F on v in Locative Inversion sentences creates an escape hatch for PP.

2.3.2   An escape hatch for PP

In the previous section I proposed that v in Locative Inversion sentences contains the EPP and F, a feature which forces the post-verbal DP to occur in the right-specifier of vP and derives the Presentational Focus of the construction. In this section I show that these features work together to create an escape hatch for PP, allowing it to move to [Spec,TP]. I further show that this analysis derives another characteristic of Locative Inversion: its incompatibility with transitive verbs.

I argue that once the DP occurs as the right specifier of v, the locative raises to a higher specifier of v in order to satisfy the EPP on v, as illustrated in (68).

(68)
```
              vP
            /    \
         PP_i     vP
          ▲     /    \
          |   vP      DP
          |  /  \
          | v    VP
          |[EPP] /  \
          |  (t_DP)   V'
          |          /  \
          |         V     t_i
          |_____|
```
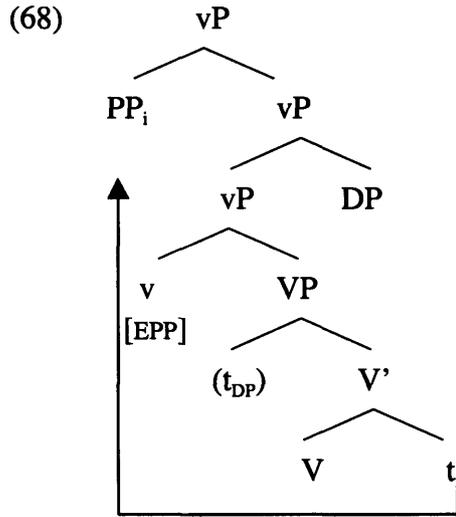
This movement reverses the merged hierarchical order of the DP and the PP. For this reason the PP is able to move on to [Spec,TP] without violating locality constraints. While F is able to move one DP out of the way of the PP, enabling the PP to move further, it is not able to move more than one DP out of the way. For this reason the escape hatch is not available in transitive verbs, and these verbs are incompatible with Locative Inversion.

The movement step in (68) instantiates a general hurdling mechanism that is available in language to allow a lower argument to raise over a higher one (see Anagnostopoulou, 2003, McGinnis, 1998, 2001, Ura, 1996, 2000 and Chapter 3 of this dissertation). In order for this movement to be possible the following claims must be true: (i) movement past one specifier into a higher specifier of the same head is possible, that is, 'tucking in' as in Richards (1997,2001) is not mandatory and (ii) specifiers of a head are not within the search domain of that head.[16] In Chapters 3 and 4 I will further motivate these claims. I will show that while the former initially appears to substantiate the notion of equidistance between specifiers of the same head, the availability of this movement can be understood without relativizing the definition of closeness to minimal

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[16] Or, at least specifiers of a head do not block attraction of a lower category.

domains. In addition, I will argue that hurdling is mandatory, and tucking in is impossible.

2.3.2.1 Unaccusatives

As we have already seen, I assume unaccusative vPs have the structure in (69).

(69)

```
                vP
              /    \
        roll_i-v    VP
                   /  \
                 DP    V'
                /\    /  \
              Mary  t_i   PP
                         /  \
                    down the hill
```
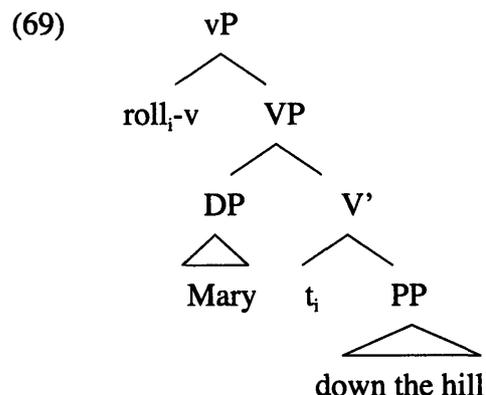
The v head contains the EPP and F. This featural composition makes two derivations possible: one in which the EPP is satisfied first, and one in which F is. As we will see shortly, only the latter derivation will converge. Let us proceed with this one first.

As I mentioned in Chapter 1, I assume that EPP features can be satisfied either by pure Merge (e.g. *there* satisfies the EPP on T) or by movement. Pure Merge is also governed by theta-theory, however: a DP can only be Merged into a position in which it is assigned a theta role. Since unaccusative v has no theta role to assign to its specifier, no DP can be merged into the specifier of v. F (and the EPP feature it contains) therefore requires that a category raise to the right specifier of v. Consequently, v searches down the tree for a goal, and finds the DP. An Agree relation is established and the DP raises to the right specifier of vP, satisfying the EPP on F.

(70)

```
              vP
            /    \
          v'      DPₖ
        /    \    / \
   rollᵢ-v   VP  Mary
           /   \
         tₖ    V'
              /  \
            tᵢ    PP
                 / \
            down the hill
```
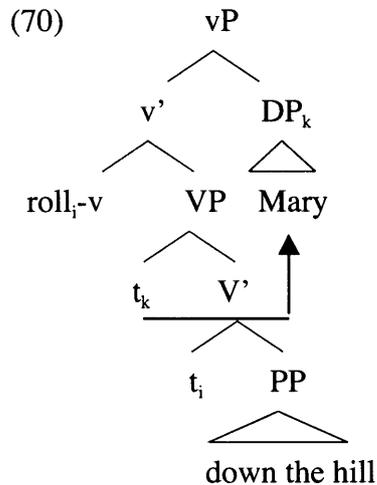
Now v begins its search for a category that can satisfy its EPP feature. Given that the DP has raised to the right specifier of vP, only its trace is within the search domain of v. Traces cannot enter into Agree relations with probes (Chomsky, 2001); therefore, when v begins its search for a category to satisfy its EPP feature, it skips over the trace of the DP, and finds the PP. The PP hurdles over the DP to the left specifier of vP satisfying the EPP feature on v. At this stage in the derivation the structure of the vP is that in (71).

(71)

```
                  vP
                /    \
            PPᵢ        vP
           /  \      /    \
    down the hill  v'      DPₖ
                 /   \     / \
            rollᵢ-v   VP  Mary
                    /   \
                  tₖ     V'
                        /  \
                      tᵢ    tᵢ
```
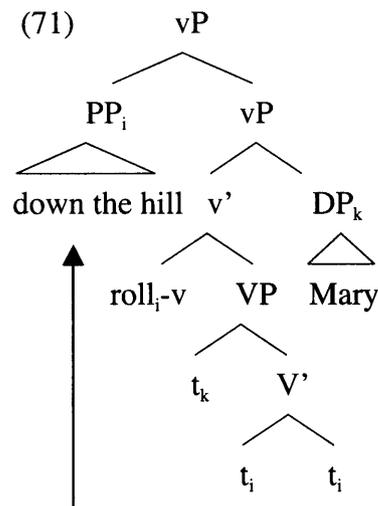
PP is now closer to T than the post-verbal DP. When T searches the tree for a category containing φ-features, it comes to PP first, and it is the PP that raises to [Spec,TP]. In this way the movement of the DP and the EPP feature on v provide an escape hatch for PP to move to TP.

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Once in [Spec,TP], the PP cannot delete the ϕ-features of T because it is not ϕ-complete, so T searches the tree again, and enters into an Agree relation with the post-verbal DP. The ϕ-features of T and the Case features of the DP are checked; for this reason the verb agrees with the DP. The trace of the fronted PP does not interfere with this relation because traces do not cause intervention effects.

The final derivation of a Locative Inversion sentences under this analysis is shown in (72).

(72)

```
                          TP
                   ┌──────────┴──────────┐
                  PP                     T'
             ┌────┴────┐           ┌─────┴─────┐
          down the hill_j          T           vP
                                        ┌───────┴───────┐
                                       t_j              vP
                                              ┌──────────┴──────────┐
                                             v'                    DP_k
                                        ┌─────┴─────┐            ┌───┴───┐
                                    roll_i-v       VP            Mary
                                             ┌──────┴──────┐
                                            t_k           V'
                                                    ┌──────┴──────┐
                                                   t_i           t_j
```
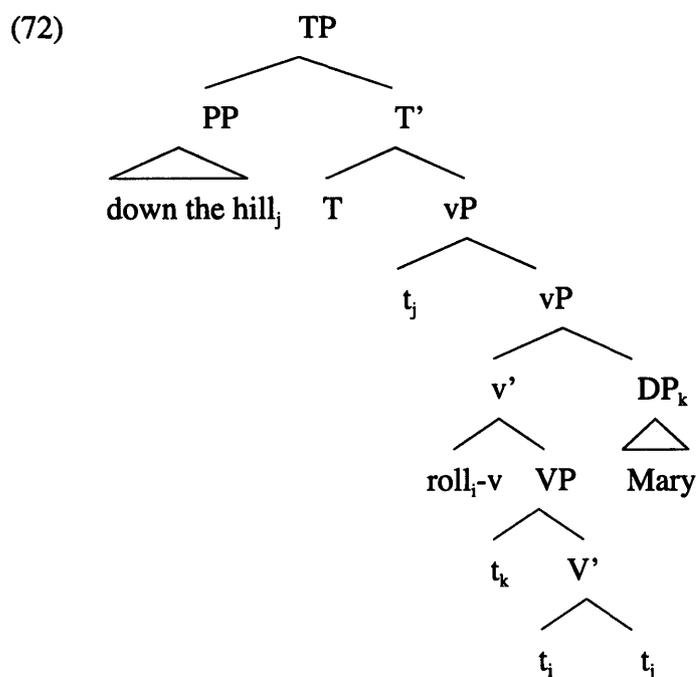
Is this the only possible convergent derivation? The answer is yes: a derivation in which the EPP instead of F is satisfied first will result in a crash. In this derivation the DP would be forced to raise to the left specifier of v in order to satisfy the EPP, as it is the closest category to v. The PP would then raise to the right specifier of v in order to satisfy the EPP on F. In this position it is higher in the tree than the DP. At this point the derivation crashes because there is no category that can raise to [Spec,TP]. The PP is unable to move to [Spec,TP] because it is the right focus position, from which movement is prohibited (see the sentences in (62)). The DP also cannot move to this position because this movement would violate Shortest Agree, as the PP occurs higher in the tree. This derivation is therefore excluded, and the only converging derivation is one in which F is satisfied first.

The rightward movement of the DP ultimately derives the presentational focus of Locative Inversion and establishes a means for the PP to escape vP. The presentational focus of Locative Inversion is therefore crucially related to the ability of the locative/directional PP to raise to [Spec,TP].

2.3.2.2 Unergative verbs

In the previous section I argued that movement of the DP argument of unaccusative verbs along with the occurrence of an additional EPP feature on v ultimately allows the PP to move out of the vP. In this section I show that in Locative Inversion sentences with unergative verbs, the existence of F on v once again allows the EPP to create an escape hatch for PP. In the derivation of these sentences, however, F is satisfied by pure Merge, and not by Move.

As was the case with unaccusative verbs, the v in Locative Inversion sentences with unergative verbs contains F and the EPP. Unergative verbs assign a theta role to the specifier of v; therefore, a DP can be merged in either the right specifier or the left specifier of v.[17] In a Locative Inversion derivation, it is merged into the right specifier of v, where it satisfies the EPP on F and is therefore assigned focus.[18] The v head now begins its search down the tree for a category to satisfy its EPP feature. It finds the PP, which hurdles over the DP to the left specifier of v.

(73)

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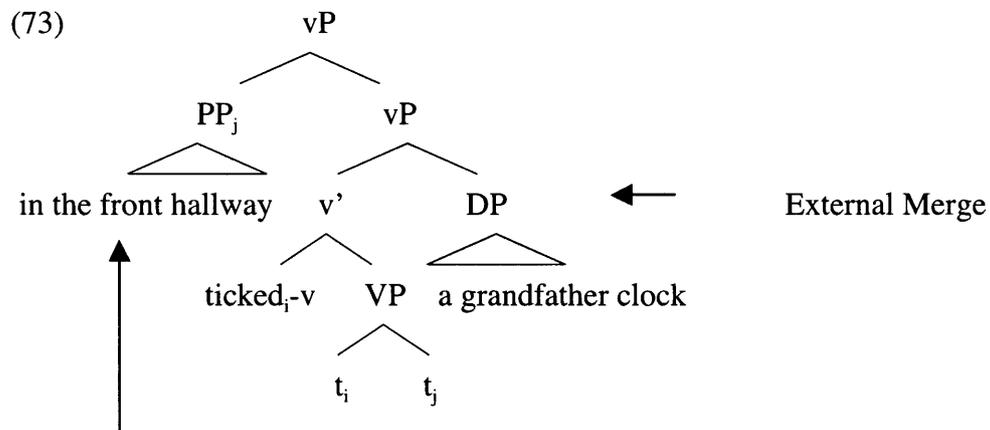
[17] I assume that a theta role can be assigned to either the left or the right specifier of v; what matters is not the direction of the specifier but that the specifier be the closest one to v.

[18] A derivation in which the DP argument is merged in the left specifier, satisfying the EPP, is excluded for the same reason the derivation in which the EPP is satisfied by DP movement in unaccusative verbs is excluded: this creates a configuration in which no category can raise to T to satisfy its EPP feature. The PP is forced to raise to the right specifier of V, from which position it cannot move, while the DP cannot raise to [Spec,TP] because it occurs lower than the PP.

The locative PP is now higher in the tree than the DP; it can therefore move on to [Spec,TP].

Once again the focus feature on v, which ultimately derives the Presentational Focus of Locative Inversion, allows the EPP feature on v to create an escape hatch for the PP. If this feature were not present the DP argument of the verb would be merged into the left specifier of vP, satisfying the EPP on v. The PP would remain in its base generated position, where it would be unable to enter into an Agree relation with T and move to [Spec,TP]. Once again, the Presentational Focus of Locative Inversion is crucially related to the ability of the PP to raise to [Spec,TP].

2.3.2.3   Transitive Verbs

In the previous sections, I showed that the focus feature on v derives both the Presentational Focus of Locative Inversion as well as the ability of the PP to raise to [Spec, TP]. In this section I show that the transitivity restriction of Locative Inversion also follows from this analysis.

Locative Inversion is not compatible with (non-passivized) transitive verbs as shown in (74).

(74)   a.   * On the table placed the book John.

    b.   * On the table placed John the book.

I have argued above that v head in Locative Inversion sentences contains both F and a EPP feature, and that either of these features can be satisfied by merging an argument into the specifier of v. Given this, when the external argument of a transitive verb is merged in a Locative Inversion sentence, it can merge into the left specifier or the right specifier. In either case Shortest Agree prevents the PP from raising past the other DPs to [Spec,TP].

Let us start with a derivation in which the external argument is merged into the right specifier, paralleling the derivation of a Locative Inversion sentence with an unergative verb. Once the external argument is merged into the right specifier of v, the EPP on F is satisfied. At this point in the derivation the structure of vP is that (75).

(75)

```
                        vP
                       /  \
                     v'    DP  ◄── External Merge
                    /  \   / \
             placedᵢ-v  VP  John
                       /  \
                     DP    VP
                    /  \   /  \
              the book  tᵢ    PP
                             /  \
                          on the table
```
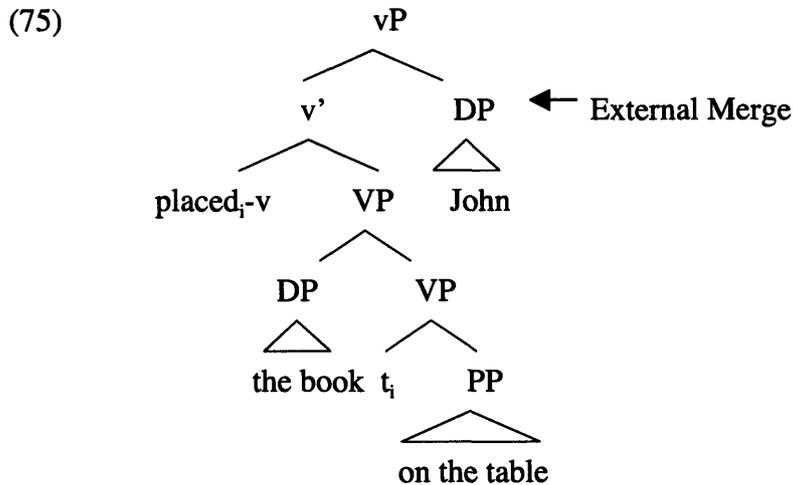
As we can see clearly in (75), while the subject DP does not intervene between the v and the locative PP, the object DP does. There is therefore no way that the PP can raise to a specifier of v, and then on to [Spec,TP], without violating Shortest Agree. Merging the external argument into the left specifier of v, satisfying the EPP, does not help. Once again, the direct object DP intervenes between v and the PP, thereby preventing the PP from raising past it.

Crucially, in a transitive verb there is no way for the PP to escape the VP and raise to [Spec,TP], a movement which is necessary to derive a Locative Inversion sentence. Given that there are two arguments above the PP in the tree, any movement of the PP above these arguments involves a Shortest Agree violation. The transitivity restriction is therefore derived: transitive verbs cannot occur in a Locative Inversion sentences, since the direct object will always prevent the locative PP from raising to [Spec,TP].

While there is no way for the PP to raise over either DP, the object DP in (75) *can* hurdles over the subject to the left specifier of v, in the same way in which the PP does in Locative Inversion sentences with unaccusative/unergative verbs. The subject DP is not within the search domain of the v; therefore, the object DP can raise to v's specifier without violating Shortest Agree. From here it is free to move on to [Spec,TP]. This would derive a sentence with OVS word order, an order that is not available in English, as shown by (76).

(76) *The books placed on the table John.

The difference between this sentence and the grammatical examples of Locative Inversion is the nature of the category that raises to [Spec,TP]. In Locative Inversion, a PP raises to this position, while in OVS sentences such as (76) it is a DP that raises. A PP is not φ-complete; therefore, it cannot check the φ-features of T. This allows T to enter into an Agree relation with the post-verbal DP and to check its Case features. The direct object DP is φ-complete, however, and thus checks all of the uninterpretable features on T. T therefore does not enter into any other Agree relationship with any other category in the tree. In a derivation of a sentence like (76), therefore, the direct object has checked both v's and T's uninterpretable features, making them unable to check the Case of any other category. Given this, the external DP argument cannot check its Case feature, and the derivation fails. This accounts for the ungrammaticality of (76), or of any sentences in English in which the object, and not the subject, raises to [Spec,TP].[19]

While the body of this analysis is largely independent of what particular version of locality, movement, and verb agreement is assumed, this account of the ungrammaticality (76) is not. In order to rule out OVS sentences in English it is crucial that a DP in [Spec,TP] prevent the T from satisfying another DPs Case feature. The ungrammaticality of (76) is therefore important in that it highlights the contribution that the framework adopted here provides. We will see in section 2.4 that this makes some interesting predictions.

2.3.2.4 Passivized Transitive Verbs

In addition to unaccusative and unergative verbs, passive verbs are compatible with Locative Inversion, as exemplified in (77).

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[19] The grammaticality of sentences with quirky subjects may initially appear to contradict this analysis. In these sentences, a DP which does not bear nominative case occurs in [Spec,TP] while another DP that is not in subject position bears nominative case, indicating that it Agrees with T. I assume that quirky subjects, like expletives and locative PP, are not φ-complete. For this reason, T is free to Agree with another DP.

(77)   a.   On the wall was pinned an oversized poster of Marilyn Monroe.

         b.   On the table were placed four cups and a pitcher of lemonade.

         c.   Through this park have strolled a millions of couples in love.

The fact that passive verbs can occur in Locative Inversion is predicted by the analysis presented here. As shown in 2.3.2.3, transitive verbs are excluded from this construction because the occurrence of two arguments within the vP in addition to the locative PP prevents the PP from being able to raise to [Spec,TP]. In passive vPs, the external argument has been suppressed, creating a vP, which, like unergative and unaccusative vPs, contains only one argument in addition to the locative PP. This argument can shift to the right specifier of vP to satisfy F, allowing the locative PP to raise to the left specifier of vP and ultimately to [Spec,TP]. The fact that passivized transitive verbs are compatible with Locative Inversion is therefore predicted by this analysis.

In fact, any morphological operation that suppresses one of the arguments of a transitive verb, like the passive, is predicted to be compatible with Locative Inversion. Another example of such operation which has this property is provided by the morphological operation involving Chinese *zhe*. As shown in Pan (1996), *zhe* (the imperfective marker) eliminates the agent role of the verb. Transitive verbs which occur with *zhe* are incompatible with a lexicalized subject, and compatible with Locative Inversion. This compatibility is predicted by the analysis offered here.

2.3.3 Summary

The analysis presented here argues that the three main properties of Locative Inversion are crucially related. The subject behavior of the PP is due to its occurrence in [Spec,TP], and the Presentational Focus and the transitivity restriction follow from the way in which the construction allows movement of PP to this position. Presentational Focus is derived by the occurrence of post-verbal DP in the right specifier of vP. The DP resides in the position in order to satisfy a focus feature, F, on v. It is the occurrence of F on v which distinguishes it from non-inversion sentences, which contain only a EPP feature. The co-occurrence of F and the EPP on v permits the PP to hurdle over the DP, a movement which reverses the merged hierarchical order of the two arguments and permits further movement of the PP to [Spec,TP]. This reversal only affects the locative, however, if it is

one of the two arguments merged highest in the vP. In a transitive vP, the external argument and the DP object are the two highest arguments; therefore, the locative never has a chance to raise higher than the other arguments. For this reason, transitive verbs are incompatible with Locative Inversion.

2.4   Further Extensions

In section 2.3.2.3 I argued that Locative Inversion sentences are incompatible with transitive verbs because the locative PP has no way to escape the vP to raise to [Spec,TP]. I also explained why OVS word order is not possible in English, even if the subject is focused: the occurrence of the object in [Spec,TP] checks all of T's features, making it unable to enter into an Agree relation with the subject DP. The subject DP therefore never gets its Case checked, and the derivation crashes. This analysis therefore predicts that if the subject DP finds some other way to check its Case features, the derivation will converge, and OVS word order will be derived.

One construction that is of interest in this respect are OVS sentences in languages whose base word order is SVO. While this word order is ruled out in English, it is allowed in many Bantu languages, among others. I will take Kirundi, as described in Ndayiragije (1999) as a representative example. Ndayiragije (1999) argues convincingly that OVS sentences in Kirundi have the following properties: the object occurs in [Spec,TP], inducing agreement between the verb and the object, and the subject occurs in a right specifier position, deriving its obligatory contrastive focus. These properties suggest that the derivation of these sentences closely parallels that of Locative Inversion sentences in English, with the exception that in Kirundi an object DP can raise to [Spec,TP], while in English this is not possible. The analysis argued for here would predict, therefore, that in Kirundi the Case features of the subject DP are taken care of in a way that is not available in English.

In fact, Ndayiragije argues on the basis of the Kirundi data that DPs, as well as all other lexical categories, do not enter the derivation with any uninterpretable features. Instead, only functional categories enter with uninterpretable features, and it is these features which drive overt movement. For this reason, a derivation in which an object DP raises to [Spec,TP] and checks all of T's uninterpretable features converges. The subject

DP does not have any uninterpretable features, and so need not enter into an Agree relation with T.

I suggest that whether or not lexical categories enter the derivation with uninterpretable features is a parameter that varies cross-linguistically. Contrary to Ndayiragije, I assume that in some languages (eg. English) lexical items do enter the derivation with uninterpretable features. Kirundi represents a language in which they do not; for this reason, the OVS construction discussed above is tolerated. English represents a language in which lexical items do enter the derivation with uninterpretable features; for this reason, OVS is not tolerated.

2.5   Conclusion

This analysis provides a unified explanation for three main properties of Locative Inversion: the subject behavior displayed by its fronted PP, its Presentational Focus, and its incompatibility with transitive verbs. Under this analysis Locative Inversion sentence differs minimally from a non-inversion sentence by a single feature: a focus feature on v. This single feature is able to derive the three signature properties of Locative Inversion through its interaction with general properties of the grammar. The properties of Locative Inversion are therefore less mysterious than they appear at first glance, and instead are natural consequences of the grammar.

This analysis makes some important contributions to the grammar outside the domain of Locative Inversion. First, the account developed here motivates the theory of Case checking that is developed in Chomsky (2000, 2001) in which Case checking is parasitic on an Agree relation between a head and an item needing its Case checked, and shows that this account makes some interesting predictions about constructions outside of Locative Inversion, which at least are preliminarily confirmed. Secondly, this analysis provides evidence against an equidistance approach to Locative Inversion, where it is assumed that either the locative PP or the theme DP can raise to [Spec,TP] because they are equidistant. Unlike the account developed here, an equidistance approach does not explain why Locative Inversion has a different discourse function than non-inversion sentences. Locative Inversion therefore ultimately provides arguments that closeness should be defined by strict c-command alone, and that no notion of equidistance is

relevant for locality. This is an interesting result, as the existence of Locative Inversion has previously been cited as evidence for equidistance. It is also an exciting one, as it considerably simplifies the grammar.

While eliminating equidistance simplifies the grammar, it also poses a new challenge: accounting for those cases where equidistance had been previously posited in order to avoid locality violations. In the next two chapters I take up this challenge. The analysis of Locative Inversion presented here instantiates a general hurdling mechanism for avoiding such locality violations. I will show that this mechanism can be extended to account for the grammaticality of a variety of constructions where equidistance was previously posited. This work therefore adds to the growing body of literature on the mechanisms employed by language to enable arguments to move where locality considerations suggest that this movement should be prohibited. It therefore contributes to understanding of movement in general: of what permits it and what constrains it.

2.6   Appendix: Domain of Inquiry

Until recently, it was assumed that all sentences containing PP_{loc} V DP word order formed a homogeneous set: all were examples of the same construction, dubbed Locative Inversion. Culicover and Levine (2001) argue against this view, and propose that what was previous called Locative Inversion can actually be broken into two constructions: Light Inversion and Heavy Inversion. Under their analysis, these two constructions, while superficially similar, have very different derivations. The crucial difference between these constructions is that in Light Inversion the locative PP occurs in [Spec,TP] , while in Heavy Inversion it is the post-verbal subject which raises to [Spec,TP], while the locative PP raises directly to a topic position at the beginning of the sentence. The post-verbal DP is then Heavy NP Shifted (HNPS) to the right, deriving the correct word order. Heavy Inversion is therefore restricted to sentences in which the post-verbal DP is heavy, while Light Inversion is not.

They further argue that this bifurcation provides us with a clearer picture of the properties of Locative Inversion. In particular, it clarifies the types of verbs that are compatible with it. As noted in section 2.3.1.2, Levin and Rappaport (1995) argue that

both unaccusative and unergative verbs appear in Locative Inversion. Culicover and Levine argue that once the data are looked at with the bifurcation of Locative Inversion into Light and Heavy Inversion in mind, it can be shown that Light Inversion *is* restricted to unaccusative verbs; only Heavy Inversion is not. In this section I will argue against this view, and show that both Light Inversion and Heavy Inversion are compatible with unergative verbs.

Culicover and Levine cite contrasts similar to that in (78) to argue that the DP in inversion sentences with unergative verbs must be heavy.

(78)   a.   *In the room slept Robin.

       b.   In the room slept the students in the class who had heard about the social psyche experiment that we were about to perpetuate.

While I agree that sentence (78a) is marked, I do not think that all Locative Inversion sentences with unergative verbs require a heavy post-verbal DP. In fact, I find that even (78a) is considerably improved once the definite determiner *the* is changed to the demonstrative determiner *this*.

(79)   In this bed slept Robin (and in that bed slept Amy).

It therefore seems that additional factors besides the lightness of the post-verbal DP are responsible for the markedness of (78a).

Further examples of Locative Inversion sentences with unergative verbs where the post-verbal DP is not heavy are given in (80).

(80)   a.   In this display case glittered a ring.
       b.   At the top of the flag pole waved a flag.
       c.   Among the foliage fluttered a sparrow.
       d.   Around the ring pranced the horses.
       e.   Inside the pond swam many fish.

The post-verbal DPs in (80) are not heavy enough to undergo HNPS, as shown in (81), yet they are still grammatical in Locative Inversion sentences that contain unergative verbs. The grammaticality of (80c-d) show that this is possible even when the post-verbal DP is agentive, a characteristic property of unergative verbs. Since HNPS of the post-verbal DP is part of the derivation of a Heavy Inversion sentence, the grammaticality of the sentences in (80) indicates that not all Locative Inversion sentences with unergative verbs are instances of Heavy Inversion.

(81)   ?? I gave to my mother a ring /a flag/ a sparrow/the horses/many fish.

One could perhaps argue that Heavy Inversion sentences that contain unergative verbs do not require the same level of heaviness on the post-verbal DP. The sentences in (80) could therefore still be viewed as instances of Heavy Inversion, making them compatible with the view that Light Inversion is restricted to unaccusative verbs. This assumption cannot be maintained, however. There is evidence that sentences like those in (80) are in fact instances of Light Inversion.

Culicover and Levine provide data that show that Heavy and Light Inversion constructions differ in the A- versus A-Bar Movement properties of the locative PP. In Light Inversion, the PP displays properties characteristic of A-Movement, while in Heavy Inversion it displays A-Bar Movement properties. A-Bar Movement, but not A Movement, is sensitive to Weak Cross Over (WCO) effects, as shown by the contrast in (82).

(82)   a.   Who$_i$ appears to his$_i$ mother [t$_i$ to be a genius]?
       b.   ??Who$_i$ does his$_i$ mother think [t$_i$ is a genius]?

                                        (Culicover and Levine, 2001)

The contrast between (82a), which involves Raising, an example of A-Movement, and (82b), which involves A-Bar Movement, indicates that A-Bar but not A-Movement is sensitive to WCO. This same contrast can be found between Light Inversion sentences and sentences which involve topicalization of the locative PP.

(83) a. * Into every dog's$_i$ cage its$_i$ owner peered.

  b. Into every dog's$_i$ cage peered its$_i$ owner.

<div align="right">(Culicover and Levine, 2001)</div>

This argues that the PP in (83b) does not undergo topicalization, but instead A-Movement. Sentences with Heavy Inversion, they argue, do not show this contrast.

(84) a. In every dog's cage hung it's collar.

  b. * In every dog's cage hung on a hook its most attractive and expensive collar.

The sentence in (84a), which is an example of Light Inversion, does not show WCO effects, as expected. The sentence in (84b), however, which is an example of Heavy Inversion, is ungrammatical, indicating that it is sensitive to WCO effects. According to Culicover and Levine, this contrast follows from the fact that the locative PP in Heavy Inversion has been topicalized and so sits in an A-Bar position, while in Light Inversion it is an A-position ([Spec,TP]).

If the sentences in (80), which contain an unergative verb, were actually instances of Heavy Inversion, we would expect that in these sentences the locative PP would display WCO effects. This is not the case, as shown in (85).

(85) a. In every showgirl's dressing room glittered her tiara.

  b. On every fraternity's roof waved their flag.

  c. In every girl's bedroom fluttered her sparrow.

  d. In every trainer's yard pranced his horses.

  e. Inside every woman's pond swam her fish.

This indicates that Locative Inversion sentences that contain an unergative verb and light post-verbal DP are examples of Light Inversion and not Heavy Inversion. It therefore seems that Light Inversion is not in fact restricted to unaccusative verbs.

Culicover and Levine provide other evidence that the derivation involved in Heavy Inversion is different than that of Light Inversion. I do not have the space to address these issues here, although I believe that further inquiry will show that the derivations behind these constructions are more similar than suggested by Culicover and Levine. That said, the analysis provided here is not inconsistent with a theory that maintains that Heavy Inversion and Light Inversion are distinct constructions with different derivations; under such as theory, the analysis presented her can be viewed as an analysis of Light Inversion alone.

Chapter 3:   Passivization in Ditransitives

3.1   Intro

The previous chapter presented an analysis of Locative Inversion. I argued that this analysis is superior to other accounts in that it is able to link a host of characteristics of the construction to the strategy which allows the locative argument to raise past the theme DP to [Spec,TP]. In particular, this account is better than an account that assumes that the locative can raise to subject position past the DP argument because the two are equidistant from T. Under an equidistance account, a derivation that involves DP movement is not different from one which involves movement of the locative; the fact that the sentences which result from these derivations have very different properties is therefore left unexplained.

The account of Locative Inversion presented in Chapter 2 crucially relies on the assumptions in (86).

(86)   (i)   The definition of closeness is not relativized to minimal domains; it is

defined by strict c-command alone.

(ii)   *Hurdling* is possible, a movement in which one argument moves over an

existing specifier into a higher specifier of the same head.

In this chapter I provide evidence that supports both of these assumptions. This evidence comes from passivization in ditransitive verb phrases. In particular, it comes from *long passives*, in which one object raises past a higher one, as schematized in (87).

(87)

```
                    TP
              ┌─────────┐
            DP₂          T'
             ▲      ┌─────────┐
             │     T           XP
             │             ┌───────┐
             │           DP₁       X'
             │                   ┌─────┐
             │                    t₂
             │                    
             └────────────────┘
```
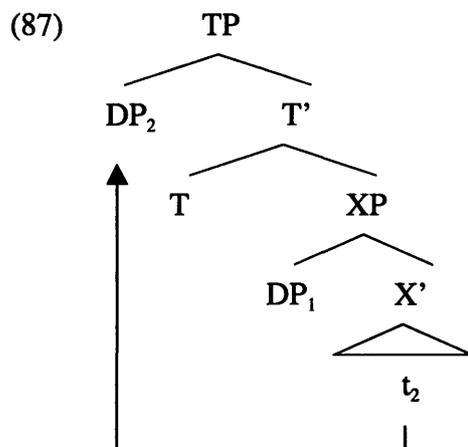
This type of movement raises a problem: it involves a preliminary Agree relation in which T Agrees with DP_2, apparently past a closer goal, DP_1, a step that violates locality constraints.

One resolution to this problem is to assume that equidistance holds between the two objects. Under this analysis, if both objects are contained within the same minimal domain, then T can Agree with DP_2 past DP_1 because the objects are equidistant from T.

While some analyses have claimed that data from passivization in ditransitives supports equidistance (Anagnostopoulou, 2003), in this chapter I show that once recent developments in the domains of applicatives have been taken into account (Pylkkänen, 2001), the data provided by these constructions actually argue against equidistance. In particular, I show that long passives are possible only when certain strategies are exploited to obviate locality considerations. This fact is incompatible with an equidistance account, but it is predicted if closeness is determined by strict c-command alone. Furthermore, I will show that one of the ways in which a locality violation can be obviated involves hurdling of the lower object over an existing specifier, and that this movement is possible whether the existing specifier is thematic or derived. The data from long passives therefore further substantiates both of the assumptions in (86).

This chapter is organized in the following way. In section 3.2 I review arguments that locality considerations, and not just Case, are relevant to the distribution of long passives; the data provided by these constructions can therefore shed light on how locality works. In section 3.3 I outline the theory of Pylkkänen (2001), in which there are two types of applicatives: low applicatives, in which both objects are within the same

minimal domain, and high applicatives, in which they are not. I will show that long passives are often excluded in both high *and* low applicatives, contrary to an equidistance approach. In sections 3.4 through 3.6 I outline the various ways in which long passives are sanctioned. Long passives in high applicatives are made possible by hurdling of the lower argument over the higher one prior to passivization. Long passives in low applicatives are possible if either (i) they are only apparent, ie. the passivized object was actually merged higher than the non-passivized object or (ii) the higher object is removed from the search domain of T or v.

3.2   Locality counts: Anagnostopoulou (2003)

In many languages, long passives are ungrammatical. This is exemplified for (many dialects of) English in (88).

(88)   * A ball was given Luke ___ .

The traditional accounts of the ungrammaticality of long passives fall into two camps: Case-theoretic accounts and locality accounts. In this section I review arguments that Case-theory alone cannot account for the distribution of long passives; locality considerations are also relevant.

Case-theoretic accounts of the ungrammaticality of long passives can also be broken into two groups: DP_1-centered and DP_2-centered. Under the first approach long passives are ungrammatical because of the Case needs of the higher object. In an active sentence, v assigns Case to the higher object in a double object construction. In passives, however, it is assumed that the Case assigning ability on v is suppressed. If DP_1 raises to T, its Case needs are satisfied by T. If DP_2 raises, however, the DP_1's Case needs are not met, and an ungrammatical sentence results (Larson, 1988).

Under the second approach, the ungrammaticality of long passives is due to the Case properties of the lower object. This object cannot passivize because its Case needs are already met; either it is a PP (Pesetsky, 1995) or has incorporated into the verb (Baker 1988).

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Anagnostopoulou (2003) argues that case-theoretic accounts of passives cannot account for restrictions on long passives in Greek. Long passives are generally prohibited in Greek. A theme object cannot passivize in the presence of a goal object, as shown in (89).

(89) a. ?* [To ▲ vivlio]   charistike   tis Marias   __ apo ton Petro.

              The book-NOM award-NACT the Maria-GEN   from the Petros

              ?* 'The book was awarded Mary by Peter'

     b. ?* [To grama]   tachidhromithike tu Petru __ apo tin Ilektra.

              The report-NOM mailed-NACT-3SG the Petros-GEN   from the Ilektra

              ?*'The letter was mailed Peter by Ilektra'   (Anagnostopoulou, 2003)

Theme passivization is possible, however, if the goal is realized as a clitic or is clitic doubled, as shown in (90).

(90) [To ▲ vivlio]   tis   charistike   (tis Marias) __ apo ton Petro

      The book-NOM CL-GEN award-NACT (the Maria-GEN) from the Petros

      'The book was awarded Mary by Peter.'   (Anagnostopoulou, 2003)

Anagnostopoulou (2003) argues that while neither of the Case-theoretic accounts of long passives can account for the contrast in (89)-(90), a locality approach can. There is evidence that the goal in Greek is inherently Case marked, and therefore does not need its Case checked by another head. The goal is therefore immune to whether or not v is able to check Case, contrary to DP_1-centered approaches. If v's Case checking ability is suppressed in the passive, the Case needs of the goal are still satisfied. In addition, the grammaticality of (90) indicates that the theme can passivize under certain conditions, contrary to DP_2-centered approaches. Finally, the contrast between (89a) and (90) can be understood under a locality approach. As discussed in section 3.6.1, cliticization or clitic doubling of goal obviates the locality violation that is normally incurred by theme passivization.

Passivization facts in Greek therefore show that locality is relevant to passive derivations. Passivization in double object constructions can therefore shed light on how locality works.

3.3   Passivization and Applicatives

In this section I discuss data from passivization in applicative constructions. 'Applicative' has been used as a cover term for a set of closely related grammatical-function-changing processes in which the addition of an applicative morpheme to the verb allows an oblique to become an object (Baker, 1988). There are a number of asymmetries in the syntax of applicatives that have been noted in the literature. Pylkännen (2001) argues that these asymmetries can be derived once applicatives are split into two types, which each have different lexical semantics. High applicatives denote a relation between an event and an individual, while low applicatives denote a relation between two individuals, which is typically one of transfer of possession of the direct object to the indirect object. The effects of the semantic difference between low and high applicatives can been seen in the data below. Kichaga and Albanian benefactive objects, exemplified in (91), have a relation with the verbal event, but not with the direct object.[20]

(91)   a.   Kichaga

N-a-i lyi-i-a   m-ka   k-elya.

FOC-1S-PRES-eat-APPL-FV 1-wife 7-food.

'He is eating food for/on his wife.'   (Bresnan and Moshi, 1990)

b.   Albanian

Agimi   i mban Drits   çanten time.

Agim-NOM CL holds Drita-DAT bag-ACC my

'Agim holds my bag for Drita."

(eg. so that Drita can put something in it.)   (McGinnis, 2001)

---

[20]For typographical ease, I have suppressed tone diacritics in all of the data presented here, as it is not relevant to the discussion.

In (91a) *his wife* benefits from the eating event which takes place, but there is no transfer of possession between the direct object *food* and *his wife*. Similarly, in (91b), while *Drita* benefits from the holding event, she has no relation to the bag that is being held. This indicates that benefactives in Kichaga and Albanian are high applicatives. Notice that the verbs *eat* and *hold* are incompatible with an interpretation in which there is a transfer of possession between the direct object and the benefactive object; the compatibility of benefactives with these verbs therefore indicates that they are high applicatives in these languages.

The benefactive applicative in English and Icelandic, on the other hand, is a low applicative. In these languages there is a transfer of possession relation between the direct object and the benefactive. Thus, (92a) and (93a) are grammatical because the verb *bake* is compatible with the benefactive object being a possessor of the direct object (DO). The sentences in (92b) and (93b), on the other hand, are ungrammatical because the verb *hold* is incompatible with this interpretation.

(92)   a.   John baked Mary a cake.

        b.   * John held Mary her bag.

(93)   a.   Ólafur   bakaði henni   köku.

                Olafur-NOM baked her-DAT cake-ACC

                'Olafur baked her a cake."

        b.   * Höskuldur   heldur henni   töskunni.

                Hoskuldur-NOM hold   her-DAT bag-ACC

                'Hoskuldur is holding her bag for her.'   (McGinnis, 2001)

As a consequence of its semantics, a high applicative head (ApplH) takes a DP specifier and a VP complement, as shown in (94a), while a low applicative head (ApplL) takes a DP specifier and a DP complement, as shown in (94b).

(94) a. ApplHP   b.   VP

```
(94)  a.        ApplHP              b.              VP
              /      \                           /      \
            IO       ApplH'                     V       ApplLP
                    /      \                            /      \
                 ApplH     VP                         IO       ApplL'
                          /   \                                /     \
                         V     DO                           ApplL    DO
```
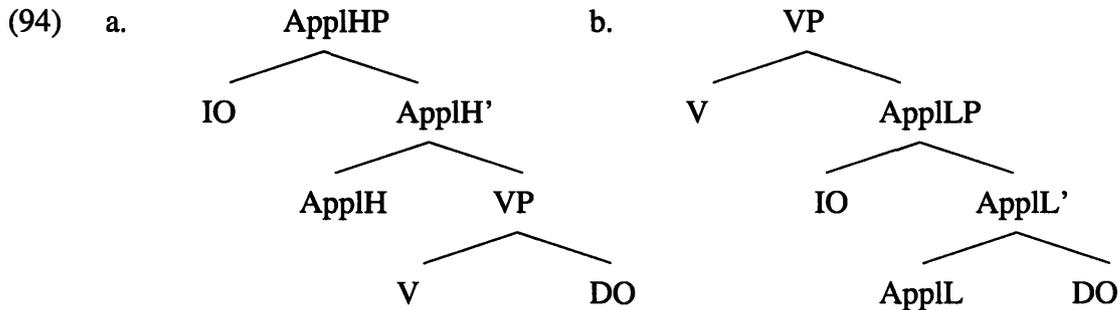
This distinction derives a host of known applicative asymmetries. For example, while some applicatives can combine with an unergative verb, others cannot. Pylkkänen's proposal derives this asymmetry in the following way. High applicatives can combine with any VP, including unergatives. Low applicatives, on the other hand, are incompatible with unergative verbs; since they denote a relation between the direct object and the applicative object, a direct object must be present. Consequently, benefactive applicatives are possible in Kinyarwanda (95a) and Albanian (95b) when no direct object is present, but not in English (96a) and Icelandic (96b).

(95) a.   Umugabo a-ra-som-er-a   umugore.

          man   SP-PRES-read-APPL-ASP woman

          'The man is reading for the woman.'   (Kimenyi, 1980)

     b.   Drita   i   pjek   Agimit.

          Drita-NOM CL   bake Agim-DAT

          "Drita bakes for Agim.'   (McGinnis, 2001)

(96) a.   * Mary ran Alicia.

          ' *Mary ran for Alicia.'

     b.   * Ólafur   bakaði henni

          Olafur-NOM baked her-DAT

          ' *Olafur baked for her.'   (McGinnis, 2001)

In this chapter I discuss another much noted applicative asymmetry: the passivization possibilities these constructions display. While both objects can passivize in those applicatives that have been traditionally called *symmetric* applicatives, only the applied indirect object can passivize in those applicatives traditionally called *asymmetric* applicatives. McGinnis (2001) notes that high applicatives are symmetric, ie. they allow long passives, while low applicatives are asymmetric, ie. they do not allow long passives. This is exemplified in the data in (97)-(99). All these sentences contain a benefactive object and a direct object. In active sentences the benefactive precedes the direct object, indicating that it is higher in the tree than the direct object. The sentences in (97) and (98) contain benefactives in Kichaga and Kinyarwanda, both of which are high applicatives, while the sentences in (99) contain a benefactive in English, which is a low applicative. While both the benefactive and the theme can passivize in Kichaga and Kinyarwanda, only the benefactive can passivize in English.

(97)   Kichaga

     a.   [K-elya] k-i-lyi-i-o   **m-ka** __.

           7-food   7S-PRES-eat-APPL-PASS 1-wife

           'The food is being eaten for the wife.'

     b.   [M-ka] n-a -i-lyi-i-o   __ **k-elya**

           1-wife FOC-1S-PRES-eat-APPL-PASS 7-food

           'The wife is having the food eaten for her.'   (Bresnan and Moshi, 1990)

(98)   Kinyarwanda

     a.   [Ibaruwa] i-ra-andik-ir-w-a   **umukoobwa** __ n'umuhuungu.

           letter   SP-PR-write-APPL-PASS-ASP girl   by boy

           'The letter is written for the girl by the boy.'

b.　　[Umukoobwa] ,a-ra-andik-ir-w-a　　__ **ibaruwa** n'umuhuungu.

girl　　　　SP-PR-write-APPL-PAS-ASP　letter　　by boy

'The girl is having the letter written for her by the boy.' (Kimenyi, 1980)

(99)　a.　* [A cake] was baked **Alicia** __.

b.　　[Alica] was baked __ **a cake.**

There are some exceptions to this generalization, to which I will return shortly. Notice however, that these facts are the opposite of what is predicted if a specifier and the complement of the same head were equidistant. Consider the structures in (94). In a low applicative, both objects occur within the same minimal domain: the IO is the specifier and the DO is the complement of ApplL. In a high applicative, however, the two objects are in different minimal domains: the IO is the specifier of ApplH and the DO is the complement of V. If closeness is relativized to minimal domains, the two objects are equidistant in a low applicative, but not in a high one. Equidistance therefore predicts that both objects are able to passivize in a low applicative, but not in a high one, contrary to fact. The fact that symmetric passivization is often excluded in low applicatives indicates that long passivization does not come for free from the structure in (94b); ie. equidistance between the objects does not hold.

While the applicatives from several languages fit into McGinnis' generalization, there are some exceptions. Not all high applicatives permit the lower object to passivize over the higher one. The benefactive in Chichewa is a high applicative, as shown in (100): it can be used when there is no transfer of possession relation between the IO and DO.

(100)　Chichewa

a.　　A-na-dy-er-a　　　mkazi wake　chakudya

　　　SP-PST-eat-APPL-FV　woman his　　food

　　　'He ate food for his wife.'

b. A-na-gwir-ir-a   mkazi wake thumba.

    SP-PST-hold-APPL-FV woman his bag

    'He held the bag for his wife.'   (McGinnis, 2001)

In Chichewa, however, the lower DO cannot passivize in the presence of a higher benefactive object:

(101) a. [Atsikina] a-na-gúl-ír-idw-á __ **mphatso** (ndi chítsîru).

     2.girls 2S-PST-buy-APPL-PASS-FV 9.gift by 7.fool

     'The girls were bought a gift (by the fool).'

  b. * [Mphatso] i-na-gúl-ír-idw-á   **atsikina** __ (ndi chítsîru).

     9.gift 2S-PST-buy-APPL-PASS-FV 2.girls by 7.fool

     'A gift was bought for the girls (by the fool).'   (McGinnis, 2001)

This indicates that the ability for the DO to raise past the IO in high applicatives can vary across languages.

   There are also some low applicatives that *do* allow the DO to passivize. To show this I will concentrate on goal applicatives, which are canonical low applicatives as they denote a transfer of possession relation between the DO and the IO. A goal applicative in English is given in (102).

(102) Lesley gave Luke a ball.

Goal applicatives often prohibit long passives, as expected by McGinnis' generalization.

(103) Greek

    ?* [To vivlio] charistike **tis Marias** __ apo ton Petro

    The book-NOM award-NACT the Maria-GEN from the Petros

    ?* 'The book was awarded Mary by Peter' (Anagnostopoulou, 2003)

(104) Danish[21]

    a.   [Jens] blev givet __ **bogen**

        Jens was given book-the

        'Jens was given the book'

    b.   * [Bogen] blev givet **Jens** __.

        Book-the was given Jens

        ?* 'The book was given Jens'   (Holmberg and Platzack, 1995)

(105) American English

    a.   [Luke] was given __ **a ball**.

    b.   * [A ball] was given **Luke** __.

In some languages, however, theme passivization in the presence of a goal object is possible. This is possible in Japanese and Icelandic, as shown in (106). As discussed in section 3.2 and shown in (107), theme passivization is also possible in Greek, provided the goal is a clitic or clitic doubled. Finally, theme passives are also permitted in Haya, provided either the goal is cliticized (108a) or the agent of the verb is not expressed (108b).

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[21] There appear to be some verbs in Danish that do permit the theme to passivize past the goal, as illustrate by the grammaticality of (ia) and (iia) (Lars Heltoft as reported by Chister Platzack, Line Mikkelsen, p.c.).
(i)   a.   Praemien blev frataget   ham igen
             prize-DEF was taken-away-from him again
             'The prize was taken-away-from him again.'
      b.   Han blev frataget   praemien.
             he   was taken-away-from prize-DEF
             'He was taken-away-from the prize.'
(ii)   a.   Prisen blev tildelt Ghita Nørby
             prize-DEF was allotted Ghita Norby
             'The prize was allotted Ghita Norby.'
      b.   Ghita Nørby blev tildelt prisen.
             Ghita Norby was allotted prize-DEF
             'Ghita Norby was allotted the prize.'
The difference between these verbs and the one in (104) merits further research.

(106) a.   Japanese

Kunsyoo ga Yoshida-syusyoo   niyotte **Tanaka-tuusandaizin ni**

Medal NOM Yoshida-prime-minister by   Tanaka-minister   DAT

atae-rare-ta

award-PASS-PST

'The medal was awarded to Minister Tanaka by Prime Minister Yoshida'

(Hoffman, 1991)

　　　b.   Icelandic (gefa verbs)

[Hún]   var sögð **einhverjum börnum**

It-NOM was told   some children-DAT

'?*It was told some children'   (Holmberg and Platzack, 1995)

(107)   Greek

To vivlio   **tis**   charistike   (**tis Marias**)

The book-NOM CL-GEN award-NACT the Maria-GEN

'The book was awarded to Mary'   (Anagnostopoulou, 2003)

(108)   Haya

　　　a.   ba-ka-**mw**-oolek-w-a Kato

they-PST-him-show-PASS Kato

'They were shown to him by Kato.'

　　　b.   epica   e-k-oolek-w-a   **omwaan'**

picture it-PST-shown-PASS child

'the picture was shown (to) the child.'

(Duranti and Byarushengo, 1977)

There are therefore cases in which long passives are permitted in both high and low

applicatives, as well as cases in which they are prohibited in both structures. This

suggests that neither of the structures in (94) automatically permit long passivization.

This is what is expected if closeness is defined by strict c-command alone. In both of the

structures in (94) the IO asymmetrically c-commands the DO. Therefore, if closeness is defined by c-command, the IO is closer to T than the DO, and movement of the DO to T across the IO violates locality conditions.[22]

If this is true, then long passives are only possible if the locality violation that movement of the DO past the IO would occur is obviated. In the remainder of this chapter I investigate the ways that locality violations are circumvented to sanction long passives in both high and low applicatives. This account ultimately provides further evidence against equidistance while also shedding light on the strategies employed by language to avoid locality violations.

3.4   High Applicatives: Hurdling

3.4.1   The derivation

I argue that long passivization in high applicatives is fed by the movement step outlined in (109).

(109)   ApplHP

DO   ApplHP

        IO   ApplH'

             ApplH   VP
             [EPP]
                    V   t
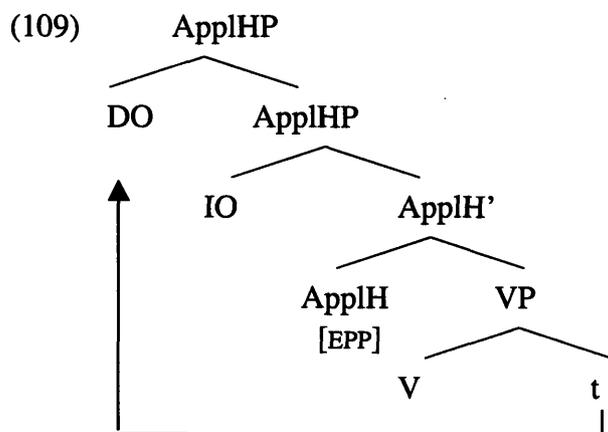
In (109) the DO has moved from complement of V to the higher specifier of ApplHP. This movement reverses the hierarchical order of objects in high applicatives, thereby making long passives possible. I assume that movement of the DO is driven by an EPP

---

[22] I maintain the assumption motivated in Chapter 2 that passive v contains an EPP feature that requires a item to occur in its specifier. If this is true, then a passivized object must stop in [Spec,vP] on its way to [Spec,TP]. In the majority of this chapter I abstract away from this preliminary movement in order to simplify the discussion because it does not effect the analysis presented here. I will return to this movement in section 3.6.1, however, where it becomes crucial to the discussion of theme passives in English with light pronoun goals.

feature on ApplH. If there is no EPP feature on ApplH, then this movement cannot occur and theme the DO cannot raise to [Spec,TP]. This accounts for the fact that the ability of the DO to passivize in high applicatives varies across languages.

This movement is another instantiation of the hurdling movement that is available to allow a lower argument to raise over a higher one, and that I argued in Chapter 2 is crucial to the derivation of Locative Inversion. In sections 3.5 and 3.6 I provide evidence that while this movement is available to high applicatives, low applicatives *never* allow this derivation. This explains why within a given language long passives can be grammatical in high applicatives, but ungrammatical in low ones.

3.4.2 Explaining Hurdling

The derivation in (109) has two main properties in need of explanation: why the movement of the DO past the IO to a high specifier of ApplHP does not violate locality constraints and why this movement is not available to low applicatives. I argue that both of these properties follow from a principled restriction on Agree, given in (110).

(110) Agree can only take place between a head and categories contained within the complement of that head.

This restriction can be broken into two parts: (i) Agree cannot take place between a head and its specifier and (ii) Agree is not possible between a head and its complement itself. This first part follows from the natural assumption that a specifier is not within the search domain of the head to which it is a specifier.[23] The second part is one way to derive the fact that movement from complement to specifier position of a single head is not possible

---

[23] Richards (2002) argues that a head can attract an item from its own specifier, a movement that requires Agree between a head and its specifier, and therefore contradicts the restriction on Agree in (110). This type of movement, as well as the inability of a specifier to block Agree between a head and its complement, can be understood if, as argued in Rezac (2003), a probe can only search for an item in its specifier after it has searched its complement. Rezac argues that evidence for this theory is provided by Georgian verbal agreement: object agreement on v can correspond to the ϕ-features of the specifier of v only if the complement of v does not contain ϕ-features. Under this approach the specifier of a head does not block Agree between that head and an item in its complement not because the specifier is not within the head's search domain but instead because the head searches its complement for a potential goal before it searches its specifier.

(see Abels, 2003, Boskovic, 1994, Lee, 2004, Pesetsky and Torrego, 2001, Saito and Murasugi, 1993).[24]

This restriction on Agree helps explain why movement of the DO to [Spec,ApplHP] does not violate locality constraints. The IO is in the specifier of ApplH and so is not within the search domain of that head. Therefore, when ApplH searches for an item with which to Agree, the first item it comes to is the DO, and Agree is established between ApplH and the DO. The DO then raises to the higher specifier of ApplHP; it does not tuck in below the IO. In general, tucking in below thematic specifiers is not attested; because of this one may be tempted to argue that tucking in does not occur here because the IO is a thematic specifier. I argue, however, that hurdling is also possible, and in fact mandatory, past derived specifiers; see Chapter 4 for more discussion.

The restriction in (110) also explains why this movement does not occur in low applicatives: the DO is the complement of ApplL and so cannot raise to the specifier of that head even if it had an EPP feature (see McGinnis, 1998, 2001 for a different account). This is exemplified in (111).

(111)   ApplLP

                        ApplLP

               IO   ApplL'

                        ApplL   DO
                        [EPP]
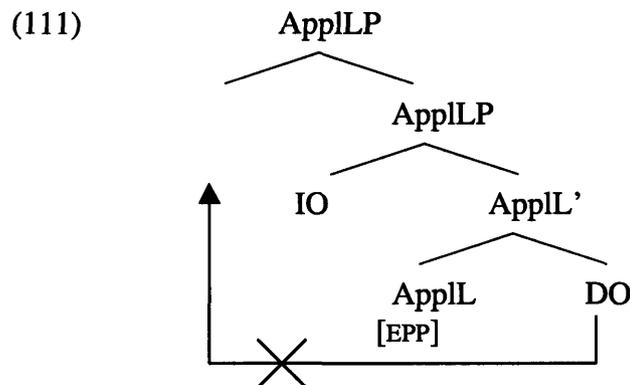
Hurdling is therefore not possible within the ApplLP.[25]

---

[24] It is possible that it is this type of movement, and not the precursor Agree relation that is ill-formed. This is the view taken by Abels (2003), Boškovic (1994), and Saito and Murasugi (1993), where it is argued that this movement violates a minimality requirement on movement (see Lee 2004 for discussion). This conclusion is consistent with the account presentend here. Pesetsky and Torrego (2001) also argue that Agree between a head and complement is possible, but results in head movement of the head of the complement to the head that selects the complement. I leave this as an open possibility. This option would not change the account developed here, as this sort of movement would not reverse the hierarchical order of the specifier and the complement, since the complement does not move at all.

In the next two sections I will turn to the way that long passives *are* sanctioned in low applicatives. I argue that apparent long passives are possible in low applicatives only if (i) they are actually short passives, that is, the object that passivizes is actually the closest potential goal to T, or (ii) the goal is removed from the search domain of T or v prior to passivization. The evidence for these strategies further substantiates the claim that equidistance does not hold between two objects, and that hurdling is not available to low applicatives.

3.5   Low Applicatives I: False Long passives

Once again, I will focus on goal applicatives, as these are canonical low applicatives. As noted in section 3.3, many goal applicatives do not permit long passives. This is as expected, since hurdling is not available to the lower object in a low applicative. There are also languages, however, in which long passives are apparently permitted in low applicatives. In this section I will argue that in many languages theme passivization in low applicatives is fed by a structure in which the theme is the closest potential goal to T. This hierarchical order is often reflected by the possible word order of theme>goal in goal applicatives. There are also languages, however, which allow theme passivization yet only display goal>theme word order. I will argue that even in these languages theme passivization is fed by a structure in which the theme c-commands the goal.

3.5.1   Languages with free word order

3.5.1.1 Japanese and Icelandic

Japanese permits both theme and goal passivization, as shown in (112).

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(112) a.   Theme passive

        Kunsyoo-ga Yoshida-syusyoo   niyotte **Tanaka-tuusandaizin-ni**

        Medal-NOM Yoshida-prime-minister by   Tanaka-minister-DAT

        atae-rare-ta

        award-PASS-PST

        'The medal was awarded to Minister Tanaka by Prime Minister Yoshida'

    b.   Goal passive

        Tanaka-tuusandaizin-ga Yoshida-syusyoo   niyotte **kunsyoo-o**

        Tanaka-minister-NOM   Yoshida-prime minister by   medal-ACC

        atae-rare-ta

        award-Pass-Pst

        'Minister Tanaka was awarded a medal by Prime Minister Yoshida'

                                            (Hoffman, 1991)

In addition, Japanese has free word order between the theme and a goal in a double object construction, as exemplified in (113).

(113)   Japanese

    a.   John-ga   Mary-ni   piza-o   ageta

        John-NOM Mary-DAT pizza-ACC gave

    b.   John-ga   piza-o   Mary-ni ageta

        John-NOM pizza-ACC Mary-DAT gave

        'John gave Mary pizza'   (Miyagawa, 1997)

Not only are both word orders possible, but each word order uniquely maps onto a different hierarchical tree representation, as documented by the possible binding relations. In the order goal>theme (ie. dative>accusative), the goal may bind a reciprocal contained within the theme, as in (114a), whereas the theme cannot license a reciprocal in the goal, as in (114b).

(114) a.　　Goal$_i$ [$_{THEME}$rec$_i$]

Mary-ga　[John to Bill]$_j$-ni　[otagai$_i$　no　sensei]-o　syookaisita

Mary-NOM John and Bill-DAT each other-GEN teacher-ACC introduced

'Mary introduced each other's teachers to John and Bill'

　　b.　* [$_{GOAL}$rec$_i$] Theme$_i$

* Mary-ga　[otagai$_i$　no　sensei]-ni　[John to Bill]$_i$-o　syookaisita

Mary-NOM each other-GEN teacher-DAT John and Bill-ACC introduced

'Mary introduced John and Bill to each other's teachers'　(Ura, 1996)

In the theme>goal (ie. accusative>dative) order, binding relations are reversed. The theme can bind a reciprocal inside the goal (115a), but not vice versa (115b).

(115) a.　　Theme$_i$ [$_{GOAL}$rec$_i$]

Mary -ga　[John to Bill]$_i$-o　[otagai$_i$　no　sensei]-ni　syookaisita

Mary-NOM John and Bill-ACC each other-GEN teacher-DAT introduced

'Mary introduced John and Bill to each other's teachers'

(Ura, 1996)

　　b.　* [$_{THEME}$rec$_i$] Goal$_i$

* Mary-ga　[otagai$_i$　no sensei]-o　[John to Bill]$_i$-ni　syookaisita

Mary-NOM each other-GEN teacher-ACC John and Bill-DAT introduced

'Mary introduced each other's teachers to John and Bill'

(Anagnostopoulou, 2003)

This indicates that when the goal precedes the theme it c-commands the theme, while when the theme precedes the goal the c-command relation is reversed.

Icelandic provides similar data. The largest class of ditransitive verbs in Icelandic also permit both theme and goal passivization. These verbs, which include canonical double-object verbs such as *gefa* 'give', *segja* 'tell', *senda* 'send', and *synja* 'show', have an accusative marked theme and a dative marked goal. Following Holmberg and Platzack (1995) I will refer to these verbs as *gefa* verbs. Theme and goal passives in sentences containing *gefa* verbs are exemplified in (116).

(116) a.   Theme passive

Bækurnar   voru gefnar **Jóni.**

the-books-NOM were given Jon-DAT

b.   Goal passive

Jóni   voru gefnar **bækur**

Jon-DAT were given the-books-NOM

(Holmberg and Platzack, 1995)

Gefa verbs allow both goal>theme and theme>goal word order, although the former is more natural. Theme>Goal word order, which is often called the *inversion* construction, requires focal stress on the goal. This freedom in word order is exemplified in (117).

(117)   Goal>Theme

a.   Hann   gaf   konunginum ambáttina

He-NOM gave the king-DAT the maidservant-ACC

'He gave the king the maidservant'

Theme>Goal

b.   Hann   gaf   ambáttina   konunginum

He-NOM gave the maidservant-ACC the king-DAT

'He gave the maidservant to the king'

(Collins and Thráinsson, 1996)

In a non-inversion sentence, the goal can bind a reflexive contained within the theme, while the theme cannot bind a reflexive in the goal:

(118) a.   Goal$_i$ [$_{\text{THEME}}$refl$_i$]

Við s´yndum foreldrunum$_i$ [krakkana sína$_i$]

We showed the parents-DAT kids-ACC their(REFL)

'We showed the parents their kids'

b. * [$_{GOAL}$ refl$_i$] Theme$_i$

    * Við s´yndum [foreldrunum sínum$_i$]   krakkana$_i$

    We showed   parents-DAT their(REFL) the kids- ACC

    'We showed the kids to their parents'

<div align="right">(Collins and Thráinsson, 1996)</div>

In the inversion construction, when the word order is reversed, the binding relations are also reversed. The theme can bind a reflexive in the goal, but not vice versa.

(119) a.   Theme$_i$ [$_{GOAL}$ refl$_i$]

      Við s´yndum krakkana$_i$ [foreldrunum sínum$_i$]

      We showed the kids-ACC parents- DAT their(REFL)

      'We showed the kids to their parents'

b.   * [$_{THEME}$ refl$_i$] Goal$_i$

     * Við s´yndum [krakkana   sína$_i$]   foreldrunum$_i$

     We showed   the kids-ACC their(REFL) parents- DAT

     'We showed their kids to the parents'

<div align="right">(Collins and Thráinsson, 1996)</div>

The data in (114)-(115) and (118)-(119) therefore show that precedence translates into c-command in both Japanese and in Icelandic sentences containing *gefa* verbs.

     Two analyses for the freedom of word order between objects in Japanese and Icelandic have been proposed in the literature: a *movement approach* and a *base-generation approach*. According to the movement approach, the goal c-commands the theme in the base order, and theme>goal word order is derived via movement of the theme to a position above the goal (see Ottóson, 1991, Ottóson, 1992 for Icelandic, Saito, 1992, Ura, 1996, Ura, 2000, Yatsushiro, 2001 for Japanese). Under the base-generation approach, each word order is base-generated (see Falk, 1990, Holmberg and Platzack, 1995 for Icelandic, Miyagawa, 1997, Miyagawa and Tsujioka, 2004 for Japanese).

There are arguments for the base-generated approach in both languages. Miyagawa (1997) argues that both word orders are base-generated and that Japanese, like English, has two structures associated with ditransitive verbs: the double object and the to-dative constructions. The existence of these two structures is initially obscured by the fact that the *ni* suffix is ambiguous between a Case marker and a true postposition, making it difficult to detect when the double object construction occurs and when the to-dative construction does. Numeral quantifier float provides a way to disambiguate between these two structures, however. A numeral quantifier can float off of its host only if the host is a DP (Shibatani, 1978). Quantifier float is therefore compatible with a *ni*-marked DP when *ni* is a Case marker, but not if it is a postposition. Interestingly, quantifier float with the goal is only possible with goal>theme word order, as shown in (120).[26]

(120) a.   Mary-ga   **tomodati-ni futa ri** CD-o   okutta

Mary-NOM friend-DAT   2-CL   CD-ACC sent

'Mary sent two friends a CD.'

b. ??? Mary-ga   CD-o **tomodati-ni futa ri**   okutta

Mary-NOM CD-ACC friends-DAT 2-CL   sent

'Mary sent two friends a CD.'   (Miyagawa, 1997)

This shows that the goal must be a PP in the theme>goal order, while it can be a DP in the goal>theme order. This provides evidence that the ditransitive construction in Japanese is associated with two distinct structures, and that each word order is therefore base-generated.

Similar conclusions can be reached for Icelandic. Consider the contrast in (121).

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[26] There is much debate about these data in the literature (see Lee, 2004 for a review). In principle, the account presented here is compatible with either a movement or a base-generation approach to the word order facts in Japanese, since under either approach theme passivization can be fed by a structure in which the theme c-commands the goal.

(121) a. Hann gaf öllum kennurum   sama tækifærið.

   he   gave all   teachers-DAT same chance-ACC

   'He gave every teacher the same chance.'

   b. * Hann gaf sama tækifærið   öllum kennurum.

   he   gave same chance-ACC all   teachers-DAT

   '*He gave the same chance every teacher.'

<div align="right">(Holmberg and Platzack, 1995)</div>

Sentence (121a), a non-inverse sentence, is compatible with the expression 'give a chance', while (121b), an inverse sentence, is not. This is reminiscent of a similar contrast found in English (Oehrle, 1976, Pesetsky, 1995) and Mainland Scandanavian languages, shown in (122) and (123).

(122) a. The director gave Bill a chance/his big break.

   b. * The director gave a chance/his big break to Bill.

(123) Swedish

   a. Han gav alla lärare huvudvärk.

   he gave all teachers (a) headache.

   b. ??Han gav huvudvärk åt alla lärare

   he gave (a) headache to all teachers.

<div align="right">(Holmberg and Platzack 1995)</div>

On the most natural reading of the sentences in (122)-(123), and the reading in which (122b) and (123b) are most strongly ungrammatical, the subject of *give* is not an agent of a giving action, but instead a causer of the IO experiencing the theme. This use of verbs like *give* is systematically prohibited in the PP construction, while it is permitted in the applicative construction (Oehrle 1976; Pesetsky 1995). For this reason the sentences in (122b) and (123b) are ungrammatical. The ungrammaticality of (121b) therefore suggests that inverse sentences are actually instantiations of the PP construction, and not of an

applicative construction. This is compatible with the base-generation hypothesis, as theme DPs are merged higher than goal PPs in Icelandic. What remains to be explained is why the IO in the inverse does not contain an overt preposition.

Interestingly, the verbs that permit the inverse do not permit the (overt) PP correlate of a goal applicative, as shown in (124).

(124) a. *?Hún gaf bókina til Jóns.

she gave the-book to Jon

b. * Ég sagði söguna til þeirra/fyrir þeim.

I told the story to them/for them.

(Holmberg and Platzack, 1995)

This contrasts with the other class of ditransitive verbs in Icelandic, which do permit overt dative PPs:

(125) Hún skilaði bókinni til Jóns.

she returned the-book-DAT to Jon. (Holmberg and Platzack, 1995)

I claim that these facts together suggest that the inverse is the instantiation of the goal PP construction with *gefa* verbs, but that for some reason the P cannot be pronounced.[27]

Once again, therefore, we have evidence for two distinct ditransitive structures. The conclusion that can be reached is that both Japanese and Icelandic permit theme>goal word order when the goal is expressed as a PP.

There is additional evidence that shows that theme passives are fed by this PP construction in both Japanese and Icelandic. This has been argued previously for both Japanese (Miyagawa, 1997, Miyagawa and Tsujioka, 2004) and Icelandic

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[27] Holmberg and Platzack (1995) suggest that the b sentences in (121)-(123) are ungrammatical because a universal-theta hierarchy demands that any DP or PP which follows a theme DP have an 'adverbial' theta role. An experiencer role is only available to those arguments that precede the theme. *gefa* verbs are incompatible with the dative PP construction because they sub-categorize for IOs that bear dative case, a property which PPs do not have. I suggest that both of these properties can be given one explanation: the inverse construction is the dative PP construction.

(Anagnostopoulou, 2003, Falk, 1990, Holmberg and Platzack, 1995). I will review some of the arguments here.

In Japanese, theme passivization in the presence of a goal is ungrammatical when a numeral quantifier floats off of the goal:

(126) * Nimotu-ga Taroo-niyotte **gakusei-ni futa-ri** okur-are-ta.

     package-NOM Taro-by   students-DAT 2-CL send-PASS-PAST

     'A package was sent two students by Taro.'

                  (Miyagawa and Tsujioka, 2004)

Recall that a numeral quantifier can only float off of a DP, not a PP. The ungrammaticality of (126) therefore shows that, contrary to initial appearances, the theme cannot passivize past a DP goal in Japanese. The theme can only passivize in the presence of a goal when that goal is expressed as a PP.

This is possible whether the goal PP precedes or follows the theme. In both of the sentences in (127) the theme has raised to [Spec,TP], leaving a floating quantifier in its base-generated position. In (127a) the floating quantifier occurs after the goal, while in (127b) it occurs before it.

(127) a. **Nimotu-ga** Taroo-niyotte Hanako-ni __ **futa-tu** okur-are-ta

     package-NOM Taro-BY Hanako-DAT 2-CL send-PASS-PAST

   b. **Nimotu-ga** Taroo-niyotte __ **futa-tu** Hanako-ni okur-are-ta

     package-NOM Taro-BY   2-CL Hanako-DAT send-PASS-PAST

     'Two packages were sent to Hanako by Taro.'

                  (Miyagawa and Tsujioka, 2004)

This indicates that the theme can passivize past a PP goal. This follows from the assumption that (at least some) PPs cannot enter into Agree with T because they do not contain the relevant ϕ-features (Miyagawa, 1997, Miyagawa and Tsujioka, 2004).

Crucially, the theme cannot passivize past a DP goal. When it passivizes, it is the closest potential goal to T.

There are two pieces of evidence that argue that theme passives are fed by the inverse construction in Icelandic. First, as Holmberg and Platzack (1995) point out, theme passives are more natural if the indirect object is focused. This fact is consistent with the view that theme passivization is fed by the inverse construction, since this is a requirement on the inverse construction as well.[28] Secondly, the verbs that do not permit the inversion construction also do not permit theme passives. I will call these verbs *skila verbs*, once again after one of their representative members. In *skila* verbs the theme is dative, genitive or in one or two cases, accusative marked, and the word order is fixed goal>theme.[29] This is exemplified in (128).

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[28] As Anagnostopoulou (2003) and Holmberg and Platzack (1995) point out, the behavior of IO pronouns reveal a complication. Unstressed IO pronouns in active contexts of inversion lead to ungrammaticality due to the requirement that the IO receive focus. In passives, however, an unstressed indirect object is not completely ruled out, as illustrated by (i):

(i)   a.   ??   Hún var sögð þeim
                 It-NOM was told them-DAT
                 'It was told them'
      b.   Hún var synd einhverjum börnum / ? þeim
             It-NOM was shown some children- / them-DAT
             'It was shown to some children / them'   (Anagnostopoulou 2003)

This complication requires further research.

[29] Theme>Goal word order is possible if the goal is heavy, as shown in (i).

(i)   Forstjórinn svipti   vinnunni   manninn sem hafði unnði hjá honum í 10 ár
      The boss-NOM deprived the work-DAT the man-ACC that had   worked for him for 10 years
      'The boss deprived of the work the man who had worked for him for 10 years'
                                      (Collins andThráinsson 1996)

This construction differs from the inversion construction however, in that the goal still c-commands the theme even in this word order, as shown in (ii).

(ii)   * Sjórinn   svipti   manninum_i   [gömlu konuna sína_i   sem allir   vorkenndu]
      The sea-NOM deprived the husband-DAT old woman his(REFL) who everybody felt sorry for
      'The sea deprived of the husband his old woman who everybody felt so sorry for'
                                        (Collins andThráinsson 1996)

(128) a.　　Goal >Theme

　　　　　　Mannræninginn　　skilaði　foreldrunum　börnunum

　　　　　　The kidnapper-NOM returned the parents-DAT the kids-DAT

　　b.　　* Theme>Goal

　　　　* Mannræninginn　　skilaði börnunum　　foreldrunum

　　　　　The kidnapper-NOM returned the kids-DAT the parents-DAT

　　　　　'The kidnapper returned the kids to the parents'

　　　　　　　　　　　　　　　　　　　　(Holmberg and Platzack, 1995)

Binding facts indicate that the goal asymmetrically c-commands the theme:

(129) a.　　Goal [$_{THEME}$ refl]

　　　　　　Sjórinn　　svipti　konuna$_i$　　manni　　sínum$_i$

　　　　　　The sea-NOM deprived the woman-ACC husband-DAT her(REFL)

　　　　　　'The sea deprived the woman of her husband'

　　b.　　* [$_{GOAL}$ refl] Theme

　　　　* Sjórinn　　svipti　konu　sína$_i$　　manninum$_i$

　　　　　The sea-NOM deprived wife-ACC his(REFL) the-man-DAT

　　　　　'The sea deprived his wife of the man'

　　　　　　　　　　　　　　　　　　　　(Anagnostopoulou, 2003)

Finally, only the goal can passivize in *skila* verbs, as shown in (130).

(130) a.　　Jóni　　　var skilað　__　bókunum

　　　　　　Jon-DAT was returned　　the book-DAT

　　　　　　'John was returned the book back'

　　b.　　* Bókunum　　var skilaD　Jóni　__

　　　　　The book-DAT was returned Jon-DAT

　　　　　'The book was returned to John'　　　(Holmberg and Platzack, 1995)

Both theme passives and the inverse are therefore limited to the same class of verbs and

require that the goal be focused. This can be understood if theme passives are fed by the inverse construction. In Icelandic, therefore, we once again see that theme passivization is only possible when the theme is the closest potential goal to T.

In conclusion, in both Japanese and Icelandic theme passivization is simply passivization of the closest potential goal to T; it is not an example of long passivization.

3.5.1.2 Further examples

As we've seen, Icelandic and Japanese display a correlation between those constructions that permit theme passivization and those that permit a structure in which the theme is the closest potential goal to T. This correlation is also seen in Croatian, Greek, French and Italian.

Croatian permits theme passivization in the presence of a goal, as shown in (131) (all data from Martina Gracanin, p.c.).[30]

(131)   Knjiga   je   poslana Petru.

       book-NOM was sent   P-DAT

       'A book was sent Peter.'

Croatian also permits both goal>theme and theme>goal word order in active sentences.

(132)   a.   Goal>Theme

           Sanjin je   poslao Petru   knjigu

           S-NOM was sent   P-DAT book-ACC

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[30] In fact, only theme passivization is possible; the goal cannot raise to T, as shown in (i).

(i)   *   Petar   je   poslao knjigu
          P-NOM was sent   book-ACC
          'Peter was sent a book.'

I suggest the goal passivization is not ruled out because of locality considerations, but instead because Croatian does not permit a dative marked object to raise to T.

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b.   Theme>Goal

Sanjin je   poslao knjigu   Petru

S-NOM was sent   book-ACC P-DAT

'Sanjin sent a book to Peter.'

When the goal precedes the theme it asymmetrically c-commands it, as shown in (133), while the theme asymmetrically c-commands the goal when it precedes it, as shown in (134).

(133) a.   Goal [THEME pronoun]

Sanjin je   pokazao [Johnu i Mary]   njih   same

S-NOM was shown   J-DAT and M-DAT them-ACC alone-ACC

'Sanjin showed John and Mary themselves.'

b.   * [GOAL pronoun] Theme

*/?? Sanjin je   pokazao njima   samima   [Johna i Mary]

S-NOM was shown   them-DAT alone-DAT J-ACC and M-ACC

'Sanjin showed themselves John and Mary.'

(134) a.   Theme [GOAL pronoun]

Sanjin je   pokazao [Johna i Mary]   njima   samima

S-NOM was shown   J-ACC and M-ACC them-DAT alone-DAT

'Sanjin showed John and Mary themselves.'

b.   * [THEME pronoun] Goal

*/?? Sanjin je   pokazao njih   same   [Johnu i Mary]

S-NOM was shown   them-ACC alone-ACC J-DAT and M-DAT

'Sanjin showed themselves John and Mary.'

Once again, a language that allows theme passivization also permits a word order in which the theme c-commands the goal within the verb phrase. Theme passivization can therefore be fed by this word order, and thus pose no locality violation.

Greek, French and Italian permit theme passivization in the presence of a PP goal, as shown in (135).

(135)   Greek

     a.   To vivlio   dhothike   stin Maria   apo ton Petro

           The book-NOM gave-NACT to-the Maria from the Petros

           'The book was given to Mary by Peter'

   French

     b.   Un cadeau a été offert à Marie

           a gift has been given to Marie

           'A gift has been given to Marie.'

   Italian

     c.   Gianni è stato affidato a Maria

           Gianni is been entrusted to Maria

           'Gianni is been entrusted to Maria.   (Anagnostopoulou, 2003)

Since in these sentences the goal is realized as a PP, an argument that cannot itself raise to [Spec,TP], a possible explanation for the grammaticality of (135) is that the PP cannot enter into Agree with T, and thus does not intervene in an Agree relation between T and the theme DP. While this explanation is initially attractive, further data from raising constructions indicate that the PP is a possible intervener in these languages. As discussed in Anagnostopoulou (2003), McGinnis (1998), and Boeckx (2000) raising of an embedded subject is the presence of an experiencer PP is blocked in Greek, French and Italian.

(136)   Greek

     a.   O   Gianis   fenete eksipnos

           The Gianis-NOM seems intelligent

           'John seems to be intelligent'

b. ?* O Gianis   fenete stin Maria   eksipnos

     The Gianis-NOM seems to-the Maria intelligent

     'John seems to Mary to be intelligent'   (Anagnostopoulou, 2003)

French

c.   Jean semble [t avoir du talent]

     Jean seems   to have of talent

     'Jean seems to have talent.'

d. *? Jean semble à Marie [t avoir du talent]

     Jean seems to Mary to have of talent

     'Jean seems to Mary to have talent.'   (Chomsky, 1995)

Italian

e.   Gianni sembra [t fare il suo dovere]

     Gianni seems to do the his duty

     'Gianni seems to do his duty'

f. ?* Gianni sembra a Piero [t fare il suo dovere]

     Gianni seems to Piero to do the his duty

     'Gianni seems to Piero to do his duty'   (Rizzi, 1986)

It therefore seems that PP is a potential goal for T.[31] The ability for a DP theme to raise in the presence of PP in (135) therefore needs to be explained.

As discussed in Chapter 1, Anagnostopoulou (2003) argues that the contrast between (135) and (136) follows from equidistance. She claims that the PP and the DP are equidistant in (135) while they are not in (136). For this reason, the DP can raise over the PP in (135) but not in (136). I argue that not only is it possible to account for the contrast between (135) and (136) with out appealing to equidistance, but an equidistance approach also cannot account for the full range of facts in Greek.

I suggest that the theme passives in (135) are another cases of false long passives. They are fed by a structure in which the theme c-commands the goal. There is a correlation in Greek, French and Italian between the ability of the theme to passivize in

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[31] The PP seems to be a potential goal without being able to actually raise to [Spec,TP]; it is a 'defective intervener' of some sort.

the presence of an apparently higher goal, and the existence of a structure in which the theme c-commands this argument. All of these languages allow both $DP_{theme}>PP_{goal}$ and $PP_{goal}>DP_{theme}$ word order, and have free word order more generally with DP PP within VP. This is exemplified in (137)-(138).

(137) Greek

    a.   Edhosa to vivlio ston Petro

            Gave-1SG the book-ACC to-the Petros

    b.   Edhosa ston Petro to vivlio

            Gave-1SG to-the Petros the book-ACC

            'I gave the book to Peter'   (Anagnostopoulou, 2003)

(138) French

    a.   Il a donné   un livre à Marie

            he has given this book to Marie

    b.   Il a donné   à Marie un livre

            It has given to Marie this book

            'He gave a book to Marie.'   (Holmberg and Platzack, 1995)

    Italian

    c.   Ho   dato quel libro a Sveva

            Have-1sg given this book to Sveva

    d.   Ho   dato a Sveva quel libro

            Have-1sg given to Sveva this book

            'I gave this book to Sveva.'

Precedence also translates to hierarchical order. Indirect object quantifiers can bind pronominal variables that they precede, while direct object quantifiers bind into indirect objects to their right, as illustrated by (139)-(141).

(139) Greek

    a.   Estila kathe pedhi_i stin mitera tu_i

        Sent-1SG every child-ACC to-the mother his

        I sent every child to his mother'

    b.   Estila se kathe mitera_i to pedhi tis_i

        Sent-1SG to every mother the child her

        '*I sent her child to every mother.'   (Anagnostopoulou, 2003)

(140) French

    a.   J'ai envoyé chaque enfant_i à sa_i mère

        I   sent   every child   to his mother

        'I sent every child to his mother.'

    b.   J'ai envoyé à chaque mere_i son_i enfant

        I   sent   to every mother her child

        'I sent her child to every mother.'   (Valentine Hacquard, p.c.)

(141) Italian

    a.   Sveva ha attribuito   a ciascuna parola_i il proprio / suo_i simbolo

        Sveva has attributed to each   word the own / its symbol

        'Sveva attributed to each word its symbol'

    b.   Sveva ha attribuito   ciascuna parola_i al proprio / suo_i simbolo

        Sveva has attributed each   word to-the own / its symbol

        'Sveva attributed each word to its symbol'   (McGinnis, 1998)

The theme passivization exemplified in (135) can therefore be fed by a structure in which the theme c-commands the goal. The sentences in (136) are ungrammatical, however, because a structure in which the theme of an embedded clause precedes the experiencer PP in a matrix clause is not available. This structure clearly cannot be base-generated: the PP gets its theta role from the matrix verb while the DP theme does from the embedded verb and therefore must be base-generated below the PP. The ungrammaticality of (136) indicates that this structure also cannot be created by movement; ie. via the occurrence of

an EPP on the head to which the experiencer is a specifier. If this movement were possible, we would expect that the theme DP could raise to a higher specifier of this head prior to raising to [Spec,TP], a movement which would sanction movement to subject position. I therefore assume that this head does not contain an EPP feature, and for this reason the DP is not able to raise past an experiencer PP.

The contrast between (135) and (136) can therefore be understood without appealing to equidistance. In addition, an equidistance account makes the wrong predictions. Recall that the double object construction in Greek does not allow a theme to passivize in the presence of a *DP* goal object. In order to account for this contrast, Anagnostopoulou assumes that while the DP theme and PP goal are introduced by the same head, the DP theme and DP goal are introduced by different heads. The structures she proposes are given in (142).

(142) a. vP b. VP

DP benefactive/goal   v'   PP goal   V

vAppl   VP   V   DP theme

...DP... theme
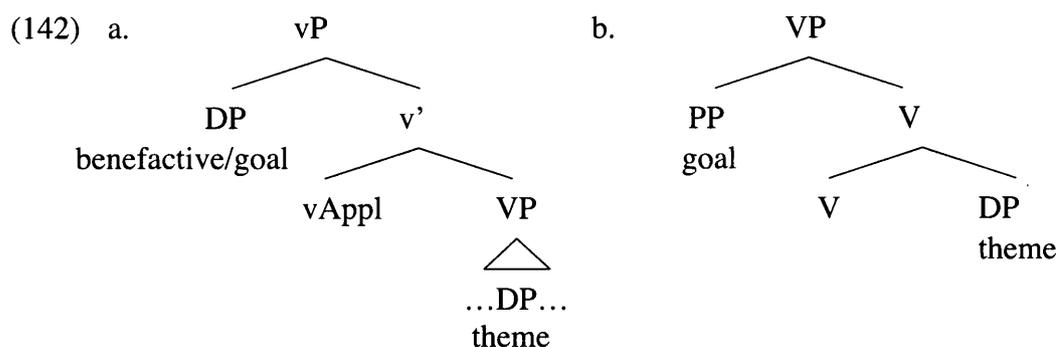
In (142a) the goal and the theme are not equidistant, while in (142b) they are. For this reason the theme DP cannot passivize over a DP goal, while it can over a PP goal.

As discussed above, recent advances in the domain of applicatives (Pylkkanen, 2001) have shown that while the structure in (142a) is correct for high applicatives, it is incorrect for low applicatives. Goal applicatives do not have the structure in (142a), but instead that in (94b), in which the goal and the theme are contained within the same minimal projection, just as they are in (142b). Equidistance therefore predicts that theme passivization is grammatical in the presence of both and DP and a PP goal, contrary to fact.

In conclusion, Croatian, Greek, French and Italian all display a correlation between the existence of theme>goal word order and the availability of theme passivization.

3.5.1.3 Interim summary

The data discussed in this section indicate a correlation between the grammaticality of theme passivization and the availability of a structure in which the theme is the closest potential goal to T. In the next section I will discuss a language in which this correlation is at first sight not borne out. I will show that, despite the word order facts, a structure in which the theme c-commands the goal is still available in this language, and that this structure feeds theme passivization.

3.5.2   Languages with fixed word order

3.5.2.1 British English

While in general theme passivization in the presence of a goal is prohibited in most dialects of English, it is possible if the goal is sufficiently light. Therefore many speakers of American and British English alike accept the sentences in (143), where the goal is a light pronoun.

(143)   a.   A book was given 'im.

      b.   A medal was given 'er.

In the next section, I will suggest a possible explanation for this fact that is compatible with the theory presented here. This explanation only applies to theme passivization with a light goal. There are dialects of British English (BrE), however, where theme passivization is not restricted. In these dialects a theme can passivize in the presence of a goal even when that goal is very heavy, as shown in (144).[32]

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[32] All judgements reported here are those of Karen Froud, p.c.

(144) BrE

    a.   A medal was given the professor that I told you about last week.

    b.   A book was given John and Mary.

Unlike the languages discussed in the previous section, however, there is fixed word order between objects.[33]

(145) BrE

    a.   Mary gave the professor the book.

    b.   * Mary gave the book the professor.

Despite the fixed word order in active sentences, there is evidence that the theme can be merged higher than the goal in those sentences where it then undergoes passivization. This evidence comes from the binding possibilities that passive sentences demonstrate.

    Before turning to the binding facts in BrE, let us review some facts from standard English. It is known that the dative PP construction in English displays 'backwards binding', in which the DP contained within the dative PP can bind into the DP theme which precedes it (Burzio, 1986, Pesetsky, 1995), as exemplified in (146).

(146)   Bill showed each other's friends to John and Mary.

This contrasts with the applicative (double object) construction, where backwards binding is not possible.

(147)   * Bill showed each other's friends John and Mary.

One account of these facts, which I will adopt here, is that in the dative PP construction the theme DP is originally merged in a position that is c-commanded by the PP (Burzio, 1986, Pesetsky, 1995). It then later moves to the position in which it is pronounced. What

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[33] Huddleston and Pullum(2002) note that some varieties of English permit DO IO word order when both objects are personal pronouns, as in (i).

(i)   I gave it him.

this position is and how the DP moves there is unclear, and I will not focus on this part of the analysis here. What is important is that the DP is able to reconstruct to a position below the PP where it can be bound by the DP within the PP, accounting for the grammaticality of (146). In the double object construction, however, the pronounced order of the two objects reflects their originally merged positions in which the goal c-commands the theme. For this reason, backwards binding is not possible, and (147) is ungrammatical.

Unsurprisingly, passivization of the goal does not change these judgements. Consider the sentences in (148).

(148)   a.   Bill and Mary were shown __ each other's parents.

b.   * Each other's parents were shown __ Bill and Mary.

Standard English permits goal passivization, but not theme passivization. Given this, the DP in subject position in (148) is the goal. The data in (147) provided evidence that the goal is always merged higher than the theme in the double object construction. It is unsurprising, therefore, that when the goal passivizes it cannot be bound by the theme, as shown in (148b). This contrasts with sentences in which the theme passivizes in the dative PP construction, as in (149).

(149)   Each other's parents were shown to Bill and Mary __.

Here, even after passivization, the theme is able to reconstruct to a position below the goal PP, where it is bound.

Returning to the relevant dialect of British English under discussion, speakers of this dialect also agree with the judgements in (146)-(147). This indicates that backwards binding is possible in BrE, ie. binding relations can be satisfied after reconstruction, but that in an active double object construction the goal is merged higher than the theme. Of interest to the current account, however, is that the binding possibilities for a derived subject remain the same in BrE when it is the theme that passivizes instead of the goal. Consider the contrast in (150).

(150) BrE

    a. *Each other's report cards were shown Bill and Mary.

    b. Each other's report cards were shown to Bill and Mary.

In both of these sentences, the theme *each other's report cards* is the derived subject. In (150b) the dative PP *Bill and Mary* can bind this DP, consistent with the data in (146) which shows that the DP theme can reconstruct to a position below this PP. The sentence in (150a), however, in which the theme has passivized from a double object construction, is ungrammatical. This contrast indicates that either the theme that has raised to subject position in (150a) was originally merged into a position above the goal or that reconstruction of the theme is for some reason blocked.

One attractive possibility can be rejected. Reconstruction of the theme would not be expected if the sentences with theme passivization in BrE are actually adjectival passives, because the subject of adjectival passives are resistant to reconstruction (Pesetsky, 1995 and references contained therein). There is evidence, however, that theme passives in this dialect are verbal passives. Adjectival passives, being stative, are incompatible with progressive aspect. Theme passives in BrE are compatible with progressive aspect, as shown in (151).

(151) A prize was being given the professor when a masked man entered the room.

Theme passives are therefore verbal, and the derived subject in (150a) should be able to reconstruct. I therefore conclude that this sentence is ungrammatical because the theme was originally merged into a position that is higher the goal, and therefore cannot be bound by the goal even after reconstruction. The data in BrE indicate that, once again, theme passivization is only possible when it is higher than the goal.

Lack of theme>goal word order in active contexts indicates that the theme argument can apparently only be merged higher than the goal if it then moves on to [Spec,TP]. While I don't have an explanation of this fact, I can relate it to similar phenomena that have been described in Chichewa, Tagalog, and Kinyarwanda, which are

exemplified in (152)-(154). In all of these languages there are certain instrumental objects that are permitted in subject position, but yet cannot appear in object position.

(152) Chichewa

    a.   **Khasu** li-ma-(li-)lim-its-idw-a   (chi-manga) (ndi Joni.)

          hoe   it-HAB-(it-)farm-CAUS-PASS-INDIC (corn)   (by John)

          'The hoe is farmed with (by John).'

    b.   * Joni   a-ma-(yi-)lemb-ets-a   **peni.**

          John he-HAB-(it-)write-CAUSE-INDIC pen

          'John writes with a pen.'   (Marantz, 1984)

(153) Tagalog

    a.   I-pinang-lakad   ng lalaki **ang tungkod.**

          OBL-ASP.PAG-walk CS man ANG stick

          'The man walked with a stick.'

    b.   * Naglakad   **ng tungkod** ang lalaki.

          NOM.ASP.PAG-walk CS stick   ANG man

          'The man walked with a stick.'   (Rackowski, 2002)

(154) Kinyarwanda

    a.   **Ishuuri**   ri-r-iig-ir-a-ho   umuhuungu.

          school   it-PRES-study-APPL-ASP-LOC boy

          'At the school is studying the boy.'

    b.   * Umuhuungu a-r-iig-ir-a-ho   **ishuuri.**

          boy   he-PRES-study-APPL-ASP-LOC school

          'The boy is studying at school.'   (Kimenyi, 1980)

However the lack of theme>goal word order is derived, the data above all converge on the same conclusion: theme passivization is only possible when the theme is higher than the goal.

Finally, I would like to briefly point out that this type of derivation is not only predicted by locality considerations, but by Case-theoretic concerns as well. A common assumption about the applicative construction in English is that both objects require structural Case, since both bear accusative case. The English applicative construction therefore differs from Icelandic (and maybe Japanese) applicatives, where the goal object bears dative case, which is typically inherent and not structural. This means that while the goal in Icelandic and Japanese can satisfy its own Case needs, the Case needs of both of the objects in English must be satisfied via a checking relation with an external head. In an active context, the higher object checks its Case on v, while the lower one does so on the applicative head. In a passive sentence, however, the case checking ability of v is suppressed. This means that only the higher of the two objects can raise to T, for it is only via this movement that the higher object is able to satisfy its Case needs. For this reason both Case and locality considerations converge on a derivation for theme passives in English in which the theme is the higher of the two objects prior to passivization.

3.5.2.2 Swedish/Norwegian

Swedish and Norwegian also permit long passives (155), yet have a fixed goal>theme word order (156).[34]

(155) Swedish

    a.   Johan förärades   en medalj

            Johan was-presented a medal

            'John was presented a medal'

    b.   Medaljen   förärades   Johan

            The-medal was-presented Johan

            '?*The medal was presented John'

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[34] See also footnote 21 for possible instances of this in Danish as well.

Norwegian

c.   Jon ble gitt   boken

       John was given the-book

       'John was given the book'

d.   Boken ble gitt   Jon

       the-book was given John

       '?*A book was given John'   (Holmberg and Platzack, 1995)

(156) Swedish

a.   Jag gav Johan en bok

       I gave Johan a book

       'I gave John a book'

b.   * Johan gav boken Sara.

       Johan gave the-book Sara.

       * 'I gave the book Sara'

Norwegian

c.   Det ble gitt Jon en bok.

       it was given Jon a book

d.   * Det ble gitt en bok Jon

       it was given a book Jon

       'There was given John a book.'   (Holmberg and Platzack 1995)

At present I do not have evidence that theme>goal order feeds theme passivization, but the evidence from English at least suggests that this is a possibility.

3.5.3 Summary

In this section we have seen evidence that many apparent long passives in low applicatives are really short passives, in which the highest potential goal to T raises to subject position. In the next section I will show that long passives in low applicatives are also made possible by movement of the higher object out of the search domain of T.

3.6 Low Applicatives II: Movement of goal out of search domain

3.6.1 Cliticization

So far we have seen that one object cannot passivize past another because otherwise a locality violation will occur. In all of the cases discussed above, an object can only passivize once it is the closest argument to T, where closest is defined by strict c-command alone. In this section I discuss a set of cases in which a lower argument can Agree with T in the presence of a higher argument. I will show that this is possible because the higher argument also moves to T. Movement of the higher argument to T removes it from the search domain of T, permitting Agree to take place between T and the lower argument. In this section I will discuss one instantiation of this sort of repair strategy. This discussion will borrow heavily from the data and discussion in Anagnostopoulou (2003), although ultimately my account differs slightly from hers.

As discussed in section 3.2, a theme DP cannot passivize in Greek when a goal DP is projected, unless the goal is realized as a clitic or clitic doubled. This is shown by the minimal pair in (157).

(157) a. ?* To   vivlio   charistike   tis Marias   apo ton Petro
            The book-NOM award-NACT the Maria-GEN from the Petros
            ?* 'The book was awarded Mary by Peter'

      b.   To   vivlio   tis   charistike   (tis Marias)
            The book-NOM CL-GEN award-NACT the Maria-GEN
            'The book was awarded her/him'   (Anagnostopoulou, 2003)

A similar phenomenon is found in raising sentences in Greek, French and Italian. As discussed in section 3.5.1.2, a theme DP in an embedded clause cannot raise past a PP experiencer in a matrix clause. This is illustrated in (158).

(158) Greek

    b. ?* O Gianis   fenete stin Maria   eksipnos

          The Gianis-NOM seems to-the Maria intelligent

          'John seems to Mary to be intelligent'   (Anagnostopoulou, 2003)

French

    d. *? Jean semble à Marie [t avoir du talent]

          Jean seems to Mary to have of talent

          'Jean seems to Mary to have talent.'   (Chomsky, 1995)

          Italian

    f. ?* Gianni sembra a Piero [t fare il suo dovere]

          Gianni seems to Piero to do the his duty

          'Gianni seems to Piero to do his duty'   (Rizzi, 1986)

If the experiencer is expressed as a clitic (or clitic doubled in Greek) the sentence becomes grammatical (Anagnostopoulou, 2003, Boeckx, 2000, McGinnis, 1998, Rizzi, 1986). This is illustrated in (159).

(159) a.   O Gianis   tis   fenete   (tis Marias)   eksipnos

              The Gianis-NOM Cl-GEN seem-3SG the Maria-GEN intelligent

              'John seems to her / Mary to be intelligent'   (Anagnostopoulou, 2003)

      b.   Jean lui   semble [t avoir du talent]

              Jean Cl-to-her seems to have of talent

              'Jean seems to her to have talent'   (Chomsky, 1995)

      c.   Gianni non gli   sembra [t fare il suo dovere]

              Gianni not Cl-to-him seem to do the his duty

              'Gianni doesn't seem to him to do his duty'   (Rizzi, 1986)

Anagnostopoulou assumes that both cliticization and clitic doubling involve movement of the formal features of an argument from its base-generated position to T. According to Anagnostopoulou, cliticization leaves behind a trace in the base-generated position of the argument, while clitic doubling leaves behind a DP that is overt, but contains no formal

features. Neither the trace nor the DP of a clitic doubling chain is therefore visible to Agree, because neither contains formal features.

This view of cliticization and clitic doubling helps shed light on how cliticization and clitic doubling of an IO can license long passives. When T is merged, the IO clitic raised to adjoin to T. T then searches for a category to satisfy its Case and EPP features. The clitic is not within the search domain of T because it is contained within T; therefore, the closest potential goal to T is the direct object. Neither the trace of the clitic nor the DP of a DP doubling chain intervenes between T and the DO because they do not contain formal features and so cannot Agree.

(160) Long passive
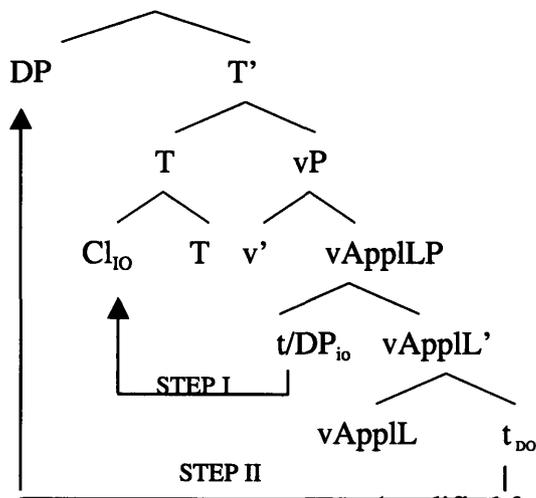
(modified from Anagnostopoulou (2003): 196(285))

Step I: IO clitic adjoins to T

Step II: DO moves to [Spec,TP]. Agree past the trace (or clitic doubled) IO is possible because it is invisible to Agree.

Anagnostopoulou argues that movement of the DO to [Spec,TP] over the IO clitic adjoined to T is only possible because of equidistance. Specifically, she assumes that clause (i) of the definition of closeness in (161) makes this movement possible because [Spec,TP] and the clitic adjoined to T are in the same minimal domain, and so are therefore equidistant.

(161) if β c-commands α and τ is the target of raising,then

β is closer to τ than α unless β is in the same minimal domain as (i) τ or (ii) α.

(Chomsky, 1995)

While I assume that the derivations that Anagnostopoulou proposes are correct, I do not agree that clause (i) of (161) is necessary for this account to go through. Instead, I assume that once the IO clitic is adjoined to T, it is no longer within in the search domain of T. For this reason, Agree can be established between T and the DO without violating locality constraints. The DO is then able to move to [Spec,TP] because this Agree relation is licit (see Chapter 4 for more discussion).

This analysis can be easily extended to account for the raising sentences in (159) as well. The derivation of these sentences is essentially that outlined in (160), although in these sentences the DP which raises to [Spec,TP] is contained within a TP complement of the matrix v.

This analysis also sheds light on why theme passivization in Standard English is possible when the goal is a light pronoun, under the assumption that this light pronoun is actually a clitic (see Larson, 1988, Oehrle, 1976 for the idea that the goal is a clitic in these contexts). If this is true, these clitics differ from those in Greek in that they occur to the right of the main verb, and so apparently do not raise to T. Instead, this word order suggests that the clitic has raised to v, adjoining to the right of this head. Thus far in this chapter I have abstracted away from the EPP feature on passive v that I argued for in chapter 2. This feature forces a passivized object to pass through [Spec,vP] on its way to [Spec,TP]. While this movement does not effect the conclusions reached for the constructions discussed so far, it once again becomes relevant in the context of goal clitics in English. If the IO clitic raises to v, then Agree can be established between v and the DO, permitting the DO to raise to [Spec,vP] to satisfy the EPP on v. From this position it is free to move on to [Spec,TP]. Cliticization of the IO to v can therefore sanction theme passives in English, just as cliticization of the IO to T does so in Greek.

3.6.2   Hurdling at a higher head

So far I have argued that a DO cannot hurdle over an IO at ApplLP because there is not enough structure between ApplL and the DO to make this movement possible. If the IO

moves out of ApplLP to a higher head, however, creating more structure between itself and the DO, then an additional EPP feature on this higher head enables the theme to hurdle over the IO. This movement is schematized in (162).

(162)

XP
- DO
- XP
  - IO
  - X'
    - X
    - ...
      - vApplLP
        - t_{io}
        - vApplL'
          - vApplL
          - t_{DO}

STEP I

STEP II
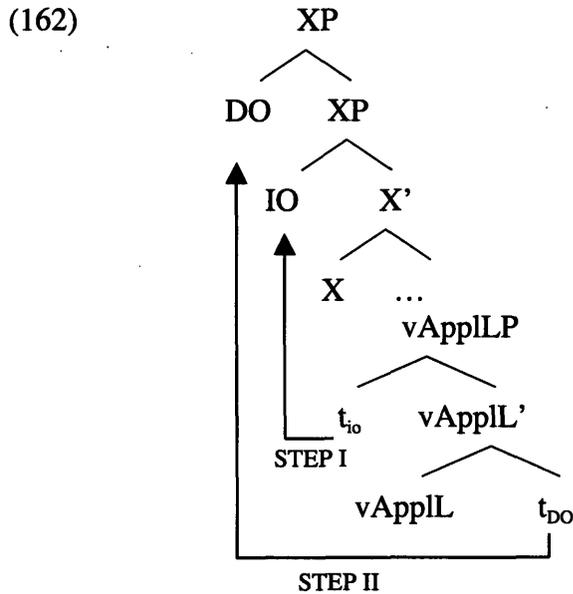
This movement reverses the hierarchical order of the two objects, making further passivization of the DO possible, just as hurdling of the DO at ApplHP does. This derivation differs from the hurdling movement posited in section 3.4, however, in that in the derivation in (162) both of the specifiers are derived, while in the hurdling derivation posited for long passives in high applicatives the lower of the two specifiers is thematic. If we can find evidence for both of these types of hurdling movements, we will have evidence that hurdling can occur past both a derived and a thematic specifier. I argued in Chapter 2 that exactly this type of movement occurs in Locative Inversion and the inverse construction in Bantu. In this section, I argue that this movement is also used to sanction long passives in Haya, and that complex co-occurrence restrictions of theme passives, overt agents and cliticized goals provides evidence for this.

Haya is a Bantu language spoken in northwestern Tanzania. The unmarked word order of the objects in a Haya goal applicative is goal>theme, as shown in (163).

(163) a.   kat' a-ka-oolek'   omwaan' epica

             Kato he-PST-show child   picture

             'Kato showed the child a picture.'

     b.   kat' a-ka-h'   omwaan' ekitabo

             Kato he-PST-gave child   book

             'Kato gave the child a book.'   (Duranti and Byarushengo, 1977)

In fact, when both objects are animate, this is the only word order that is permitted, as illustrated in (164).

(164) a.   ŋ-k-oolek' omwaan' omukazi

             I-PST-show child woman

             'I showed the woman to the child.'

             '*I showed the child to the woman.'

     b.   ŋ-k-oolek' omukazy' omwaana

             I-PST-show woman child

             'I showed the child to the woman.'

             '*I showed the woman to the child.' (Duranti and Byarushengo, 1977)

While Haya permits both goal and theme passivization, theme passives are more restricted than goal passives. Goal passives are possible when the agent of the verb is overtly expressed, as shown in (165).

(165) a.   omwaan' a-ka-oolek-w-a kat' epica

             child he-PST-show-PASS Kato picture

             'the child was shown the picture by Kato.'

     b.   omwaan' a-ka-haa-bw-a kat' ekitabo

             child he-PST-give-PASS Kato book

             'the child was given a book by Kato.'(Duranti and Byarushengo, 1977)

Theme passives are not possible, however, if both the agent is expressed and the goal is realized as a full DP, as shown in (166).

(166) a. * epica   e-k-oolek-w-a   kat' omwaan'

picture   it-PST-shown-PASS Kato child

'the picture was shown (to) the child by Kato.'

b. * ekitabo ki-ka-haa-bw-a   kat' omwaan'

book   it-PST-given-PASS Kato child

'the book was given (to) the child by Kato.'

(Duranti and Byarushengo, 1977)

If the agent is not expressed, then theme passives become possible in the presence of a full DP goal:

(167) a.   epica   e-k-oolek-w-a   omwaan'

picture   it-PST-shown-PASS child

'the picture was shown (to) the child.'

b.   ekitabo ki-ka-haa-bw-a   omwaan'

book   it-PST-given-PASS child

'the book was given (to) the child.'   (Duranti and Byarushengo, 1977)

Alternatively, theme passives in the presence of an agent are possible as long as the goal is realized as a clitic, as shown in (168).

(168)   ba-ka-mw-oolek-w-a kato

they-PST-him-show-PASS Kato

'They were shown to him by Kato.'   (Duranti and Byarushengo, 1977)

The agent in a passive clause in Haya differs from the agent in the other languages we have investigated so far in two respects.[35] First, when it occurs in a passive sentence in Haya, the agent precedes all other verbal arguments. Secondly, it is not introduced by a preposition, but is simply expressed as a DP. This differs from the agent in a passive in English (169a), Greek (169b) and Kinyarwanda (169c), where the agent is expressed as sentence final PP.

(169)   a.   Luke was given ___ the book **by Lesley**.

       b.   To   vivlio   tis charistike   tis Marias   **apo ton Petro**

            The book-NOM CL   award-NACT the Maria-GEN from the Petros

            'The book was awarded Mary by Peter'   (Anagnostopoulou, 2003)

       c.   Ishuuri ry-oohere-j-w-e-ho   ___   igitabo **n'uumwaalimu**.

            school it-send-ASP-PASS-ASP-LOC   book by-teacher

            'The school was sent the book by the teacher.'   (Kimenyi, 1980)

The facts together suggest when the agent is overt in Haya it is a potential goal for T and it is closer to T than either object, and so can potentially block an Agree relation between the objects and T. The agent in English, Greek and Kinyarwanda, on the other hand, does not block this relation either because it is expressed as a PP, and so is not a potential goal to T, or because it occurs sentence finally, in a position below the verbal objects.

    When the agent is not overt, as in the sentences in (167), there is at least preliminary evidence that it is not present at all. The glosses provided for these sentences do not include even an indefinite agent *someone*. In English there is evidence that when no agent is overtly expressed in a passive sentence, it is not syntactically present (Alec Marantz, p.c). Consider the contrast in (170).

(170)   a.   * The children were given the book. He was very generous.

       b.   The children were given the book by someone. He was very generous.

---

[35] There is reason to believe that this construction is the passive, and not the inverse or some other construction. The verbs in this construction are marked with a morpheme –w-, glossed as the passive morpheme. The passive morpheme in many Bantu languages is some allophone of [w]. In Kinyarwanda, for example, the passive morpheme is –w-, while in Chichewa it is –idw-.

In (170a) the pronoun *he* is not felicitous because there has been no entity established in the discourse for it to refer to. In (170b), on the other hand, this pronoun is licit, because a referent has been established by the indefinite pronoun *someone*. This indicates that no null indefinite agent is present in the matrix clause of (170a). If the meaning of the Haya sentences in (167) are indeed that of the English glosses provided for them, then we can conclude that no agent is syntactically present in these sentences either. Thus, when the agent is not pronounced, it does not block Agree between T and the theme.

In section 3.6.1, we saw that cliticization of an argument can circumvent a blocking effect that that argument would otherwise have. I will argue that when the goal is cliticized in Haya it does not block theme passivization.

Given these conclusions, the data above suggests the following generalization:

(171)   In Haya an object can passivize past one argument, but not two.

Goal passives are always possible; in these sentences, the goal has passivized past only one argument: the agent. Furthermore, theme passives are only possible if the theme moves past a single argument. The theme can passivize past the goal, provided it does not need to also move past the agent on its way to T. Furthermore, it can passivize past the agent, provided it does not need to also move past the goal (because the goal has been cliticized).

I suggest that this generalization can be derived in the same way that the transitivity constraint displayed by Locality Inversion was derived in Chapter 2. In that chapter I argued that locality considerations derive the transitivity constraint that this construction is subject to. In an sentence containing an intransitive verb phrase, the locative is able to raise to [Spec,TP] because it hurdles over the DP argument at vP. In a sentence containing a transitive verb, however, this is not possible; the locative is embedded under two other DP arguments, and the featural composition of v limits the number of hurdling movements to one.

Let us see how this analysis derives the passivization data in Haya. Starting with goal passives, the fact that these are possible when the agent is present indicates that the

locality violation that we would expect raising past the agent would incur has been circumvented. The agent and the goal are merged in different minimal domains; because of this the goal is able to hurdle over the agent provided v contains an EPP feature. In Chapter 2 I argued that passive v does in fact contain an EPP feature. Movement of the goal to a higher specifier of vP therefore takes place, reversing the hierarchical order of the goal and the agent and permitting further movement of the object to [Spec,TP]. This derivation is exemplified in (172).

(172) Goal passive

```
                TP
         ┌──────┴──────┐
        IO             T'
                 ┌─────┴─────┐
                 T           vP
                       ┌─────┴─────┐
                      t_IO         vP
                             ┌─────┴─────┐
                           Agent         v'
                                   ┌─────┴─────┐
                                   v        vApplLP
                                        ┌──────┴──────┐
                                       t_IO        vApplL'
                                              ┌──────┴──────┐
                                            vApplL          DO
```
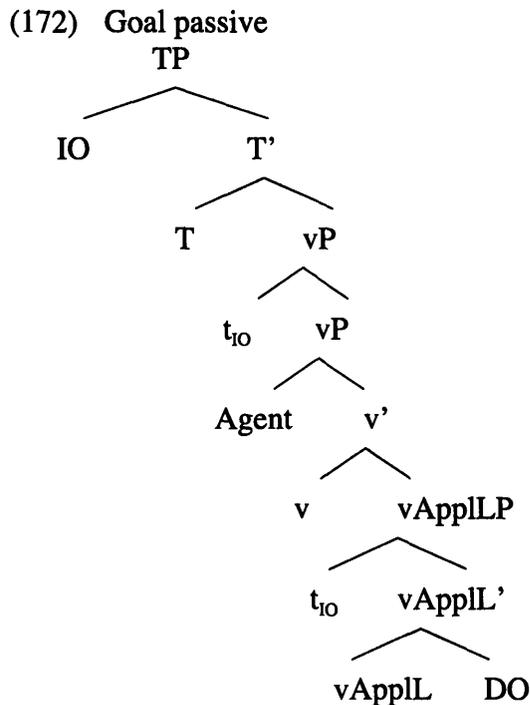
As discussed in Chapters 1 and 2, I assume that all specifiers, whether thematic or derived, are created by an EPP feature on the head to which they are a specifier. Given this, passive v in Haya actually contains two EPP features; in (172) one of these is satisfied by merger of the agent and one is satisfied by movement of the goal.

Turning now to long passives, the existence of these two EPP features on v explains why the theme can passivize past one argument, but not two. If the Agent is not present in the sentence, then v is left with two EPP features that must be satisfied by derived specifiers. One of these can drive movement of the goal to [Spec,vP]. Once this movement has happened, the goal is no longer in the search domain of v. Furthermore, v

still has a EPP feature requiring movement to another [Spec,vP]. The theme is able to undergo this movement, moving into a higher specifier on v and reversing the hierarchical order of the goal and the theme. This derivation is exemplified in (173a).[36] Alternatively, if the agent is present in the structure, it has satisfied one of the EPP features on v, leaving one EPP feature that still needs to be satisfied. If the goal is expressed as a full DP, the theme cannot raise to [Spec,vP] to satisfy this feature because the goal intervenes between v and the theme. If the goal moves out of the search domain of v, however, via cliticization to this head, then Agree can be established between v and the theme, and the theme is able to raise to [Spec,vP]. This derivation in exemplified in (173b).

(173)   Theme passive

a. vP
- DO, vP
  - IO, v'
    - v, vApplLP
      - t_{io}, vAppl'
        - vApplL, t_{DO}

b. vP
- DO, vP
  - Agent, v'
    - v, vApplLP
      - Cl, v, t_{CL}, vAppl'
        - vApplL, t_{DO}
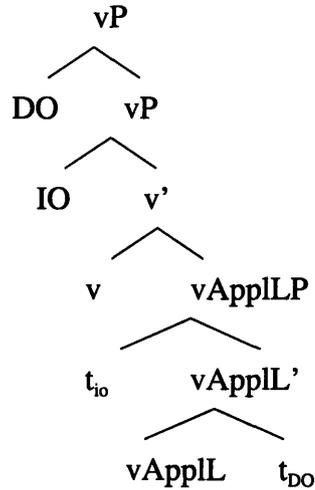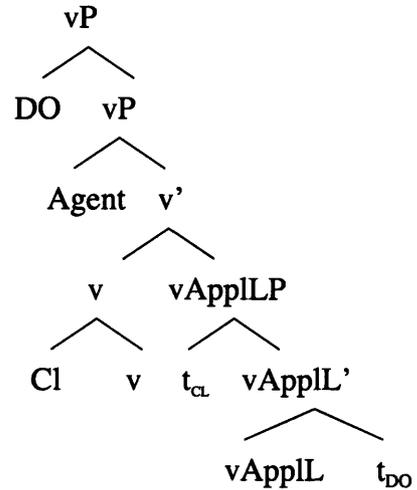
Both of these derivations result in a structure in which the theme is the closest argument to T; for this reason theme passivization is possible.

The restrictions on theme passivization in Haya provides further evidence that theme passives do not come for free from the structure of a low applicative. Once again theme passivization is only possible if a locality violation is circumvented. The analysis developed here is able to account for the co-occurrence restriction of theme passivization,

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[36] This strategy is not available to languages like English, where long passives are prohibited. This suggests that when the Agent is not expressed in a passive sentence in these languages, v does not contain the EPP feature that Merge of the Agent would satisfy in an active sentence. This is perhaps linked to the fact that when Agents are expressed in passives sentences in these languages, it occurs clause finally and is introduced by a preposition, in contrast to Haya, where the agent is expressed as a DP in the same position in both active and passive sentences.

overt agents and full DP goal by positing a hurdling derivation. This derivation provides

further evidence that hurdling past a derived specifier is possible.

3.6.3 Summary

In this section we have seen another strategy that is used to sanction long passives in low

applicatives: movement of the IO out of the search domain of T or v.[37] Evidence for this

movement once again shows that equidistance does not hold between two objects, and the

hurdling of the DO over the IO at ApplLP is not possible. Hurdling at a higher head,

however, is possible, and evidence for this type of derivation provides evidence for the

grammaticality of hurdling past a derived specifier. In Chapter 4 I will discuss further the

distribution of hurdling and tucking in movements.

3.7 Conclusion

In this chapter I have shown that once recent developments in the domains of applicatives

have been taken into account (Pylkkänen, 2001), the data provided by these constructions

argue against equidistance. In particular, I showed that long passives are possible only

when locality violations have been obviated, a fact that is incompatible with an

equidistance account, but it is predicted if closeness is determined by strict c-command

alone.

I have also outlined various ways in which long passives are sanctioned. Long

passives in high applicatives are made possible by hurdling of the lower argument over

the higher one prior to passivization. Long passives in low applicatives are possible if

either (i) they are only apparent, ie. the passivized object was actually merged higher than

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[37] Anagnostopoulou (2003) and Lee (2004) discuss another instantiation of this strategy, in which the IO is removed from the search domain of T by movement to [Spec,CP]. It is not immediately clear why this movement should sanction long passives. Under standard assumptions, when T is merged, the IO has not yet moved from its base-generated position and therefore still intervenes between T and the DO. Anagnostopoulou argues that the DO can passivize if the IO moves to [Spec,CP] because T and C are essentially the same head, an assumption which permits movement to [Spec,CP] to occurs prior to movement to [Spec,TP]. Another possibility is that a given movement is not evaluated to see if it has violated locality conditions until the end of the phase (Chomsky 2000,2001). Under this analysis DO passivization precedes movement of the IO to [Spec,CP], but the first movement is possible because at the end of the phase only the trace of the IO intervenes between T and the DO. Whatever the reason for the ability of IO wh-movement to license long passives, it is apparently language specific. In English, for example, this is not possible:
(i)   Who was a book given?

the non-passivized object or (ii) the higher object is removed from the search domain of T or v.

The data from long passives therefore shows that a specifier and the complement of the same head are not equidistant, while also providing insight into the types of strategies that *are* available to language to circumvent locality constraints. These conclusions are important to the theory as a whole, and in particular to our understanding of movement.

In the next chapter I investigate equidistance among multiple specifiers, and ultimately conclude that it does not hold. This completes the argument begun in this chapter and Chapter 2 that closeness should not be relativized to minimal domains. Research into the domain of multiple specifiers also provides the opportunity to further substantiate the existence of hurdling and to gain an understanding of why this movement is possible.

Chapter 4: Multiple Specifiers and Equidistance

4.1 Intro

In Chapter 2 I presented an account of Locative Inversion that assumes that closeness is defined by strict c-command alone: it is not relativized to minimal domains as in (174).

(174) if β c-commands α and τ is the target of raising, then

   β is closer to τ than α unless β is in the same minimal domain as (i) τ or (ii) α.

   (Chomsky 1995)

(175) The minimal domain of a head H is the set of terms immediately contained in projections of H.

According to (174) two items within the same minimal domain are *equidistant:* they are equally close to another category.

In Chapter 3 I argued that items in the specifier and the complement of the same head are not equidistant from a higher category. In this chapter I investigate equidistance among multiple specifiers. Specifiers are both potential moveable elements as well as potential landing sites; equidistance among specifiers is therefore relevant both when an item is moving from specifier position and when it is moving to a specifier position. This is reflected in the two clauses in the definition of closeness in (174). Consider the trees in (176).

(176) a.   b.

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In both of the trees in (176), YP and ZP are in the same minimal domain, and so are equidistant according to (174). Clause (i) of (174) allows YP to come to reside in the specifiers position it occupies in (176a) by moving from within KP, even though in doing so it raises past ZP. Clause (ii) of (174) permits ZP to Agree with a higher probe even where YP is a potential goal, as exemplified in (176b).

In this chapter I investigate both of the derivations schematized in (176) and ultimately conclude that neither of them provide evidence for equidistance among specifiers but instead argue against it. In section 4.2 I argue that while the hurdling derivation in (176a) is instantiated, it is possible not because specifiers are equidistant but instead because Move, in contrast to Agree, is not subject to locality constraints. The apparent requirement that movement be as short as possible is derived via locality constraints on Agree, the precursor relation that Move requires. This account provides evidence that clause (i) of (174) is unnecessary. In section 4.3 I review data that indicates that the derivation in (176b) is ungrammatical. In addition, I show that another analysis can be given for the constructions in which this derivation has previously been posited. This data indicate that clause (ii) of (174), like clause (i), should be eliminated. Ultimately, therefore, equidistance among multiple specifiers is unnecessary, and in fact, incorrect. This completes the argument began in Chapters 2 and 3 that equidistance should be eliminated from the definition of closeness.

4.2   Specifiers as potential landing sites

Clause (i) of the definition of closeness in (174) permits the derivation schematized in (176a), where an item moves over one specifier to land in a higher specifier of the same head. If multiple specifiers are not equidistant, this derivation could be ruled out by a locality constraint, *Shortest Move*, which forces a mover to move to the closest possible landing site.

(177)   Shortest Move

Movement of α to β is prohibited if γ is a potential landing site for α and γ is closer to α than β.

For all the cases under consideration here a potential landing site for α is any specifier of the head that contains an EPP feature and Agrees with α.

Shortest Move works in conjunction with *Shortest Agree*, which forces a probe to Agree with the closest possible goal.

(178)   Shortest Agree

Agree between probe P and goal α is prohibited if β is a potential goal for P and β is closer to P than α.

If Shortest Move is an active locality constraint and specifiers are not equidistant, the derivation in (176a) would be ruled out because YP moves over the closest potential landing site: the specifier filled by ZP. Instead, Shortest Move would demand that YP 'tuck in' to a specifier position below ZP, as in (179). As a result of this movement the hierarchical order of ZP and YP is preserved.

(179)
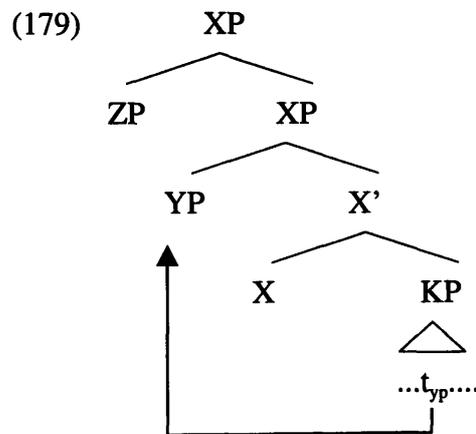
If multiple specifiers are equidistant, however, Shortest Move is not violated in (176a). The specifier in which YP resides is a close to the trace of YP as the specifier in which ZP sits; therefore, this movement is to (one of the) closest possible landing sites.

In section 4.2.1 I review data from Richards (1997) that shows that in various constructions involving movement to multiple specifiers of the same head the word order of the moved items is preserved. Richards argues that this indicates that tucking in is mandatory in these constructions. In section 4.2.2 I review a number of derivations in

which movement to multiple specifiers of the same head either requires or permits order reversal of the moved items. I argue that this is the result of the hurdling derivation in (176a).

What we actually find, therefore, is that while order preservation is obligatory in some instances of movement to multiple specifiers, order reversal is either permitted or obligatory in others. These data are not predicted by Shortest Move alone, whether or not it is relativized to include equidistance among specifiers. In section 4.2.3 I outline my resolution to this problem. I argue that hurdling is possible not because specifiers are equidistant but because Shortest Move is incorrect. Locality of movement is due to Shortest Agree alone. I further argue that hurdling is obligatory and tucking in is impossible. This follows from a requirement that all movement extend the tree. Ultimately, therefore, the grammaticality of hurdling does not provide evidence for equidistance among specifiers.

In most derivations that involve movement to multiple specifiers mandatory hurdling results in order reversal of the moved items. This is because Shortest Agree forces the closest goal to move before a lower goal. The lower goal then moves second and hurdles over the closest goal, reversing their base generated hierarchical order. If a probe enters into *Multiple Agree* (Hiraiwa, 2001, to appear) however, Agree with a lower goal across a higher one is sanctioned. For this reason, movement of the goals with which the probe Multiple Agrees can proceed in any order and the resulting hierarchical order of the moved goals is variable. The result of these movements can be either order preservation or order reversal. While this freedom of order is found in some constructions, mandatory order preservation is required by others. I argue that this does not follow from restrictions on movement but instead from independent properties of the constructions that display it.

4.2.1   Order preservation

Richards (1997) shows that in a variety of construction movement to multiple specifiers of the same head results in order preservation of the moved items. In this section I review his data from multiple wh movement and multiple scrambling, as well as additional data from Nissenbaum (2000) which exemplifies order preservation in covert movement.

Japanese long-distance scrambling of wh-words exhibits a Superiority effect.

Scrambling of one wh-word over another is ungrammatical.

(180) a.   John ga [Bill ga   dare ni [Mary ga   nani o   tabeta to]

            John NOM Bill NOM who DAT Mary NOM what ACC ate   that

            itta to] omotteiru no?

            said that thinks   Q

            'Who does John think that Bill told that Mary ate what?'

     b.   **Dare ni** John ga [Bill ga t [Mary ga nani o tabeta to] itta to

            omotteiru no?

     c.   * **Nani o** John ga [Bill ga dare ni [Mary ga t tabeta to] itta to

            omotteiru no?   (Takahashi, 1993)

This is what expected given Shortest Agree: only the item closest to the attractor is able to Agree with the attractor and subsequently move.

When multiple wh-words scramble, their previous order must be preserved.[38]

(181) a.   John ga [Tanaka sensee ga   dare ni   nani o   yomaseta to]

            John NOM Tanaka teacher NOM who DAT what ACC read-CAUS that

            itta no?

            said Q

            'Who did John say Professor Tanaka made read what?'

     b.   Dare ni$_i$ nani o$_j$ John ga [Tanaka sensee ga t$_i$ t$_j$ yomaseta to] itta no?

     c.   * Nani o$_j$ dare ni$_i$ John ga [Tanaka sensee ga t$_i$ t$_j$ yomaseta to] itta no?

                                      (Richards 1997)

---

[38] Some speakers permit (181c) as well as (181b). There is preliminary evidence that order preservation is displayed here as well. These speakers also permit *nani-o>>dare-ni* word order prior to long-distance scrambling. For some of these speakers, however, a single pair reading of the question is preferred when this word order is displayed. This preference is also found for these speakers in (181c), indicating that the long distance scrambling in this sentence is fed by a preliminary structure in which *nani-o* precedes *dare-ni*.

This word order provides initial evidence that tucking in has occurred here. The data in (180) show that one wh-phrase cannot scramble over another. Under the assumption that this movement is also excluded in (181), the lower wh-phrase can only scramble once the higher wh-phrase has scrambled. The fact that the base generated word order between the two objects is preserved after movement therefore argues that the lower wh-word tucks in below the specifier in which the higher wh-word sits.

While long distance scrambling in Japanese has the properties associated with A-bar movement, there are arguments that local scrambling may be A-Movement. Short-distance scrambling displays certain A-movement properties: it can repair a weak cross-over violation and it can move an idiom chunk while retaining the idiomatic interpretation:

(182)   Kosi$_i$ o   John ga   t$_i$ orosita

          hip ACC John NOM   lowered

          'John sat down.'   (Miyagawa, 1994)

In order to account for its A-movement properties, it has been proposed that local scrambling may be to a specifier of T (Kuroda, 1988, McGinnis, 1998, Miyagawa, 1997, Ura, 1994). Multiple A-scrambling is then a possible case of multiple A-movement to the specifier of a single head. Independent support for the existence of multiple specifiers of T in Japanese comes from the possessor raising construction, in which two DPs in the same clause are marked with nominative case.

(183)   Zoo   ga   hana ga   nagai

          elephant NOM nose NOM long

          'Elephants' noses are long.'   (Ura, 1994)

Ura (1996) argues that in this construction both of the nominative marked objects occur in [Spec,TP]. This construction therefore provides evidence that T in Japanese can have more than one specifier, giving plausibility to the claim that multiple A-scrambling is movement to multiple specifiers of T.

Miyagawa (2001) argues that A-scrambling is driven by an EPP feature. If this is true, we expect that a lower DP cannot A-scramble over a higher DP, since both DPs are potential goals for the EPP feature on T. This prediction is born out with A-scrambled idiom chunks. When a single piece of an idiom is scrambled, it must be the higher of the two:

(184)   a.   Taroo ga   hi ni   abura o sosoida

               Taroo NOM fire DAT oil   ACC poured

               'Taroo made things worse.'

       b.   Hi ni_i Taroo ga t_i abura o   sosoida

               fire DAT Taroo NOM   oil ACC poured

       c.   *Abura o_j Taroo ga   hi ni t_j sosoida

               oil ACC Taroo NOM fire DAT poured   (Richards 1997)

When both idiom chunks are scrambled their merged order is preserved:

(185)   a.   Hi ni_i abura o_j Taroo ga t_i t_j sosoida

               fire DAT oil ACC Taroo NOM   poured

       b.   * Abura o_j hi ni_i Taroo ga t_i t_j sosoida

               oil ACC fire DAT Taroo NOM   poured   (Richards 1997)

If we take the ungrammaticality of (184c) to indicate that the higher idiom chunk must move before the lower one does in (185), this preservation of word order once again argues that the lower idiom chuck tucks in below the higher one.

      Multiple wh-movement in Bulgarian also preserves the word order of the moved items.[39] When both the subject and the object have wh-moved, the subject must precede the object, as shown in (186).

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[39] This generalization is no longer accurate once more than two phrases are multiple wh-moved. When three wh-phrases undergo wh-movement the highest phrases must precede the lower two after movement, but the word order between the lower two is free. See footnote 52 for more discussion.

(186) a.   Koj$_i$ kogo$_j$ vižda t$_i$ t$_j$?

who whom sees

'Who sees whom?"

b.   Kogo$_j$ koj$_i$ vižda t$_i$ t$_j$?

whom who sees

'Who sees whom?"   (Rudin, 1988)

Under the assumption that Shortest Agree prohibits movement of the object over the subject, the subject must move first and the object second. The preservation of word order argues that this second movement tucks in below the specifier in which the subject sits.

Nissenbaum (2000) argues that covert movement also displays tucking in effects. His argument is based on an asymmetry between overt and covert wh-movement. Overt wh-movement in English creates new Principle A possibilities, as shown in (187a).

(187) a.   Mary knows [which picture of herself]$_i$ John is looking at t$_i$.

b.   * Mary knows that John is looking at a picture of herself.

(Nissenbaum, 2000)

As (187b) shows, the anaphor *herself* cannot be bound by the matrix subject *Mary* because the embedded subject *John* c-commands it. In (187a) overt wh-movement of *which picture of herself* to [Spec,CP] removes the anaphor *herself* from the c-command domain of *John*, thereby permitting co-reference between *Mary* and *herself.*

Some instances of covert wh-movement also create new binding possibilities, as shown in (188).

(188) a.   Which boy thinks that Mary was looking at which picture of himself?

b.   * Which boy thinks that Mary was looking at a picture of himself?

(Nissenbaum, 2000)

These sentences parallel the sentences in (187), although in this case it is covert wh-movement that removes the anaphor from the c-command domain of the embedded subject r-expression, permitting the matrix subject to bind the anaphor. This shows that covert wh-movement can, in principle, create new binding possibilities.

In sentence (189), however, wh-movement of the anaphor does not permit co-reference with the matrix subject.

(189) *   Mary knows which boy was looking at which picture of herself.

(Nissenbaum, 2000)

Nissenbaum (2000) notes that these facts look strikingly similar to the datum in (190), which shows multiple wh-movement in Bulgarian.

(190)   * Meri znae   [koje momče]$_j$ [koja svoja snimka]$_k$ kupi t$_j$ t$_k$

Mary knows which boy   which refl picture   bought

'Mary knows which boy bought which picture of herself.

(Nissenbaum, 2000)

In this sentence, the wh-object contains a reflexive. This anaphor cannot be bound by the matrix subject even after it has wh-moved to [Spec,CP] of the embedded clause. This is because the lower wh-phrase occurs in a specifier below the embedded subject *which boy*. If the embedded subject moves to [Spec,CP] prior to movement of the object, this indicates that the object tucks in below the embedded subject. The embedded subject therefore binds the anaphor just as it did in its base position; for this reason, the anaphor cannot be bound by *Meri* in the matrix clause.

This analysis can be extended to the sentence in (189), explaining the contrast between (187a) and (188). Overt wh-movement has moved the embedded subject to [Spec,CP]. Covert wh-movement moves the object to a specifier below the first wh-phrase. In this configuration the object is still in the c-command domain of *which boy*, and so the anaphor that it contains cannot be co-referenced with the matrix r-expression.

It therefore appears that covert movement also displays tucking in effects (see also Bruening 2001).

In this section we have seen that movement to multiple specifiers of the same head results in mandatory order preservation in a variety of constructions: A and A-bar movement, overt and covert. The demands of Shortest Agree predicts that the higher item must move first and the lower one second. Order preservation therefore provides evidence that the second movement tucks in below the first one. In the next section I will present evidence that movement to multiple specifiers of the same head can also result in either mandatory or optional order preservation. Once again, Shortest Agree forces the higher item to move first. These constructions therefore provide evidence that the second movement hurdles the first.

4.2.2   Order reversal

In Chapter 3 I argued that long passives in high applicatives are fed by the hurdling movement outlined in (191).

(191)   ApplHP

DO   ApplHP

IO   ApplH'

ApplH   VP
[EPP]

V   t
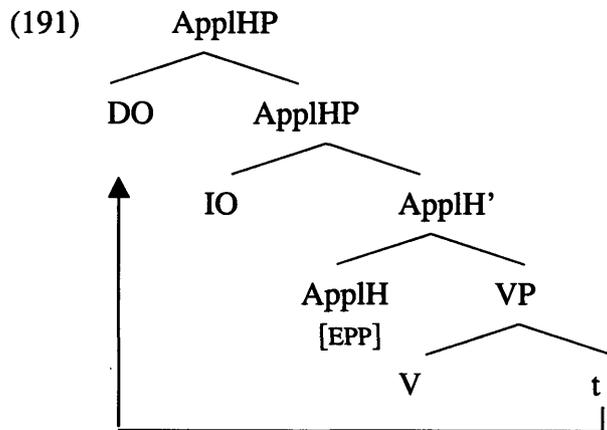
In (191) the DO has moved from complement of V to the higher specifier of ApplHP. This movement reverses the hierarchical order of objects in high applicatives, thereby making long passives possible.

Derivations of this type, in which an item moves over a thematic specifier into a higher specifier position, are also proposed for wh-movement, object shift, and quantifier raising past the internal subject to [Spec,vP] (see Chomsky 2000, Anagnostopoulou 2003, Bruening 2001, among others). Rackowski (2001) suggests that if a head has an EPP

feature to check and also licenses a thematic specifier, the EPP feature should be checked before the thematic specifier is merged, because of a requirement that Agree occur as soon as possible. If EPP is checked prior to Merge of the thematic specifier, this specifier can tuck in, creating a configuration in which it is the lowest specifier of the head. This analysis predicts the ability of thematic specifiers to be lower than moved specifiers, while still remaining consistent with tucking in, ie. with out positing the derivation in (176a).[40, 41]

This instantiates a general strategy for assimilating apparent hurdling cases to a tucking in derivation: posit that the movement to higher specifier actually occurs before the lower specifier is created. When this lower specifier is created by external Merge, it is hard to show one way or the other when this Merge happens with respect to movement to the higher specifier. We stand a better chance of establishing the order in which the specifiers are created when both are created by movement. I therefore turn next to cases of order-reversal in which both specifiers are created by movement.

A tucking in analysis can be posited for order-reversing multiple movements to specifiers of the same head if (i) the probe contains two different types of features that require movement, F_1 and F_2 (ii) and the higher goal only contains F_1 while the lower goal contains F_2 and (iii) search for a potential goal proceeds feature by feature, and not probe by probe; that is a probe does not search for a goal that can satisfy any of its features all at once, but instead for a goal that can satisfy a particular feature at a time. If the probe searches for a goal that contains F_2 prior to searching for a goal that contains F_1, Agree can be established with the lower goal past the higher goal without violating Shortest Agree because the higher goal does not contain F_2. For this reason, the lower

---

[40] This analysis would need to be modified slightly, if external merge of thematic specifiers also satisfies an EPP feature, as I assume here. The relevant requirement would then have to force a non-theta related EPP feature to be checked prior to the theta-related one.

[41] Notice that in this derivation tucking in of the thematic specifier is not forced, it is simply an option. This specifier is created not by movement, but instead by external merge. Shortest Move therefore does not constrain which position the specifier should occur in; neither tucking in nor merging above the moved specifier violates Shortest Move. The thematic specifier should then also be able to merge higher than the merged specifier. Chomsky (2001) suggests that merge must be a close to the head as possible; this, along with the assumption that move to a specifier of head X happens prior to external merge to another specifier of X would derive the occurrence of thematic specifiers below moved ones. Nissenbaum's (2002) theory of tucking in, in which tucking is the result of an anti-extension condition, would also accomplish this. It is unclear whether the thematic specifier must tuck in here. In almost all of the cases in which this derivation has been posited the non-thematic specifier ends up moving on to another position, a situation that makes it hard to discover whether merging below the thematic specifier is possible.

goal can move first, and the higher goal can tuck in under the lower goal, deriving the reversal of word order. If, however, both goals are potential goals for all of the features on the probe, then this analysis cannot be given, and reversal of hierarchical order establishes a hurdling movement. In this section I provide various examples of order-reversing multiple movements to specifiers of the same head. I argue that none of them can be given a tucking-in analysis.

I have argued that hurdling past a derived specifier is found in Locative Inversion and in theme passives in Haya. The hurdling step found in Locative Inversion is exemplified in (192).

(192)

```
                    vP
                _____/\_____
              /              \
           PP_i              vP
          /‾‾\            /‾‾‾‾‾\
  down the hill   vP         DP_j
              /‾‾‾‾\        /‾‾\
     ↑    roll_k- v   VP    Mary
     |          /‾‾‾‾\      ↑
     |        t_j _____V'___|
     |      STEP I    /‾‾‾‾\
     |            t_k        t_i
     |_____
              STEP II
```
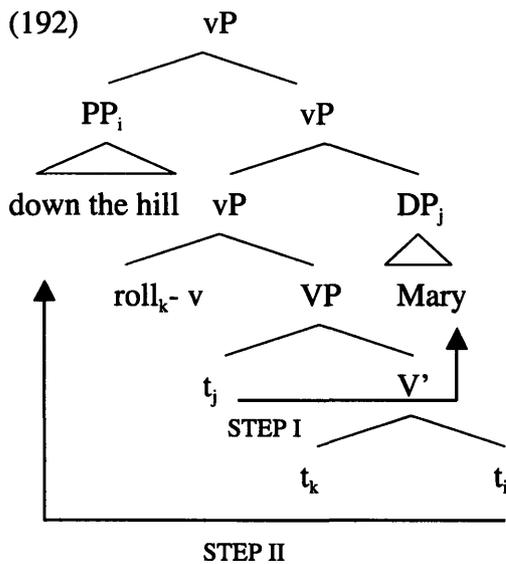
In this derivation v contains a focus feature and an EPP feature. The focus feature itself contains an EPP feature, and so can only be satisfied by movement of a category into the specifier of v. I have argued that in a convergent derivation of Locative Inversion, the DP moves to satisfy the focus feature, while the PP moves to satisfy the EPP. Both the DP and the PP are potential goals for the EPP; for this reason Agree between v and PP when the DP still sits in [Spec,VP] is blocked by Shortest Agree. Given this, the DP must move to [Spec,vP] first, satisfying the focus feature. The PP then moves to the higher specifier of v, thereby reversing the hierarchical order of the PP and the DP and making further movement of the PP to [Spec,TP] possible. In this derivation the PP therefore hurdles over the DP, a derived specifier.

I have posited a similar derivation for theme passives in Haya in which the goal is expressed as a full DP. This derivation is exemplified in (193).

(193)

```
                    vP
                   /\
               DO    vP
              ↑     /\
                  IO    v'
                ↑      /\
                  v    vAppLP
                 |    /\
               t_io    vApplL'
              STEP I    /\
                   vApplL    t_DO
              STEP II
```
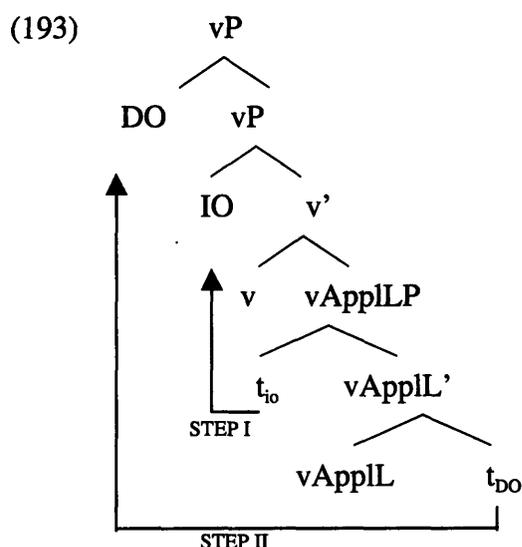
In this derivation we once again have a v that contains two features that drive movement to its specifiers. In this case they are both EPP features. Both the IO and the DO are potential goals for this feature. Shortest Agree therefore demands that the IO Agree with and subsequently move to a specifier of v first, and the DO second. Movement of the DO into the higher specifier of v reverses the hierarchical order of the two objects, thereby making further movement of the DO to [Spec,TP] possible. The DO therefore hurdles over the IO, a derived specifier.

An additional case of hurdling is found in quantifier raising (QR) in English. Nissenbaum (2000) shows that covert movement can license parasitic gaps (PGs) in English, provided there is an initial overt movement that also binds a parasitic gap. This is shown for covert wh-movement in (194).

(194) a. ? Which senator$_1$ did you persuade t$_1$ to borrow which car$_2$ [after getting an opponent of ___$_{PGi}$ to put a bomb in ___$_{PG2}$]?

b. * Which senator$_1$ did you persuade t$_1$ to borrow which car$_2$ [after puttiing a bomb in ___$_{PG2}$]?   (Nissenbaum, 2000)

The sentence in (194a) shows that that the wh-in-situ *which car* can license a parasitic gap, while (194b) shows that this is only possible if there is an overt instance of wh-movement which also licenses a parasitic gap.

A parasitic gap can also be licensed by QR, as shown in (195).

(195)　?? Which car$_2$ did you persuade each republican$_1$ senator to borrow t$_2$ [after getting an　opponent of ___$_{PG1}$ to put a bomb in ___$_{PG2}$]?

(Nissenbaum, 2000)

Nissenbaum provides extensive evidence that the movement which licenses PGs must pass through a specifier of the vP to which the parasitic adjunct is adjoined. In (195) therefore, both the wh-phrase and the quantifier must pass through [Spec,vP]. In addition, he notes that the only natural interpretation of (195) is one in which the cars can vary with the Republican senators, indicating that the universal quantifier must take wide scope over the wh-phrase when there are two PGs in the adjunct. If overt movement precedes covert movement, then overt wh-movement here precedes QR. The fact that QR scopes over the wh word therefore indicates that when it moves to [Spec,vP], it does not tuck in below the trace left by wh-movement, but is instead merged into a higher specifier. The structure underlying (195) is given in (196).

(196)

vP
　vP　　　　　　　　　　each senator
　　vP　　　　　　　　t$_{which car}$
　　　vP　　　adjunct
t$_{subj}$ persuade [each senator] to borrow t$_{which car}$　O$_1$O$_2$ after getting an opponent of _$_1$to put a bomb in _$_2$
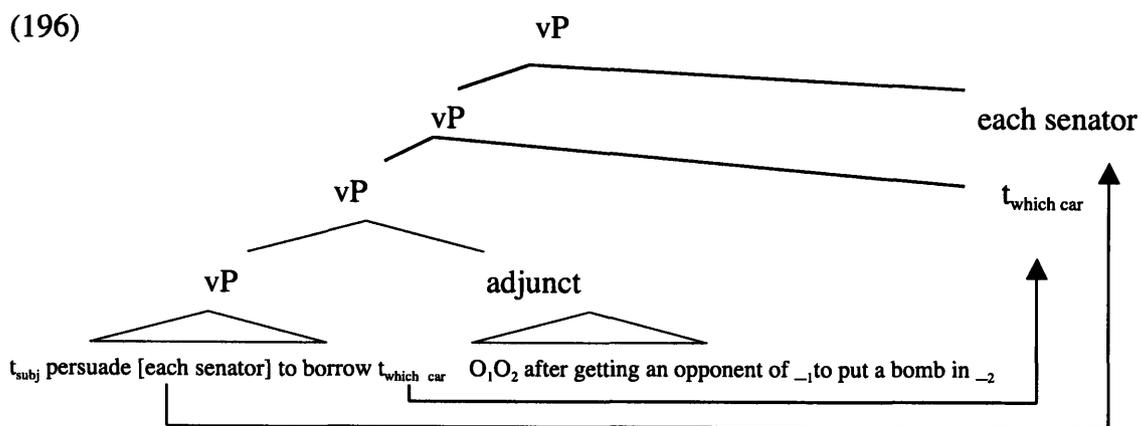
This construction therefore provides evidence that QR may hurdle over derived specifier.

It was shown in the previous section that when two idiom chunks are locally scrambled, they must retain their base-merged hierarchical order, a fact which potentially

argues that the lower idiom chunk tucks in below the higher one. I will now argue that further investigation of scrambling in Japanese provides an instance of hurdling over derived specifiers. When two non-idiom chunks are locally scrambled they can appear in either order, as shown in (197c-d).

(197) a.　　Taroo-ga　gakusei-ni　hutari hon- o　　ageta

　　　　　　　Taroo NOM student DAT two　book ACC gave

　　　　b. ??? Taroo-ga　hon- o　　gakusei-ni　hutari ageta

　　　　　　　Taroo NOM book ACC student DAT two gave

　　　　c.　　Gakusei-ni　hutari hon- o　　Taroo-ga　　saiwaini ageta

　　　　　　　student DAT　two　book ACC　Taroo NOM fortunately gave

　　　　d.　　Hon- o　gakusei-ni　hutari Taroo-ga　　saiwaini ageta

　　　　　　　book ACC　student DAT two　Taroo NOM fortunately gave

　　　　　　　'Taroo gave books to two students.'　(Miyagawa p.c.)

The contrast between (197a) and (197b) shows that when the dative marked object is modified by a numeral the dative>accusative word order within the vP is forced (see Miyagawa 1997 and chapter 3 for more discussion). Multiple scrambling can either preserve this order as in (197c) or reverse it, as in (197d).

I argue that all of the potential derivations for (197d) involve a hurdling movement. Specifically, I argue that either the accusative marked DO has hurdled over the dative marked IO, or IO has hurdled over the subject. This conclusion is based on the following assumptions, all of which have been previously motivated in Miyagawa (2001): (i) there are only two kinds of scrambling, A and A-bar (ii) A-scrambling is driven by an EPP feature on T and (iii) A-bar scrambling is driven by a focus feature. For concreteness I assume that this focus feature is on C and that A-bar scrambling therefore targets C, but the conclusions reached below remain the same if this feature is on T and A-bar scrambling is to [Spec,TP].

Miyagawa further argues that when a nominative marked argument precedes a high adverb such as *saiwaini* 'fortunately' it occurs in [Spec,TP]. Given this, the subject

in (197c-d) occurs in [Spec,TP] and both of the objects have scrambled to a higher position in the tree.

The availability of two types of scrambling permit the following combinations of scrambling movements to raise the two objects to a position before the subject:

(198)

	IO	DO
a.	A	A
b.	A	A-bar
c.	A-bar	A
d.	A-bar	A-bar

Consider first the case in (198a), where each object has A-scrambled. In this derivation, the subject and both objects each raise to a specifier of T to satisfy an EPP feature on T. All three DPs are potential goals for the EPP. Shortest Agree therefore demands that the subject Agree with and subsequently move to a specifier of T first, the IO second, and the DO third. The word order of (197d) indicates that the IO has hurdled past the subject, and the DO has hurdled past the IO. This derivation is illustrated in (199).

(199)   TP

sono hon-o_k   TP

gakusei-ni   TP

hutari_j

Taroo- ga_i   T'

vP   T

saiwaini   vP

t_i   v'

STEP I   VP   v

t_j   V

STEP II   t_k   V

ageta

STEP II

STEP II
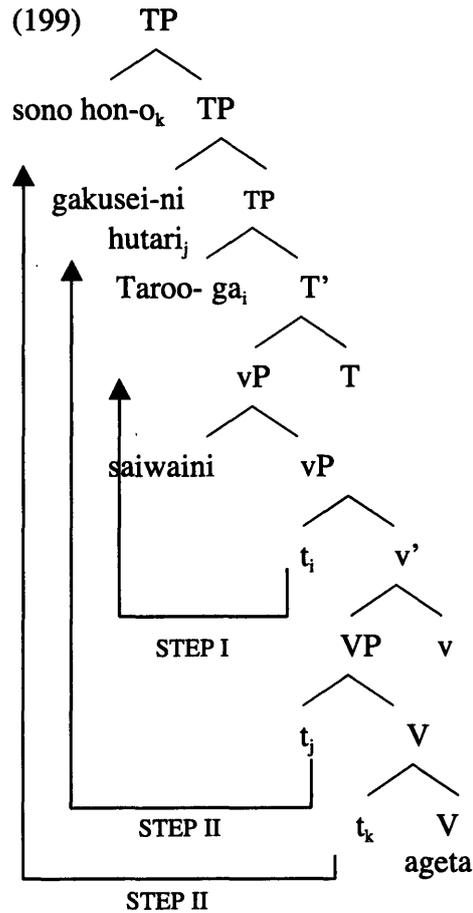
Now consider the combination in (198b). In this derivation, the IO has A-scrambled, while the DO has A-bar scrambled. Both the IO and the subject therefore raise to a specifier of T to satisfy an EPP feature on T. Shortest Agree demands that the subject raise first, and the IO second. The word order IO>>subject indicates that the IO has hurdled past the subject. The DO is then free to raise to [Spec,CP] to satisfy the focus feature on C because the other two arguments do not contain a focus feature and so are not potential goals for C. The grammaticality of this type of movement is illustrated in (200), in which the DO has scrambled over the IO and the subject.

(200) (?)CD-o   Mary-ga   tomodati-ni futa-ri okutta.

     CD ACC Mary NOM friends DAT   2-CL   sent.

     'Mary sent two friends a CD.'   (Miyagawa 1997)

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Next consider the scenario in (198c). Not only does a derivation with this combination of movement types derive the incorrect word order, it also does not converge. If the IO A-bar scrambles to [Spec,CP] while the DO A-scrambles to [Spec,TP] the resulting word order is IO>>DO, which is not the word order displayed in (197d). In addition, a derivation with these movements is impossible. When T is merged the IO is still in its base generated position within vP, where it c-commands the DO. The DO cannot raise to T to satisfy a EPP feature on T because the IO is a potential goal and so blocks Agree between T and the DO.[42]

This brings us to the scenario in (198d), in which both objects undergo A-bar scrambling to satisfy a focus feature on C. Since both objects undergo this movement. both must be potential goals for C. Shortest Agree therefore demands that the IO raise first, and the DO second. The reversal of word order in (197d) therefore indicates that the DO has hurdled over the IO.

Given the assumptions laid out above, therefore, any derivation of the sentence in (197d) involves either hurdling of an object over the subject (198b), hurdling of one object over the other (198d), or both (198a). In particular, the assumption that there are only two kinds of scrambling, and two corresponding features that drive them, forces this conclusion. If we give up this assumption, and instead posit, for example, two distinct A-bar scrambling features, two alternative analyses can be given for (197d) that are compatible with tucking in. Under one analysis, both the DO and the IO undergo A-bar Scrambling, but each scrambling movement is motivated by a distinct scrambling feature. The word order DO>IO is derived because the DO raises first, and the IO second, tucking in under the DO. This order of movement is possible because the IO contains a different scrambling feature than the DO, and thus does not block Agree between the scrambling head and the DO. This is an instantiation of the tucking in analysis of order reversing movement that was outlined at the beginning of this section.

Under the second alternative analysis, tucking in does not occur in (197d) because each scrambling movement is to the specifier of a different head, and so is not subject to

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[42] This derivation would be possible under the assumption that movement steps are only evaluated to see if they violate locality conditions once a phase is completed (Chomsky 2001). The DO could then raise to [Spec,TP] because once the phase is completed the IO has moved to [Spec, CP] and so no longer intervenes between T and the base position of the DO.

tucking in effects (Richards 1997). The dative DP scrambles to the specifier of one head, and then the accusative DP scrambles to the specifier of a higher one. This is exemplified in (201).

(201)

```
                 YP
               /    \
            DPᵢ      Y'
           /  \     /  \
      sono hon-o  XP    Y
                 /  \
              DPⱼ    X'
             /  \   /  \
      gakusei-ni TP    X
         hutari /  \
             DPₖ    T'
            /  \   /  \
        John-ga vP    T
               /  \
             tₖ    v'
                  /  \
                VP    v
               /  \
             tⱼ    V
                  /  \
                tₖ    V
                    ageta
```
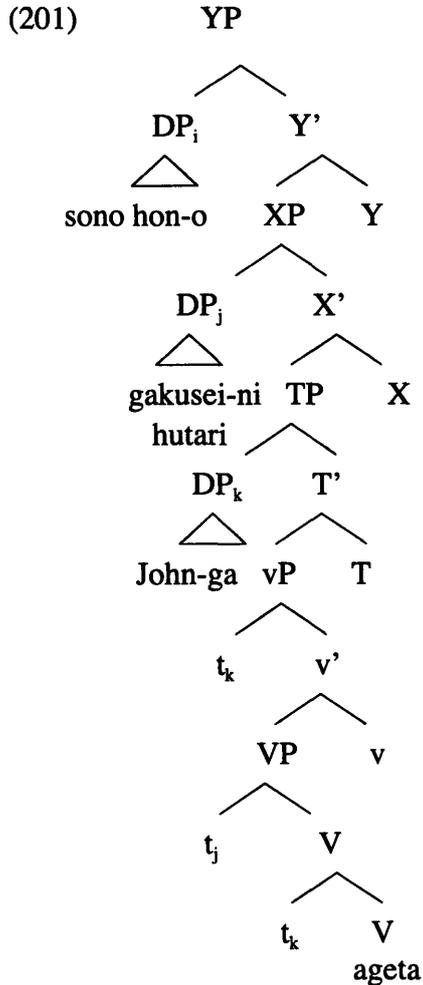
The accusative DP does not tuck in below the dative DP because the feature that drives its movement is on Y, not X.

In order for this derivation to converge, a different feature must drive each scrambling movement. At the point in the derivation when Y is merged, the IO is in the specifier of X. In this position it is in the search domain of Y. In order for the IO to Agree with Y without violating Shortest Agree, therefore, the DO cannot be a potential goal. Thus under this analysis the feature that drives scrambling of the IO must be different from the feature that drives scrambling of the DO.

Both of these analyses therefore require two distinct A-bar scrambling features, while a hurdling account of the facts in (197d) does not. While I do not have empirical evidence against the existence of two distinct long distance scrambling features, the need to posit them is an unwanted complication that is unmotivated. The weakness of this type of analysis is highlighted by the fact that the number of items that undergo scrambling is not limited to two, but instead only by the level of comprehension difficulty that rises with each additional scrambled item. If n items scrambled, leading to a complete reversal of word order, we would need to posit n distinct scrambling features, one for each item that scrambled. I therefore reject both of these analyses, and conclude that hurdling is instantiated in (197d).

In this section we have seen various cases in which hurdling is permitted. The clearest argument that this has taken place comes from derivations in which one argument hurdles over a derived specifier; however, once hurdling has been shown to be possible, we have no reason to expect that it is limited to these types of derivations. In fact, positing hurdling of a moved specifier over a thematic one provides a simpler explanation for the fact that thematic specifiers are always the lowest specifier. A tucking in account of this must stipulate that (a) movement to a specifier of a head X must precede Merge of a thematic specifier to X and (b) this Merge must be as close as possible to the head. If hurdling is possible and in fact mandatory, however, then this fact follows from the assumption that Merge precedes Move where possible (Chomsky 2000, 2001).

The contrast between local scrambling of idiom chunks and non-idiom chunks is an important one. It shows that the mandatory order preservation displayed by scrambled idiom chunks does not follow from restrictions on the movement that these chunks undergo, but is instead related to a property of this particular construction. In the next section I will argue that mandatory order preservation is never indicative of a general restriction of movement. It always follows from a property of the construction that displays it. I argue that hurdling is always obligatory and tucking in is impossible. Under certain circumstances hurdling can lead to both order-reversing and order-preserving movement.

4.2.3 Resolution

The previous sections showed that while order preservation is mandatory in a variety of constructions, there are also cases in which it does not occur, and either word order is variable or order reversal is obligatory. In this section I outline my resolution to this problem. I argue that despite initial appearances, hurdling is always obligatory. It is forced by the *Extension Condition*, which demands that all movement extend the tree.

(202) Extension Condition

Merge must be to the root node.   (Chomsky, 1995)

This constraint prohibits Merging an item below an existing specifier because this instance of Merge is not to the root node of the tree. In addition I propose that, contrary to the predictions of Shortest Move, hurdling does not violate locality conditions.[43] While Agree is subject to locality constraints, namely Shortest Agree, Move is not. Since Agree is a necessary precursor to Move, Shortest Agree often restricts the set of possible movement steps. It does not prohibit hurdling, however, because the precursor Agree relation that is required for this movement is licit: an existing specifier is not within the search domain of the head and therefore does not block Agree between the head and a lower category (see Chapter 3 for more discussion). Thus hurdling is possible not because multiple specifiers are equidistant, but simply because movement is not subject to locality constraints.

This analysis predicts that tucking in is ungrammatical. I argue that this is exactly the result that we want, and that tucking in is impossible. It is useful at this point to review the argumentation used to argue that tucking in occurs in the derivations in section 4.2.1. In all of these cases, it was argued that movement of the higher category must precede movement of the lower category because of Shortest Agree. Both of the categories that move contain the same feature for which a higher probe is searching and are therefore both potential goals. Given Shortest Agree, we therefore expect that Agree between the probe and the lower category across the higher category be prohibited. The

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[43] Alternatively, it is possible that the Extension Condition outweighs locality constraints and for this reason hurdling is obligatory even though it violates Shortest Move. While this is possible, it leaves us with no evidence that Shortest Move exists; for this reason I do not adopt this analysis.

lower category can only Agree with the probe, and subsequently move to its specifier, after the higher category has also moved there. These assumptions enable us to establish the respective ordering of the multiple movements to specifiers of single head, and therefore diagnose when tucking in of the second movement has occurred.

If Agree between the probe and the lower goal past the higher one were sanctioned, however, then this argumentation would no longer hold. It would be possible for the lower goal to move prior to the higher one, and hurdling of this second movement over the specifier created by the first movement would result in a preservation of the hierarchical order of the two categories.

I argue that this is exactly what has happened in apparent tucking in cases. Order-preserving multiple movements are only possible in those cases where Agree with a lower goal across a higher one is sanctioned. This is possible when a probe enters into a multiple feature checking relation via *Multiple Agree* (Hiraiwa, 2001, to appear). Following Ura (1996, 2000) I suggest that some features are marked [+multiple]. These features require more than one checking relation in order to be satisfied. There are also probes that must enter into multiple checking relations because they contain more than one feature. In Locative Inversion constructions, for example, v contains the EPP and a focus feature F, both of which require their own checking relation. I claim that multiple movements to a probe with a feature marked [+multiple] permit order-preserving movement, while multiple movements to a probe with more than one feature demand order-reversing movement.[44]

This distinction follows from the fact that the multiple checking relations that these probes require have different properties. Checking of a feature marked [+multiple] is implemented within a theory of Multiple Agree, where it is argued that Agree is not always a one to one relation; a single probe can Agree with multiple goals, and a single goal can Agree with multiple probes. Only the former Multiple Agree relation, schematized in (203), will be relevant here.[45]

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[44] This analysis builds on a suggestion made in McGinnis (1998), where it is proposed that tucking in is observed only when the multiple movements are checking the same type of feature.

[45] While Hiraiwa (to appear) argues that Multiple Agree occurs whenever a probe has more than one feature that needs to be checked, I will assume a more conservative view of Multiple Agree, in which only those features that are marked [+multiple] enter into Multiple Agree.

(203)   Probe .....[...goal$_1$ ... [...goal$_2$...]]
        |_____▲_____▲
                Multiple Agree
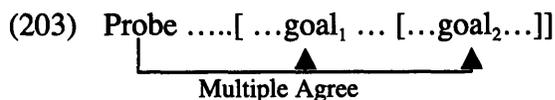
It is not immediately clear how Agree can be established between the probe and goal$_2$, since goal$_1$ intervenes between these two. Hiraiwa suggest that this is possible because Multiple Agree is a single simultaneous operation. In a Multiple Agree relationship, the probe does not Agree with the first goal it matches with; instead it continues to search the tree for the next possible goal. When the probe has matched with all possible goals, Agree takes place with all of them at once. He suggests that a potential goal only intervenes with Agree between a probe and a lower goal if each instance of Agree is derivationally distinct. If the instances of Agree are derivationally unique (ie. simultaneous) then no intervention constraint occurs.

Another possibility is that the ability for the probe to Agree with goal$_2$ just when it also Agrees with goal$_1$ is a *Principal of Minimal Compliance* effect. Richards (1997) proposes that there is a general property of grammatical dependencies that allows constraints to be ignored for second and subsequent operations, provided they are satisfied by an initial operation.

(204)   Principle of Minimal Compliance

For any dependency D that obeys constraint C, any elements that are relevant for determining whether D obeys C can be ignored for the rest of the derivation for purposes of determining whether any other dependency D' obeys C.

(205)   An element X is relevant to determining whether a dependency D with head A and tail B obeys constraint C iff

a. X is along the path of D (that is, X=A, X=B or A c-commands X and X c-commands or dominates B).

AND   b. X is a member of the class of elements to which C makes reference.

Richards shows that the ability of a well-formed dependency to sanction another dependency that would be ill-formed in isolation is also found within the domain of reflexivity, Weak Crossover, VP-ellipsis, Connectedness and *That*-trace effects.

This principle can help explain why a probe can Multiple Agree with more than one goal. The well-formed Agree relation between the probe and $goal_1$ sanctions Agree between the probe and $goal_2$, even though Agree between the probe and $goal_2$ across $goal_1$ would be ill-formed in isolation.

However we understand it, in a Multiple Agree relation Agree with a lower goal across a higher one *is* possible. This is exactly what is required in order to allow a lower goal to move over a higher one. When multiple goals move to multiple specifiers of a single head as a result of a Multiple Agree relation, therefore, the lowest one can move first and the higher one last. Each movement hurdles over the previous one, and their relative hierarchical order is preserved.[46]

This is not possible when multiple goals move to multiple specifiers of the same head via distinct Agree relations, however. In this multiple feature checking relation, Agree between the probe and the lower goal past the higher goal is not possible. Thus the highest goal must move first, the lowest goal last, and hurdling movements result in order reversal.

Multiple Agree can also lead to order-reversing multiple movement because it is also possible for the high goal to move prior to the low goal, an ordering of movement which reverses the hierarchical order of the moved items.

Preservation of word order is therefore only possible when multiple movements to the specifiers of a single head is driven by a feature on that head that is marked [+multiple], while reversal of word order is mandatory when those multiple movements are driven by two separate features on that head. For concreteness I will assume that it is not possible for a head to contain more than one instance of the same feature, although this analysis presented here would change minimally if this is not true. This predicts that

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[46] Richards (1997) argues that Principal of Minimal Compliance (PMC) effects provide further evidence that in order-preserving movements the higher specifier was created by movement before the lower one was. In multiple wh-movement in Bulgarian, for example, movement to the higher specifier must obey island constraints, while the movement to the lower one can violate them. If the syntactic dependency that island constraints apply to is Move, then this fact indicates that movement to the higher specifier occurs prior to movement to the lower specifier. These facts can follow from the analysis developed here under the following assumptions: (i) the syntactic dependency that island constraints apply to is the Agree relation that feeds movement and (ii) the first item to Multiple Agree with a probe is the last to move to that probe. (see footnote 52 for more discussion of this condition). Given (i), the PMC would demand that island obeying Agree precede island violating Agree and given (ii), the item that enters into the island-obeying Agree relation would move last .

multiple movements to specifiers of a single head that are driven by different types of features will be order-reversing. When those movements are driven by the same feature types, and are therefore fed by Multiple Agree, they will be able to preserve or reverse the order of the moved items. This prediction is borne out. The table in (206) summarizes the constructions discussed so far.[47]

(206)

Construction	Features driving movement	Order-preserving movement	Order-reversing movement
a. Locative Inversion	PP: EPP DP: Focus	no	yes
b. QR-licensed Parasitic Gap	QR: ? wh-movement: wh	no	yes
c. Movement past thematic spec	thematic spec:θ-role other: various	no	yes
d. Multiple wh-movement	wh_1: WH wh_2: WH	yes	no
e. A-scrambling of idiom chunks	DP_1: EPP DP_2: EPP	yes	no
f. Long distance scrambling of wh-phrase	wh_1 :focus wh_2: focus	yes	no
g. Haya long passive	Goal: EPP Theme: EPP	(yes)[48]	yes
h. Local scrambling past subject	subject: EPP object: EPP	yes[49]	yes
i. Multiple local scrambling	IO: focus/EPP DO: focus/EPP	yes	yes

A quick look at the table in (206) shows that whenever it is clear that each movement is driven by a distinct feature, multiple movements to specifiers of the same head is order-reversing. This is exemplified by the constructions in (206a-c). In Locative Inversion one

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[47] The cases in (206h-i) are the two possible hurdling cases that are instantiated in order-reversing multiple local scrambling in Japanese. In section 4.2.2 I established that (at least) one of these is involved in the derivation of these sentences, though I did not conclusively determine which one.

[48] While I have not provided evidence the multiple movements to v in Haya can preserve the hierarchical order of the two items, nothing excludes this derivation. The analysis here would predict that this is another structure that feeds goal passivization.

[49] In the examples discussed, locally scrambled objects always appear before the subject. It is possible, however, that local scrambling can tuck-in below the subject deriving SOV word order that is most commonly assumed to reflect the base generated word order, or scrambling to VP.

movement is driven by a focus feature, while the other is driven by the EPP. The two movements involved in the derivation in (196) are QR and wh-movement; while it is unclear what feature drives QR, it is clear that it is not a wh-feature, the feature that drives wh-movement. Finally, thematic specifiers merge for theta-theoretic reasons, while the movement that hurdles over them is driven by a variety of non-theta-role related features. In all of these constructions, the base generated hierarchical order of the two items is reversed.

In the constructions in the remaining rows each movement is driven by the same feature type. Among these constructions sometimes the hierarchical order is preserved (206d-f) and sometimes both orders are derived (206g-i). The analysis developed so far predicts that all of these constructions should permit both order-preserving and order-reversing movement, contrary to fact. While I do not have a complete understanding of why the constructions in (206d-f) demand order preservation, I suggest that this order is forced by independent properties of the constructions, and is not endemic to the type of movement that Multiple Agree permits.

One possibility is that there is an interpretive condition that forces order-preservation in these constructions. This is most clearly instantiated by multiple wh-movement in Bulgarian and English. Both of these constructions require a pair-list reading.[50] Higginbotham and May (1981) propose that pair-list readings are derived via the rule *Absorption*, which maps two unary wh-phrases into a complex binary wh-phrase. According to Higginbotham and May, Absorption can only apply to structurally adjacent wh-phrases; ie. wh-phrases which are specifiers of the same head. If this syntactic precondition was modified so that it could only apply to items whose base-generated hierarchical order was preserved, then we would gain an understanding of why multiple movement of these items must be order-preserving.[51,52]

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[50] This account cannot extend to tucking in effects displayed by multiple wh-movement that feeds additional single wh-movement, as exemplified in (209)-(210), since these sentences do not require a pair-list reading.

[51] This condition is similar to the shape preservation constraints posited in Huang, (1982), Lasnik and Saito (1992), Müller (1997), Reinhart (1983) and Watanabe (1992).

[52] Sentences in Bulgarian in which three wh-phrases have undergone wh-movement provide evidence that the relevant condition is not order preservation. In these sentences, while the highest wh-phrase must move to the highest specifier of C, the other two phrases may appear in either order (Boškovic, 1997).

Another construction that demands order preservation is multiple A-scrambling of idiom chunks. Idiom chunks, like multiple wh-phrases, are in some sense interpreted together. I suggest that this interpretive requirement may be linked to the obligatory order preservation that they display. Chomsky (2000,2001) suggests that the mapping between syntax and the phonological and semantic interfaces, PF and LF, takes place at various points in the derivation. Once a phase is completed, where phases include CP, vP and DP, it is sent off to PF and LF. Fox and Pesetsky (to appear) argue that once a *Spell-out domain* is mapped to PF, where the set of Spell-out domains is roughly equivalent to the set of phases, the linear order of the constituents contained within the spell-out domain is fixed. This linear order can never be changed in the course of the derivation. Let us assume that in order for a idiom to be properly interpreted, all of its parts must be in their base generated positions when the smallest phase that contains them is mapped to LF. In order for the Japanese idiom *hi-ni abura-o sosoida* 'poured oil on the fire' to receive the interpretation 'made things worse', therefore, both of the objects must be in their base generated position when vP is mapped to LF. At this point the vP is also mapped to PF and the linear order IO>DO is fixed and cannot be disturbed by movement. For this reason, multiple A-scrambling of idiom chunks requires order preservation.

Multiple long-distance scrambling of wh-phrases in Japanese also demands order-preservation. These sentences differ from multiple wh-movement in English and Bulgarian in that they do not require a pair-list reading. There is at least preliminary evidence, however, that the wh-phrases involved in this construction must be interpreted

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(i)   a.   Koj$_i$ kogo$_j$ kakvo$_k$ e   t$_i$ pital t$_j$ t$_k$
                who whom what   AUX   asked
       b.   Koj$_i$ kakvo$_k$ kogo$_j$ e   t$_i$ pital t$_j$ t$_k$
                who what   whom AUX   asked

This suggests that the relevant condition is actually 'first to Agree, last to move.' The subject wh-phrase is always the first to Agree with C. Once this Agree relation has been established however, the Principal of Minimal Compliance predicts that either of the remaining wh-phrases can Agree with and subsequently move to C prior to movement of the other phrases. The only requirement on the derivation is that the highest wh-phrase move last, and thus occur in the highest specifier. One way to accomplish this is by assuming that when Multiple Agree feeds Absorption it creates a stack of goals as the probe Agrees with them (David Pesetsky, p.c.). In the derivation of the sentences in (i) for example, the subject Agrees first, and get placed on the stack. The next two phrases can Agree and get placed on the stack in either order. When Move applies, it can only see the top of the stack. If the DO Agrees before the IO, the IO is on the top of the stack., and thus must move first. The DO then moves second, and the subject last, deriving the word order in (ia). If the IO Agrees before the DO, the DO is on the top of the stack and must move first. The resulting order is that of (ib). Crucially, the subject is always on the bottom of the stack, and therefore must always move last.

together. When two wh-phrases are long distance scrambled, they both must take matrix scope. This is illustrated in (207) (Ken Hiraiwa, Shoichi Takahashi,p.c.).

.

(207) a. John ga/wa [Tanaka sensee ga dare ni nani o yomaseta ka]

    John NOM/TOP Tanaka teacher NOM who DAT what ACC read-CAUS Q

    siri tagatte iru   .

    know want-to

    'John wanted to know who Professor Tanaka made read what?'

  b. Dare ni$_i$ nani o$_j$ John ga/wa [Tanaka sensee ga t$_i$ t$_j$ yomaseta ka]

    siri tagatte iru no?

    'For which person x and and what thing y such that Professor Tanaka made x read y did John want to know?'

The question in (207b) does not have a yes-no answer reading, indicating that at least one of the scrambled wh-phrases has matrix scope. In addition, it does not have single wh-extraction readings; that is, (207b) cannot be answered 'Taroo-ni' or 'LGB-o'. This indicates that both wh-phrases have taken matrix scope. This provides evidence that the scrambled wh-phrases must scope together. This is therefore another possible place where the interpretation of the moved items forces order-preservation.

  Ultimately, therefore, the Extension Condition makes hurdling obligatory, while in most derivations Shortest Agree demands an order of movement (closest first, farthest away last) that results in order reversal. If the movements are fed by Multiple Agree, however, the order of movement and the resulting hierarchical order of the moved items should be free. Order preservation is unique to the constructions that display it and not derivative of locality constraints on Move.

  This provides an explanation for hurdling that does not require equidistance among specifiers. In the next section I will provide further evidence that equidistance is not part of the definition of closeness. Data from constructions in which multiple specifiers are potential goals show that they are not equidistant.

4.3   Specifiers as potential goals

In the previous section I showed that that clause (i) of the definition of closeness in (174) is unnecessary. In this section I investigate the derivation made possible by clause (ii) of (174), in which a probe Agrees with a lower specifier past a higher one. In section 4.3.1 I argue that where this derivation has been previously proposed it is unnecessary; instead, a preliminary hurdling movement creates the appearance of equidistance among specifiers. In sections 4.3.2 and 4.3.3 I will show that where the preliminary hurdling step has not occurred (and thus true equidistance would be necessary to permit Agree with a lower specifier past a higher one) Agree is prohibited.

4.3.1   Ura (1996, 2000)

Ura (1996, 2000) argues that an argument A_1 can jump over another argument A_2 that is located in the minimal domain D if A_1 beforehand moved into D. He further argues that this derivation is possible because once A_1 has moved into the minimal domain of A_2 they are equidistant. For example, an object may move over the subject to the specifier of a head H provided it has moved to a specifier of v, creating the structure in (208).

(208)

H   ...
            vP

    SUBJ
            OBJ$_k$
                    v   VP

                        V   t$_k$
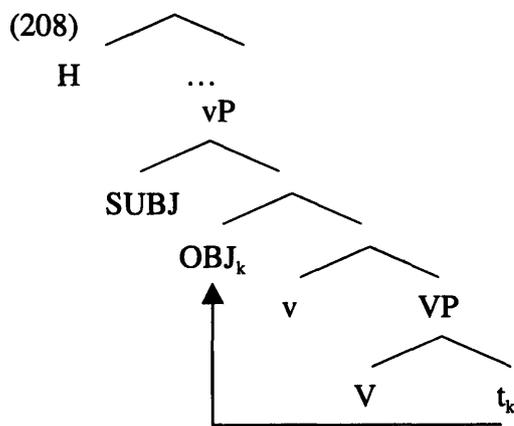
Ura argues that the order of the specifiers of v is irrelevant; whether the object tucks in below the subject or extends the tree, it is equidistant from the subject and so can move on. He argues that this derivation is instantiated in many constructions including the active/inverse voice alternation, locative inversion and symmetric passivization.

If the object does tuck in below the subject, as instantiated in (208), then equidistance would be needed in order to explain why the object could move on past the

subject to a higher head. If the object hurdles over the subject, however, then appealing to equidistance in unnecessary: in this position the object would be higher than the subject, and so able to move to a higher head without violating Shortest Agree. This analysis shares with Ura's the insight that movement of A_1 over A_2 is only possible if A_1 first moves into the minimal domain of A_2; however, the reason this is necessary is not because this first step of movement creates equidistance between the two arguments, but instead because it reverses their base generated hierarchical order.

In the previous section I argued that hurdling is possible. In the previous two chapters I have argued that this movement accounts for the ability of one argument to raise past another. Chapter 3 argues that hurdling occurs in symmetric passivization, while Chapter 2 argues that it is instantiated in Locative Inversion and the active/inverse alternation. These analyses provide further evidence that equidistance is not involved in these derivations.

Where the base generated hierarchical order of two categories is not reversed, however, the lower item should not be able to Agree with or Move to a higher head past the higher argument, even if they occur in specifiers of the same head. In sections 4.3.2 and 4.3.3 I will show that this is indeed the case.

4.3.2   Wh-Movement

As noted above, multiple wh-movement in Bulgarian requires order preservation, indicating that the originally higher of the two occurs in a higher specifier. The relevant data is repeated below.

(186) a.   Koj$_i$ kogo$_j$ vižda t$_i$ t$_j$?

who whom sees

'Who sees whom?"

b.   Kogo$_j$ koj$_i$ vižda t$_i$ t$_j$?

whom who sees

'Who sees whom?"   (Rudin, 1988)

If specifiers were equidistant, then either one of these wh-phrases should be able to move to a higher head. If hurdling is responsible for those cases in which equidistance between specifiers is apparently manifested, however, then it is predicted that only the higher of the two should be able to be attracted by higher head. The latter prediction is confirmed, as noted by Richards (1997). If one of these wh-words is then attracted to a specifier of a higher C, there is a preference for extracting the higher of the two wh-phrases in the embedded [Spec,CP], as shown in (209).

(209) a.　? Koj$_i$ se　opitvat da razberat kogo$_j$ t$_i$ e　ubil t$_j$
　　　　　who SELF try　　to find-out whom AUX killed

　　　b. .　* Kogo$_j$ se　opitvat da razberat koj$_i$ t$_i$ e　ubil t$_j$
　　　　　whom SELF try　　to find-out who AUX killed

　　　　　　　　　　　　　　　　　　　　(Richards, 1997)

Richards points out that similar facts are also found in Chinese, as shown in (210).

(210)　jingcha xiang-zhidao [shei sha -le shei]
　　　police　want　know　who kill PERF who
　　　a.　　'Who$_i$ are the police trying to find out who$_j$ t$_i$ killed t$_j$?'
　　　b.　* 'Who$_j$ are the police trying to find out who$_i$ t$_i$ killed t$_j$?'

　　　　　　　　　　　　　　　　　　　　(Richards, 1997)

　　　This indicates that specifiers are not equidistant: the higher specifier is closer to the matrix C and so must Agree with, and subsequently move to, this C first in order to obey Shortest Agree.

4.3.3　ECM in Japanese

In this section I review the arguments in Hiraiwa (2001) that in ECM constructions multiple specifiers are not equidistant to a higher head. As briefly noted above, Japanese has a possessor raising construction, in which both the possessor DP and the possessed DP occur in a specifier of T. This is exemplified in (183), repeated below as (211).

144

(211)   Zoo   ga   hana ga   nagai

elephant NOM nose NOM long

'Elephants' noses are long.'   (Ura, 1994)

Japanese also has an ECM construction, in which the subject of an embedded clause can optionally be assigned accusative case by the matrix verb.

(212) John-ga [cp Mary-**ga/o**   kodomo-da   to] omot-ta.

John-NOM Mary-NOM/ACC child-CPL-PRES C think-PST

'John thought that Mary was a child.'   (Hiraiwa, 2001)

Although it has been argued that this is actual raising to object position, Hiraiwa (2001) shows that, while raising of the subject is possible, it is not obligatory. The embedded subject may be marked with accusative case even when another embedded element precedes it, indicating that the subject has not raised out of the embedded clause. This is shown in (213) and (214b).

(213) John-ga [cp *mada* Mary-**ga/o**   kodomo-da   to] omot-ta.

John-NOM still Mary-NOM/ACC child-CPL-PRES C think-PST

'John thought that Mary was still a child.'   (Hiraiwa, 2001)

(214) a.   John-ga [cp Mary-**ga/o**   sono sigoto-ni muite-na-i

John-NOM Mary-NOM/ACC the job-DAT suitable-NEG-PRES

to] omot-ta.

C think-PST

'John felt that Mary is not suitable for the job.'

b.   John-ga [cp *sono sigoto-ni*$_i$ Mary-**ga/o** t$_i$ muite-na-i

John-NOM the   job-DAT Mary-NOM/ACC suitable-NEG-PRES

to] omot-ta.

C think-PST   (Hiraiwa, 2001)

Hiraiwa argues that further evidence for the ability of the accusative marked embedded subject to remain within the embedded clause is provided by cleft constructions. Koizumi (1995) shows that in multiple cleft constructions, the clefted elements must be clause

mates; thus, (215) is ungrammatical because the clefted elements, a matrix subject and an embedded object, are not clause mates.

(215)   *?[t$_i$ [Mary-o t$_j$ muitenai   to] omot-ta no]-wa
              Mary-ACC suitable-NEG-PRES C think-PST-ADN C-TOP
         John-ga$_i$ sono sigoto-ni$_j$ da.
         John-NOM the job-DAT   CPL
         '(Lit.) It is John, to the job that considers Mary to be not suitable.'

                                                              (Hiraiwa, 2001)

In an ECM construction, an accusative marked embedded subject can cleft with either a matrix or an embedded DP, as shown in (216a-b). This indicates that the accusative marked subject can occur in either the matrix or the embedded clause.

(216) a.   [John-ga [t$_i$ t$_j$ muite-na-i   to] omot-ta   no]-wa
            John-NOM   suitable-NEG-PRES C think-PST-ADN C-TOP
            Mary-o$_i$ sono sigoto-ni$_j$ da.
            Mary-ACC the job-DAT   CPL
            '(Lit.) It is Mary to the job that John considers to be not suitable.'
      b.   [t$_i$ [t$_j$ sono sigoto-ni muite-na-i   to] omot-ta   no]-wa
                  the job-DAT suitable-NEG-PRES C think-PST-ADN C-TOP
            John-ga$_i$ Mary-o$_j$ da.
            John-NOM Mary-ACC CPL
            '(Lit.) It is John, Mary that considers to be not suitable for the job.'
                                                              (Hiraiwa, 2001)

This data indicates that it is possible for accusative case checking to be established by long-distance Agree between the matrix verb and the embedded subject; no movement is necessary.

Sentences such as (214b), in which Agree has apparently been established between the matrix V and the embedded subject across a dative marked DP, may initially appear to provide evidence for equidistance among specifiers. A possible assumption about the structure of (214b) is that both the embedded subject and the dative marked DP

occur in specifiers to T; the fact that the dative DP does not intervene with an Agree relation between v and the subject could therefore be explained as an instance of equidistance.

Other data show that this not true, however. Consider the sentences in (217), which are examples of ECM and the possessor raising construction.

(217) ECM and Possessor-Raising Construction

a.   John-ga [cp [tp Mary-**ga** me-**ga**   waru-i] to] omoikondei-ta.
John-NOM   Mary-NOM eyes-NOM bad-PRES C believe-PST
'John thinks that Mary has a bad eyesight.'

b.   John-ga [cp [tp Mary-o me-**ga**   waru-i] to] omoikondei-ta.
John-NOM   Mary-ACC eyes-NOM bad-PRES C believe-PST

c.   *John-ga [cp [tp Mary-**ga** me-o   waru-i] to] omoikondei-ta.
John-NOM   Mary-NOM eyes-ACC bad-PRES C believe-PST

(Hiraiwa, 2001)

While the matrix ECM verb can assign accusative case to the possessor DP to the exclusion of the possessed DP (217b), it cannot assign accusative case to the possessed DP to the exclusion of the possessor (217c). This indicates that the higher DP blocks Agree between the matrix v and the lower DP. This contrasts with sentence (214b), where Agree was possible across a dative DP in a higher specifier. If multiple specifiers were equidistant, we would not expect this contrast. I suggest, along with Hiraiwa, that sentences like (214b) are grammatical not because specifiers are equidistant, but instead because the ni-marked element is not a potential goal to v. As discussed in Chapter 2, these arguments are sometimes PPs, not DPs, and do not contain ϕ-features. There is evidence that the ni-marked argument in (214b) is a PP: it is incompatible with a floating numeral quantifier, as illustrated in (218) (Ken Hiraiwa, Hideki Maki, Shoichi Takahashi, p.c.).[53]

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[53] This is true even when *sono sigoto-ni* is an argument of the matrix verb, and not a potential intervener to Agree between T and *Mary-o*:

(i)   a.   Sono (futa-tsu) sigoto-ni Mary-ga   muite-na-i
the   (2-CL)   job-DAT Mary-NOM suitable-NEG-PRES
'Mary is not suitable for the two jobs.'

(218)　　　* John-ga [cp sono sigoto-ni₁ futa-tsu Mary-o　tᵢ muite-na-i

　　　　　　John-NOM the　job-DAT 2-CL　Mary-ACC　suitable-NEG-PRES

　　　　　　to] omot-ta.

　　　　　　C think-PST

　　　　　　'John felt that Mary is not suitable for the two jobs.'

We can therefore conclude from the ungrammaticality of (217c) that Agree cannot be established with a low specifier across another higher specifier of the same head. The derivation in (176b) is ungrammatical and equidistance among specifiers is incorrect.

　　　　As discussed in the previous section, Agree with a lower goal past another higher one is possible when the probe Multiple Agrees with both goals. Multiple Agree therefore predicts that Agree between the matrix ECM verb and the possessed DP is possible as long as Agree also occurs between the verb and the possessor.

(219)　? John-ga cp [[TP Mary-o me-o　waru-i] to] omoikondei-ta.

　　　　John-NOM　Mary-ACC eyes-ACC bad-PRES C believe-PST

　　　　'John believed Mary's eye to be bad.'　　　　　　　　　(Hiraiwa, 2001)

Unfortunately, the sentence in (219) is not perfect. This, however, is due to the *Double-O Constraint* (cf Kuroda, 1988, among others), which prohibits multiple occurrences of the accusative marker within a sentence. It is possible to suppress this effect by clefting the sentence, as predicted. When (219) is clefted, it is perfectly grammatical with multiple ECM, as shown in (220).

---

　　　　b.　* Sono sigoto-ni futa-tsu Mary-ga　muite-na-i

　　　　　　　the　job-DAT 2-CL Mary-NOM　suitable-NEG-PRES

　　　　　　　'Mary is not suitable for the two jobs.'

It therefore appears that the predicate *muite* 'suitable' sub-categorizes for a dative PP, and not a DP. The ungrammaticality of (218) therefore does not conclusively show that ECM cannot take place across a DP argument. Hideki Maki (pc.) reports that while (218) is ungrammatical whether the embedded subject is accusative or nominative marked, the sentence is worse when it displays accusative case. This suggests that Agree between T and the embedded subject cannot take place across a DP object. In order to conclusively determine this, however, we would need to use a different predicate that does permit a dative DP argument. I leave this for future investigation.

(220)　[John-ga [$_{CP}$[$_{TP}$t$_i$ me-o waru-i]　to] omoikondei-ta no]-wa

　　　　John-NOM　　eyes-ACC bad-PRES C　believe-PST-ADN C -TOP

　　　　Mary-o$_i$　da.

　　　　Mary-ACC CPL

　　　　'It is Mary that John believed her eye to be bad.'　　　　(Hiraiwa, 2001)

This shows that Multiple Agree is able to circumvent a locality violation, allowing Agree to take place between v and the possessed DP across the possessor, as long as the possessor also Agrees with v.

　　　The data discussed in this section show that a high specifier of head X can block Agree between a higher probe and a low specifier of head X, but that this intervention effect can be obviated by Multiple Agree between the probe and both of the specifiers. This data therefore shows that multiple specifiers are not equidistant to higher probes.

4.3.4　Object Shift

In Chapter 1 I discussed data from Icelandic that formed some of the original motivation for relativizing closeness to minimal domains. In the relevant sentences the object had undergone object shift as illustrated in (221).

(221)　　　　Jón las [bækurnar] ekki __

　　　　　　　▲_____⌐

　　　　　　John read books not.

　　　　　　'Jon did not read the books.'

This type of sentence is relevant to determining whether closeness should be relativized to minimal domains if the following assumptions are made: (i) the object shift position is a specifier of v which is higher than the base position of the subject and (ii) this structure feeds Agree of the subject with T, which can lead to movement of the subject to [Spec,TP]. If multiple specifiers are equidistant, then the shifted object does not block Agree between T and the subject because the subject and the object are equidistant to T.

If closeness is defined by strict c-command alone, however, then it is unclear why the object does not block Agree between T and the subject.

There is evidence that the object can shift to a position in which it precedes the subject. This evidence is provided by transitive expletive sentences in which the object has undergone Object Shift. In these sentences an expletive satisfies the EPP of T, and so the subject is free to remain in its base generated position. The verb still agrees with the subject, however, indicating that Agree is established between T and this DP. Jonas (1996) shows that transitive expletive sentences with object shift permit the subject to both precede and follow the shifted object. In the data in (222) the object precedes the adverb *aldrei* 'never' *stundum* 'sometimes' or *ekki* 'not'. This provides evidence the object has undergone object shift because these adverbs occur at the left edge of vP. In (222a-b) the object and adverb precede the subject, while in (222c-d) the subject precedes the object.

(222) O adverb S

 a. það lásu þessar bækur aldrei neinir stúdentar î fyrra

   there read these books never any students last year

   'No students ever read these books last year.'

 b. það borðuðu ostinn stundum margar m´ys upp til agna

   there ate the-cheese sometimes many mice up to morsels

   'Many mice sometimes ate the cheese to pieces.'

   S O adverb

 c. það lásu margir strákar bókina ekki

   there read many boys the-book not

   'Many boys did not read the book.'

 d. það borðuðu margar m´ys ostinn aldrei

   there ate many mice the-cheese never

   'Many mice never ate the cheese.' (Jonas, 1996)

The sentences in which the shifted object follows the subject are unproblematic: in this structure the subject is closer to T than the object, and thus is free to Agree with T. The

availability of this structure also suggests an explanation for the ability of the subject to raise to [Spec,TP] when the object has undergone object shift. If this movement is fed by a structure in which the subject precedes the object shift position, then no locality violation arises.

In the transitive expletive sentences in which the object precedes the subject, however, the object should block Agree between T and the subject if closeness is defined by strict c-command alone.

Though assuming multiple specifiers are equidistant is one way to solve this problem, the data in section 4.3.2 and 4.3.3 provide arguments against this. It is therefore preferable to find another explanation to the grammaticality of sentences like (222a-b).

A couple of alternate explanations have been posited in the literature. Chomsky (2001) suggests that a special dislocation rule Disl raises the shifted object from [Spec,vP] to a higher position. This rule is an operation of the phonological component that need not affect that word order of the sentence. The output of this rule is immune to Agree; for this reason the object does not block Agree between T and the subject.

Hiraiwa (2002) argues that Agree between T and the subject is possible in an object shift sentence only if the object first raises to [Spec,TP]. Once the object is in [Spec,TP] it does not block Agree between T and the subject. He argues that the ability of the object to raise to [Spec,TP] in Icelandic follows from a language specific parameter. This parameter explains several differences between Icelandic and Mainland Scandinavian languages including the availability of transitive expletive constructions, stylistic fronting and full DP object shift.

I will not argue for one of these analyses over the other, but instead simply point out that equidistance among specifiers is not the only way to account for the grammaticality of object shift. Given the conceptual and empirical motivation for eliminating the concept of equidistance from the grammar, adopting one of these alternative analyses of object shift is preferred.

4.4   Conclusion

The data in section 4.2 argued that while hurdling movements are attested, equidistance is not needed to account for the grammaticality of hurdling movement. This provides

evidence that clause (i) of (174) is unnecessary. In section 4.3 I provided data that showed that Agree with a lower specifier past a higher one is impossible, contrary to the predictions of clause (ii) of (174). I further argued that where this derivation has been previously been proposed it is unnecessary; instead, a preliminary hurdling movement creates the appearance of equidistance between specifiers. This provides evidence that clause (ii) of the definition of closeness in (174) is also incorrect. This chapter therefore shows that multiple specifiers are not equidistant. These conclusions complete the argument began in Chapter 3 to argue that the definition of closeness should not be relativized to minimal domains.

Chapter 5:   Conclusion

In this dissertation I have argued that locality of Agree and movement is enforced by one simple constraint: Shortest Agree.

(223)   Shortest Agree

Agree between probe P and goal α is prohibited if β is a potential goal for P and β is closer to P than α.

I argued that 'closeness' as it is used in (223) is also defined in the simplest way possible: by strict c-command.

(224)   Closeness: β is closer to τ than α if τ c-commands β and β c-commands α.

While establishing that closeness is not relativized to minimal domains, the analyses and data presented in this dissertation also motivate the existence of the hurdling movement schematized in (16), in which one argument moves over an existing specifier into a higher specifier of the same head.

(225)

```
          YP
        /    \
     Arg₂      YP
       ↑      /   \
          Arg₁     Y'
               /      \
             Y          XP
                        /\
                       t₂
```
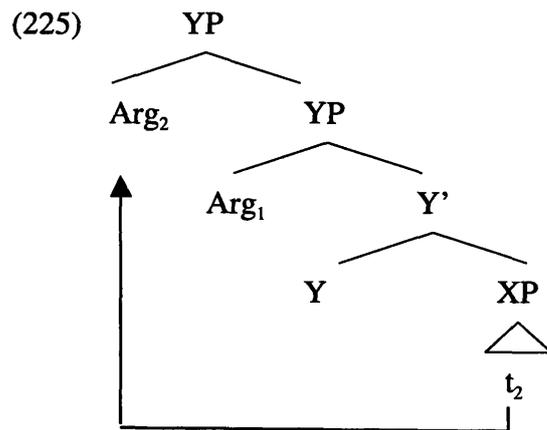
The grammaticality of this movement provides an alternative account for many of the cases in which equidistance was previously posited. While the existence of hurdling has been argued to be further evidence for equidistance among specifiers, I have shown that

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this is not the right understanding of this movement. Hurdling is possible because (i) a specifiers does not block Agree between its head and a lower goal and (ii) Move, in contrast to Agree, is not subject to locality constraints. These claims further simplify the grammar. I have therefore shown that a simplified version of locality is able to account for a wider body of data than the more complicated versions that have been proposed.

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