

Minimality Effects in Hungarian

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1. Introduction*

In this paper, I will argue that V-movement in Hungarian displays a minimality effect, that is, the verb may only move stepwise from its base-generated position to higher positions in the tree. This provides empirical evidence for approaches which incorporate the concept of minimality, like Rizzi's (1990) *Relativized Minimality*. Rizzi proposes the following definition of the *Empty Category Principle*:

- (1) *Empty Category Principle* (ECP)
A non-pronominal empty category must be:
 - (i) properly head-governed (formal licensing)
 - (ii) antecedent-governed or theta-governed (identification)

where proper head-government and antecedent-government are defined as:

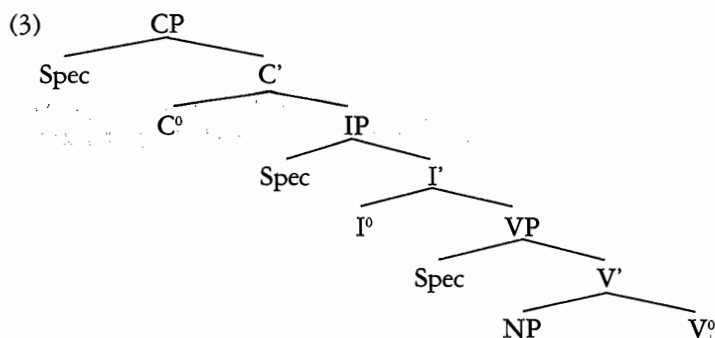
- (2) a. *Head-Government*: X head governs Y iff
 - (i) $X \in (A, N, P, V, I[AGR/T])$, (ii) X m-commands Y
 - (iii) no barrier intervenes
 - (iv) Relativized Minimality is respected
- b. *Antecedent-Government*: X antecedent governs Y iff
 - (i) X and Y are coindexed, (ii) X c-commands Y
 - (iii) no barrier intervenes
 - (iv) Relativized Minimality is respected

Let us consider how minimality effects are derived from these principles, which I will adopt throughout this paper.

In recent work (for example, cf. Chomsky 1986), it has been argued that apart from lexical categories, functional categories (like I⁰ or C⁰) may also have a fully artic-

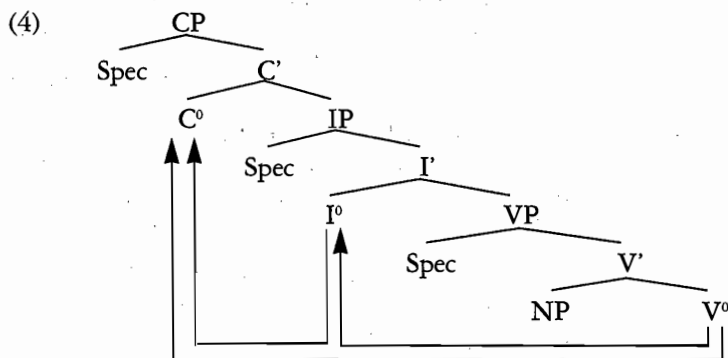
* I am indebted to the participants of the Hungarian syntax working group Spring 1990, especially to Ale de Boer, Erzsebeth Beöthy, Wim Kosmeijer and Jan-Wouter Zwart, and to Jan Koster for discussion and comments. All remaining errors are mine. This research was made possible by a grant from the Niels Stensen Foundation, which is hereby gratefully acknowledged.

ulated X'-projection. Chomsky assumes the following universal representation for phrase structure (neglecting linear order, which may vary across languages):



Here I will adopt the null-hypothesis: if there is evidence for the projection of a functional category in one language, then the phrase structure of all languages possesses this category. Therefore, the phrase structure representation of Hungarian is as in (3). Parametric variation across languages depends on the properties of the functional categories CP and IP. These properties may include the feature make-up of their heads and a certain give and take between the heads.

A minimality effect with V-movement, a case of head-to-head movement, involves the movement of the verb from its base-generated V⁰-position, to the C⁰ position via I⁰:



So, an intervening head cannot be skipped. The reason for this is that the second part of the ECP is violated because Relativized Minimality is not respected. An intervening I⁰ blocks Antecedent-Government of the verbal trace by its antecedent from C⁰.¹ In this paper, I will attempt to demonstrate that V-movement in Hungarian proceeds as in (4).

This paper is organized as follows. In section 2, I will determine the neutral and underlying order in Hungarian. I will conclude that the neutral SVO-order is deriv-

(1) Following Rizzi (1990), I will assume that all lexical categories and functional categories specified for AGR/T are head-governors (cf. p.14) and that the maximal projections IP and VP do not function as intrinsic barriers (cf. Ch.1 fn.6).

ed from the basic SOV-order by V-movement. This operation is a case of V-to-I movement. In section 3, I will discuss some Inversion phenomena in Hungarian. In the literature, such phenomena are considered a diagnostic for V-movement cross-linguistically. Hence, inversion between the verb and its prefix in Hungarian supports the hypothesis that V-movement applies in this language. It appears that Hungarian displays two types of Inversion, namely, Inversion in neutral SVO-sentences and Inversion in sentences containing wide-scope quantifiers. I will demonstrate that these types apply in different structural configurations. This then will provide empirical evidence for "cyclic" V-movement in Hungarian.

Let us consider first the structure of neutral sentences in Hungarian.

2. The Structure of Neutral Sentences in Hungarian

2.1. *The Neutral Order*

In this section, I will determine the neutral sentence order in Hungarian. I will only consider transitive sentences of the agent-theme class which, in my view, represent the unmarked case. Transitive sentences with a nominative subject and an accusative (ACC) object can have the following orderings:

- | | | | |
|-----|----|---|-----------|
| (5) | a. | János látta Marit
John saw Mary-ACC
'John saw Mary' | SVO-order |
| | b. | Marit látta János | OVS-order |
| | c. | János Marit látta | SOV-order |
| | d. | Marit János látta | OSV-order |
| | e. | Látta János Marit | VSO-order |
| | f. | Látta Marit János | VOS-order |

This paradigm shows that Hungarian allows scrambling. Any ordering of the constituents in a transitive sentence results in a grammatical sentence. However, Kiefer (1967) and Horvath (1986) have argued that in terms of the discourse context variant (5a) represents the unmarked case. An appropriate answer to the question 'What happened?' would be the SVO-order *János látta Marit*. So, the neutral order is SVO. All the other orders in the above paradigm represent a marked option in terms of the discourse context. For example, a preverbal object, like in (5b), receives a 'left-dislocation' interpretation corresponding to the 'as for phrase' in its English counterpart: *As for Mary*, John saw her (cf. Horvath 1986: 21).

Transitive sentences with a prefixed verb have the same possibilities. Consider the following sentences in which the prefix *meg*, a perfectivity marker (Perf), combines with the verb *eszik* 'eat' yielding the complex transitive verb *megeszik* 'eat up':

- | | | | |
|-----|----|---|-----------|
| (6) | a. | János <i>meg</i> ette a kenyeret
John Perf ate the bread-ACC
'John has eaten the bread' | SVO-order |
| | b. | A kenyeret <i>meg</i> ette János | OVS-order |
| | c. | János a kenyeret <i>meg</i> ette | SOV-order |
| | d. | A kenyeret János <i>meg</i> ette | OSV-order |

- | | | |
|----|-----------------------------------|-----------|
| e. | <i>Meg</i> ette János a kenyeret. | VSO-order |
| f. | <i>Meg</i> ette a kenyeret János | VOS-order |

Again, the unmarked order in terms of a neutral discourse context is SVO (cf. (6a)). Observe that the prefix *meg* in (6a) is left-adjacent to the finite verb in a sentence with a neutral order. Hence, we derive the following descriptive generalizations:

- (7) a. The neutral order is SVO
 b. In the neutral order a prefix must be *left-adjacent* to the finite verb

The question arises whether the neutral SVO-order reflects the basic word order in Hungarian. In the next section, I will argue that this is not the case. This is of course not surprising, if we adopt the position of Chomsky (1957) that syntax is autonomous.

2.2. Hungarian is an SOV-language

In general, maximal projections headed by a lexical category are *head final* in Hungarian. Within a single maximal projection, complements precede their heads. The following examples show that NPs and PPs are left-branching:

- | | | | |
|--------|-----------------|----|--------------------|
| (8) a. | A piros ház | b. | A ház mögött |
| | the red house | | the house behind |
| | 'the red house' | | 'behind the house' |

The only exception to this generalization is the VO-order of the VP in finite sentences. However, in non-finite constructions, like the present (glossed as PresP) or past participle (PastP) constructions, V conforms to the general scheme. It can only be head-final:

- (9) a. A [[_{VP} kormányt *vezet*] ö] miniszter
 the government-ACC lead-PresP minister
 'The minister leading the government'
 b. A [[_{VP} miniszter által *vezet*] ett] kormány
 the minister by lead-PastP government
 'The government led by the minister'
 c. A [[[_{VP} miniszter *vezet*] ett] e] kormány
 the minister lead-PastP-AGR3sg government
 'The government led by the minister'

These examples support the following condition on branching of maximal projections with a lexical head in Hungarian:

- (10) *Uniformity Condition on Branching of the Lexical X'-Categories in Hungarian*
 Lexical endocentric categories are left-branching

This principle is further supported by the fact that the realization of exocentric right-branching structures, like relative clauses or complex NPs, is avoided; if realized, they cannot be embedded in left-branching lexical categories. Let us discuss an instance of the former strategy.

The verb *tartoz* 'belong to' subcategorizes for an NP marked allatively (glossed as ALL) (cf. (11a)). Nominalizing this verb with the suffix *-ás* (glossed as NOMI) may yield a right-branching exocentric complex NP (11b):

- (11) a. János tartozik a csoporthoz
 John belongs the group-ALL
 'John belongs to the group'
 b. [_{NP} [_{NP} a tartozás] [_{NP} a csoporthoz]]
 the belong-NOMI the group-ALL
 'The belonging to the group'

However, a more common way to represent the equivalent of (11b) is by inserting an *adjectivizer*, such as the present participle *való* 'being' of the verb *van* 'be', resulting in the following left-branching endocentric category:

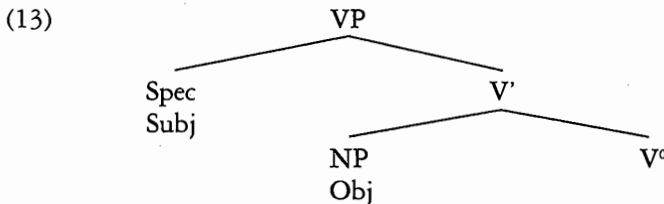
- (12) A [_{NP} [_{VP} [[_{VP} csoporthoz *val*] *ó*] tartoz] *ás*]
 the group-ALL be-PresP belong-NOMI
 'The belonging to the group'

Observe from the comparison between (11b) and (12) that the present participle *való* does not have any semantic effect. It is an instantiation of principle (10).

So, if this principle is operative in the grammar of Hungarian, then the VP in finite sentences must be head-final as well. From this it follows that Hungarian is an SOV-language. The question is then why the verb precedes its direct object complement at surface structure. In the next section, I will suggest that this 'reversed' order arises because of V-movement.

2.3. Deriving Word Orders

In this section, I will discuss the derivation of the orders in (5). According to principle (10), the underlying order of the VP in Hungarian is 'OV', yielding the following representation:



In order to derive the neutral SVO-order, the verb must move to either I⁰ or C⁰ and the subject to respectively the [Spec, IP] or [Spec, CP], as indicated in the following representations:

- (14) a. [_{IP} *Subj*_i [_I *V*_i [_{VP} *t*_i [_V *Obj* *t*_i]]]]
- b. [_{CP} *Subj*_i [_C *V*_i [_{IP} [_{VP} *t*_i [_V *Obj* *t*_i]]]]]]

The choice between these derivations can be made more easily if we take into account the word order in embedded clauses. Compare the sentences in (5) embedded in an clause introduced by the complementizer *hogy* 'that':

- (15) a. Péter tudta hogy János látta Marit
 Peter knew that John saw Mary-ACC
 'Peter knew that John saw Mary'
 b. Péter tudta hogy Marit látta János
 c. Péter tudta hogy János Marit látta
 d. Péter tudta hogy Marit János látta
 e. Péter tudta hogy látta János Marit
 f. Péter tudta hogy látta Marit János

The neutral order in embedded clauses is, similar to root clauses, SVO. Thus sentence (15a) represents the unmarked case in terms of the possible discourse context. This means also that Hungarian embedded clauses do not display a complementary distribution between the complementizer and the finite verb, as we find with the well-known V-second effect in Dutch (cf. Koster 1975). Compare:

- (16) a. Jan zag Marie b. dat Jan Marie zag
 John saw Mary that John Mary saw
 (Dutch root-clause) (Dutch embedded clause)

In Dutch, either the finite verb or the complementizer is in C^0 . In Hungarian, on the other hand, the verb occupies an identical position in root and embedded clauses. This strongly suggests that Hungarian clauses have the structure represented in (14a).

Let us derive now the possible orders in (5). Consider first the neutral SVO-order.

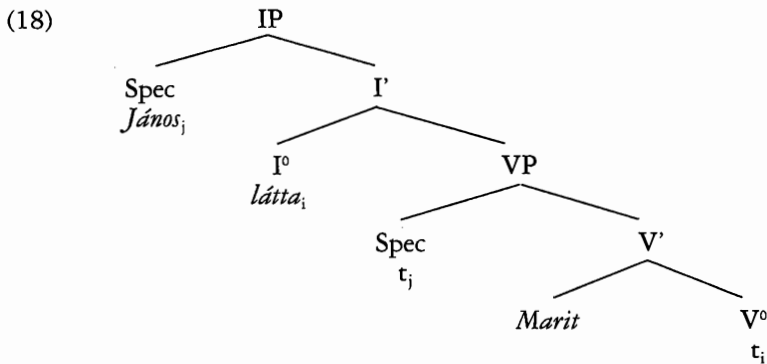
The inflectional features of the sentence, agreement (AGR) and tense (T), are generated under I^0 . These features are bound morphemes which must obey the following condition:

- (17) A bound morpheme cannot remain stranded

This principle triggers V-to-I movement resulting in the inflected verb, V/Infl. The subject moves from its base-generated position [Spec, VP] to [Spec, IP], which may be due to Case considerations. In this position, the nominative Case may be licensed under Spec/head agreement. Therefore, sentence (5a) has the representation in (18).

Note that in this representation the ECP is satisfied both for the subject trace in the [Spec, VP] position and the trace of the verb in V^0 .

In all the other orderings of (5), the verb must move to I^0 as well, otherwise principle (17) is violated.



In addition to this operation, two other operations may affect structure (18), namely, *Topicalization to IP* and *adjunction to VP*. These operations may apply both to the subject and the object. Adjunction to the VP of both the subject and the object is legitimate in Hungarian, contrary to Italian that acknowledges only subject-adjunction (cf. Rizzi 1982), because Hungarian displays both subject (cf. (19a)) and object (cf. (19b)) *pro*-drop. Compare:

- (19) a. *pro* látta Jánost b. János látta *pro*
 he/she saw John-ACC John saw him/her

The OSV-order (cf. (5d)) is derived by Topicalization of the object to IP:

- (20) [_{IP} *Obj*_i [_{IP} *Subj*_j V_k/Infl [_{VP} t_j [_V t_i t_k]]]]

The SOV-order (cf. (5c)) results from applying multiple Topicalization. First Topicalization of the object to IP, as in (20), and then Topicalization of the subject to IP:

- (21) [_{IP} *Subj*_j [_{IP} *Obj*_i [_{IP} t_j V_k/Infl [_{VP} t_j [_V t_i t_k]]]]]]

The OVS-order (cf. (5b)) is derived by topicalizing the object to IP and adjoining the subject to VP:

- (22) [_{IP} *Obj*_i [_{IP} *pro*_i V_k/Infl [_{VP} [_{VP} t_j [_V t_i t_k]]] *Subj*_j]]]]

The VOS-order (cf. (5f)) represents an ordinary case of subject-postposing, that is, adjunction of the subject to the VP:

- (23) [_{IP} *pro*_i V_k/Infl [_{VP} [_{VP} t_j [_V *Obj* t_k]]] *Subj*_j]]]]

The VSO-order (cf. (5e)) results from object-postposing to structure (23):

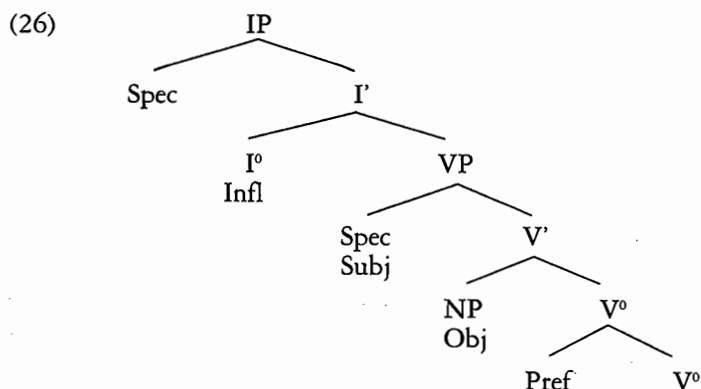
- (24) [_{IP} *pro*_i V_k/Infl [_{VP} [_{VP} [_{VP} t_j [_V *pro*_i t_k]]] *Subj*_j]] *Obj*_i]]]]

Let us consider now how the orders in a transitive sentence with a prefixed verb are derived.

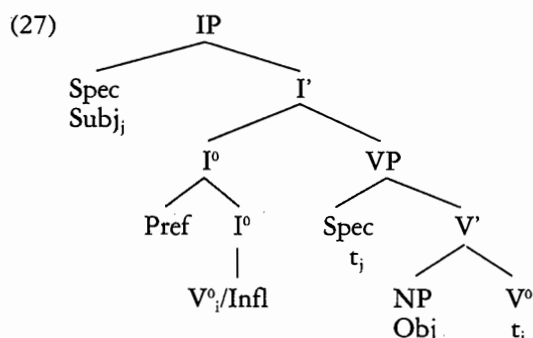
I will adopt the position that a prefix subcategorizes for a V° and that this combination yields another V°. So, the subcategorization frame of a prefix has the following form:

(25) Prefix: [v^0 [-] [V^0]]

Hence, the sentences in (6) have the following representation at D-structure:



Again, principle (17) triggers V-to-I movement and the subject moves to the [Spec, IP] position, resulting in the following structure:



Note that nothing prevents the verb from taking along its prefix when it is moved to I^0 . Because of the merging of V and Infl under I^0 the prefix finally ends up in a position adjoined to I^0 . All the other orders in (6) are then derived similarly to their equivalents in (5).

3. Inversion Phenomena in Hungarian

In this section, I will discuss Inversion phenomena in Hungarian which involve the inversion between the verb and its prefix. I will argue that there are two types of this phenomenon to which I will refer as *Inversion I* and *Inversion II*. Let us consider Inversion I first.

3.1. Inversion I

The following phrases trigger inversion between the finite verb and its prefix: the predicate negation marker *nem*, *sem* ('neither')-phrases, negative universal quantifiers

and negative predicative adverbials. Compare the neutral sentence (6a), here repeated as (28), with the examples in (29)-(33):

- (28) János *meg* ette a kenyeret
John Perf ate the bread-ACC 'John has eaten the bread'
- (29) a. *János nem *meg* ette a kenyeret
John not Perf ate the bread-ACC 'John has not eaten the bread'
b. János nem ette *meg* a kenyeret
c. János nem ette a kenyeret *meg*
- (30) a. *János sem *meg* ette a kenyeret
John neither Perf ate the bread-ACC
'Neither has John eaten the bread'
b. János sem ette *meg* a kenyeret
c. János sem ette a kenyeret *meg*
- (31) a. *Senki sem *meg* ette a kenyeret
No-one neither Perf ate the bread-ACC
'No-one has eaten the bread'
b. Senki sem ette *meg* a kenyeret
c. Senki sem ette a kenyeret *meg*
- (32) a. *Senki nem *meg* ette a kenyeret
No-one not Perf ate the bread-ACC 'No-one has eaten the bread'
b. Senki nem ette *meg* a kenyeret
c. Senki nem ette a kenyeret *meg*
- (33) a. *János ritkán *meg* ette a kenyeret
John seldom Perf ate the bread-ACC
'John has seldom eaten the bread'
b. János ritkán ette *meg* a kenyeret
c. János ritkán ette a kenyeret *meg*

The above sentences show that the predicate negation marker *nem* (cf. (29b-c)), phrases modified by *sem* 'neither' (cf. (30b-c)), negative universal quantifiers (cf. (31b-c); (32b-c)) and negative predicative adverbials (cf. (33b-c)) must be left-adjacent to the finite verb and trigger inversion between the finite verb *ette* 'ate' and its prefix *meg*.²

Negative universal quantifiers in Hungarian, such as *senki* 'no-one', cannot appear on their own. They must be licensed by a negation marker, i.e. by a *sem*-phrase (cf. (31)) or by the predicate negation marker *nem* (cf. (32)). Therefore, I will consider Inversion with negative universal quantifiers as a subcase of Inversion triggered by *sem* or *nem*.

(2) Inversion I triggers, except the predicate negation marker *nem*, do not always have to be left-adjacent to the finite verb. However, this is only possible in sentences with an operator, like focussed NPs, Wh-phrases, etc. Such cases, however, do not involve neutral sentences (cf. Kenesei 1986).

Observe furthermore that in the above sentences the subject has a neutral interpretation, i.e., it does not receive a 'left-dislocation' reading. Hence, sentences (29b) and (33b) have the following interpretation:

- (34) a. János nem ette *meg* a kenyeret
 John not ate Perf the bread-ACC 'John has not eaten the bread'
 *'As for John, he has not eaten the bread'
- b. János ritkán ette *meg* a kenyeret
 John seldom ate Perf the bread-ACC
 'John has seldom eaten the bread'
 *'As for John, he has seldom eaten the bread'

In order to find out which interpretation the subject may have in sentences with *sem*-phrases, we have to modify the object instead of the subject with such a phrase. Compare:

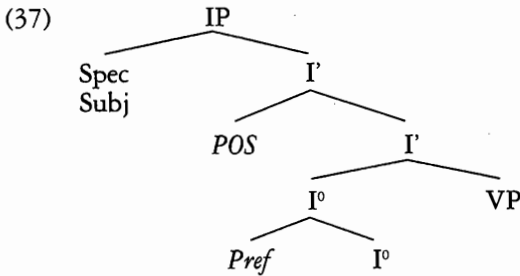
- (35) a. János a kenyeret sem ette *meg*
 John the bread-ACC neither ate Perf
 'Neither has John eaten the bread'
 *'As for John, neither has he eaten the bread'
- b. János semmit sem evett *meg*
 John nothing neither ate Perf 'John has eaten nothing'
 *'As for John, he has eaten nothing'

Again, these sentences show that a neutral subject in front of an Inversion I trigger receives the unmarked interpretation. Inversion I triggers are not unique in having this property: a neutral subject also receives the unmarked interpretation when it precedes a sentence adverbial (cf. (36a)), a positive universal quantifier (cf. (36b)) or a positive predicative adverbial (cf. (36c)). Compare:

- (36) a. János *tegnap* *meg* ette a kenyeret
 John yesterday Perf ate the bread-ACC
 'John has eaten the bread yesterday'
 *'As for John, he has eaten the bread yesterday'
- b. János *minden kenyeret* *meg* evett
 John all bread-ACC Perf ate 'John has eaten all the bread'
 *'As for John, he has eaten all the bread'
- c. János *állandóan* *meg* ette a kenyeret
 John constantly Perf ate the bread-ACC
 'John has constantly eaten the bread'
 *'As for John, he has constantly eaten the bread'

Observe that in these sentences, a neutral subject is separated from the prefixed verb. This indicates that sentence adverbials, positive universal quantifiers and positive predicative adverbials (for ease of reference POS) are internal to the IP-projec-

tion, similarly to Inversion I triggers. Recall that a prefix is adjoined to I⁰. If POS appears between a prefix and a neutral subject, then it is adjoined to I':



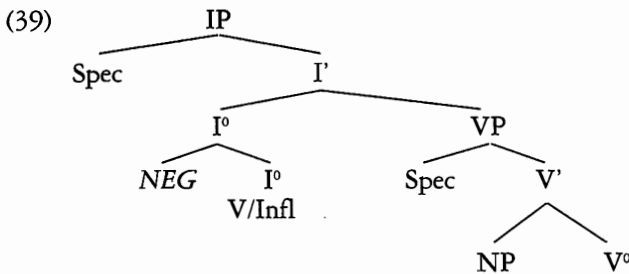
Summarizing, Inversion I has the following properties:

(38) *Inversion I*

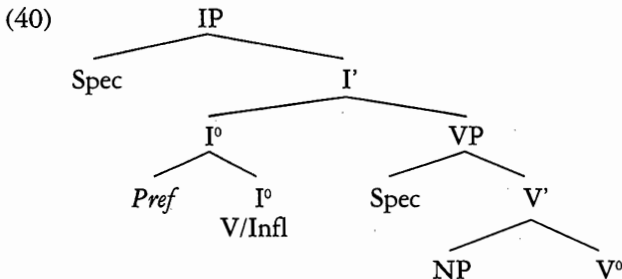
- I. Inversion I triggers (henceforth, I will refer to them as NEG) must be *left-adjacent* to the finite verb
- II. A neutral subject preceding NEG has the *unmarked interpretation*
- III. NEG and Pref are in *complementary distribution* (Inversion)

Let us account for these properties.

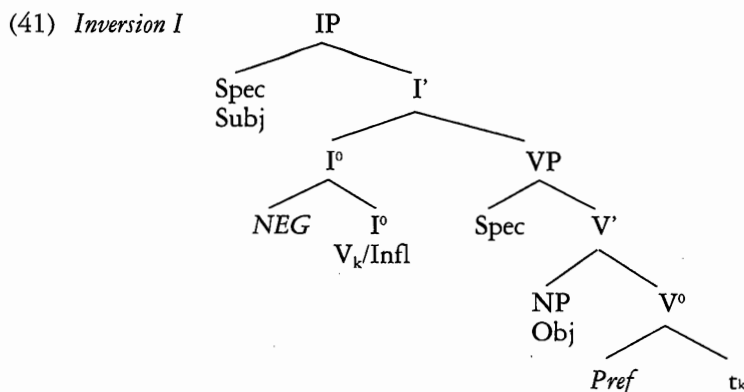
Property (38II) suggests that the subject is in the [Spec, IP] position. Recall that the finite verb is in I⁰ because of V-to-I movement. Hence, NEG must occupy a position between [Spec, IP] and I⁰. Property (38I) indicates that NEG is adjoined to I⁰ in the following manner:



Let us consider now (38III). A sentence with a prefixed verb has the following representation:

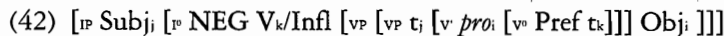


Note that a prefix ends up in a position adjoined to I^0 . In a sentence with NEG, however, this position is already occupied by NEG itself (cf. (39)). So, the verb cannot take along its prefix. This results in inversion between the verb and its prefix:

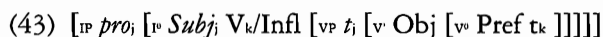


The structure in (41) represents the core case of Inversion I. Other alternants can be derived quite easily by applying the additional operations discussed in section 2.3.

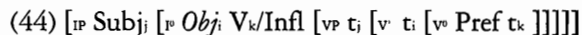
Applying adjunction of the object to the VP yields the (b)-alternants of (29)-(33):



Adjunction of the subject to I^0 as in the case of *sem*-phrases or negative universal quantifiers can be covered by inserting *pro* in the subject position, similar to subject-postposing. Hence, the grammatical sentences in (30)-(32) have the following structure:



Adjunction of object *sem*-phrases and negative universal quantifiers to I^0 (cf. (35)) gives the following result:



Let us turn now to Inversion II phenomena.

3.2. *Inversion II*

Inversion between the finite verb and its prefix may also appear with wide-scope quantifiers (for ease of reference OP), involving Wh-phrases (cf. (46)), focussed NPs (cf. (47)), *csak* ('only')-phrases (cf. (48)) and negated constituents (cf. (49)). Compare the neutral order (6a), here repeated as (45), with the following examples:

- (45) János *meg* ette a kenyeret
 John Perf ate the bread-ACC 'John has eaten the bread'

- (46) a. **Ki meg ette a kenyeret* b. *Ki ette meg a kenyeret*
 Who ate Perf the bread-ACC c. *Ki ette a kenyeret meg*
 'Who has eaten the bread?'
- (47) a. **JÁNOS meg ette a kenyeret*
 John Perf ate the bread-ACC
 'It is John who has eaten the bread'
 b. *JÁNOS ette meg a kenyeret*
 c. *JÁNOS ette a kenyeret meg*
- (48) a. **Csak János meg ette a kenyeret*
 Only John Perf ate the bread-ACC
 'Only John has eaten the bread'
 b. *Csak János ette meg a kenyeret*
 c. *Csak János ette a kenyeret meg*
- (49) a. **Nem János meg ette a kenyeret*
 Not John Perf ate the bread-ACC
 'Not John has eaten the bread'
 b. *Nem János ette meg a kenyeret*
 c. *Nem János ette a kenyeret meg*

At first sight, the phenomenon exemplified in these sentences seems to be the same as Inversion I. There appears a complementary distribution between OP and the prefix *meg* and OP must be left-adjacent to the finite verb. No sentence adverbial (cf. (50a)), positive universal quantifier (cf. (51a)) or positive predicative adverbial (cf. (52a)) may intervene between OP and the finite verb:

- (50) a. **Ki tegnap ette meg a kenyeret*
 Who yesterday ate Perf the bread-ACC
 'Who has eaten the bread yesterday?'
 b. *Ki ette meg tegnap a kenyeret*
- (51) a. **Ki minden kenyeret evett meg*
 Who all bread-ACC ate Perf
 'Who has eaten all the bread?'
 b. *Ki evett meg minden kenyeret*
- (52) a. **Ki állandóan ette meg a kenyeret*
 Who constantly ate Perf the bread-ACC
 'Who has constantly eaten the bread?'
 b. *Ki ette meg állandóan a kenyeret*

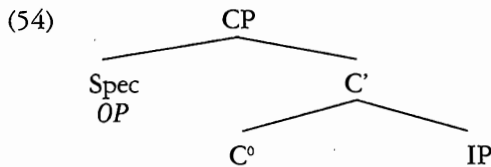
The only exception to this strict adjacency condition is the case of the predicate negation marker *nem*. The following sentences illustrate that *nem* can stand between OP and the finite verb:

- (53) a. *Ki nem ette meg a kenyeret*
 Who not ate Perf the bread-ACC
 'Who has not eaten the bread?'
- b. *JÁNOS nem ette meg a kenyeret*
 John not ate Perf the bread-ACC
 'It is John who has not eaten the bread'
- c. *Csak János nem ette meg a kenyeret*
 Only John not ate Perf the bread-ACC
 'Only John has not eaten the bread'
- d. *Nem János nem ette meg a kenyeret*
 Not John not ate Perf the bread-ACC
 'Not John has not eaten the bread'

Below I will argue that this is only an apparent counterexample to the adjacency generalization.

Apart from the correspondences between Inversion I and the cases discussed in this section, the following distributional differences appear between these phenomena.

First, OP forms a natural class, consisting of wide-scope quantifiers. It is generally assumed that wide-scope quantifiers, like Wh-phrases, occupy the canonical operator position [Spec, CP] to represent their syntactic scope. Hence, they occur in the following configuration:



I will assume that wide-scope quantifiers in Hungarian occupy this position as well. Recall, however, that Inversion I triggers are adjoined to I°.

Second, the interpretation of a subject preceding NEG differs from the interpretation of an object preceding NEG (cf. (38II)). A subject may receive a neutral interpretation (cf. (55a)), whereas an object always has a left-dislocation interpretation (cf. (55b)):

- (55) a. *János nem ette meg a kenyeret*
 John not ate Perf the bread-ACC
 'John has not eaten the bread'
 *'As for John, he has not eaten the bread'
- b. *A kenyeret János nem ette meg*
 the bread-ACC John not ate Perf
 *'John has not eaten the bread'
 'As for the bread, John has not eaten it'

However, any constituent in front of OP has a left-dislocation reading. So, an initial subject and object have the same interpretation with Inversion II, in contrast to Inversion I. Compare:

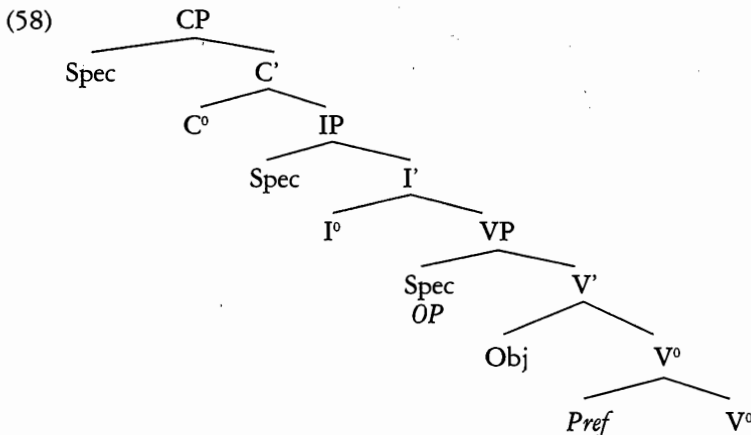
- (56) a. János mit evett meg b. A kenyeret ki ette meg
 John what-ACC ate Perf the bread-ACC who ate Perf
 *'What has John eaten?' *'Who has eaten the bread?'
 'As for John, what 'As for the bread, who
 has he eaten?' has eaten it?'

Summarizing, Inversion II has the following properties:

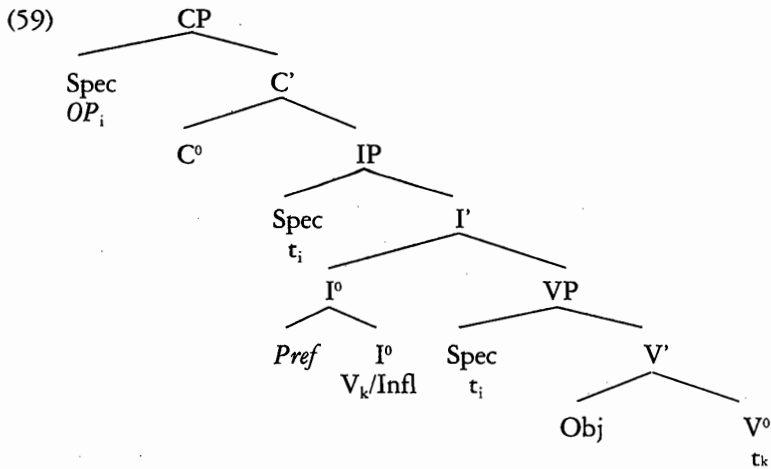
- (57) Inversion II
 I. OP must be *left-adjacent* to the finite verb
 II. OP and Perf are in complementary distribution (Inversion)
 III. OP occupies the [*Spec, CP*] position
 IV. Any constituent in front of OP is *left-dislocated*

Let us elaborate an analysis for Inversion II.

In accordance with (57III), I will assume that sentences containing an OP are CPs. The sentences in (53) have the following D-structure representation:



Now the subject OP has to land in the [*Spec, CP*] position for reasons of scope. It can only reach this position by movement via [*Spec, IP*], otherwise Relativized Minimality is not respected and the sentence is ruled out as an ECP violation. V-to-I movement applies because of (17). The verb must pick up its inflectional features. Its prefix may move along because the adjunction site of I° is available. Compare:



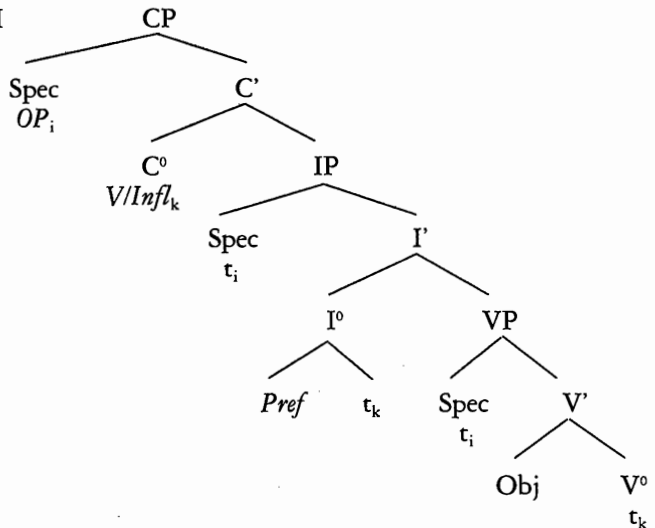
I will adopt the following principle of X'-theory:

(60) Each X'-projection is headed by a lexical head or its trace

From this principle it follows that a position in a projection is available if and only if that projection is headed by a lexical category or its trace.

Note that [Spec, CP] is filled by a wide-scope quantifier and that the CP is not headed by a lexical head or its trace in (59). Therefore I-to-C movement must apply in order to avoid a violation of principle (60). As a consequence, the prefix remains stranded under I⁰ and OP becomes left-adjacent to the finite verb. This yields the Hungarian manifestation of the *V-second effect*, i.e. Inversion II:

(61) *Inversion II*



Representation (61) also illustrates the minimality effect with V-movement in Hungarian. The verb can only reach C^0 from its base-generated position via stepwise movement through I^0 . This is witnessed by the stranded prefix.

Obviously, the finite verb cannot take along its prefix in case it moves to C^0 . For some reason, the Spec/head relation in the CP may not be interrupted hierarchically by adjunction to C' or C^0 . This seems to be a unique property of the CP-projection because, as we have discussed above, I^0 and I' may be used as an adjunction site in IP. I have no solution for this discrepancy between IP and CP. So I will put it aside for further research.

Property (57IV) is accounted for if we allow Topicalization to the CP. Hence, sentence (56b) in which the object is topicalized has the following representation:

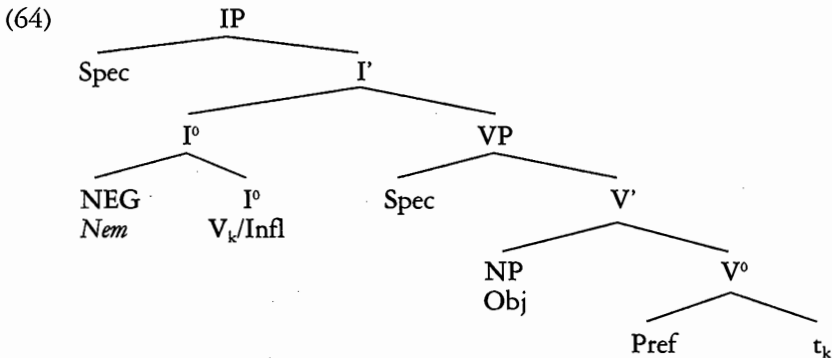
$$(62) [_{CP} XP_i [_{CP} OP_i V/Infl_k [_{IP} t_i Pref t_k [_{VP} t_i [_{VP} t_j t_k]]]]]$$

Topicalization of the subject yields structure (63):

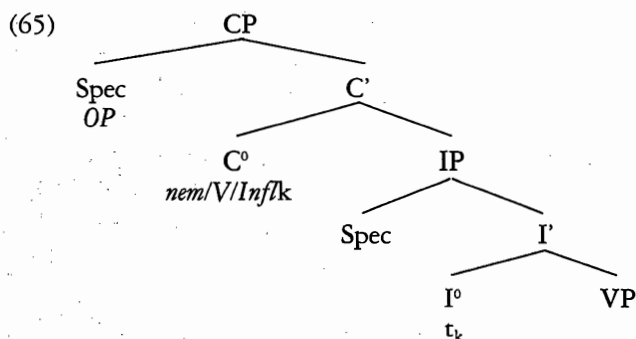
$$(63) [_{CP} XP_i [_{CP} OP_i V/Infl_k [_{IP} t_j Pref t_k [_{VP} t_j [_{VP} t_i t_k]]]]]$$

Note that in this structure the ECP is satisfied. Head-Government is covered because the moved V/Infl head governs from C^0 the [Spec, IP] position. Relativized Minimality is respected because XP and OP are dominated by the same category node, namely CP. Hence, Antecedent-Government is covered as well.

Above I noted that *nem* may violate the strict adjacency requirement between OP and the finite verb (cf. (53)). After the application of V-to-I movement, we have the following representation:



Suppose now that *nem* may cliticize onto the V/Infl complex. This certainly is not exceptional across languages. For example, Rizzi (1990) argues that the predicate negation marker cliticizes onto the highest functional category in some Romance languages. If *nem* cliticizes onto the V/Infl complex in I^0 , it may travel along to C^0 with the inflected verb. So, the sentences in (53) have the following S-structure representation which respects the strict adjacency condition with Inversion II:



4. Concluding Remarks

In this paper, I have argued that Hungarian sentences are basically IPs. The CP-level is only activated in the case of wide-scope quantifiers. Furthermore, I have argued that there are two types of inversion between the finite verb and its prefix. Inversion I applies at the IP-level and is triggered by the category NEG. Inversion II, on the other hand, involves the CP-level and is triggered by the category OP. The latter is the Hungarian manifestation of the V-second effect.

If Inversion phenomena are considered a diagnostic for V-movement and if they may apply at each "cycle" in Hungarian, then it follows that V-movement must proceed stepwise. The verb can only reach the highest head-position, i.e. C°, from its base-generated V°-position by travelling through the intermediate I°-position. In sum, Inversion phenomena in Hungarian display a minimality effect. This provides empirical support to a government approach which incorporates the concept of minimality, like Rizzi's (1990) Relativized Minimality.

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