

Asymmetries in Hungarian (y III)

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6. Wh-STRATEGIES IN HUNGARIAN

6.1. Introduction

This chapter discusses strategies of *long Wh-movement* in Hungarian. Before doing so, let us first consider some properties of this phenomenon in English.

Compare the following paradigm:

- (1) a. You think that *Mary* saw *John*
- b. *Who* do you think *t* saw *John*?
- c. *Who* do you think that *Mary* saw *t*?

(1a) exemplifies a declarative sentence with an embedded *that*-clause. This clause contains a subject NP and an object NP, namely *Mary* and *John*. In (1b), the former is questioned, and in (1c) the latter. Observe that the Wh-phrases are fronted into the matrix sentence. This type of construction has been referred to in the literature as *long Wh-movement*.

Generally speaking, it applies only if the matrix verb is a so-called '*bridge-verb*'. Bridge verbs belong semantically to the class of verbs of *knowing*, *saying* and *perception*. For example, the verb *brag*, unlike *think* in (1), does not qualify as a bridge for long Wh-movement. Compare (1b) and (2):

- (2) **Who* did you brag *t* saw *John*?

So, the questioning of an embedded NP in English takes place by applying long Wh-movement. The question arises whether other natural languages employ a similar strategy. Let us therefore turn to Hungarian.

The distribution of long Wh-movement is subject to dialectal variation (cf. section 5.3.7.1.). Roughly, there are two dialects, namely Hungarian I and Hungarian II. For speakers of the former, it is completely acceptable. Speakers of the latter, on the other hand, accept this phenomenon only quite marginally. It may appear that this dialectal variation is not so sharp as I suggest. However, a number of native-speakers consulted have great difficulties with overt long Wh-movement. Some of them reject it entirely. The question arises of course what the grammatical equivalent of long Wh-movement is for those speakers.

Consider the following pair:

- (3) a. *Kit* gondolsz hogy János látott *t?*
 who-ACC think-AGR2sg that John saw-AGR3sg
 'Who do you think (that) John saw?'
 b. *Mit* gondolsz hogy János *kit* látott?
 what-ACC think-AGR2sg that John who-ACC saw-AGR3sg
 'Who do you think (that) John saw?'

(3a) is an instance of long Wh-movement. The embedded accusative Wh-phrase *kit* is fronted into the matrix clause. (4b) exemplifies the other strategy of questioning an embedded NP. This strategy has first been observed in De Meij and MarácZ (1986) who refer to it as the *mit*-strategy. The main characteristic of this strategy is that the embedded Wh-phrase in (4b) *kit* remains in the Focus-position of its own (embedded) clause. In the matrix sentence, a 'dummy' Wh-phrase appears, *mit* 'what-ACC', which reflects the scope of the real Wh-phrase.

Hungarian *I* employs long Wh-movement to question an embedded NP, similar to English. Hungarian *II*, on the other hand, does this with the help of the *mit*-strategy. The following questions can be asked in connection with the two types of Wh-strategies: What are the consequences of the occurrence of these phenomena for the grammar of Hungarian and the theory of grammar in general?

I will assume that this dialectal variation is due to a *parameter*, namely, the one which is responsible for the distinction between languages with overt Wh-movement like English and languages with a Wh in-situ strategy like Chinese and Japanese (cf. Huang 1982, Lasnik and Saito 1984, Chomsky 1986a: 75). Compare:¹

- (4) +/-move *Wh*

Hungarian *I* is specified positively for this parameter. Hence, overt Wh-movement applies. Hungarian *II*, however, is specified negatively for (4), that is, overt movement is absent. If this parametric difference is real, we may expect that other phenomena are intrinsically dependent on the setting of this parameter. I will demonstrate that this is the case with the verbal conjugation in multiple long Wh-movement, the distribution of parasitic gaps and resumptive pronouns.

The existence of the two Wh-strategies in Hungarian provides empirical evidence for the *Correspondence Hypothesis*:

- (5) *Correspondence Hypothesis*
 Whenever there is a syntactic reflex of the assignment of (wide) scope, the dependency involved and long Wh-movement obey the same conditions on government and bounding

A consequence of this a hypothesis is that there is no need to postulate a separate level for the representation of scope known as Logical Form (LF) in the linguistic literature. However, the unification between overt long Wh-movement and Wh in-situ has, somewhat disappointingly, hardly been a major tenet of research in recent years. Rather, on the basis of the observation made by Huang (1982) that Wh in-situ in Chinese does not obey locality conditions, it has generally been assumed that

(1) I do not attribute independent status to move α , as I argued in connection with split constituents (cf. section 4.6.). With Koster (1987: 34), I will assume that move α is essentially a subcase of a general transfer mechanism which transmits Case and lexical content, but no θ -role.

wide scope-assignment is not restricted by Subjacency. Thus, the fact that this principle is not operative at LF has been taken as argument for its independent existence. Correspondence effects in Hungarian, however, seem to argue against this.

The rest of this chapter is organized as follows. Section 6.2. discusses the properties of long Wh-movement. Section 6.3. argues that it is a strictly local phenomenon which applies in a successive cyclic fashion. The following facts will be shown to support this: Overt long Wh-movement is sanctioned by bridge verbs, it may not violate island conditions, it leaves a Wh-trace, and it lacks *that*-trace effects.

Section 6.4. will propose an analysis of long Wh-movement. Section 6.5. deals with the properties of the *mit*-strategy. Section 6.6. will present an analysis of this strategy with its correspondence effects. Section 6.7. investigates some consequences of these different Wh-strategies. The parameter *+/-move Wh* empirically involves some other unbounded dependencies across languages which apply successive cyclicly. Conceptually it bears on the relation between long distance movement and the Projection Principle. Finally, section 6.8. presents some remarks about the status of LF in a theory of grammar.

6.2. Long Wh-movement in Hungarian

This section examines *overt* long Wh-movement in Hungarian, as opposed to the *mit*-strategy (cf. section 6.5.). I will heavily rely on the observations made in Horvath (1981, 1986: chapter four) and É. Kiss (1981, 1985, 1987: chapter three).

Consider the following sentences:

- (1) a. *Kit gondolsz *(hogy) t látta Jánost?*
 who-ACC think-AGR2sg-indef that saw-AGR3sg-def John-ACC
 'Who do you think (*that) saw John?'
 b. *Kit gondolsz *(hogy) János látott t?*
 who-ACC think-AGR2sg-indef that John saw-AGR3sg-indef
 'Who do you think (that) John saw?'
- (2) a. *Melyik fiút gondolod *(hogy) t látta Jánost?*
 which boy-ACC think-AGR2sg-def that saw-AGR3sg-def John-ACC
 'Which boy do you think (*that) saw John?'
 b. *Melyik fiút gondolod *(hogy) János látta t?*
 which boy-ACC think-AGR2sg-def that John saw-AGR3sg-def
 'Which boy do you think (that) John saw?'

These examples are instances of long Wh-movement. In (1a) and (1b), the indefinite Wh-phrase *ki* is fronted, and in (2a) and (2b) the definite Wh-phrase *melyik NP* is fronted. Note that this phenomenon applies both with the subject (cf. (1a), (2a)) and with the object (cf. (1b), (2b)) (cf. also section 5.4.2.3.).

The acceptability of these sentences is subject to dialectal variation. In fact, a number of my informants hardly accept this strategy for forming embedded Wh-questions at all (cf. also Komlósy 1986). However, from the literature it is clear that these instances of long Wh-movement do occur. É. Kiss (1981) points out that this phenomenon has even been discussed by traditional linguists, for instance by Zolnay (1926). The occurrence of long Wh-movement is especially frequent in the spoken language

(cf. also De Groot 1981, Horvath 1981; 1986: ch.4, É. Kiss 1981; 1985; 1987: ch.3, Szalamin 1978, Szamosi 1976, and Anna Szabolcsi, personal communication).

Let us turn to a discussion of the sentences above: I will discuss the following syntactic and semantic properties of long Wh-movement:

- (3) A. The obligatory presence of the complementizer
- B. The anticipatory pronoun corresponding to the clause from which extraction takes place may not be spelled out
- C. Case change of the Wh-moved subject
- D. Morphological adjustment of the matrix verb
- E. Long Wh-movement is an instance of long Focus-movement
- F. The gap at the extraction site must remain non-overt
- G. Long Wh-movement is allowed by bridge verbs
- H. The scope of moved Wh-phrases is its S-structure position

(A) In ((1a), (1b)) and ((2a), (2b)), the embedded nominative subject and the accusative object Wh-phrase are extracted from the embedded clause. With long Wh-movement in Hungarian the complementizer *hogy* must be *obligatorily* present in order to avoid ungrammaticality (cf. section 5.4.2.3.). In English, however, the complementizer *that* must be dropped in case of subject-extraction, whereas the complementizer is optional with object-extraction (see, section 5.4.2.3. for an analysis of this dichotomy).²

(B) Consider the underlying representations of (1) and (2):

- (4) a. Gondolod azt [CP hogy *ki* látta Jánost]
think-AGR2sg that-ACC that who saw-AGR3sg John-ACC
- b. Gondolod azt [CP hogy János *kit* látott]
think-AGR2sg that-ACC that John who-ACC saw-AGR3sg
- c. Gondolod azt [CP hogy *melyik fiú* látta Jánost]
think-AGR2sg that-ACC that which boy saw-AGR3sg John-ACC
- d. Gondolod azt [CP hogy János *melyik fiút* látta]
think-AGR2sg that-ACC that John which boy-ACC saw-AGR3sg

The matrix verb *gondol* subcategorizes for an accusative object, categorially a CP. *Hogy*-clauses cannot be base-generated in an A-position, because of the CRP (cf. 4.5.(14)). Hence, they are in a non-A-position and linked to a 'dummy' anticipatory pronoun that absorbs its Case- and θ -features. In (4), the anticipatory pronoun *az* is therefore accusatively marked. Note now that the anticipatory pronoun may *not* be spelled out if an embedded NP is long Wh-moved:

- (5) a. **Kit* gondolsz azt [CP hogy látta Jánost]
who-ACC think-AGR2sg that-ACC that saw-AGR3sg John-ACC
- b. **Kit* gondolsz azt [CP hogy János látott]
who-ACC think-AGR2sg that-ACC that John saw-AGR3sg

(2) Aoun et al. (1987) report that the complementizer is optional in the intermediate clause with subject-extraction from a multiple embedded Wh-question:

- (i) Who do you think [CP (*that*) Mary said [CP (**that*) saw John]]
- In Hungarian, however, the complementizer must always be present, also in the counterpart of (i):
- (ii) *Kit* gondolsz [CP (*hogy*) Mari mondott [CP (*hogy*) látta Jánost]]
Who-ACC think-AGR2sg that Mary said-AGR3sg that saw-AGR3sg John-ACC

- c. **Melyik fiút* gondolod azt [CP hogy látta Jánost]
 which boy-ACC think-AGR2sg that-ACC that saw-AGR3sg John-ACC
- d. **Melyik fiút* gondolod azt [CP hogy János látta]
 boy-ACC think-AGR2sg that-ACC that John saw-AGR3sg

(C) In Hungarian, subjects are in general nominatively marked (cf. 3.2. (7a)). An extracted embedded subject Wh-phrase ends up accusatively marked when it is moved (cf. section 5.3.7.1.). Thus, a nominative Wh-phrase undergoes a morphological *Case change*, as may be observed from (1a) and (2a). Non-nominative Wh-phrases, on the other hand, retain their cases during the derivation like the embedded accusative Wh-phrases in (1b) and (2b), or Wh-phrases with a lexical phrase:

- (6) a. *Kinek* gondolod [CP hogy János könyvet adott *t*]
 who-DAT think-AGR2sg-def that John book-ACC gave-AGR3sg-indef
 'To whom do you think that John gave a book?'
- b. *Kivel* szeretnéd [CP hogy Mari beszéljen *t*]
 who-INSTR like-COND-AGR2sg-def that Mary speak-SUBJ-AGR3sg-indef
 'With whom would you like that Mary should speak?'
- c. *Kitől* gondolod [CP hogy Mari könyvet kapott *t*]
 who-ABL think-AGR2sg-def that Mary book-ACC got-AGR3sg-indef
 'From whom do you think Mary got a book?'

In (6a)-(6c), the embedded verbs *ad* 'give', *beszél* 'speak', and *kap* 'get' subcategorize for a lexical dative, instrumental, and ablative. These cases are spelled out on the extracted Wh-phrases. Thus, no Case change occurs, as with extracted nominative Wh-phrases.

(D) The Hungarian verb displays two different types of conjugational patterns, the *indefinite* and *definite* conjugation (cf. section 4.2.1.). The descriptive rule 4.2.(2), here repeated as (7), captures their distribution:

- (7) The definite paradigm is triggered in case the accusative object of the verb is definite, otherwise the indefinite paradigm is triggered

We classified *who*-phrases as (properly) indefinite triggering indefinite conjugation on the verb, and *which*-phrases as (inherently) definite triggering definite conjugation on the verb. Recall further that embedded clauses and names count as definite. Consider again (4a) and (4b), here repeated as (8a) and (8b):

- (8) a. Gondolod azt [CP hogy *ki* látta Jánost]
 think-AGR2sg-def that-ACC that who saw-AGR3sg-def John-ACC
- b. Gondolod azt [CP hogy János *kit* látott]
 think-AGR2sg-def that-ACC that John who-ACC saw-AGR3sg-indef

The matrix verb in these sentences has definite conjugation because its accusative object is a (definite) embedded clause. The embedded verb in (8a) also appears in the definite conjugation because its accusative object is a name, and the embedded verb in (8b) has indefinite conjugation because its accusative object is a *kit*-phrase.

Compare now the counterparts of the cases in (8) with long Wh-movement:

- (9) a. *Kit* gondolsz [CP hogy *t* látta Jánost]
 who-ACC think-AGR2sg-indef that saw-AGR3sg-def John-ACC

- b. *Kit* gondolsz [CP hogy János látott *t*]
 who-ACC think-AGR2sg-indef that John saw-AGR3sg-indef

If the indefinite nominative subject or accusative object Wh-phrase is fronted into the matrix sentence, the matrix verb has indefinite conjugation. Hence, the matrix verb in these sentences displays a *morphological adjustment*.

As a consequence, there is always an *agreement correspondence* between the matrix verb and the embedded verb when an accusative Wh-phrase is extracted. In case of a definite Wh-phrase like *melyik fiút* in (2b), both the matrix verb and the embedded verb are conjugated definitely, and in case of an indefinite phrase like *kit* in (9b), both the matrix and the embedded verb are conjugated indefinitely.

(6) shows that this phenomenon appears only with extracted nominative or accusative indefinite Wh-phrases but not with extracted Wh-phrases with lexical case. In the latter cases, the matrix verb keeps its definite conjugation. This dichotomy is another instance of an asymmetry. Therefore, we may add it to the asymmetries in 5.4.(5).

(E) Wh-moved NPs must land in the Focus-position, left-adjacent to the finite verb (cf. 2.1.(28d)). In fact, any NP of a *hogy*-clause may be fronted into the matrix clause, provided that it lands in this position:

- (10) a. [CP JÁNOST gondolod [CP hogy *t* látott]]
 John-ACC think-AGR2sg-def that saw-AGR3sg-def
 'It is John who you think saw me.'
 b. [CP MARIT gondolod [CP hogy láttam *t*]]
 Mary-ACC think-AGR2sg-def that saw-AGR1sg-def
 'It is Mary who you think that I saw.'
 c. János [CP MARINAK akarja [CP hogy Péter könyvet adjon *t*]]
 John Mary-DAT want-AGR3sg-def that Peter book-ACC give-SUBJ-
 AGR3sg
 'It is Mary who John wants that Peter gives a book to.'

We may conclude from this paradigm that long Wh-movement is a subcase of *long Focus-movement*. Both construction types display the same properties.³ Henceforth, I will refer to long distance movement in Hungarian as long Wh/Focus-movement.

(F) The counterparts of the sentences in (1) and (2) are ungrammatical with an overt personal pronoun *ő* 'he' spelled out at the extraction site:⁴

- (11) a. **Kit* gondolsz [CP hogy *ő* látta Jánost]
 who-ACC think-AGR2sg that he saw-AGR3sg John-ACC
 b. **Kit* gondolsz [CP hogy János látott *t*]
 who-ACC think-AGR2sg that John saw-AGR3sg
 c. **Melyik fiút* gondolod [CP hogy *ő* látta Jánost]
 which boy-ACC think-AGR2sg that he saw-AGR3sg John-ACC
 d. **Melyik fiút* gondolod [CP hogy János látta *őt*]
 which boy-ACC think-AGR2sg that John saw-AGR3sg him

(3) This is the case in Dutch as well. Compare (ia) which is a case of long Focus-movement, with (ib) which is a case of long Wh-movement:

- (i) a. *JAN* denk jij [CP dat ik *t* zag] b. *Wie* denk jij [CP dat ik *t* zag]
 JOHN think you that I saw Who think you that I saw

(4) The third person accusative pronoun may only appear with the definite conjugation (cf. section 4.2.1.). Therefore, (11b) is undetermined with respect to the prohibition on the spelling out of the Wh-gap.

This paradigm shows that the gap at the extraction site must remain *non-overt*. In the next section, I will determine whether it is a Wh-trace or a non-overt resumptive pronoun.

(G) In Hungarian, like in other languages, long Wh-movement is only possible in the context of the class of verbs called *bridge verbs*:⁵

- (12) *Állít* 'state', *akar* 'want', *elképzel* 'imagine', *említ* 'mention', *érez* 'feel', *észrevesz* 'observe', *gondol* 'think', *hall* 'hear', *bisz* 'believe', (*meg*)*ígér* 'promise', *javasol* 'propose', *kérdez* 'interrogate', *kíván* 'wish', *lát* 'see', *mond* 'say', *remél* 'hope', *szeret* 'like', *szeretne* 'would like', *jól teszik* 'well do', *tud* 'know', *várt* 'wait'

These verbs semantically belong to the verbs of *knowing*, *saying* and *perception*. It is a well-known fact that such verbs in other languages belong to the same semantic classes as well. All the verbs in (12) assign accusative Case to their object. If it is an embedded clause, this Case is spelled out on the dummy anticipatory pronoun *az* 'that' (cf. (3B)). However, most of these verbs may also select a case-frame with a lexically marked object. I will return to the latter cases in the following section.

(H) Let us consider now what a felicitous answer to the Wh-questions in (1), (2), or (6) would be. The answers to (1a) and (2a) may be, for instance, *Péter* 'Peter-NOM', to (1b) and (2b), for instance, *Pétért* 'Peter-ACC', and to (6) respectively *Péternek* 'Peter-DAT', *Péterrel* 'Peter-INSTR', or *Pétértől* 'Peter-ABL'. From this it follows that Wh-phrases takes scope *over* the other constituents in the clause.

(5) There is another set of bridge verbs/predicates in Hungarian which involve the following samples, among others, *nem árt* 'not do harm', *bizonyos* 'be sure', *biztos* 'be sure' *ereje van (nincs)* '(not) have enough strength', *értelme* 'it is understandable', *eszébe jut* 'come across ones mind', *az az érzésem* 'it is my feeling', *bájszálon múlik* 'it is a near touch', *igaz* 'be true', *jól* 'be well', *jól volna* 'it would be good', *jobb lenne* 'it would be better', *kár* 'be a pity', *kell* 'need', *úgy látszik* 'seem', *közömbös* 'it is indifferent', *lehet* 'may', *lehetetlen* 'impossible', *mintegy* 'it makes no difference', *nyilvánvaló* 'it is obvious', *nincs* 'there is no', *örül az ember* 'be glad', *régen (van)* 'it is a long time ago', *ritkaság* 'it is exceptional', *szabad* 'may', *természetesen* 'it is natural', *úgy tűnik* 'seem', *valószínű* 'probable' and *van* 'be'. These predicates, contrary to the ones in (12), do not allow long Wh-movement but rather long Left Dislocation (cf. De Groot 1981a, É. Kiss 1987a, Szalamin 1987, and Zolnay 1926). Compare, for example:

- (i) *Mária*, sokan azt gondolják [CP (hogy) megkapja az állást *pro*]
 Mary many that-ACC think-AGR3pl-def that gel-AGR3sg the job-ACC
 'As for Mary, many people think that she will get the job.'
 (É. Kiss 1987a: 149)

This construction displays the following properties, among others:

- (ii) a. The fronted NP appears clause-initially
- b. The fronted NP is not in Focus
- c. The anticipatory pronoun may be spelled out
- d. The scope of the fronted NP is restricted to the embedded clause
- e. The fronted NP retains always its case marker
- f. There is no agreement between the fronted NP and the matrix verb
- g. Several NPs may be left-dislocated
- h. CNPC may be violated
- i. The complementizer *hogy* may be dropped

From a comparison between (ii) and (3) it appears that long Left Dislocation has different properties from long Wh/Focus-movement. É. Kiss (1987a) argues, following Cinque (1982), that the fronted NP is base-generated in the left-dislocation position, and that it is linked to a resumptive small *pro* which provides its scope-, Case- and θ -features. (See also chapter 7, note 25 for the status of the gap in long Left Dislocation).

There is a difference between English and Hungarian with the scope of Wh-phrases in long Wh-movement. Haik (1984) observes that in English it is restricted to the domain in which it has been base-generated. Hence, in order to determine the scope of an extracted Wh-phrase with respect to another NP not the position of the Wh-phrase should be considered but rather the position of its trace.

For example, in the following sentence the extracted Wh-phrase doesn't have scope over the existential quantifier in the matrix sentence:

- (13) *Which men* did someone say that Mary likes *t*?
(Haik 1984: 195)

If this Wh-question has an answer as *John and Bill*, it cannot be verified by states of affairs in which different persons did the saying, for example, if *x* said that Mary likes John and *y* said that Mary likes Bill, and *x* is not identical to *y*. However, an extracted Wh-phrase may always have scope over an NP of the clause it is an argument of:

- (14) *Which men* did Mary say that some woman loved *t*?
(Haik 1984: 196)

In this example, *some woman* may be in the scope of the plural Wh-phrase *which men*. An answer to (14) like *John and Bill* may be verified by a situation in which *John and Bill* are loved by a different woman. Hence, the scope of a Wh-phrase in English is determined by the position of its trace.

In Hungarian, on the other hand, this depends on the S-structure position of the Wh-phrase *itself*. Consider the Hungarian equivalents of (13) and (14):

- (15) a. *Mely férfiakat* mondta valaki hogy Mari szereti *t*?
which men-ACC said-AGR3sg-def someone that Mary love-AGR3sg-def
'Which men did someone say that Mary loved?'
b. *Mely férfiakat* mondta Mari hogy valaki szereti *t*?
which men-ACC said-AGR3sg-def Mari that someone love-AGR3sg-def
'Which men did Mary say that someone loved?'

In (15a), in contrast to English (13), it is possible that different persons did the saying in case the answer to the question is *John and Bill*, for example. Kenesei (1986b) notes that existential quantifiers can never take scope over Wh-phrases, if both phrases are complements of the same predicate. This constraint cannot, however, interfere in this sentence because the existential *valaki* is base-generated in a higher predicative domain than the Wh-phrase *mely férfiakat*. From this dichotomy it follows that in English Wh-scope is determined by the trace of Wh-movement, whereas in Hungarian the S-structure position of the extracted Wh-phrase itself is decisive.

(15b) has a reading similar to (14) in English. This is due to the fact that the moved Wh-phrase in this sentence is in a higher domain at S-structure, the matrix clause, than the existential quantifier, that is, in the embedded clause. Therefore, it may include the existential quantifier in its scope.

The following pair also displays this dichotomy between Hungarian and English:

- (16) a. *Melyik számot* gondolod hogy mindenki
which number-ACC think-AGR2sg-def that everyone
emlékszik hogy választotta *t*?
remember-AGR3sg that chose-AGR3sg-def
'Which number do you think that everyone remembers that he chose?'

- b. Mindenki emlékszik hogy melyik számot választotta
 everyone remember-AGR3sg that which number-ACC chose-AGR3sg-def
 'Everyone remembers that he chose which number'

In (16a), a Wh-phrase is fronted into the matrix sentence from the most deeply embedded clause. The intermediate clause contains a universal quantifier. In (16b), however, it remains in the domain where it is base-generated. This yields an echo-question.

The English equivalents of these sentences involve a pair-reading listing different people who remember a particular number. So, an answer to question (16a) in English could be: "I think that Peter remembers that he chose 8, Mary remembers that she chose 6, and so on...". Such a pair-reading is also possible with the English variant of (16b). These pair-readings in English are due to the fact that in both sentences the universal quantifier is base-generated in a higher domain than the Wh-phrase. So, it may take scope over the Wh-phrase.

In Hungarian, on the other hand, a pair-reading is only possible in (16b). An answer to (16a), in which long Wh-movement has applied, involves only one single number, for instance, 6. I will return to this dichotomy between English and Hungarian in section 6.8. For now, it suffices to observe that Wh-scope is determined in Hungarian at S-structure after an application of *move Wh*, whereas in English this applies after 'reconstruction' of the extracted Wh-phrase to its base-generated position.

Summarizing, long Wh/Focus-movement in Hungarian displays the properties in (3). It is clear that a theoretically motivated analysis of this phenomenon has to account for this cluster of properties. I will elaborate in section 6.4. on Chomsky (1981), Horvath (1986a), and É. Kiss (1981a). These proposals treat long Wh/Focus-movement as an instance of *successive cyclic movement* constrained by locality conditions (cf. Chomsky 1973). Let us first turn to a discussion of locality effects in Hungarian.

6.3. Locality Effects in Hungarian

In the preceding section, I noted that long Wh/Focus-movement is sanctioned by bridge verbs, suggesting that it is subject to a locality condition. This section argues that this is indeed the case.

Therefore, I will determine whether the relation between the Wh/Focus-phrase and its extraction site is subject to island conditions. I will demonstrate that the following *island conditions* apply in Hungarian, the Complex NP Constraint (CNPC), the Sentential Subject Condition (SENSC) and the Adjunct Condition (AC). The Wh-Island Condition (WhIC) is, contrary to English, not operative in Hungarian. Wh/Focus-phrases may be extracted from a Wh-island. In section 6.4., I will suggest that this dichotomy is due to the fact that the CP is recursive within CP in Hungarian.

Further, I will determine the nature of the gap in long Wh/Focus-movement. It will be concluded that it is *trace*. Consider first CNPC.

CNPC blocks extraction from clauses with lexically filled nominal heads (cf. Ross 1967). The following sentences exemplify that it holds in Hungarian as well (cf. Horvath 1986a and É. Kiss 1987a for this observation):

- (1) a. **Kit* említett(e) [_{NP} azt a tényt [_{CP} hogy *t* megcsókolta Marit]]
 who-ACC mentioned-AGR3sg-indef/def that-ACC the fact -ACC that kissed-
 *'Who did he mention the fact that kissed Mary?' AGR3sg-def Mary-ACC

The first two arguments have to do with the environment in which small *pro* is licensed. The third argument may be construed by taking the categorial specifications of *pro* into account. It displays distribution 4.2.(34), here repeated as (5):

(5) *The distribution of pro in Hungarian*

- a. *Nominative* personal pronouns may be dropped in all persons and number
- b. *Accusative* personal pronouns may be dropped only in case they are singular. First and second person pronouns may be dropped with the indefinite conjugation. Third person pronouns may be dropped only with the definite conjugation.
- c. Personal pronouns with lexical case may not be dropped

Recall that the distribution of *pro* is so specific that it may serve as a diagnostic for this empty category.

(I) Compare the following pairs:

- (6) a. *Mely fiúkat* gondolod [CP hog látom *t*]
 which boys-ACC think-AGR2sg-def that see-AGR1sg-def
 'Which boys do you think that I see?'
- a'. (Én) látom (őt) |*(*őket*)
 I see-AGR1sg-def him/her/them
 'I see him/her/them.' (cf. 4.2.(7a))
- b. *Kiket* gondolsz [CP hogy (te) látsz *t*]
 who-plur-ACC think-AGR2sg-indef that you see-AGR2sg-indef
 'Who do you think that you saw?'
- b'. (Te) látsz (engem)/*(*őket*)
 you see-AGR2sg-indef me/them
 'You see me.' (cf. 4.2.(8b))
- c. *MINKET* gondolsz [CP hogy János látott *t*]
 us think-AGR2sg-indef that John saw-AGR3sg-indef
 'It is us that you think that John saw.'
- c'. (Ő) lát (engem)/*(*miniket*)
 he/she see-AGR3sg-indef me/us
 'He/she sees me/us.' (cf. 4.2.(8c))
- d. *Ki* gondolsz [CP hogy János látott *t*]
 who-ACC think-AGR2sg-indef that John saw-AGR3sg-indef
 'Who do you think that John saw?' (cf. 6.2.(1b))
- d'. (Ő) lát (engem)/(*téged*)/*(*ő*)
 he/she see-AGR3sg-indef me/you/him
 'He/she sees me/you.' (cf. 4.2.(8c))
- e. *Kivel* gondolod [CP hogy János találkozott *t*]
 who-INSTR think-AGR2sg-indef that John met-AGR3sg-indef
 'Who do you think that John met?'
- e'. (Ő) találkozott *(*vele*)
 he/she met-AGR3sg-indef he/she-INSTR
 'He met him/her.'

The pairs (a) and (a'), and so on, in these sentences represent cases of long Wh/Focus-movement and *pro*-drop respectively. We have omitted examples with a subject-extraction gap and subject *pro*, since they have exactly the same distribution. However, with the object, the following three distributional differences between these gaps occur.

(i) According to (5b), accusative plural pronouns may not be dropped. Therefore, the phrases (6a')-(6c') are ungrammatical with *pro*. However, the corresponding gap in long Wh/Focus-movement is licensed by a plural Wh/Focus-antecedent.

(ii) A third person accusative pronoun may not appear with a verb conjugated indefinitely (cf. (5b)). Observe from the comparison between (6d) and (6d') that a third person accusative gap is licit in long Wh/Focus-movement, but not with *pro*-drop.

(iii) Lexically marked pronouns may never be dropped (cf. (5c)). Hence, the instrumental object must be present in (6e'). Note, however, that in the corresponding case of long Wh/Focus-movement (6e), such an object may be extracted.

From (i)-(iii), it follows that the environment in which a Wh/Focus-gap is allowed is much broader than the environment in which *pro* may occur. Therefore, we conclude that the gap of long Wh/Focus-movement cannot be small *pro*, but *trace*.

(II) If the gap in long Wh/Focus-movement were a non-overt resumptive pronoun, we would expect that it could circumvent island constraints (cf. Chomsky 1982, Cinque 1986). We noted above, however, that the relation between the Wh/Focus-antecedent and its gap displays locality effects. This dichotomy can be illustrated by constructing minimal pairs between long Wh/Focus-movement and constructions with non-overt resumptive pronouns. Instances of the former are exemplified in (6a)-(6e), and instances of the latter are exemplified in (7a)-(7e):

- (7) a. *Mely fiúkról* gondolod (azt) [_{CP} hogy János *látott/látta *ők*et/**pro*]
 which boys-DELAT think-AGR2sg-def that-ACC that John saw-AGR3sg-indef/def them
 'Of which boys do you think that John saw them?'
- b. **Kikről* gondolod (azt) [_{CP} hogy (te) *látátál/látatád *ők*et/**pro*]
 who-plur-DELAT think-AGR2sg-def that-ACC that you saw-AGR2sg-indef/def them
 'Of who do you think that you saw them?'
- c. *RÓLUNK* gondolod (azt) [_{CP} hogy János látott/*látta *mi*ket/**pro*]
 we-DELAT think-AGR2sg-def that-ACC that John saw-AGR3sg-indef/def us
 'It is of us that you think that John saw.'
- d. *Kiről* gondolod (azt) [_{CP} hogy János *látott/látta *ő*t/*pro*]
 who-DELAT think-AGR2sg-def that that] John saw-AGR3sg-indef/def him
 'Of who do you think that John saw him?'
- e. *Kiről* gondolod (azt) [_{CP} hogy találkozott *vele*/**pro*]
 who-DELAT think-AGR2sg-def that that met-AGR3sg-indef he-INSTR
 'Of who do you think that John met him?'

The matrix verb *gondol* subcategorizes in these sentences for a different case-frame than in the sentences in (6). In the latter, it subcategorizes for an accusative object clause. In the former, on the other hand, *gondol* subcategorizes for a DELAT-ACC case-frame. The Wh-phrase is assigned delative case, and the embedded clause is connected to the accusative case (through the linking with the anticipatory pronoun).

Hence, the Wh-phrases in (7), unlike the ones in (6), are direct arguments of the matrix verb. Therefore, these phrases are not related to the (non)-overt pronouns by movement. This hypothesis is supported by the fact that, in contrast to long Wh/Focus-movement (cf. 6.2.(3B)), the anticipatory pronoun may be spelled out. This suggests that the constructions in (7) are not subject to the locality condition which restricts long Wh/Focus-movement.

Note now that the embedded pronouns in these sentences may only be dropped in accordance with the restrictions on *pro*-drop. In (7a)-(7c), the objects are accusative plural pronouns, in (7d) the object is an accusative third person singular pronoun, and in (7e) it is a pronoun with lexical case. Hence, the pronouns in (7a)-(7c) may not be dropped. The pronoun in (7d) may only be omitted if the verb displays definite conjugation, and the pronoun in (7e) may not be dropped. These facts show that *pro* functions as a resumptive pronoun only if it obeys a strict locality condition. It must be locally recoverable from AGR. This implies that the gaps in (6a)-(6e) cannot be resumptive *pro* because they are licensed in a much broader context.

(III) Chomsky (1982; 1986b) suggests that empty categories are specified at D-structure in terms of the feature-matrix [+/-anaphoric]/[+/-pronominal]. Small *pro*, being a pronominal, is specified [+pronominal,-anaphoric]. Furthermore, it is categorially of the type NP.

Suppose, now, that the gap at the extraction-site in long Wh/Focus-movement is *pro*. We would, under the assumption that members of the same chain have identical (categorial) features, expect that Wh/Focus-antecedents other than NPs cannot sanction its Φ -features. However, long Wh/Focus-movement is allowed with various different categories like time or place adverbs, PPs, APs, and prefixes:

- (8) a. János *HOLNAP* szeretné [CP hogy haza menjünk t]
 John tomorrow like-COND-AGR3sg-def that home go-SUBJ-AGR1pl-indef
 'It is tomorrow that John wants us to go home.'
- b. *OTT* gondolod [CP hogy láttam Jánost t]
 there think-AGR2sg-def that saw-AGR1sg-def John-ACC
 'It is there that you think that I saw John.'
- c. *KI MÖGÖTT* gondolod [CP hogy álltunk az üzletben t]
 who behind think-AGR2sg-indef that stood-AGR1pl-indef the shop-INESS
 'Behind who do you think we stood in the shop?'
- d. *BŰSZKE JÁNOSRA* gondolod [CP hogy voltam tegnap t]
 proud John-SUBL think-AGR2sg-indef that was-AGG1sg yesterday
 'It is proud of John that you think that I was yesterday.'
- e. János *MEG* akarja [CP hogy t hívjuk Marit]
 John perf want-AGR3sg-def that invite-AGR1pl-def Mary-ACC
 'It is to invite that John wants us Mary.'

In (8e), the prefix *meg* 'perfectivity marker' of the embedded verb *meghív* 'invite' is extracted from the embedded clause. Prefix-extraction is only allowed when the bridge verb is an auxiliary that triggers restructuring with infinitival complements such as *akar* 'want', for instance (cf. section 5.3.2.).

This paradigm demonstrates that extracted categories may be categorially non-nominal. These categories can thus not be the antecedent of a pronominal empty category. Therefore, we conclude that the gap in long Wh/Focus-movement is *Wh/Focus-trace*.

Summarizing, I argued that long Wh/Focus-movement in Hungarian displays locality effects. The CNPC, SENSC and AC may not be violated by the extraction of Wh/Focus-phrases. Furthermore, the gap in this phenomenon cannot be *pro* but must be *trace*. In order to support this claim, I put forward two sorts of evidence.

First, the environment in which *trace* is licensed is much broader than the environment in which *pro* is allowed. Second, the gap in long Wh/Focus-movement is categorially rather heterogeneous. This implies that it cannot be a nominal category.

Small *pro* may function as a referential or as a resumptive pronoun only if it is identified by AGR. The Φ -features of trace are identified by a Wh/Focus-antecedent. Both recovery procedures are subject to locality. Therefore, Hungarian provides evidence for the hypothesis that the Φ -features of empty categories must be determined on a strictly local basis. In the next section, I will present an analysis of long Wh/Focus-movement.

6.4. An Analysis of Long Wh/Focus-movement in Hungarian

This section analyzes overt long Wh/Focus-movement in Hungarian. Ross (1967) has observed that unbounded dependencies are constrained by island conditions. Theories of these conditions have been specified in *bounding theory*. The intuitive idea behind this theory is that the distance between the dependent empty element and the antecedent of a dependency relation may not be too large. They are related stepwise, obeying *subjacency*:

- (1) The basic principle of *bounding theory* is that every link (X_i, X_{i+1}) of a chain $(\alpha_1, \dots, \alpha_n)$ must meet *subjacency*: if (α_i, α_{i+1}) is a link of a chain, then α_{i+1} is subjacent to α_i (Chomsky 1986: 30)

In recent literature, inspired by Kayne (1984), subjacency has been related to *government*. A category that is ungoverned constitutes an island, a *barrier* in Chomsky's (1986b: 15) sense. According to Chomsky, a category may lose its barrierhood if it is lexically governed by a θ -role assigner, if it is *L-marked*:

- (2) α *L-marks* β iff α is a lexical category that θ -governs β

Chomsky (1986b) defines the *Subjacency Condition* as follows:

- (3) *Subjacency Condition*
 β is *n*-subjacent to α iff there are fewer than $n + 1$ barriers for β that exclude α

In general, Wh-movement transfers Case and lexical content but not a θ -role. It falls under what Chomsky (1982: 33) defines as *Move- α* , which has the following properties:

- (4) a. The antecedent lacks an independent θ -role
 b. The gap is locally licensed
 c. The relation is subject to bounding theory (subjacency)

Recall that long Wh/Focus-movement in Hungarian displays the properties 6.2.(3), here repeated as (5):

- (5) A. The obligatory presence of the complementizer
 B. The anticipatory pronoun corresponding to the clause from which extraction takes place may not be spelled out
 C. Case change of the Wh-moved subject
 D. Morphological adjustment of the matrix verb
 E. Long Wh-movement is an instance of long Focus-movement
 F. The gap at the extraction site must remain non-overt

G. Long Wh-movement is allowed by bridge verbs

H. The scope of moved Wh-phrases is its S-structure position

On the basis of our discussion in section 6.3., we may add (I) to the above properties:

(6) I. Long Wh/Focus-movement displays locality effects

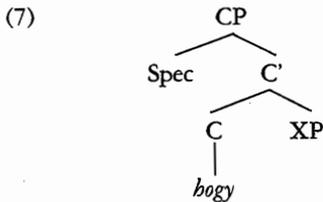
It is clear that any analysis of this phenomenon has to account for its properties in (5A)-(6I). Let us consider how we may derive them in the above framework.

The properties (5E), (5F), (5G), and (6I) follow from the assumption that long Wh/Focus-movement is an instance Move- α . The gap in this construction may not be spelled out, because, as we concluded in the preceding section, it is *trace*. A trace inherits its Φ -features from the Wh/Focus-antecedent. This is supported by the fact that non-nominative Wh/Focus-phrases retain their cases in the course of the derivation. (I will return to the Case change phenomenon (cf. (5C)) below).

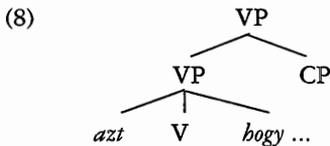
Long Wh/Focus-movement is allowed by bridge verbs only, and it displays locality effects. This indicates that it is restricted by subjacency. Let us investigate more closely how this condition operates in Hungarian.

We have to determine whether embedded clauses are barriers for long Wh/Focus-movement. Two types of embedded clauses occur in these constructions, (i) *bogy*-clauses and (ii) complex NPs. Let us first discuss the structure and position of *bogy*-clauses.

Bogy-clauses are CPs with the following structure (cf. section 4.5.1.):



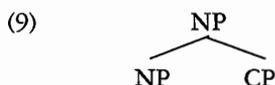
Furthermore, CPs are base-generated in a non-A-position because of the CRP (cf. 4.5.(4)). The Case-position of the verb is bound by an anticipatory pronoun to which they are linked. For example, an accusative *bogy*-clause appears in the following configuration:



The CP is adjoined to the VP, and the object Case of the verb is spelled out on the anticipatory pronoun *azt* 'that-ACC'.

As a consequence, the CP is ungoverned in this configuration. Therefore, it is not L-marked by the verb (cf. (2)) and thus it is a barrier for long Wh/Focus-movement, an instance of *1-subjacency*. This directly accounts for the fact that SENS and AC must be respected. If CPs are base-generated in ungoverned positions, then this is also the case with sentential subject and adjunct CPs. Hence, long Wh/Focus-movement from these clauses crosses a barrier yielding a violation of the Subjacency Condition.

Let us consider why complex NPs are barriers. Complex NPs have the following structure:



Whether it is L-marked or not, it always constitutes a barrier for long Wh/Focus-movement. The reason for this is that a complex NP inherits barrierhood from the CP it dominates (cf. Chomsky 1986b). Hence, a Wh/Focus-phrase extracted from a complex NP crosses two barriers, a case of *1-subjacency*. This yields a violation of the Subjacency Condition.

In sum, the fact that CP and complex NP are barriers immediately explains why long Wh/Focus-movement obey island constraints like SENS, AC and CNPC. These cases are ruled out as subjacency violations. If embedded clauses were always ungoverned, then this phenomenon could never appear. Therefore, I will assume that bridge verbs have the ability to govern embedded clauses. The question then arises how they affect the configurations in (8) and (9).

Long Wh/Focus-movement is always blocked by complex NPs, independent of the fact whether they are L-marked or not. Hence, they are absolute barriers for movement. How about CPs?

Suppose that bridge verbs are lexically specified to *govern* a CP-complement in the following configuration:



In this configuration, contrary to (8), the CP is itself in a government position, the accusative object position. As a result, it is *L-marked*. Hence, (10) yields thus an instance of *0-subjacency* avoiding a subjacency violation. This accounts for the fact that CPs in long Wh/Focus-movement are transparent domains.

The question arises whether there is any empirical evidence for the government relation between the bridge verb and the CP in this configuration. According to Kayne (1984), objective Case is assigned in the Spec of CP to moved Wh-phrases.

Kayne presents the following pair from French:

- (11) a. *Je crois [_{CP} [_{IP} Jean être le plus intelligent]]
 b. [_{CP} Quel garçon [_{IP} crois-tu [_{CP} *t* [_{IP} *t* être le plus intelligent]]]]
 (Kayne 1984: 5)

The ungrammaticality of (11a) is due to a Case Filter violation, *Jean* is not Case-marked. The embedded subject is not assigned Case because there is no suitable Case-assigner present. The embedded infinitive complement lacks an I-node, and French *croire*, in contrast to English *believe*, is not an ACI-verb (cf. section 5.3.5.3. on ACI-verbs).

In (11b), on the other hand, the extracted subject Wh-phrase is assigned objective Case. This yields a grammatical result. According to Kayne, the data fall into place, if *croire* assigns accusative Case to the [Spec, CP] prior to the application of Wh-movement. Kayne therefore concludes that this position may be governed by a bridge verb.

É. Kiss observes (1985: 43) that this is not only the case in French but optionally also in English (with *whom* the following sentence is ungrammatical to most speakers of English):

- (12) [_{CP} *Who/whom* did [_{IP} you suggest [_{CP} *t* [_{IP} *t* should be the chairman]]]]

So Case-assignment to the specifier of CP provides an argument for the claim that CP is governed by a bridge verb.

Hungarian also supports this hypothesis. The properties (5B), (5C), and (5D) of long Wh/Focus-movement follow from this government relation.

The prohibition on the spelling out of the anticipatory pronoun indicates that the CP is itself in a Case-marked position. The anticipatory pronoun cannot function as a Case-dummy in that case.

Hungarian displays Case change of an extracted subject. This resembles French (11) and English (12). Therefore, we may assume that this Case change is caused by accusative Case-assignment to Spec of CP. It is unclear why the accusative marking appears only on extracted nominative NPs. Maybe, this has to do with the fact that the nominative is morphologically unmarked in Hungarian.

Note, incidentally, that accusative Case-assignment to the [Spec, CP] after Wh-movement poses a problem for the L-model of Van Riemsdijk and Williams (1981). In that framework, Case-assignment takes place at NP-structure, that is, before Wh-movement.⁷

The matrix verb undergoes a morphological adjustment, if an indefinite nominative or accusative Wh-phrase is fronted into the matrix sentence. Suppose that this is a reflection, just as Case-assignment to the [Spec, CP], of the government relation between a bridge verb and the [Spec, CP]. The syntax of ACI-verbs provides independent evidence for this claim.

ACI-verbs select a tenseless IP-complement, and they assign to its subject (= [Spec, IP]) exceptional accusative Case (cf. section 5.3.5.3.). Recall that the definiteness of the embedded accusative subject NP determines the conjugation-type of ACI-verbs (cf. section 5.3.5.3.):

- (13) a. **Látok/látom* [_{IP} *Jánost* *vágni* *a kenyeret*]
 see-AGR1sg-indef/def John-ACC cut-INFI the bread-ACC
 'I see John cut the bread.'
 b. *Látok/*látom* [_{IP} *egy fiút* *játszani* *Marival*]
 see-AGR1sg-indef/def a boy-ACC play-INFI Mary-INSTR
 'I see a boy playing with Mary.'
 c. *Hallottalak* [_{IP} *téged* *kiabálni*]
 heard-AGR1sg2sg/pl you-ACC shout-INFI
 'I heard you shouting.'

These matrix verbs must be conjugated definitely, indefinitely, and with the *-lak* suffix. These conjugation-types are triggered by the definite accusative NP *Jánost*, the indefinite accusative NP *egy fiút* and the accusative second person pronoun *téged*, respectively (cf. section 4.2.1.). This shows that a verb may not only agree with its accusative direct complement, but also with an NP to which it assigns accusative Case exceptionally.

(7) If we assume Case checking instead of Case marking (cf. Zwart 1988), Case assignment to [Spec, CP] is not problematic for Lieber's (1980) Lexical Integrity Hypothesis.

Although the [Spec, CP⁰] is the canonical landing-site for Wh/Focus-phrases, I will argue that they move successive cyclicly through the Spec of CP*. Empirical evidence for this hypothesis involves (I) the obligatory lexicalization of the complementizer *hogy*, (II) WhIC-violations, (III) the lack of multiple long Wh/Focus-movement, (IV) the absence of Inversion with prefixed verbs in long Wh/Focus-movement and (V) the absence of long prefix-movement.

(I) Kenesei (1985) reports that the complementizer *hogy* may be omitted in the following two cases.

(i) It may be dropped if the matrix verb is a verb of saying, knowing, or perception subcategorizing for an accusative complement clause (this class of verbs matches the set of bridge verbs in (5G)), and if the matrix verb is adjacent to its complement clause, the anticipatory pronoun is in preverbal position, and if the sentence has unmarked intonation:

- (17) Azt gondolom [CP (*hogy*) [CP Mari [CP látta Jánost]]]
 that-ACC think-AGR1sg that Mary saw-AGR3sg John-ACC
 'I think that Mary saw John.'

In this sentence, the verb *gondol* selects a [-Wh] CP. V-to-C movement satisfies this requirement, since V is a [-Wh] category. Consequently, the complementizer is superfluous.

(ii) *Hogy*-drop also applies if the complement clause contains a Wh-phrase:

- (18) Tudom [CP* (*hogy*) [CP János [CP₀ *kit*_i látott_j [YP *t*_i t_j]]]]
 know-AGR1sg that John who-ACC saw-AGR3sg
 'I know who John saw.'

In this sentence, the verb *tud* selects a [+Wh] CP. Wh-movement of *kit* to the embedded Focus-position (Spec of CP⁰), fulfills this requirement. As a result, CP turns into [+Wh]. Hence, the presence of the complementizer is not demanded.

The verb *gondol* selects a [-Wh] CP with both long Wh/Focus-movement (cf. (15)) and ordinary declaratives (cf. (17)). Filling of C by V-movement satisfies this selectional requirement. Therefore, the presence of *hogy* is in fact superfluous in both cases. However, the lexicalization of *hogy* with long Wh/Focus-movement is obligatory, unlike with declarative sentences.

Suppose that long Wh/Focus-movement applies through the [Spec, CP*] leaving a trace in this position. An X'-projection always requires a lexical head (cf. also section 5.4.3. for this X'-requirement).⁸ Hence, the spelling out of the complementizer.

(8) The following question-answer pair also provides evidence for this hypothesis:

- (i) a. Ellopták [NP Mari könyvét]?
 away-stole-AGR3pl Mary book-npAGR3sg-ACC
 'Has Mary's book been stolen?'
 b. Igen, [NP Mariét] ellopták
 Yes Mary-APS-ACC away-stole-AGR3pl
 'Yes, the one of Mary has been stolen.'

Example (ia) contains the accusative possessive NP *Mari könyvét*. The head of this phrase is the noun-possessed *könyvét*. This is supported by the fact that endocentric categories in Hungarian are left-branching and Case is spelled out on head-nouns. The possessor NP *Mari* is in the complement position of the possessive NP in both (ia) and (ib). The noun-possessed is omitted in (ib). As a consequence, the possessive NP is without head. In order to satisfy the requirement that an X'-projection must have a lexical head a 'dummy' suffix (the anaphora possessive suffix (APS)) *-é* must be spelled out replacing the noun-possessed.

This accounts for the dichotomy between long Wh/Focus-movement and declarative sentences with *bogy*-drop, and for the absence of *that*-trace effects in Hungarian (cf. section 5.4.3.2.).

Note, by the way, that movement through the [Spec, CP*] does not violate the Subjacency Condition, if we assume that L-containment (cf. 2.2.1. (37)) is *transitive*, that is, if projection XP L-contains a projection YP, and a projection ZP L-contains XP, then ZP L-contains YP. In that case, intermediate embedded CPs do not form additional barriers.

Let us consider now WhIC-violations in Hungarian.

(II) Horvath (1986a) has noted that WhIC is not operative in Hungarian. Long relativization (cf. (19a)) and long Wh/Focus-movement (cf. (19b)) may apply from a Wh-island:

- (19) a. Ez volt az a fiú [_{CP*} *akinek* a gyerekek mondták [_{CP*} *t* hogy [_{CP0} Péter kérdezte [_{CP*} *t* hogy [_{CP} Mari [_{CP0} *mit* küldött *t*]]]]]]]
 this was that the boy who-DAT the children said-AGR3pl that Peter asked-AGR3sg that Mary what-ACC sent-AGR3sg
 *'This was the boy to whom the children said Peter asked what Mary had sent.'
 b. Mari *kinek* tudta [_{CP*} *t* hogy [_{CP} Péter [_{CP0} *mit* küldött *t*]]]
 Mary who-DAT knew-AGR3sg that Peter what-ACC sent-AGR3sg
 *'To whom did Mary know what Peter had sent?'
 (Horvath 1986a: 226)

These cases are covered if extracted Wh-phrases move through the [Spec, CP*], and the embedded Wh-phrases are in Focus, i.e. in [Spec, CP⁰]. Therefore, Hungarian Wh-phrases, unlike their English counterparts, do not form a Wh-island for long distance movement.

The following sentence displays a similar violation:

- (20) A család A LEGIDŐSEBB FIÚT reméli [_{CP*} *t* hogy [_{CP0} ORVOS lesz [_{VP} *t*]]]
 the family the eldest son-ACC hopes that doctor becomes
 'It is the eldest son that the family hopes will become a DOCTOR.'
 (É. Kiss 1981a: 211)

This sentence exemplifies a Focus-island violation. The embedded object NP *a legidősebb fiút* is extracted from a Focus-island. The embedded Focus-position is filled by the NP *orvos*. If we assume, however, that long Wh/Focus-movement applies through the [Spec, CP*], and Focus is [Spec, CP⁰], then the derivation is allowed yielding a grammatical result. Let us discuss the lack of multiple long Wh/Focus-movement.

(III) The impossibility of this phenomenon supports the hypothesis that long Wh/Focus-movement applies through the [Spec, CP*]:

- (21) a. *Ez volt az a fiú [_{CP*} *akinek*; a gyerekek mondták [_{CP*} hogy [_{CP} Péter *mit*; kérdezett [_{CP*} *t*_i hogy [_{CP} Mari küldött *t*_i *t*_j]]]]]]]
 this was that the boy who-DAT the children said-AGR3pl that Peter what-ACC asked-AGR3sg that Mary sent-AGR3sg
 b. *Mari *kinek*; *mit*_i tudott [_{CP*} *t*_i hogy [_{CP} Péter [_{CP} küldött *t*_i *t*_j]]]
 Mary who-DAT what-ACC knew-AGR3sg that Peter sent-AGR3sg

These sentences are the counterparts of the ones in (19), except that multiple long Wh/Focus-movement has applied in the latter. The object Wh-phrase *mit* is ex-

tracted from the deepest embedded clause. Another instance of long Wh/Focus-movement, that is, long relativization in (21a) and long Wh-movement in (21b), is not allowed. If we assume that long Wh/Focus-movement applies through the [Spec, CP*], then these sentences are ruled out as a trace theory violation. The [Spec, CP*] is already filled by the trace of *mit*-extraction.⁹

Let us consider the absence of Inversion with prefixed verbs in long Wh/Focus-movement.

(IV) Compare the following sentence:

- (22) a. *Kit* gondolsz [CP* *t* hogy [CP János [CP₀ *meg* szeretett [VP *t*]]]]
 who-ACC think-AGR2sg that John perf-loved-AGR3sg
 'Who do you think that John fell in love with?'
 b. **Kit* gondolsz [CP* *bogy* [CP János [CP₀ *t* szeretett [VP *t meg*]]]]
 who-ACC think-AGR2sg that John loved-AGR3sg perf

Focussing triggers Inversion with prefixed verbs obligatorily (cf. 2.1. (28e)). In (22), the object wh-phrase *kit* is long Wh-moved. If long Wh/Focus-movement applied through Focus, i.e. the [Spec, CP⁰], then we would expect the prefix to be stranded. However, this does not turn out to be the case, as the ungrammaticality of (22b) demonstrates.

In the grammatical variant (22a), the verb takes its prefix along, though long Wh-movement has applied. This implies that the Wh-phrase has not travelled through the [Spec, CP⁰], but must rather travel through the [Spec, CP*].

(V) The following sentence demonstrates that prefixes may be short Wh/Focus-moved in Hungarian:

- (23) *Mari* [CP₀ *LE*_i *ült*_j [VP [*v* *t*_i *t*_j]]]
 Mary down sat-AGR3sg
 'Mary sat down (and not lay down).'

In this sentence, the prefix *le* of the prefixed verb *leül* 'sit down' is moved from its base-generated V'-position to Focus (Spec of CP⁰). If long Wh/Focus-movement applies through the [Spec, CP⁰], then we would expect that a focussed prefix could be fronted into the matrix sentence.

(9) Apparent counterexamples against movement through the [Spec, CP*] are instances of multiple raising. For example, É. Kiss (1987a) claims that this phenomenon applies in the following sentence (bracketing is mine):

- (i) *János*_i *két dolgot*_j hallottam [CP* *hogy megígért* [VP *é*_i [VP *t*_j]]]
 John two thing-ACC heard-AGR1sg that promised-AGR3sg
 'As for John, it was two things that I heard that he promised.'

Multiple long Wh/Focus-movement through the [Spec, CP*] violates trace theory. This sentence is, however, grammatical. It seems to me, that it is not a case of multiple extraction. The phrase *két dolgot* is Wh/Focus-moved but *János* is base-generated in initial-position. This is supported by the fact that *János* displays the diagnostics of a left-dislocated NP (cf. note 5).

A real instance of multiple extraction occurs with bridge verbs allowing prefix-extraction (cf. 7.3.(8e)):

- (ii) *János* *tegnap*_i *a múzeumot*_j *meg*_k akarta [[CP* *hogy látogassuk*] *t*_i *t*_j *t*_k]
 John yesterday the museum-ACC perf wanted-AGR3sg that visit-SUBJ-AGR1pl
 'John wanted us to visit the museum yesterday.'

In (ii), the adverbial *tegnap*, the accusative object NP *a múzeumot*, and the prefix *meg* are fronted into the matrix sentence. I guess an analysis of these constructions can be made more easily, if the phenomenon of 'restructuring' triggered by modal auxiliaries such as *akar* is properly understood (cf. section 5.3.2.). I will put aside these cases for further research.

The following sentence, however, shows that prefixes may not be long Wh/Focus-moved (see, also Komlósy 1986):¹⁰

- (24) *Mari [_{CP0} LE_i gondolod [_{CP*} hogy [_{CP0} t_i ültj [_{VP} [v' t_i t_j]]]]]]
 Mary down think-AGR2sg that sat-AGR3sg

The ungrammaticality of this sentence demonstrates that successive cyclic movement cannot involve the Focus position (Spec of CP⁰). Therefore, the absence of this prefix-movement supports the hypothesis that long Wh/Focus-movement applies through the [Spec, CP*].¹¹

The question arises why focussed prefixes cannot employ this option to yield an instance of long Wh/Focus-movement, just as Wh/Focus NPs. It seems to me that Chomsky's (1986b) HMC provides an explanation for preventing prefix-movement through [Spec, CP*]. Prefixes form a constituent with the verb. Therefore, they may travel along with it when this moves to C (see, section 2.2.1.). Then the prefix may be focussed yielding (23). It cannot, however, reach the [Spec, CP*] because its head position is filled by the complementizer and prefixes do not merge with complementizers.

Recapitulating, I argued that long Wh/Focus-movement in Hungarian is an instance of successive cyclic movement through the Spec of CP. Each link in the chain between a moved Wh/Focus-phrase and its gap must be 0-subjacent. This gap must remain non-overt because it is trace. CNPC, SENSC, and AC were accommodated as subjacency violations.

Bridge verbs may circumvent a violation of this condition because they may L-mark a CP-complement. Empirical evidence for this government relation involves the obligatory absence of the anticipatory pronoun, exceptional accusative Case-marking to the Spec of CP, and the morphological adjustment of the matrix verb with moved indefinite subject and object NPs.

The obligatory lexicalization of the complementizer (the absence of *that*-effects), WhIC-violations, the lack of multiple long Wh/Focus-movement, the absence of Inversion with prefixed verbs in long Wh/Focus-movement, and the absence of long prefix-movement with this phenomenon support successive cyclic movement through the Spec of CP*.

6.5. The *mit*-Strategy in Hungarian

In the preceding sections, I have discussed instances of overt long Wh/ Focus-movement in Hungarian. De Meij and Marác (1986) have observed, however, that the most common strategy to form embedded Wh-questions in Hungarian is to employ the so-called *mit*-strategy. I presented the more marked variant of this phenomenon first because it has, somewhat surprisingly, received more attention in the literature.

Consider the counterparts of long Wh/Focus-movement constructions (cf. 6.2.((1) and (2)) in the *mit*-strategy:

(10) This is exceptionally allowed with bridge verbs that trigger restructuring (cf. note 9 and 6.3.(8e) for examples).

(11) Long prefix-movement is also blocked in Dutch:

(i) **OP* zei Jan [_{CP} dat ik hem heb t gebeld]
 up said John that I him have phoned

- (1) a. *Mit* gondolsz hogy Jánost *ki* látta?
 what-ACC think-AGR2sg-indef that John-ACC who-ACC saw-AGR3sg-def
 'Who do you think saw John?'
 b. *Mit* gondolsz hogy János *kit* látott?
 what-ACC think-AGR2sg-indef that John who-ACC saw-AGR3sg-indef
 'Who do you think that John saw?'
- (2) a. *Mit* gondolsz hogy Jánost *melyik fiú* látta?
 what-ACC think-AGR2sg-indef that John-ACC which boy saw-AGR3sg-def
 'Which boy do you think saw John?'
 b. *Mit* gondolsz hogy János *melyik fiút* látta?
 what-ACC think-AGR2sg-indef that John which boy-ACC saw-AGR3sg-def
 'Which boy do you think that John saw?'

Some native-speakers tend to interpret these sentences as consisting of two parts. The first part is the matrix clause which contains the matrix verb and its object, the Wh-phrase *mit*. This Wh-phrase asks for the contents of thought or communication. The second part is an indirect Wh-question expressing the issue on which an opinion or statement is being asked. Hence, (1a), for instance, could be paraphrased as in (3):

- (3) What is your opinion on the following question: what do you think: who saw John?

Properties of (1a) in this interpretation indicate that they indeed consists of two independent clauses. First, an intonational break separates the matrix clause and the embedded clause. Second, the complementizer *hogy* must be dropped. Third, a Wh-phrase must be in the initial-position of the second part. Probably, this represents another strategy to form embedded Wh-questions. I believe, however, that this strategy does not belong to sentence-grammar. Hence, I will not discuss it further at this place.

I will examine the following properties of the *mit*-strategy:

- (4) A. The real Wh-phrase remains in the Focus-position of its own (embedded) clause
 B. The anticipatory pronoun may not be spelled out
 C. The scope-marker *mit* is assigned accusative case
 D. The complementizer *hogy* 'that' is obligatory
 E. The *mit*-strategy displays locality effects
 F. The *mit*-strategy is allowed by bridge verbs
 G. The real Wh-phrase takes wide scope

(A) The real Wh-phrases in the *mit*-strategy remain in the Focus-position of their own (embedded) clause. This may be observed from the fact that the Wh-phrases *ki*, *kit*, *melyik fiú*, and *melyik fiút* are left-adjacent to the finite verb of their own clause in (1) and (2). Now a dummy Wh-phrase *mit* appears at the surface position of these Wh-phrases in the overt long Wh/Focus-counterparts, the matrix Focus (cf. 6.2.((1), (2)) and (1) and (2)).

(1a), for instance, has a structure as in (5):

- (5) [_{CP0} *Mit* gondolsz [_{CP*} hogy [_{CP} Jánost [_{CP0} *ki*_i látta;_j [_{VP} *t*_i [_{VP} *t*_j]]]]]]]
 what-ACC think-AGR2sg that John-ACC who saw-AGR3sg
 'Who do you think that saw John?'

This sentence exemplifies that the *mit*-phrase occupies the [Spec, CP⁰] (= Focus) of the matrix clause, and the real Wh-phrase occupies the [Spec, CP⁰] (= Focus) of the embedded clause.

The following sentences show that the *mit*-strategy may not only apply to nominative and accusative embedded Wh-phrases, as in (1) and (2), but also to embedded complement NPs with lexical case:

- (6) a. [_{CP}^o *Mit* gondolsz [_{CP}* hogy János [_{CP}₀ *kinek* adott könyvet]]
 what-ACC think-AGR2sg that John who-DAT gave-AGR3sg book-ACC
 'To who do you think that John gave a book?'
 b. [_{CP}^o *Mit* gondolsz [_{CP}* hogy Mari [_{CP}₀ *kivel* beszélt]]
 what-ACC think-AGR2sg that Mary who-INSTR spoke-AGR3sg
 'With whom do you think that Mary spoke?'
 c. [_{CP}^o *Mit* gondolsz [_{CP}* hogy Mari [_{CP}₀ *kiről* kapott könyvet]]
 what-ACC think-AGR2sg that Mary who-ABL got-AGR3sg book-ACC
 'From who do you think Mary got a book?'

The *mit*-strategy may also apply if the real Wh-phrase is a non-complement like a PP (cf. (7a)), or an AP (cf. (7b)):

- (7) a. [_{CP}^o *Mit* gondolsz [_{CP}* hogy János [_{CP}₀ [_{PP} *ki* mögött] állt]]
 what-ACC think-AGR2sg that John who behind stood-AGR3sg
 'Behind who do you think that John stood?'
 b. [_{CP}^o *Mit* gondolsz [_{CP}* hogy János [_{CP}₀ [_{AP} *milyen erős*] volt]]
 what-ACC think-AGR2sg that John how strong was
 'How strong do you think John was?'

(B) The anticipatory pronoun which is linked with the *hogy*-clause in declarative sentences (cf. section 4.5.) may not be spelled out in the *mit*-strategy. The sentences with an anticipatory pronoun in (1) and (2) yield an ungrammatical result:

- (8) a. **Mit* gondolsz azt [_{CP} hogy János ki látta]
 what-ACC think-AGR2sg that-ACC that John who saw-AGR3sg
 b. **Mit* gondolsz azt [_{CP} hogy Jánost *kit* látott]
 what-ACC think-AGR2sg that-ACC that John-ACC who-ACC saw-AGR3sg
 c. **Mit* gondolsz azt [_{CP} hogy Jánost *melyik fiú* látta]
 what-ACC think-AGR2sg that-ACC that John-ACC which boy saw-AGR3sg
 d. **Mit* gondolsz azt [_{CP} hogy János *melyik fiút* látta]
 what-ACC think-AGR2sg that-ACC that John which boy-ACC saw-AGR3sg

The *mit*-strategy shares this property with overt long Wh/Focus-movement (cf. 6.2.(3B)). Hence, an anticipatory pronoun may never occur in long Wh/Focus-movement.

(C) The *mit*-phrase bears accusative case, like the anticipatory pronoun in declarative sentences and the extracted subject Wh/Focus-phrase in long Wh/Focus-movement (cf. 6.2.(9a)):

- (9) a. *Mit* gondolsz [_{CP} hogy Jánost *ki* látta]
 what-ACC think-AGR2sg that John-ACC who saw-AGR3sg
 'Who do you think saw John?'
 b. *Azt* gondolom [_{CP} hogy Mari látta Jánost]
 that-ACC think-AGR1sg that Mary saw-AGR3sg John-ACC
 'I think that Mary saw John.'
 c. *Kit* gondolsz [_{CP} hogy látta t Jánost]
 who-ACC think-AGR2sg that saw-AGR3sg John-ACC
 'Who do you think saw John.'

(D) The complementizer *hogy* 'that' is obligatory in the *mit*-strategy, as in overt long Wh/Focus-movement (cf. 6.2.(3A)). The counterparts of (1) and (2) without *hogy* yield an ungrammatical sentence:

- (10) a. **Mit* gondolsz [CP Jánost *ki* látta]
 what-ACC think-AGR2sg John-ACC who saw-AGR3sg
 b. **Mit* gondolsz [CP János *kit* látott]
 what-ACC think-AGR2sg John who-ACC saw-AGR3sg
 c. *Mit* gondolsz [CP Jánost *melyik fiú* látta]
 what-ACC think-AGR2sg John-ACC which boy saw-AGR3sg
 d. *Mit* gondolsz [CP János *melyik fiút* látta]
 what-ACC think-AGR2sg John which boy-ACC saw-AGR3sg

(E) The *mit*-strategy is sensitive to locality effects. These involve (i) island conditions, and (ii) repetition of the *mit*-phrase within each clausal domain in multiple embedded Wh-questions.

(i) The *mit*-strategy obeys the same island conditions as overt long Wh/Focus-movement (cf. 6.3.(1)-(4)). It may not violate the CNPC, SENS and AC.

The following sentences exemplify that the *mit*-strategy obeys CNPC:

- (11) a. **Mari mit* hallott(a) [NP azt
 Mary what-ACC heard-AGR3sg-indef/(def) that-ACC
 a tényt [CP hogy János *kit* látott]]
 the fact-ACC that John who-ACC saw-AGR3sg
 b. **Mari mit* hallott(a) [NP azt
 Mary what-ACC heard-AGR3sg-indef/(def) that-ACC
 a tényt [CP hogy Jánost *ki* látta]]
 the fact-ACC that John-ACC who saw-AGR3sg-def

The ungrammaticality of these sentences shows that the *mit*-phrase in the matrix sentence may not be separated from the real Wh-phrase in the embedded clause by a complex NP.

Observe that the real Wh-phrase may neither be embedded in a sentential subject:

- (12) a. **Mi* biztos [CP hogy *ki* jön el] b. **Mi* valószínű [CP hogy *ki* jön el]
 what is sure that who comes what is probable that who comes

These sentences display that SENS is operative in the *mit*-strategy.¹²

Another limitation on this phenomenon is formed by the islandhood of adverbial clauses. The embedding of the real Wh-phrases in an adverbial clause yields an ungrammatical result:

- (13) a. **Mit* tisztítottál volna le az asztalt azelőtt [CP hogy *mely könyveket* olvastad volna el]
 what-ACC clean-AGR2sg would perf the table-ACC before that which
 books-ACC read-AGR2sg would perf
 b. **Mit* érkezettél az iskolába anélkül [CP hogy *kire* gondoltál volna]
 what-ACC arrived-AGR2sg the school-ILL that-without that who-SUBL
 thought-AGR2sg would

These sentences display that AC constrains the *mit*-strategy. Let us now consider another type of locality effect with this phenomenon.

(ii) Compare the following multiple embedded Wh-questions:

(12) The *mit*-strategy yields a much better result with a subject subjunctive clause than with a subject indicative clause. Compare (12a) with (i):

- (i) *Mi* kell [CP hogy *ki* jöjjön el]
 what is necessary that who come-SUBJ-AGR3sg
 'For who is it necessary to come?'

Overt long Wh/Focus-movement displays the same pattern (cf. note 6).

- (14) a. *Mit* gondolsz [_{CP} hogy Mari *(*mit*) mondott [_{CP} hogy Jánost *ki* látta]]
 what-ACC think-AGR2sg that Mary what-ACC said-AGR3sg that John-ACC
 who saw-AGR3sg
 'Who do you think Mary said saw John?'
 b. *Mit* gondolsz [_{CP} hogy Mari *(*mit*) mondott [_{CP} hogy János *kit* látott]]
 what-ACC think-AGR2sg that Mary what-ACC said-AGR3sg that John
 who-ACC saw-AGR3sg
 'Who do you think that Mary said that John saw?'
 c. *Mit* gondolsz [_{CP} hogy Mari *(*mit*) mondott [_{CP} hogy Jánost *melyik fiú* látta]]
 what-ACC think-AGR2sg that Mary what-ACC said-AGR3sg that John-
 ACC which boy saw-AGR3sg
 'Which boy do you think Mary said saw John?'
 d. *Mit* gondolsz [_{CP} hogy Mari *(*mit*) mondott [_{CP} hogy János *melyik fiút* látta]]
 what-ACC think-AGR2sg that Mari what-ACC said-AGR3sg that John
 which boy-ACC saw-AGR3sg
 'Which boy do you think that Mary said that John saw?'

These sentences show that a *continuity* requirement is operative in the *mit*-strategy. The Focus-positions from the real Wh-phrase up to the Focus-position of the matrix clause must be filled with a dummy *mit*-phrase. Dropping of such an intermediate phrase is not allowed. So a *mit*-phrase must be repeated from the real Wh-phrase in each clausal domain of embedded multiple Wh-questions.

WHIC may be violated with overt long Wh/Focus-movement (cf. section 6.4.). A Wh-phrase may be extracted from an embedded clause with a Wh-phrase:

- (15) *Kinek* gondolod [_{CP} hogy János *mit* adott *t*]
 who-DAT think-AGR2sg that John what-ACC gave-AGR3sg
 *'To whom do you think what John gave?'

The question arises whether the *mit*-strategy displays WHIC-violations as well? This appears to be the case. The following sentence, which is the counterpart of (15) in the *mit*-strategy, shows that it may apply to a Wh-island:

- (16) *Mit* gondolsz [_{CP} hogy János *kinek mit* adott]
 what-ACC think-AGR2sg that John who-DAT what-ACC gave-AGR3sg
 *'To whom do you think what John gave?'

(F) The *mit*-strategy is possible only with verbs allowing long Wh/Focus-movement, that is, only with the bridge verbs listed in 6.2.(12).¹³ For example, the pre-

(13) A superficial investigation learns us that the *mit*-strategy yields a better result with verbs of perception and knowing (cf. (i)) than with verbs of saying (cf. (ii)):

- (i) a. *Mit* hallottál hogy János *kit* látott?
 what-ACC heard-AGR2sg that John who-ACC saw-AGR3sg
 'Who did you hear that John saw?'
 b. *Mit* hiszel hogy János *kit* látott?
 what-ACC believe-AGR2sg that John who-ACC saw-AGR3sg
 'Who do you believe that John saw?'
- (ii) a. ?**Mit* említettél hogy János *kit* látott?
 what-ACC mentioned-AGR2sg that John who-ACC saw-AGR3sg
 'Who did you mention that John saw?'
 b. **Mit* javasoltál hogy János *kit* lásson?
 what-ACC proposed-AGR2sg that John who-ACC saw-SUBJ-AGR3sg
 'Who did you propose that John should see?'

The sentences in (ii) can only be saved if they are interpreted as two separate parts involving the strategy in (3). However, more fieldwork is required to determine the distribution of the *mit*-strategy with the verbs in 6.2.(12). I will leave this as a task for further research.

dicates *előfordul* 'appear' and *valószínű* 'be probable' do not belong to this class of verbs. Hence, they do not sanction the *mit*-strategy:

- (17) a. **Mi* fordul elő [_{CP} hogy *ki* hazudik]
 what appears that who lies
 b. **Mi* valószínű [_{CP} hogy *mit* javítottak]
 what is probable that what-ACC repaired-AGR-3pl

(G) Long Wh/Focus-movement and their equivalents in the *mit*-strategy are rendered into English similarly. In both strategies, the real Wh-phrases have scope over the rest of the sentence. A felicitous answer to the sentences 6.2.((1) and (2)) with long Wh/Focus-movement and the sentences (1) and (2) with the *mit*-strategy involves, for instance, *Péter* 'Peter-NOM', *Pétert* 'Peter-ACC', *Péter* 'Peter-NOM', and *Pétert* 'Peter-ACC' respectively. This implies that the topmost *mit*-phrase represents so to speak the scope of the embedded real Wh-phrase. Hence, I conclude that it functions as a scope-marker in the sense of Baker (1970).

Summarizing, I discussed an alternative strategy to form embedded Wh-questions, the so-called *mit*-strategy. The most striking property of this strategy is that the real Wh-phrase remains in the Focus-position of its own (embedded) clause, while in the Focus position of the matrix clause a dummy Wh-phrase *mit* appears. This phrase indicates the scope of the real Wh-phrase. In the next section, I will present an analysis of the *mit*-strategy.

6.6. Correspondence effects in Hungarian

Let us consider again the properties of the *mit*-strategy 6.5.(4), here repeated in (1):

- (1) A. The real Wh-phrase remains in the Focus-position of its own (embedded) clause
 B. The anticipatory pronoun may not be spelled out
 C. The scope-marker *mit* is assigned accusative case
 D. The complementizer *hogy* 'that' is obligatory
 E. The *mit*-strategy displays locality effects
 F. The *mit*-strategy is allowed by bridge verbs
 G. The real Wh-phrase takes wide scope

It is clear that an analysis of this phenomenon will have to account for these properties.

Overt long Wh/Focus-movement and the *mit*-strategy have a number of properties in common (cf. 6.2.(4) and (1)). Therefore, I will assume that the *core* syntactic principles that authorize overt long Wh/Focus-movement also authorize the *mit*-strategy. If this is correct, then we provide empirical evidence for the Correspondence Hypothesis, here repeated as (2):

- (2) *Correspondence Hypothesis*
 Whenever there is a syntactic reflex of the assignment of (wide) scope, the dependency involved and overt long Wh-movement obey the same conditions on government and bounding

The conditions on government involved with overt long Wh/Focus-movement are the selection and *L-marking* of a CP by a bridge verb, and the principle of bounding theory involved with this strategy is the Subjacency Condition, to be more pre-

cise, *O-subjacency* (cf. section 6.4.). Suppose now that these conditions are also operative in the *mit*-strategy.

Let us derive the properties in (1) within this framework. Before we can do so, consider first Baker's (1970) theory of scope-assignment to Wh-phrases.

Following Baker (1970), I will assume that all cases of scope assignment for Wh-phrases involve coindexing with an abstract scope-marker *Q* which is base-generated in the [Spec, CP] position. The representation of overt Wh-movement and Wh in-situ in this system are as follows:

- (3) a. [_{CP} Q_i [*Wh-phrase*]_i [...t_i...]] b. [_{CP} Q_i [... [*Wh-phrase*]_i ...]]

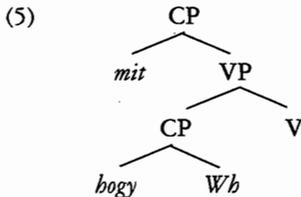
In both cases, scope-assignment to the Wh-phrase depends on the relation with *Q*. The difference between (3a) and (3b) is that the content of the Wh-phrase is adjacent to *Q* in the former, but not in the latter.

Within the local domain any category can be linked to *Q*. Suppose now that the local domain of *Wh* (CP) can be extended by iterating the indexing to *Q* (as all other indexing can be):

- (4) ...[Q_i...[Q_i...[_{CP} Q_i [...*Wh*_i...]]]]...

This representation does not violate bounding theory. Scope is assigned to *Wh* by coindexing it with a chain of abstract scope-markers. This iterative indexing mimics overt successive cyclic movement.

Let us consider now how the properties of the *mit*-strategy are accounted for. In analogy with overt long Wh/Focus-movement, I will assume that bridge verbs may select and L-mark a CP-complement yielding the following configuration:



This configuration directly accounts for the fact that the *mit*-strategy is allowed by bridge verbs only (cf. (1*F*)), and for the fact that the anticipatory pronoun may not be spelled out (cf. (1*B*)). The CP is itself in an A-position (the object position). Let us examine now why the *mit*-phrase is assigned accusative Case (cf. (1*C*)).

A sentence with the *mit*-strategy has the following structure:

- (6) [_{CP^o} *Mit*_i gondolsz [_{CP*} Q_i hogy [_{CP} János [_{CP^o} *kit*_i látott_j [_{VP} t_i t_j]]]]]]
 what-ACC think-AGR2sg that John who-ACC saw-AGR3sg
 'Who do you think that John saw?'

In this sentence, the embedded real object Wh-phrase *kit* is moved to the Focus-position of its own clause, that is, to the [Spec, CP^o]. It may be coindexed with a base-generated scope-marker *Q* in the [Spec, CP*], as an instance of (3b). The dummy *mit*-phrase in the matrix clause represents the scope of the real Wh-phrase. In fact, the scope of *kit* is extended to a higher domain. This suggests that the *mit*-phrase is an overt realization of an iterated abstract scope-marker (cf. (4)).

Bridge verbs have the ability to assign exceptional accusative Case to the [Spec, CP*] in a configuration like (5) (cf. section 6.3.). Suppose now that this Case is as-

signed to Q in the [Spec, CP]. Hence, we derive (1C). Below I will return to the question why an iterated scope-marker must be overtly realized.

Let us now turn to a discussion of the locality effects which occur with the *mit*-strategy.

It displays locality effects (cf. (1F)). Island conditions such as CNPC, SENS, and AC may not be violated. Therefore, the real Wh-phrase and the *mit*-phrase may not be coindexed across a complex NP, a sentential subject, and an adjunct clause. This would result in a subjacency violation. This coindexing is, however, allowed with bridge verbs, because they L-mark a CP-complement in configuration (5) (cf. section 6.4.). Therefore, the real Wh-phrase and the *mit*-phrase are no longer separated by a barrier. Hence, an instance of 0-subjacency preventing a violation of the Subjacency Condition.

Overt long Wh/Focus-movement exhibits WhIC-violations (cf. section 6.4.). Wh/Focus-phrases may be extracted from a Wh-island because this phenomenon applies through the [Spec, CP*] and the embedded Wh-phrase occupies the [Spec, CP⁰] (= Focus). The *mit*-strategy may also violate WhIC. Consider 6.5.(14), here repeated as (7):

- (7) *Mit*_i gondolsz [_{CP*} Q_i hogy [_{CP} János [_{CP1} *kinek*_i [_{CP0} *mit*
 what-ACC think-AGR2sg that John what-DAT what-ACC
 adott]]]
 gave-AGR3sg
 *'To whom do you think what John gave?'

An explanation for the grammaticality of this sentence runs along the same lines as for WhIC-violations with overt long Wh/Focus-movement. The embedded object Wh-phrase *mit* is in the embedded Focus-position. Therefore, Q in the [Spec, CP] remains accessible for coindexing with the Wh-phrase *kinek*.¹⁴ This circumvents a violation of WhIC.

Let us consider now why the complementizer is obligatory in the *mit*-strategy (cf. (1D)).

Hogy-drop may apply if the complement clause contains a Wh-phrase (cf. 6.4.(18)). The complementizer in the *mit*-strategy, however, must be obligatorily present:

- (8) a. Tudod [_{CP*} (*bogy*) [_{CP} János [_{CP0} *kit* látott]]]
 know-AGR2sg that John who-ACC saw-AGR3sg
 'Do you know who John saw?'
 b. *Mit* gondolsz [_{CP*} *(*bogy*) [_{CP} János [_{CP0} *kit* látott]]]
 what-ACC think-AGR2sg that John who-ACC saw-AGR3sg
 'Who do you think that John saw?'

The distribution of the complementizers in this pair matches the distribution of complementizers in declarative sentences and long Wh/Focus-movement constructions (cf. section 6.4.). Lexicalization of *bogy* is obligatory with long Wh/Focus-movement but not with declarative sentences. This is due to the fact that complementizers provide a [Spec, CP*] position for Wh/Focus-trace in the former.

The explanation for this dichotomy carries over to the pair in (8). But now instead of a trace a scope-marker Q is present in the [Spec, CP*]. Therefore, the complementizer must be spelled out in (8b) with the *mit*-strategy, unlike in (8a) with the indirect Wh-question. In the latter, Q is not have to be present in the [Spec, CP*].

(14) The intermediate CPs do not provide additional barriers if we assume that L-containment is transitive (cf. section 6.4.).

The lack of multiple *mit*-strategy also supports the hypothesis of an abstract scope-marker in the [Spec, CP*] position with this strategy:

- (9) **Mit_i*, *mit_j* gondolsz [_{CP}* Q hogy [_{CP} János [_{CP}₁ *kinek_i* [_{CP}₀ *mit_j* adott]]]]
 what-ACC what-ACC think-AGR2sg that John what-DAT what-ACC gave-AGR3sg

This sentence is the counterpart of (7), except that another *mit*-phrase has been inserted in the matrix clause. The ungrammaticality of (9) shows that multiple *mit*-strategy cannot apply. This fact is covered, if we assume the presence of a (single) scope-marker in the [Spec, CP*] which is available for iterative coindexing.

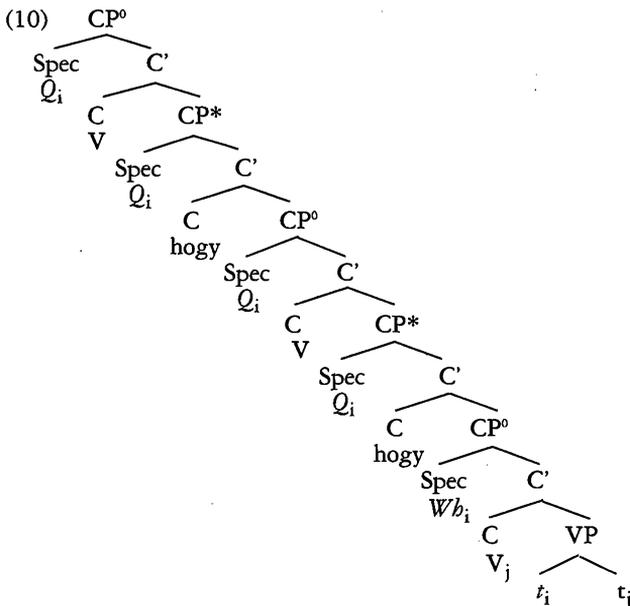
Let us consider now why the real Wh-phrase in the *mit*-strategy takes wide scope (cf. (1G)).

The scope of a Wh-phrase directly corresponds to its position in syntax in long Wh/Focus-movement (cf. 6.3.(2H)). The scope of the real Wh-phrase in the *mit*-strategy, however, is represented at another position than where this phrase is physically realized. In both strategies, the real Wh-phrases have wide scope. The reason for this is that scope-assignment to Wh-phrases involves, as Baker (1970) has proposed, two patterns, namely, an adjunction (cf. (3a)) and an in-situ schema (cf. (3b)).

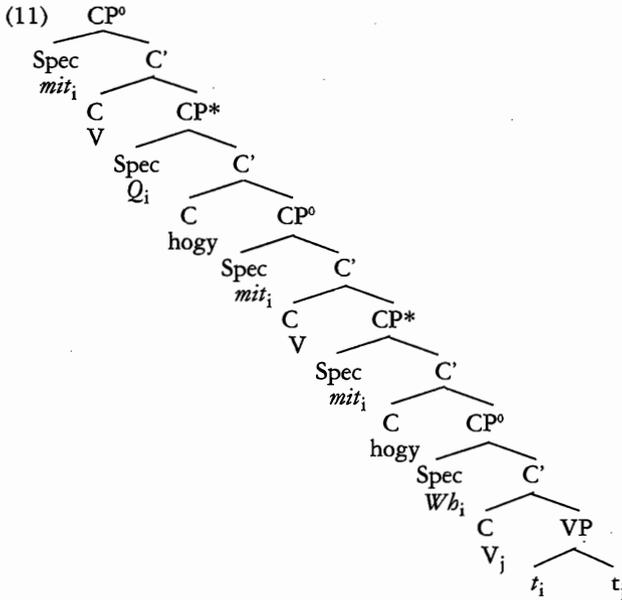
Overt long Wh/Focus-movement is an instance of the former. The Wh-phrase is adjoined to its scope-marker. It is assigned wide-scope by being adjacent to Q. The *mit*-strategy is an instance of the latter. The embedded Wh-phrase is bound by its scope-marker. It is assigned wide scope by this coindexing. This derives then property (1G)).

Let us now consider why an iterated Q must be spelled out as an overt *mit*-phrase.

The canonical landing site of Wh-phrases is the Focus-position, left-adjacent to the finite verb (cf. 2.1.(28c)). So all phrases bearing a feature [+Wh] must occupy this position. The abstract scope-marker receives this feature as well under coindexing with the real (embedded) Wh-phrase. As a consequence, Q must also land in Focus. The representation of a multiple embedded Wh-question with the *mit*-strategy is as follows:



Focus is a prominent position in the syntax of Hungarian. It must be visible for reasons of phonetic interpretation, like for primary stress-assignment. Let us assume that this visibility requirement is responsible for the spelling out of an abstract scope marker in Focus as an overt *mit*-phrase. (11) yields the following representation of (10):



Summarizing, I argued that long Wh/Focus-movement and the *mit*-strategy involve the same core syntactic principles, L-marking and 0-subjacency.

This provides empirical evidence for the Correspondence Hypothesis. In order to make this hypothesis operative, I adopted the assumption that the *mit*-phrase is a scope-marker in the sense of Baker (1970). This accounts also for the fact why correspondence effects are absent with long Focus-movement, unlike with long Wh-movement. There is no lexicalised scope-marker with respect to Focus. In the next section, I will discuss the consequences of the Correspondence Hypothesis for the grammar of Hungarian and the theory of grammar.

6.7. Some Consequences of Wh-strategies in Hungarian

This section discusses some consequences of the different Wh-strategies in Hungarian. First, I will determine the position of these strategies within the grammar of Hungarian (cf. section 6.7.1.). Second, I will examine the consequences of correspondence effects for the theory of UG. I will conclude that these effects make the level of representation called LF superfluous (cf. section 6.7.2.).

6.7.1. Wh-strategies and the Grammar of Hungarian

I noted in section 5.3.7. a dialectal split with respect to overt long Wh-movement in Hungarian. Hungarian I accepts overt long Wh-movement entirely, and

Hungarian II accepts it only marginally. In the latter, the following accessibility hierarchy (cf. 5.3.7.(4)) is operative:

- (1) *Accessibility hierarchy for long Wh-movement in Hungarian*
Lexical case > structural Case (NOM and ACC)

Extraction of a Wh-phrase with lexical case yields a far better result than extraction of a Wh-phrase with structural Case. Instead of the latter, speakers of Hungarian II prefer the *mit*-strategy.

I will assume that this dialectal difference is related to the following parameter (cf. Chomsky 1986a: 75):

- (2) *+/-move Wh*

This parameter states that Wh-movement is optional, as all syntactic movement rules are. The existence of languages with overt long Wh-movement such as English and languages with Wh in-situ such Chinese and Japanese provide empirical evidence for its postulation.

Move Wh is set positively in Hungarian I, whereas it is set negatively in Hungarian II. If this parameter is real, then we expect that phenomena contingent on Wh-movement will diverge in these dialects as well. I will demonstrate that this indeed is the case with (I) the morphological adjustment of an intermediate verb with the extraction of an indefinite (nominative and accusative) Wh-phrase from multiple embedded Wh-questions, and (II) the distribution of parasitic gaps and resumptive pronouns.

(I) A bridge verb displays agreement with an extracted indefinite nominative and accusative Wh-phrase in long Wh/Focus-movement (cf. 6.2.(3D)). I argued in section 6.4. that this phenomenon applies successive cyclicly through the [Spec, CP*], and that the indefinite (nominative and accusative) Wh-phrases trigger the indefinite conjugation on the bridge verb. The question arises how the bridge verbs are conjugated when an indefinite nominative or accusative Wh-phrase is extracted from a multiple embedded Wh-question. Consider the following sentences:

- (3) a. *Kit gondolsz [CP* t hogy [Mari mondta/mondott [CP* t hogy [látta t Jánost]]]]*
who-ACC think-AGR2sg-indef that Mary said-AGR3sg-def/indef that saw-AGR3sg-def John-ACC
'Who do you think Mary said saw John?'
- b. *Kit gondolsz [CP* t hogy [Mari mondta/mondott [CP* t hogy [János látott t]]]]*
who-ACC think-AGR2sg-indef that Mary said-AGR3sg-def/indef that John saw-AGR3sg-indef
'Who do you think that Mary said that John saw?'

These sentences exemplify the extraction of an indefinite Wh-phrase from the most deeply embedded clause. In (3a), it is base-generated in the subject position, and in (3b) it is base-generated in the accusative object position.

If successive cyclic movement through the [Spec, CP] is correct, then we expect that both the matrix verb and the intermediate verb exhibit indefinite conjugation. The traces occupy this position and they are indefinite. Hence, they may trigger the indefinite conjugation.

This prediction is, however, only borne out in Hungarian I. É. Kiss (1985) has reported that in multiple embedded Wh-questions, in which the subject or the accusative object is long Wh-moved from the deepest embedded clause, both the matrix and the intermediate verb are conjugated indefinitely. Hence, speakers of this dialect realize the matrix verb and the intermediate verb in (3) *as gondolsz* 'think-AGR2sg-indef' and *mondott* 'said-AGR2sg-indef'.

Speakers of Hungarian II, on the other hand, marginally accept these sentences, if possible at all, with the definite conjugation on the intermediate verb. Hence, the intermediate verb must be *mondta* 'said-AGR3sg-def'.

It is reasonable to assume that this dialectal variation is related to the parameter +/-move Wh. Hungarian I behaves as expected. The (indefinite) conjugation on the intermediate bridge verb is determined by the trace in the [Spec, CP*]. This unambiguously supports successive cyclic movement through the Spec of CP*.

Hungarian II involves successive cyclicity as well. The insertion of the anticipatory pronoun yields a completely unacceptable result:

- (4) a. **Kit gondolsz* [_{CP} hogy Mari *mondta azt* [_{CP} hogy János látott]]
 who-ACC think-AGR2sg-indef that Mary said-AGR3sg-def that-ACC that John saw-AGR3sg-indef
 b. **Kit gondolsz* [_{CP} hogy Mari *mondta azt* [_{CP} hogy látta Jánost]]
 who-ACC think-AGR2sg-indef that Mary said-AGR3sg-def that-ACC that saw-AGR3sg-def John-ACC

Suppose that the relation between the Wh-phrase and its gap in these sentences is not an instance of real successive cyclic movement but rather mimics successive cyclic movement. Maybe, it involves an analogic form of the *mit*-strategy. As a consequence, no intermediate traces are present. This accounts for the absence of indefinite conjugation on the intermediate verbs.

Instead these verbs pattern the same as intermediate verbs in multiple declarative sentences (cf. (5b)) or in multiple embedded Wh-questions with the extraction of a Wh-phrase bearing lexical case (cf. (5b)). They are conjugated definitely. Hence, the form of the verb is *mondta* 'said-AGR3sg-def':

- (5) a. *Azt gondoltam* [_{CP} hogy Mari *azt mondta* [_{CP} hogy János találkozott Péterrel]]
 that-ACC thought-AGR1sg-def that Mary that-ACC said-AGR3sg-def that John met-AGR3sg-indef Peter-INSTR
 'I thought that Mary said that John met Peter.'
 b. *Kivel gondolod* [_{CP} hogy Mari *mondta* [_{CP} hogy János találkozott]]
 who-INSTR think-AGR2sg-def that Mary said-AGR3sg-def that John met-AGR3sg-indef
 'With whom do you think that Mary said that John met?'

(II) Hungarian displays parasitic gaps (cf. section 5.3.7.2.):

- (6) a. [_{CP} *Milyen iratokat tettél* [_{VP} el *t*] [_{mielőtt} elolvastál volna *e*]]
 what papers-ACC put-AGR2sg-indef away what-before perf-read-AGR2sg-indef would
 'Which papers did you put away before reading?'
 b. [_{CP} *Milyen iratokat tettél* [_{VP} el *t*] [_{mielőtt} elolvastad volna *(*öket*)]]
 what papers-ACC put-AGR2sg-indef away what-before perf-read-AGR2sg-def would them
 'Which papers did you put away before reading?'

- (7) a. [_{CP} *Milyen iratot tettél* [_{VP} *el t*] [*mielőtt végeztél volna e*]]
 what paper-ACC put-AGR2sg-indef away what-before finished-AGR2sg-indef would
 'Which paper did you put away before finishing?'
 b. [_{CP} *Milyen iratot tettél* [_{VP} *el t*] [*mielőtt végeztél volna *(vele)*]]
 what paper-ACC put-AGR2sg-indef away what-before finished-AGR2sg-indef would it-INSTR
 'Which paper did you put away before finishing?'

These sentences exhibit short Wh-movement and they contain an adjunct clause with a parasitic gap (indicated by *e*). The (a)-sentences represent the intuitions of speakers of Hungarian I (cf. É. Kiss 1985). The (b)-sentences represent the intuitions of speakers of Hungarian II. The gap in the (a)-sentences must remain non-overt. The gap in the (b)-sentences, however, must be spelled out as an overt pronoun. Hence, Hungarian I involves a parasitic gap strategy, whereas Hungarian II involves a resumptive pronoun strategy in similar cases.

In Hungarian I, the gap cannot be *pro* because plural accusative personal pronouns and pronouns with lexical case may not be omitted (cf. 4.2.(34)). In Hungarian II, on the other hand, the gap may be *pro*, as the following sentence demonstrates:

- (8) [_{CP} *Kivel találkoztál* [_{VP} *t*] [*anélkül hogy *meghívtál/meghívta* *volna (öt)*]]
 who-INSTR met-AGR2sg-indef that-without that perf-invited-AGR2sg-indef/def would him
 'Who did you meet without you having invited?'

A singular accusative pronoun *öt* may be dropped only if the verb is conjugated definitely. This matches the distribution of *pro* (cf. 4.2. (34)). Hence, *pro* may function as a resumptive pronoun only if it locally recoverable from AGR.

The following pair shows that long Wh-movement with parasitic gap clauses patterns the same as short Wh-movement with such clauses:

- (9) a. [_{CP} *Kiket szeretnél* [_{CP} *ha eljönnének t*] [*anélkül hogy meghívtál volna e*]]
 who-pl-ACC like-COND-AGR2sg-indef if came-COND-AGR3pl-indef that-without that perf-invited-AGR2sg-indef would
 'Whom would you like if came without you having invited?'
 b. [_{CP} *Kiket szeretnél* [_{CP} *ha eljönnének t*] [*anélkül hogy meghívta volna *(öket)*]]
 who-pl-ACC like-COND-AGR2sg-indef if came-COND-AGR3pl-indef that-without that perf-invited-AGR2sg-def would them
 'Whom would you like if came without you having invited?'

Again, in the (a)-sentence a parasitic gap is allowed, and in the (b)-sentence a resumptive pronoun must be spelled out.

In sum, Hungarian I allows a parasitic gap strategy, whereas Hungarian II employs a resumptive pronoun strategy in similar cases. The question then is how do we account for this difference?

The distribution of empty categories is restricted by the following descriptive condition:

- (10) Empty categories must be bound locally

For example, *pro* must be bound by a local AGR, and Wh-trace must be bound by its antecedent in its minimal maximal domain. It is reasonable to assume that parasitic gaps obey principle (10) as well. Chomsky (1986b) suggests that these gaps are bound locally if they are 1-subjacent to the real gap, since a parasitic gap is embedded in an adjunct clause.

Suppose now that empty categories must be 0-subjacent to their binders in Hungarian II but not in Hungarian I. Hence, a real gap cannot license a parasitic gap in Hungarian II. This yields the absence of parasitic gaps. We have seen that such constructions may be saved by a resumptive pronoun strategy.

Let us summarize the differences between Hungarian I and II in the following diagram:

(11)	<i>Hungarian I</i>	<i>Hungarian II</i>
-accessibility hierarchy for overt long Wh-movement	-	+
-preference of the <i>mit</i> -strategy	-	+
-indefinite conjugation on intermediate verb in multiple embedded Wh-questions	+	-
-parasitic gap strategy	+	-
-resumptive pronoun strategy	-	+

The two dialects differ with respect to phenomena intrinsically dependent on the presence or absence of (long) Wh-movement. I suggested that this involves the parameter +/-move Wh. I will leave the further exploration of this parameter and the phenomena contingent on it as a task for further research.

6.7.2. Correspondence Effects and the Theory of Grammar

Correspondence effects effects also appear in languages other than Hungarian. Van Riemsdijk (1983b) observes that *German* displays a Wh-strategy quite similar to the *mit*-strategy in Hungarian. The scope marker in German is *was* 'what'. Compare (12a):

- (12) a. [_{CP} *Was* glaubst du [_{CP} *was* Peter meint [_{CP} *wer* heute kommt]]]
 what think you what Peter believes who today comes
 'Who do you think Peter believes will come today?'
 b. *[[_{CP} *Was* glaubst du [_{CP} *was* Peter meint [_{CP} *wer* kommt heute]]]
 what think you what Peter believes who comes today

The ungrammaticality of (12b) shows that the *was*-strategy involves a complex sentence. The finite verb must be in final-position in embedded clauses, since German is an SOV-language.

Hiemstra (1986) notes correspondence effects in Frisian:

- (13) a. [_{CP} *Wa* tinke jo [_{CP} *dat* ik *t* sjoen ha]]
 who think you that I seen have
 'Who do you think that I have seen?'
 b. [_{CP} *Wat* tinke jo [_{CP} *wa't* ik *t* sjoen ha]]
 what think you who-that I seen have
 'Who do you think that I have seen?'

- (14) a. [_{CP} *Wa* tinke jo [_{CP} dat *t* my sjoen hat]]
 who think you that me seen has
 'Who do you think has seen me?'
 b. [_{CP} *Wat* tinke jo [_{CP} *wa'tt* my sjoen hat]]
 what think you who-that me seen has
 'Who do you think has seen me?'
 (Hiemstra 1986: 33)

The (a)-sentences represent instances of overt long Wh-movement. This may apply from both the subject position (cf. (14a)) and the object position (cf. (13a)).¹⁵ The (b)-sentences exemplify the Frisian variant of the scope marker-strategy. The real Wh-phrases *wa* move to the [Spec, CP] of their own (embedded) clause in (13b) and (14b). They merge with the complementizer *dat* yielding *wa't*. The Wh-phrases *wat* in the matrix clauses function as a scope marker.

Thus, iterative long distance Wh-movement without overt syntactic movement appears in historically unrelated languages like Hungarian, German or Frisian.¹⁶ This provides empirical evidence for the Correspondence Hypothesis 6.2.(6), here repeated as (15):

- (15) *Correspondence Hypothesis*
 Whenever there is a syntactic reflex of the assignment of (wide) scope, the dependency involved and long Wh-movement obey the same conditions on government and bounding

This hypothesis states that the grammar of Wh-trace and the grammar of scope is constrained by the same syntactic principles. If this is correct, then these principles have optimal explanatory power. Hence, the Correspondence Hypothesis represents the null-hypothesis.

This unification has not been a major focus of research in recent years. Rather, it has generally been assumed that wide scope-assignment is not restricted by bounding theory. This has been regarded as an argument for the independent status of LF (cf. Huang (1982), Lasnik and Saito (1984), and Chomsky (1986), among others).

Correspondence effects provide empirical evidence against this position. They yield a contradiction in the terminology of Chomsky and Huang. Wide scope assignment is restricted by subjacency, and consequently this condition holds at LF. However, according to Chomsky and Huang subjacency does not hold at LF but at S-structure. Note, incidentally, that it is not appealing to escape this contradiction by parametrizing bounding theory at LF, as may be clear from Chomsky (1986, 220): "It seems difficult to imagine that rules of the LF component are subject to

(15) Copying of the moved Wh-phrase in the intermediate [Spec, CP] may stress the successive cyclic effect in Frisian overt long Wh-movement (cf. Hiemstra 1986):

(i) [_{CP} *Wa* tinke jo [_{CP} *wa't* *t* my sjoen hat]]
 who think you who-that me seen has
 'Who do you think has seen me?'

This repetition of moved Wh-phrases with overt long Wh-movement appears also in Afrikaans (cf. Du Plessis 1977) and German (cf. Höhle 1989).

(16) McDaniel reports that Romani, an Indic language spoken in southern Yugoslavia, exhibits correspondence effects as well. The scope marker in this language is *so* 'what'.

6.8. Concluding Remarks

This chapter examined Wh-strategies in Hungarian. This language has two long distance Wh-strategies, overt long Wh-movement and the so-called *mit*-strategy. These strategies are subject to dialectal/idiolectal variation. I hypothesised that this variation is associated with the parameter +/-move Wh. Some phenomena appear to be contingent upon the setting of this parameter such as the conjugation-type of intermediate verbs in multiple embedded Wh-questions, the distribution of parasitic gaps and resumptive pronouns.

The existence of these Wh-strategies yields empirical support for the Correspondence Hypothesis, which excludes the existence of an independent level for the representation of scope (LF). What principle covers the scope of quantifiers?

The following universal principle determines the scope of quantifiers (cf. Reinhart 1983):¹⁸

- (1) A quantifier c-commands its scope at S-structure

Hungarian is a left-branching language (cf. 2.2.1.(1)). This implies that the leftmost constituent has the largest c-command domain. Hence, in accordance with this principle the leftmost quantifier has widest scope in the following pair:

- (2) a. [_{CP1} *Mindenki* [_{CP0} *csak Mari* szereti]]
 everyone only Mary-ACC loves-AGR3sg
 'Everyone is such that he loves only Mary.'
 *'Only Mary is such that everyone loves her'.
 b. [_{CP0} *Csak Mari* szereti [_{VP} *mindenki*]]
 only Mary-ACC loves-AGR3sg everyone
 'Only Mary is such that everyone loves her'.
 *'Everyone is such that he loves only Mary.'

The scope of Wh-phrases in multiple Wh-questions is also accounted for by principle (1). The leftmost Wh-phrase, which has the largest c-command domain, has the widest scope:

- (3) a. [_{CP1} *Ki* [_{CP0} *mit* mondott]]
 who what-ACC said-AGR3sg
 'For which x, x a person, for which y, y a statement, x said y'.
 *'For which y, y a statement, for which x, x a person, x said y'.
 b. [_{CP1} *Mit* [_{CP0} *ki* mondott]]
 what-ACC who said-AGR3sg
 'For which y, y a statement, for which x, x a person, x said y'.
 *'For which x, x a person, for which y, y a statement, x said y'.

Long Wh-movement satisfies condition (1) as well. The scope of an extracted Wh-phrase is determined at its S-structure position, at least in Hungarian (cf. 6.2.(3H)).

(18) Exceptions to this rule include donkey-sentences and inverse-linking. For instance, a universal quantifier embedded in an NP may bind a pronoun in the following Hungarian inverse-linking construction:

- (i) [[_{NP} *Egy olasz város minden lakósa*] azt gondolta [_{CP} *hogy (ø) nyerni fog*]]
 an Italian city every inhabitant-npAGR3sg that-ACC thought-AGR3sg that he win will
 'Every inhabitant of an Italian city thought that he would win.'

Rullman (1988) notes that all exceptions to condition (1) bear on referential dependency. According to Rullman, a violation of the c-command requirement is avoided in these cases if c-command affects the mother node of embedded quantifiers.

If the *Wh*-phrase is not fronted into the matrix sentence, as with the *mit*-strategy, its scope is represented at S-structure by the topmost scope marker. Compare:

- (4) a. [_{CP} *Kivel* gondolod [_{CP} *t* hogy mindenki mondta [_{CP} *t* hogy Mari táncolt *t*]]]
 who-INSTR think-AGR2s that everyone said-AGR3sg that Mary danced-AGR3sg
 'With who do you think that everyone said that Mary danced?'
 b. [_{CP} *Mit* gondolsz [_{CP} hogy *mit* mondott mindenki [_{CP} hogy Mari *kivel* táncolt]]]]
 what-ACC think-AGR2sg that what-ACC said-AGR3sg everyone that Mary who-INSTR danced-AGR3sg
 'With who do you think that everyone said that Mary danced?'

In (4a), the *Wh*-phrase *kivel* is extracted from the most deeply embedded clause. In (4b), on the other hand, it remains in the Focus position of its own clause, as an instance of the *mit*-strategy. In both sentences, *kivel* takes scope over the universal quantifier *mindenki* in the intermediate sentence. This is in accordance with principle (1), since *kivel* is itself (cf. (4a)) or its scope marker (cf. (4b)) is in a higher domain, i.e. the matrix clause, at S-structure than the universal quantifier. Hence, an answer to both questions involves only one single dancer, for instance *John*.¹⁹

In chapter four, we defined the Projection Principle as follows (cf. (4.7.(1))):

- (5) The LS must be represented categorially at each level of representation

This principle requires that each lexically selected argument is recoverable in the syntactic structure.

Consider the following instance of long *Wh*-movement:

- (6) Who do you think that John saw?

See selects two arguments, a subject and an object. In (6), the object is fronted into the matrix sentence.

The question then is whether the Projection Principle is directly satisfied by the moved object *Wh*-phrase, or is indirectly satisfied by virtue of a trace at its extraction-site. In other words, is the S-structure representation of (6), (7a) or (7b)?:

- (7) a. *Who* do you think that John saw? b. *Who* do you think that John saw it?

The Projection Principle is strictly locally satisfied in (7b).

Consider the following instances of long *Wh*-movement in Hungarian from the embedded object position:

(19) This parallel between overt long *Wh*-movement and the *mit*-strategy breaks down if the intermediate universal quantifier binds a pronoun, a *pro*, in the deepest embedded clause:

- (i) a. [_{CP} *Kivel*_i gondolod [_{CP} *t*_i hogy *mindenki*_j mondta [_{CP} *t*_i hogy *pro*_j táncolt *t*_i]]]
 who-INSTR think-AGR2sg that everyone said-AGR3sg that he danced-AGR3sg
 'With who do you think that everyone said that he danced?'
 b. [_{CP} *Mit*_i gondolsz [_{CP} hogy *mit*_j mondott *mindenki*_k [_{CP} hogy *pro*_j *kivel*_i táncolt]]]
 what-ACC think-2sgAGR that what-ACC said-AGR3sg everyone that he who-INSTR danced-AGR3sg
 'With who do you think that everyone said that he danced?'

(ib) may also involve a pair-reading, although this reading is harder to get than the one in which the *Wh*-phrase has scope over the universal quantifier. It seems to me that in this sentence a connectedness effect is operative. I will leave the dichotomy between the pair in (4) and (i) for further research.

- (8) a. Kit *gondolsz* hogy János látott?
 who-ACC think-AGR2sg-indef that John saw-AGR3sg-indef
 'Who do you think that John saw?'
 b. Melyik fiút *gondolod* hogy János látta?
 which boy-ACC think-AGR2sg-def that John saw-AGR3sg-def
 'Which boy do you think that John saw?'

These sentences show that the matrix verb always displays the same conjugation-type as the embedded verb when an accusative object *Wh*-phrase is extracted (cf. 6.2.(3D)). The matrix verb and the embedded verb are both conjugated indefinitely if an indefinite *Wh*-phrase is moved (cf. (8a), and they are conjugated definitely if a definite *Wh*-phrase is extracted (cf. (8b)). Hence, the conjugation-type corresponds with the definiteness of the extracted *Wh*-phrases.

If the Projection Principle is directly satisfied by the extracted *Wh*-phrase, then the agreement correspondence between the upper and the lower verb remains unexplained. If we assume, however, that overt long *Wh*-movement leaves a trace which inherits its Φ -features, it is accounted for. Both the *Wh*-phrase and its trace trigger the same conjugation-type on their verbal governor. This agreement correspondence favors a strictly local implementation of the Projection Principle. Hence, we have another argument supporting a definition of the Projection Principle as in (5) (cf. also chapter four).

7. THE SYNTAX OF THE PP IN HUNGARIAN

7.1. Introduction

This chapter examines the syntax of the PP in Hungarian. The results of our investigations can be summarized as follows.

(i) PPs are *head-final* configurational categories, like NPs. This provides empirical evidence for the claim that all X'-projections are head-final in Hungarian (cf. 2.2.1.(1)).

(ii) Some Ps may be inflected for *person-number agreement* (AGR) when they select a pronominal complement. In fact, there are two types of postpositions, including *inflected* Ps, the "dressed" ones, and *non-inflected* Ps, the "naked" ones. Consequently, there are two different types of PPs as well, dressed PPs and naked PPs. I will demonstrate that there are some syntactic differences between these types of PPs which correlate with the presence or absence of AGR.

(iii) Possessive NPs contain a realization of AGR as well which is spelled out on the noun-possessed (cf. Szabolcsi 1981a, Kornai 1984; 1985). By comparing dressed PPs, naked PPs, and possessive NPs, we can isolate the following properties of AGR.

(1) *Properties of AGR in Hungarian*

- a. It reflects the person-number features of the NP-complement
- b. It has no phrase-structural prominence
- c. It is not a Case-assigner
- d. It does not function as an accessible subject
- e. It identifies *pro*

(iv) There is also a structural difference between PPs and NPs. This is due to the fact that nouns, unlike postpositions, have the ability to combine with a determiner (D). D determines its own X'-projection, a *DP*. I will show that this category is responsible for some striking syntactic differences between PPs and NPs.

This chapter is organized as follows. Section 7.2. discusses the basic syntax of the PP. I will first argue that P is an *independent* category. Furthermore, I will illustrate that the PP is *postpositional*.

Section 7.3. presents a classification of dressed and naked Ps. This has repercussions for the syntax of the maximal projections of these categories. A pronominal complement may be omitted in dressed PPs but not in naked ones, as an instance of the *Pro-drop Parameter*. Dressed Ps assign *structural* (nominative) Case, whereas naked Ps assign *lexical* case. In the demonstrative construction of PP, a dressed P must be doubled, unlike a naked postposition.

Section 7.4. compares the PP with the NP. Although these categories have some properties in common, there are also remarkable differences between them involving *Case theory*, *theory of movement* and *binding theory*.

The complement of a possessive NP, the possessor NP, may appear with a nominative or dative case. The NP-complement of a dressed PP, on the other hand, may only be marked nominatively. The possessor NP may scramble within the possessive NP and it may be extracted from this category. The NP-complement of a PP and the head of this category may however not be separated by movement. Possessive NPs set up an opaque domain for binding theory. PPs, on the other hand, are always transparent for binding.

I will argue that these differences are due to the fact that the possessive NP, unlike the PP, should be analyzed as a DP. This category has its own specifier (Spec) position which provides a Case-position, and a landing-site or escape-hatch for possessor-raising. The head of the DP, D, is a structural subject in the sense of Chomsky (1981: 38). Such a category creates an inaccessible domain for binding.

Finally, section 7.5. investigates the status of AGR in of Hungarian. The status of this morpheme across languages may vary, yielding a typology of inflected PPs.

In some languages, it is "*agreement*" in a traditional sense. Its only function is to reflect the person-number features of the NP-complement on the head of its category. In other languages, AGR itself is a syntactic *complement*. With Hale (1988), I will assume that this typology depends on the level of representation at which the merging between AGR and a head takes place. For example, it is a lexical rule in Hungarian, but a syntactic one in Irish. As a consequence, AGR may cooccur with an overt syntactic complement in Hungarian, unlike Irish.

Let us first consider the basic properties of PP in Hungarian.

7.2. The Basic Syntax of PP in Hungarian

This section discusses the *basic* syntax of PP in Hungarian. I will first argue that P is an independent category (cf. section 7.2.1.). Then I will demonstrate that PP is postpositional (cf. 7.2.2.).

7.2.1. The Category P in Hungarian

This section argues that P is a category on its *own*, not to be identified with the categories prefix, adverb or case. In order to do so, I will develop some grammatical tests showing that it does not coincide with these categories, although they have historically developed from a common adverbial ancestor (cf. Bárczi et al 1978, and Máta 1971).¹

The classification of postposition, prefix, adverb and case has given rise to conflicting views in the literature. For example, Horvath (1978) does not acknowledge a category prefix. According to Horvath, prefixes are intransitive postpositions.

(1) The category of prefixes includes, among others:

(i) *be* 'in', *ki* 'out', *le* 'down', *fel* 'up', *meg* 'perfectivity marker' and *el* 'away'

These prefixes often indicate the perfectivity and also the direction of an action denoted by the verb to which they are prefixed.

Ackerman (1987b) also takes prefixes and (naked) postpositions together but under the category verbal modifier (cf. section 4.4.1.).

In my view, the source of all confusion is due to two facts. First, some postpositions, prefixes, adverbs and cases have the ability to function as a verbal modifier. They may subcategorize for a verb and form with it a tight lexical and syntactic unit. Therefore, these categories have the same positional distribution. Second, some prefixes and (naked) postpositions may appear without complement.

Below, however, I demonstrate that postpositions, prefixes, adverbs, and cases are categorially distinct.

The strongest evidence for this claim comes from the fact that they have a completely different distribution with respect to various morpholexical rules. The assumption of a category including postpositions, prefixes, adverbs, and cases would render the formulation of these rules unnecessarily complex, if not impossible.

The rules involve, (I) *Comparative Formation*, (II) *Adjective Formation with the Suffix -i*, (III) *Compounding with the P -felé*, (IV) *SUBL/DELAT Case-marking* and (V) *Conjunction Reduction*. Before presenting them, I will first classify postpositions from a semantic point of view. This will allow us to formulate some of these morpholexical rules in a much easier way.

In Hungarian, there is an almost perfectly regular system developed for local relations corresponding to the questions *to where?*, *where?*, and *from where?*. The case-system may be divided into subsystems corresponding to these three directions. For example, the illative marker *-ba/be* 'to where?', the inessive marker *ban/ben* 'where?' and the elative marker *-ból/ből* 'from where?' form such a subsystem (cf. 3.2.(5)).

Ackerman (1987b) classifies these tripartite subsystems with the help of semantic features [*path*], and [*goal*]:

(1) *Semantic Characterization of Morphological case:*

	[-path]	[+path]	[+path]
	[+goal]	[-goal]	
'containment'	INESS	ILL	ELAT
'surface'	SUPER	SUBL	DELAT
'proximity'	ADESS	ALL	ABL

Some postpositions also display a tripartite subsystem, like the cases participating in (1). For instance, *alá* 'under' (to where?), *alatt* 'under' (where?) and *alól* 'under' (from where?) form such a triple. Each meaning is connected to a separate formal element which is not productive as a case-marker any more, involving respectively *-álé* 'lative' (LAT), *-tt/n* 'locative' (LOC), *-l* 'ablative' (ABL). Analogously to the morphological case forms, I classify these postpositions as follows:

(2) *Semantic Characterization of Postpositions:*

	[-path]	[+path]	[+path]
	[+goal]	[-goal]	
'location'	LOC	LAT	ABL

Let us now consider comparative formation in Hungarian.

(I) A comparative is formed by adding the comparative suffix *-(vowel)bb* to the stem. Members of the category P do not have comparatives. Therefore, the following forms are ungrammatical:²

- (3)
- | | | |
|-----|-------------------|-------------|
| a. | alatt 'under' | (dressed P) |
| a'. | *alatt bb | |
| b. | ellen 'against' | (dressed P) |
| b'. | *ellene bb | |
| c. | mögül 'behind' | (dressed P) |
| c'. | *mögüle bb | |
| d. | át 'over' | (naked P) |
| d'. | *át bb | |
| e. | belül 'inside' | (naked P) |
| e'. | *belüle bb | |
| f. | együtt 'together' | (naked P) |
| f'. | *együte bb | |

Prefixes and adverbs, on the other hand, can have comparatives quite easily:³

- (4)
- | | | |
|-----|-----------------------|----------|
| a. | ki 'out' | (prefix) |
| a'. | kijjebb 'farther out' | |
| b. | fel 'up' | (prefix) |
| b'. | feljebb 'higher up' | |

(2) The lative dressed postpositions, except **felébb* 'above-comparative suffix', **körébb* 'round-comparative suffix', and *közébb* 'between-comparative suffix', and the naked postpositions *kívül* 'outside' and *közel* 'near' form an exception to the prohibition of putting Ps in the comparative:

- | | | | | | | |
|-----|-----|----------------------|-------------|-----|----------------------------------|-----------|
| (i) | a. | alá 'under' | (dressed P) | c. | kívül 'outside' | (naked P) |
| | a'. | alább 'lower down' | | c'. | kívüleb bb 'more outside' | |
| | b. | elé 'before' | (dressed P) | d. | közel 'near' | (naked P) |
| | b'. | elébb 'more forward' | | d'. | közeleb bb 'nearer' | |

Obviously, these forms have maintained some of their adverbial character.

(3) István Kenesei (personal communication) questions this claim concerning prefixes. Alternatively, they could be comparatives of adverbs as well. The following argument supports the claim that these comparatives are indeed categorially prefixes.

The verb *tesz* 'do, make' subcategorizes for an accusative object. This object may not be nominal:

- | | | | | | | |
|-----|----|--------------|---------------|----|-----------------|-----------------|
| (i) | a. | <i>Jól</i> | <i>tettem</i> | b. | * <i>Tettem</i> | <i>a képet</i> |
| | | good-ACC | did-AGR1sg | | did-AGR1sg | the picture-ACC |
| | | 'I did well' | | | | |

Prefixes may subcategorize for a verb yielding an independent lexical item. For example, the prefix *fel* 'up' combines with *tesz* into the complex verb *feltesz* 'put up'. This verb has an independent meaning and it subcategorizes for an accusative object. This accusative object, however, may be nominal, unlike the accusative object of its unprefixed form. Compare (ib) and (ii):

- | | | | |
|------|-------------------------|-----------------|----------------|
| (ii) | <i>Fel</i> | <i>tettem</i> | <i>a képet</i> |
| | up-put-AGR1sg | the picture-ACC | |
| | 'I put up the picture.' | | |

Note now that the accusative object is nominal as well if the verb *tesz* cooccurs with the comparative *feljebb* 'higher up':

- | | | | |
|-------|--------------------------------|---------------|-----------------|
| (iii) | <i>Feljebb</i> | <i>tettem</i> | <i>a képet</i> |
| | higher up | did-AGR1sg | the picture-ACC |
| | 'I put the picture higher up.' | | |

If *feljebb* would not be the comparative of the prefix *fel* but of an adverb, it would be puzzling why *tesz* may have a nominal object in this example but not in (ib). This dichotomy and the parallel subcategorization features of *feltesz* and *feljebbtesz* receive a straightforward explanation under the assumption that *feljebb* is categorically identical to *fel*.

c.	le 'down'	(prefix)
c'.	lejjebb 'farther down'	
d.	bent 'inside'	(adverb)
d'.	bentebb 'more inside'	
e.	hamar 'soon'	(adverb)
e'.	hamarabb 'sooner'	
f.	lent 'below'	(adverb)
f'.	lentebb 'more below'	

So this yields the following derivational rule capturing *Comparative Formation*:⁴

- (5) *Comparative Formation*: where $X = \text{prefix or adverb}$
 $X + -bb \rightarrow Xbb$ 'comparative of X '

(II) The word-formation component contains the following derivational rule deriving *adjectives* with the help of the suffix *-i*:⁵

- (6) *Adjective Formation with the Suffix -i*: where $X = \text{noun, postposition or adverb}$
 $X + -i \rightarrow A$

The following examples illustrate that postpositions and adverbs may feed this rule:

- (7) a. a híd mögötti út (dressed P)
 the bridge behind-adj road
 'The road behind the bridge'
- b. a műsor alatti vita (dressed P)
 the program under-adj discussion
 'The discussion during the program'
- c. tíz éven aluli gyerekek (naked P)
 ten year-SUBL under-adj children
 'Children under ten year'
- d. a házon kívüli virágok (naked P)
 the house-SUBL outside-adj flowers
 'The flowers outside the house'
- e. a bent szoba (adverb)
 the inside-adj room
 'The room inside'
- f. a fenti magyarázat (adverb)
 the above-adj explanation
 'The explanation above'

Adjectives of prefixes may not be derived by rule (6):

- (8) a. *kiji (prefix) out-adj b. *leji (prefix) down-adj

(4) The comparatives of the prefixes *el* 'away' and *meg* 'perfectivity marker' do not exist: **elebb* and **megebb*. István Kenesei (personal communication) informs me that the following prefixes do not have comparatives either: *agyon* 'adds to the meaning of the verb 'in extreme', *félbe* 'incomplete', *félre* 'aside', and *szét* 'asunder'. It seems to me that these non-existing forms are lexical gaps or semantically impossible.

(5) The lative dressed postpositions and the dressed postpositions with the sublativity marker *-ra/re* do not participate in this rule. Neither do the naked postpositions *fogva* 'as a result of', *fogva* 'from' (time adverbial), and *kezelve* 'from' (time adverbial).

(III) Hetzron (1982) notes that only prefixes and adverbs with the feature [+path] in their meaning may be compounded with the element *-felé* 'ward':⁶

- | | | |
|--------|--------------------------|----------|
| (9) a. | haza 'home' | (adverb) |
| | a'. hazafelé 'homeward' | |
| | b. hátra 'back' | (adverb) |
| | b'. hátrafelé 'backward' | |
| | c. ki 'out' | (prefix) |
| | c'. kifelé 'outward' | |
| | d. fel 'up' | (prefix) |
| | d'. felfelé 'upward' | |

The attachment of *-felé* to a prefix or adverb assigns progressive aspect to the action denoted by the verb. Compare the difference in aspectual reading between the following pairs:

- | | | | |
|---------|--|----|--|
| (10) a. | Be mentem a boltba
in went-AGR1sg the shop-ILL
'I entered the shop.' | b. | Befelé mentem a boltba
inward went-AGR1sg the shop-ILL
'I was entering the shop' |
| (11) a. | Haza mentem
home went-AGR1sg
'I went home.' | b. | Hazafelé mentem
homeward went-AGR1sg
'I was going home.' |

However, not a single postposition can be suffixed with *-felé*, not even postposition which have the feature [+path] inherent in their meaning. Therefore, the following compounds do not exist:

- | | | |
|---------|-----------------------|-------------|
| (12) a. | alá 'under' | (dressed P) |
| | a'. *aláfelé | |
| | b. mögül 'behind' | (dressed P) |
| | b'. *mögülfelé | |
| | c. át 'over' | (naked P) |
| | c'. *átfelé | |
| | d. keresztül 'across' | (naked P) |
| | d'. *keresztülfelé | |

The prohibition of *-felé* compounding with postpositions is probably due to the fact that *felé* is itself a postposition. This may then be considered a case of a more general principle which blocks the attachment of elements to stems with the same category label, namely, the lexical counterpart of Hoekstra's (1984) *Unlike Category Condition*:

(13) *Unlike Category Condition*

At S-structure, no element of [α N, BV] may govern a projection of [α N, BV]

(6) In standard Hungarian, *-felé* may only be suffixed to locational prefixes. However, it may also combine with the perfectivity marker *meg* in the North-Eastern dialect. This compound attributes to the action denoted by the verb progressive aspect:

- (i) Zárd befelé az ajtót mert megfelé fagynak az emberek
close-IMP-AGR2sg inward the door-ACC because perf-ward freeze-AGR3pl the people
'Close the door because the people are freezing to death.'

The following rule covers the *Compounding with the P felé* in standard Hungarian:

(14) *Compounding with the P felé* X[+path] + *-felé* → X*felé* 'Xward' where X = *adverb*, or *prefix*

(IV) Postpositions may be inflected with the sublative case-marker *-ra/re* and delative case-marker *-ról/ről*. These suffixes add the feature [+path] to the P to which they are suffixed or they make this feature inherent in the meaning of such a P more explicit:⁷

- (15) a. a híd mögöttre (dressed P)
the bridge behind-SUBL
'to behind the bridge'
b. a híd mögöttől
the bridge behind-DELAT
'from behind the bridge'
c. a híd mögülről (dressed P)
the bridge behind-DELAT
'from behind the bridge'
- (16) a. a hídon át (naked P)
the bridge-SUPER over-SUBL
'to over the bridge'
b. a hídon átról
the bridge-SUPER over-DELAT
'from over the bridge'
c. a hídon alulról (naked P)
the bridge-SUPER under-DELAT
'from under the bridge'

Some adverbs which contain the features [+location] or [+path] in their lexical meaning may also be suffixed with the sublative and delative marker *-ra/re* and *-ról/ről*:

- (17) a. bentre (adverb)
inside-SUBL
'to inside'
b. bentről
inside-DELAT
'from inside'
c. fentre (adverb)
above-SUBL
'to inside'
d. fentről
above-DELAT
'from inside'

(7) The lative dressed Ps, except *felé/fölé* 'to/above', may not be inflected with a sublative or delative marker:

- | | |
|--|--|
| (i) a. *alára (lative dressed P)
under-SUBL | c. *mögére (lative dressed P)
behind-SUBL |
| b. *aláról
under-DELAT | d. *mögéről
behind-DELAT |

These Ps do neither participate in Comparative Formation (cf. note 2) or Adjective Formation with the Suffix *-i* (cf. note 5). This suggests that they block further morphological suffixation. If we assume that the lative marker is still acting as a case-marker, then this is covered by (20a) below. Case-markers in Hungarian may not be inflected further. This then yields a morphological dichotomy between lative dressed Ps and the other dressed Ps. From a syntactic point of view, however, it would be unattractive to propose a further subclassification of dressed Ps (cf. section 7.3.).

Prefixes, on the other hand, do not have this ability:

- (18) a. *lére (prefix)
down-SUBL
b. *léről
down-DELAT
c. *felre (prefix)
up-SUBL
d. *felről
up-DELAT

In sum, the following lexical rule governs the suffixing of the *sublative* and *delative* case-marker to postpositions and adverbs:

- (19) *SUBL/DELAT Case-marking*
X[+/-path] + -SUBL/DELAT -> XSUBL/DELAT 'to/from X'
where X = *postposition* or *adverb*

So far, I have discussed the distribution of postpositions, adverbs, and prefixes with respect to various morpholexical rules. Let us now turn to a discussion of the status of case-markers. Case-markers have the following two morphological properties:

- (20) *Morphological Properties of case-markers in Hungarian*
a. A case-marker cannot be followed by any other morphological markers
b. A case-marker is a bound morpheme

(20a) states that a case-marker cannot be further inflected as a result of derivational or inflectional morphology. Therefore, the adjectivization with the suffix *-i* of a noun with a case-marker is blocked, for instance:

- (21) a. *a kertbeni virág b. *a Jánossali fiú
the garden-INESS-adj flower the John-INSTR-adj boy
'the flower in the garden' 'the boy with John'

It is easy to see that case-markers have a different distribution with respect to the above morpholexical rules than postpositions, adverbs or prefixes. Apart from this, as a consequence of (20b), there are also some syntactic differences between case-markers and postpositions.

A case-marker, being a bound morpheme, cannot be deleted or refer to a deleted NP with *Backward Conjunction Reduction* (cf. (22a)) or *Forward Conjunction Reduction* (cf. (23a)) (cf. Neijt 1979). These rules may freely apply with postpositions (cf. (22b) and (23b)):

- (22) a. Sétáltam a ház*(ban) és a kertben
walked-AGR1sg the house-INESS and the garden-INESS
'I walked in the house and the garden.'
b. Sétáltam a ház (mellett) és a kert mellett
walked-AGR1sg the house near and the garden near
'I walked near the house and the garden.'
- (23) a. A házban és a (*ház)nál sétáltam
the house-INESS and the house-ILL walked-AGR1sg
'I walked in and by the house.'
b. A kert mellett és (a kert) mögött sétáltam
the garden near and the garden behind walked-AGR1sg
'I walked near and behind the garden.'

NP-complement (cf. section 7.3.2.). (iii) A dressed P must be repeated in the demonstrative construction, contrary to a naked P (cf. section 7.3.3.)

Before investigating these differences, I will first list both types of Ps together with their translation:

(1) *Dressed Ps*

alá 'under' (answers the question 'to where?'), *alatt* 'under' (where?), *alól* 'under' (from where?), *elé* 'before' (to where?), *előtt* 'before' (where?), *elől* 'before' (from where?), *felé* 'to' (to where?), *felől* 'from' (from where?), *fölé* 'above' (to where?), *fölött/felett* 'above' (where?), *fölül* 'above' (from where?), *kívül^P* 'without', *köré* 'round' (to where?), *körül* 'round' (where?), *közé* 'between' (to where?), *között/közt* 'between' (where?), *közül* 'from, out of' (from where?), *mögé* 'behind' (to where?), *mögött* 'behind' (where?), *mögül* 'behind' (from where?), *által* 'by' (adverbial modifier of means), *ellen* 'against', *helyett* 'instead of', *iránt* 'in the direction of', *miatt* 'because of', *nélkül* 'without', *szerint* 'according to', *után* 'after', *végett* 'because of', *ellenére* 'despite', *javára* 'in favor of', *létére* 'as', *részére* 'for' and *számára* 'for'.¹⁰

(2) *Naked Ps*

által 'over, across, during' (adverb of place and time), *alul* 'below, under', *át* 'over, across, during', *belül* 'within, inside', *együtt* 'together', *felül* 'over', *innen* '(on) this side', *keresztül* 'over, across, during', *kívül* 'outside' (adverb of place), *közel* 'near', *nélkül* 'without'¹¹, *szembe* 'opposite to', *szemben* 'opposite to' (where?), *szemközt* 'opposite to' (where? and to where?), *túl* 'over, across, on the other side', *végig* 'to the very end', *fogva* 'as a result of', *fogva* 'from' (time adverbial), *képest* 'compared to', *kezdvé* 'from' (time adverb), *nézve* 'regarding'.

Let us now turn to a discussion of AGR in PPs.

7.3.1. Agreement in PP

This section investigates AGR in PPs. The dressed Ps in 7.3.(1) may all be inflected for person-number agreement when they select a pronominal complement.

Compare, for example, the full paradigms of the tripartite variants of the Hungarian equivalent of English 'behind': *mögé* 'to where?' (cf. (3)), *mögött* 'where?' (cf. (4)) and *mögül* 'from where?' (cf. (5)):¹²

(9) Although *kívül* is basically a naked P, it may pattern as a dressed P when it takes a pronominal complement (cf. also section 7.3.4.).

(10) The AGR morpheme of the Ps *ellenére* 'despite', *javára* 'in favor of', *létére* 'as', *részére* 'for' and *számára* 'for' is followed by the sublative case-marker *-ra/re*. This order matches the order of morphemes in inflected nominals. Compare, for instance, *báz* 'house': *báz-am-ban* (house-AGR-INESS) 'in my house'.

(11) *Nélkül* is the opposite case of *kívül* (cf. note 9). It is in principle a dressed P, but in combination with a pronominal complement it may pattern as a naked P (cf. also section 7.3.4.).

(12) The markers of the nominal (possessive), postpositional, and case inflection correspond with the markers of the definite verbal conjugation in Hungarian (cf. 4.2.(1)), except for the first and third person plural:

(i) a. <i>person-number agreement for nominal,</i> <i>postpositional, and case stems</i>	b. <i>person-number agreement of the definite</i> <i>verbal conjugation</i>
sg pl	sg pl
1 - <i>m -unk</i>	1 - <i>m -ük</i>
2 - <i>d -atok</i>	2 - <i>d -átok</i>
3 - <i>a -uk</i>	3 - <i>a -ak</i>

According to Vago (1980), the third person plural marker of these paradigms are allomorphs. Therefore, the only difference between the paradigms in (ia) and (ib) is the shape of the first person plural marker. The former is identical with the first person plural marker of the indefinite verbal conjugation (cf. 4.2.(1)). It remains to be investigated whether the correspondences between (ia) and (ib) are due to a parallel syntactic property of the categories which cooccur with these markers.

- (3) a. (*én*) *mögém*
I behind-ppAGR1sg
'to behind me'
b. (*te*) *mögéd*
you(sg) behind-ppAGR2sg
'to behind you(sg)'
c. (*ő*) *mögéje*
he behind-ppAGR3sg
'to behind him'
d. (*mi*) *mögénk*
we behind-ppAGR1pl
'to behind us'
e. (*ti*) *mögétek*
you(pl) behind-ppAGR2pl
'to behind you(pl)'
f. (*ők*) *mögéjük*
they behind-ppAGR3pl
'to behind them'
- (5) a. (*én*) *mögülem*
I behind-ppAGR1sg
'from behind me'
b. (*te*) *mögüled*
you(sg) behind-ppAGR2sg
'from behind you(sg)'
c. (*ő*) *mögüle*
he behind-ppAGR3sg
'from behind him'
- (4) a. (*én*) *mögöttem*
I behind-ppAGR1sg
'behind me'
b. (*te*) *mögötted*
you(sg) behind-ppAGR2sg
'behind you(sg)'
c. (*ő*) *mögötte*
he behind-ppAGR3sg
'behind him'
d. (*mi*) *mögöttünk*
we behind-ppAGR1pl
'behind us'
e. (*ti*) *mögöttetek*
you(pl) behind-ppAGR2pl
'behind you(pl)'
f. (*ők*) *mögöttük*
they behind-ppAGR3pl
'behind them'
- d. (*mi*) *mögülünk*
we behind-ppAGR1pl
'from behind us'
e. (*ti*) *mögületek*
you(pl) behind-ppAGR2pl
'from behind you(pl)'
f. (*ők*) *mögülük*
they behind-ppAGR3pl
'from behind them'

Naked Ps may not be inflected for AGR. Compare, for example, the ungrammaticality of the inflected forms of the naked P *át* 'over':

- (6) a. **átam*
over-ppAGR1sg
b. **átad*
over-ppAGR2sg
c. **áta*
over-ppAGR3sg
d. **átunk*
over-ppAGR1pl
e. **átatok*
over-ppAGR2pl
f. **átuk*
over-ppAGR3pl

In sum, dressed Ps with a pronominal complement, contrary to naked Ps, may be inflected for AGR. For the time being, I will assume that it is a cliticized morpheme in PPs. As a consequence, a dressed PP with a pronominal complement has the following structure:

- (7)
$$\begin{array}{c} \text{dressed PP} \\ \text{NP[+pron]} \quad \text{P[+AGR]} \end{array}$$

Below, I will present empirical evidence for the claim that AGR has *no* phrase-structural prominence in Hungarian.

The realization of pronominal complements in dressed PPs is optional. In the unmarked case, personal pronouns are not spelled out. They are used for reasons for emphasis only. Compare (4a) and (8):

to be a tendency to omit the plurality specification on one of the two connected elements within a minimal domain. This is probably due to a functional principle of non-redundancy.

Let us now consider how the pronominal complement of a naked PP is realized.

Instead of the forms in (6), a pronominal complement of a naked P appears within a CaseP. Consider the full pronominal paradigm of the naked Ps *át* 'over' (cf. (16)) *együtt* 'together' (cf. (17)) and *képest* 'compared to' (cf. (18)).

Át subcategorizes for a superessive NP:

- | | |
|---|---|
| (16) a. (<i>én</i>) <i>rajtam</i> <i>át</i>
I SUPER-AGR1sg over
'over me' | d. (<i>mi</i>) <i>rajtunk</i> <i>át</i>
we SUPER-AGR1pl over
'over us' |
| b. (<i>te</i>) <i>rajtad</i> <i>át</i>
you(sg) SUPER-AGR2sg over
'over you(sg)' | e. (<i>ti</i>) <i>rajtatok</i> <i>át</i>
you(pl) SUPER-AGR2pl over
'over you(pl)' |
| c. (<i>ő</i>) <i>rajtá</i> <i>át</i>
he SUPER-AGR3sg over
'over him' | f. (<i>ők</i>) <i>rajtuk</i> <i>át</i>
they SUPER-AGR3pl over
'over them' |

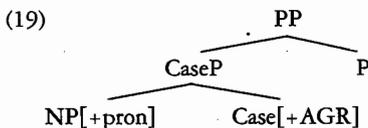
Együtt subcategorizes for an instrumental NP:

- | | |
|---|---|
| (17) a. (<i>én</i>) <i>velem</i> <i>együtt</i>
I INSTR-AGR1sg together
'together with me' | d. (<i>mi</i>) <i>velünk</i> <i>együtt</i>
we INSTR-AGR1pl together
'together with us' |
| b. (<i>te</i>) <i>veled</i> <i>együtt</i>
you(sg) INSTR-AGR2sg together
'together with you(sg)' | e. (<i>ti</i>) <i>veletek</i> <i>együtt</i>
you(pl) INSTR-AGR2pl together
'together with you(pl)' |
| c. (<i>ő</i>) <i>vele</i> <i>együtt</i>
he INSTR-AGR3sg together
'together with him' | f. (<i>ők</i>) <i>velük</i> <i>együtt</i>
they INSTR-AGR3pl together
'together with them' |

Képest subcategorizes for an allative NP:

- | | |
|---|---|
| (18) a. (<i>én</i>) <i>hozzám</i> <i>képest</i>
I ALL-AGR1sg compared to
'compared to me' | d. (<i>mi</i>) <i>hozzánk</i> <i>képest</i>
we ALL-AGR1pl compared to
'compared to us' |
| b. (<i>te</i>) <i>hozzád</i> <i>képest</i>
you(sg) ALL-AGR2sg compared to
'compared to you' | e. (<i>ti</i>) <i>hozzátok</i> <i>képest</i>
you(pl) ALL-AGR2pl compared to
'compared to you(pl)' |
| c. (<i>ő</i>) <i>hozzá</i> <i>képest</i>
he ALL-AGR3sg compared to
'compared to him' | f. (<i>ők</i>) <i>hozzátuk</i> <i>képest</i>
they ALL-AGR3pl compared to
'compared to them' |

These paradigms demonstrate that a pronominal complement of naked Ps occurs within a CaseP. The pronominals may be omitted as an instance of *pro*-drop. Hence, these PPs have the following structure:



Let us now consider whether PPs may be inflected for AGR when they select instead of a pronominal complement a nominal one.

The following phrases exemplify the dressed P *mögött* 'behind' with a nominal complement. This complement has the shape of a full NP, proper name, reflexive anaphor, Wh-phrase, and a universal quantifier:

- | | | | | | |
|---------|---|----|--|----|--|
| (20) a. | <i>a fiú mögött</i>
the boy behind
'behind the boy' | c. | <i>maga mögött</i>
himself behind
'behind himself' | e. | <i>mindenki mögött</i>
everyone behind
'behind everyone' |
| b. | <i>János mögött</i>
John behind
'behind John' | d. | <i>ki mögött</i>
who behind
'behind who' | | |

These examples demonstrate that overt AGR is not spelled out when the complement of a dressed PPs is nominal.

The question arises whether AGR has a null-realization or whether it is completely missing in these cases. In other words, is the syntactic representation of, for instance, (20a) phrase (21a) or phrase (21b)?:

- | | | | |
|---------|--|----|---------------------------------------|
| (21) a. | <i>a fiú mögött-∅</i>
the boy behind-ppAGR3sg | b. | <i>a fiú mögött</i>
the boy behind |
|---------|--|----|---------------------------------------|

The verbal stem lacks overt subject agreement with the third person singular indefinite conjugation (cf. section 4.2.). In this case, a null-morpheme represents AGR which has exactly the same status as any other realization of agreement. As a consequence, *pro*-drop is allowed when a third person pronoun singular subject cooccurs with the indefinite conjugation:

- (22) (Ö) *ad-∅ valamit*
he/she give-AGR3sg something-ACC
'He/she gives something.'

A dressed P without overt AGR, on the other hand, does not refer to a third person pronoun subject. For example, *mögött* means only 'behind' and not 'behind him/her'. Hence, it only denotes its lexical meaning. This implies that a dressed P without overt AGR does not possess a null-realization of this morpheme. It is simply missing in these cases. The adequate syntactic realization of (20a) thus is (21b).

Consequently, in a strict sense it is not even appropriate to speak about 'dressed' Ps when nominal complements are involved. For convenience, however, I will stick to this terminology in these instances as well.

So a dichotomy appears between dressed PPs with a pronominal complement on the one hand and dressed PPs with a nominal complement on the other hand. Only the pronominal complement triggers AGR. The question arises whether further distributional differences exist between these categories. This turns out to be the case: (I) Nominal complements, unlike pronominal ones, may appear with a P to which sublative or delative case-marking has applied, and (II) Pronominal NPs and nominal NPs are case-marked differently within inflected PPs in Turkish.

(I) The sublative or delative case marking of a P is captured by rule 7.2.(19), here repeated as (23):

- (23) *SUBL/DELAT Case-marking*
 $X[+/-path] + -SUBL/DELAT \rightarrow XSUBL/DELAT$ 'to/from X'
 where X = P or *adverb*

The following minimal pairs show that a dressed P feeding rule (23) may not be inflected for AGR:

- | | |
|---|--|
| <p>(24) a. <i>János mögöttre</i>
 John behind-SUBL
 'to behind John'
 b. <i>*(ő) mögöttére</i>
 he behind-ppAGR3sg-SUBL</p> | <p>(25) a. <i>János mögöttől</i>
 John behind-DELAT
 'from behind John'
 b. <i>*(ő) mögöttéről</i>
 he behind-ppAGR3sg-DELAT</p> |
|---|--|

(II) According to Kornfilt (1984), pronominal and nominal complements of Turkish inflected PPs bear genitive and nominative case respectively. Kornfilt accounts for this by assuming the following case-rules:

- (26) a. [pp NP[+pron] P [+AGR]] -> GEN
 b. [pp NP[+nom] P [+AGR]] -> NOM

The following phrases illustrate their application:

- | | |
|--|--|
| <p>(27) a. <i>Abmet</i> hakk[i]n
 Ahmed-NOM about-ppAGR3sg
 'about Ahmed'</p> | <p>b. (<i>senin</i>) hakk[i]n
 you(sg)-GEN about-ppAGR2sg
 'about you(sg)'</p> |
| <p>c. (<i>sizin</i>) hakk[i]n[i]z
 you(pl)-GEN about-ppAGR2pl
 'about you(pl)'</p> | |

Let us now turn to a discussion of naked PPs in which the pronominal complement is replaced by a nominal one.

In the following phrases, this complement is a full NP, proper name, reflexive anaphor, Wh-phrase or a universal quantifier:

- | | |
|--|---|
| <p>(28) a. <i>a hídön</i> át
 the bridge-SUPER over
 'over the bridge'
 b. <i>Jánoson</i> át
 John-SUPER over
 'over John'
 c. <i>magán</i> át
 himself-SUPER over
 'over himself'</p> | <p>d. <i>kin</i> át
 who-SUPER over
 'over who'
 e. <i>mindenkin</i> át
 everyone-SUPER over
 'over everyone'</p> |
|--|---|

These examples show that naked Ps also lack AGR when their complement is nominal.

In conclusion, dressed Ps, as opposed to naked Ps, may be inflected for AGR, provided their complement is pronominal. Furthermore, nominal and pronominal complements of inflected PPs do not only differ with respect to the distribution of AGR. They also display distributional dichotomies when these categories appear with a dressed P inflected for sublative/delative case or when they are complements

of inflected PPs in Turkish. These dichotomies emphasize the relevance of the features [+/-nominal] and [+/-pronominal] for syntax.

The following diagram summarizes the findings of this section:

(29) complement of	AGR on P
dressed P [+pron]	+
dressed P [+nom]	-
naked P [+pron/nom]	-

Let us now turn to case-assignment in PPs.

7.3.2. Case in PP

Let us consider first this phenomenon in dressed PPs:

(30) a. <i>János</i> mögött	b. (ő) mögötte
John-NOM behind	he-NOM behind-ppAGR3sg
'behind John'	'behind him/her'

These examples demonstrate that the NP-complement of a dressed PP displays nominative case. It has the unmarked form. The question arises where this case comes from.

In the standard approach to Case theory (cf. Chomsky 1981), nominative Case is assigned by I[+AGR] (cf. 3.2.(7a)). This rule can, however, only cover the nominative Case with pronominal complements as in (30b), because, as I argued above, only these complements cooccur with a realization of AGR. Therefore, I will adopt the view that the standard nominative Case-assignment rule represents only one of the structural contexts in which nominative Case is licensed.¹³ Let us then assume that nominative Case in Hungarian is the *default case* when it appears in a structural government configuration with a lexical head. As a consequence, dressed Ps govern a *structural* nominative Case.

Let us discuss case-assignment in naked PPs.

Naked Ps may assign a large variety of cases to their complements involving instrumental, sublative, allative, superessive, adessive and ablative:

- (31) *INSTR* by *együtt* 'together', *szembe* 'opposite to', *szemben* 'opposite to' (where?), and *szemközt* 'opposite to' (where? and to where?), *SUBL* by *nézve* 'regarding', *ALL* by *képest* 'compared to', and *közel* 'near', *SUPER* by *által* 'over, across, during', *alul* 'below, under', *át* 'over, across, during' *belül* 'within, inside', *felül* 'over', *innen* '(on) this side', *keresztül* 'over, across, during', *kívül* 'outside', *túl* 'over, across, on the other side', and *végig* 'to the very end', *ADESS* by *fogva* 'as a result of', and *nélkül* 'without', *ABL* by *fogva* 'from' and *kezdve* 'from'

Consider an example of each:

(32) a. <i>valakivel</i> szembe	d. <i>valamin</i> túl
someone-INSTR opposite to	something-SUPER over
'opposite to someone'	'across something'
b. <i>valamire</i> nézve	e. <i>valaminél</i> fogva
someone-SUBL regarding	something-ADESS as a result of
'regarding something'	'as a result of something'

(13) Compare the references in chapter three, note 12 that support this treatment of nominative Case.

- (37) a. azon a hídon át b. azzal a fiúval együtt
 Dem-SUPER Art bridge-SUPER over Dem-INSTR Art boy-INSTR together
 'over that bridge' 'together with that boy'
 c. ahhoz a fiúhoz képest
 Dem-ALL Art boy-ALL compared to
 'compared to that boy'

Let us now consider the dressed PP-Dem. The ungrammaticality of the following examples shows that the dressed PP-Dem patterns differently from the naked PP-Dem:

- (38) a. *az a ház mögé b. *az a ház mögött
 Dem-NOM Art house-NOM behind Dem-NOM Art house-NOM behind
 c. *az a ház mögül
 Dem-NOM Art house-NOM behind

Instead of these phrases, we find that dressed Ps are *doubled* yielding the following pattern:

- (39) *dressed PP-Dem*
 [[Dem-NOM P] [N-NOM P]]

The grammatical counterparts of (38) have the following shape:¹⁴

- (40) a. a mögé a ház mögé
 Dem-NOM behind the house-NOM behind
 'to behind that house'
 b. a mögött a ház mögött
 Dem-NOM behind the house-NOM behind
 'behind that house'
 c. a mögül a ház mögül
 Dem-NOM behind the house-NOM behind
 'from behind that house'

Let us now determine the structure of these phrases.

In a dressed PP-Dem, the P is repeated and it merges with the demonstrative pronoun *az* 'that'. According to Horvath (1981), merging of *az* with a lexical head only applies when the initial sound of the head is a consonant and when *az* is a complement of that head. This suggests that PP-Dem contains in fact two PPs. The leftmost PP consists of Dem and P, while the rightmost PP dominates a full NP and a copy of the same P.

(14) Dressed PP-Dems display several stress patterns. Consider the different stressing in (40b) (' indicates primary stress; " indicates heavy stress):

- (i) a. 'a mögött a ház mögött
 that behind the house behind
 'behind that house'
 b. a 'mögött a ház' mögött
 'behind that house (and not in front of it)'
 c. a mögött 'a ház mögött
 'behind that house (and not behind the shop)'
 d. "a mögött a ház mögött és nem" e mögött
 that behind the house behind and not this behind
 'behind that house, and not behind this one'

In the unmarked case, Dem is assigned primary stress (cf. (ia)). The doubled postpositions bear primary stress if the meaning denoted by them is exclusively referred to (cf. (ib)). The NP-complement is assigned primary stress when it is exclusively referred to (cf. (ic)). Dem is heavily stressed when its opposite location is excluded (cf. (id)).

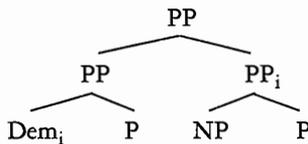
This hypothesis is also supported by the fact that the sublative or delative case-marker must be spelled out on both Ps when a dressed PP-Dem feeds rule (23):

- (41) a. a mögött*(*re*) a ház mögött*(*re*)
 the behind-SUBL the house behind-SUBL
 'to behind that house'
 b. a mögött*(*ről*) a ház mögött*(*ről*)
 the behind-DELAT the house behind-DELAT
 'from behind that house'

The obligatory spelling out of the sublative and delative case-marker in these cases receive a straightforward explanation if the Ps function as independent lexical items to which (23) may apply.

In analogy with my earlier claims about the syntactic structure of embedded clauses, I will assume that the demonstrative pronoun *az* in a dressed PP-Dem is as a kind of anticipatory pronoun (cf. section 4.5.1.). In this construction, however, it is associated with an adjoined PP resulting in the following structure:

- (42) *dressed PP-Dem*



Of course, this structure does not provide an explanation for the following two problems. First, why do dressed PP-Dems not pattern the same way as naked PP-Dems, and the reverse? In other words, why are the phrases in (38) ungrammatical, and why are the following phrases ungrammatical?:

- (43) a. *azon át a hídon át
 Dem-SUPER over Art bridge-SUPER over
 b. *azzal együtt a fiúval együtt
 Dem-INSTR together Art boy-INSTR together
 c. *ahhoz képest a fiúhoz képest
 Dem-ALL compared to Art boy-ALL compared to

Second, why do the structures in (36) and (42) render the same semantics? Both naked and dressed PP-Dems yield a demonstrative construction in the English translation.

I hasten to admit that I do not know the solutions of these problems. However, the structural dichotomy between dressed and naked PP-Dems unambiguously shows that they have a different distribution. As a working hypothesis, it is reasonable to suppose that a successful account of this correlates with the factors causing the other differences between dressed and naked Ps.

7.3.4. Summary

In this section, I classified the Ps in Hungarian into dressed and naked Ps. This classification is lexically determined. I examined three differences between these categories and their maximal projections. (i) Dressed Ps may be inflected for AGR when they select a pronominal complement. As a consequence, *pro*-drop applies in

inflected PPs as well. Naked Ps, on the other hand, may never be inflected. (ii) The complements of dressed Ps appear with the nominative case, whereas the complements of naked Ps appear with a lexical case. The nominative Case governed by dressed Ps is a structural default case. (iii) In the demonstrative construction of the PP, a dressed P must be repeated, unlike a naked P.

The Ps *nélkül* 'without' and *kívül* 'without' are ambiguous between a naked P and a dressed P when they select a pronominal complement. These minimal pairs of the same lexical stems illustrate best that this classification has repercussions for the syntax of these categories.

Nélkül is basically a dressed P. This is clear from the fact that nominal complements of *nélkül* appear with the nominative case:

- (44) *János nélkül*
John-NOM without
'without John'

Further, *nélkül* must be doubled when it appears in a demonstrative construction. Recall that all and only dressed Ps may be doubled in demonstrative constructions:

- (45) a *nélkül a fiú nélkül*
Dem-NOM without the boy without
'behind that boy'

If *nélkül* selects a pronominal complement, it may pattern either as a dressed P (cf. (46a)) or as a naked P (cf. (46b)).¹⁵

- (46) a. (*én*) *nélkülem* I without-ppAGR1sg
'without me'
- b. (*én*) *nálam* *nélkül* I ADESS-AGR1sg without
'without me'

So, if *nélkül* distributes as a dressed P (cf. (46a)), it may be inflected for AGR, its pronominal complement is nominatively marked, and this complement may be *pro*. If *nélkül*, however, distributes as a naked P (cf. (46b)), it may not be inflected, its pronominal complement is assigned lexical (adessive) case, and this complement appears within a CaseP.

Consider now *kívül*, the opposite case of *nélkül*. *Kívül* belongs basically to the category of naked Ps, because its nominal complement is, assigned lexical case, that is superessive:

- (47) **János/Jánoson* *kívül*
John-NOM/John-SUPER without
'without John'

Further, in a demonstrative construction *kívül* patterns as a naked P. It may not be doubled but it selects an NP-Dem:

- (48) a. *a *kívül a fiú kívül* b. *azon a fiún kívül*
Dem-NOM without the boy without Dem-SUPER Art boy-SUPER without
'without that boy'

(15) There is some dialectal variation with the distribution of *nélkül*. István Kenesei (personal communication) informs me that in his dialect it may only pattern as a dressed P.

However, if *kívül* selects a pronominal complement it may distribute as a dressed P as well:

- (49) a. (*én*) *rajtam* kívül
 I SUPER-AGR1sg without
 'without me'
- b. (*én*) *kívülem*
 I withou-ppAGR1sg
 'without me'

In (49a), *kívül* patterns as a naked P. It is inflected for AGR, its pronominal complement bears lexical (superessive) case, and this complement is realized within a CaseP. In (49b), on the other hand, *kívül* distributes as a dressed P. It is inflected for AGR, its pronominal complement is nominatively marked, and this complement may undergo *pro*-drop.

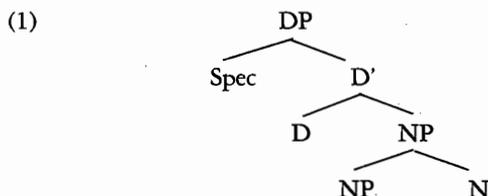
In conclusion, the minimal pairs in (46) and (49) demonstrate that switching of the lexical classification of Ps yields different syntactic properties. The next section discusses a structural asymmetry between PP and NP and its consequences for the syntax of these categories.

7.4. PP and NP

The categories NP and PP in Hungarian have some properties in common. They are head-final maximal projections and their heads may bear AGR. There is, however, a striking difference between these categories. Nouns, contrary to postpositions, have the ability to combine with a *determiner* (D). This section argues that this dichotomy has also a structural concomitant which is responsible for some syntactic differences between NP and PP.

7.4.1. A Structural Dichotomy between PP and NP

Abney (1985) and Fukui and Speas (1986) have argued that NP has in fact two 'heads', a *functional* head and a *lexical* head. D acts as the functional head, and N functions as the lexical head. Abney and Fukui and Speas assume that D, similarly to other X⁰-categories, determines its own X'-projection, a DP. Therefore, NP has the following structure:



Following these references, I will assume that NPs in Hungarian display this structure as well (cf. also Szabolcsi (1986) for this claim). Recall that PPs in Hungarian have structure 7.2.(27), here repeated as (2):¹⁶



(16) Ps may also select DPs but Ds may not combine with PPs.

Observe from a comparison of (1) and (2) that there is a dichotomy in *richness* of structure between NP and PP. The former is embedded in a DP, whereas the latter is not dominated by another category. In the next section, I will show that this structural dichotomy has some implications for the syntax of these categories.

Let us first determine the structure of the *possessive* NP in Hungarian.

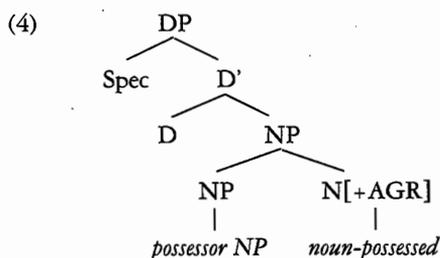
The following phrases exemplify possessive constructions:

- (3) a. a fiú háza
 the boy house-npAGR3sg
 'the boy's house'
- b. az (én) házam
 the I house-npAGR1sg
 'my house'

Szabolcsi (1981, and subsequent papers) has observed that the noun-possessed of a possessive NP is inflected for AGR. For example, *háza* in (3a) displays person-number agreement of the third person singular, and it displays person-number agreement of the first person singular in (3b).

Szabolcsi attributes to AGR phrase-structural prominence. Below I will argue, however, that it is *weak* in the sense of chapter two. As a consequence, this morpheme and the head noun are merged at all levels of representation. Hence, it has no separate position in phrase structure.

This yields then the following structure for possessive NPs:



Let us now turn to a discussion of some differences between PP and possessive NP.

7.4.2. Some Differences between PP and Possessive NP

This section concentrates on some *differences* between PP and possessive NP. These differences bear on *Case theory* (cf. section 7.4.2.1.), *theory of movement* (cf. section 7.4.2.2.), and *binding theory* (cf. section 7.4.2.3.).

7.4.2.1. Case Theory

Szabolcsi (1981) has noted that the possessor NP displays two different case-marked variants. The phrases in (3) exemplify the *nominatively* marked variant, whereas the following phrases show that it may also be marked *datively*:

- (5) a. a fiúnak a háza
 the boy-DAT the house-npAGR3sg
 'the boy's house'
- b. nekem a házam
 I-DAT the house-npAGR1sg
 'my house'

In the literature (cf. Szabolcsi 1981a, subsequent literature, Kenesei 1985e, and Kornai 1985), it has been assumed that AGR assigns nominative Case to the posses-

sor NP. Alternatively, we may also apply the approach of nominative Case argued for in section 7.3.2.

Nominative is the default case in Hungarian when it occurs in a structural government configuration with a lexical head. In that case, the possessor NP receives its nominative Case by being in a structural government relation with the head noun.

If AGR has no phrase-structural prominence, then the alternative approach should be preferred. In general, only lexical items which occupy an independent position in phrase-structure may govern a Case-position.

As to the status of the dative case, there is no consensus. The following argument supports the hypothesis that it is assigned to the possessor NP within the possessive NP.

A possessive NP with a dative possessor is a single maximal projection, just as a possessive NP with a nominative possessor. This can be verified with the help of the focussing test. Focussing may only apply to one single maximal projection and it triggers Inversion with a prefixed verb (cf. 2.1.(28e)).

Compare now the following sentences (F = [Spec, CP]):

- (6) a. [_{CP} [_F A fiú háza] [_{CP} égett le]]
 the boy house-npAGR3sg burned-AGR3sg down
 'It was the house of the boy which burned down.'
 b. [_{CP} [_F A fiúnak a háza] [_{CP} égett le]]
 the boy-DAT the house-npAGR3sg burned-AGR3sg down
 'It was the house of the boy which burned down.'

The prefix *le* remains stranded with the focussing of both variants of the possessive NP.¹⁷ This implies that the dative possessor NP (cf. (6b)), similarly to the nominative possessor NP (cf. (6a)), forms a single maximal projection with its noun-possessed. Therefore, it is reasonable to suppose that the dative case, just as the nominative case, originates from a governor internal to the possessive NP.

The leading idea behind Case theory is that there is a one-to-one correspondence between Cases and governors (cf. Chomsky 1981, and Kayne 1984).¹⁸ Each Case is related to a different governor. Consequently, each Case is assigned in a different structural position.

The nominative Case of the possessor NP is assigned in the [NP, NP] under government by N. Note that there is still only one position left in which the possessor NP can get dative case, namely, the [Spec, DP]. Let us therefore assume that the dative Case of the possessor NP is assigned in this position under government by D.

This is supported by the fact that the order of the possessor NP and the D is reversed with the dative variant of the possessor NP. With its nominative variant, the

(17) This parallelism between the two variants of the possessive NP breaks down if the possessor NP is pronominal. A pronominal dative possessor may not be taken along when the possessive NP is focussed. Compare (6b) with (ib):

- (i) a. [_F Az én házam] égett le
 the I house-npAGR1sg burned-AGR3sg down
 'It is my house that burned down.'
 b. * [_F Nekem a házam] égett le
 I-DAT the house-np-AGR1sg burned-AGR3sg down

(18) There are some exceptions to this idealization. For example, Kayne (1984: ch. 5) argues that V and P in English govern in the same way, that is, both categories may assign Case structurally.

D precedes the possessor NP, whereas it is vice versa with the dative variant (cf. (3) and (5)). Following Szabolcsi (1986e), I will assume that movement of the possessor NP from its base-generated [NP, NP] into the [Spec, DP] accounts for the order of these categories with the dative variant. This moved NP gets the dative Case-features in its landing-site (cf. also the next section).

If this approach to the dative-marking of the possessor NP is on the right track, then we expect that the NP-complement of PP cannot appear with a dative case. The ungrammaticality of the sentences (7b) and (8b) shows that this is indeed the case:¹⁹

- | | |
|---|---|
| (7) a. János mögött
John-NOM behind
'behind John' | (8) a. (én) mögöttem
I behind-ppAGR-1sg
'behind me' |
| b. *Jánosnak mögött(e)
John-DAT behind-ppAGR3sg | b. *nekem mögöttem
I-DAT behind-ppAGR3sg |

In sum, the possessor NP may be marked both nominatively and datively, in contrast to the NP-complement of a PP. The latter may only appear with the nominative case. This dichotomy is due to the fact that possessive NPs, unlike PPs, contain a DP-projection which provides a separate structural position, that is [Spec, DP], for dative-marking by D.

Let us now turn to the theory of movement in relation to possessive NPs and PPs.

7.4.2.2. Theory of Movement

Szabolcsi (1981a) has observed that some types of possessor NPs, such as the Wh-possessor *ki* 'who' or the NP-Dem possessor, may only occur with a dative case.

Let us first examine the case of Wh-possessor NPs.

(I) Observe the following phrases:

- | | |
|--|---|
| (9) a. *[_{DP} a [_{NP} <i>ki</i> háza]]
the who house-npAGR3sg
'whose house?' | b. [_{DP} <i>kinék</i> a [_{NP} <i>t</i> háza]]
who-DAT the house-npAGR3sg
'whose house?' |
|--|---|

According to Szabolcsi (1986e), the Wh-possessor NP *ki* cannot remain in its base-generated [NP, NP] (cf. (9a)) but must be moved into the [Spec, DP] (cf. (9b)).

Furthermore, Szabolcsi observes that such Wh-phrases must land in the Focus-position (= [Spec, CP]), that is, in the canonical position of Wh-phrases in Hungarian (cf. 2.1.(28d)). This may be established in two ways. Either the dative Wh-possessor leaves its possessive NP stranded (cf. (10a)) or the possessive NP is pied-piped (cf. (10b)):

- | | |
|--|--|
| (10) a. [_{CP} <i>Kinek</i> gyújtották meg [_{DP} <i>t</i> a [_{NP} <i>t</i> házát]]]
who-DAT set-AGR3pl on fire perf the house-npAGR3sg-ACC
'Whose house was set on fire?' | b. [_{CP} [_{DP} <i>Kinek</i> a házát] gyújtották meg <i>t</i>]
who-DAT the house-npAGR3sg-ACC set-AGR3pl perf
'Whose house was set on fire?' |
|--|--|

(19) Some poets and writers in the nineteenth century used a dative marked NP-complement in dressed PPs. In modern Hungarian, these constructions are no longer productive (cf. Marác 1986c).

The derivation of these sentences runs as follows.

Suppose that D *L*-marks NP, where L-marking is defined as in 6.4.(2), here repeated as (11):

- (11) *L*-marking: α L-marks β iff α is a lexical category that θ -governs β

This is not an unreasonable assumption, because D determines, for instance, the definiteness of an NP. In that case, NP does not constitute a barrier for movement of the possessor NP into the [Spec, DP]. This then yields (9b). Furthermore, V L-marks its accusative object. In (10), this is the possessive NP *kinék a házát*. Hence, further movement of the dative Wh-possessor into the [Spec, CP] is allowed. This covers the grammatical result in (10a).

In sum, the [Spec, DP] serves as a *landing-site* and an *escape-hatch* for possessor movement. PPs do not possess such a position. Hence, Wh-complements of PPs cannot be scrambled out of their maximal projection (cf. (12a), (13a)). In order to satisfy the requirement that Wh-phrases must land in Focus (= [Spec, CP]), only the pied-piping option is available for PPs (cf. (12b), (13b)):

- (12) a. *János [CP [F *min*] futkározott [pp *t kívül*]]
 John what-SUPER ran-AGR3sg about outside
 b. János [CP [F [pp *min kívül*]] futkározott *t*]
 John what-SUPER outside ran-AGR3sg
 'Outside what was John running about?'
 (13) a. *Mari [CP [F *ki*] állt [pp *t mögött*]]
 Mary who stood-AGR3sg behind
 b. Mari [CP [F [pp *ki mögött*]] állt *t*]
 Mary who behind stood-AGR3sg
 'Behind who did Mary stand?'

Note, incidentally, that the obligatory movement of *who*-possessor NPs does not apply for logistic reasons like Fiengo and Higginbotham's (1981) Specificity Constraint.

This constraint states that a specific NP may not contain a quantified expression. However, other quantified possessor NPs may have both a nominative and a dative variant such as *which*-possessor NPs:

- (14) a. [NP *melyik fiú* anyja]
 which boy mother-npAGR3sg
 'which boy's mother?'
 b. [DP *Melyik fiúnak* az [NP *t anyja*]]
 which boy-DAT the mother-npAGR3sg
 'Which boy's mother?'

(II) The NP-Dem possessor may only appear with the dative case, like a *who*-possessor NP:

- (15) a. *[NP [NP-Dem *az a fiú*] anyja]
 that the boy mother-npAGR3sg
 b. [DP [NP-Dem *annak a fiúnak*] [NP *t az anyja*]]
 that-DAT the boy-DAT the mother-npAGR3sg
 'that boy's mother'

Recall that an NP-Dem may not be embedded in a dressed PP. Hence, the ungrammaticality of 7.3.(38b), here repeated as (16):

- (16) *[PP [NP-Dem az a ház] mögél]
 that the house behind

The dative-marking of NP-Dem cannot save this phrase, like in the case of a possessive NP (cf. (15)). Rather, the grammatical counterpart of a PP-Dem involves doubling of the P (cf. 7.3.(40b)):

- (17) a. *[PP-Dem annak a háznak mögött(e)]
 that-DAT the house-DAT behind-ppAGR3sg
 b. [PP-Dem a mögött a ház mögött]
 that behind the house behind
 'behind that house'

The dichotomy between the pair in (15) on the one hand and the pair (16)-(17a) on the other hand is covered if possessive NPs but not PPs possess a Spec of DP which serves as a landing-site and which may serve as a Case-position for NP-Dem possessors.

So in general +NP-complement of a PP may not be separated from its head linearly. However, in some cases a P and its complement may form a discontinuous category:

- (18) János át ment a hídon
 John across went the bridge-SUPER
 'John went across the bridge.'

Following Ackerman (1984), I will assume these categories are not derived by an application of move- α but they are the result of a lexical 'restructuring'. This affects the V and the P yielding a complex verb (V') which subcategorizes for an NP-complement (cf. section 4.4.). The following arguments provide empirical evidence for this.

(i) This lexical restructuring is dependent on the *lexical* properties, like subcategorization requirements, of these categories.

The verb *megy* 'go', which is directional, subcategorizes for a directional PP in (18). This allows the formation of a complex verb that governs an NP with lexical suppressive. The formation of a complex verb is blocked, however, if the PP is a time adverbial. As a consequence, the P and its NP-complement cannot be separated:

- (19) a. János ment [PP egy héten át]
 John walked-AGR3sg a week-SUPER for
 'John walked for a week.'
 b. *János [V-át ment] egy héten
 John for walked-AGR3sg a week-SUPER

(ii) The lexical combination of P and V may feed *morpholexical* rules such as Nominalization with the suffix *-ás/és* (cf. 3.3.3.(II)):

- (20) a. [NP az átmenés] a hídon]
 the across-go-NOMI the bridge-SUPER
 'The going across the bridge'

- b. [_{NP} a hídon való átmenés]
 the bridge-SUPER be-part.pres. across-go-NOMI
 'The going across the bridge'

In (20), the attachment of *-és* to the complex verb *átmegy* turns it into the noun *átmenés*. This noun projects into an NP with its NP-complement to the right (cf. (20a)). The insertion of the dummy participium *való* 'being' may transform this phrase into a left-branching structure (cf. (20b)). Note that in both cases the NP-complement gets a lexical superessive case, similarly to the NP-complement of the complex verb *átmegy* in (18).

(iii) Ackerman (1984) has observed that the verb *kerekedik* 'arise' and the dressed P *fölé* 'above' may constitute a complex verb:

- (21) a. Péter kerekedett [_{pp} János fölé]
 Peter arose-AGR3sg John above
 'Peter beat John.'
 b. Péter [_v föléje kerekedett] Jánosnak
 Peter above-ppAGR3sg arose-AGR3sg John-DAT
 'Peter got the better of John.'

Observe from the comparison between (21a) and (21b) that the dressed P is inflected for AGR of the third person singular, the P-V combination receives an idiomatic sense and the NP-complement appears with a lexical dative in the complex verb construction. If this verb would be created by an application of *move-α*, then it remains puzzling why its base-generated variant cannot exist:

- (22) *Péter kerekedett [_{pp} Jánosnak fölé(je)]
 Peter arose-AGR3sg John-DAT above-ppAGR3sg

(iv) Consider the following sentences:

- (23) a. János [_v neki ment] a falnak
 John into went-AGR3sg the wall-DAT
 'John run into the wall.'
 b. János a falnak [_v neki ment]
 John the wall-DAT into went-AGR3sg
 c. *János [_v neki ment] nekem
 John into went-AGR3sg DAT-AGR1sg
 d. János [_v nekem ment]
 John DAT-AGR1sg went-AGR3sg
 'John run into me.'

The lexical item *neki* is ambiguous between a prefix 'into' and an inflected dative CaseP meaning 'to him' (see, section 4.4.2.). In both cases, *neki* patterns as a VM in the sense of Ackerman and Komlósy (1984).

In (23a) and (23b), the prefix *neki* combines with the verb *megy* into the complex verb *nekimegy*. This verb governs a lexical dative NP. If this NP is a pronominal item, then the construction yields an ungrammatical result (cf. (22c)). However, the spelling out of AGR on *neki* renders this sentence grammatical (cf. (22d)). This implies that it may satisfy subcategorization requirements when it is inflected for AGR.

Observe now the following paradigm with the dressed P *mögé* 'behind':

- (24) A fiú [_{pp} *az asztal mögé*] állt
 the boy the table behind stood-AGR3sg
 'The boy went and stood behind the table.'
- b. A fiú [_v *mögé* állt] az asztalnak
 the boy behind stood-AGR3sg the table-DAT
 'The boy went and stood behind the table.'
- c. *A fiú [_v *mögé* állt] nekem
 the boy behind stood-AGR3sg DAT-AGR3sg
 'The boy went and stood behind me.'
- d. A fiú [_v *mögém* állt]
 the boy behind-ppAGR1sg stood-AGR3sg
 'The boy went and stood behind me.'

Mögé may form a complex verb with the verb *áll* (cf. (24b)). This verb assigns its NP-complement a lexical dative case. Note that this NP may not be a pronominal item (cf. (24c)) but it is expressed by AGR on the P (cf. (24d)). Hence, an inflected P patterns the same as an inflected CaseP (cf. (23)). The parallel distribution between these categories supports the hypothesis that *mögé* act as a VM in this paradigm. Hence, the discontinuous PP in (23b) is the result of a lexical rule.

Summarizing, the possessor NP may be moved within its possessive NP and it may be extracted from this category, unlike the NP-complement of a PP. This dichotomy is due to the fact that possessive NPs but not PPs contain a DP-projection which provides a landing-site and an escape-hatch for the moved possessor NP. An NP-complement of a PP, however, may get 'scrambled' out of this category only when its head has already merged with a verb in the lexicon.

7.4.2.3. Binding Theory

This section examines binding theory with respect to PPs and possessive NPs. Let us first discuss binding with possessive NPs.

Consider the following sentences:

- (25) a. ?**János látta* [_{DP} a [_{NP} *maga* anyját]]
 John saw-AGR3sg the himself mother-npAGR3sg-ACC
 'John saw his mother.'
- b. A *fiúk látták* [_{NP} *egymás* anyját]
 the boys saw-AGR3pl each other mother-npAGR3sg-ACC
 'The boys saw each other's mothers.'

These sentences demonstrate that lexical items which meet Binding Principle A (cf. 5.3.4.(3a)) do not pattern alike in the [NP, NP] position of a possessive NP.²⁰

(20) This is also the case in English (cf. (i)) and Dutch (cf. (ii)):

- (i) a. **John saw himself's mother*
 b. *The boys saw each other's mother*
- (ii) a. **Jan zag zichzelf's moeder*
 John saw himself's mother
 b. *De jongens zagen elkaars moeder*
 The boys saw each other's mother

Reflexives are not allowed in the complement position of possessive NPs (cf. the (a)-sentences), in contrast to reciprocals (cf. the (b)-sentences).

Reflexive anaphors are not allowed in this position (cf. (25a)), unlike reciprocal anaphors (cf. (25b)).²¹

Consider now the distribution of lexical items which are restricted by Binding Principle B (cf. 5.3.4.(3b)).

Compare the following sentence:

- (26) *János látta* [DP az [NP ?**ö*/pro anyját]]
 John saw-AGR3sg the he mother-npAGR3sg-ACC
 'John saw his mother.'

This sentence demonstrates that an overt pronoun yields a rather ungrammatical result when it is bound in the [NP, NP] position of the possessive NP. This has, however, nothing to do with restrictions on binding theory but is an instance of the *Avoid Pronoun Principle* (cf. section 4.2.2.). An overt pronoun is omitted when it is recoverable from AGR.

Hungarian is *pro*-drop in possessive NPs (cf. section 5.3.4.3.). AGR in possessive NPs has the ability to sanction *pro* in the position of the possessor NP. Hence, it is the pronominal item relevant for binding theory. Note that *pro* may be bound by a c-commanding antecedent within possessive NPs. This antecedent may also be a quantified expression (cf. section 5.3.4.3.):

- (27) a. *Ki látta* [DP az [NP *pro* anyját]]
 who saw-AGR3sg the he mother-npAGR3sg-ACC
 'Who saw his mother?'
 b. *Mindenki látta* [DP az [NP *pro* anyját]]
 everyone saw-AGR3sg the his mother-npAGR3sg-ACC
 'Everyone saw his mother.'

The following descriptive generalizations capture the distribution of anaphors and pronominals in possessive NPs:

- (28) a. *Anaphors*: Reciprocals are allowed in the [NP, NP] position of possessive NPs, reflexives are not
 b. *Pronominal*: *pro* can be bound by an antecedent outside the possessive NP

(21) The reflexive anaphor *maga* consists of the stem *mag-*, which originally meant 'body', and person-number agreement. This phrase can sanction a *pro*-complement:

- (i) (*én*) *magam*
 I self-AGR1sg
 'myself'

Instead of *maga*, the anaphor *saját* 'his own, her own' must be employed to render (25a) grammatical:

- (ii) *János lattá* [DP a [NP *saját* anyját]]
 John saw-AGR3sg the his own mother-npAGR3sg-ACC
 'John saw his own mother.'

Saját may also be inflected for AGR. The pronoun, however, may not be spelled out:

- (iii) az (**én*) *sajátom*
 the I own-AGR1sg
 'my own'

Besides simple reflexive anaphors, like *maga* and *saját*, Hungarian also possesses some complex anaphors, such as *sajátmaga* (his own-himself, her own-herself) 'he himself, she herself', or *önmaga* 'he himself, she herself'. These anaphors often function as intensifiers. Their distribution requires further investigation.

Let us now discuss binding in PPs. Consider first the case of dressed PPs. Dressed PPs are only inflected for AGR if their NP-complement is pronominal. Hence, it is absent with anaphoric complements.

Compare the following sentences:

- (29) a. *János* lenézett [pp *maga* mellé]
 John down-looked-AGR3sg himself beside
 'John looked down beside *himself*.'
- b. A *fiúk* lenéztek [pp *egymás* mellé]
 the boys down-looked-AGR3pl each other beside
 'The boys looked down beside *each other*.'

These sentences show that both a reflexive (cf. (29a)) and a reciprocal (cf. (29b)) may be bound in dressed PPs.

Let us replace the anaphor by a pronominal. The pronominal item relevant for the binding theory is *pro* with dressed PPs, like with possessive NPs. Consider:

- (30) a. **János* lenézett [pp *pro* melléje]
 John down-looked-AGR3sg he beside-ppAGR3sg
 'John looked down beside *him*.'
- b. **Ki* nézett le [pp *pro* melléje]
 who looked-AGR3sg down he beside-ppAGR3sg
 'Who looked down beside *him*.'
- c. **Mindenki* lenézett [pp *pro* melléje]
 everyone down-looked-AGR3sg he beside-ppAGR3sg
 'Everyone looked down beside *him*.'

These sentences demonstrate that *pro* must be disjoint in reference with an antecedent outside the PP. Let us turn to naked PPs. Consider first the distribution of anaphors:

- (31) a. *János* becsületes [pp *magával* szemben]
 John honest himself-INSTR opposite
 'John is honest with *himself*.'
- b. A *fiúk* becsületesek [pp *egymással* szemben]
 the boys honest each other opposite
 'The boys are honest with *each other*.'

Both the reflexive and reciprocal may be bound in the complement position of a naked PP. Let us substitute a pronominal for the anaphors:

- (32) a. **János* becsületes [pp *vele* szemben]
 John honest he-INSTR opposite
 *'John is honest with *him*.'
- b. **Ki* becsületes [pp *vele* szemben]
 who honest he-INSTR opposite
 *'Who is honest with *him*.'
- c. **Mindenki* becsületes [pp *vele* szemben]
 everyone honest he-INSTR opposite
 *'Everyone is honest with *him*.'

Note from this paradigm that a pronoun cannot be coreferential with a c-commanding antecedent.

Let us summarize the distribution of binding phenomena with PPs. The following generalizations hold both for dressed and naked PPs:

- (33) a. *Anaphors*: Reflexives and reciprocals may appear in the [NP, PP] position of PPs
 b. *Pronominal*: A pronominal in PPs (*pro* in dressed PPs and overt pronoun in naked PPs) is disjoint in reference with an antecedent outside the PP

Note from a comparison between (27) and (32) that an anaphor, except the reciprocal, is in complementary distribution with a pronominal. A reflexive anaphor, unlike *pro*, may not be bound in possessive NPs. In PPs, we find the opposite. How do we account for this distribution?

Chomsky (1981) characterizes the locality conditions for bound anaphors and pronominals in terms of the notion *governing category*. We will define governing category as follows:

- (34) *Governing Category*: α is a governing category for β if and only if α is the minimal IP (CP) or NP containing β , a governor of β , and a SUBJECT accessible to β

SUBJECT includes AGR of finite sentences, the subject of an infinitive sentence and the complement (i.e. genitive specifier) of an NP. Furthermore, it is an opacity factor for binding theory when it acts as the accessible SUBJECT.²²

The Binding Principles for anaphors and pronominals are the following (cf. section 5.3.4.):

- (35) a. *Binding Principle A*: An anaphor must be bound in its governing category
 b. *Binding Principle B*: A pronominal is free in its governing category

These principles reflect the complementary distribution between bound anaphors and pronominals. An anaphor must be bound precisely in the domain in which a pronominal is free.

Let us first determine what the governing category is for anaphors and pronominals in Hungarian PPs and possessive NPs.

(32) does not distinguish between dressed and naked PPs. In both types of PPs, an anaphor may be bound by a higher antecedent and a pronominal must be disjoint in reference with this antecedent. Hence, AGR does not function as an accessible SUBJECT in PPs. It does not create an opaque domain. This means that the governing category for bound items in PPs is the finite sentence which contains the PP. The subject of this sentence functions as the accessible SUBJECT.

From this it follows that the anaphors in (29) and (31) are bound in their governing category, i.e. CP, satisfying Binding Principle A. Hence, these sentences are grammatical. The pronominals in (30) and (32) are bound in their governing category, i.e. CP, as well. This yields, however, a violation of Binding Principle B rendering these sentences ungrammatical.

(22) Accessibility is based on the following filter

(i) *I/I condition*

*[α ... β ...] where α and β bear the same index

The notion of accessible is defined as follows:

(ii) α is accessible to β if and only if β is in the c-command domain of α , and assignment to β of the index of α would not violate (i)

Let us consider now the governing category for anaphors and pronominals in possessive NPs.

Generalization (28a) states that a split occurs between reflexives and reciprocals in possessive NPs. Reciprocals are allowed, in contrast with reflexives. Hence, the former pattern in the same way as reciprocals in PPs (cf. (33a)). AGR therefore is not an accessible SUBJECT in possessive NPs either.

Note furthermore that the structure of possessive NPs with reflexives differs fundamentally from the structure of such NPs with reciprocals (cf. (25a) and (25b)). The former contains a D, unlike the latter. The following sentences show that this determiner may not be omitted in possessive NPs with reflexives but it may not be spelled out in possessive NPs with reciprocals:

- (36) a. **János látta* [_{NP} *maga* anyját]
 John saw-AGR3sg himself mother-npAGR3sg-ACC
 b. ?**A fiúk látták* [_{DP} *az* [_{NP} *egymás* anyját]]
 the boys saw-AGR3pl the each other mother-npAGR3sg-ACC

This suggests that possessive NPs with reflexives are DPs but that possessives with reciprocals are simple NPs.²³

If D acts as an accessible SUBJECT, the generalizations in (33) fall into place. The governing category for reflexives in possessive NPs is DP, because D may function as an accessible SUBJECT. Observe now that there is no suitable antecedent available in that category, yielding a violation of Binding Principle A. Hence, the ungrammaticality of (25a).

The governing category for small *pro* in possessive NPs is the same as for the reflexive. This implies that *pro* is free in its governing category, that is, DP, satisfying Binding Principle B. As a consequence, the sentences in (26) and (27) are grammatical.

The governing category for the reciprocal in possessive NPs cannot be DP. Structurally, such possessive NPs are, by absence of D, NPs. Therefore, the finite sentence containing this NP functions as the governing category for a reciprocal in a possessive NP. In this sentence, the reciprocal can find an antecedent, namely, the subject. This satisfies Binding Principle A, yielding the grammatical sentence (25b).

So far I have argued that D but not AGR is an opacity factor for binding theory in Hungarian. The question then arises how we can account for this result without making ad-hoc stipulations.

Suppose we allow an extension of the notion *subject* in the sense of Chomsky (1981: 38). According to this concept, a subject is an NP in a configuration [_β NP XP], where XP stands for any maximal projection. Let us assume now that not only NPs but all categories at the position of NP are a structural subject in this configuration.

(23) The former claim is also supported by the fact that an anaphor may not appear as a dative possessor NP:

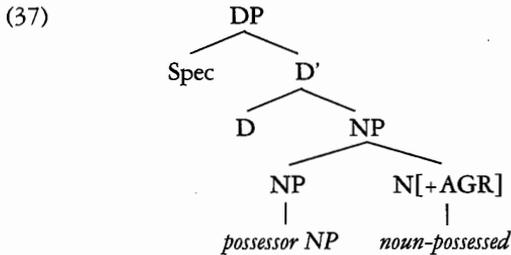
- (i) **János látta* [_{DP} *magának* az [_{NP} *t* anyját]]
 John saw-AGR3sg himself-DAT the mother-npAGR3sg-ACC

This sentence is ruled out as a Binding Principle A violation, because the trace of *maga*, being anaphoric, is not bound in its governing category NP.

The claim with respect to the structure of possessive NPs with reciprocals is somewhat weakened by the fact that (36b) improves when the reciprocal appears as a dative possessor NP:

- (ii) ?*A fiúk látnák egymásnak* (az) anyját
 the boys saw-AGR3pl each other-DAT the mother-npAGR3sg-ACC

Therefore, D is a structural subject in possessive NPs. Compare 7.4.(4), here repeated as (37):



In this structure, D is a sister of the topmost NP. Hence, it is a subject in the extended sense.

Let us incorporate this notion of subject into binding theory. In the literature, it has been claimed that different categories may be opacity factors across languages including, among others, *I* in English (cf. Chomsky 1981), *C* in Dutch (cf. Koster 1987), and *AGR* in Turkish IPs, and NPs, (cf. George and Kornfilt 1981). It is of course rather unattractive from a theoretical point of view to have a list with various unrelated opacity factors. The comparison between *AGR* in Turkish NPs and Hungarian NPs may shed some light on what kind of generalization is involved.

Kornfilt (1984) has argued that a full-fledged *AGR* in Turkish heads the category which contains it. As a consequence, *AGR* assigns (genitive) Case and it acts as an accessible SUBJECT in NPs. *AGR* in Hungarian NPs, however, does not have these properties.

Note that these differences correlate with the fact that *AGR* in Turkish but not in Hungarian has phrase-structural prominence, that is, it is a structural subject in the extended sense. Suppose now that this category may function as an accessible subject. Hence, *AGR* in Turkish NPs is an opacity factor, in contrast with its Hungarian counterpart.

This interpretation of accessible subject thus provides some insight into the question why various types of categories, such as *I* in English, *C* in Dutch, *D* in Hungarian, and *AGR* in Turkish may be opacity factors. These categories are structural subjects in the extended sense.

7.4.2.4. Summary

This section examined some differences between PPs and possessive NPs. The NP-complement of possessive NPs may be marked dative, it may be extracted from its category, and it may not be a reflexive anaphor, unlike the NP-complement of PPs. These differences originate from the fact that possessive NPs, contrary to PPs, may contain a DP, the projection of a D. The Spec of DP provides a Case-position in which dative Case-assignment applies, and it serves as a landing-site and escape-hatch for moved possessor NPs. Furthermore, the D, being external to the NP, is a structural subject functioning as an opacity factor for binding theory.

AGR does not act as an accessible SUBJECT in Hungarian.²⁴ It cannot turn an NP or PP into an opaque domain, contrary to AGR in Turkish. Hence, it does not have phrase-structural prominence, unlike in Turkish. This indicates that we have to do with a cliticized morpheme in Hungarian. In the next section, I will provide support for this claim by comparing inflected PPs in Hungarian and Irish.

7.5. A Typology of Inflected PP

In the preceding section, I argued that AGR in Hungarian has no phrase-structural prominence. The question then arises what the status of this morpheme is in this language.

I will demonstrate that AGR is *agreement* in a traditional sense. Its function is to reflect the person-number categories of the NP-complement on the head. I will provide empirical evidence for this hypothesis by examining a dichotomy between inflected PPs in Hungarian and Irish.

In Hungarian, AGR in inflected PPs may always cooccur with an overt complement, provided that it is a pronominal (cf. section 7.3.1.):

- (1) a. (én) mögöttem b. (ő) mögötte c. János mögött
 I behind-ppAGR1sg he behind-ppAGR3sg John behind
 'behind me' 'behind him' 'behind John'

McCloskey and Hale (1983) have observed that Irish displays so-called '*pronominal prepositions*'. These are simply prepositions inflected for AGR with their pronominal subjects (cf. (2b) and (3b)). AGR may not cooccur with an overt complement in such PPs. Hence, the illformedness of (2c) and (3c):

- (2) a. le Máire (3) a. le iad/siad
 with Mary with them/they
 'with Mary'
 b. léi b. leofa
 with-AGR3sg with-AGR3pl
 'with her' 'with them'
 c. *léi Máire c. *leofa iad/said
 with-AGR3sg Mary with-AGR3pl them/they
 (Hale and McCloskey (1984), (41))

These examples show that there is a complementary distribution between an overt subject NP-complement and AGR in inflected PPs.

(24) CasePs with a *pro*-complement pattern the same as dressed PPs. A *pro* subject is disjoint in reference to a c-commanding antecedent:

- (i) a. *János beszéit [_{CaseP} *pro* róla]
 John spoke-AGR3sg he DELAT-AGR3sg
 *'John spoke about *him*.'
 b. *Ki beszéit [_{CaseP} *pro* róla]
 who spoke-AGR3sg he DELAT-AGR3sg
 *'Who spoke about *him*.'
 c. *Mindenki beszéit [_{CaseP} *pro* róla]
 everyone spoke-AGR3sg he DELATG-AGR3sg
 *'Everyone spoke about *him*.'

This paradigm also supports the claim that AGR is not an opacity factor in Hungarian.

Hale (1988) treats this merging of AGR and P as an instance of Incorporation in the sense of Baker (1988). The person-number inflection is a pronominal heading a DP in the complement position of PP. This pronominal head may move to the head of the PP as an instance of head-movement. Hence, AGR in inflected PPs is identical with the NP-complement.

Hale's analysis immediately accounts for the fact why a complement may not be overtly present. Incorporation in Irish is the result of a *syntactic* rule which leaves a trace in the complement position of the PP. This excludes the realization of an overt syntactic NP in that position.

If AGR in Irish is affected by a syntactic rule, then this cannot be the case in Hungarian. Therefore, the merging of AGR and P is a *lexical* rule in that language. With inflected PPs, it is conditioned by the feature [+pron]. Only pronominals may trigger AGR in this category.

AGR in Hungarian does not differ from its counterpart in Irish in terms of the morphology of incorporation. Lexical and syntactic incorporation, the same morphological forms. The difference is that lexical incorporation cannot leave a trace, since only syntactic rules can produce traces. Hence, the possibility of spelling out an overt NP in Hungarian but not in Irish.

In conclusion, the status of AGR in Hungarian PPs is different from the status of prepositional inflection in Irish. In the latter, inflection is literally identified with the argument. It has been incorporated from the complement position in syntax. In the former, on the other hand, inflection merely agrees with the subject complement and it is already merged with the head in the lexicon.

This then yields a *typology* of inflected PPs. In languages with a syntactically incorporated AGR, the NP-complement may not be spelled out, whereas in languages with a lexically incorporated AGR, an overt NP-complement may cooccur with this morpheme. Irish provides an instance of the former type. Hungarian, on the other hand, is an instance of the latter type.

7.6. Conclusions

This chapter provided empirical evidence for the following claims:

(i) The syntax of PPs and NPs unambiguously demonstrates that maximal major categories are specified as '*head-final*' in Hungarian with respect to the Head Parameter. This supports the hypothesis that Hungarian is an SOV-language (cf. section 2.2.).

(ii) PPs and NPs differ in *richness* of structure. NPs may contain a D which sets up its own X'-projection, a DP. This is responsible for the fact that (possessive) NPs pattern differently from PPs in relation to Case theory, the theory of movement, and binding theory.

(iii) Furthermore, I isolated the properties of AGR in Hungarian by comparing dressed PPs, naked PPs, and possessive NPs. It displays the following properties:

(a) It has no phrase-structural prominence. In other words, AGR does not function as the head of the category which contains it.

- (i) AGR is not a structural Case-assigner, because a structural nominative Case also occurs in dressed PPs where it is lacking (cf. section 7.3.2.). Hence, a rule for nominative Case-assignment is independently required in this context. Furthermore, if AGR acts as the head of a category it assigns genitive Case, as in Turkish (cf. Kornfilt 1984), rather than nominative Case.

- (ii) AGR does not function as an accessible SUBJECT for binding theory (cf. section 7.4.2.3.). It is an opacity factor only when it heads a category, like in Turkish (cf. Kornfilt 1984).

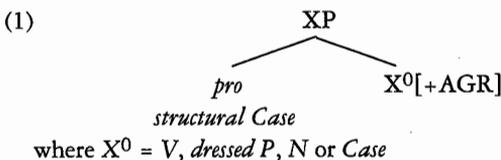
(b) AGR in Hungarian is *agreement* in a traditional sense.

- (i) It merely reflects the person-number features of the subject NP-complement. AGR is not the argument itself, such as in Irish (cf. section 7.5.). Hence, it may cooccur with an overt NP. This implies that the merging of AGR and an X^0 is a lexical phenomenon.

- (ii) These properties support the hypothesis that person-number complexes are *weak* in Hungarian (cf. chapter two). They are bound morphemes that must merge with a lexical category. Therefore, these complexes cannot determine an X' -projection by their own.

(c) AGR identifies a non-overt *pro* subject.

- Small *pro* is allowed in dressed but not in naked PPs. This supports Rizzi's (1986) theory on the *local recovery* of *pro* (cf. section 4.2.4.). The feature specification of *pro* is licit in dressed PPs, because it is recoverable from AGR on the P (cf. section 7.3.1.). The structural sanctioning of *pro* is also covered in dressed PPs. Dressed Ps assign a structural (nominative) Case to their NP-complements (cf. section 7.3.2.). Therefore, the following configuration captures the distribution of *pro*-drop in Hungarian:²⁵



(25) É. Kiss (1987a) assumes that long Left Dislocation involves a resumptive *pro* at the empty argument position (cf. chapter 6, note 5 for discussion of this phenomenon). This occurrence of *pro* does not correspond with its distribution in Hungarian (cf. (1)). Since the antecedent (the long left-discolated NP) of this empty category is not its structural sister. Hence, either Rizzi's (1986) theory of *pro* is too restrictive or long Left Dislocation does not involve small *pro*. I will leave this problem for further research.

8. GENERAL CONCLUSIONS

Up until recently the study of Hungarian has been guided by the view that it is a language with rather specific properties which do not turn up in other languages. I will refer to this as the *Hungarian-as-a-different-language-doctrine*. This doctrine originates from a mixture of cultural, historical and linguistic factors.

Under the influence of romanticism, a national movement arose in nineteenth century Hungary, which was in search of the own identity of the Hungarian people. One way to reach this goal was to stress the special character of the Hungarian language. This tendency was strengthened by the fact that Hungarian, a language of Finno-Ugric origin, was surrounded by non-related Germanic, Slavic and Romance languages.

Staal (1986: 274-275) noted that the western tradition with respect to the study of language has been word-oriented. Language has been considered as a collection of words. De Haan (1988), for example, notes that this view has strongly determined the linguistic research on the West-Germanic language Frisian up till quite recently.

In Hungary, a country belonging to the western cultural sphere, this view has been popular as well. This may be observed from the fact that grammar books on Hungarian mainly contain long lists of morphological paradigms. It is often claimed that this covers the whole language-structure.

These cultural historical factors have been reinforced by some striking properties of Hungarian, such as free word order, its agglutinative nature and the fixed Focus-position, which are often absent from familiar European languages.

In recent theoretically oriented research, a further pitfall was the fact that it was confronted almost exclusively with English. It was, however, overlooked that the position of English among the Germanic languages is rather unique (cf. Koster 1988). Only English has 'strong' auxiliaries, no movement of the main verb, and so on. Syntactically, Hungarian resembles rather the Germanic languages Dutch, Frisian and German. Hence, the comparison of Hungarian with these or the Slavic languages makes it look far less "exotic".

The Hungarian-as-a-different-language-doctrine has been most clearly represented in the work of É. Kiss. According to É. Kiss, the role of phrase structure in Hungarian is *fundamentally* different from its role in English. She claims (cf. É. Kiss 1987a: 250) that: "In the type represented by English, phrase structure configurations encode lexical structure, and logical relations are expressed on a virtual level, in the type of languages represented by Hungarian, phrase structure encodes logical relations, and lexical structure exists merely in the form of a virtual structure (if at all)." Thus, according to this view, the phrase structure of Hungarian does not ex-

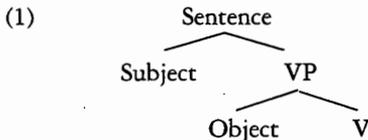
press the familiar structural subject-predicate partitioning of the sentence, as in English.

It was argued in this study that the treatment of Hungarian-as-a-different-language is rather unmotivated for both theoretical and empirical reasons. Therefore, the setting of "deep" parameters, like Configurationality Parameters, which have the effect of destroying the structural subject-predicate partitioning of the sentence, should be rejected.

Our approach was guided by *the idea of an abstract and fairly uniform underlying structure across languages*. This research strategy has proven to be fruitful for the study of UG. We defended the claim that all languages have a similar phrase structure at the proper level of abstraction. From this hypothesis an insightful and empirically motivated analysis of Hungarian phrase structure ensues.

The idea of an abstract and fairly uniform underlying structure across languages dictates Hungarian to be configurational, because configurational languages are well-attested. This represents the null-hypothesis, although some of its properties, like subject-object symmetries, are apparently in conflict with such a structure.

In a configurational phrase structure, the subject occupies a different position than the object. The object is dominated by the VP, whereas the subject is external to this maximal projection:



Languages with this structure display subject-object asymmetries. These phenomena also appear in Hungarian (cf. chapter five). This indicates that its phrase structure is configurational.

It is rather surprising that subject-object asymmetries have been reported so poorly in the linguistic literature of Hungarian, particularly, if we take into account that they probably belong to the best documented language-universals.¹ É. Kiss (1981c) observed an asymmetry with reflexive binding, and Horvath (1981) did the same with WCO. Apart from the cases listed in chapter five, no other convincing subject-object asymmetry has been discussed.² This is, in my view, due to the Hungarian-as-a-different-language-doctrine. The idea of an abstract and fairly uniform underlying structure, however, leads one to search for subject-object asymmetries quite naturally. By adopting this approach, it is therefore to be expected that these phenomena will turn up in all natural languages.³

In this thesis, I argued that the real challenge offered by the 'non-configurational' or 'free' word order languages is to account for the parallel occurrence of a cluster of subject-object asymmetries and subject-object symmetries. It is extremely unlikely that the properties of these clusters will be covered by the parametrization of one module, because they are heterogeneous in nature and they sometimes affect one and the same module. Therefore, it seems to me, only an articulated theory of UG will be able to account for these phenomena.

For example, in Hungarian subject-object symmetries are found with respect to superiority effects and *that*-trace phenomena, although the subject is structurally prominent to the object in phrase structure. This apparent contradiction may arise, however, because the binding domain for both subject and object Wh-traces is similar, namely CP (cf. section 5.4.).

Free word order phenomena have been captured in early generative grammar by a stylistic rule, that is "scrambling", applying at PF (cf. Ross 1967). This has proved to be a rather trivial hypothesis. It cannot explain, for instance, why in some languages, like Hungarian or Japanese, scrambling applies almost freely, but it is blocked in others, such as English or Navajo. Scrambling furthermore suggests that word order is rather unconstrained in languages in which it applies.

In Hungarian, this is clearly not the case. Hungarian displays all sorts of restrictions on word order. It has a neutral SVO-order, a fixed Focus-position, quantifiers strung together to the left of the verb, complex verbs exhibit a verb-final order, and maximal projections are head-final (cf. chapter two). Moreover, scrambling as a PF-rule has also been falsified empirically. For example, the fact that it affects the interpretation of bound pronouns clearly demonstrates that scrambling is not a PF-rule but a syntactic rule (cf. section 5.3.4.3.).

Horvath (1981) was the first who tried to restrict 'freedom' of word order in Hungarian by syntactic conditions on operations like adjunction. In this study, I have added two other sources for freedom of word order, namely CP-recursion and V-movement. It remains to be investigated whether this is correct and, if so, how further restrictions can be made. For example, suppose that the evaluation metric of X'-syntax determines the directionality of adjunction. In that case, only leftward adjunction would be possible in Hungarian.

É. Kiss (1987a: 187) proposes the following hierarchy to systematize the extensive morphological case-system in Hungarian:

- (2) NOM > ACC > DAT > INSTR > ADVERBIAL

É. Kiss assigns this hierarchy a *special* status in the grammar of Hungarian. According to É. Kiss, it is an auxiliary device which takes over the role of the non-configurational phrase structure when this is unable to account for syntactic relations.

In this study, however, we further elaborated on Van Riemsdijk (1982) who in turn relies on the insights of Relational Grammar and Lexical-Functional Grammar. Van Riemsdijk classifies the above hierarchy in terms of a binary feature-system involving mnemonic labels, like [SUBJ] and [OBJ]. Morphological cases should not be mapped directly onto abstract Case but through the mediation of this feature-system (cf. section 5.4.1.). Consequently, there are no longer "deep" syntactic differences between English and Hungarian but only at the surface level involving the morphological encoding of abstract Case.

The Hungarian-as-a-different-language-doctrine has also influenced Horvath's (1986) treatment of Focus, although Horvath adopts the idea of an abstract and fairly uniform underlying structure across languages (cf. Horvath 1986: introduction).

Horvath assigns Hungarian main clauses an SVO-order, and embedded clauses an SOV-order. This matches the distribution of word order in non-English Germanic languages. In these languages, this phenomenon has been analyzed as 'V-second' (cf. Koster 1975 and Thiersch 1978, among others).

It has been argued that the order of the embedded clause represents the underlying order and that the order of the main clause is derived by movement of the finite verb. Surprisingly, instead of treating Hungarian as an SOV-language with V-movement, Horvath takes SVO as the basic order. As a result, its phrase structure has a *special* VP-internal position for Focus. This leads to some questionable consequences, like a lowering-transformation with subject focussing or the VP-internal position of Wh-phrases which is rather exceptional from a cross-linguistic point of view.⁴

These problems could have been circumvented, if the underlying SOV-order had been related to the unmarked SVO-order by V-movement, like in the Germanic languages with V-second (cf. chapter two). As a consequence, the adjacency requirement on Focus could have been treated as the Hungarian manifestation of the V-second effect.

Chomsky (1986b) argues that V-second appears in the following configuration:

(3) [_{CP} (X'') (V-finite) IP]

X'' in the [Spec, CP] marks the position of Wh-phrases or some other quantified expression. The finite verb may land in the [C, CP] position as a result of V-movement. This yields V-second. Concomitant to this phenomenon is an adjacency effect involving the category which fills the X''-position and the finite verb.

If focussing in Hungarian is regarded as a V-second effect, then this immediately explains why the Focus-position must be left-adjacent to the verb. Furthermore, a striking parallel with English arises.

V-second in English yields I-to-C movement. This is triggered by exactly the same type of categories which trigger Focussing in Hungarian, namely, quantified expressions like Wh-phrases, negated phrases and so on. So, the treatment of focussing as a V-second effect not only avoids the theoretical problems which Horvath's (1986) approach runs into but also makes some interesting parallels available with other languages.

Let us summarize the most important results of this study. Consider first the concepts which are supported by empirical evidence from Hungarian.

- Hungarian phrase structure has a VP which is supported by the occurrence of a large variety of *subject-object asymmetries* (cf. chapter five). This provides empirical evidence for the hypothesis that the VP is a language-universal, and that these phenomena appear in all natural languages.
- The *Projection Principle* maps lexical structure onto syntactic configurations. A number of unrelated phenomena show that this principle is operative in Hungarian as well (cf. chapter four).
- Hungarian phrase structure exhibits the two characteristic properties of standard grammatical tree-structures, namely, *symmetry* and *recursion*. Symmetry appears in X'-grammar. All endocentric maximal projections are left-branching

(cf. chapter two). Recursion turns up in two subcomponents involving X'-grammar (cf. chapter two) and Wh-module (cf. chapter six). CP is recursive within CP and the scopal domain of Wh-phrases is extended by the iteration of a dummy Wh-phrase, or by successive cyclic movement of the Wh-phrase itself.

- We have provided evidence for the theory of *empty categories*. This theory is motivated by the idea of an abstract and fairly uniform underlying structure par excellence, for there is nothing to see in the overt syntactic representation. Small *pro* holds the position of omitted pronouns in Hungarian (cf. chapter four and seven) and *trace* fills the base-generated position of moved Wh/Focus-phrases (cf. chapter six).

- Maximal projections may vary in the *richness* of structure (cf. chapter seven). Ns but not Ps may combine with a D which projects into a maximal projection, a DP. As a consequence, an NP is in fact a DP and it is richer in structure than a PP. This has repercussions for the syntax of these categories (cf. chapter seven).

- Languages may differ with respect to the *strength* of person-number agreement. AGR or I is 'strong' if it is lexically independent, and it is 'weak' in case it is a bound morpheme. Only if I or AGR is strong may it head an X'-projection, otherwise it must merge with a lexical item. AGR and I are *weak* in Hungarian (cf. chapter two and seven). Hence, they have no phrase-structural prominence.

- The agent and theme role of morphologically unaffected verbs in Hungarian are always mapped onto the syntactic configurations in accordance with the *UTHACs* (cf. chapter three). The agent role is projected onto the subject position, and the theme role is projected onto the object position. This supports the hypothesis that these matching rules are the *unmarked* cases of θ -assignment.

- *Parameter theory* is a fruitful way to address questions of language-typology. We have set the following parameters: *IP-parameter* (cf. chapter two and five), the *Head Parameter* (cf. chapter two and seven), *Pro-drop Parameter* (cf. chapter four and seven), the *θ -Assignment Parameter* (cf. chapter three), and the parameter *+/-move Wh* (cf. chapter six).

Let us make some remarks with respect to the final point, parameter theory. Before doing so, consider a brief review of these parameters.

I have related some of the typological differences between English on the one hand and Hungarian and other Germanic languages like Dutch, Frisian and German on the other hand to the IP-parameter. I is an independent lexical item in English but not in the other languages. This property has far-reaching consequences for the syntax of these languages. The IP-parameter establishes a correlation between V-movement and subject-object symmetries. If a language has V-to-C movement, it displays subject-object symmetries.

Hungarian is specified with respect to the Head Parameter as 'head-final'. The heads of all endocentric categories are in final position. This represents one of the core options of X'-theory. The Head Parameter does not only bear on X'-theory but also on the grammar of scope. In a left branching language, the leftmost quantifier has the largest c-command domain, and thus it has wide scope.

Hungarian realizes the agent and theme role of morphologically underived (in)transitive verbs in accordance with the UTHACs. The agent corresponds with

the subject and the theme with the object. In English, these conventions may be suppressed. Hence, in Hungarian but not in English syntactic NP-movement is blocked with Passivization, Ergativization, Middle verbs, and Raising Verbs, Dative Shift is lacking, and the predicate containing an inalienable body object does not assign a compositional θ -role to the subject.

Hungarian exhibits two dialects concerning long Wh-movement, namely +/- move Wh. This parameter relates phenomena involving an accessibility hierarchy for overt long Wh-movement, preference for the *mit*-strategy, the conjugation of intermediate verbs, parasitic gaps and resumptive pronouns.

Comrie (1987) distinguishes two types of parameters. *Holistic* parameters which may affect the totality of the language-structure, and *partial* parameters which cover only a subpart of the language-structure. In our terminology, this means that holistic parameters may bear on several modules, whereas partial parameters are restricted only to one single module.

According to this typology, the θ -Assignment Parameter is a partial parameter. It refers only to θ -theory. The IP-parameter, the Head Parameter, the *Pro*-drop Parameter, and +/- Move Wh, on the other hand, are holistic parameters.

For example, the IP-parameter affects various components of the grammar like move- α (V-movement), X'-theory (verb-object adjacency, VP-deletion and topicalization to CP) and Wh-module (the lack of superiority and *that*-trace effects). Hence, this parameter connects totally unrelated phenomena and it accounts for the fact that these phenomena and only these phenomena are interrelated across languages.

It seems to me that holistic parameters make intriguing claims with respect to problems of language-typology. Therefore, I do not share Comrie's scepticism with respect to the setting of such parameters. Of course, they should be conditioned. Parameters must at least be inductive, for reasons of explanatory power, and they should be easy to discover, because of learnability. The latter requires, for example, that parameters are related to the lexicon (cf. the IP-parameter), or to surface properties, such as 'rich' morphology (cf. the *Pro*-drop Parameter) or surface order (cf. the Head Parameter). I will leave, however, the further elaboration of these questions for future research.

Let us consider now the theoretical concepts of standard approaches in generative grammar which have to be rejected on the basis of empirical evidence from Hungarian.

- Hungarian favors a *representational* approach over a derivational approach to grammar. This implies that the theory of movement has no independent status in the theory of UG. We have supported this claim with evidence from *split constituents* (cf. chapter four) and the so-called *mit*-strategy (cf. chapter six). In both cases, a derivational theory cannot account for the facts without making ad-hoc assumptions.
- The level of representation referred to as 'Logical Form' is superfluous (cf. chapter six). The *scope* of quantified expressions in Hungarian can be read off directly from *S-structure*. The S-structure counterpart of May's (1977) Quantifier Raising involves binding with a scope marker.

- I have demonstrated that *Binding Principle C* is not a core principle of UG (cf. section 5.4.2.7.). It is not stable across languages and it is sometimes determined by non-syntactic phenomena like linearity. Binding Principle C effects with names can at best be subsumed by a *discourse principle*. This implies that the core principles of binding theory are *Principle A* and *Principle B* (cf. Koster 1987: chapter 6). Hence, binding theory is then a theory only about the properties of dependent items, such as anaphors and pronouns.

In conclusion, I have argued in this study that the phrase structure of Hungarian is configurational. This supports the hypothesis that all languages exhibit a configurational core. This result has been achieved by adopting the view that the idea of an abstract and fairly uniform underlying structure provides a fruitful approach for tackling linguistic puzzles. If we are willing to abstract from surface phenomena, rich and articulated structures become visible which happen to be rather constant across languages.

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