

Asymmetries in Hungarian (II)

LÁSZLÓ MARÁCZ
(Gröningen)

5. SYMMETRIES AND ASYMMETRIES IN HUNGARIAN

5.1. Introduction

This chapter discusses clusters of subject-object symmetries and asymmetries in Hungarian and their consequences for its phrase structure and the theory of UG.

É. Kiss (1987a: 36, 44) claims that subject-object asymmetries do not occur in Hungarian. According to É. Kiss, subject and object have the same distribution and they are identically affected by syntactic operations. Therefore, É. Kiss assigns a flat structure to the propositional part of the Hungarian sentence (cf. 1.2.(1)):

$$(1) \quad S \rightarrow V X^{n^*}$$

This structure expresses the claim that there is no VP in Hungarian.

I agree with É. Kiss (1987a) that in Hungarian a number of subject-object symmetries show up where asymmetries appear in English. However, I do not think that these symmetries should lead to the postulation of a non-configurational phrase structure. At least, empirical evidence points rather in a different direction. As I will demonstrate below, the presence of subject-object asymmetries in Hungarian is empirically well-motivated (cf. section 5.3.). Incidentally, some of these subject-object asymmetries are even reported by É. Kiss (1987a) herself. In the light of this, I will assume that its phrase structure is hierarchical, configurational. This hypothesis is the null-hypothesis (cf. discussion in section 1.2.). The question arises, then, how subject-object symmetries in Hungarian are to be accounted for? My attempt to solve this puzzle will be rather modest. The reason for this is that some of these phenomena are badly understood at the present state of research and require further study. In section 5.2. and 5.3., I will catalogue subject-object symmetries and subject-object asymmetries. This will be done in terms of the modules discussed in chapter one. In section 5.4., I will evaluate the facts bearing on subject-object symmetries and asymmetries.

The subject-object asymmetries provide empirical evidence for the following two claims about the phrase structure of Hungarian:

- (2) a. The Hungarian phrase structure is *configurational*
 b. The phrase structure meets the principle of *binary branching*

A corollary of (2) is that Hungarian has VP. Consequently, the arguments of the verb are ordered in a strict hierarchy:

- (3) External argument (subject) > internal argument 1 (object) > internal argument 2 (indirect object, arguments with lexical case)

If these statements are correct, then there is no rationale for relaxing X'-theory, government theory or the Projection Principle which would allow a phrase structure of the type in (1).

Concerning the analysis of subject-object symmetries, I will proceed as follows. Two classes of subject-object symmetries will be distinguished.

(I) Subject-object symmetries which also appear in unambiguously configurational languages, like Germanic and Romance languages. These symmetries pose the following problem. How are subject-object symmetries derived in languages with a hierarchical structure?

(II) Subject-object symmetries which are also attested in established configurational languages such as Dutch or Frisian, but have a somewhat different shape in Hungarian. It seems reasonable to relate them to a specific property of the syntax of Hungarian.

As a working hypothesis, I will relate the symmetries in (I) to general principles of UG which can account for subject-object symmetries in other configurational languages as well. The symmetries in (II) call for a more language-particular approach involving specific properties of Hungarian syntax such as the recursive CP (cf. 2.2.3.(1)).

5.2. Symmetries in Hungarian

This section discusses the *subject-object symmetries* in Hungarian. I will heavily rely on É. Kiss (1987a), which contains a detailed examination of symmetries in Hungarian. These phenomena appear in the following modules: *X'-theory* (cf. section 5.2.1.), *θ-theory* (cf. section 5.2.2.), *binding theory* (cf. section 5.2.3.), *Wh-module* (cf. section 5.2.4.), and *quantification theory* (cf. section 5.2.5.).

5.2.1. X'-Theory

The most direct evidence for a VP-constituent generated by the rules of *X'-theory* comes from operations which do not affect the internal constituency of verb and object. É. Kiss (1987a) argues that the reverse of this statement holds as well. According to É. Kiss, if any rule does not involve the internal constituency of verb and object in a particular grammar, then the VP is missing from that grammar. É. Kiss discusses two cases which bear on this issue, including the *distribution of sentence adverbs* (cf. section 5.2.1.1.), and the *absence of VP-rules* (cf. section 5.2.1.2.). Note, however, that a priori there is no reason to follow this line of argumentation. Trace theory and adjunction can easily account for discontinuities between the verb and its objects (cf. section 5.4.2.).

5.2.1.1. *The Distribution of Sentence Adverbs*

Chomsky and Lasnik (1977) note that verb-object adjacency is required in English.¹ Therefore, the following string is ungrammatical:

- (1) *[VP V - Adv - NP]

A consequence of this is that adverbs which are immediately dominated by IP, like sentence adverbs, adverbs of time and place, and adverbs of manner cannot stand between the verb and object but may appear, however, between the verb and the subject in some cases (cf. Jackendoff 1972, Stowell 1981, among others). This is exemplified in the following pairs:

- (2) a. John *probably* saw Mary
 b. *John saw *probably* Mary
- (3) a. John *quickly* opened the door
 b. *John opened *quickly* the door

The Hungarian counterparts of these sentences are all grammatical:

- (4) a. János *valószínűleg* látta Marit
 John probably saw Mary-ACC
 'John probably saw Mary.'
 b. János látta *valószínűleg* Marit
 'John probably saw Mary.'
- (5) a. János *gyorsan* kinyitotta az ajtót
 John quickly opened the door-ACC
 'John quickly opened the door.'
 b. János kinyitotta *gyorsan* az ajtót
 'John quickly opened the door.'

Adverbs of place or time may likewise occur between verb and object:

- (6) a. Mari elolvasta *tegnap* a könyvet
 Mary read yesterday the book-ACC
 'Mary read the book yesterday.'
 b. Mari elolvasta otthon a könyvet
 Mary read at home the book-ACC
 'Mary read the book at home.'

These sentences show that restriction (1) on the word order of English is not operative in Hungarian. Consequently, the distribution of (sentence) adverbs does not distinguish the combination verb plus object from verb plus subject in Hungarian.²

It could be concluded from this subject-object symmetry that Hungarian is a non-configurational language. However, subject-object symmetries involving the distribution of sentence adverbs turn up in established configurational languages as well. Koster (1986) demonstrates that Dutch is such a case. Therefore, it cannot be a decisive argument with respect to the constituency of VP. In section 5.4.2., I will re-

(1) An apparent exception to this generalization is 'Heavy NP Shift' exemplified by the following pair:

- (i) a. John saw *the woman that he loved* very often
 b. John saw very often *the woman that he loved*

Note that it is possible to move the italicized heavy NP object to the right in (ib). As a result, this NP and the verb are no longer adjacent. Chomsky (1982) provides evidence that Heavy NP Shift is a syntactic rule which leaves a trace. The trace may then satisfy verb-object adjacency.

(2) Horvath (1986a: 22) argues that the distribution of sentence adverbs supports the assumptions of a VP and a basic SVO-order in Hungarian. According to Horvath, sentence adverbs may occur between the subject and the verb but not between the object and the verb. However, the empirical evidence provided by Horvath is not convincing. Horvath presents only examples (p. 23-25, (15)-(17)) in which the adverbs have the shape of quantifiers. These categories in Hungarian prefer a position to the left of the verb (cf. 2.1.(28f)). Hence, the ungrammaticality of the string [V - Adv[+Q]-Obj] is due to independent reasons.

turn to the question why the distribution of sentence adverbs in some configurational languages does not provide direct evidence for a VP-node?

5.2.1.2. *Absence of VP-rules.*

According to É. Kiss (1987a), direct evidence for a VP in a particular grammar comes from rules taking this constituent as their target. É. Kiss discusses two rules which single out the VP in English but are absent from Hungarian, namely, (I) *VP-preposing*, and (II) *idiom interpretation*. Let us first consider VP-preposing.

(I) É. Kiss (1987a, 30) observes that Hungarian has no operation resembling VP-preposing:

- (7) *János megígérte hogy átmegy a vizsgán
 John promised-AGR3sg that pass-AGR3sg the exam-SUPER
 és átmenni a vizsgán fog
 and pass-INFI the exam-SUPER will-AGR3sg
 'John promised to pass the exam, and pass the exam he will.'
 (É. Kiss 1987a: 30)

In English, the VP-phrase *pass the exam* may be topicalized in the second conjunct of this sentence, unlike in its Hungarian equivalent.

É. Kiss concludes from this that Hungarian lacks a VP. However, there are at least two reasons to be careful with conclusions based on examples like (7). Firstly, VP-rules which may provide direct evidence for the VP do also apply in Hungarian (cf. section 5.4.2.). These rules turn up only in a specific syntactic context, for example, with Left Dislocation. Further, VP-constituency tests, such as "VP-gapping", "VP-deletion" or "VP-reduction", are not very reliable (cf. section 5.4.2.). This conclusion emerges from a cross-linguistic examination. Hence, it is unmotivated to derive far-reaching consequences from these tests for the syntactic structure of a particular language.

(II) Several authors (for example, Chomsky 1981, Aoun and Sportiche 1981, and Marantz 1984, among others) argue that the structure of idioms serves as a diagnostic for VP-constituency. English has a strong preference to choose the subject rather than the object as the free argument in idiom frames. In Hungarian, on the other hand, not only the internal arguments and the verb may form a fixed part of an idiom but also the external argument and the verb.

Consider first the following idiomatic expression in which the nominative subject is the freely substitutable argument:

- (8) a. Ő éli világát
 he live-AGR3sg world-npAGR3sg-ACC
 'He lives a merry life.'
 b. Ő beszél (bele) a világba
 he speak-AGR3sg into the world-ILL
 'He talks through one's hat.'
 c. Ő nem esett fejére
 he not fell-AGR3sg head-npAGR3sg-SUBL
 'He won't let himself be fooled.'

The following idiomatic expressions contain two free arguments. The nominative variable is accompanied by either an accusative, dative, instrumental, or sublative argument:

- (9) a. Ő szidja öt mint a bokrot
 he scold-AGR3sg him as the bush-ACC
 'He scolds him roundly.'
- b. Ő ellátja neki a baját
 he treat-AGR3sg he-DAT the trouble-npAGR3sg-ACC
 'He will fix him.'
- c. Ő bolondját járatja vele
 he fool-npAGR3sg-ACC go-CAUS-AGR3sg he-INSTR
 'He sends him on a fool's errand.'
- d. Ő kivette a hálóját rá
 he cast-AGR3sg the net-npAGR3sg-ACC he-SUBL
 'He cast his net on him.'

É. Kiss (1987a: 30-31) presents the following examples in which the accusative object is the freely substitutable argument:

- (10) a. Az isten áldja meg őt
 the god bless-AGR3sg perf him
 'God bless him.'
- b. Az ördög vigye el őt
 the devil take-IMP-AGR3sg away him
 'The devil take him.'
- c. A fene egye meg őt
 the plague eat-IMP-AGR3sg up him
 'Plague on him.'
- d. Ásó, kapa válassza el őket!
 spade, hoe separate-AGR3sg away them
 'Only spade and hoe ('death') separate them.'
- e. Veszik/viszik azt mint a cukrot
 buy-AGR3sg/take-AGR3sg it-ACC like the sugar-ACC
 'People buy/take it like sugar.'
- f. Őt már nem lehet eladni
 him already not possible sell-INFI
 (lit. 'It is not possible to sell him anymore.')
- g. Akkor lássam őt amikor a hátam
 then see-IMP-AGR1sg him when the back-npAGR1sg
 közepét
 middle-npAGR3sg-ACC
 'I should see him when I see the middle of my back.'
- h. Kenyérrre lehetne kenni őt
 bread-SUBL can-COND-AGR3sg smear-INFI him
 (lit. 'One could spread him on bread.')
- 'He is so meek.'

É. Kiss reports, furthermore, that the free object argument does not have to be an accusatively marked phrase. It may also be an argument with a lexical case:

- (11) a. *Neki* beszélhet az úristen is
 he-DAT speak-POT-AGR3sg the lord even
 (lit. 'Even the Lord might speak to him.')
- 'It is no use speaking to him.'
- b. Az ördög sugta *neki*
 the devil whispered-AGR3sg-def he-DAT
 'The devil suggested it to him.'
- c. *Neki* hiányzik egy kereke
 he-DAT miss-AGR3sg a wheel-npAGR3sg
 (lit. 'He has a missing wheel.')
- 'He is crazy.'
- d. *Őrá* rájött a bolondóra
 he-SUBL came-AGR3sg the hour-of-madness
 'A fit of madness is upon him.'
- e. Az ég rogyon *rá*
 the heaven fall-IMP-AGR3sg he-SUBL
 'Heaven fall on him.'
- f. Nincs benne köszönet
 isn't it-INESS thank-ACC
 (lit. 'There isn't any thank in it.')
- 'There is nothing to be gained by it.'
- g. Isten őrizzen *tőle*
 God save-IMP-AGR1sg he-ABL
 'God save me from it.'
- (É. Kiss 1987a: 31-32)

In many instances, an idiom may also contain two or more non-subject free arguments:

- (12) a. *Azt* harapófogóval kell kihúzni *belőle*
 it-ACC pincers-INSTR must out-drag-INFI he-ELAT
 'It must be dragged out of him with pincers.'
- b. *Őt* az isten is *neki* teremtette
 she-ACC the god even he-DAT created-AGR3sg
 'God even created her for him.'
- (É. Kiss 1987a: 31-32)

A preliminary descriptive generalization which captures the formation of these idiom frames may be formulated as follows:³

- (13) An idiom frame may consist of any combination of a verb and its arguments

The behavior of the dative possessor NP within idioms demonstrates that the notion argument is indeed relevant for the formation of idioms. This NP in Hunga-

(3) Kenesei (1985e) observes that idioms in Hungarian display two linear orders. They have either a [VM -V] or a [V - NP] order:

- (i) a. A fiú lépre ment
 the boy trap-SUBL went
 'The boy became a victim of someone's trickery.'
- b. Ez a vizsgázó kivágta a rezet
 this the examinee out-cut the share-ACC
 'This examinee did his best.'

(Kenesei 1985e: 337)

Kenesei observes further that scrambling of the constituents in these idioms 'reconstructs' the original compositional meaning:

- (ii) a. ?Lépre a fiú ment
 'The boy fell into the trap.'
- b. ?A rezet ez a vizsgázó vágta ki
 'This examinee did his share.'

Suppose, now, that a string can only be assigned an idiomatic interpretation if and only if it is categorially complete and the constituents in that string are in neutral order. Under these assumptions, the above differences support the hypothesis that in (ia) *lépre ment* forms a V-constituent with the neutral [VM -V] order, and in (ib) the idiom frame is a VP with the neutral SVO-order,

rian may be freely scrambled around in the sentence (cf. section 3.1.), although it is not an argument of the verb. The following sentences show that the dative possessor NP may be the freely replaceable argument in an idiom but may not belong to the fixed part of an idiom frame:

- (14) a. *Neki* leesett az álla
 he-DAT fell-AGR3sg the jaw-npAGR3sg
 'His jaw fell.'
- b. *Neki* bekötötték a fejét
 she-DAT up-tied-AGR3pl the head-npAGR3sg-ACC
 'She has got married.'
- c. *Neki* kinyílik a bicska a zsebében
 he-DAT open-AGR3sg the pocket-knife the pocket-npAGR3sg-INESS
 'He gets angry.'

É. Kiss (1987a) makes two assumptions concerning idiom formation. First, it takes place at D-structure. Second, the syntactic structure of idioms is a precise reflection of the syntactic relations at D-structure. According to É. Kiss, this implies that the subject and the other complements of the verb do not differ in hierarchical prominence.

It seems to me, however, that at the present state of research no far-reaching conclusions for syntactic structure should be based on idioms. Too little is known about idioms and their status within a theory of UG. It is unclear at what level of representation idiom formation applies. For example, if the nominative possessor NP is in its NP-internal D-structure position, no idiomatic reading is possible. Compare the counterpart of (14a):

- (15) Leesett az (Ø) álla
 fell-AGR3sg the he jaw-npAGR3sg
 'His jaw fell.'

This sentence has only a literal reading, unlike (14a).

Note now that a conflict arises between the assumption that idioms are formed at D-structure (cf. Chomsky 1981, Marantz 1984) and Szabolcsi's (1981a; 1984) hypothesis that the dative possessor NP leaves its possessive NP by movement. Under Szabolcsi's analysis, the idiom interpretation in (14a) would only be available at S-structure. A way out of this conflict would certainly be not to allow idiom formation both at D-structure and S-structure. In section 5.4.2., I will return to the structure of idiom frames arguing that they do not support a non-configurational approach to Hungarian syntax.

5.2.2. θ -Theory

I noted in section 3.2.2. that the thematic content of the VP determines the θ -selection of the subject. Compare the following examples:

- (1) a. János eszi a levest
 John eats the soup-ACC
 'John is eating the soup.'
- b. Az unalom eszi Jánost
 the boredom eats John-ACC
 'Boredom is eating John.'
- (É. Kiss 1987 a: 244)

- c. Az irigység eszi Jánost
the envy eats John-ACC
'Envy is eating John.'
- d. A méreg eszi Jánost
the anger eats John-ACC
'Anger is eating John.'
- e. A fene eszi Jánost
the plague eats John-ACC
'The plague is eating John.'
(É. Kiss 1987c: 22-23)
- (2) a. Mari öli az embert
Mary kills the man-ACC
'Mary is killing the man.'
- b. A szomjúság öli Marit
the thirst kills Mary-ACC
'Mary suffers from the fact that she is thirsty.'
(MarácZ 1986b: 163)

In the presence of an agent subject like in (1a) and (2a) the object of the Hungarian verbs *eszik* 'eat', and *öl* 'kill' can only be interpreted as the theme or patient of the action denoted by the verb. However, in the presence of a cause subject such as in (1b)-(1e) and (2b), the object may receive an experiencer role.

É. Kiss (1987a: 244) regards these selectional symmetries between subject and object as evidence for a non-configurational phrase structure. I will demonstrate, however, that such symmetries appear also in uncontroversial configurational languages, like English (cf. section 5.4.2.6.). Therefore, assigning Hungarian a non-configurational structure on the basis of this is rather misleading.

5.2.3. *Binding Theory*

É. Kiss (1981c; 1982b; 1987a; 1987c) observes that in some instances of *pronominal noncoreference* subject-object symmetries show up in Hungarian where subject-object asymmetries appear in English. In the literature, the following principles have been formulated to cover this phenomenon:

- (1) a. *Pronominal Noncoreference*: A pronominal may not c-command its antecedent (Reinhart 1983: 18)
- b. *Binding Principle C*: An R-expression (a category that is referentially independent, for example names, Wh-phrases) is free (Chomsky 1981: 188)

In a language in which subject and object occupy asymmetric structural positions different coreference possibilities hold between a pronominal object and an R-expression embedded under the subject, and between a pronominal subject and an R-expression embedded under the object. According to these rules, in the former case coreference should be possible (cf. (2a), (3a)), whereas in the latter case a coreferential reading is blocked because the R-expression is c-commanded by the pronominal (cf. (2b), (3b)):

- (2) a. *John's* mother loves *him*
b. **He* loves *John's* mother
- (3) a. *Whose* mother loves *him*
b. **Whose* mother does *he* love *t*

In order to predict the grammaticality pattern exemplified in (3) the rules in (1) have to apply before Wh-movement takes place. Alternatively, 'reconstruction' of the *whose*-phrase to its D-structure position could be carried out before these rules are checked.

The Hungarian equivalents of the sentences in (2) and (3) are all ungrammatical under a coreferential reading between the pronoun and the R-expression:⁴

- (4) a. **János* anyja szereti (Ø)
 John mother-npAGR3sg love-AGR3sg him
 'John's mother loves him.'
 b. *(Ø) szereti *János* anyját
 he love-AGR3sg John mother-npAGR3sg-ACC
 *'He loves John's mother.'
- (5) a. *(Ø) szereti *János* anyja
 him love-AGR3sg John mother-npAGR3sg
 b. **János* anyját szereti (Ø)
 John mother-npAGR3sg-ACC love-AGR3sg he
- (6) a. **Kinek* az anyja szereti (Ø)
 whose-DAT the mother-npAGR3sg love-AGR3sg him
 'Whose mother loves him?'
 b. **Kinek* az anyját szereti (Ø)
 whose the mother-npAGR3sg-ACC love-AGR3sg he
 *'Whose mother does he love?'
- (7) a. *(Ø) *kinek* az anyja szereti
 him whose-DAT the mother-npAGR3sg love-AGR3sg
 b. *(Ø) *kinek* az anyját szereti
 he whose-DAT the mother-npAGR3sg-ACC love-AGR3sg

The sentences in (4) and (6) exemplify the Hungarian counterparts of the sentences in (2) and (3). Scrambling of the constituents in these sentences does not affect pronominal noncoreference, the sentences in (5) and (7) are the scrambled variants of (4) and (6). So subject-object symmetry occurs with pronominal noncoreference in Hungarian, as distinct from English. The sentences (4a) and (6a) are ungrammatical under a coreferential reading in Hungarian but their counterparts in English are grammatical.

É. Kiss (1987a: 207; 1987c: 40) explains this symmetry in Hungarian by applying the rules in (1) to a flat sentence structure (cf. 5.1.(1)) in which the subject and object are in a mutual c-command relation. In section 5.4.2.7., I will present some other facts on pronominal noncoreference displaying subject-object asymmetries rather than subject-object symmetries. This suggests that a different approach is required with respect to the paradigm in (4)-(7) without necessarily giving up a configurational analysis of Hungarian.

5.2.4. *Wh-Module*

With *Wh-movement* in Hungarian three types of subject-object symmetries have been observed involving (i) absence of *superiority effects*, (ii) the lack of that-trace effects, and (iii) *Wh-movement out of possessive NPs*. Let us first discuss the absence of superiority effects in Hungarian.

(4) This does not differ under *pro-drop*. So, these sentences should be added to the cases discussed in 4.2.4.1.(l) which support the claim that *pro* is present when an overt pronoun is omitted.

5.2.4.1. *Absence of Superiority effects*

É. Kiss (1982b; 1987a; 1987c) notes that Hungarian lacks *superiority effects* (cf. Chomsky 1973) with multiple Wh-questions.⁵ In English, the Wh-phrase that is structurally superior to other Wh-phrases in the multiple question will occupy the Spec of CP position, whereas the other Wh-phrases must remain in their D-structure positions:

- (1) a. Who said what b. *What who said c. *What did who say

The Hungarian counterparts of these questions may be equally grammatical:

- (2) a. Ki mit mondott b. Mit ki mondott
 who what-ACC said-AGR3sg what-ACC who said-AGR3sg
 'Who said what?' 'Who said what?'
 'For which x, x a person, 'For which y, y a statement,
 for which y, y a statement, x said y' for which x, x a person, x said y'

Although no superiority effects arise in Hungarian, the meaning associated with the different orders is not the same. The leftmost Wh-phrase has wide scope. This is in accordance the universal condition on scope-interpretation 2.2.(19).

É. Kiss concludes from the absence of superiority effects that subject and object occupy structurally parallel positions, i.e., neither of them is structurally superior to the other. An alternative to this explanation, within a configurational framework of Hungarian, would be to formulate this difference between English and Hungarian in terms of the availability of preverbal positions for Wh-phrases (cf. section 5.4.3.1.).

5.2.4.2. *Anti-that-Trace Effect*

Chomsky and Lasnik (1977) observe that *long Wh-movement* in English is restricted by the so-called *that-trace effect*. Subject Wh-phrases may undergo long Wh-movement only if the complementizer *that* is omitted (cf. (3a)). This requirement does not have to be obeyed when an object Wh-phrase is extracted (cf. (3b)):

- (3) a. *Who* do you think (**that*) *t* saw Bill b. *Who* do you think (*that*) Bill saw *t*

É. Kiss (1981a) and Horvath (1981) note that the *that-trace effect* does not appear in Hungarian. Consider the Hungarian counterparts of these sentences:

- (4) a. *Kit* gondolsz *(*bogy*) *t* látta Vilit
 who-ACC think-AGR-2sg that saw-AGR3sg Bill-ACC
 'Who do you think saw Bill?'
 b. *Kit* gondolsz *(*bogy*) Vili látott *t*
 who-ACC think-AGR-2sg that Bill saw-AGR3sg
 'Who do you think that Bill saw?'

The complementizer *bogy* 'that' is obligatorily present with both extraction from the embedded subject and embedded object position. Thus, we find an anti-*that-trace effect* in Hungarian.

(5) For the syntax and semantics of multiple questions in Hungarian see also Ackerman (1981), E. Kiss (1986; 1987a; 1987c), Kenesei (1986b) and Szabolcsi (1986).

É. Kiss (1987a) argues that this effect can be covered for if the subject and the object are both immediately dominated by the same maximal major category, namely S. The ECP is satisfied under this assumption because the verb properly governs both the subject and the object.⁶ However, the violation of *that*-trace effects is also attested in a number of established configurational languages, like Dutch (cf. Koopman 1982, and Koster 1986; 1987: ch.4), Frisian (Jarich Hoekstra, personal communication), Bavarian (a dialect of German, cf. Bayer 1984), Icelandic (cf. Plat-zack 1987) or Swedish (cf. Engdahl 1984). So, a priori there is no reason to assume that the occurrence of anti-*that*-trace effects in Hungarian provides evidence for a VP-less phrase structure. In section 5.4.2.3., I will present an analysis of these phenomena within a configurational approach to Hungarian.

5.2.4.3. *Wh*-movement from Possessive NPs

Wh-possessor NPs in Hungarian must occur in the dative case and they must be scrambled out of their possessive NPs (cf. section 2.1.). Szabolcsi (1984) observes that these Wh-possessor NPs may be extracted both from an accusative possessive NP (cf. (5a)) and a nominative possessive NP (cf. (5b)):

- (5) a. *Kinek* ismertétek [NP a *t* vendégét]
 who-DAT knew-AGR2pl the guest-npAGR3sg-ACC
 'Whose guest did you know?'
- b. *Kinek* alszik [NP a *t* vendége]
 who-DAT sleep-AGR3sg the guest-npAGR3sg
 'Whose guest is sleeping?'
 (Szabolcsi 1984: 92)

É. Kiss (1987c) notes that an extracted dative possessor NP may also participate in long Wh-movement:

- (6) a. *Melyik színésznőnek* gondolja János hogy Péter
 which actress-DAT think-AGR3sg John that Peter
 megtalálta [NP a *t* fényképét]
 found the photo-npAGR3sg-ACC
 'Which actress does John think that Peter found the photo of?'
- b. *Melyik színésznőnek* gondolja János hogy [NP a *t* fényképe] meglétt
 which actress-DAT think-AGR3sg John that the photo-npAGR3sg up-turned
 'Which actress does John think that the photo of was found?'

É. Kiss (1987c), and Szabolcsi (1984) argue that these subject-object symmetries indicate that the subject and object are in similar structural positions with respect to the verb. Wh-movement from the possessive NP leaves a trace which must be pro-

(6) The ECP states that empty categories like Wh-traces must be properly governed. The definition of proper government consists usually of two conjunctive subcomponents. Consider, for example, Koopman (1982):

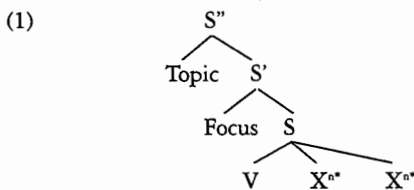
- (i) β properly governs α iff β governs α
 a) $\beta = X^0$
 b) β is an NP coindexed with α

perly governed in agreement with Chomsky's (1981) ECP (see fn.6 for a definition of the ECP). According to É. Kiss and Szabolcsi, the ECP can only be satisfied if the verb, a proper governor, governs both the subject and object. Hence, they conclude that the structure of the Hungarian clause is non-configurational.

In section 5.4.2.4., I will analyse these subject-object symmetries with Wh-movement from possessive NPs within a configurational framework. Our analysis will heavily rely on the fact that such NPs contain an escape hatch for dative possessor raising. Hence, the paradigms above do not necessarily provide an argument for a non-configurational analysis of Hungarian.

5.2.5. Quantification Theory

É. Kiss (1987a: 29) presents an argument based on the distribution of universal quantifiers with Topicalization in favor of her phrase structure of Hungarian syntax 1.2.(1), here repeated for convenience as (1):



É. Kiss sets up the following line of argumentation. Topicalization is known to be incompatible with universal quantification. Therefore, if there are both sentence-initial subjects and objects in a language, and if sentence-initial subjects can be universally quantified, but sentence-initial objects cannot, then it may be concluded that sentence-initial objects are located under a topic node different from the subject position. É. Kiss, however, claims that, unlike for example in Italian, universally quantified subjects and objects display a completely parallel distribution. Compare the following sentences:

- (2) a. *Mindenki* megette az ebédet b. *Mindent* megevett János
 everyone ate-AGR3sg the lunch-ACC everything-ACC ate-AGR3sg John
 'Everyone ate the lunch.' 'John ate everything.'
- (3) a. **Mindenki* ette meg az ebédet
 everyone ate-AGR3sg up the lunch-ACC
 b. **Mindent* evett meg János
 everything-ACC ate-AGR3sg up John
- (4) a. **Mindenki* az ebédet megette b. **Mindent* János megevett
 lunch-ACC ate-AGR3sg everything-ACC John ate-AGR3sg
- (5) a. Az ebédet megette *mindenki* b. János megevett *mindent*
 the lunch-ACC ate-AGR3sg everyone John ate-AGR3sg everything-ACC

According to É. Kiss, this paradigm implies that sentence-initial quantifiers in Hungarian are in the same position.

So, a subject-object symmetry shows up with the Topicalization of universal quantifiers in Hungarian. É. Kiss explains this fact by assuming that Topicalization

moves the subject and the object to the Topic position. These instances of move- α are allowed in structure (1), because both the subject and the object are properly governed by the verb. I will argue in section 5.4.3.2., however, that this phenomenon is due to the fact that the CP is recursive within CP (cf. 2.2.3.(1)). As a result, subject-object symmetries with the Topicalization of universal quantifiers may arise within a configurational phrase structure of Hungarian.

5.3. Asymmetries in Hungarian

This section discusses *subject-object asymmetries* in Hungarian. Subject-object asymmetries occur in the following modules of the grammar, involving *Lexicon* (cf. section 5.3.1.), *X'-theory* (cf. section 5.3.2.), *θ -theory* (cf. section 5.3.3.), *binding theory* (cf. section 5.3.4.), *Case theory* (cf. section 5.3.5.), *control theory* (cf. section 5.3.6.), *Wb-module* (cf. section 5.3.7.) and *quantification theory* (cf. section 5.3.8.).

5.3.1. Lexicon

In chapter three, I argued that *lexical phenomena* in Hungarian such as transitivity alternations or compositional θ -assignment depend on the universal status of the subject-object dichotomy in phrase structure. Hence, they are instances of subject-object asymmetries in Hungarian. Furthermore, I demonstrated that the formation of transitivity alternations, which involve Middle Verbs, Unaccusatives, Ergatives, Inchoatives, Passives, Raising Predicates, and Experiencer Verbs, is mediated by suffixes. In this section, I will examine two other suffix-mediated transitivity alternations, including *reflexivization*, and *reciprocalization* (cf. section 5.3.1.1.). It will turn out that these phenomena affect only the accusative argument of a transitive verb. Next, I will investigate *noun-incorporation* in Hungarian. I will conclude that only underlying non-subject arguments may be incorporated (cf. section 5.3.1.2.).

5.3.1.1. Reflexivization and Reciprocalization

In Hungarian several verbal suffixes may trigger *reflexivization* and *reciprocalization*. The suffixes with this property have an *-ik* ending: *-ódik/ödik*, *-ózik/özik*, *-ódzik/ödzik*, *-odik/edik/ödik*, *-ozik/ezik/özik*, *-kodik/kedik/ködik*, and *-kozik/kezik/közik* (cf. Károly 1982). Some of these suffixes participate also in passive morphology with the properties in 3.3.(10). According to Komlósy (1985), it is hard to predict which verb allows suffixation by which of these suffixes or which of the verbs will have a reflexive, reciprocal, or frequentative reading.

Let us consider the following examples with Reflexivization:

- (1) a. János borotválja Pétert b. János borotválja magát
 John shave-AGR3sg Peter-ACC John shave-AGR3sg himself-ACC
 'John shaves Peter.' 'John shaves himself.'
- c. János borotválkozik
 John shave-REFL-AGR3sg
 'John shaves himself.'
 (Komlósy 1985: 72)

- (2) a. Mari *mossa* Pétert
 Mary wash-AGR3sg Peter-ACC
 'Mary washes Peter.'
- b. Mari *mossa* magát
 Mary wash-AGR3sg herself-ACC
 'Mary washes herself.'
- c. Mari *mosakodik*
 Mary wash-REFL-AGR3sg
 'Mary washes herself.'

These examples display sentences with the verbs *borotvál* 'shave' and *mos* 'wash'. As may be observed from the (a)-sentences, these verbs are transitive verbs of the agent-theme class and are associated with a NOM-ACC case frame. The (b)-sentences represent the analytic variant of reflexivization formed with the reflexive pronoun *maga* 'himself/herself'. (cf. section 5.3.4.1. for a discussion of this construction). This pronoun is associated with the accusative argument of the verb which bears the theme role. The (c)-sentences exemplify the synthetic alternant of reflexivization.

Attachment of the reflexive morphology (REFL) has two consequences. Firstly, the accusative argument is deleted from the case frame of the verb. Secondly, following Marantz (1984), I suppose that reflexive morphology absorbs the theme role associated with these transitive verbs. Note that under this analysis no violation of the Projection Principle occurs.

Let us turn to a discussion of reciprocalization. Komlósy points out that adding reciprocal morphology (REC) to a transitive verb has the same effects as the attachment of reflexive morphology. The only difference is that in some cases the deletion of the accusative argument is counterbalanced by the occurrence of an optional instrumental argument. Compare:

- (3) a. A *fiúk* *verik* a *lányokat*
 the boys beat-AGR3pl the girls-ACC
 'The boys are beating the girls.'
- b. A *fiúk* *verekednek* (egymással)
 the boys beat-REC-AGR3pl each other-INSTR
 'The boys are fighting (with each other).'
- (4) a. A *gyerekek* *kergetik* a *macskákat*
 the children chase-AGR3pl the cats-ACC
 'The children are chasing the cats.'
- b. A *gyerekek* *kergetőznek* (?egymással)
 the children chase-REC-AGR3pl each other-INSTR
 'The children are chasing about.'
- (Komlósy 1985: 73)

In (3) and (4), we find sentences with the Hungarian transitive verbs *ver* 'beat' and *kerget* 'chase'. I will assume that the theme role is absorbed by the reciprocal suffix. This avoids a violation of the Projection Principle.

Summarizing, suffix-mediated Reflexivization and Reciprocalization in Hungarian affect only the accusative argument of a transitive verb of the agent-theme semantic class. Hence, these transitivity alternations display a subject-object asymmetry.

5.3.1.2. *Noun-Incorporation*

Several authors (see, Ackerman 1984, Horvath 1986a, Komlósy 1985, Szabolcsi 1986e) have observed that Hungarian exhibits *Noun-Incorporation*. In order to examine the syntactic properties of this phenomenon consider the following sentences:

- (5) a. Mari (*a/egy) *könyvet* olvas
 Mary the/a book-ACC read-AGR3sg
 'Mary is book-reading.'
- b. Péter (*a/egy) *fát* vág
 Peter the/a wood-ACC cut-AGR3sg
 'Peter is wood-cutting.'
- c. János (*az/egy) *eleget* tesz az ígéretnek
 John the/a enough-ACC make-AGR3sg the promise-DAT
 'John fulfills the promise.'
- d. János (*a/egy) *fejbe* veri magát
 John the/a head-ILL beat-AGR3sg himself-ACC
 'John hits himself to the head.'
- e. Mari (*a/egy) *számon* tartja a költségeket
 Mary the/a track-SUPER keep-AGR3sg the expenses-ACC
 'Mary keeps track of the expenses.'

These sentences illustrate the following properties of Noun-Incorporation:

- (6) a. The incorporated noun cannot be modified by an article
 b. The construction receives a generic, indefinite, sometimes an idiomatic interpretation
 c. The incorporated noun is preferably left-adjacent to a finite verb
 d. Any argument of the verb, except the nominative one, may be incorporated

In the studies referred to above, it has been argued that incorporated nouns occupy the VM-position (cf. the sections 2.2. and 4.4.2. for a discussion of this position). This accounts, then, for the properties (6a)-(6c) of this construction. VMs may only be X⁰-categories. Therefore, they may not be modified by an article. VM and V form a V'-constituent which may have a non-compositional meaning. Finally, VMs occur left-adjacent to a finite verb in their neutral order.

VMs may be and sometimes must be postposed, for example, when another constituent of the sentence is focussed. Compare the counterparts of (5) with a focussed NP:

- (7) a. MARI olvas *könyvet* b. PÉTER vág *fát*
 'It is Mary who is book-reading.' 'It is Peter who is wood-cutting.'
- c. JÁNOS tesz *eleget* az ígéretnek d. JÁNOS veri *fejbe* magát
 'It is John who fulfills the promise.' 'It is John who hits himself to the head.'
- e. MARI tartja *számon* a költségeket
 'It is Mary who keeps track of the expenses.'

One could argue that we are not facing noun-incorporation but something else. However, if a non-finite alternant of the verbs in (5) and (7) is chosen, like an infinitive or a deverbal noun, the noun is "sucked in" by the verbal form.

The infinitive is formed by adding the suffix *-ni* (INFI) to the verbal stem (cf. (8)), and the deverbal noun by adding the suffix *-és/ás* (NOMI) (cf. (9)):

- (8) a. *könyvet* olvasni
book-ACC read-INFI
**olvasni könyvet*
'book-reading'
- b. *fát* vágni
wood-ACC cut-INFI
**vágni fát*
'wood-cutting'
- c. *eleget* tenni az ígéretnek
enough-ACC make-INFI the promise-DAT
**tenni eleget az ígéretnek*
'to fulfill the promise'
- d. *fejbe* verni magát
head-ILL beat-INFI
himself-ACC
**verni fejbe magát*
'to beat oneself to the head'
- e. számon tartani a költségeket
track-SUPER keep-INFI the expenses-ACC
**tartani számon a költségeket*
'to keep track of the expenses'
- (9) a. *könyv* olvasás
book read-NOMI
**olvasás könyv*
'book-reading'
- b. *fa* vágás
wood cut-NOMI
**vágás fa*
'wood-cutting'
- c. *elég* tevés
enough make-NOMI
**tevés elég*
'fulfillment'
- d. *fejbe* verés
head-ILL beat-NOMI
**verés fejbe*
'beating to the head'

These examples show that infinitives and nouns are more tightly connected with VMs than finite verbs. Probably, this dichotomy is related to V-movement in finite clauses (cf. chapter two).

Putting this problem aside for further research, consider again property (6d) of Noun-Incorporation, here repeated as (10):

- (10) Any argument of the verb, except the nominative one, may be incorporated

Noun-Incorporation provides another instance of a subject-object asymmetry. In fact, any direct argument of the verb may be incorporated except the nominative one.

There is, however, an apparent class of counterexamples to this generalization, that is, some incorporated nouns show up in the nominative. We saw already some instances of this in (9a)-(9c). The incorporated noun with deverbal nominalization is in the nominative. The following sentences display a similar phenomenon:

- (11) a. (*A) *lehetőség* nyílik b. (*Az) *alkalom* adódik
the possibility open-AGR3sg the opportunity arise-AGR3sg
'There opens a possibility.' 'An opportunity arises.'

From an examination of the verbs allowing incorporation of a nominatively marked argument, it appears that they are *passivizers*. Deverbal nominalization with the suffix *-és/ás* follows the pattern of passivization (cf. 3.3.3.(II)). Hence, the incorporated nominative in (9a)-(9c) is the underlying object. The verbs in (11) belong to the class of Unaccusatives in Hungarian.⁷ These verbs are intransitive with an under-

(7) The incorporation of nouns by the infinitival and deverbal nominal alternants of Unaccusatives is not possible:

- (i) a. **Lehetőség nyílni* b. **Lehetőség nyílás*
possibility open-INFI possibility open-NOMI

lying object (cf. section 3.3.2.). This yields the following generalization on Noun-Incorporation:

- (12) Only underlying internal arguments may be incorporated in Hungarian

This generalization is in correspondence with Baker (1983; 1988) who observes that cross-linguistically only underlying objects can be incorporated.

Summarizing, Noun-Incorporation displays another instance of a subject-object asymmetry. Only internal arguments of the verb be incorporated.

5.3.2. *X'-Theory*

It is hard to provide direct evidence in Hungarian for a VP-constituent in finite sentences (cf. section 5.2.1.2.). Tests which bear on this, like VP-deletion, are lacking in Hungarian. However, it appears that evidence for the constituency of the VP can more easily be found within the context of non-finite clauses. In this section, I will investigate the structure of *infinitive complements* selected by *auxiliaries* (cf. section 2.2.2.).

Such complements appear with a subtype of subject control verbs (cf. section 5.3.6.1 for these verbs), like *kell* 'have to' and *akar* 'want'. Let us first consider the properties of the constructions with *kell*:

- (1) a. Jánosnak látni(a) kell Marit
John-DAT see-INFI-AGR3sg must Mary-ACC
'John must see Mary.'
b. Jánosnak találkozni(a) kell Marival
John-DAT meet-INFI-AGR3sg must Mary-INSTR
'John must meet Mary.'
c. Jánosnak el kell menni(e)
John-DAT away must go-INFI-AGR3sg
'John must go away.'

(i) In neutral order the infinitive is left-adjacent to *kell*. Furthermore, *kell* receives no stress.

(ii) *Kell* may only be inflected for tense. For example, the past variant of the present form of *kell* is *kellelt* 'had to'. Hence, it lacks a fully specified I[+AGR].

(iii) *Kell* assigns its direct argument a lexical dative case. The reason for the absence of the nominative on this argument is presumably due to the fact that I is not specified for AGR. If the nominative case is assigned by I, it must fully be specified in finite sentences (cf. Case-assignment rule 3.2.(7a)).

(iv) The infinitive may optionally agree in person and number with the dative marked NP.

(v) Consider the finite counterparts of the infinite complements in (1a) and (1b):

- (2) a. János látja Marit b. János találkozik Marival
John see-AGR3sg Mary-ACC John meet-AGR3sg Mary-INSTR
'John sees Mary.' 'John meets Mary.'

The internal arguments are accusatively and instrumentally marked in these sentences. They remain unaffected by the formation of the infinite construction.

(vi) Auxiliaries trigger Aux-splitting in neutral sentences when they select an infinitive which is itself modified by a VM (cf. section 2.2.2.). In (1c), for example, the prefix *el* 'away' of the infinitive *elmenni* 'to go away' is separated from the infinitive by an intervening modal auxiliary.

Let us turn to the properties of infinitive constructions with *akar*. Compare the following sentences:

- (3) a. János látni akarja/* \emptyset Marit
 John see-INFI want-AGR3sg-def/indef Mary-ACC
 'John wants to see Mary.'
- b. János találkozni akar Marival
 John meet-INFI want-AGR3sg Mary-INSTR
 'John wants to meet Mary.'
- c. Én látni akarlak téged d. János el akar menni
 I see-INFI want-AGR1sg2sg you-ACC John away want-AGR3sg go-INFI
 'I want to see you.' 'John wants to go away.'

(i) Word order in neutral sentences of the *akar*-type is identical to the *kell*-type. The infinitive is left-adjacent to *akar*, which is unstressed.

(ii) Contrary to *kell*, *akar* may be inflected both for tense and agreement. This means that its I is fully specified. Therefore, the subject complement of *akar* appears in the nominative case.

(iii) *Akar* agrees with the object complement of the infinitive. This complement is definite in (3a), because it is a proper name (cf. 4.2.(3)). Therefore, *akar* displays definite conjugation in this sentence. This agreement phenomenon can also be observed from (3c).

The verbal suffix *-lak* reflects that the verb agrees with a first person singular nominative subject and a second person accusative object (cf. section 4.2.4.2.). It is easy to see that the accusative object of the infinitive in this sentence agrees with *akar*.

(iv) As was also the case with the *kell*-type, the internal arguments of the infinite complements selected by *akar* are identical to the internal arguments of their finite counterparts. Observe from a comparison between the pairs ((3a), (3b)) and ((4a), (4b)) that the internal arguments of both the finite and non-finite alternants are in the accusative and instrumental.

(v) Just as *kell*, *akar* triggers Aux-splitting. *Akar* intervenes between an infinitive and its VM in a sentence with neutral order. In (3d), the infinitive *elmenni* 'to go away' which consists of the prefix *el* 'away' and the infinitive *menni* 'to go' is split by *akar*.

These properties involving the neutral order of infinitives, obligatory subject-control, Aux-splitting, and object agreement suggest that auxiliaries induce 'restructuring' effects. In chapter two, I noted that this is a consequence of the application of *V-raising* in such constructions.

Szabolcsi (1983a) argues that the obligatory subject-control with these auxiliaries is due to the absorption of the external argument of the infinite complement, i.e. big *PRO* in Chomsky (1981). Note, however, that its internal arguments remain unaffected by an application of *V-raising*. This implies that these arguments are structurally *closer* to the infinitives in their *X'*-projection than the external arguments of these verbs. In conclusion, the structure of infinitival complements displays a subject-object asymmetry.

5.3.3. θ -Theory

Subject-object asymmetries provided by θ -theory involve selectional restrictions on θ -assignment. I noted in section 3.2.2. that the θ -role of the subject is affected by the choice of the object but that the choice of the subject does not affect θ -assignment to the object.

5.3.4. Binding Theory

In section 5.2.3., I discussed some Binding Principle C symmetries. Here I will examine some subject-object asymmetries in the domain of *binding theory*.

Studies on coreference draw a distinction between the coreferential and the *bound variable* reading of a pronoun. The following pair illustrates this distinction:

- (1) a. John loves his mother b. Everyone loves his mother

In (1a), the pronoun *his* can be understood as being coreferential with the referring expression *John*, i.e., a pronoun can pick up its reference from another NP in the sentence. In (1b), on the other hand, the pronoun has a quantifier expression as its antecedent, and receives an interpretation analogous to the bound variables of logicians.

In the linguistic literature much effort has been devoted to the proper formulation of the conditions on the coreferential and bound variable interpretations of pronouns (see, Chomsky 1981, Evans 1980, Haik 1984, Higginbotham 1983a, Koopman and Sportiche 1982, and Reinhart 1983, among others). What all these studies have in common is that the bound variable interpretation of a pronoun obeys a stricter condition than mere coreference. Compare for example the rules in Reinhart (1983):⁸

- (2) a. A non-pronominal NP must be interpreted as non-coreferential with any NP that c-commands it (Reinhart 1983: 136)
 b. Quantified NPs and Wh-traces can have anaphoric relations only with pronouns in their c-command domain (Reinhart 1983: 137)

Insights provided by these rules have been translated into the Binding Principles (cf. Chomsky 1981: 188):

- (3) a. *Binding Principle A*: An *anaphor* (a category that lacks independent reference, and thus includes reflexives, reciprocals) is bound in its governing category
 b. *Binding Principle B*: A *pronominal* (a category that may be referentially independent or may depend upon an antecedent for its reference, and thus includes the class of pronouns) is free in its governing category
 c. *Binding Principle C*: An *R-expression* (a category that is referentially independent, and includes all other NP types, for example names) is free

These principles are well-formedness conditions on structures which contain coindexing relations. The indexing device of binding theory is one of free-indexing.

(8) Reinhart gives the following definition of c-command:

(i) Node A c(constituent)-commands node B iff the branching node most immediately dominating A also dominates B.

(3) makes clear that it distinguishes three lexical primitives including anaphors, pronominals, and R-expressions.

Binding Principle A accounts for the coreferential interpretation in the following cases. The sentence is the governing category for the reflexive pronoun *himself* and reciprocal pronoun *each other*:

- (4) a. *John saw himself* b. *The boys saw each other*

Disjoint reference in the following examples is captured by Binding Principle B (cf. (5a)-(5b)) and Binding Principle C (cf. (5c)-(5d)). Again, the sentence is the governing category for pronouns and names in object position:

- (5) a. **He saw him* b. **John saw him* c. **He saw John* d. **John saw John*

According to Reinhart, anaphora with quantified antecedents and with anaphors have in common that the anaphora interpretation involves in both cases its translation as a bound variable. Observe from the comparison of (2b) and (3a) that the structural condition restricting the interpretation of anaphors is the same as the one restricting the interpretation of bound variables.

However, anaphors also have the peculiar grammatical property specified in (3a), namely, that they must be bound in a local domain. This cannot be reduced to the bound anaphora rule and thus has to be captured separately.

To summarize, earlier studies report the following properties of binding relations. (i) The structural conditions restricting coreferential and bound variable interpretation obey some version of c-command (see, fn.8 for a definition). (ii) The rule determining a bound variable interpretation of pronouns is a stricter condition than the rule allowing coreferential interpretation. (iii) Anaphors are subject to the same structural restrictions as bound pronouns. They have to be c-commanded by their antecedent. (iv) Reinhart (1983) restricts the coreferential interpretation of pronominals and names by the same condition (cf. (2b)). By doing so, Reinhart claims that on the level of sentence-syntax no significant difference between these two categories exist. In Chomsky (1981), on the other hand, pronominals and names are considered to be different syntactically as is suggested by the separate formulation of Binding Principles B and C.

Binding relations involve asymmetries which are accounted for in structural terms. Therefore, if in a particular language subject-object asymmetries with binding phenomena arise and if the principles in (2), or (3) have a universal status, then that language has a hierarchical, configurational structure.

In this section, I will discuss the following binding phenomena in Hungarian, including *reflexive binding* (cf. section 5.3.4.1), *the binding of names* (cf. section 5.3.4.2.), *the distribution of bound pronouns* (cf. section 5.3.4.3.) and *switch reference* (cf. section 5.3.4.5).

5.3.4.1. Reflexive Binding

Reflexive binding has been discussed extensively in É. Kiss (1981c). É. Kiss notes that the antecedent-anaphor relation is subject to a case-hierarchy which has the following shape:

(6) NOM > ACC > DAT > INSTR > LEXICAL CASE

According to É. Kiss (1981c: 192), the binder must precede the anaphor in this hierarchy.

Let us consider some examples with the binding of the lexical anaphor *maga* 'himself/herself'.

In accordance with (6), a nominative NP can be the antecedent of an anaphor in every arbitrary case, but not vice versa:

- | | |
|---|--|
| (7) a. <i>János szereti magát</i>
John loves himself-ACC
'John loves himself.' | b. * <i>Jánost szereti maga</i>
John-ACC loves himself |
| c. <i>János könyvet vesz magának</i>
John book-ACC buys himself-DAT
'John buys a book for himself.' | d. * <i>Jánosnak könyvet vesz maga</i>
John-DAT book-ACC buys himself |
| e. <i>János hisz magában</i>
John believes himself-INESS
'John believes in himself.' | f. * <i>Jánosban hisz maga</i>
John-INESS believes himself |
| g. <i>János számít magára</i>
John counts himself-SUBL
'John counts on himself.' | h. * <i>Jánosra számít maga</i>
John-SUBL counts himself |

An accusative NP may be the antecedent of an anaphor with dative, instrumental, or a lexical case, but not vice versa:

- | | |
|---|--|
| (8) a. <i>Jánost dicsértem magának</i>
John-ACC praised-AGR1sg himself-DAT
'I praised John to himself.' | |
| b. ? <i>Jánosnak dicsértem magát</i>
John-DAT praised-AGR1sg himself-ACC | |
| c. <i>Jánost megmutattam magának a tükörben</i>
John-ACC showed-AGR1sg himself-DAT the mirror-INESS
'I showed John to himself in the mirror.' | |
| d. ? <i>Jánosnak megmutattam magát a tükörben</i>
John-DAT showed-AGR1sg himself-ACC the mirror-INESS | |
| e. <i>Jánost szembesítettem magával</i>
John-ACC confronted-AGR1sg himself-INSTR
'I confronted John with himself.' | |
| f. ?? <i>Jánossal szembesítettem magát</i>
John-INSTR confronted-AGR1sg himself-ACC | |
| g. <i>Jánost sokat faggattam magáról</i>
John-ACC much interrogated-AGR1sg himself-DELAT
'I interrogated John a lot about himself.' | |
| h. * <i>Jánosról sokat faggattam magát</i>
John-DELAT much interrogated-AGR1sg himself-ACC | |

A dative NP can be the antecedent of an anaphor with instrumental or lexical case:

- (9) a. *Jánosnak* mindig baja van *magával*
 John-DAT always problem is himself-INSTR
 'John has always problems with *himself*.'
- b. **Jánossal* mindig baja van *magának*
 John-INSTR always problem is himself-DAT
- c. *Jánosnak* sokat beszéltem *magáról*
 John-DAT a lot spoke-AGR1sg himself-DELAT
 'I spoke a lot to *John* about *himself*.'
- d. **Jánosról* sokat beszéltem *magának*
 John-DELAT a lot spoke-AGR1sg himself-DAT

An instrumental binder can be the antecedent of an anaphor with lexical case, but not vice versa:

- (10) a. **Jánossal* vitatkoztam *magáról*
 John-INSTR argued-AGR1sg himself-DELAT
 'I argued with *John* about *himself*.'
- b. **Jánosról* vitatkoztam *magával*
 John-DELAT argued-AGR1sg himself-INSTR

É. Kiss also notes that prominence of the accusative argument over the dative argument is less clear than the other grades of the hierarchy (cf. (8a) versus (8b), and (8c) versus (8d)). Furthermore, É. Kiss observes that this hierarchy is clearer if instead of the reflexive anaphor *maga* the reciprocal anaphor *egymás* 'each other' is used (see, É. Kiss 1981c: 192).

Scrambling does not affect reflexive binding. Compare, for example, the scrambled counterparts of (7a) and (7b):

- (11) a. *Magát* szereti *János* : b. **Jánost* szereti *maga*
 himself-ACC loves John John-ACC loves himself

The above paradigms show that Hungarian displays not only subject-object asymmetries in a narrow sense but also asymmetries with all other arguments of the verb. In section 5.4.1., I will return to the position of (6) in the theory of UG. I will argue that it has no theoretical status. For now it is sufficient to note that the arguments of the verb obey a strict hierarchy with reflexive binding which is captured adequately by this descriptive rule.

5.3.4.2. The Binding of Names

I reported that a subject-object symmetry arises with pronominal noncoreference in Hungarian (cf. section 5.2.3.). However, Marác (1986a) observes that if the pronoun in 5.2.3.(4) is replaced by another name a subject-object asymmetry occurs. This asymmetry is subsumed by Binding Principle C:

- (12) a. *János* anyja szereti *Jánost*
 John mother-npAGR3sg loves John-ACC
 'John's mother loves *John*.'
- b. **János* szereti *János* anyját
 John loves John mother-npAGR3sg-ACC
 *'John loves *John's* mother.'

The coreference relation between two names in Hungarian displays the same distribution as in their English counterparts. The question arises whether this subject-object asymmetry carries over to the other arguments of the verb, as was the case with Binding Principle A phenomena. The sentences below exemplify that a non-embedded nominative name may not be coreferential with another name embedded in an NP with any other case. A non-nominative name, on the other hand, may always be coreferential with a name embedded in a nominative NP:

- (13) a. **János* könyvet vesz *János* anyjának
 John book-ACC buys John mother-npAGR3sg-DAT
 *'John buys a book for John's mother.'
- b. *János* anyja könyvet vesz *Jánosnak*
 John mother-npAGR3sg book-ACC buys John-DAT
 'John's mother buys a book for John.'
- c. **János* hisz *János* anyjában
 John believes John mother-npAGR3sg-INCESS
 *'John believes in John's mother.'
- d. *János* anyja hisz *Jánosban*
 John mother-npAGR3sg believes John-INCESS
 'John's mother believes in John.'
- e. **János* számít *János* anyjára
 John counts John mother-npAGR3sg-SUBL
 *'John counts on John's mother.'
- f. *János* anyja számít *Jánosra*
 John mother-npAGR3sg counts John-SUBL
 'John's mother counts on John.'

Observe, furthermore, that a non-embedded accusative name may not be coreferential with or may hardly be interpreted as coreferential with another name embedded in an NP with dative, instrumental, or a lexical case. However, a name assigned dative, instrumental, or a lexical case may always be coreferential with a name embedded in an accusative NP:

- (14) a. ?*Jánost* dicsértem *János* anyjának
 John-ACC praised-AGR1sg John mother-npAGR3sg-DAT
 *'I praised John to John's mother.'
- b. *János* anyját dicsértem *Jánosnak*
 John mother-npAGR3sg-ACC praised-AGR1sg John-DAT
 'I praised John's mother to John.'
- c. ?*Jánost* megmutattam *János* anyjának a tükörben
 John-ACC showed-AGR1sg John mother-npAGR3sg-DAT the mirror-INCESS
 *'I showed John to John's mother in the mirror.'
- d. *János* anyját megmutattam *Jánosnak* a tükörben
 John mother-npAGR3sg-ACC showed-AGR1sg John-DAT the mirror-INCESS
 'I showed John's mother to John in the mirror.'
- e. **Jánost* szembesítettem *János* anyjával
 John-ACC confronted-AGR1sg John mother-npAGR3sg-INSTR
 *'I confronted John with John's mother.'
- f. *János* anyját szembesítettem *Jánossal*
 John mother-npAGR3sg-ACC confronted-AGR1sg John-INSTR
 'I confronted John's mother with John.'

- g. **Jánost* sokat faggattam *János* anyjáról
 John-ACC much interrogated-AGR1sg John mother-npAGR3sg-DELAT
 *'I interrogated *John* a lot about *John's* mother.'
- h. *János* anyját sokat faggattam *Jánosról*
 John mother-npAGR3sg-ACC much interrogated-AGR1sg John-DELAT
 'I interrogated *John's* mother a lot about *John*.'

The following sentences exemplify that a non-embedded dative name may not be coreferential with another name embedded in an NP marked instrumental, or with a lexical case, whereas a name with instrumental, or a lexical case may always be coreferential with a name embedded in a dative NP:

- (15) a. **Jánosnak* mindig baja van *János* anyjával
 John-DAT always problem is John mother-npAGR3sg-INSTR
 *'*John* has always problems with *John's* mother.'
- b. *János* anyjának mindig baja van *Jánossal*
 John mother-npAGR3sg-DAT always problem is John-INSTR
 '*John's* mother has always problems with *John*.'
- c. **Jánosnak* sokat beszéltem *János* anyjáról
 John-DAT a lot spoke-AGR1sg John mother-npAGR3sg-DELAT
 'I spoke a lot to *John* about *John's* mother.'
- d. *János* anyjának sokat beszéltem *Jánosról*
 John mother-npAGR3sg-DAT a lot spoke-AGR1sg John-DELAT
 'I spoke to *John's* mother a lot about *John*.'

The following pair shows that a non-embedded instrumental name may not be coreferential with another name embedded in an NP with lexical case, whereas a name assigned an instrumental case may always be coreferential with a name embedded in an NP bearing lexical case:

- (16) a. **Jánossal* vitatkoztam *János* anyjáról
 John-INSTR argued-AGR1sg John mother-npAGR3sg-DELAT
 'I argued with *John* about *John's* mother.'
- b. *János* anyjával vitatkoztam *Jánosról*
 John mother-npAGR3sg-INSTR argued-AGR1sg John-DELAT
 'I argued with *John's* mother about *John*.'

Binding Principle C phenomena are sometimes affected by factors such as linear order, depth of embedding and so on. Let us consider whether these phenomena in Hungarian interfere with (i) the structure of the possessive NP, (ii) linear order or (iii) the depth of embedding.

(i) Binding Principle C effects also appear in the following paradigm which Anna Szabolcsi (personal communication) brought to my attention:

- (17) a. **Mari* csak *Mari* biciklijét látta
 Mary only Mary bike-npAGR3sg-ACC saw
 *'*Mary* saw only *Mary's* bike.'
- b. **Mari* csak *Marinak* a biciklijét látta
 Mary only Mary-DAT the bike-npAGR3sg-ACC saw
- c. **Mari* csak *Marinak* látta a biciklijét
 Mary only Mary-DAT saw the bike-npAGR3sg-ACC

- (18) a. *Marit* csak *Mari* biciklije birja el
 Mary-ACC only Mary bike-npAGR3sg is able to carry
 'Only *Mary's* bike is able to carry *Mary*.'
- b. *Marit* csak *Marinak* a biciklije birja el
 Mary-ACC only Mary the bike-npAGR3sg is able to carry
- c. **Marit* csak *Marinak* birja el a biciklije
 Mary-ACC only Mary-DAT is able to carry the bike-npAGR3sg

In these sentences which involve the variants of the possessive NP in Hungarian a pair of names is intended to be coreferential.

Szabolcsi (1981a; 1984) argues that the possessor NP can appear both in the nominative and the dative, but only the dative one may be separated from its noun-possessed (cf. also section 2.1.(II)). In case the non-embedded name is in the nominative no coreferential reading between the names is possible, independently of the fact whether the possessor name is in construction with its noun-possessed (cf. (17a) and (17b)) or separated from it (cf. (17c)). If, on the other hand, the non-embedded name is in the accusative it may be coreferential with the possessor name. However a coreferential reading is allowed in these cases only when the possessor name is embedded in a nominative possessive NP (cf. (18a) and (18b)) but not when it is separated from its noun-possessed (cf. (18c)).

This paradigm thus displays another subject-object asymmetry with the coreferentiality between a pair of names. Furthermore, it supports the hypothesis that the dative possessor in the (c)-sentences but not in the (b)-sentences has escaped from its possessive NP, otherwise a Binding Principle C violation could not occur.

(ii) Compare the scrambled variants of the sentences in (12):

- (19) a. *Jánost* szereti *János* anyja
 John-ACC loves John mother-npAGR3sg
- b. **János* anyját szereti *János*
 John mother-npAGR3sg-ACC loves John

This demonstrates that Binding Principle C effects with a pair of names are immune to the effects of scrambling just like Binding Principle A effects.

(iii) The following sentences exemplify that the depth of embedding is not relevant for Binding Principle C effects with a pair of names:

- (20) a. **János* megtudta [NP azt a tényt [CP hogy *János* beteg lesz]]
 John perf-knew that-ACC the fact-ACC that John ill becomes
 *'*John* got to know the fact that *John* would become ill.'
- b. *[NP Azt a tényt [CP hogy *János* beteg lesz]] megtudta *János*
 that-ACC the fact-ACC that John ill becomes perf-knew John
- c. *Jánost* zavarta [NP az a tény [CP hogy *János* beteg lett]]
 John-ACC disturbed that the fact that John ill became
 *'*John* was disturbed by the fact that *John* became ill.'
- d. [NP Az a tény [CP hogy *János* beteg lett]] zavarta *Jánost*
 that the fact that John ill became disturbed John-ACC

In these sentences, the name in the possessive NPs of (12) is embedded a maximal projection deeper. The embedded clauses in (20) are complex NPs. However, the

possibility of coreference is not affected by the depth of embedding, nor by scrambling in this case.

Summarizing, the paradigms in this section demonstrate that subject-object asymmetries show up involving coreference between a pair of names. Speaking in terms of the descriptive hierarchy (6), a name *A* may only be coreferential with name *B*, if and only if *B* is embedded in an NP which takes prominence over *A* in this hierarchy. If these asymmetries can be accounted for by making reference to Binding Principle C, then it follows that the phrase structure of Hungarian must have a hierarchical structure.

5.3.4.3. *The Distribution of Bound Pronouns*

In this section, I will examine some aspects of the syntax of *bound pronouns* in Hungarian. Consider, again Reinhart's (1983) rule (1b) for their distribution, here repeated as (21):

- (21) Quantified NPs and Wh-traces can have anaphoric relations only with pronouns in their c-command domain (Reinhart 1983: 137)

The blocking of a bound variable interpretation of pronouns has been referred to in the literature as 'Weak Crossover' (WCO) (cf. Wasow 1972).⁹ WCO-effects arise in English in case a quantified NP is in object position and the bound pronoun is embedded in a subject phrase. An example of this is the ungrammaticality of the following sentence:

- (22) **His mother loves everyone*

These effects in Hungarian have been noted first in Horvath (1981, 210). Marác (1985a) observes that pronouns do not allow a bound variable interpretation when the pronoun precedes an accusative quantified antecedent, which may be a Wh-phrase, a universal quantifier, or a focussed NP, and which is at the same time embedded in a nominative NP:¹⁰

(9) WCO has played an important role in the configurationality debate. Saito and Hoji (1983) discuss some cases of WCO in Japanese from which they conclude that it is configurational. WCO-effects also appear in other languages that have been claimed to be non-configurational, involving Basque (cf. Marác 1986a, Ortiz de Urbina 1986), German (cf. Webelhuth 1985), Hungarian (cf. Horvath 1981, Kenesei 1989, Marác 1985a; 1986a, and Szabolcsi 1986a), Japanese (cf. Hoji 1986, Saito 1985), and Korean (cf. Choe 1985; 1989). Farmer et al. (1986) have criticised the tests elaborated in Saito and Hoji (1983). Haider (1985) reports that c-command is not operative with WCO-phenomena in German but rather Lasnik's (1976) command. Rebuschi (1989) observes that WCO-violations are lacking from some Basque dialects.

(10) Marác (1985a; 1988a) argues that Horvath (1986) cannot account for the contrast between (23) and (24) involving the presence or absence of WCO-effects. The ungrammaticality of the cases in (23) comes as expected under Horvath's SVO-hypothesis of Hungarian. These ungrammatical constructions can be accounted for in terms of the absence of the c-command relation between the trace of the object quantifier and the pronoun in the nominative NP. The grammaticality of the sentences in (24), on the other hand, is unexpected. Horvath assumes that the subject in these cases undergoes Subject Postposing, an adjunction to the VP. This should, however, not affect the c-command relation between the object trace and the pronoun embedded in the possessive NP.

- (23) a. *Az *anyja* *kit* szeret
 the mother-npAGR3sg who-ACC loves
 *'Who does his mother love?'
- b. *Az *anyja* *mindenkit* szeret
 the mother-npAGR3sg everyone-ACC loves
 *'His mother loves everyone.'
- c. *Az *anyja* *VILIT* szereti
 the mother-npAGR3sg Bill-ACC loves
 *'His mother loves BILL.'
- (24) a. *Kit* szeret az *anyja*
 who-ACC loves the mother-npAGR3sg
- b. *Mindenkit* szeret az *anyja*
 everyone-ACC loves the mother-npAGR3sg
- c. *VILIT* szereti az *anyja*
 Bill-ACC loves the mother-npAGR3sg
- (25) a. *Ki* szereti az *anyját*
 who loves the mother-npAGR3sg-ACC
 'Who loves his mother?'
- b. *Mindenki* szereti az *anyját*
 everyone loves the mother-npAGR3sg-ACC
 'Everyone loves his mother.'
- c. *VILI* szereti az *anyját*
 Bill loves the mother-npAGR3sg-ACC
 'BILL loves his mother.'
- (26) a. Az *anyját* *ki* szereti
 the mother-npAGR3sg-ACC who loves
- b. Az *anyját* *mindenki* szereti
 the mother-npAGR3sg-ACC everyone loves
- c. az *anyját* *VILI* szereti
 the mother-npAGR3sg-ACC Bill loves

Before investigating this paradigm in detail, let us first discuss the realization of personal pronouns in possessive NPs.

The realization of overt pronouns in possessive NPs is optional (cf. section 4.4.2.1.). The overt personal pronoun is used for reasons of emphasis only, and indicates disjoint reference for most speakers:

- (27) a. Az *ő* *anyja*
 the he mother-npAGR3sg
 'HIS/HER mother' or 'It is his/her mother...'
- b. *Mari* látta az *ő*_{i/j}* *anyját*
 Mary saw the she mother-npAGR3sg-ACC
 'Mary saw her mother.'

In the unmarked case, the pronoun must remain non-overt. According to Szabolcsi (1984), this means that pro-drop applies in possessive NPs. The agreement marker in the possessive NP (npAGR) is able to license the occurrence of a small *pro* in the position of the possessor NP (cf. also chapter seven).

Wh-phrases and focussed NPs must appear in the preverbal Focus position in Hungarian (cf. 2.1.(28c)). The sentences in (23) display a WCO-effect. The non-

overt pronoun embedded in a nominative possessive NP may not be interpreted as a bound variable. This effect disappears if the nominative possessive NP is scrambled to the right of the verb (cf. (24)). The sentences in (25) and (26) show that no WCO-effects occur in case the binder, i.e. the quantified NP, is in the nominative.

From this it follows that the distribution of bound pronouns yields a *subject-object asymmetry*. This observation falsifies É. Kiss' (1981c; 1982b; 1987a; and 1987c) claim that WCO-effects are lacking in Hungarian. The source of this claim is probably the fact that É. Kiss cites only examples of the type in (24) and (25) (cf. É. Kiss 1987a: 208-209), that is, with the binder preceding the bindee.

The question arises whether this subject-object asymmetry appears also with sub-categorized arguments of the verb other than the nominative-accusative ones. This turns out to be the case, as the sentences below will exemplify.

With the help of the hierarchy in (6), we formulate the following descriptive rule for the distribution of bound pronouns in Hungarian. A pronoun embedded in a possessive NP may not be interpreted as a bound variable when the possessive NP precedes the quantified NP linearly and is at the same time higher in hierarchy (6).¹¹ This covers the examples in (28)-(34).

In the following examples, the universal quantifier *mindenki* 'everyone' is the quantified antecedent. Another quantifier, however, would make no difference with respect to grammaticality judgements. Compare:

- (28) a. *Az *pro* anyja *mindenkinek* könyvet vesz
 the mother-npAGR3sg everyone-DAT book-ACC buys
 *'His mother buys a book for everyone.'
- b. *Mindenkinek* könyvet vesz az *pro* anyja
 everyone-DAT book-ACC buys the mother-npAGR3sg
- c. *Mindenki* könyvet vesz az *pro* anyjánaki
 everyone book-ACC buys the mother-npAGR3sg-DAT
 'Everyone buys a book for his mother.'
- d. Az *pro* anyjának *mindenki* könyvet vesz
 the mother-npAGR3sg everyone book-ACC buys
- (29) a. *Az *pro* anyja *mindenkiben* hisz
 the mother-npAGR3sg everyone-INESS believes
 *'His mother believes in everyone.'
- b. *Mindenkiben* hisz az *pro* anyja
 everyone-INESS believes the mother-npAGR3sg
- c. *Mindenki* hisz az *pro* anyjában
 everyone believes the mother-npAGR3sg-INESS
 'Everyone believes in his mother.'
- d. Az *pro* anyjában *mindenki* hisz
 the mother-npAGR3sg-INESS everyone believes

(11) Kenesei (1989) notes a counterexample to this descriptive generalization. According to Kenesei, WCO-effects vanish with verbs like *zavar* 'disturb'. Note that such verbs belong to the class of experiencer verbs. However, verbs of the agent-theme class like in (23) represent the unmarked case (cf. section 3.3.4.).

- (30) a. *Az *pro* anyját *mindenkinek* dicsértem
 the mother-npAGR3sg-ACC everyone-DAT praised-AGR1sg
 *'I praised *his* mother to *everyone*.'
- b. *Mindenkinek* dicsértem *az pro* anyját
 everyone-DAT praised-AGR1sg the mother-npAGR3sg-ACC
- c. *Mindenkit* dicsértem *az pro* anyjának
 everyone-ACC praised-AGR1sg the mother-npAGR3sg-DAT
 'I praised *everyone* to *his* mother.'
- d. Az *pro* anyjának *mindenkit* dicsértem
 the mother-npAGR3sg-DAT everyone-ACC praised-AGR1sg
- (31) a. *Az *pro* anyját *mindenkivel* szembesítettem
 the mother-npAGR3sg-ACC everyone-INSTR confronted-AGR1sg
 *'I confronted *his* mother with *everyone*.'
- b. *Mindenkivel* szembesítettem *az pro* anyját
 everyone-INSTR confronted-AGR1sg the mother-npAGR3sg-ACC
- c. *Mindenkit* szembesítettem *az pro* anyjával
 everyone-ACC confronted-AGR1sg the mother-npAGR3sg-INSTR
 'I confronted *everyone* with *his* mother.'
- d. Az *pro* anyjával *mindenkit* szembesítettem
 the mother-npAGR3sg-INSTR everyone-ACC confronted-AGR1sg
- (32) a. *Az *pro* anyját *mindenkiről* sokat faggattam
 the mother-npAGR3sg-ACC everyone-DELAT a lot interrogated-
 AGR1sg
 *'I interrogated *his* mother a lot about *everyone*.'
- b. *Mindenkiről* sokat faggattam *az pro* anyját
 everyone-DELAT a lot interrogated-AGR1sg the mother-
 npAGR3sg-ACC
- c. *Mindenkit* sokat faggattam *az pro* anyjáról
 everyone-ACC a lot interrogated-AGR1sg the mother-npAGR3sg-DELAT
 'I interrogated *everyone* a lot about *his* mother.'
- d. Az *pro* anyjáról *mindenkit* sokat faggattam
 the mother-npAGR3sg-DELAT everyone-ACC a lot interrogated-
 AGR1sg
- (33) a. *Az *pro* anyjának *mindenkiről* sokat beszéltem
 the mother-npAGR3sg-DAT everyone-DELAT a lot spoke-AGR1sg
 *'I spoke a lot to *his* mother about *everyone*.'
- b. *Mindenkiről* sokat beszéltem *az pro* anyjának
 everyone-DELAT a lot spoke-AGR1sg the mother-npAGR3sg-DAT
- c. *Mindenkinek* sokat beszéltem *az pro* anyjáról
 everyone-DAT a lot spoke-AGR1sg the mother-npAGR3sg-DELAT
 'I spoke to *everyone* a lot about *his* mother.'
- d. Az *pro* anyjáról *mindenkinek* sokat beszéltem
 the mother-npAGR3sg-DELAT everyone-DAT a lot spoke-AGR1sg

- (34) a. *Az *pro* anyjával *mindenkiről* vitatkoztam
 the mother-npAGR3sg-INSTR everyone-DELAT argued-AGR1sg
 *'I argued with *his* mother about everyone.'
- b. *Mindenkiről* vitatkoztam az *pro* anyjával
 everyone-DELAT argued-AGR1sg the mother-npAGR3sg-INSTR
- c. *Mindenkivel* vitatkoztam az *pro* anyjáról
 everyone-INSTR argued-AGR1sg the mother-npAGR3sg-DELAT
 'I argued with *everyone* about *his* mother.'
- d. Az *pro* anyjáról *mindenkivel* vitatkoztam
 the mother-npAGR3sg-DELAT everyone-INSTR argued-AGR1sg

It is obvious from this paradigm that the distribution of bound pronouns yields asymmetries involving all direct arguments of the verb.

Having settled this, let us investigate whether the distribution of bound pronouns may be affected by varying in (23)-(26) (i) the structural configuration or (ii) the linear order.

(i) The crucial difference between these sentences and their counterparts to be presented below is that the bound pronoun is embedded one maximal projection deeper, namely, in an embedded clause with a lexical head. Such clauses are complex NPs.

We expect that a pronoun in an embedded clause may be interpreted as a bound variable except when this clause is in the nominative and precedes the binder, a quantified NP. This is, however, not the case. A pronoun in such a configuration may always be interpreted as a bound variable:

- (35) a. [NP Az a tény [CP hogy (ø) szélhámos]] *kit* idegesített
 that the fact that he fraud who-ACC got nervous
 'Who got nervous from the fact that *he* was a fraud?'
- b. *Kit* idegesített [NP az a tény [CP hogy (ø) szélhámos]]
 who-ACC got nervous that the fact that he fraud
- c. *Ki* állította [NP azt a tényt [CP hogy (ø) szélhámos]]
 who stated that-ACC the fact-ACC that he fraud
 'Who stated that *he* was a fraud?'
- d. [NP Azt a tényt [CP hogy (ø) szélhámos]] *ki* állította
 that-ACC the fact-ACC that he fraud who stated
 (Marác 1985a: 134)

The same is illustrated by embedding the bound pronoun in a relative clause, as Anna Szabolcsi (personal communication) has pointed out to me. A relative clause is a complex NP as well. Compare:

- (36) a. [NP A professzor [CP akitől (ők) matematikát tanultak]] *minden diákot* szeretett
 the professor who-ABL they mathematics-ACC learnt every student-ACC liked
 *'The professor who *they* took mathematics from liked *every student*.'
- b. *Minden diákot* szeretett [NP a professzor [CP akitől (ők) matematikát tanultak]]
 every student-ACC liked the professor who-ABL they mathematics-ACC learnt
- c. *Minden diák* szerette [NP a professzort [CP akitől matematikát tanultak]]
 every student liked the professor who-ABL mathematics-ACC learnt
 'Every student liked the professor who they took mathematics from.'
- d. [NP A professzort [CP akitől (ők) matematikát tanultak *minden diák* szerette]]
 the professor-ACC who-ABL they mathematics-ACC learnt every student liked

Observe from the comparison between (23a)-(23c) on the one hand and (35a) and (36a) on the other hand that the WCO-effect disappears when the bound pronoun is more deeply embedded. According to Anna Szabolcsi (personal communication), the reason for this is that embedded clauses are so "heavy" that in initial position they can only be produced with the intonation characteristic for Left Dislocation. Szabolcsi suggests therefore that this difference is due to the fact that the former phrases are in neutral position, whereas the latter are left-dislocated. Recall that a left-dislocated constituent is adjoined to the sentence (cf. section 4.3.).

The following sentences indicate that Szabolcsi's suggestion may be on the right track. The WCO-effect also vanishes in (23a)-(23c) when the possessive NP is left-dislocated:

- (37) a. Az *pro* anyja, *ő* *kit* szeret
 the mother-npAGR3sg she who-ACC loves
 'As for *his* mother, *who* does she love.'
- b. Az *pro* anyja, *ő* *mindenkit* szeret
 the mother-npAGR3sg she everyone-ACC loves
 'As for *his* mother, she loves *everyone*.'
- c. Az *pro* anyja, *ő* *VILIT* szereti
 the mother-npAGR3sg she Bill-ACC loves
 'As for *his* mother, she loves *BILL*.'

A more complicated case with the distribution of bound pronouns has been examined in Szabolcsi (1986a).

Szabolcsi notes that the subject-object asymmetry with this phenomenon also occurs when the pronoun is embedded in a quantified possessive NP:

- (38) a. *Minden *pro* fia *MARIT* szereti
 every son-npAGR3sg Mary-ACC loves
 'For every son of x's, it is x=Mary that he loves'
- b. *MARIT* szereti minden *pro* fia
 Mary-ACC loves every son-npAGR3sg
- c. *MARI* szereti minden *pro* fiát
 Mary loves every son-npAGR3sg-ACC
 'For every son of x's, it is x=Mary that loves them'
- d. Minden *pro* fiát *MARI* szereti
 every son-npAGR3sg-ACC Mary loves

This paradigm exemplifies that a pronoun in a quantified NP may only be bound if that NP does not precede the binder and is higher on hierarchy (6) than the binder¹².

In the sentences discussed so far, the binder has been in the preverbal field. Let us consider whether the distribution of bound pronouns is affected by scrambling the quantified NP into the postverbal field, that is, to the right of the verb.

(ii) With Wh-phrases and focussed NPs this is not allowed, because they have to stick to the Focus position. (This position is left-adjacent to the verb (cf. 2.1.(28c)).

(12) See Szabolcsi (1986a) and Kenesei (1989) for further discussion of bound pronouns in quantified possessive NPs.

However, some quantified NPs, like (narrow scope) universal and existential quantifiers, may appear postverbally. A bound variable interpretation of the pronoun is not possible in the scrambled alternants of (23)-(26):

- (39) a. *Az *pro* anyja szeret *mindenkit/valakit*
 the mother-npAGR3sg loves everyone-ACC/someone-ACC
 *'His mother loves *everyone/someone*.'
- b. *Szereti az *pro* anyja *mindenkit/valakit*
 loves the mother-npAGR3sg everyone-ACC/someone-ACC
- c. *Szereti *mindenkit/valakit* az *pro* anyja
 loves everyone-ACC/someone-ACC the mother-npAGR3sg
- (40) a. *Az *pro* anyját szereti *mindenki/valaki*
 the mother-npAGR3sg-ACC loves everyone/someone
 'Everyone/someone loves his mother.'
- b. *Szereti az *pro* anyját *mindenki/valaki*
 loves the mother-npAGR3sg-ACC everyone/someone
- c. *Szereti *mindenki/valaki* az *pro* anyját
 loves everyone/someone the mother-npAGR3sg-ACC

These paradigms are not in correspondence with the descriptive rule on the distribution of bound pronouns, namely, that a pronoun may not be interpreted as a bound variable if and only if the possessive NP in which the pronoun is embedded precedes the binder and is higher in case-hierarchy (6) than the binder of the pronoun. It appears that when a quantifier appears postverbally, it may never bind a pronoun.

I would like to suggest, however, that the bound variable interpretation of pronouns in these sentences is ungrammatical for independent reasons. Usually quantifiers appear preverbally (cf. 2.1.(28f)). They may appear postverbally only under specific conditions. For example, when a postverbal quantifier is in the scope of a preverbal one. Therefore, if the possessive NP is focussed in (39a) and (40a), again a subject-object asymmetry with bound pronouns shows up:

- (41) a. *AZ *pro* ANYJA szeret *mindenkit/valakit*
 the mother-npAGR3sg loves everyone/someone
 *'It is *his* mother who loves everyone/someone.'
- b. AZ *pro* ANYJÁT szereti *mindenki/valaki*
 the mother-npAGR3sg-ACC loves everyone/someone
 'It is *his* mother who *everyone/someone* loves.'

Recapitulating, in this section some subject-object asymmetries in the distribution of bound pronouns in Hungarian have been discussed. These phenomena indicate that its phrase structure has a hierarchical structure, otherwise they can not be accounted for in terms of the universal condition on the distribution of bound pronouns in (21): A quantifier must c-command its bound pronoun.

5.3.4.4. Summary

Let us now summarize the discussion on binding theory so far. In (5.3.4.1.)-(5.3.4.3.), the following subject-object asymmetries have been observed. (i) Binding

Principle A asymmetries with reflexive and reciprocal pronouns. (ii) Binding Principle C asymmetries with a pair of names and (iii) asymmetries with the distribution of bound pronouns. These dichotomies between subject and object are not restricted to the nominative and accusative arguments of the verb but they also involve the other direct arguments of the verb. In line with theories on binding, I assume that these asymmetries can be accounted for in terms of structural conditions. These conditions must be interpreted on a syntactic structure with a hierarchical ordering. Hence, these binding asymmetries support the claim that Hungarian is a configurational language.

Furthermore, Hungarian also testifies to some generalizations in the domain of binding theory which have been made in connection with other languages. (i) Both the reflexive anaphor and the bound pronoun obey a stricter condition than the coreferential reading of a name. The former must be bound by a more prominent argument, whereas the latter must be free, and (ii) a pronominal and a name have distinct syntactic properties. The binding relation between a pair (pronoun, name) may yield a symmetry. However, such a relation between a pair (name, name) yields always an asymmetry (cf. 5.2.3.(4) versus (12)). This dichotomy supports Chomsky's (1981) view that pronominals and names are distinct lexical primitives which have to be accounted for by separate principles.

5.3.4.5. *Switch Reference*

Hungarian displays a *switch reference* system (cf. Pléh 1980; 1981a; 1981b and Pléh and Radics 1978).¹³ Although this phenomenon does not strictly belong to sentence syntax, it involves an interesting restriction. Compare the following example from English first:

(42) The boy_i noticed the man_j. He_{i/j} walked up to him_{i/j}

In this sentence, it is impossible to decide without knowledge of the world which pronoun in the second part is coreferential to which lexical NP in the first one.

In Hungarian, however, this type of referentiality has been grammaticalized. To illustrate, consider the following sentences:

- (43) a. A *fiú_i* meglátta a *bácsi_j*. (*Ő*)_{i/*j} odament *hozzá_j*
 the boy noticed the man-ACC. He up-walked he-ALL
 'The boy noticed the man. He (=the boy) walked up to him.'
 b. A *fiú_i* meglátta a *bácsi_j*. Az_{*i/j} odament *hozzá_j*
 'The boy noticed the man. That (=the man) up-walked to him.'
 (Pléh and Radics 1978: 93)

This pair illustrates the following two points. First, only the nominatively marked pronoun may switch between a (non-overt) personal pronoun and a demonstrative pronoun. Second, the different choice of pronoun yields 'switch reference'. When the personal pronoun *ő* 'he, she' is chosen (cf. (43a)), we have the *proximate* reading, i.e. the pronoun refers to the nominative antecedent. On the other hand, when

(13) See Finer (1985) for a cross-linguistic study of switch reference.

the demonstrative pronoun *az* 'that' is used, we get the *obviate* reading, i.e. the pronoun refers to the accusative antecedent in (43b). Pléh and Radics point out that the demonstrative pronoun may refer to any non-nominative argument of the verb. The following sentences exemplify this.

In (44) and (45) the object of the verb is an allative argument, while in (46) the object is assigned delative case by the verb:

- (44) a. *Pista_i odament Feribez_j (Ő)_{i/*j} nem akarta észrevenni (ő_r)_j*
 Steve up-went Frank-ALL he not wanted notice-INFI him
 'Steve went up to Frank. He (=Steve) didn't want to notice him.'
- b. *Pista_i odament Feribez_j. Az*_{i/j} nem akarta észrevenni (ő_r)_j*
 'Steve went up to Frank. That (=Frank) didn't want to notice him.'
 (Pléh and Radics 1978: 96)
- (45) a. *A postás_i bement a házmesterhez_j. (Ő)_{i/*j} odaadta neki_j a kulcsot*
 the postman went the caretaker-ALL. He gave he-DAT the key-ACC
 'The postman went into the caretaker's. He (=the postman) gave him the key.'
- b. *A postás_i bement a házmesterhez_j. Az*_{i/j} odaadta neki_j a kulcsot*
 'The postman went into the caretaker's. That (=the caretaker) gave him the key.'
 (Pléh and Radics 1978: 95)
- (46) a. *A munkás_i már sokat hallott az új igazgatóról_j, de most (Ő)_{i/*j} találkozott vele_j*
 new manager-DELAT the worker already a lot heard the but now he met
 először
 he-INSTR the first time
 'The worker had heard a lot about the new manager, but now he (=the worker) met him for the first time.'
- b. *A munkás_i már sokat hallott az új igazgatóról_j, de most az*_{i/j} találkozott vele_j*
 először
 'The worker had heard a lot about the new manager, but now that (=the new manager) met him for the first time.'
 (Pléh and Radics 1978: 98)

Switch Reference emphasizes in two ways that the nominative argument is more prominent than the other arguments of the verb. First, the switch between the personal pronoun and demonstrative pronoun may affect only the nominative argument. The other cases do not participate in this switch. Only the personal variant may corefer to an accusative (cf. (43)), allative (cf. (44)), allative (cf. (45)), or a delative NP (cf. (46)). Hence, use of the corresponding demonstrative pronouns *ahhoz* 'that-ALL' in (43), *azt* 'that-ACC' in (44), *annak* 'that-DAT' in (45), or *azzal* 'that-INSTR' in (46) yields an ungrammatical result. Second, the nominative personal pronoun may refer to any argument in the preceding sentence, contrary to the demonstrative pronoun, which may refer to any argument provided that it is not the nominative.

The following rule covers Switch Reference in Hungarian:¹⁴

- (47) The nominative personal pronoun *ő* is coreferential with a nominative argument, whereas the nominative demonstrative pronoun *az* is coreferential with a non-nominative argument

(14) Warlpiri exhibits a phenomenon which is quite similar to Switch Reference in Hungarian. Simpson and Bresnan (1983) note that in constructions with obligatory control only the subject argument is accessible to binding by an argument from another domain, and that the distinction between subject versus non-subject controller is made by means of person marking suffixes which are attached to the infinitivals.

Pléh and Radics (1978) report that, as in English, Switch Reference in Hungarian may also interact with knowledge of the world, pragmatic factors, grade of activity, linear order, agency, or number specification, and so on.

Pléh (1982) discusses two construction types in which exactly the reverse of what is predicted by this rule occurs, involving (i) constructions with *experiencer verbs* or (ii) with the *existential verb*.

(i) Experiencer verbs select an experiencer and a theme argument which are associated with the dative and nominative case, respectively (cf. section 3.3.4.). If the first sentence contains an experiencer verb, the personal pronoun in the second sentence is coreferential with the dative argument (cf. (48a)), and its demonstrative variant is coreferential with the nominative argument (cf. (48b)):

- (48) a. *A színésznőnek_i tetszett a rendező_j. (Ő)_{i/*j} minden nap új ötleteket adott neki_j*
 the actress-DAT liked the producer. He every day new ideas-ACC gave he-DAT
 'The actress liked the producer. She gave him every day new ideas.'
- b. *A színésznőnek_i tetszett a rendező_j. Az*_{i/j} minden nap új ötleteket adott neki_i*
 'The actress liked the producer. That gave her every day new ideas.'

(ii) A similar exception to the above rule appears with the existential verb *van* 'be'. *Van* selects a dative and a nominative argument (cf. Szabolcsi 1981a, and De Groot 1983b for an analysis of existential clauses with *van*):

- (49) a. *Jánosnak_i van barátja_j. (Ő)_{i/*j} adott neki_j ajándékot*
 John-DAT is friend-npAGR3sg he gave him present-ACC
 'John has a friend. He (=John) gave him a present.'
- b. *Jánosnak_i van barátja_j. Az*_{i/j} adott neki_i ajándékot*
 'John has a friend. That (=his friend) gave him a present.'

The personal pronoun is coreferential with the dative NP (cf. (49a)). The demonstrative pronoun, however, is coreferential with the nominative NP.

The solution of this puzzle is that neither experiencer verbs nor the existential verb do select an agent. If we assume that rule (47) is conditioned by *agency* as well, then it is clear why constructions with experiencer verbs or with the existential verb constitute an exception to it.

Pléh observes furthermore that linear order may overrule (47) as well. If the nominative antecedent of the first part is in sentence-final position, native-speakers tend to interpret the demonstrative pronoun *az* as coreferential with it. This tendency is even stronger in the case of constructions with experiencer verbs or with the existential verb.

In sum, Switch Reference displays a subject-non-subject opposition captured by rule (47). However, it becomes visible only if the conditions on agency and linear order do not intervene.

5.3.5. Case Theory

This section examines subject-object asymmetries which are related to *Case theory*, including the different *conjugations* of the Hungarian verb (cf. section 5.3.5.1.), the distribution of small *pro* (cf. section 5.3.5.2.) and the syntax of *ACI-verbs* in Hungarian (cf. section 5.3.5.3.).

5.3.5.1. *The Conjugational Patterns of the Hungarian Verb*

Subject-object asymmetries with the conjugation of the Hungarian verb involve (I) the *definite* and *indefinite* conjugation, and (II) the verbal suffix *-lak*.

(I) The verb may appear with two different conjugational patterns, namely, the definite and the indefinite conjugation (cf. section 4.2.1.). The descriptive rule 4.2.(2) captures the distribution of these pattern, here repeated as (1):

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

The following minimal pair is an example of (1):

- | | | | | | |
|--------|------------------|------------|----|-------------------|--------------|
| (2) a. | Látok | egy lányt | b. | Látom | a lányt |
| | see-AGR1sg-indef | a girl-ACC | | see-AGR1sg-def | the girl-ACC |
| | 'I see a girl.' | | | 'I see the girl.' | |

The definite accusative NP *a lányt* (cf. (2b)) triggers the definite conjugation, whereas its indefinite counterpart *egy lányt* (cf. (2a)) appears with the indefinite conjugation.

Compare, now, the conjugational patterns of an intransitive verb (cf. (3a) and (3b)) with the conjugational paradigms of a transitive verb subcategorizing for an NP with a lexical case (cf. (3c) and (3d)):

- | | | | | | |
|--------|------------------------------|--------------|---------------------------|--------------------------------|----------------|
| (3) a. | Egy lány fut- \emptyset | b. | A lány fut- \emptyset | | |
| | a girl run-AGR3sg-indef | | the girl run-AGR3sg-indef | | |
| | 'A girl is running.' | | 'The girl is running.' | | |
| c. | Beszélek | egy lánnyal | d. | Beszélek | a lánnyal |
| | speak-AGR1sg-indef | a girl-INSTR | | speak-AGR1sg-indef | the girl-INSTR |
| | 'I am speaking with a girl.' | | | 'I am speaking with the girl.' | |

In (3a) and (3b), the conjugational pattern of the agentive intransitive verb *fut* is indefinite, whatever the definiteness feature of its nominative subject is. Thus, the definiteness of a nominative argument of an intransitive verb does not affect the choice of conjugational pattern. The transitive verb *beszél* 'speak' which is associated with a NOM-INSTR case frame occurs with the indefinite conjugation in (3c) and (3d), although in (3d) its instrumental argument is definite. Obviously, an object argument other than the accusative, i.e. the instrumental in (3c) and (3d), does not affect the conjugational pattern of the verb. Hence, we conclude that the *accusative* case is a necessary condition for the definite conjugation, besides definiteness.

The question arises whether rule (1) is sensitive to D-structure grammatical functions. *Inchoative* verbs illustrate that this is not the case but that this rule is sensitive to surface structure case.¹⁵ Recall that these verbs select a D-structure object which ends up as the nominatively marked subject at surface structure (cf. section 3.3.2.). If the indefinite/definite alternation were sensitive to D-structure grammatical functions, then the inchoative verb *eltörik* 'break' would display the definite conjugation

(15) Unaccusative verbs are not suitable for illustrating the fact that the indefinite/definite pattern of the verb is not sensitive to the D-structure object. A number of these verbs allow only indefinite arguments (cf. Szabolcsi 1986f for a discussion of the definiteness effect in Hungarian).

when it appears with a definite NP.¹⁶ In sentence (4b), the object NP *az üveg* 'the glass' is definite. Note, however, that *eltörök* may only be conjugated *indefinitely*:

- (4) a. Egy üveg eltör-ött- ϕ /*-t-e
 a glass break-past-AGR3sg-indef/def
 'A glass broke.'
 b. Az üveg eltör-ött- ϕ /*-t-e
 the glass break-past-AGR3sg-indef/def
 'The glass broke.'

In conclusion, the subject and the object do not have the same distribution with respect to the conjugational patterns of the Hungarian verb. The indefinite/definite alternation of the verbal conjugation singles out the accusative argument of the verb. This argument is distinct from the other arguments in that it may trigger, when definite, the definite conjugation. So, this dichotomy is rooted in Case theory.

(II) Another instance in which Case theory interacts with the conjugation of the Hungarian verb is in the case of the verbal suffix *-lak*. The question to which conjugational pattern, i.e. the indefinite or definite one, this suffix belongs is a matter of debate.

Lotz (1976) argues that *-lak* falls within the indefinite paradigm. This suffix may only be attached to transitive verbs which appear with NOM-ACC case frame. It reflects that the nominative NP is first person singular, and the accusative NP is second person singular or plural person

Consider, for example, the difference in grammaticality between the verb *lát* 'see' (cf. (5a)) which is associated with a NOM-ACC case frame and the verb *találkoz* 'meet' (cf. (5b)) which is associated with a NOM-INSTR case frame when they are conjugated with *lak*:

- (5) a. (Én) lát*lak* (téged/titeket)
 I see-AGR1sg2sg/pl you(sg)-ACC/you(pl)-ACC
 'I see you.'
 b. *(Én) találkoz*lak* (téged/titeket)
 I meet-AGR1sg2sg/pl you(sg)-ACC/you(pl)-ACC
 'I meet you.'

From a comparison between (5a) and (5b), it follows that verbal suffixation with this suffix is only allowed by transitive verbs which appear with a nominative and accusative complement.

5.3.5.2. *The Distribution of Small pro*

The presence of empty categories in the syntactic representation is guaranteed by an interplay of the Projection Principle and the θ -criterion (cf. Chomsky 1986a: 84). The licensing of small *pro* is determined by two sorts of conditions, a structural one and a contextual one (cf. section 4.2.4.2.).

The first type of constraint is related to *government*. Small *pro* is sanctioned if it is related to a governor which has enough 'strength'. These governors are, for example,

(16) *Eltörök* is monadic when it is inflected with the passivizer *-ik*. This suffix is spelled out, however, only in the third person singular present tense (cf. section 3.3.2.).

X⁰-categories which assign a structural Case (cf. Rizzi 1986). The second condition may be fulfilled only by Infl if it is specified with rich AGR.

The *pro*-module is relevant in the present context, because it yields subject-object asymmetries. Consider again the distribution of *pro* in Hungarian 4.2.(34), here repeated as (6):

- (6) *The Distribution of pro in Hungarian*
- a. *Nominative* personal pronouns may be dropped in all persons and numbers
 - 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

I discussed in section 4.2. the following dichotomies with *pro*-drop, (I) nominative and accusative pronouns may be omitted, unlike pronouns with lexical case, and (II) *pro*-drop with accusative pronouns is conditioned by plurality and definiteness features. So, in (I) we have an opposition between nominative/accusative and lexical case, and in (II) we have an opposition between nominative and accusative. Let us consider first (I).

(I) Recall that the the first opposition has been captured by condition 4.2.(35), here repeated as (7):

- (7) Pronouns in Hungarian may only be dropped if they are assigned structural Case

This condition on *pro*-drop is formulated in terms of Case theory. The opposition between nominative/accusative Case and lexical case coincides with the opposition between structural Case and θ -case (cf. section 3.2.1.). In theories on Case-assignment (cf. Chomsky 1981 or Kayne 1984) it is assumed that each type of Case is associated with a governor holding a separate structural position. From this it follows that structural Case is assigned to a different position than θ -case. In section 5.4.1., I will argue that structural Case-assigners are structurally more prominent than non-structural Case-assigners.

(II) Another distributional subject-object asymmetry with *pro*-drop shows up with nominative and accusative pronouns. Observe from (6) that this phenomenon with accusative pronouns is more restricted than *pro*-drop with nominative pronouns. Accusative pronouns may only be dropped when they are singular. I argued that this difference is due to the status of personal pronouns in discourse and the existence of discourse hierarchies (cf. section 4.2.4.2.). Although this opposition does not provide direct evidence for the hierarchical organization of Hungarian phrase structure, it provides at least some circumstantial evidence. The dichotomy between nominative and accusative pronouns indicates that the nominative argument and accusative argument represent separate primitives in the grammar. In that sense it is a real subject-object asymmetry.

5.3.5.3. ACI-Verbs

Verbs of *perception* like *see*, and *hear* and verbs of *propositional attitude* such as *consider*, and *believe* may select an *Accusativus-cum-Infinitivo* (ACI). Compare:

- (8) a. I saw [IP John/him cut the bread] b. I consider [IP John/him to be a fool]

Chomsky (1981) attributes the following properties to these constructions.

(i) The clausal complement may be realized as an embedded infinitive, sometimes in the form of a so-called 'naked' infinitive as in (8a) (cf. Higginbotham 1982), and (ii) these clausal complements are transparent for government and Case-assignment of a higher verb. According to Chomsky, the latter property is due to the deletion of the CP.

It is a problem that there is no suitable Case-assigner in the embedded clause present for its subject. If nothing happened these sentences would be ruled out as a Case Filter violation (cf. 3.3.(5)). However, the subject of the embedded clause is assigned structural accusative Case 'exceptionally' by the matrix verb. This is clear from the fact that the personal pronoun in the subject position appears in its accusative form.

Marantz (1984) and Hale and Keyser (1985) argue that the embedded subject receives a compositional θ -role from the embedded VP. Therefore, this subject receives its Case-features from a different governor than its θ -role. A crucial assumption is that the structural subject position is outside the VP.

Let us turn to the Hungarian equivalents of the sentences in (8):

- (9) a. Jánost/öt láttam vágni a kenyeret
 John-ACC/him saw-AGR1sg cut-INFI the bread-ACC
 'I saw John/him cut the bread.'
- b. Jánost/öt hülyének tartom
 John-ACC/him fool-DAT consider-AGR1sg
 'I consider John/him to be a fool.'

Consider first (9a) which exemplifies an ACI-complement selected by a perception verb.¹⁷ Observe that although word order is 'free', this complement has exactly the same properties as its English counterpart. (i) ACI-complements are selected by a perception verb, and (ii) their subject appears in the accusative case. This suggests an analysis along the lines sketched for the English ACI-complement.

The following minimal pair provides some evidence for this:

- (10) a. Hallottam/láttam azt [CP hogy (te) megvered őt]
 heard-AGR1sg/saw-AGR1sg that-ACC that you beat-AGR2sg him
 'I heard/saw that you beat him.'
 (Szabolcsi 1983a: 12)
- b. Hallortalak/láttalak [IP téged megverni őt]
 heard-AGR1sg2sg/pl/saw-AGR1sg2sg/pl. you-ACC beat-INFI him
 'I heard/saw you beat him.'
 (Szabolcsi 1983a: 13)

(17) É. Kiss (1987a: 62) claims that Hungarian does not display ACI-constructions. According to É. Kiss, this provides support for the assumption that Case assignment is thematically based. However, it will be argued below that Hungarian does display these constructions and that they have similar properties as their counterparts in English.

In (10a), the perception verb selects a full clausal complement. Embedded clauses introduced by the complementizer *bogy* are CPs in Hungarian, and a matrix verb subcategorizing for a CP assigns its Case-features to the 'dummy' demonstrative pronoun *az* 'that' (cf. section 4.5.1). The subject is assigned nominative Case in its embedded clause.

In (10b), on the other hand, the clausal complement is an ACI. Recall, furthermore, that the suffix *-lak* agrees with the nominative argument first person and the accusative argument second person of a transitive verb (cf. section 5.3.5.1.(II)). Observe now that this suffix on the matrix verb agrees with the accusative NP *téged* which is the subject of the ACI-complement. Obviously, the NP which is assigned the structural accusative Case in the domain of the verb may trigger verbal agreement on that verb.

This demonstrates that the subject of an ACI-complement is accessible for the higher verb. Hence, in sentence (10b) clausal-reduction from CP to IP must have applied which makes the embedded subject accessible for structural Case-assignment by the higher verb. Consequently, the embedded subject agrees with the verbal suffix *-lak* on the higher verb. Hence, the syntax of ACI-complements in Hungarian provides evidence for a subject-predicate partitioning of the sentence.

Let us turn now to ACI-constructions selected by verbs of propositional attitude in Hungarian.

ACI-complements to verbs of propositional attitude have the same properties as these complements with verbs of perception. However, there is one interesting difference between these two constructions, as observed by Komlósy (1985). Komlósy notes that the clausal complement of verbs of propositional attitude is not headed by an infinitive but by an adjective (cf. (9b)). So, it might be more appropriate to call the Hungarian equivalent of (8b) *Accusativus-cum-Adjectivo*. For convenience, however, I will continue to speak about ACI-complements in these cases as well.

The Hungarian construction rather resembles the English construction with verbs of propositional attitude selecting a small clause (henceforth labelled as S):

(11) I consider [_S John/him a fool]

It is unclear why these verbs in Hungarian may not select an infinitive. According to Komlósy, the adjective functions as a secondary predicate which is incorporated into the matrix verb. This yields a complex verb (cf. section 4.4.), because in neutral sentences the adjective occurs in the VM-position, and it bears dative case. So, in (9b) 'restructuring' seems to have applied resulting into a monoclausal structure.

Following the analysis of ACI-complements in English, I will relate the accusative Case of *János/öt* in this sentence to the matrix verb and its θ -role to the secondary predicate. The θ -role may be transmitted through chain formation with big *PRO* or NP-trace. The precise determination of this is a subject for further research.¹⁸

(18) A syntactic relative of ACI-constructions in Hungarian is the adjective complement selected by raising verbs:

- (i) János [V' szomorúnak látszik]
 John sad-DAT seem-AGR3sg
 'John seems sad'

Recapitulating, the subject NP of an ACI-complement in Hungarian exhibits a mismatch between Case- and θ -assignment. This NP receives its accusative Case from a matrix governor, which may be a perception verb or a verb of propositional attitude. Its θ -role is assigned compositionally by the lower VP. Exceptional Case-marking is allowed, because ACI-complements are accessible for Case-assignment of the higher verb. They have a structural subject position outside the VP just as such complements in English. The appearance of such complements in Hungarian provides empirical support for the subject-predicate partitioning of the sentence. Furthermore, they also support the claim that the accusative is a structural Case in Hungarian, similar to accusative Case in English (cf. 3.2.(7b)).¹⁹

5.3.6. *Control Theory*

Another domain of subject-object asymmetries is provided by *control theory*. This asymmetry is due to the EPP 3.3.(7), here repeated for convenience as (1):

- (1) Clauses must have subjects

In untensed embedded clauses the EPP introduces an empty category in the subject position functioning as the controllee in control relations. Chomsky (1981: 74-78) refers to this empty category as big *PRO*.

Chomsky claims that *PRO* is ungoverned in infinitive clauses, because these clauses lack an I-node. Koster (1987), on the other hand, argues that *PRO* may be governed in such cases. For our purposes, it is sufficient that both approaches assume the presence of an empty category subject in untensed embedded clauses. This implies a subject-object asymmetry.

This section examines two phenomena belonging to the domain of control theory in which subject-object asymmetries appear involving (I) control constructions with infinitive complements (cf. section 5.3.6.1), and (II) control relations with secondary predicates (cf. section 5.3.6.2.).

5.3.6.1. *Infinitive Complements*

Usually, two cases of control are distinguished with infinitive complements, namely, (i) *subject control*, and (ii) *object control* constructions. Consider an example of each:

This sentence contains a complex verb as well (cf. chapter three, note 32). Note, however, that in such constructions the raised NP receives its nominative Case from I on the raising verb. There is no other Case assigner available. The θ -role of the NP must originate from the secondary predicate, since raising verbs do not assign θ -roles. So, (i) displays another instance of a mismatch between Case- and θ -assignment.

(19) Hungarian has also some verbs selecting Dativus-cum-Infinitivo (DCI). Compare, for example, the DCI-complement of the verb *segít* 'help':

- (i) Segítek [IP Jánosnak/nekí csomagolni]
 help-AGR 1sg John-DAT/he-DAT pack-FI
 'I help John/him to pack.'

If this complement is analysed analogously to the ACI-complement, then it follows that the dative is a structural Case as well. Maybe this provides an explanation for the fact that the prominence of the accusative over the dative is not so clear always, for example, in the case of reflexive binding (cf. 5.3.4.(8a)-(8d)). (See section 5.4. for further discussion of the case system in Hungarian).

- (2) a. *John* promised *Bill* [_{IP} *PRO* to feed himself]
 b. *John* persuaded *Bill* [_{IP} *PRO* to feed himself]

Verbs of the *promise*-type specify that the controller of *PRO* is the subject of the matrix verb, as in (2a). Verbs of the *persuade*-type specify that the controller of *PRO* is the object of the matrix verb, as in (2b). It has been argued that Hungarian displays both subject and object control (cf. Kálmán et al. 1984; 1986, É. Kiss 1987a, and Szabolcsi 1983a). The case of object control is, however, not so clear. Below I will argue that it may be treated as an ACI-construction. Consider first some cases of subject control.

(I) Verbs such as *akar* 'want', *elmegy* 'go away', *fél* 'fear', *igyekszik* 'strive', *imád* 'love', *kell* 'must', *megpróbál* 'try', and *szeret* 'like' induce subject control. Compare:

- (3) a. *János* akarta látni *Marit*
 John wanted-AGR3sg see-INFI Mary-ACC
 'John wanted to see Mary.'
 b. *Péter* imádott táncolni *Marival*
 Peter loved-AGR3sg dance-INFI Mary-INSTR
 'Peter loved to dance with Mary.'
 c. *Jánosnak* kell látni *Marit*
 John-DAT has to-AGR3sg see-INFI Mary-ACC
 'John has to see Mary.'
 d. *Küldöm* *Jánost* úszni
 send-AGR1sg John-ACC swim-INFI
 'I send John to swim.'

Recall that *akar* 'want' and *kell* 'have to' trigger 'restructuring' yielding a monoclausal structure (cf. section 5.3.2.). This implies that in the surface representation of (3a) and (3c), *PRO* would not be present. This entails a violation of the EPP, since θ -role of the infinitival predicate cannot be assigned to the subject.

A violation of the Projection Principle in these cases, however, may be avoided by adopting a suggestion of Szabolcsi (1983a). Szabolcsi relates the presence of *PRO* to the assignment of a θ -role to the position it occupies. Therefore, if the infinitival predicate does not assign a θ -role to its subject, *PRO* may be missing. According to Szabolcsi, (some) subject control verbs precisely create this effect. They absorb the θ -role of the subject of their infinitive complement and bequeathe it to their own subject. Hence, *PRO* might be absent from the syntactic representation.

(II) Consider the following sentences:

- (4) a. *János* látta *Marit* énekelni
 John saw-AGR3sg Mary-ACC sing-INFI
 'John saw Mary singing.'
 b. *Hagyta*lak téged játszani *Pistával*
 let-AGR1sg2sg you-ACC play-INFI Steve-INSTR
 'I let you play with Steve.'

I analysed the infinitive complements of verbs of perception and propositional attitude, like *enged* 'let', *hagy* 'let', *hall* 'hear', *hív* 'call', *hoz* 'bring', and *lát* 'see', as ACI-complements (cf. section 5.3.5.3.). Hence, the sentences in (4) have a structure as in (5):

- (5) a. János látta [IP *Marit* énekelni] b. Hagytalak [IP *téged* játszani Pistával]

The reason I treated this group of verbs in a way comparable to ACI-verbs in English, was because they display similar syntactic properties as their ACI-counterparts in English.

Szabolcsi (1983a), on the other hand, regards the complements of these verbs as object control complements. Szabolcsi assumes that the accusative NP is a direct argument of the matrix verb associated with a *PRO* subject in the infinitive complement. So, according to Szabolcsi, the sentences in (4) have the following structure (bracketing is mine):

- (6) a. János látta *Marit* [IP *PRO* énekelni]
b. Hagytalak *téged* [IP *PRO* játszani Pistával]

Szabolcsi argues that an object control analysis in these cases is supported by the fact that the Hungarian construction does not merely require a direct perception of the action denoted by the matrix predicate but also a direct perception of the entity carrying out the action denoted by the embedded predicate. This can, however, easily be incorporated into the ACI-analysis by adopting Williams' (1983) extension of the theory of θ -assignment.

Williams argues that an NP may be assigned different θ -roles providing that each θ -role is assigned by a different θ -role assigner.²⁰ Of course, it remains to be explained why the subject of an ACI-complement in Hungarian receives two θ -roles but not in English. I will leave this dichotomy for further research. So, there is not much reason to assume that the syntactic representation of the cases in (4) contain a *PRO* subject.

Summarizing, the EPP provides an empty category, i.e. *PRO*, in the subject position of infinitive complements which is accessible for control by an NP of a higher domain. Hungarian displays only subject control. Control phenomena arise only if there is a subject-predicate dichotomy of the sentence. Hence, the presence of these phenomena is an argument for the subject-predicate partitioning of the sentence.

5.3.6.2. Secondary Predicates

Another construction type in which control theory is supposed to be operative is *secondary predication*, the so-called 'small' clause. Compare:

- (7) John eats *naked*

This sentence contains a secondary predicate, the adjective *naked*. It attributes a property to the subject NP *John*. In the literature, two kinds of analyses have been proposed for secondary predication, (I) Chomsky (1981) and Stowell (1982), and (II) Williams (1980; 1983). Let us first consider the Chomsky-Stowell approach.

(I) Chomsky and Stowell argue that the secondary predicate in (7) heads a small clause which has a *PRO* subject analogously to the subject of infinitive complements:

- (8) *John* eats [s *PRO* *naked*]

(20) Note that this theory violates the uniqueness condition on θ -assignment in 3.2.(2) or 4.6.(26). Therefore, Williams' suggestion remains somewhat controversial.

This clause does not contain I, and thus its *PRO* subject is accessible for a controller of a higher domain, i.e. *John* in (8).

This analysis is supported by the fact that the subject of a secondary predicate may be overtly present in syntax if the grammar provides a mode to sanction the Case of the lexical subject in the small clause parallel to infinitive constructions:

- (9) a. I saw [_{IP} *John* to be sad] b. I consider [_{IP} *John* to be a fool]
 c. *John* seems [_{IP} — to be sad]

The matrix verb in (9a) and (9b) is an ACI-verb, and the matrix verb in (9c) is a raising predicate.

The embedded subjects in (9) are sanctioned for Case in the following manner. ACI-verbs are lexically specified for making their embedded domain accessible for government and Case-assignment (cf. section 5.3.5.3.). Hence, the embedded subject *John* in (9a) and (9b) is assigned accusative Case and may therefore remain in-situ. In (9c), a violation of the Case Filter is avoided, because a raising predicate allows movement of the embedded subject *John* to the matrix subject where it is assigned nominative Case by I.

Note that exactly the same analysis is applied to small clauses. The only difference is that the embedded VP in (9) is replaced by an AP in (10a) and (10c) and by an NP in (10b):

- (10) a. I saw [_S *John* sad] b. I consider [_S *John* a fool] c. *John* seems [_S — sad]

Again, the embedded subject of these constructions cannot be Case-marked within its own clause by absence of a suitable Case-assigner. The constructions are saved, however, in the same way as the ones in (9).

(II) An alternative to the Chomsky-Stowell analysis is elaborated in Williams (1980; 1983). According to Williams, the relation between a secondary predicate and its controller is restricted by the theory of *Predication*.

Predication states that a predicate may be related to its controller if the controller c-commands the predicate. So, under this theory, the sentence in (7) receives the following analysis:

- (11) *John* eats naked

Thus the control relation is established directly without making reference to an embedded *PRO*.

At this place, I will not take a decision in favor of one of the analyses of secondary predication. I will adopt, however, the following *structural condition* on this phenomenon relevant to both approaches, namely:

- (12) A secondary predicate can be controlled by a lexical NP if it is c-commanded by that lexical NP

Let us turn to a discussion of secondary predication in Hungarian. This phenomenon has been studied by Komlósy (1985). According to Komlósy, secondary predicates may or may not belong to the PAS of the verb. The former case is an instance of *argumental* secondary predication, and the latter is an instance of *adjunctival* secondary predication. Let us first examine argumental secondary predication.

(I) Komlósy (1985) points out that argumental secondary predicates are semantically selected by the verb and are marked with a case-suffix. According to Komlósy, there are a couple of case-suffixes such as the *translative*, *formalis*, or *essive* endings whose primary function is to reflect secondary predication. Consider:

- (13) János jutalmul kapott egy oklevelet
 John reward-ESS received a diploma-ACC
 'As a reward John was given a diploma.'
 (Komlósy 1985: 59)

Komlósy observes furthermore that in their neutral order secondary argumental predicates must be left-adjacent to the verb and may not be modified by an article. Komlósy concludes therefore that these predicates occupy the VM-position and form with the verb a V'-constituent (see, section 4.4.1.).

Resultative predicates are a good example of secondary predication. Resultative predicates denote the new quality or property of an argument which it acquires as a result of the event denoted by the verb. They are selected by verbs of change such as *lesz* 'turn into', *válik* 'become', or *alakul* 'grow'.

Resultative nouns are assigned translative case, and resultative adjectives are usually marked ablatively:

- (14) a. János (*a) jó mérnökéé vált
 John the good engineer-TRANS became-AGR3sg
 'John became a good engineer.'
 b. Mari (*a) pirosra festette a falat
 Mary the red-SUBL painted-AGR3sg the wall-ACC
 'Mary painted the wall red.'
 (Komlósy 1985: 61)

These verbs are obligatorily specified for a secondary predicate in their PAS.

Verbs of *change of state*, or *contact*, however, may only optionally select a secondary predicate. Consider the pairs in ((15a), (15b)) and ((16a), (16b)):

- (15) a. Mari főzi a krumplit
 Mary cook-AGR3sg the potatoe-ACC
 'Mary cooks the potatoe.'
 b. Mari péppé főzte a krumplit
 Mary pulp-TRANS cooked-AGR3sg the potatoe-ACC
 'Mary cooked the potatoe to a pulp.'
 (Komlósy 1985: 62)
- (16) a. János veri Pétert
 John beat-AGR3sg Peter-ACC
 'John is beating Peter.'
 b. János laposra verte Pétert
 John flat-SUBL beat-AGR3sg Peter-ACC
 'John beat Peter to pulp.'
 (Komlósy 1985: 62)

Let us consider the Hungarian equivalents of the English constructions in which the overt lexical subject of a small clause is sanctioned for Case (cf. (10)):

- (17) a. Jánost szomorúnak láttam b. Jánost hüjének tartom
 John-ACC sad-DAT saw-AGR1sg John-ACC fool-DAT consider-AGR1sg
 'I saw John sad.' 'I consider John a fool.'
- c. János szomorúnak látszik/tűnik
 John sad-DAT appeared-AGR3sg/seemed-AGR3sg
 'John seems sad.'

Recall that ACI-complements of the verbs of propositional attitude the infinitive is replaced by a dative marked adjective (cf. 5.3.5.(9b)). This adjective appears in the VM-position. A dative marked adjective also occurs when perception verbs (cf. (17a)) and raising verbs (cf. (17b)) select a small clause complement. With Komlósy (1985), I will assume that the dative case in these sentences belongs to the PAS of the verb, similarly as the instances of the secondary predicates in the examples (13)–(16).

Let us attempt to make some generalizations over the above examples. First, as noted by Komlósy (1985), lexical properties of the predicate govern the selection of the secondary predicates and the determination of their controller. Second, only nominative and accusative arguments of the verb, or D-structure subjects (cf. (17)) may act as controllers with this phenomenon. The nominative NP functions as a controller in case the secondary predicate is obligatorily selected as in (13) and (14a), while in (14b) and (15) the accusative argument is lexically designated as controller, even if a suitable nominative controller is present, see, for example (14b).

According to Williams (1980), the c-command condition on Predication is a necessary condition but not a sufficient one. Both lexical and syntactic factors may determine the establishment of a predication relation. The structural constraint implies that nominative and accusative NPs, or the D-structure subject of small clauses, must be higher in the syntactic tree than the secondary predicate, otherwise the c-command condition is violated. If the secondary predicates in (13)–(17) are inherent parts of the PAS of the verb, then both the (nominative) subject and the (accusative) object have structural prominence over an complement with lexical case, i.e. a translatable, dative, sublativ, essive, etc. argument of the verb.

Let us turn to a discussion of adjunctival secondary predication.

(II) Williams (1980) observes that sentences containing an adjunctival secondary predicate in English may be ambiguous:

- (18) a. John painted the door *wet* b. John saw Mary *drunk*

Williams points out that (18a) and (18b) have a reading in which the secondary predicates *wet*, and *drunk* may be controlled either by the subject or by the object.

Under the first reading the state of the subject is indicated. In (18a) *John* is attributed the property of being *wet*, and in (18b) *John* is attributed the property of being *drunk*. Under the second reading of (18a) the *door* becomes wet as a result of John's painting, while in (18b) *Mary* is in the state of being *drunk*.

According to Williams, these ambiguities are due to the fact that secondary predicates may be attached either to IP (labelling is mine), or to the VP. In the former case, only the subject qualifies as a controller, while in the latter case the secondary predicate is controlled by the object. This is in accordance with (12).

Consider now the Hungarian equivalents of the sentences in (18):

- (19) a. *János vizesen festette az ajtót*
 John wet-adv painted-AGR3sg the door-ACC
 'John painted the door wet.'
- b. *János vizesre festette az ajtót*
 John wet-SUBL painted-AGR3sg the door-ACC
 'John painted *the door wet*.'
- (20) a. [NP *János* [CP aki *ittas* volt]] látta Marit
 John who drunk was saw-AGR3sg Mary-ACC
 'John saw Mary *drunk*.'
- b. *János ittasan látta Marit*
 John drunk-adv saw-AGR3sg Mary-ACC
 'John saw *Mary drunk*.'

As may be observed from these sentences, Hungarian disambiguates the readings associated with the English sentences in (18). The (a)-sentences represent the readings of (18) in which the subject acts as the controller, while the (b)-sentences represents the readings of (18) in which the object acts as the controller.

The subject reading of (18a) is expressed in Hungarian by adding to the stem of the adjective *vizes* the adverbial marker (adv) *-en*, whereas the object reading of (18b) is formed by incorporating the adjective into the PAS of the verb as in (14b). The subject reading of (18b) cannot be expressed with a secondary predicate. A relativization strategy has to be chosen instead, while the object reading of (18b) is expressed with the help of the adverbializer just as the reading of (18a).

It is unclear why Hungarian disambiguates the readings associated with adjunctival secondary predication in English.²¹ An account for the individual readings, however, may run along the following lines.

Komlósy (1985) notes that some secondary predicates may belong to the PAS of the verb that also selects the argument of which they state a property. According to Komlósy, argumental secondary predicates are semantically much *closer* to the verb than adjunctival secondary predicates. Adjuncts attribute merely a property of the argument without affecting the event denoted by the predicate. Consider the following pairs:

- (21) a. *János darabokra törte a vázat*
 John pieces-SUBL broke-AGR3sg the vase-ACC
 'John broke the vase into pieces.'
- b. **János vizesre/szárazra/üresre törte a vázát*
 John wet-SUBL/dry-SUBL/empty-SUBL broke-AGR3sg the vase-ACC

(21) Hale and Laughren (1983) and Simpson (1983) observe that in Warlpiri this phenomenon occurs as well. In that language case congruence indicates over which NP the secondary predicate is predicated. Compare:

- (i) a. *Jakamarra yani pamajangka*
 Jakamarra-ABS IMP go alcohol-source-ABS
 'Jakamarra is going *drunk*.'
- b. *Jakamarrarlu Napaljarri pakarnu pamajangkarlu*
 Jakamarra-ERG Napaljarri-ABS hit alcohol-SOURCE-ERG
 'Jakamarra hit Napaljarri *drunk*.'
- c. *Jakamarrarlu Napaljarri pakarnu pamajangka*
 Jakamarra-ERG Napaljarri-ABS hit alcohol-SOURCE-ABS
 'Jakamarra hit *Napaljarri drunk*.'

- (22) a. János darabokban hozta be a vázát
 John pieces-INESS brought-AGR3sg in the vase-ACC
 'John brought in the vase into pieces.'
- b. János vizesen/szárazon/üresen hozta be a vázát
 John wet-adv/dry-adv/empty-adv brought-AGR3sg in the vase-ACC
 'John brought in the vase wet/dry/empty.'
 (Kömlősy (1985), 58)

The verb *tör* 'break' selects a secondary predicate with a specific meaning. Therefore, an argumental secondary predicate indicated by the sublative case is allowed (cf. (21a)). However, an adjunct with the inessive case is prohibited (cf. (21b)). The verb *hoz* 'bring' does not put selectional restrictions on its secondary predicate. Therefore, adjuncts may function as secondary predicates much more freely with this verb (cf. (22)).

We can translate Kömlősy's observations into structural terms as follows. An argumental secondary predicate must be attached to the VP, and an adjunct may be adjoined either to the VP, or to IP. This largely depends on idiosyncratic lexical factors. If these assumptions are correct, it is explained why the argumental secondary predicate in (19b) is controlled by the accusative argument, and why the adjunctival secondary predicate may be controlled either by the subject in (19a), or by the object in (20b). The assumption of a VP node and c-command restriction (12) are crucial in explaining the ambiguity of the English examples (18). Note that these assumptions are relevant in covering the difference between argumental and adjunctival secondary predication in Hungarian as well.

In (19a), the adjunctival secondary predicate *vizesen* is adjoined to IP. Hence, because of the c-command condition on Predication, its controller can only be the subject NP. In (20b), the adjunctival secondary predicate is adjoined to VP, and it is predicated over the object NP. In (19b), the argumental secondary predicate *vizesre* is attached to the VP, and it is controlled by the object NP.

Note that in (19b) and (20b) both the subject and the object satisfy the c-command condition. The fact that the argumental secondary predicate in (19b) and the adjunctival secondary predicate in (20b) are controlled by the object but not by the subject NP follows from Williams' (1980) additional lexical restriction on Predication:

- (23) If a secondary predicate is in the VP, then this secondary predicate is predicated of the *theme* of V

The transitive verbs *fest* 'paint' in (19b) and *lát* 'see' in (20b) belong to the agent-theme class. This type of verbs assigns its accusative object a theme by rule 3.2.(3a). Hence, the secondary predicates *vizesre* and *ittasan* are predicated over the object NP. The subject and object oriented readings associated with the adjunctival secondary predicates in (19a) and (20b) demonstrate that adjuncts may be more freely attached to the VP and IP than argumental secondary predicates. Hence, this dichotomy shows that argumental predicates always occupy a position under VP, unlike adjuncts of secondary predication.²²

(22) Kömlősy (1985) and De Groot (1987) discuss another type of adjunctival predication in Hungarian, the so-called predicative verbal adverbial construction. These predicates are formed by adding the adverbial participle suffix *-va/ve* to the verbal stem:

- (i) Az ajtó be van csukva
 the door prefix is close-suffix
 'The door is closed.'

Recapitulating, I argued that secondary predication is restricted by the distribution of the verbal arguments. Only nominative and accusative NPs may function as controllers of an argumental secondary predicate. This type of secondary predicate is incorporated into the PAS of the verb. This may be observed from the fact that it bears a lexical case. From theories on secondary predication (cf. Chomsky 1981, Stowell 1982, and Williams 1980; 1983), it follows that the nominative and accusative NPs must be structurally superior to the argumental predicate. Hungarian resolves ambiguities between a subject and an object oriented reading, which occur with secondary predication in English, with adjunctival secondary predication, argumental secondary predication, or relativization. It must be admitted that some properties of secondary predication are not completely understood at the present state of research, like the difference between English and Hungarian with the incorporation of secondary predicates into the PAS of the verb, or the disambiguation of readings associated with adjunctival secondary predication. However, the Hungarian counterparts corresponding to the subject and object oriented readings in English show that argumental secondary predicates are attached to the VP. The distribution of adjunctival secondary predicates, on the other hand, is much freer. In order to derive the readings related to argumental and adjunctival secondary predication, the assumption of a VP is crucial.²³

5.3.7. *Wh-Module*

Here, I will focus on subject-object asymmetries with *Wh-movement* in Hungarian. These asymmetries occur in *long Wh-movement* (cf. section 5.3.7.1.), and in a phenomenon that is contingent on *Wh-movement*, namely, *parasitic gaps* (cf. 5.3.7.2.).

5.3.7.1. *The Distribution of Long Wh-movement*

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

- (1) a. **Ki/kit* gondolsz hogy *t* látta Vilit
 who-NOM/-ACC think-AGR2sg that saw-AGR3sg Bill-ACC
 'Who do you think saw Bill?'
- b. *Kit* gondolsz hogy Vili látott *t*
 who-ACC think-AGR2sg that Bill saw-AGR3sg
 'Who do you think that Bill saw?'
- c. *Kinek* gondolod hogy János könyvet adott *t*
 who-DAT think-AGR2sg that John book-ACC gave-AGR3sg
 'To who do you think that John gave a book?'
- d. *Kivel* szeretnéd hogy Mari beszéljen *t*
 who-INSTR like-COND-AGR2sg that Mary speak-SUBJ-AGR3sg
 'With whom would you like that Mary should speak?'
- e. *Kitől* gondolod hogy Mari könyvet kapott *t*
 who-ABL think-AGR2sg that Mary book-ACC got-AGR2sg
 'From who do you think that Mary got a book?'

Further, Komlósy distinguishes a stative construction and a perfective dynamic passive depending on the coupe used. Judging from the examples in the references above, this adverbial predicate may only be controlled by a nominative NP which may be either an agent, or an underlying theme object. This state of affairs arises if the adverbial predicate is attached to IP, and is controlled at S-structure. Hence, this construction type provides another argument for the claim that the nominative NP is the external argument.

(23) Hale and Laughren (1983) and Simpson (1983) report that extension of the semantic definition of a basic predicate is a very productive rule in Warlpiri. The syntactic concomitant of these 'adjunctions' is always a secondary predicate.

Long Wh-movement is restricted by dialectal and idiolectal factors. Roughly, there are two dialects to which I will refer in the remainder as Hungarian I and Hungarian II.

(I) Hungarian I

É. Kiss (1981a), Horvath (1981), and Szabolcsi (personal communication) report that they find long Wh-movement completely acceptable in Hungarian. This phenomenon seems to be especially frequent in the spoken language (cf. De Groot 1981c, Szalamin 1978, and Zolnay 1926).

É. Kiss (1982b) observes that a subject-object asymmetry turns up in long Wh-movement. According to É. Kiss, an extracted *nominative* Wh-phrase ends up accusatively marked (cf. (1a)), whereas an accusative Wh-phrase retains its case during the derivation (cf. (1b)). Furthermore, É. Kiss observes that extracted Wh-phrases with lexical case take their Case-feature along.

The verbs *ad* 'give', *beszél* 'speak', and *kap* 'get' subcategorize for a dative, instrumental, and ablative NP, respectively. The case-endings on the extracted Wh-phrases correspond to the subcategorized cases of these verbs in (1c)-(1e).

So, only a nominative Wh-phrase undergoes a *Case change* when it is fronted by Wh-movement. Comrie (1981, 155) and Van der Auwera (1984, 260) observe the same with *long relativization*, a syntactic relative of long Wh-movement.²⁴ This phenomenon is derived by Wh-fronting of the relative pronoun:

- (2) a. A fiú **akilakit* mondtam hogy *t* elvette a pénzt
 the boy who-NOM/-ACC said-AGR1sg that away-took-AGR3sg the money-ACC
 'The boy that I said took away the money.'
- b. A pénzt *amit* mondtam hogy a fiú elvett *t*
 the money-ACC which-ACC said-AGR1sg that the boy away-took-AGR3sg
 'The boy that I said took away the money.'
- c. A fiú *akinek* gondolod hogy János könyvet adott *t*
 the boy who-DAT think-AGR2sg that John book-ACC gave-AGR3sg
 'The boy that you think that John gave a book to.'
- d. A fiú *akivel* szeretnéd hogy beszéljen *t*
 the boy who-INSTR like-COND-AGR2sg that speak-SUBJ-AGR3sg
 'The boy that you would like that he should speak with.'
- e. A fiú *akitől* gondolod hogy Mari könyvet kapott *t*
 the boy who-ABL think-AGR2sg that Mary book-ACC got-AGR3sg
 'The boy that you think that Mary got a book from.'

This paradigm shows that a non-nominative relative pronoun (cf. (2b)-(2e)), unlike the nominative one (cf. (2a)), takes along its Case assigned in the embedded clause when raised into the matrix sentence.

(24) Keenan and Comrie (1977) propose an accessibility hierarchy for relativization. According to Keenan and Comrie, this phenomenon is restricted by the following hierarchy:

(i) Subject > direct object > non-direct object > possessor

This hierarchy is only respected by simple sentences. Comrie (1981: 154) points out that embedded clauses do not have to obey (i). For example, long Wh-movement and relativization in Hungarian do not pattern as in (i), but rather as in (ii), the reverse of (i):

(ii) Lexical case (non-direct object) > accusative (direct object) > nominative (subject)

In chapter six, I will consider the mechanism of this Case change in more detail. Here, it is sufficient to indicate how it is related to the configurationality of phrase structure.

Theories on Case-assignment (see, for example, Chomsky 1981 or Kayne 1984) assume that some maximal projections, like VP, are opaque for Case-assignment by a higher governor. Other maximal projections, however, may be transparent for Case-assignment by a higher governor. For example, the IP is transparent for accusative Case-assignment in A.C.I.-complements (cf. section 5.3.5.3.) and the CP displays this property in long Wh-movement (cf. Kayne 1984). Hence, only complements which are base-generated outside the VP may undergo a Case change.

The Case change of the nominative NP with long Wh-movement implies, then, that it is base-generated outside the VP, and that the non-nominative NPs are base-generated within the VP. This distinction can only be made if the phrase structure in Hungarian has a configurational structure with a separate VP.

(II) Hungarian II

Other native-speakers, for example Komlósy (1986), reject cases of long Wh-movement in Hungarian entirely, or accept them only quite marginally. For the latter group there is even an accessibility hierarchy observable.

The grammaticality of this phenomenon decreases in the order ((1c), (1d), (1e)) > (1b) > (1a), and the grammaticality of long relativization decreases from ((2c), (2d), (2e)) > (2b) > (2a). This means we have the following *accessibility hierarchy*:

- (3) *Accessibility Hierarchy for Long Wh-movement in Hungarian*
 DAT, INSTR, ABL > ACC > NOM.

The cut off point for grammaticality in this hierarchy is at the first '>' symbol. The opposition between grammaticality and ungrammaticality in this dialect coincides with the opposition between lexical case and structural Case:

- (4) Lexical case > *structural Case

Thus, the following generalization in terms of Case theory emerges for speakers of Hungarian II who allow long Wh-movement:

- (5) Long Wh-movement in Hungarian II is licit if the Wh- antecedent bears lexical case

This restriction is the exact reverse of the condition on pro-drop in Hungarian (cf. 4.2.(34)) which states that pronouns in Hungarian may only be dropped if they are assigned structural Case. I argued in section 3.2.1. that the opposition between nominative/accusative Case and lexical case coincides with the opposition between structural Case and θ -case in Hungarian. If there is a matching between the type of Case and structural positions in the phrase structure, as is assumed in theories on Case (cf. Chomsky 1981, Kayne 1984), then condition (5) reflects that the phrase structure of Hungarian has a configurational structure.

Summarizing, long Wh-movement is subject to dialectal variation, probably in the form of a continuum. I labelled these dialects Hungarian I and Hungarian II. In chapter six, I will suggest that dialectal variation with long Wh-movement is rela-

ted to a parameter, namely, $\pm move Wh$. The positive option of this parameter allows long Wh-movement, apart from the Case change phenomenon, without exception, whereas its negative option accepts it rather marginally.

Anderson and Kvam (1984) report a similar variation with long Wh-movement in German. Taking into account the fact that both Hungarian and German have a relatively 'rich' case-system, it seems reasonable to search for an explanation of this variation in terms of Case theory. I will return to this topic later on.

In conclusion, in both dialects subject-object asymmetries show up. In Hungarian *I*, the fronted nominative Wh-phrase undergoes a Case change, and in Hungarian *II*, for those speakers who accept long Wh-movement at all, only Wh-phrases with a lexical case may be extracted. I have argued that both asymmetries are due to Case theory. The former asymmetry is related to the opacity of maximal projections for a higher Case-governor, whereas the latter one is related to the one-to-one matching between type of Case and structural positions. The distribution of long Wh-movement in Hungarian makes it clear that its phrase structure displays a hierarchical organization.

5.3.7.2. *The Distribution of Parasitic Gaps*

In the literature, it has been observed that the distribution of *parasitic gaps* in English yields a subject-object asymmetry:

- (6) a. *You put away *the papers* [before reading *e*]
 b. **The papers* fell off the table [before you read *e*]
 c. *Which papers* did you put away *t* [before reading *e*]
 d. **Which papers t* fell off the table [before you read *e*]

Chomsky (1982) notes that parasitic gaps, in these sentences indicated by *e*, have to obey the following two descriptive conditions:²⁵

- (7) a. Parasitic gaps are contingent on Wh-movement, and
 b. Parasitic gaps may not be c-commanded by the Wh-trace

Absence of Wh-movement accounts for the ungrammaticality of (6a) and (6b). The difference in grammaticality between (6c) and (6b) is subsumed by restriction (7b). The trace of the subject Wh-phrase in (6d), unlike the trace of the object Wh-phrase in (6c), c-commands the parasitic gap in the adjunct phrase. Hence, sentence (6d) but not (6c) is ungrammatical. Let us consider the distribution of parasitic gaps in Hungarian. Because of condition (7a), constructions with such gaps can be tested at best by relying on the judgements of speakers of Hungarian *I*. Recall that this dialect allows long Wh-movement quite easily.

É. Kiss (1985) observes that precisely the same pattern of grammaticality occurs with parasitic gaps in the Hungarian equivalents of (6):

(25) With Koster (1987: 360), I will assume that parasitic gaps are subject to the usual anti-c-command requirement.

- (8) a. *Eltették az iratokat [mielőtt elolvastál volna *e*]
 away-put-AGR2sg-def the papers-ACC before read-AGR2sg-indef had
 b. *Leestek az iratok az asztról [mielőtt elolvastál volna *e*]
 off-fell-AGR3pl-indef the papers the table-DELAT before read-AGR2sg-indef had
 c. *Milyen iratokat tettél el* [mielőtt elolvastál volna *e*]
 what papers-ACC put-AGR2sg-indef away before read-AGR2sg-indef had
 d. **Milyen iratok estek le az asztról* [mielőtt elolvastál volna *e*]
 what papers fell-AGR3pl-indef off the table-DELAT before read-AGR2sg-indef had

One could argue that the positions *e* in these sentences do not contain a parasitic gap but a small *pro*, since Hungarian is a pro-drop language. The grammaticality of (8c) would then be due to the presence of a small *pro* rather than to Wh-movement.

The spelling out of an overt pronoun in English has a similar effect. It turns the ungrammatical sentences in (6) into grammatical ones:

- (9) a. You put away *the papers* [before reading *them*]
 b. *The papers* fell off the table [before you read *them*]
 c. *Which papers* did you put away *t* [before reading *them*]
 d. *Which papers t* fell off the table [before you read *them*]

However, there are two arguments which contradict the small *pro* hypothesis. First, the assumption of *pro* cannot explain the difference in grammaticality between ((8a), (8b), (8d)) and (8c). Secondly, the distribution of *e* does not correspond with the diagnostics of accusative *pro*-drop. Third person accusative pronouns may only be omitted if they are singular, and trigger definite conjugation on the verb (cf. 4.2.(34b)). In (8), the Wh-antecedent is plural and the embedded verb displays indefinite conjugation. Therefore, a small *pro*, unlike an overt plural pronoun, may not even appear when the conjugation of the embedded verb is changed into definite. Compare the counterparts of (8a) and (8c):²⁶

- (10) a. Eltették az iratokat [mielőtt elolvastad volna *(*öket*)]
 away-put-AGR2sg-def the papers-ACC before read-AGR3sg-def had hem
 b. *Milyen iratokat tettél el* [mielőtt elolvastad volna *(*öket*)]
 what papers-ACC put-AGR2sg-indef away before read-AGR2sg-def had them

Therefore, it may safely be concluded that the examples (8) involve parasitic gaps and that a subject-object asymmetry turns up with this phenomenon in Hungarian as well, at least in Hungarian I.

É. Kiss (1985) and Horvath (1987) note furthermore that other quantificational NPs than Wh-phrases may also license parasitic gaps and that subject-object asymmetries occur in these constructions, too. This supports the hypothesis that quantifiers in Hungarian are moved into non-A-positions in the Quantifier Field (cf. 2.1.(28f)), just as focussed NPs, since only such NPs may license parasitic gaps (cf. Engdahl 1984):

(26) For speakers of Hungarian II, who accept long Wh-movement only marginally, these sentences with an overt pronoun are the only grammatical alternants. Sentences of the type (8c) are a question mark at best for such speakers. (See, also section 6.7.1. for a discussion of dialectal variation with the distribution of parasitic gaps in Hungarian).

- (11) a. *Minden iratot* elveszített *t* még [mielőtt elolvasott volna *e*]
 every paper-ACC lost-AGR3sg-indef still before read-AGR3sg-indef had
 'He lost every paper before he had read.'
 b. **Elveszített minden iratot* még [mielőtt elolvasott volna *e*]
 lost-AGR3sg-indef every paper-ACC still before read-AGR3sg-indef had
 (É. Kiss 1985, (5a))

5.3.8. Quantification Theory

This section investigates the syntactic and semantic properties of constructions containing *numeral quantificational* NPs. It turns out that with these constructions a subject-object asymmetry shows up. Before discussing *adverbial* numeral NPs, I will first concentrate on *argumental* numeral NPs.

(I) Consider the following sentence from English:

- (1) *Two boys stole three apples*

This sentence contains a subject and an object numeral NP.

De Meij (1982; 1983) observes that two readings are associated with (1). In the *distributive* reading, the predicate *stole three apples* is applied to each of the boys individually. Therefore the number of the apples stolen is minimally three and maximally six. On the other hand, in the *total* reading the two plural NPs indicate merely the size of sets involved, namely, two boys and three apples. Therefore the number of apples stolen in this case is maximally three.²⁷

Let us consider the Hungarian equivalent of this sentence:²⁸

- (2) *Két fiú* lopott *három almát*
 two boy stole-AGR3sg three apple-ACC

In contrast to its English counterpart, the Hungarian word by word equivalent only has a total reading. The number of the apples stolen is maximally three. In order to derive the distributive reading of the English sentence another strategy may be chosen, namely, by *reduplication* of the adnominal numeral in the accusative NP:²⁹

- (3) *Két fiú* lopott *három-három almát*
 two boy stole-AGR3sg three-three apple-ACC

Example (3) implies that six apples were stolen.

(27) See Higginbotham and May (1981) for the derivation of total and distributive readings with the assumption of LF.

(28) A nominal head is singular in Hungarian if it is modified by a countable adnominal phrase.

(29) Besides reduplication, other strategies with the same effect may be chosen as well. (i) The adnominal numeral in the nominative NP may be modified by the adnominal quantifier *mind a* 'all the':

(i) *Mind a két fiú* lopott *három almát*
 all the two boy stole-AGR3sg three apple-ACC
 'Two boys stole three apples each.'

or, (ii) by focussing the nominative NP, as Anna Szabolcsi (personal communication) brings to my attention:

(ii) [P *Két fiú*] lopott *három almát*
 two boy stole-AGR3sg three apple-ACC
 'Two boys stole three apples each.'

Reduplication of the adnominal numeral in the nominative NP, if possible at all, does not render the distributive reading of the English sentence (1). For those native-speakers who accept this, it has the effect of turning the *two boys* into *two sets of two boys*. Hence, the numeral distributes phrase-internally over its head. The number of apples stolen, however, remains three as in (2). This yields a total reading only:

- (4) *Két-két* fiú lopott három almát
 two-two boy stole-AGR3sg three apple-ACC
 'Two groups of two boys stole (maximally) three apples.'

According to De Meij, whom I will follow here, distributivity is a property of the PAS. A distributive reading can be obtained by distributing the property of the predicate over the members of the set denoted by the subject individually. From this it follows that this phenomenon involves a subject-predicate partitioning of the sentence. In Hungarian, this subject-object asymmetry is even spelled out overtly by means of a morpholexical device, that is, by reduplicating the adnominal modifier in the object NP.

Distributivity also provides empirical evidence for the internal partitioning of the VP. Compare the following example with the tryadic verb give:

- (5) *Two boys gave four apples to three girls*

This sentence may have at least the following three readings. Besides the total reading in which maximally *four apples* are given to *three girls*, (5) may have the following two distributive readings.

First, the property denoted by the direct object and the verb distributes over the members of the set denoted by the subject individually. The number of the apples given is in that case minimally four and maximally eight. Second, the property denoted by the object and the verb distributes over the indirect object. The number of apples given is then minimally four and maximally twelve.

The word by word equivalent of this sentence in Hungarian has again only a total reading:

- (6) *Két* fiú adott *négy almát* *három lánynak*
 two boy gave-AGR3sg four apple-ACC three girl-DAT
 'Two boys gave (maximally) four apples to three girls.'

Reduplication of the numeral in the accusative NP *négy almát* results in the second distributive reading, that is, the property of the direct object and the verb may only distribute over the indirect object:

- (7) *Két* fiú adott három lánynak *négy-négy* almát
 two boy gave-AGR3sg three girl-DAT four-four apple-ACC
 'Two boys gave four apples to three girls each.'

Thus, the distributive reading with tryadic verbs in Hungarian is more restricted than in English. It involves only the non-nominative NPs.

De Meij's account of distributivity is based on *compositionality*. A property of a subphrase, i.e. the VP, of the clause distributes over the subject. If this approach is correct, then the object and the verb constitute a subphrase, probably a V', when a

tryadic verb has a distributive reading. This subphrase distributes over the indirect object VP-internally.

(II) *Adverbial* distributive numerals provide further empirical evidence for the subject-predicate partitioning of the clause. The adverbial distributive numerals *hármásával* (three-INSTR) 'three at a time' and *hármónként* (three-ESS) 'three by three' may distribute either over the subject such as in the (a)-sentences, or over the predicate such as in the (b)-sentences:

- (8) a. A fiúk *hármásával* mentek az ablakhoz
 the boys three-INSTR went-AGR3pl the window-ALL
 'The boys went to the window three at a time.'
 b. Két fiú ellopta az almákat *hármásával*
 two boy stole-AGR3sg the apples-ACC three-INSTR
 'Two boys stole the apples three at a time.'
- (9) a. A fiúk *hármónként* mentek az ablakhoz
 the boys three-ESS went-AGR3pl the window-ALL
 'The boys went to the window three by three.'
 b. Két fiú ellopta az almákat *hármónként*
 two boy stole-AGR3sg the apples-ACC three-ESS
 'Two boys stole the apples three by three.'

The ambiguities in these sentences can be accounted for most easily by assuming that the adverbials are attached under IP so that they may equally distribute over the subject and the predicate. This implies a subject-predicate partitioning of the clause.

Summarizing, I discussed subject-object asymmetries with argumental and adverbial distributive NPs. Argumental distributive NPs may be created by a morpholexical strategy which doubles the adnominal numeral. However, their distribution is restricted. Only the accusative NP of a transitive sentence may be reduplicated. So, distributivity with two-place predicates provides empirical support for a subject-predicate dichotomy of the clause. Adverbial distributive numerals illustrate the same. They are ambiguous between a reading in which they distribute over the subject and a reading in which they distribute over the predicate. Furthermore, distributivity with three-place predicates yields evidence for a VP-internal partitioning as well. The argumental distributive object numeral may only distribute over its structurally closest 'antecedent', i.e., the indirect object.

To express distributivity by means of a morpholexical strategy is not only restricted to Hungarian. Gil (1982) notes that Georgian displays this strategy as well. Georges Rebuschi (personal communication) brings to my attention that this phenomenon in Basque is expressed with the help of the suffix *-na*. It may be attached only to the object of a transitive sentence. From this, I conclude that a morpholexical device reflecting distributivity deserves a place in the typology of subject-object asymmetries.

5.4. Evaluation

This section evaluates the subject-object symmetries and subject-object asymmetries discussed in the preceding sections. Concerning these clusters, we can make the following observations. First, in terms of the modules of the grammar they are rather *heterogeneous* in nature. Both subject-object symmetries and subject-object asymmetries appear in the domain of X'-theory, θ -theory, binding theory, Wh-module, and

quantification theory. Secondly, these clusters themselves are diverse in nature. Some of them are fairly complicated. The question arises what is the proper strategy to account for their properties within a theory of UG? Let us first consider the position of subject-object asymmetries in Hungarian.

5.4.1. *The Configurational Structure of Hungarian*

I will assume that the cluster of subject-object asymmetries is the unmarked case, as they can be derived directly from the *categorial* component of syntax (cf. 0.1.1.(1b)). This component generates structural configurations which serve as the basis for other modules, like government theory or binding theory. This implies that subject-object asymmetries should appear frequently in the grammar of natural languages. This turns out to be the case.

Subject-object asymmetries are well-attested across languages. Some of them qualify as *language universals*. A candidate for this is, for example, reflexive binding.

In all languages which have been claimed to be non-configurational, *reflexive anaphors* are subject to hierarchical constraints. Hale (1983), Whitman (1984), and Mohanan (1984) report that object reflexive anaphors in respectively Warlpiri, Japanese, and Malayalam may be bound by subjects, but not vice versa. This is also the case in Hungarian (cf. section 5.3.4.1.). It is, then, extremely likely that reflexive binding is universally restricted by a subject-object asymmetry. Thus, it is both from a theoretical and empirical point of view unmotivated to relax subcomponents of the grammar like X¹-theory, government theory or the Projection Principle to derive subject-object symmetries in the grammar of a particular language. Such an approach is pursued in É. Kiss (1987a) in connection with the subject-object symmetries in Hungarian. Let us discuss some of the consequences of this attempt.

É. Kiss assigns the Hungarian phrase structure the non-configurational structure 5.1.(1), here repeated as (1):

$$(1) \quad S \rightarrow V X^{n*}$$

This structure predicts the occurrence of subject-object symmetries in Hungarian. This appears indeed to be the case (cf. section 5.2.). É. Kiss (1987a) acknowledges the subject-object asymmetries involving reflexive binding (cf. section 5.3.4.1.), the distribution of big *PRO* in infinite complements (cf. section 5.3.6.1.), and the Case change of an extracted nominative *Wh*-phrase (cf. section 5.3.7.1). How are these phenomena derived in a phrase structure of the type in (1)?

Let us consider how É. Kiss deals with the asymmetries involved in reflexive binding. In order to account for this phenomenon, É. Kiss (1987a, 180) assumes a prominence hierarchy. According to her, prominence hierarchy is not reflected structurally in non-configurational languages but as a case-hierarchy:

$$(2) \quad \text{NOM} > \text{ACC} > \text{DAT} > \text{INSTR} > \text{LEXICAL CASE}$$

She further formulates the following rule for reflexive binding:

$$(3) \quad \text{A reflexive anaphor may only be bound by an antecedent which is more prominent in hierarchy (2) than the reflexive anaphor}$$

Although this rule is descriptively adequate, it is unsatisfying from a theoretical point of view for at least two reasons.

(A) A consequence of (3) is that reflexive anaphors in English and Hungarian obey completely *different* conditions. The distribution of the English reflexive anaphor is accounted for by a structural condition in the style of Binding Principle A (cf. 5.3.4.(3a)), whereas the distribution of the Hungarian reflexive anaphor falls under (3). This suggests that a generalization is missed. Reflexive binding in terms of this rule, then, leads to a break with the well-motivated c-command condition on dependent elements.

(B) É. Kiss (1987a: 183) makes the following remarks on the status of the case-hierarchy in Hungarian grammar: "The definition introduces case-hierarchy as an auxiliary device, to be applied in languages of a "flat" argument structure, in the sentences of which c-command is unable to establish a hierarchy among the maximal major categories." From this, it follows that this hierarchy applies only to NPs which are *coarguments*. Therefore, it can only be extended to subject-object asymmetries which involve coarguments like secondary predication (cf. section 5.3.6.2.) or reduplication of distributive numerals (cf. section 5.3.8.). However, it cannot account for the following subject-object asymmetries.

(i) The case-hierarchy checks overt case-endings. Hence, it is not able to cover subject-object asymmetries which do not refer to overt case-endings, but rather to underlying *GFs*. This is the case with transitivity alternations (cf. section 5.3.1.1.), noun-incorporation (cf. section 5.3.1.2.) and θ -theory (cf. section 5.3.3.).

(ii) This hierarchy cannot account for the asymmetries which bear on *non-coarguments*. These asymmetries turn up when one of the NPs involved is embedded in a subphrase, or a separate clause. This is the case with the binding of names (cf. section 5.3.4.2.), the distribution of bound pronouns (cf. section 5.3.4.3.), switch reference (cf. section 5.3.4.5.), the distribution of long Wh-movement (cf. section 5.3.7.1.) and of parasitic gaps (cf. section 5.3.7.2.).

(iii) The case-hierarchy is not operative if the asymmetries single out only one of the verbal arguments such as in synthetic reflexivization/reciprocalization (cf. section 5.3.1.1.), X'-theory (cf. section 5.3.2.), the conjugational patterns of the Hungarian verb (cf. section 5.3.5.1.), ACI-verbs (cf. section 5.3.5.3.), control with infinitive complements (cf. section 5.3.6.1.), and the distribution of small *pro* (cf. section 5.3.8.1.).

The anomalies in (i)-(iii) show that (2) has a very limited scope. This implies that further auxiliary devices have to be formulated in order to account for them. Certainly, that is an undesirable step.

Summarizing, the case-hierarchy is theoretically inadequate for the following reasons. First, the syntactic properties of lexical items such as reflexive anaphors, which are cross-linguistically uniform, would be captured differently in Hungarian. Reflexive binding could not be formulated in terms of structural conditions. Second, it applies in a rather narrow domain. From this it follows that further auxiliary mechanisms have to be added to cover other subject-object asymmetries in Hungarian. Above I noted that the case-hierarchy is descriptively adequate, at least with respect to the cases subsumed by Binding Principle A. This suggests that it is a reflection of abstract structural configurations. Let us investigate whether this hierarchy can be reinterpreted in this sense.

Van Riemsdijk (1982; 1983a) classifies the overt case-markers of languages with a rich case-system in terms of a universal feature system employing mnemo-

nic categories such as *subject* [S], *closest argument* [CA], etc. In this system, the features may be organized in a binary tree which expresses (like in hierarchical constituent structures) the concept of 'belonging closer to'. Van Riemsdijk further notes that it would be attractive to associate this case-hierarchy with the hierarchy of GFs developed within the framework of Relational Grammar (cf. Perlmutter 1984).

This framework states that the subject GF is more prominent than the object GF, etc. Following Van Riemsdijk's suggestion, I will relate the above case-hierarchy to the hierarchy of GFs, or to the *external* (*ext*) versus *internal* (*int*) dichotomy in the LS of the verb. Recall that this is defined structurally (cf. chapter three).

Further, I will assume, as in various other theoretical approaches, that besides the external-internal opposition there is also a VP-internal divisioning in the form of an *internal argument 1* versus *internal argument 2* dichotomy.

Below I will demonstrate that these hierarchies are supported empirically in Hungarian. Restatement of the case-hierarchy in terms of the hierarchy among the verb arguments yields the following taxonomy of the case-system:

- (4) a. external argument = NOM
(subject)
b. internal argument 1 = ACC, DAT, INSTR
(direct object)
c. internal argument 2 = DAT, INSTR, LEXICAL CASE
(indirect object, etc.)

The equations in (4) must be read as follows. The external argument is the nominatively marked NP. The internal argument 1 is the accusative NP, if there is one, otherwise the dative NP, if there is one, and so on. The internal argument 2 is the datively marked NP, if there is one, otherwise the instrumentally marked NP, and so on.

We can use these equations to classify the subject-object asymmetries. This yields the following matrix:

(5)	<i>ext</i>	<i>int 1</i>	<i>int 2</i>
transitivity alternations	+	+	-
reflexivization/reciprocalization	-	+	-
noun-incorporation	-	+	+
infinitive-with-internal argument	-	+	+
compositional θ -assignment	-	+	+
reflexive binding	+	+	-
binding of names	+	+	-
distribution of bound pronouns	+	+	-
switch reference	+	-	-
Indef/def conjugation	+	+	-
the suffix <i>-lak</i>	+	+	-
distribution of <i>pro</i>	+	+	-
person/number features of <i>pro</i>	+	-	-
ACI/DCI-verbs	+	-	-
subject control	+	-	-
secondary predication	+	+	-
Case change in long	-	-	-
Wh-movement/relativization	+	-	-
distribution of Wh-trace in Hungarian II	-	-	+
distribution of parasitic gaps	-	+	+
reduplication of distributive numerals	-	+	+
adverbial distributive numerals	+	-	-

The values in this matrix group together those arguments of the verb that have the same distribution with a particular syntactic phenomenon.

Compositional θ -assignment, reflexive binding, the binding of names, the distribution of bound pronouns, switch reference, ACI/DCI-verbs, subject control with infinitive complements, the distribution of parasitic gaps and reduplication of distributive numerals provide empirical evidence for the hypothesis that the external argument is superior to the internal arguments of the verb.³⁰ Thus, the following prominence hierarchy is supported by these phenomena:

- (6) external argument > internal argument 1 and internal argument 2

Reflexive binding, binding of a pair of names, the distribution of bound pronouns, the conjugation with the suffix *-lak*, secondary predication, and the distribution of *pro* provide evidence for the hypothesis that the external argument and internal argument 1 are more prominent than internal argument 2. This yields the prominence hierarchy in (7):

- (7) external argument and internal argument 1 > internal argument 2

By collapsing (6) and (7), we derive (8):

- (8) external argument > internal argument 1 > internal argument 2

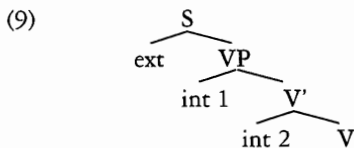
Some of the phenomena in the matrix above refer to one of the arguments of the verb, exclusively emphasizing their primitive status in this hierarchy.

The external argument is singled out by ACI/DCI-verbs (which assign accusative/dative Case to the subject of their sentential complement), by the Case change of a nominative NP which undergoes long Wh-movement and by *pro*-drop which may affect all persons and numbers of a nominative NP only.

The accusative internal argument 1 is exclusively referred to in morphological transitivity alternations, synthetic reflexivization/reciprocalization, and in the definite conjugation of the verb. The internal argument 2 is singled out, at least in Hungarian *II*, by the distribution of Wh-traces.

There is also empirical evidence for the primitive status of VP. Three phenomena refer in particular to a combination of the verb with its internal arguments, including noun-incorporation, the structure of infinitive complements and argumental/adverbial distributive numerals. Below I will provide further support for this claim by showing that under certain conditions VP-rules may apply in Hungarian as well.

So, we may depict this syntactic representation by means of the familiar tree-structure notation:



(30) See also Nakajima (1986) for the claim that the distribution of parasitic gaps provides evidence for the hypothesis that Hungarian phrase structure is hierarchical rather than flat.

This diagram expresses that the Hungarian phrase structure is configurational, and meets the principle of binary branching.

In chapter seven, I will argue that the Head Parameter, which specifies the order of heads and complements, is 'head-final' in Hungarian. This means that each lexical head follows its complement. Hence, (9) reflects the basic *SOV*-structure of Hungarian.

The question arises how the spelling out of morphological case is related to the structural positions in this configuration? The Case-assignment rules in 3.2.(7) are insufficient to account for this. Here, I will not accommodate Case theory to the rich case-system of Hungarian, because this would be beyond the scope of this study. Instead I will make the following points.

If we adopt a biuniqueness condition on Case-assignment, the set of Case-governors has to be extended with the *V'*. The Case of the external position is governed by *I*, the Case of the internal argument 1 is governed by *V'*, and the Case of internal position 2 is governed by *V*. Of course, the cases which are actually realized depends on the inherent properties of these governors.

The Case assigned to the external argument and internal argument 1 is structural Case, whereas the Case assigned to internal argument 2 is lexical Case. Observe then that θ -governed arguments are structurally closer to the verb than arguments assigned structural Case.

The following phenomena support the hypothesis that the dative may also be a structural Case, that is a governee of *V'*. First, in binding phenomena the dative and accusative are equally prominent (cf. reflexive binding in 5.3.4.(8a)-(8d)). Second, Hungarian displays DCI-complements (cf. fn.19). Third, in clauses with a tryadic verb a reduplicated adnominal numeral embedded in an accusative NP distributes over the dative NP (cf. 5.3.8.(7)).

Nearly all the subject-object asymmetries can be covered by applying the devices of the modules of the grammar to structure (9). For most of these phenomena this was already carried out above. It was not possible in all cases, given the present state of the art. First, some of their properties are badly understood. Recall, for example, Noun-Incorporation in Hungarian (see, section 5.3.1.2.). Such phenomena require much more extensive study than has been carried out hitherto.

Second, a successful account of subject-object asymmetries depends also on specific theoretical assumptions concerning the theory of UG and the phrase structure of Hungarian. Some of them require further investigation. For example, the development of a theory of abstract Case and its morphological realization, or the status of scrambling. To illustrate the type of puzzles which have to be faced, consider again some subject-object asymmetries within the domain of binding theory.

Let us assume that the case-system of Hungarian is as in (4), and its phrase structure is as in (9). In that case, the asymmetries with reflexive binding and the binding of a pair of names fall into place. They may be accounted for by Binding Principle A and C respectively.

The phenomena subsumed under these principles remain unaffected by scrambling. Hence, the sentences 5.3.4.(7a) and (7b) and 5.3.4.(12a) and (12b), here repeated as (8) and (9), display the following pattern of grammaticality, whatever the linear order of the constituents in the sentences is:

- (10) a. *János szereti magát*
 John loves himself-ACC
 'John loves himself.'
- b. **Jánost szereti maga*
 John-ACC loves himself
- (11) a. *János anyja szereti Jánost*
 John mother-npAGR3sg loves John-ACC
 'John's mother loves John.'
- b. **János szereti János anyját*
 John loves John mother-
 npAFR3 sg-ACC

Saito and Hoji (1983) argue that scrambling is an instance of Move- α which adjoins the scrambled NP to a maximal major category, presumably into a non-A-position.

In terms of this theory, we may say that these operations do not affect the application of the Binding Principles A and C. It follows, then, that either the Binding Principles apply before movement, or that scrambling does not reverse the c-command relation. This could otherwise turn a grammatical clause into an ungrammatical one, or vice versa.

Consider now, again, the cases of bound variable interpretation of pronouns 5.3.4.((23a), (24a), (25a), and (26a), here repeated as (10) (only the relevant bracketing is indicated):

- (12) a. *[CP [NP Az *pro*_i anyja] [CP *ki*_i [VP *t*_i szereti]]]
 the mother-npAGR3sg who-ACC loves
 *'Who does his mother love?'
- b. [CP *Ki*_i [VP *t*_i szeret [VP [NP az *pro*_i anyja]]]]
- c. [CP *Ki*_i [VP *t*_i [VP szereti [VP [NP az *pro*_i anyja]]]]]
 who loves the mother-npAGR3sg-ACC
 'Who loves his mother?'
- d. [CP [NP Az *pro*_i anyját] [CP *ki*_i [VP *t*_i [VP szereti]]]]

The distribution of bound pronouns is, unlike Binding Principle A and C phenomena, sensitive to scrambling. If the subject NP is postponed as in (10b) the WCO-effect vanishes, and if the object NP containing the pronoun is scrambled over the subject as in (10d) no WCO-effect arises.³¹ Note, incidentally, that this paradigm provides empirical evidence for the claim that scrambling is not a stylistic rule applying at PF but a rule of syntax.

The question, then, is why does scrambling affect the binding relation between a pair (quantifier, pronoun) but not the binding relation between a pair (name, reflexive anaphor), or (name, name). There are several ways to escape this binding 'paradox' depending on the theoretical assumptions we adopt. A solution of this puzzle may run as follows.

Preverbal NPs are adjoined to the CP in Hungarian (cf. section 2.2.). Furthermore, suppose that postverbal subjects are adjoined to the VP (cf. Belletti and Rizzi 1982). As a consequence of the latter, the c-command relation between the subject and the object may be changed if the object is a Wh-phrase.

In (10b), the trace of the Wh-phrase in object position c-commands the bound pronoun in the subject possessive NP which is adjoined to the VP. However, in (10a)

(31) Weibelhuth (1985) notes that German displays this 'anti-crossover' effect as well.

the object Wh-trace does not c-command the subject possessive NP that is adjoined to CP. Hence, the former sentence is grammatical, whereas the latter is ruled out as a violation of condition 5.3.4.(21) on bound pronouns. The dichotomy between the pairs of ((10a), (10b)) and ((10c), (10d)) follows, if we assume that the subject Wh-trace c-commands both the object possessive NP adjoined to VP (cf. (10c)) and the object possessive NP adjoined to CP (cf. (10d)).

However, under these assumptions the grammaticality of a scrambled variant of (9a) would remain unexplained:

- (13) [_{CP} *János*_i [_{VP} *t*_i szereti [_{VP} [_{NP} *János* anyja]]]]
 John-ACC loves John mother-npAGR3sg

A name embedded in a postverbal subject possessive NP would be c-commanded by the trace of the accusative name in object position. This configuration violates Binding Principle C. So, in (10b) c-command of the phrase adjoined to VP by the object trace is required but it has to be blocked in (11).

A solution for this contradiction would be to assume 'reconstruction' in the case of Binding Principles A and C, that is, to apply these conditions only to base-generated positions.³² In that case, (11) would not violate Binding Principle C, yielding a grammatical sentence.³³

Let us turn now to a discussion of the properties of the subject-object symmetries.

So far, it was argued that the Hungarian phrase structure is asymmetric. The subject is structurally prominent over the other arguments of the verb. How do subject-object symmetries appear in such a structural configuration?

Since some of these subject-object symmetries have rather intrinsic properties, it is hard to imagine that they fall outside the scope of UG. This is strongly supported by the fact that they appear in the same modules as subject-object asymmetries do. Before we examine subject-object symmetries in Hungarian within a theory of UG, let us localize the problems associated with these phenomena.

There are two kinds of subject-object symmetries. (I) Subject-object symmetries which also occur in established configurational languages, and (II) subject-object symmetries which have a somewhat different form in Hungarian than in other established configurational languages. The phenomena in (I) cannot count as decisive evidence for the absence of a VP in Hungarian. Further, these subject-object symmetries pose a problem in some other configurational languages as well. Therefore, I will argue that these subject-object symmetries are *epiphenomena*. They arise from the interaction of independent principles with the configurational phrase structure. On the other hand, the subject-object symmetries in (II) constitute some *residual* pro-

(32) This solution is similar in spirit to the one of Van Riemsdijk and Williams (1981) and Mohanan (1983). In these accounts, binding paradoxes are covered by applying the Binding Principles A and C before the execution of move α , and by applying the condition 5.3.4.(21) on bound pronouns after the execution of move α . As a result, the principles of binding theory are distributed over different levels of representation.

(33) In section 5.4.2.7., I will replace Binding Principle C by a discourse principle. This does not, however, affect the solution for binding paradoxes, because the discourse principle may also be sensitive to GF-positions.

blems not yet accounted for. It seems to me that these symmetries should be dealt with by directly relating them to specific properties of Hungarian phrase structure. Let us discuss first the epiphenomenal subject-object symmetries.

5.4.2. *The Epiphenomenal Symmetries*

This section examines subject-object symmetries in Hungarian that appear also in established configurational languages such as English, Dutch or Frisian. To this category belong the following phenomena, involving the distribution of sentence adverbs (cf. section 5.4.2.1.), the absence of VP-rules (cf. section 5.4.2.2.), the absence of *that*-trace effects (cf. section 5.4.2.3.), Wh-movement from possessive NPs (cf. section 5.4.2.4.), the formation of idioms (cf. section 5.4.2.5.), compositional θ -assignment to the object (cf. section 5.4.2.6), and Binding Principle C symmetries (cf. section 5.4.2.7.).

5.4.2.1. *The Distribution of Sentence Adverbs*

Hungarian does not require *verb-object adjacency*, contrary to English (cf. section 5.2.1.1.). The verb and its direct object may be separated by an adverb. Compare 5.2.1.(4)-(6), here repeated as (1):

- (1) a. János látta *valószínűleg* Marit
John saw-AGR3sg probably Mary-ACC
'John has probably seen Mary.'
b. János kinyitotta *gyorsan* az ajtót
John opened-AGR3sg quickly the door-ACC
'John has opened the door quickly.'
c. Mari elolvasta *tegnap* a könyvet
Mary read-AGR3sg yesterday the book-ACC
'Mary has read the book yesterday.'
d. Mari elolvasta *otthon* a könyvet
Mary read-AGR3sg at home the book-ACC
'Mary has read the book at home.'

Koster (1986) observes that in the uncontroversially configurational language Dutch the facts are similar. Consider the Dutch equivalents of (1):

- (2) a. Jan heeft Marie *waarschijnlijk* gezien b. Jan heeft de deur *snel* geopend
John has Mary probably seen John has the door quickly opened
c. Marie heeft het boek *gisteren* gelezen d. Marie heeft het boek *thuis* gelezen
Mary has the book yesterday read Mary has the book at home read

These sentences show that verb-object adjacency is required neither in Hungarian, nor in Dutch.³⁴ Both languages differ in this respect from English, in which the object has to be adjacent to the verb. What rule is responsible for this dichotomy?

(34) Jarich Hoekstra (personal communication) points out that the lack of verb-object adjacency also occurs in Frisian:

- (i) a. Jan hat Hikke *nei alle gedachten* sjoen
Jan has Hikke probably seen
b. Jan hat de deur *gau* lependwaan
Jan has the door *quickly* opened
c. Jan hat it boek *juster* lein
Jan has the book *yesterday* read

I will assume that this phenomenon in Frisian is derived similar to Dutch (see below).

Object and sentence adverbs display free word order in Dutch:

- (3) a. Jan heeft waarschijnlijk [vp Marie gezien]
 b. Jan heeft [vp Marie [vp waarschijnlijk [t gezien]]]
 John has Mary probably seen
 'Probably, John has seen Mary.'

It has been argued that the absence of verb-object adjacency in Dutch is caused by the fact that Dutch easily permits leftward adjunction of objects to the VP (cf. Hoekstra 1984, and Koster 1986). Note that the trace of the object satisfies this requirement at D-structure. Hence, the absence of verb-object adjacency is allowed only at S-structure, but not at D-structure in that language.

This requirement in English can be restated as follows. Why doesn't adjunction of the object to the VP yield a grammatical sentence in English?

Koster (1988) argues that in left-branching languages only leftward adjunction of the object is allowed, and in right-branching languages only rightward adjunction of the object to the VP. According to Koster, the VP in English has properties of both a left-branching and right-branching structure. Therefore, neither adjunction of the object to the right of VP, nor adjunction to the left of VP is possible. This covers the verb-object adjacency requirement in English.

Let us consider now how the absence of this phenomenon is derived in Hungarian.

If verb-object adjacency is not required in uncontroversial configurational languages such as Dutch, its absence cannot count as an argument for the VP-less phrase structure. The apparent violation of verb-object adjacency in Dutch is due to the application of movement rules in the mapping of D-structure onto S-structure. Hence, the null-hypothesis is to relate the absence of this phenomenon in Hungarian to similar rules. We have two such rules available.

First, V-to-C movement (2.2.2.(9)). Second, the option of leftward adjunction of the object to the VP, since Hungarian is a left-branching language (cf. 2.2.1.(1)). These movement rules are sufficient to derive the following orders:

- (4) a. S V Adv O b. S V O Adv

The order in (4a) represents the surface order of the constituents in (1c), for example. The order in (4b), on the other hand, represents the surface order of a scrambled alternant of this sentence:

- (5) a. Mari *elolvasta* tegnap [vp a könyvet *t*]
 Mary read yesterday the book-ACC
 b. Mari *elolvasta* [vp a *könyvet* [vp tegnap *t*]]
 Mary read the book-ACC yesterday

(5a) is derived by V-to-C movement, and (5b) is derived by an application of this rule in combination with leftward adjunction of the object to the VP.

Observe that in (5a) the verb scrambles over the sentence adverb *tegnap*. This yields the absence of verb-object adjacency. Accidentally, in (5b) adjunction of the object to the VP results in verb-object adjacency at S-structure as well. Thus, the absence of this phenomenon in Hungarian is subsumed by the properties of adjunction, and by the properties of its phrase structure. Let us turn to a discussion of the absence of VP-rules in Hungarian.

5.4.2.2. *The Absence of VP-rules*

It has been claimed that Hungarian lacks *VP-rules*, in contrast to English (cf. section 5.2.1.2.). However, I will argue in this section that this is the case with VP-deletion only.

In established configurational languages such as Dutch or Frisian, VP-deletion is absent as well. This implies that the lack of this phenomenon from the syntax of a particular language cannot be a decisive argument for the absence of a VP in the phrase structure of that language. Of course, the dichotomy between languages with VP-deletion and languages without it has to be accounted for.

I will suggest that the presence of VP-deletion in English, in contrast to Dutch, Frisian, or Hungarian correlates with the strength of *I* in these languages. Further, I will demonstrate that VP-preposing and VP-pronominalization are operative in Hungarian as well, just as in English, or Dutch. These rules apply only in a specific syntactic context. Note that the presence of these phenomena in Hungarian provides *direct* evidence for a VP in that language. Let us consider first VP-deletion.

(I) Steele (1981) notes that *VP-deletion* in English involves an Aux item to the left of the ellipsis:

- (1) a. John loves Mary, and Peter *does* too
 b. John will have cooked dinner, and so may *have* Peter

So, the deletion of the VP *loves Mary* in (1a), and the deletion of the VP *cooked dinner* in (1b) depends on the presence of an Aux item. This item is an inflected form of *do* in (1a), and *have* in (1b).

The equivalents of these sentences in Dutch are, however, ungrammatical:³⁵

- (2) a. *Jan houdt van Marie, en Peter doet ook
 John loves Mary and Peter does too
 b. *Jan zal een maaltijd gekookt hebben, en zo zal Peter ook hebben
 Jan will a meal cooked have and so will Peter too have

These sentences can be turned into grammatical ones by inserting the d(emonstrative)-*pronoun dat* 'that' at the ellipsis site in the second conjunct. This pronoun refers to the VP:

- (3) a. Jan houdt van Marie, en Peter doet *dat* ook
 John loves Mary and Peter does that too
 b. Jan zal een maaltijd gekookt hebben, en *dat* zal Peter ook gedaan hebben
 John will a meal cooked have and that will Peter too done have

Apart from VP-pronominalization, it is also possible to form the Dutch equivalents of the sentences in (1) by maintaining the subject in the second conjunct. Compare:

(35) Fanselow (1987a: 87) reports that German lacks VP-deletion as well:

(i) *Peter liebt Afrika, und Stanley tut auch
 Peter loves Afrika and Stanley does too

- (4) a. Jan houdt van Marie, en Peter ook
 John loves Mary and Peter too
 b. Jan zal een maaltijd gekookt hebben, en zo ook Peter
 John will a meal cooked have and so too Peter

These sentences, however, are not cases of VP-deletion, but of 'gapping', or 'reduction'. This operation may delete constituents, or parts of independent constituents. Therefore, as Zwarts (1986) argues, it is not a reliable constituent-test.

Zwarts discusses the following sentences:

- (5) a. Arabella bought a whip and sold a faucet
 b. Arabella bought and Clarissa sold a whip
 (Zwarts 1986, (1))

(5a) exemplifies a case of coordination, and (5b) exemplifies two conjoined clauses in which the first conjunct is reduced by the deletion of the object. The latter construction is traditionally known as 'Right Node Raising'.

Zwarts argues as follows. If only constituents of the same categorial type may be conjoined, as is generally assumed, then it follows from the grammatical status of (5a) that the phrases *bought a whip* and *sold a faucet* are categorially identical. Zwarts continues to argue that the same reasoning leads to the conclusion that the phrases *Arabella bought* and *Clarissa sold* in (5b) are of a same categorial type. According to Zwarts, this result is rather dubious, because these phrases are not regarded as constituents. Hence, reduction rules do not necessarily obliterate a single constituent. How can Right Node Raising be captured?

According to McGee Wood (1986), this phenomenon can only be captured adequately by a *linearization* rule, a PF-rule. McGee Wood formulates the following generalization:

- (6) The element which can be omitted in Right Node Raising is the right-most element in the left-hand conjunct

For example, in Japanese only the verb may be omitted from the first conjunct (Japanese is head-final). Compare the following sentences (the ellipsis site is indicated by *e*):

- (7) a. *Tanaka-san ga *e* katta, Sumisu-san ga sakana o tabemasita
 Takana subj bought Smith subj fish obj ate
 'Ms. Takana bought and Ms Smith ate fish.'
 b. Takana-san ga sakana o *e*, Sumisu-san ga niku o tabemasita
 Takana subj fish obj Sumisu subj meat obj ate
 'Ms. Takana ate fish and Ms. Smith meat.'
 (McGee Wood 1986, (3))

Let us now discuss VP-deletion, and VP-reduction in Hungarian.

VP-deletion yields an ungrammatical result (cf. (8a)). The counterparts of English sentences with VP-deletion such as (1) can only be turned into grammatical ones by a gapping strategy (cf. (8b)):

- (8) a. *János szereti Marit, és Péter is fogja *e*
 John loves Mary-ACC and Peter too will
 'John loves Mary, and Peter will too.'
 b. János szereti Marit, és Péter is *e*
 John loves Mary-ACC and Peter too

Let us turn now to VP-gapping in Hungarian. I will first examine reduction of the first conjunct, i.e. Right Node Raising, and then reduction of the second conjunct.

In Hungarian, it is allowed to omit either the *object* or the *verb* from the first conjunct, but not the subject:

- (9) a. János etette *e* és Mari itatta a kacsákat
 John fed-CAUS and Mary drink-CAUS the ducks-ACC
 'John fed the ducks and Mary made the ducks drink water.'
 b. János kolbászt *e* és Mari 'kenyeret adott a fiúknak
 John sausage-ACC and Mary bread-ACC gave the boys-DAT
 'It was sausage that John gave and it was bread that Mary
 gave to the boys.'
 c. **e* etette a kacsákat és János itatta a kacsákat
 fed-CAUS the ducks-ACC and John drink-CAUS the ducks-ACC

This paradigm demonstrates that only the subject must be present in the first conjunct.

In (9a), the object is deleted from the first conjunct, and in (9b) the verb is deleted from the first conjunct. (9a) represents a neutral sentence, as may be observed from the English glosses. (9b), on the other hand, involves contrastive Focus. The NP *kolbászt* in the first conjunct, and the NP *kenyeret* in the second conjunct have primary stress. If (6) is correct, then this provides another argument for the claim that SVO is the neutral sentence order in Hungarian (cf. 2.2.(28a)), since the object in (9a) is omitted in neutral order.

Note that (9c) matches the distribution of nominative *pro*-drop in Hungarian (cf. 4.2.(34a)). One could therefore argue that this sentence is ungrammatical for independent reasons, namely, because of the fact that backward pronominalization is not allowed. However, deletion of an NP-constituent in the first conjunct does not imply that a small *pro* must be present at the ellipsis site.

The first conjunct of (9a), for example, provides a context for accusative *pro*-drop (cf. 4.2.(343b)). The verb *etet* is conjugated definitely, and subcategorizes for an accusative NP. However, an accusative *pro* cannot be present at the ellipsis site, because the deleted constituent *a kacsák* 'the ducks' is plural. Recall that accusative *pro*-drop is not sanctioned when the NP is plural. Hence, if *pro* is not present at the ellipsis site in (9a), we may assume that this is not the case either in (9c).

In sum, reduction of the first conjunct in Hungarian yields a subject-object asymmetry. The object may always be deleted, the verb under specific circumstances, but the subject may never be omitted.

Let us consider now reduction of the second conjunct.

Reduction of the second conjunct is much freer than reduction of the first conjunct. É. Kiss (1981b) observes that this phenomenon may affect a combination of the verb and any of its NP complements:

- (10) a. Péter odaadta a jegyzeteit Marinak és János is oda fogja e
 Peter perf-gave the notes-npAGR-ACC Mary-DAT and John too perf will
 'Peter gave his notes to Mary, and John will, too.'
- b. Marinak oadta a jegyzeteit Péter és Piroskának is oda fogja e
 Mary-DAT perf-gave the notes-npAGR-ACC Peter and Piroška-DAT too perf will
- c. A jegyzeteit odaadta Marinak Péter és a könyveit is oda fogja e
 the notes-npAGR-ACC perf-gave Mary-DAT Peter and the book-npAGR-
 ACC too perf will
- (É. Kiss 1981b: 317)

In (10a), the verb with its accusative, and dative NPs, in (10b) the verb with its nominative and accusative NPs, and in (10c) the verb with its nominative and dative NPs are 'reconstructed' in the second conjunct. These sentences thus show that any combination of the verb with its complement may be omitted from the second conjunct.

Let us summarize this brief discussion of conjunction reduction. It does not necessarily refer to single constituents. This seems to be true across languages. Hungarian does not form an exception.³⁶ This implies that reduction tests are illegitimate VP-tests. They do not bear on the question whether there is a VP in a particular language. Let us turn next to a discussion of VP-preposing.

(II) English acknowledges the rule of *VP-preposing*. Consider the following sentence:

- (11) John read the book, and *read the book* John did e

The VP *read the book* is preposed to the initial position of the second conjunct.

This phenomenon in Hungarian may only apply in a specific context, namely, when the verb and its direct complements are left-dislocated. So, before presenting some instances of VP-preposing, let us first consider Left Dislocation with verbs:³⁷

- (12) a. *Mulatni*, Péter mulatott
 enjoy-INFI Peter enjoyed-AGR3sg
 'Enjoy, himself Peter did.'
- b. Péter be nem rugott de *énekelni*, énekelt
 Peter in not kicked-AGR3sg but sing-INFI sing-AGR3sg
 'Get drunk Peter didn't but sing he did.'
- (Szabolcsi 1981b: 536)

These sentences exemplify that Left Dislocation of a finite verb yields an infinitival copy of this verb in the initial-position of its own minimal clause.³⁸ This is in (12a) the matrix sentence, and in (12b) it is the embedded clause.³⁹

The meaning of these doubled verb constructions is more subtle than indicated in the glosses (cf. Szabolcsi 1980, 1981b for discussion). Consider now the following sentences in which left dislocation of the VP has taken place:

(36) See for further discussion of ellipsis and gapping in Hungarian Kerkovits (1985) and Bánréti (1985).

(37) See Koopman (1984) for a cross-linguistic account of V-movement rules.

(38) Källgren and Prince (1988) discuss a similar phenomenon in Yiddish.

(39) With the De Groot (1981b), I assume that the infinitival copy in initial-position is what De Groot calls *theme* position. This position is identical to the left-dislocation position of section 4.3.

- (13) a. (*A) *fárvágni*, János (*a) *fát* *vágott*
 the wood-ACC-cut-INFI John the wood-ACC cut-AGR3sg
 'Wood-cutting John did (but he didn't like it).'
- b. (*A) *fejbeverni*, János (*a) *fejbe* *verte* *magát*
 the head-ILL-beat-INFI John the head-ILL beat-AGR3sg himself-ACC
 'Hitting himself to the head John did (but it wasn't painful).'

These sentences exhibit the following properties.

First of all, observe that the direct argument of the verb is doubled along with the infinitival copy. Second, this argument may not be modified by a determiner, and is incorporated by the infinitive. Hence, this left-dislocated VP displays the diagnostics of Noun-Incorporation (see, section 5.3.1.2.). Recall that this phenomenon involves only the underlying direct arguments of the verb. Third, the above constructions have a property in common with VP-preposing in English.

Webelhuth (1985) points out that in English, the inflectional complex with the tense and agreement features remains outside of the preposed constituent. In (11), for example, this complex appears on the lexical item *did*. Obviously, this is due to the requirement that these features must be attached to a lexical item within the clause. This explains also why an infinitival copy appears in Hungarian when a finite verb is left-dislocated. The finite verb must remain inside of the sentence, because the inflectional features are bound to it.

Hence, VP-preposing in Hungarian is quite similar to English in this respect, although the inflectional features are spelled out on a lexical I item in English, but in Hungarian they are realized on V. This phenomenon in Hungarian is further constrained, as it does not apply with fully referential NPs. Instead of taking this as an argument for the absence of a VP (cf. 5.2.1.(7)), the question is rather why it is prohibited with a full referential NP. At this place, I do not have a solution to offer for this problem. Let us consider now VP-pronominalization in Hungarian.

(III) We have seen already an instance of *VP-pronominalization*. In Dutch, the d-pronoun *dat* at the ellipsis site refers to the preposed VP. Compare the sentences in (2), here repeated as (14):

- (14) a. Jan houdt van Marie, en Peter doet *dat* ook
 John loves Mary and Peter does that too
- b. Jan zal een maaltijd gekookt hebben, *dat* zal Peter ook gedaan hebben
 John will a meal cooked have, that will Peter too done have

Koster (1987) argues that this phenomenon is not a transformational rule but that it is a case of anaphora, similar to the Left Dislocation of NPs. The preposed VP is left-dislocated, and its position at the ellipsis site is hold by a d-pronoun:

- (15) a. [Het boek lezen], *dat* wil ik niet
 the book read-INFI that want I not
- b. [De auto kopen], *dat* heeft Jan niet gedaan
 the car buy-INFI that has John not done
- c. [Het huis bouwen], *dat* zal hij niet
 a house built-INFI that will he not

In these sentences, the preposed constituent is the infinitival alternant of the verb, like the preposed constituent with VP-preposing in English, or Hungarian (cf. (11), and (13)). The d-pronoun represents the dislocated VP-constituent in the sentence.

Consider now the Hungarian equivalents of (15):

- (16) a. [A könyvet elovasni], *azt* nem akarom
 the book-ACC perf-read-INFI that-ACC not want-AGR1sg
 b. [Az autót megvenni], *azt* János nem tette
 the car-ACC buy-INFI that-ACC John not did-AGR3sg
 c. [A házat megépíteni], *azt* nem fogja
 the house-ACC build-INFI that-ACC not will-AGR3sg

In these sentences, the accusative demonstrative pronoun *azt* refers to the dislocated VP which contains an infinitive and its direct accusative NP.

One could argue that the preposed phrases in (16) are not VPs, but IPs, because they must have a *PRO* in their subject position. Recall, however, that auxiliary verbs such as *akar* and *fog* trigger 'restructuring' with an infinitive complement at S-structure (cf. section 5.3.2.). Hence, at least the preposed complements in (16a) or (16c) are categorially VPs. Although it must be admitted that the force of this argument for a VP in Hungarian is somewhat weakened by the fact that it depends largely on theory-internal considerations.

Let us now summarize this section on VP-rules. I demonstrated that VP-rules also appear in Hungarian.

VP-preposing applies if a finite verb together with its direct NP argument is left-dislocated. This argument, however, may not be modified by an article, and the finite verb appears in the form of an infinitival copy.

VP-pronominalization takes place if a finite verb with its direct NP argument is left-dislocated, and its position at the ellipsis site is filled by a d-pronoun. The left dislocated verb is an infinitive. The fact that the verb may only be preposed, or pronominalized in its unfinite form has to do with the requirement that the inflectional-features must be bound in its clause.

The occurrence of VP-preposing, and VP-pronominalization provides *direct* evidence for a VP in Hungarian, and may therefore be added to the list in 5.4.1.(5).⁴⁰ Further, I argued that VP-deletion is not a reliable constituent-test. It does not apply in Hungarian, in contrast to English. However, in established configurational languages like Dutch this phenomenon does not occur either. Therefore, the lack of VP-deletion in the grammar of a particular language cannot be an argument in favor of a VP-less phrase structure of that language.

It seems to me that the dichotomy between English on the one hand, and Dutch, Frisian, or Hungarian on the other hand involves the IP-parameter (cf. section 2.2.2.). I is strong in English, but it is weak in the other languages. Only material to the right of I may be deleted in English, as I is always lexically filled, and must be present in the clause to host the inflectional-features. This happens to coincide with VP. Weak I, however, does not isolate this node with reduction phenomena. Therefore, it does not show up with such phenomena in the other Germanic languages or Hungarian.

(40) Webelhuth (1985) notes that VP-preposing in German is impossible. According to Webelhuth, the absence of this is due to the fact that German has no separate I-position.

There appears to be a dichotomy between the reduction of the first conjunct (Right Node Raising), and reduction of the second one in Hungarian. With the former the verb or the object may be deleted, whereas in the second conjunct a combination of the verb and any of its direct NPs may be deleted. Hence, Right Node Raising displays a subject-object asymmetry, and may therefore be added to the list in 5.4.1.(5).⁴¹

5.4.2.3. *The Absence of that-Trace Effects*

Hungarian lacks *that*-trace effects (cf. 5.2.4.2). The complementizer *bogy* 'that' has to be spelled out both when the subject or the object is raised by long Wh-movement. Compare the sentences in 5.2.4.(4), here repeated for convenience as (1):

- (1) a. *Kit gondolsz *(bogy) t látta Vilit?*
 who-ACC think-AGR2sg that saw-AGR3sg Bill-ACC
 'Who do you think saw Bill?'
 b. *Kit gondolsz *(bogy) Vili látott t?*
 who-ACC think-AGR2sg that Bill saw-AGR3sg
 'Who do you think that Bill saw?'

Koster (1986) observes that the complementizer *dat* 'that' may not be omitted when the subject (cf. (2a)) or the object (cf. (2b)) are fronted by long Wh-movement in Dutch:

- (2) a. *Wie denk je *(dat) t hem gezien heeft?* b. *Wie denk je *(dat) hij t gezien heeft?*
 who think you that him seen has who think you that he seen has
 'Who do you think has seen him?' 'Who do you think that he has seen?'

Jarich Hoekstra (personal communication) informs me that Frisian lacks *that*-trace effects as well. With long Wh-movement the complementizer must be present:

- (3) a. *Wa tinkst *(dat) t him sjoen hat?* b. *Wa tinkst *(dat) er t sjoen hat?*
 who think-you that him seen has who think-you that he seen has
 'Who do you think has seen him?' 'Who do you think he has seen?'

These sentences show that *that*-trace violations appear in uncontroversial configurational languages such as Dutch or Frisian. So the absence of these violations in Hungarian does not necessarily provide evidence for the absence of a VP in that language. The question then is how to cover the dichotomy between English on the one hand, and the other Germanic languages and Hungarian on the other hand.

I will assume that this is related to the *IP-parameter* (cf. 2.2.2.(5)), here repeated as (4):

- (4) a. I is strong in English b. I is weak in Dutch, Frisian, and Hungarian

Recall further that the minimal maximal domain of the subject and object in these language-types is the following:

(41) Whitman (1984) and Fukui (1986) observe that Japanese does not display VP-rules. See these references for further discussion on the lack of direct evidence for a VP in that language.

(5) a. *Assumption 1*

In languages with *strong* I, the minimal maximal domain of the subject is IP, but the minimal maximal domain of the object is CP

b. *Assumption 2*

In languages with *weak* I, the minimal maximal domain of the subject is similar as the minimal maximal domain of the object, that is, CP

A consequence of the fact that the VP may L-contain the IP in languages with weak I (cf. chapter two) is that the domain of the subject is 'stretched' from IP to CP. Before we settle the dichotomy with *that*-trace effects between English and the other Germanic languages, or Hungarian, let us first consider the binding theory for Wh-traces.

Following Aoun (1986), I will assume that Wh-traces are non-A-anaphors, and that they must therefore be bound in the minimal maximal domain of their governor. The Binding Principle for Wh-traces is defined as follows:

(6) *Binding Principle for Wh-traces*

Wh-traces are bound in the minimal maximal domain of their governor (if it contains an antecedent)

Let us first derive the *that*-trace effect of English:

(7) a. *[CP *Who* do you think [CP *t* that [IP *t* saw John]]]b. [CP *Who* do you think [CP *t* that [IP John [VP saw *t*]]]]

I is strong in English (cf. (4a)). By (5a), the domain of the subject is IP, whereas the domain of the object is CP. (7a) is ungrammatical because it yields a violation of Binding Principle (6). The subject trace is not bound in its minimal maximal domain, the IP. (7b), on the other hand, is not ruled out by Binding Principle (6). The object trace in (7b) is bound in its minimal maximal domain, the CP. In this domain there is an appropriate binder, namely, the intermediate trace in the Spec of CP. Hence, this yields a subject-object asymmetry.

The question arises why the absence of the complementizer *that* turns (7a) into a grammatical sentence:

(8) [CP *Who* do you think [CP *t* [IP *t* saw John]]]

CP in this sentence has no lexical head. Therefore, it is L-contained by IP (cf. 2.2.2.(37) for the definition of L-containment). Contrary to (7a), the subject Wh-trace is bound in its minimal maximal domain, the IP, by the intermediate trace. Hence, no binding theory violation occurs, and the sentence is grammatical.

Let us turn now to the absence of *that*-trace effects in the other Germanic languages and Hungarian.

I is weak in Dutch, Frisian, and Hungarian (cf. (4b)). By (5b), the domain of the subject and the object is the CP in these languages. This implies that subject and object Wh-traces must find an appropriate antecedent in CP.

Consider, for example, the violation of *that*-trace effects in Hungarian, here repeated as (9).⁴²

(42) In chapter six, it will be argued that long Wh-movement in Hungarian applies successive cyclicly through the Spec of CP and that V-to-C movement does not block the application of this phenomenon. Hence, for ease of perception I will present the verb in its base-generated position in (9).

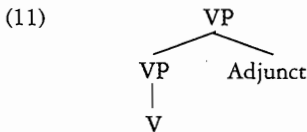
- (9) a. [CP *Kit* gondolsz [CP *t* hogy [vp *t* [vp látta Vilit]]]]
 who-ACC think-AGR2sg that saw-AGR3sg Bill-ACC
 b. [CP *Kit* gondolsz [CP *t* hogy Vili [vp *t* látott?]]]
 who-ACC think-AGR2sg that Bill saw-AGR3sg

Binding Principle for Wh-traces is satisfied both by the subject and object Wh-trace. In their minimal maximal domain, i.e. the CP, an appropriate binder is present, namely, the intermediate trace in the [Spec, CP]. Hence, this accounts for the absence of *that*-trace effects in languages with weak I. This approach predicts that there is an argument/non-argument symmetry with *that*-trace effects in Dutch, Frisian, and Hungarian but not in English.

Compare the following sentences with the extraction of the adjunct *why* in English, Dutch, Frisian, and Hungarian respectively:

- (10) a. [CP *Why* do you think [CP *t* that John has left *t*]]
 b. [CP *Waarom* denk jij [CP *t* dat Jan *t* weggegaan is]]
 why think you that John left has
 c. [CP *Wêrom* tinkst [CP *t* dat Jan *t* fuortgien is]]
 why think-you that John left has
 d. [CP *Miért* gondolod [CP *t* hogy János elment *t*]]
 why think-you that John left

Suppose adjuncts, like *why*, are adjoined to VP as follows:



According to the government definition in 2.2.2.(40), adjoined categories are governed by the head of the category to which they are adjoined. A maximal projection includes all member-nodes of that projection. Therefore, the adjunct in this configuration is governed by V.

From this it follows that the local domain of adjuncts is CP. Note now that Binding Principle (6) is satisfied in (10), for the trace in [Spec, CP] may act as an antecedent for the trace at the extraction site. This yields then an argument/non-argument symmetry with *that*-trace violations in Dutch, Frisian or Hungarian but not in English, as expected.

Recapitulating, *that*-trace violations appear also in established configurational languages such as Dutch or Frisian. Therefore, this phenomenon cannot count as a convincing argument for the hypothesis that the phrase structure of that language lacks a VP. Rather, the difference between English and the other Germanic languages or Hungarian with *that*-trace effects is related to the properties of I in these languages. If I is strong the local domain of the subject is different from the local domain of the object, whereas if I is weak the local domain of the subject and the object coincide. This is responsible for the subject-object asymmetry with this phenomenon in English, and for the lack of it in the other Germanic languages or Hungarian.

5.4.2.4. *Wh-movement from Possessive NPs*

Subject-object symmetries occur with (long) Wh-movement from *possessive NPs* in Hungarian. Compare the sentences 5.2.4.(5) and (6), here repeated as (1) and (2):

- (1) a. *Kinek* ismertétek [NP a *t* vendégét]?
 who-DAT knew-AGR2pl the guest-npAGR3sg-ACC
 'Whose guest did you know?'
 b. *Kinek* alszik [NP a *t* vendége]?
 who-DAT sleep-AGR3sg the guest-npAGR3sg
 'Whose guest sleeps?'
- (2) a. *Melyik színésznőnek* gondolja János hogy Péter
 which actress-DAT think-AGR3sg John that Peter
 megtalálta [NP a *t* fényképét]?
 found the photo-npAGR3sg-ACC
 'Which actress does John think that Peter found the photo of?'
 b. *Melyik színésznőnek* gondolja János hogy
 which actress-DAT think-AGR3sg John that
 [NP a *t* fényképe] meglett?
 the photo-npAGR3sg up-turned-AGR3sg
 'Which actress does John think that the photo of was found?'

In the sentences in (2), the Wh-possessor NP of an object phrase and of a subject phrase are fronted to the matrix sentence. I argued in the preceding section that long Wh-movement from both these positions yields a grammatical result. Therefore, the question is rather what allows short Wh-movement in (1)?

Following Szabolcsi (1981a, 1984), I will assume that Wh-possessors may escape from their possessive NP through the Spec-position of this constituent, more precisely through the Spec of DP (cf. chapter seven for details). This position may serve as a landing and extraction site for raised possessor NPs. Once Wh-possessors leave their possessive NP, they may participate in long Wh-movement. Hence, subject-object symmetries with (long) Wh-movement do not necessarily provide evidence for a non-configurational approach of Hungarian.

5.4.2.5. *The Formation of Idioms*

The formation of *idioms* in Hungarian is captured by generalization 5.2.1.(13), here repeated as (1):

- (1) An idiom frame may consist of a combination of a verb with any of its direct arguments

If an idiom frame corresponds to a single constituent, the occurrence of idioms with a free object argument poses a problem for the assumption that Hungarian is a configurational language. É. Kiss (1987c) refers to Ö. Nagy (1966) for hundred of idioms of that type.

Horvath (1987: 162) notes, however, that among this large number of Hungarian subject idioms, only a few are true subject idioms with a free object argument. Even among those, there are some with an English counterpart matching them word by word such as the equivalents of 5.2.1.(10a) and (10b), here repeated as (2):

- (2) a. Az isten áldja meg (őrt)
the God bless perf him
'God bless *him*.'
- b. Az ördög vigye el (őrt)
the devil take away him
'The devil take *him*.'

Jan Koster (personal communication) has brought to my attention that in Dutch idioms with a free object argument may appear as well:

- (3) a. Er is *mij* een steen van het hart gevallen
there is me a stone from the heart fell
'I am relieved.'
- b. *Hem* is de moed in de schoenen gezonken
him is the courage into the shoes sunk
'He lost courage.'

One could argue that these idioms are not proper subject idioms, because they involve the ergative verbs *vallen* 'to fall', and *zinken* 'to sink'. The following example represents, however, an undebatable subject idiom:⁴³

- (4) Waar wringt *hem* de schoen?
where presses him the shoe
'What is your problem?'

In view of the fact that there are subject idioms in uncontroversial configurational languages such as English or Dutch, there is at best only a quantitative difference between these languages and Hungarian. Thus, idioms should not be considered as reliable evidence concerning the question whether the phrase structure of a particular language is configurational or not (cf. also Horvath 1987).

5.4.2.6. Compositional θ -Assignment to the Object

I discussed some instances of thematic *object* selection depending on the choice of the subject (cf. section 5.2.2.). Horvath (1987: 152) observes that they can essentially be matched one-to-one with similar cases from English, an established configurational language.

Horvath presents the examples (1b) and (2b)-(2d) from English, in which the object theme role is determined by the θ -role of the subject (cf. also Marantz 1984):

- (1) a. The knidnappers are killing Mary
b. Her feet are killing Mary
'Mary is suffering from pain in her feet.'
- (2) a. Mary hit John
b. A truck hit John
c. Misfortune hit John
d. An idea hit John

I fully agree with the conclusion of Horvath (1987: 153) on the status of arguments based on compositional θ -assignment in the configurationality debate: 'In view of the lack of substantial empirical evidence that would distinguish Hungarian

(43) Eric Hoekstra (personal communication) informs me that with subject idioms in Dutch the object is often also fixed:

- (i) a. Joost mag weten *wie*...
Joost may know who
'Only God knows ...'
- b. De angst slaat X om 't hart
The fear hits X round the heart
'X was taken with fear.'
- c. Het gevoel bekruipt X dat ...
The feeling steals upon X that
'A feeling steals upon X that ...'

from the English-type languages in terms of manifestation of selectional asymmetries and symmetries between subjects and objects, we can only conclude that the domain of semantic selection provides no support, and in fact is problematic, for a strict non-configurational model.”

5.4.2.7. *Binding Principle C Symmetries*

In section 5.2.3., I discussed the subject-object symmetry with *pronominal noncoreference* (Binding Principle C) 5.2.3.(4), here repeated as (1):

- (1) a. **János* anyja szereti (ő)t b. *(Ő) szereti *János* anyját
 John mother-npAGR3sg loves him he loves John mother-
 ‘John’s mother loves *him*.’ npAGR3sg-ACC
 *‘He loves *John’s* mother.’

This phenomenon resists scrambling. Compare 5.3.2.(5), here repeated as (2):

- (2) a. *(Ő)t szereti *János* anyja b. **János* anyját szereti (ő)

É. Kiss (1987a) argues that Binding Principle C 6.3.4.(3c), here repeated as (3), accounts for this symmetry with pronominal noncoreference:

- (3) *Binding Principle C*: An R-expression (a category that is referentially independent, for example, names) is free

É. Kiss assumes further that this principle operates on a flat structure in the case of Hungarian (cf. 5.1.(1)).

However, Binding Principle C configurations with a sequence of names display a subject-object asymmetry. Compare 5.3.4.(12), here repeated as (4):

- (4) a. *János* anyja szereti *Jánost*
 John mother-npAGR3sg loves John-ACC
 ‘John’s mother loves *John*.’
 b. **János* szereti *János* anyját
 John loves John mother-npAGR3sg-ACC
 *‘John loves *John’s* mother.’

Recall furthermore that this phenomenon remains unaffected with scrambling. Compare 5.3.4.(19), here repeated as (5):

- (5) a. *Jánost* szereti *János* anyja
 John-ACC loves John-npAGR mother
 b. **János* anyját szereti *János*
 John mother-npAGR-ACC loves John

Binding Principle C with a pair of names is also unaffected by the depth of embedding.

If a name is embedded a maximal projection deeper than the other name, then again we find a subject-object asymmetry. Reconsider 5.3.4.(20), here repeated as (6):

- (6) a. **János* megtudta [NP azt a tényt [CP hogy *János* beteg lesz]]
 John perf-knew that-ACC the fact that John ill becomes
 *'John got to know the fact that John would become ill.'
- b. *[NP Azt a tényt [CP hogy *János* beteg lesz]] megtudta *János*
- c. *Jánost* zavarta [NP az a tény [CP hogy *János* beteg lett]]
 John-ACC disturbed that the fact that John ill became
 *'John was disturbed by the fact that John became ill.'
- d. [NP Az a tény [CP hogy *János* beteg lett]] zavarta *Jánost*

From the paradigms above, we draw the following conclusions:

(i) The general discourse principle (7) is *grammaticalized* in Hungarian:

- (7) Avoid repetition of R-expressions

This principle operates on structural configurations, and it is subsumed by Binding Principle C.

(II) Because the distribution of the pair (pronoun, name) does not display any asymmetry, whereas the corresponding relation of a pair (name, name) yields an asymmetry, what falls under Binding Principle C involves a *split*. The relation (name, name) is, as pointed out above, covered by Binding Principle C. The binding relation between a pronoun and a name, however, cannot be accommodated by a structural condition. Therefore, it seems to me, it is not constrained by a syntactic principle in the strict sense.

The question arises of course how this binding relation is captured in Hungarian. Below I will suggest that it is subject to a *discourse principle* proposed in Koster (1987).

Let us first investigate whether a Binding Principle C effect appears in the relation between a pair of (pronoun, name) by varying (i) the *case*-marking on the NPs, (ii) the *type* of NPs, or (iii) the *depth* of embedding.

(i) In (1), the free pronoun is marked nominatively or accusatively. The following sentences exemplify that pronouns with *lexical case*, i.e. dative (cf. (8)) or instrumental (cf. (9)), cannot be coreferential either with a name embedded in a possessive NP, whatever the linear order:

- (8) a. **Mari* anyja kiabált *neki* b. **Neki* kiabált *Mari* anyja
 Mary mother-npAGR3sg shouted she-DAT
 'Mary's mother shouted to her.'
- (9) a. **Mari* anyja veszekedett *vele* b. **Vele* veszekedett *Mari* anyja
 Mary mother-npAGR3sg quarrelled she-INSTR
 'Mary's mother had a quarrel with her.'

From a comparison of these examples and those in (1), we conclude that the symmetry with pronominal noncoreference has nothing to do with the type of case-marking. The pronoun may either appear with structural Case or with lexical case.

Let us determine whether this phenomenon is sensitive to the type of NP.

(ii) One could hypothesize that it is caused by the particular structure of the possessive NP in Hungarian. Recall that possessive NPs contain AGR which is spelled out on the head-noun (cf. chapter two).

In the following sentences, the R-expression is embedded in an NP which lacks AGR. Pronominal noncoreference is, however, obligatory in these cases as well, independently of the case-marking on the pronoun, i.e. nominative (cf. (10a)), accusative (cf. (11a)), and dative (cf. (12a)), or of whatever the linear order of the constituents is (cf. (10b), (11b), and (12b)):⁴⁴

- (10) a. *[_{NP} A Mari által *Jánosnak* küldött levelet] nem olvasta (ő)
 the Mary by John-DAT sent letter-ACC not read he
 *'He has not read the letter sent to *John* by Mary.'
 b. *(*Ő*) nem olvasta [_{NP} a Mari által *Jánosnak* küldött levelet]
- (11) a. *[_{NP} A *Jánossal* táncoló lány] megcsókolta (őt)
 the John-INSTR dance-pres.part. girl kissed him
 'The girl who was dancing with *John* kissed him.'
 b. *(*Őt*) megcsókolta [_{NP} a *Jánossal* táncoló lány]
- (12) a. *[_{NP} A *Jánossal* táncoló lány] tetszett neki
 the John-INSTR dance-pres.part. girl liked he-DAT
 *'He liked the girl who was dancing with *John*.'
 b. **Neki* tetszett [_{NP} a *Jánossal* táncoló lány]

Hence, we conclude that the symmetry with pronominal noncoreference is not due to the type of NP. Let us check whether it has to do with the depth of embedding.

(iii) Here, I will consider pronominal noncoreference with the following three types of embedded clauses: (A) *that*-clauses, or *free relatives*, (B) embedded clauses of *absolute* subordination and (C) *relative* clauses (see, section 4.5. for a discussion of these types). Let us discuss first this phenomenon in *that*-clauses and free relatives.

(A) Kenesei (1984b) observes that in case an R-expression is embedded in a *that*-clause (cf. (13a) and (13c)), again, a subject-object symmetry occurs with pronominal noncoreference. Note further that these configurations remain unaffected by the application of scrambling (cf. (13b) and (13d)):

- (13) a. *(*Őt*) nem érdekelte [_{CP} hogy keresik *Jánost*]
 he-ACC not interested that seek-AGR3pl John-ACC
 *'He was not interested in the fact that they sought *John*.'
 b. * [_{CP} Hogy keresik *Jánost*] (őt) nem érdekelte
 c. *(*Ő*) tudta [_{CP} hogy keresik *Jánost*]
 he knew that seek-AGR3pl John-ACC
 *'He knew that they sought *John*.'
 d. * [_{CP} Hogy keresik *Jánost*] tudta (ő)

The following paradigm shows that free relatives pattern with *that*-clauses:

(44) Anna Szabolcsi (personal communication) has brought to my attention that this is not the case with a focussed pronoun. Compare the alternant of (10a):

- (i) [_{NP} A Mari által *Jánosnak* küldött levelet] [_P *Ő/AZ*] nem olvasta
 the Mary by John-DAT sent letter-ACC he/that not read
 *'It is him who did not read the letter sent to John by Mary.'

Hence, focussing is an intervening factor from which I will abstract in the discussion below.

- (14) a. *[CP Akivel János beszélgetett] nem ismerte (ő)t
 who-INST John spoke not knew him
 'Who John spoke with did not know *him*.'
- b. *Nem ismerte (ő)t [CP akivel János beszélgetett]
- c. *[CP Amit János látott] (ő) elmondta nekünk
 what-ACC John saw he told us-DAT
 *'He told us what John saw.'
- d. *Elmondta nekünk (ő) [CP amit János látott]

In Hungarian, embedded clauses, or free relatives have a CP-structure (cf. section 4.5.1.). Hence, the subject-object symmetry with pronominal noncoreference remains unaffected if the name is embedded only under CP. Let us consider now pronominal noncoreference with absolute subordination.

(B) Kenesei (1984b) notes that a positional subject-object *asymmetry* with this phenomenon shows up in embedded clauses of absolute subordination. These embedded clauses are introduced by complementizers such as *mivel* 'since', or *bár* 'though'. A coreferential reading between a free pronoun and a name embedded in such clauses is allowed only if this clause is in sentence-initial position:

- (15) a. [CP Mivel János beteg volt] (ő) orthon maradt
 since John ill was he at home stayed
 'Since John was ill, *he* stayed at home.'
- b. *(ő) orthon maradt [CP mivel János beteg volt]
- (16) a. [CP Bár Péter gazdag] Anna nem szereti (ő)t
 Although Peter rich Ann not loves him
 'Although Peter is rich, Ann does not love *him*.'
- b. *Anna nem szereti (ő)t [CP bár Péter gazdag]
 (Kenesei 1984b: 315)

Kenesei argues that this positional asymmetry is due to the fact that clauses of absolute subordination are adjoined to the matrix clause when they are in initial position, but are attached under this clause when they are in postverbal position. These examples show that pronominal noncoreference is sensitive to the structural environment as well.

Let us turn to pronominal noncoreference with relative clauses.

(C) The sentences in (1)-(2), and in (11)-(14) have in common that the name is embedded in a phrase that has a relatively low degree of embedding, i.e. either in NP, or CP. A higher degree of embedding than in these cases can be reached by embedding the name in a relative clause.

With Kenesei (1984a, 1984b), I assume that relative clauses with a lexical head have the following structure in Hungarian:

- (17) [XP (X)P [CP ...]]

Note now that the subject-object symmetry with pronominal noncoreference breaks down when the name is embedded in an accusative relative clause that precedes the nominative free pronoun:

- (18) a. * (\ddot{O}) nem szereti [NP azt a lányt [CP aki Jánossal táncolt]]
 he not loves that-ACC the girl-ACC who John-INSTR danced
 *'He does not love the girl who danced with John.'
 b. [NP Azt a lányt [CP aki Jánossal táncolt]] nem szereti (\ddot{o}) .

Furthermore, pronominal coreference is also possible when the name is embedded in a nominative relative clause that precedes a free accusative pronoun:

- (19) a. [NP Az a lány [CP aki táncolt Jánossal nem szereti $(\ddot{o}i)$]]
 that the girl who danced John-INSTR not loves him
 'The girl who danced with John does not love him.'
 b. * $(\ddot{O}i)$ nem szereti [NP az a lány [CP aki táncolt Jánossal]]

So, pronominal noncoreference with relative clauses displays a *subject-object asymmetry*.⁴⁵

Let us first examine the pair in (18). This pair represents the Hungarian structural counterpart of SCO. For example, the English sentence (20a), but not (20b) is a typical case of this phenomenon:

- (20) a. *Who_i does he_i love t_i b. [Which man that John_i]_j does he_i like t_j

In (20a), the trace of Wh-movement is coindexed with and c-commanded by the pronoun *he* in subject position. Such a structure exhibits the SCO-effect. Example (20b), however, neither possesses the relevant structure (with coindexing), nor displays SCO.

Saito and Hoji (1983) claim that this contrast is also found with scrambling in Japanese:

- (21) a. * $[s$ John_i $[s$ karega_i t_i syōkaisita]] (koto)
 John-ACC he introduced fact
 *'He_i introduced John_i (to the audience).'
 b. $[s$ [NP Maryga Johnni_i okutta tegamio]_j $[s$ karega_i mada t_j yonde inai] (koto)
 Mary John-DAT sent letter-ACC he yet read have-no fact
 (Saito and Hoji 1983: 246)

Again, the object trace in (21a) is coindexed with and c-commanded by the pronoun *kare* 'he' in subject position, unlike in (21b).

Only the former exhibits SCO. According to Saito and Hoji, it is the adjunction of the object to S that reverses the c-command relations in (21b). Therefore, Saito and Hoji conclude that scrambling regarded as an instance of Move- α applied to a hierarchical phrase structure gives the correct result.

(45) In case a relative clause is focussed its CP-part has to be extraposed. When both the pronoun and the extraposed clause are postverbally disjoint reference is obligatory in any order:

- (i) a. * $[p$ Azt a lányt] nem szereti (\ddot{o}) $[c$ P aki Jánossal táncolt]
 that-ACC the girl-ACC not loves he who John-INSTR danced
 b. * $[p$ Azt a lányt] nem szereti $[c$ P aki Jánossal táncolt] (\ddot{o})
 that-ACC the girl-ACC not loves who John-INSTR danced he
 c. * $[p$ Azt a lány] nem szereti $[c$ P aki Jánossal táncolt] $(\ddot{o}t)$
 that the girl not loves who John-INSTR danced him
 d. * $[p$ Azt a lány] nem szereti $(\ddot{o}t)$ $[c$ P aki Jánossal táncolt]
 that the girl not loves him who John-INSTR danced

The SCO-effect in the Hungarian pair (18), as I will make precise below, can be accounted for along the lines of Saito and Hoji (1983). This implies that we cannot derive the absence of the SCO in the pair ((1b), (2b)) in purely syntactic terms. Therefore, I will suggest that the symmetries with pronominal noncoreference are subsumed by a discourse principle. Let us turn now to a discussion of the pair in (19).

Scrambling of the accusative pronoun *őt* to a preverbal CP-position blocks a coreferential reading between this pronoun and a name (cf. (19b)). The 'precedence' effect with pronominal noncoreference is not too surprising if we take into account that the linear order of the pronoun and the name in this sentence matches the context of backward pronominalization.

In the literature (cf. Solan 1983, among others), it has often been reported that there is almost a total ban on backward pronominal coreference across languages. This restriction is sometimes relaxed in certain structural environments as a marked alternative. Forward anaphora, on the other hand, is always possible.

How then is the dichotomy between (19a) and (19b) accounted for?

Recall that reflexive binding in Hungarian is not sensitive to scrambling (cf. section 5.3.4.1.). If, on the other hand, pronominal noncoreference is sensitive to scrambling, as the pairs in (18) and (19) demonstrate, then we run into a *reconstruction paradox* in Hungarian as well.

The following triple from English exemplifies this type of paradox:

- (22) a. **He* throws away [some of the books *John* read]
 b. [Which of the books that *John* read] does *he* throw away *t*?
 c. [Which picture of *himself*] did *Mary* say *John* admired most *t*?

(22a) and (22b) represent instances of pronominal noncoreference and (22c) exhibits reflexive binding.

In the case of pronominal coreference, the pronoun may not c-command the antecedent with which it is coreferential. In the case of reflexive binding, on the other hand, the reflexive anaphor must be c-commanded by its coreferential antecedent. If we would apply these conditions at a derived level of representation, say, after Wh-movement, the ungrammaticality of (22a), and the grammaticality of (22b) would be predicted, since *he* c-commands its antecedent *John* in (22a), but not in (22b). However, under this option the grammaticality of (22c) remains unexplained. The reason for this is that the reflexive anaphor is not c-commanded by its antecedent after Wh-movement.

What is needed to arrive at the correct result in this sentence is the reconstruction of the Wh-phrase to its base-generated position. However, if we apply the Binding Principles at the base-generated structure, that is, before the application of move *Wh*, then the ungrammaticality of (22a) and the grammaticality of (22c) follow, but now the grammaticality of (22b) is unexpected. The pronoun and its antecedent in (22a) and (22b) display a similar c-command configuration in their base-generated structure.

So, whatever level of representation we take as relevant for the Binding Principles, we run into a paradox. In order to escape this paradox, Van Riemsdijk and Williams (1981), and Mohanan (1983) have proposed to determine reflexive binding at

D-structure or NP-structure, that is before an application of Move- α , and pronominal noncoreference at S-structure, that is, after an application of Move- α . This correctly yields the patterning of data in (22). Therefore, let us adopt this solution for binding paradoxes.

Consider now how the scrambling effects with pronominal noncoreference in the Hungarian pairs (18) and (19) are derived.

The subject pronoun in (18a) is higher on the tree than its antecedent, because it is scrambled to a preverbal [Spec, CP], whereas its antecedent is embedded in an object phrase that is base-generated in the VP. This configuration violates the c-command constraint on pronominal noncoreference, yielding an ungrammatical result.

(18b), however, is grammatical because of the SCO-effect. The accusative relative clause with the name is scrambled to a preverbal CP-position over the subject pronoun. Therefore, it does not c-command its antecedent at S-structure any longer.

(19a) is grammatical, because the object pronoun does not c-command the name embedded in a subject relative clause. In (19b), on the other hand, the object pronoun is scrambled to a preverbal CP-position, whereas its antecedent is adjoined to the VP. In this S-structure configuration the pronoun c-commands its antecedent. Hence, a coreferential reading between the pronoun and the name is blocked.

In sum, pronominal noncoreference in Hungarian yields both a subject-object symmetry and a subject-object asymmetry. The binding relation between a pair of names displays a subject-object asymmetry. This implies that not all the facts subsumed under Binding Principle C can be accounted for by this principle. The question then arises what is the status of this principle in a theory of UG?

Koster (1987, 369) concludes that Binding Principle C is not a purely syntactic principle. Koster proposes to reinterpret it as a *discourse principle*, according to which the crucial relative prominence of NPs in the discourse is determined by both structural and nonstructural factors. Koster motivates this step by the following two problem cases.

First, Koster observes that Binding Principle C effects do not form a unitary phenomenon. Many different cases supposed to be ruled out by this principle vary enormously in acceptability.

Compare the following sentences:

- | | |
|---|--|
| (23) a. * <i>He</i> hates <i>John</i> | b. * <i>He</i> thinks that <i>John</i> is sick |
| c. * <i>John</i> thinks that <i>John</i> is sick | d. * <i>He</i> left because <i>John</i> was sick |
| e. * <i>John</i> left because <i>John</i> was sick | f. * <i>Nobody</i> left because <i>John</i> was sick |
| g. * <i>Who</i> <i>t</i> thinks that we like <i>t</i> | h. * <i>Who</i> <i>t</i> was arrested before we saw <i>e</i> |
- (Koster 1987: 346)

Koster notes that all these sentences in (23) are supposed to be covered by Principle C. According to Koster, however, this is suspicious, because they differ enormously in acceptability. For example, (23a) is entirely unacceptable in the intended reading, while (23c) is almost acceptable.

Second, Koster notes that c-command is neither necessary, nor sufficient for the disjoint reference interpretation:

- (24) a. *We talked with *him* about *John*
 b. We gave *her* the furcoat that *Mary* has always wanted
 (Koster 1987: 347)

(24a) illustrates that Binding Principle C effects are not necessary for disjoint reference. The pronoun embedded in the PP does not c-command the name. (24b) illustrates that c-command is not sufficient for Principle C violations to occur. This sentence is grammatical in the intended reading, although the name is c-commanded by the pronoun.⁴⁶

In order to account for the cases accommodated by Binding Principle C, Koster (1987) formulates a *discourse principle* that also may take structural information into account:

- (25) *Discourse Principle for Coreferential NPs:*
 For each sequence of coreferential argument NP_i
 C = (NP₁..., NP_i, NP_{i+1}, ..., NP_n) (1 < i ≤ n)
 NP_{i+1} must be more anaphoric than NP_i (unless both are anaphors/pronominals),
 depending on the relative prominence of NP_i
 (Koster 1987: 353)

According to Koster, following Lakoff (1968) at this point, *anaphoricity* is a matter of degree in agreement with the following relative scale:

- (26) pronouns (anaphors) > epithets > definite descriptions > names

Koster points out that crucial in this reformulation of this Binding Principle is the role given to the relative prominence of NP. The intuitive idea is that the need to continue a sequence with a more anaphoric NP decreases if the prominence of the last NP of the discourse sequence decreases.

Koster further assumes that relative prominence can also be determined by purely structural factors for which he sets up the following prominence hierarchy:

- (27) *Prominence* (i) *c-command*
 a. local subject; b. governing subject; c. subject; d. nonsubject
 (ii) *non-c-command*
 a. degree of embedding *i* (*i*>0); b. degree of embedding *i* + 1; c. etc.

This specification of the relative prominence of two NPs in a sequence distinguishes two cases. Firstly, the first NP c-commands the second NP. Secondly, the first NP does not c-command the second one. In the former case, the first NP is relatively more prominent if it is a local subject with respect to the second NP. If we go down the list, the disjoint reference interpretation becomes less compelling.

Consider, for example, a case in which the depth of embedding plays a role:

- (28) a. *In *John's* apartment, *he* spends a lot of time
 b. In the apartment *John* just rented, *he* spends a lot of time

(46) Koster (1987) points out that if one assumes that phrase structure is binary branching in the sense of Kayne (1984), the c-command relation between the pronoun and the name would be blocked. In that case, the grammaticality of (24b) would not pose a problem for Binding Principle C.

It seems reasonable to suppose that the preposed phrases in both (28a) and (28b) are structurally in the same relation to the nominative pronoun. Therefore, an account of these cases based on a version of *c-command* is not very attractive (see, for example, Reinhart 1983).

The relative prominence of the embedded name decreases in (28b) compared to (28a), for *John* is embedded deeper into the PP. The former, unlike the latter, is grammatical under the intended reading. Obviously, a less prominent NP in terms of degree of embedding may be followed by a more anaphoric NP.

Jan Koster (personal communication) has brought to my attention that the same holds for Dutch. In (29a), the name is embedded in a possessive NP, and in (29b) it is embedded in a relative clause. A coreferential reading is only possible in the latter one, in which the name is embedded more deeply:

- (29) a. **Jan's vader haat bij* b. De man die *Jan sloeg*, haat *bij*
 John's father hates he the man who John beat hates he
 *'*John's father he* hates.' '*The man who beats John, he* hates.'

At this place, I would like to add another factor to (27) which may influence the relative prominence of two NPs in a sequence, namely linear order:

- (30) (iii) *linear order*: NP_i precedes NP_{i+1} in a string

Hence, in accordance with principle (25), NP_{i+1} must be more anaphoric than NP_i on scale (26). Some languages rely for their rule on pronominal noncoreference entirely on linear order. Mohanan (1983: 120), for example, reports that a pronoun may never precede its antecedent in Malayalam. Compare the following sentences:

- (31) a. *Kutti awante ammaye nulli* b. **Awante ammaye kutti nulli*
 child his mother-ACC pinched
 '*The child* pinched *his* mother.'
- c. **Awan kuttiyute ammaye nulli* d. *Kuttiyute ammaye awan nulli*
 he child's mother-ACC pinched (Mohanan 1983: 120)
 *'*He* pinched the *child's* mother.'

According to Mohanan, if a pronoun precedes its antecedent such as in (31b) and (31c), a coreferential reading is ruled out.

Furthermore, (31b) displays that *c-command* does not play a role with respect to pronominal noncoreference in Malayalam. This sentence is ungrammatical, although the pronoun *his* does *c-command* its antecedent.

Recall that the following Binding Principle C dichotomies appear in Hungarian: (i) Coreferentiality between a sequence of names diverges from coreferentiality between a sequence of a pronoun and a name, and (ii) a subject-object asymmetry with pronominal noncoreference shows up with a relatively higher degree of embedding, otherwise a subject-object symmetry.

(i) In order to account for disjointness between a sequence of names, it is sufficient to check the structural configuration in combination with a *c-command* condition. This condition may be formulated as a separate condition, something similar to Binding Principle C, or it may be formulated in terms of the structural factors (27i) that determine discourse principle (25). I will leave open the question of whether

there is an independent syntactic principle for the binding relation of a sequence of names, the residue of Binding Principle C. Does this dichotomy appear in other languages as well?

Lasnik (1986) notes that in Thai, Vietnamese and English R-expressions must be *pronoun-free*. Lasnik suggests that this requirement, possibly a language universal, is due to an instantiation of a general prohibition on the binding of a more anaphoric expression by one that is less so. However, in Thai and Vietnamese, unlike in English, R-expressions may be bound by other names.

This split between a pair of names and a pair of (pronoun, name) is exemplified even more dramatically in Malayalam. Consider:

- (32) a. *Joonina joonine ištamaana* b. *Kuṭṭi kuṭṭiyute ammaye nulli*
 John-DAT John-ACC likes child child's mother-ACC pinched
 'John likes himself.' 'The child pinched his mother.'
 (Mohanan 1983: 124)

Mohanan (1983) claims that the repetition of coreferential R-expressions is allowed in that language.

The comparison between (31) and (32) shows that pronominal noncoreference in Malayalam obeys a condition in terms of precedence, whereas no condition is imposed on names. The latter may be covered by the following rule, similar in spirit to Chomsky's (1976) rule A (this rule accounts for the distribution of bound pronouns):

- (33) An R-expression *A* in Malayalam may be rewritten as an anaphor coreferential to a name *B* if and only if it is bound by *B*

The question arises why there should be a split in coreference between a pair (name, name) and (pronoun, name)?

It seems to me, following Evans (1980: 358), that this has to do with the intrinsic differences between pronouns and names. According to Evans, the crucial difference between the relation (pronoun, name) and the relation (name, name) is that the pronoun may be referentially dependent upon the name, while two occurrences of a name may be intended to be coreferential, but neither occurrence is referentially dependent on the other.

The participants in a pair of names are equally prominent in terms of (26). Suppose, now, that by this absence of relative prominence, a pair of names may be exempted from discourse principle (25). This hypothesis is supported by the fact that disjoint reference is stronger if anaphoricity decreases. Thus, it has often been pointed out that both the following sentences are bad, but that (34b) is worse than (34a):

- (34) a. **John* thinks that *John* is sick b. **He* thinks that *John* is sick

This is also the case with the Hungarian counterparts of these sentences:

- (35) a. **János* azt gondolja hogy *János* beteg
 John that-ACC think-AGR3sg that John sick
 b. **Ő* azt gondolja hogy *János* beteg
 he that-ACC think-AGR3sg that John sick

Let us turn now to a discussion of the Binding Principle C split with pronominal noncoreference.

(ii) The binding relation between a pronoun and a name is not determined by principles of grammar in a strict sense. Factors such as anaphoricity, depth of em-

bedding, precedence, and so on may play a role as well.⁴⁷ In English and Dutch, a co-referential reading between a pronoun and an embedded name becomes possible by increasing depth of embedding (cf. (28) and (29)). This fact supports a discourse-oriented approach to pronominal noncoreference.

In Hungarian, pronominal noncoreference is always ruled out, unless the name is embedded more deeply, for example, in a relative clause. So, the situation with this phenomenon in Hungarian resembles the one in Dutch, or English. This indicates that pronominal noncoreference in that language also falls under discourse principle (25), and is determined by (27ii).

In conclusion, I argued Binding Principle C is not a unitary phenomenon.⁴⁸ First, in Hungarian coreference between a pair of names must be separated from pronominal

(47) I argued in section 4.2.4. that binding phenomena covered by Binding Principle C exhibit a parallel distribution between overt and non-overt pronouns in Hungarian. From this I concluded that small *pro* is present in the syntax of Hungarian. The argument, however, remains valid if we replace Principle C by a discourse principle. In that case, we have to assume that this discourse principle is fed similarly by overt and non-overt pronouns, otherwise the parallel distribution between these items would be left unexplained.

(48) A comparative study of binding phenomena in Hungarian and Basque would be very useful, because these phenomena display a similar distribution in these languages (I am indebted to Joseba Abaitua, Bernard Oyharçabal, and Georges Rebuschi for discussion and data).

Reflexive binding (cf. (i)), the binding between a pair of names (cf. (ii)), and the distribution of bound pronouns (cf. (iii)) yield subject (ERG)-object (ABS) asymmetries in Basque as well:

- | | | | | | |
|----------------|----------------------------|------------------------|----------------|-------------|-----------------|
| (i) a. Elkar | ikusi dugu guk | (ii) a. <i>Mayiren</i> | amak | <i>Mayi</i> | <i>maite du</i> |
| each other-ABS | seen Aux we-ERG | Mary-GEN | mother-ERG | Mary-ABS | loved Aux |
| | 'We have seen each other.' | | | | |
| b. *Elkarrek | ikusi gaitu gu | b. ?? <i>Mayik</i> | <i>Mayiren</i> | ama | <i>maite du</i> |
| each other-ERG | seen Aux we-ABS | Mary-ERG | Mary-GEN | mother-ABS | loved Aux |

Just as in Hungarian, reflexive binding and the binding relation between a pair of names in Basque resist scrambling, unlike bound pronouns. (Wh-phrases in Basque must appear in the fixed Focus position left-adjacent to the verb (cf. De Rijk 1978). Compare:

- | | | | | | |
|---------------|-------------------------------|----------|------------|-------------|-----------|
| (iii) a. Nork | ikusi du bere ama? | c. *Bere | amak | <i>nor</i> | ikusi du? |
| who-ERG | seen Aux his mother-ABS | his | mother-ERG | who-ABS | seen Aux |
| | 'Who sees <i>his</i> mother?' | | | | |
| b. *Bere | ama <i>nor</i> k ikusi du? | d. *Nor | ikusi du | <i>bere</i> | amak? |
| | | | | | |

Pronominal noncoreference with possessive NPs produces a subject-object symmetry, comparable to Hungarian:

- | | | | |
|----------------|-----------------------------------|----------|--|
| (iv) a. *Berak | <i>maite du Mayiren</i> ama | b. *Bera | <i>maite du Mayiren</i> amak |
| she-ERG | loved Aux Mary-GEN mother-ABS | she-ABS | loved Aux Mary-GEN mother-ERG |
| | 'She loves <i>Mary's</i> mother.' | | ' <i>Mary's</i> mother loves <i>her</i> .' |

Joseba Abaitua (personal communication) has informed me that scrambling of the possessive NP in front of the pronoun weakens pronominal noncoreference:

- | | | | | | | | |
|--------------------------|------------|--------------|-----------------|----------------------|------------|-------------|-----------------|
| (v) a. ?? <i>Mayiren</i> | ama | <i>berak</i> | <i>maite du</i> | b. ?? <i>Mayiren</i> | amak | <i>bera</i> | <i>maite du</i> |
| Mary-GEN | mother-ABS | she-ERG | loved Aux | Mary-GEN | mother-ERG | she-ABS | loved Aux |

It vanishes completely when the name is embedded in structures with a higher degree of embedding than possessive NPs like embedded clauses:

- | | | | | | | | | |
|--------------------------|--|--------------------|--------------------|---------------------------|-------------|----------------|----------|--|
| (vi) a. [<i>Benitok</i> | kantatzeko] | <i>berari</i> | eskaru diogu | b. Uste | dur | [<i>Patxi</i> | berandu | etorriko dela] |
| Benito-ERG | sing-NOMI-ko | he-DAT | asked Aux | think-ARG ₁ sg | Aux | Patxi-ABS | late | come Aux-Comp |
| | 'For <i>Benito</i> to sing, we asked <i>him himself</i> .' | | | <i>berak</i> | <i>eşan</i> | <i>duela</i> | | |
| | | | | he-ERG | said | Aux-Comp | | |
| | | | | | | | | 'I think that <i>Patxi</i> will arrive late, <i>he himself</i> said it.' |
| c. [<i>Mirenek</i> | <i>Joni</i> | <i>bidali zion</i> | <i>eskutitza</i>] | ez | du | <i>berak</i> | oraindik | irakurri |
| Miren-ERG | John-DAT | sent | Aux-rel letter-ABS | NEG | Aux | he-ERG | yet | read |
| | | | | | | | | 'The letter that <i>Miren</i> sent to <i>John</i> , he has not read (it) yet.' |

Especially the parallel between Hungarian and Basque with pronominal noncoreference is very interesting. In Basque, similar to Hungarian, a subject-object symmetry appears when the relative depth of embedding is low, otherwise a subject-object asymmetry appears.

noncoreference. The former, which yields subject-object asymmetries, may be captured in terms of a structural condition like Binding Principle C. The latter, on the other hand, is subsumed by Koster's (1987) discourse account of this phenomenon.

A prediction of this account, namely, that obligatory pronominal noncoreference vanishes with a relatively higher degree of embedding, is borne out in Hungarian as well. Hence, it is flexible enough to cover both subject-object symmetries and subject-object asymmetries.⁴⁹ From this, I conclude that subject-object symmetries with some cases of pronominal noncoreference do not motivate the assignment of a flat sentence structure to Hungarian. Likewise, subject-object asymmetries with Binding Principle C can be seen as evidence against such an analysis, and as support for the configurational approach.

5.4.3. Some Residual Symmetries

This section investigates the following two subject-object symmetries in Hungarian, involving the absence of *superiority effects* (cf. section 5.4.3.1.) and the symmetries with the *Topicalization of universal quantifiers* (cf. section 5.4.3.2). These symmetries differ from the epiphenomenal symmetries discussed in the preceding section in that the latter have exactly, or almost exactly the same shape as in established configurational languages. In contrast to the epiphenomenal symmetries, they have a somewhat different form. It seems reasonable, as an initial working hypothesis, to relate these residual symmetries to a specific property of the syntax of Hungarian. It appears that an appropriate candidate for this is the recursive CP in Hungarian (cf. 2.2.3.(1)).

5.4.3.1. The Absence of Superiority Effects

Let us consider, again, 5.2.4.(1) and (2), that display the dichotomy between English and Hungarian with *superiority effects*.

The sentences in (1) exemplify that in English an object Wh-phrase, unlike a subject Wh-phrase, may not be preposed to the Spec of CP in a multiple Wh-question. Hence, the ungrammaticality of (1b):

- (1) a. *Who* has said *what* b. **What* has *who* said

In Hungarian multiple Wh-questions, on the other hand, an object Wh-phrase may precede a subject Wh-phrase (cf. (2b)):⁵⁰

(49) Platero (1978) and Hale (1988) observe that pronominal noncoreference in Navaho always displays subject-object symmetries. A name in an embedded clause may always be coreferential with a non-overt subject, or object pronoun. Jelinek (1985; 1988) and Speas (1986) argue that this is due to the fact that NPs in that language are adjuncts that bind an A-position in Aux. Binding theory refers only to A-positions.

(50) The same appears in embedded clauses:

- (i) a. Nem tudom hogy *ki mit* mondott?
 not know-ARG1sg that who what-ACC said-AGR3sg
 'I do not know who said what?'
- b. Nem tudom hogy *mit* *ki* mondott?
 not know-ARG1sg that what-ACC who said-AGR3sg
 *'I do not know what who said?'

- (2) a. *Ki mit* mondott
 who what-ACC said-AGR3sg
 'Who said what'
 'For which x, x a person, for which y,
 y a statement, x said y.'
- b. *Mit ki* mondott
 what-ACC who said-AGR3sg
 'Who said what'
 'For which y, y a statement, for
 which x, x a person, x said y.'

Before we present an analysis of this dichotomy between English and Hungarian, let us first consider multiple Wh-questions in Dutch, and Frisian, both established configurational languages.

In Dutch or Frisian, superiority effects are absent.⁵¹ Consider the Dutch counterparts of the English sentences in (1):

- (3) a. *Wie heeft wat* gezegd
 who has what said
- b. *Wat heeft wie* gezegd
 what has who said

Jarich Hoekstra (personal communication) has informed me that Frisian is the same in this respect:

- (4) a. *Wa sei wat*
 who said what
- b. *Wat sei wa*
 what said who

The (b)-sentences in (3) and (4) show that an object Wh-phrase may be fronted in Dutch and Frisian multiple Wh-questions over a subject Wh-phrase, unlike in English (1b). This patterning of these questions in Dutch and Frisian implies that the absence of superiority effects in Hungarian cannot count as decisive evidence for the claim that the phrase structure of that language is non-configurational.

Furthermore, there is also a dichotomy between the Hungarian multiple Wh-questions on the one hand, and the English, Dutch and Frisian multiple Wh-questions on the other hand. The Wh-phrases in Hungarian are 'stacked' preverbally, but in the other languages one of the Wh-phrases has to remain *in-situ*.⁵² Below I will argue that this dichotomy is related to the fact that the CP has a different structure in these languages.

Let us present now an analysis of superiority effects in English. Before we do so, we must first determine how Wh-phrases are assigned scope.

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

- (5) a. [CP Q_i [Wh-phrase]_i [IP...*ti*...]]
- b. [CP Q_i [IP...[Wh-phrase]_i...]]

In both cases, scope-assignment to the Wh-phrase depends on its relation with the scope marker *Q*. The difference between (5a) and (5b) is that the content of the

(51) Haider (1989) observes that superiority effects may be absent from German as well:

- (i) a. *Wer hat was* gekauft?
 who has what bought
- b. *Was hat wer* gekauft?
 What has who bought

(52) This phenomenon is also attested in some other languages, like Basque (cf. Ortiz de Urbina 1986), Bulgarian (cf. Rudin 1982), Georgian (cf. Harris 1981), Polish (cf. Wachowicz 1974), Czech (cf. Toman 1982), Romani (cf. McDaniel 1986) and Romanian (cf. Comorovski 1986). There is an East European sprachbund with respect to multiple Wh-questions (cf. Pesetsky 1987 for discussion).

Wh-phrase is adjacent to *Q* in the former, but not in the latter. Therefore, these cases represent a different type of binding relation.

In (5a), the Wh-trace must be linked to its overt antecedent. We defined the Binding Principle for Wh-phrases as in 5.4.2.3.(6), here repeated as (6):

- (6) *Binding Principle for Wh-traces*: Wh-traces are bound in the minimal maximal domain of their governor (if it contains an antecedent)

In (5b), however, the Wh in-situ must be linked to *Q*. I will assume that the Binding Principle for Wh in-situ is as in (7):

- (7) *Binding Principle for Wh in-situ*: Wh in-situ is bound in the minimal maximal domain of its governor (if it contains a *Q* marker)

Having settled the scope-assignment for Wh-phrases, let us reconsider the English sentence (1a), here repeated as (8):

- (8) [CP *Who*_i [IP *t*_i has [VP said *what*]]

The subject Wh-phrase *who* is moved to the Spec of CP, whereas the object Wh-phrase *what* remains in its base-generated position. The domain of the subject in English, a language with strong I, is IP. The domain of the object, on the other hand, is CP (cf. 5.4.2.3.(5a)).

The object Wh-phrase is a Wh in-situ, and therefore it must be linked to *Q* in the Spec of CP. This linking may be established because the domain of the object is CP. Hence, the Binding Principle for Wh in-situ is satisfied in (8). Consider now the binding of the Wh-trace in subject position.

The domain of the subject is IP in English. In this domain, there is no antecedent available for the Wh-trace. Hence, the Binding Principle (6) for Wh-traces is violated. However, (8) is grammatical. This principle can only be satisfied if the moved Wh-phrase in the [Spec, CP] functions as the antecedent for the subject trace. In that case, the domain of this trace must be stretched from IP to CP. Obviously, this has indeed applied in (8). The question then arises why do moved Wh-phrases have this property?

The canonical operator position for Wh-phrases in English is the [Spec, CP]. Thus, moved Wh-phrases must land in that position. A maximal projection can only be set up if it has a lexical head, otherwise it coincides with the projection it directly dominates because of *L-containment* (cf. 2.2.2.(37)). Therefore, the [Spec, CP] position can only be determined if the CP is projected. In order to accomplish this, the CP must have a lexical head (cf. 2.2.2.(3)). This lexical head is provided by movement of I to C. This hypothesis is supported by the following pair:

- (9) a. *[CP *What*_i [IP he has [VP done *t*_i]]] b. [CP *What*_i *has*_j [IP he *t*_j [VP done *t*_i]]]

Observe from this pair that the auxiliary *has* must move from its base-generated I-position to the C-position when Wh-movement has applied (cf. (9b), otherwise the sentence is ruled out (cf. (9a)).

In sum, obligatorily filling the [Spec, CP] by a Wh-phrase triggers I-to-C movement.⁵³ Hence, the structure of (8) is actually as in (10):

(10) [CP *Who_i has_j* [IP *t_i t_j* [VP said what]]]

Suppose, now, that a concomitant of this movement is that the domain of the subject is extended. By this movement, the IP is robbed of its lexical head, which turns it into a 'defective' projection. Therefore, the subject position is accessible for the Wh-phrase in the Spec of CP. As a result, the Binding Principle for Wh-traces is satisfied, and (10) is grammatical. Let us consider now (1b).

This sentence has the following structure:

(11) *[CP *what_i has_j* [IP *who t_j* [VP said *t_i*]]

The object Wh-phrase *what* has moved to the Spec of CP. For reasons outlined above, this triggers I-to-C movement of the auxiliary *has*. The subject Wh-phrase *who*, on the other hand, remains in-situ. The object Wh-trace does not violate Binding Principle (6), because its Wh-antecedent is in its minimal maximal domain, the CP. The subject Wh in-situ, however, cannot be linked to its *Q* marker in the Spec of CP, since the domain of the subject is IP in English. Obviously, subject Wh in-situ, unlike subject Wh-movement, does not have the ability to stretch the domain of the subject. To say the same thing otherwise, subject Wh in-situ prevents the IP from becoming a transparent domain. Hence, the Binding Principle (7) for Wh in-situ is violated, and (11) is ruled out.

Let us turn now to a discussion of why superiority effects are absent from Dutch and Frisian?

These languages have in common with English that the canonical position for Wh-phrases is the Spec of CP. There is only one such position available. Therefore, in multiple Wh-questions only one of the Wh-phrases may appear in that position:

(12) a. [CP *Wie_i heeft* [IP *t_i* [VP *wat gezegd*]]] b. [CP *Wat_i heeft* [IP *wie* [VP *t_i gezegd*]]]

I is weak in Dutch, and in Frisian. In languages with weak I, the domain of the subject is identical with the domain of the object (cf. 5.4.2.3. (5b)), namely CP. Therefore, in these sentences no binding theory violations occur.

In (12a), the object Wh-phrase in-situ *wat* may be linked to its *Q* antecedent in [Spec, CP], and in (12b) the subject Wh-phrase in-situ *wie* may be too. Hence, no violation of Binding Principle (7) for Wh in-situ arises. The subject trace in (12a) is bound by its Wh-antecedent in the Spec of CP. This is also the case with the object Wh-trace in (12b). Hence, the Binding Principle for Wh-traces (6) is also satisfied. This causes then the absence of superiority effects in Dutch, or Frisian. Let us now consider the absence of this phenomena in Hungarian.

(53) I-to-C movement applies also in English yes/no questions:

(i) [CP *Will_i* [IP *John t_j* [VP buy this book]]]

With Kosmeijer (1988), I will assume that a question marker *Q* occupies the [Spec, CP] in this construction. However, this position can only be projected if the CP has a lexical head. Hence, I-to-C movement. Thus the motivation for this movement in yes/no questions is the same as for Wh-questions.

Wh-phrases in Hungarian must occur in the [Spec, CP] as well (cf. section 2.2.2.). The only difference between Dutch or Frisian on the one hand and Hungarian on the other hand with multiple Wh-questions is that Wh-phrases in Hungarian are stacked preverbally. This implies that in Hungarian, in contrast to Germanic languages, several Spec of CP positions are accessible for Wh-phrases. I will assume that this is due to the fact that CP in Hungarian is recursive within CP (cf. 2.2.3.(1)). Hence, all Wh-phrases in Hungarian are adjacent to their *Q* marker.

Therefore, the sentences in (2) display the following structure:

- (13) a. [CP *Ki*_i [CP *mit*_k mondott_j [VP *t*_i [VP *t*_k *t*_j]]]]
 b. [CP *Mit*_k [CP *ki*_i mondott_j [VP *t*_i [VP *t*_k *t*_j]]]]

The lower [C, CP] in these sentences is filled by V-to-C movement, and the Specs of CP are filled by overt Wh-movements.

Let us determine now why Hungarian lacks superiority effects. I is weak in Hungarian, as in Dutch and Frisian. Therefore, the domain of the subject traces is the same as the domain of the object traces. Hence, these traces are both bound in their minimal maximal domain, the CP. Hence, no violation of the Binding Principle for Wh-traces appears.

We expect that superiority effects in English will also show up when the object Wh-phrase is replaced by an adjunct Wh-phrase. Compare the following pairs:

- (14) a. [CP *Who*_i has_j [IP *t*_i *t*_j [VP [VP come] *when*]]]
 b. *[CP *When*_i has_j [IP *who* *t*_j [VP [VP come] *t*_i]]]
 (15) a. [CP *Who*_i has_j [IP *t*_i *t*_j [VP [VP lived] *where*]]]
 b. *[CP *Where*_i has_j [IP *who* *t*_j [VP [VP lived] *t*_i]]]

Adjuncts, like *when* and *where*, are governed by V, and thus their minimal maximal domain is CP (cf. section 5.4.2.3.), similarly to objects. Hence, the explanation for the dichotomy between the (a)-phrases and (b)-phrases in these pairs is the same as for the dichotomy between (1a) and (1b). In Dutch (cf. (16)), Frisian (cf. (17)), and Hungarian (cf. (18)), on the other hand, a symmetry arises with the counterparts of these cases:

- (16) a. [CP *Wie*_i is_j [IP *t*_i [VP *wanneer* [VP gekomen *t*_j]]]
 who is when come
 b. [CP *Wanneer*_i is_j [IP *wie* [VP *t*_i [VP gekomen *t*_j]]]]
 a'. [CP *Wie*_i heeft_j [IP *t*_i [VP *waar* [VP gewoond *t*_j]]]]
 who has where lived
 b'. [CP *Waar*_i heeft_j [IP *wie* [VP *t*_i [VP gewoond *t*_j]]]]
 (17) a. [CP *Wa*_i is_j [VP *t*_i [VP *wannear* [VP kommen *t*_j]]]]
 who is when come
 b. [CP *Wannear*_i is_j [VP *wa* [VP *t*_i [VP kommen *t*_j]]]]
 a'. [CP *Wa*_i hat_j [VP *t*_i [VP *wêr* [VP wenne *t*_j]]]]
 who has where lived
 b'. [CP *Wêr*_i hat_j [VP *wa* [VP *t*_i [VP wenne *t*_j]]]]]

The only difference between Dutch and Frisian on the one hand and Hungarian on the other hand is, again, that in the Hungarian equivalents both Wh-phrases must be fronted:

- (18) a. [CP *Ki*_i [CP *mikor*_k jött_j [VP *t*_i [VP *t*_k [VP *t*_j]]]]]
 who when came
 b. [CP *Mikor*_k [CP *ki*_i jött_j [VP *t*_i [VP [VP *t*_k *t*_j]]]]]
 a'. [CP *Ki*_i [CP *hol*_k lakott_j [VP *t*_i [VP *t*_k [VP *t*_j]]]]]
 who where lived
 b'. [CP *Hol*_k [CP *ki*_i lakott_j [VP *t*_i [VP *t*_k [VP *t*_j]]]]]

Furthermore, we expect that the only cases in which English patterns the same as the other Germanic languages and Hungarian is when both Wh-phrases are governed by the verb. This appears, for example, with an object and an adjunct Wh-phrase. Compare English (cf. (19)), Dutch (cf. (20)), Frisian (cf. (21), and Hungarian (cf. (22)):

- (19) a. [CP *What*_i did_j [IP you *t*_j [VP [VP see *t*_i] *where*]]]]]
 b. [CP *Where*_i did_j [IP you *t*_j [VP [VP see *what*] *t*_i]]]]]
 (20) a. [CP *Wat*_i heb_j [IP *ji*_j [VP *waar* [VP *t*_i gezien *t*_j]]]]]
 what have you where seen
 b. [CP *Waar*_i heb_j [IP *ji*_j [VP *t*_i [VP *wat* gezien *t*_j]]]]]
 (21) a. [CP *Wat*_i hast_j [VP *wannear* [VP *t*_i sjoen *t*_j]]]]]
 what have-you where seen
 b. [CP *Wannear*_i hast_j [VP *t*_i [VP *wat* sjoen *t*_j]]]]]
 (22) a. [CP *Mit*_i [CP *hol*_k lát_tál_j [VP *t*_k [VP *t*_i *t*_j]]]]]
 what-ACC where saw-AGR2sg
 b. [CP *Hol*_i [CP *mit*_k lát_tál_j [VP *t*_i [VP *t*_k *t*_j]]]]]

In these pairs the local domain for both the object Wh-phrase and the adjunct Wh-phrase is CP. Therefore, in all cases the Binding Principles for Wh-traces and Wh in-situ is respected. Hence, this yields in all languages a object-adjunct symmetry.

Another case in which both Wh-phrases are governed by the verb is provided by the prepositional double object constructions with *to*-phrases. Following Kayne (1984, chapter seven), I will assume that these constructions have the following structure:

- (23) [VP [*v*' V NP] *to* NP]

Kayne (1984: 190) notes that the contrast between the following pair is less sharp than in (1) (bracketing is mine):⁵⁴

- (24) a. [CP *Who(m)*_i did_j [IP you *t*_j [VP [*v*' give *what*] *to* *t*_i]]]]]
 b. [CP *What*_i did_j [IP you *t*_j [VP [*v*' give *t*_i] *to who(m)*]]]]]

(54) Joseph Aoun (personal communication) informs me that with the 'bare' double object construction, however, an asymmetry turns up:

- (i) a. *[CP *Who(m)*_i did_j [IP you [VP give [_S *ti* *what*]]]]]
 b. [CP *What*_i did_j [IP you [VP give [_S *who(m)* *t*_i]]]]]

Suppose this construction is a small clause, as suggested in Kayne (1984, chapter seven), having a 'V [_S NP-NP]' structure. Suppose furthermore that its head is the accusative NP. In that case, the accusative NP, unlike the dative NP, is governed by V under head-government in the sense of Belletti and Rizzi (1982). As a result, the minimal maximal domain of this NP is stretched to CP. Therefore, the contrast between (ia) and (ib) is due to the dative NP. It falls into place if the subject of a small clause without a lexical head is accessible for government by a higher V. Hence, the Binding Principle (7) for Wh in-situ is respected in (ib) but not the Binding Principle (6) for Wh-traces in (ia). This yields the ungrammatical result in (ia).

According to the government definition 2.2.2.(40), both the direct object and indirect object are governed by V in these sentences. Hence, their local domain is CP. Therefore, no binding theory violation occurs in (24).

Multiple Wh-questions with double object constructions are grammatical in Dutch (cf. (25)), Frisian (cf. (26)), and Hungarian (cf. (27)), as expected.⁵⁵

- (25) a. [CP (*Aan*) *wie*_i heb_j [IP jij [VP *t*_i [*v'* *wat* gegeven *t*_j]]]]
 to who have you what given
 b. [CP *Wat*_i heb_j [IP jij [VP (*aan*) *wie* [*v'* *t*_i gegeven *t*_j]]]]
- (26) a. [CP (*Oan*) *wa*_i hast_j [VP *t*_i [*v'* *wat* jûn *t*_j]]]
 to who have-you what given
 b. [CP *Wat*_i hast_j [VP (*oan*) *wa* [*v'* *t*_i jûn *t*_j]]]
- (27) a. [CP *Kinek*_i [CP *mit*_k adtál_j [VP *t*_i [*v'* *t*_k *t*_j]]]]
 who-DAT what-ACC gave-AGR2sg
 b. [CP *Mit*_i [*kinek*_k adtál_j [VP *t*_k [*v'* *t*_i *t*_j]]]]]

In sum, I noted that superiority conditions are violated in uncontroversial configurational languages like Dutch or Frisian. Hence, the absence of these effects in Hungarian cannot count as an argument in favor of a non-configurational phrase structure of that language. I related the presence of these phenomena in English versus their absence in Dutch, Frisian, or Hungarian to a difference in the phrase structure of these languages.

I is strong in English. Therefore, the domain of the subject differs from the domain of the object. An exception to this is overt Wh-movement. Application of this rule triggers domain stretching of the subject from IP to CP. Subject Wh in-situ lacks this ability. Therefore, a binding theory violation occurs with the latter, yielding a subject-object asymmetry.

In languages with weak I, on the other hand, like Dutch, Frisian or Hungarian, both the subject and the object have the same domain, the CP. Hence, both Wh-traces and Wh in-situ can be related to their antecedent in the Spec of CP. Therefore, no superiority effects arise in these languages.

The only difference between Dutch and Frisian on the one hand and Hungarian on the other hand, is that the Germanic languages, contrary to Hungarian, have only one canonical operator position for Wh-phrases available, the [Spec, CP]. In Hungarian, however, CP is recursive within CP. Therefore, all Wh-phrases may be adjacent to their scope marker in the Spec of CP.

Let us consider now the Topicalization of universal quantifiers.

5.4.3.2. *Topicalization of Universal Quantifiers*

É. Kiss (1987a: 29) has noted that *Topicalization* is known to be incompatible with *universal quantification*. É. Kiss argues that if a language has both sentence-initial subjects and objects, and sentence-initial subjects can be universally quantified, while sentence-initial objects cannot, it follows that such objects are located under a

(55) Because of the fact that with these double object constructions a symmetry appears, there is no reason to assume that they are small clauses, like bare double object constructions in English (cf. note 54).

Topic node different from the subject position. According to É. Kiss, this dichotomy turns up in languages in which the subject and object have a non-parallel distribution (like Italian) but not in languages which display a parallel distribution of subject and object.

Consider the Hungarian sentences in (1) (' indicates primary stress):

- (1) a. János felhívott 'mindenkit telefonon
John up-called everyone-ACC phone-SUPER
'John has phoned everyone.'
b. *Mindenkit* felhívott János telefonon
everyone-ACC up-called John phone-SUPER
c. Mindenki felhívta Jánost telefonon
everyone up-called John-ACC phone-SUPER
'Everyone has phoned John.'
d. Jánost mindenki felhívta telefonon
John-ACC everyone up-called phone-SUPER

In Hungarian, an object universal quantifier may be topicalized (cf. (2b)), similar to an object name (cf. (2d)).

É. Kiss concludes from the fact that Hungarian has both sentence-initial subjects and objects (cf. (2b) and (2c)) which may be universally quantified that the subject and object are structurally equally prominent. However, the occurrence of this phenomenon in established configurational languages like Dutch or Frisian falsifies this conclusion.

Compare, for example, the Dutch equivalents of (1):

- (2) a. Jan heeft iedereen gebeld
John has everyone phoned
c. Iedereen heeft Jan gebeld
everyone has John phoned
b. *Iedereen* heeft Jan gebeld
'John has phoned everyone.'
d. Jan heeft iedereen gebeld
'Everyone has phoned John.'

Jarich Hoekstra (personal communication) has brought to my attention that Frisian patterns exactly like Dutch in this respect:

- (3) a. Jelle hat elke mien skille
Jelle has everyone phoned
c. Elke mien hat Jelle skille
everyone has John phoned
b. *Elke* mien hat Jelle skille
'Jelle has phoned everyone.'
d. Jelle hat elke mien skille
'Everyone has phoned John.'

The (b)- and (d)-sentences in (2) and (3) show that Topicalization from object position of universal quantifiers yields a grammatical result, just as the Topicalization of names, in both Dutch and Frisian.

Let us first analyze Topicalization in Dutch.⁵⁶ According to Koster (1978; 1987: 43-44), a topicalized phrase in Dutch is an NP in the configuration [β NP CP]. Koster further argues that Topicalization is generalized in Dutch, because ordinary clauses are in fact topicalized constructions. Therefore, (2a) has the following structure:

(56) Jarich Hoekstra (personal communication) has pointed out to me that Koster's (1978) analysis for Topicalization in Dutch may be extended to Frisian.

- (4) *Jan* [_{CP} *O**die* heeft [_{IP} *t* [_{VP} iedereen gebeld]]]
 John that has everyone phoned
 'John has phoned everyone.'

In this construction, the open clause is predicated over the topic *Jan*. This relation is established by linking the topic NP with either an empty operator *O* or a *d*-pronoun in the [_{Spec}, CP] that binds the trace position.

Eric Hoekstra (personal communication) informs me that the empty operator may only be realized as a *d*-pronoun if the topic NP is referential. With fronted quantifiers, it may not be spelled out. Compare (4) and (5):

- (5) a. **Niemand* die ken ik c. **Iedereen* die ken ik d. **Wie* die ken ik
 Noone that know I Everyone that know I who that know I

The complementary distribution between the overt alternant of the empty operator and fronted quantifiers suggest that these quantifiers are adjacent to *O* in these cases. They occupy themselves the [_{Spec}, CP] position, the canonical position for operators. Hence, the sentences in (5) have the following configuration:

- (6) [_{CP} *O* *Niemand/iedereen/wie* ken [_{IP} ik [_{VP} *t*]]]

So the Topicalization of names and universal quantifiers is allowed in Dutch, because the empty operator in topicalized constructions may indirectly be bound by names, via predication, or directly by the fronted quantifiers themselves, via movement of these quantifiers to [_{Spec}, CP].

Let us now examine topicalization phenomena in Hungarian. Universal quantifiers may only appear postverbally when they are stressed (cf. (1a)). In the unmarked order, they occupy a position in the preverbal Quantifier Field (cf. 2.2.2.(28f)), as can be observed from the following alternant of (1a):

- (7) *János mindenkít felhívott telefonon*
 John everyone-ACC up-called phone-SUPER

This is further supported by the fact that topicalized universal quantifiers may only precede *focussed* lexical NPs, otherwise the result is ungrammatical. Hence, Inversion between the finite verb and its prefix applies obligatorily with the order [Q NP[+lexical] prefix V[+finite]] (cf. 3.2.2.(28e)). Compare the following pairs with alternants of (1a) and (1c):

- (8) a. **Mindenkit János felhívott telefonon*
 everyone-ACC John up-called phone-SUPER
 b. *Mindenkit JÁNOS hívott fel telefonon*
- (9) a. **Mindenki Jánost felhívta telefonon*
 everyone John-ACC up-called phone-SUPER
 b. *Mindenki JÁNOST hívta fel telefonon*

Thus, these pairs support the hypothesis that preverbal universal quantifiers are in the Quantifier Field.

Recall that the Quantifier Field is accommodated by the CP, because CP is recursive within CP (cf. 2.2.3.(1)). As a consequence, topicalized object universal quantifiers occupy a [Spec, CP] position. Hence, (1b) and (1d) display the following structure:

- (10) a. [CP O_i *Mindenki*_i felhívott_j [vp János [vp telefonon t_i t_j]]]
 everyone-ACC up-called John phone-SUPER
 b. *János*_k [CP O_k [CP O_i *mindenki*_i felhívta_j [vp t_i [vp t_k t_j]]]]
 John-ACC everyone up-called

In fact, topicalized universal quantifiers are adjacent to the empty operator in [Spec, CP], just as their counterparts in Dutch (cf. (6)). Furthermore, (10b) demonstrates that Topicalization in Hungarian may even apply multiply, similarly to Wh-movement (cf. preceding section). This is a consequence of the fact that the CP is recursive within CP generating multiple operator positions. Therefore, topicalized phrases may all be adjacent to their empty operators, just as Wh-phrases may all be adjacent to their scope markers.

In conclusion, universal quantifiers in Hungarian may always be topicalized. This phenomenon is, however, also attested in other uncontroversial configurational languages, like Dutch or Frisian. Therefore, it cannot be explained in Hungarian by assuming that the subject and object are structurally equally prominent.

Topicalized universal quantifiers must be adjoined to [Spec, CP] which is due to the requirement that fronted universal quantifiers must occupy the canonical operator position, i.e. [Spec, CP]. This requirement is satisfied in Dutch, Frisian and Hungarian. Hungarian differs from the Germanic languages in that it allows multiple Topicalization. This is caused by the fact that Hungarian, unlike these languages, displays freedom of CP recursion, which provides multiple operator positions in that language.

5.5. Summary

Recapitulating, in this chapter I have evaluated the subject-object symmetries and the subject-object asymmetries appearing in Hungarian. The latter phenomena provide empirical evidence for the hypotheses that its syntax is *configurational*, and that it meets the principle of binary branching (cf. 5.1.(2)). This implies that the phrase structure of Hungarian has a VP.

If this is indeed correct, then the occurrence of subject-object symmetries is somewhat unexpected. However, I argued that these phenomena do not motivate the relaxation of subcomponents such as the Projection Principle, government theory or X'-theory. As a working strategy, I divided them into two groups.

(i) Subject-object symmetries which also appear in uncontroversial configurational languages. I referred to this group as the *epiphenomenal symmetries*. (ii) Subject-object symmetries which may occur in other configurational languages as well, but which have a somewhat different shape in those languages than in Hungarian. I referred to this group as *residual symmetries*.

The epiphenomenal symmetries may be further divided into two subgroups.

(A) Subject-object symmetries which appear in *all* established configurational languages. These phenomena involve compositional θ -assignment to the object, the formation of idioms, and violation of phenomena subsumed under Binding Principle C.

(B) Some subject-object symmetries in Hungarian also occur in established configurational languages such as Dutch or Frisian, but not in English. These phenomena involve the absence of verb-object adjacency, the lack of VP-deletion, and the absence of *that*-trace effects. The lack of verb-object adjacency falls out from a theory of V-movement, and adjunction. The dichotomy between these languages with respect to VP-deletion is related to the status of the I-node. I is strong in English, but not in Dutch, Frisian or Hungarian. A strong I, unlike a weak I, has the ability to license the VP when VP-deletion applies. Finally, the dichotomy between these languages with *that*-trace effects is due to the scope of the subject domain. In languages with a weak I, in contrast to languages with a strong I, the domain of the subject coincides with the domain of the object. Hence, *that*-trace effects appear in English, but not in Dutch, Frisian, and Hungarian.

The residual symmetries involve the lack of superiority effects, and the possibility to topicalize universal quantifiers in Hungarian. These phenomena also occur in established configurational languages such as Dutch, or Frisian, but they have a somewhat different shape. The parallelism between, say Dutch and Hungarian shows that these phenomena do not offer convincing evidence for a non-configurational approach. The reason why these phenomena have a different shape in these languages is due to a particular property of Hungarian phrase structure.

In Hungarian, the CP is recursive within CP. Therefore, in that language there are infinitely many [Spec, CP] positions accessible to operators, whereas in Dutch or Frisian there is only one canonical operator position. As a consequence, Wh-phrases are stacked preverbally, and multiple Topicalization is allowed in Hungarian. This is not the case in Dutch or Frisian.

In conclusion, it seems to me that the evidence presented in this chapter unambiguously demonstrates that the phrase structure of Hungarian is configurational. A misleading conception of the phrase structure of that language has arisen by comparing Hungarian with English. It has gone unnoticed, however, that the position of English in, for example, the Germanic languages is rather unique, since not all Germanic languages have rigid word order, *that*-trace effects, superiority effects, and so on. By making a comparative study of Hungarian and other Germanic languages like Dutch or Frisian, we receive a radically different picture of its phrase structure.

A non-configurational approach of Hungarian is easily falsified. Instead of this apparent typology based on the presence or absence of the VP, a rather different typology emerges. This typology has to do with the strength of I.

Languages may vary in the lexical realization of this node. There may be lexical material available to fill I, or such material may be absent. Languages of the former type display a strong I, whereas languages of the latter type have a weak I. In English, for example, I is strong. In Dutch, Frisian and Hungarian, on the other hand, I is weak. This yields the *IP-parameter* involving at least the following typology (cf. also chapter two):

(1)	<i>strong I</i>	<i>weak I</i>
V-to-C movement	-	+
verb-object adjacency	+	-
VP-deletion	+	-
<i>that</i> -trace effects	+	-
superiority effects	+	-

An interesting consequence of the IP-parameter is that it establishes a correlation between totally different phenomena in unrelated languages. Hungarian happens to fall into the same subtype as the Germanic languages Dutch or Frisian. This alone justifies, in my view, a further exploration of this parameter.