

²⁷Note, though, that at least a non-restrictive demonstrative is perfectly possible; recall that in note 12 I proposed that this *ez a(z)* is a D: *Jánosnak ez a nyilvánosság előtt való megszégyenítése hiba volt* 'This public humiliation of John was a mistake.'

²⁸The availability of *való*-less postnominal obliques is not particular to event nominals, either.

- (i) *a sziklá-k alatt-i ház*
the rock- PL under-I house
'house under the rocks'
- (ii) *ház a sziklá-k alatt*
house the rock- PL under
'house under the rocks'

²⁹There is a handful of cases in which the accusative is possible, such as *föld-et ér-és* 'land-ACC reach-DEV = landing' and *nagy-ot hall-ás* 'big-ACC hear-DEV = being hard of hearing'. I assume these are lexicalized.

³⁰Verbs with an adverbial prefix may or may not take an oblique complement obligatorily; for instance, *le-ugr-* 'down-jump' takes one optionally.

³¹Some unexpressed *by*-phrases also exhibit the [+human] restriction.

- (i) *Meat is eaten without salt.*
'People eat meat without salt.'
* 'Animals eat meat without salt.'

The investigation of the consequences of this for passive goes beyond the scope of the present work.

³²An alternative might be to make use of Koopman and Sportiche's (1991) assumption that "VP-internal" subjects are in fact in an adjoined position; then PRO could be in SPEC of (N + I)P, and *Péter* adjoined to (N + I)P. I will not explore the technical consequences of this here, but it may be necessary in order to account for the behavior of anaphors in nominalizations. On anaphors, see Giorgi and Longobardi (1991).

SUBORDINATE CLAUSES

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1. ON SUBORDINATION IN GENERAL

1.1. Initial Observations and Definitions

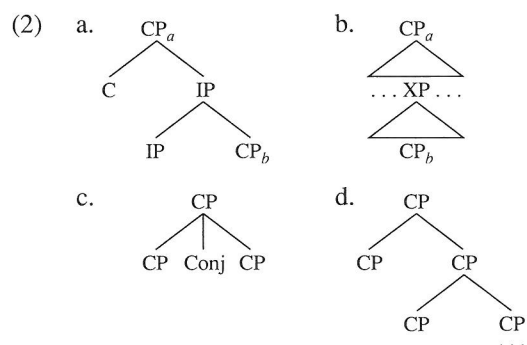
This chapter is concerned with clauses whose predicate is tensed (finite) and which are embedded in another clause. The first part of this definition demarcates our subject matter from non-finite clauses or constructions, in which the INFL constituent is marked by [-Tense], such as infinitivals (1a), present or past participles (1b) and (1c) respectively, or so-called "adverbial" participles (1d-e). It is for this reason that we have chosen the more traditional name SUBORDINATION instead of EMBEDDING, which is wider in its coverage. In (1) clauses are enclosed in brackets.

(1) Non-finite clauses

- a. *Kár volt [Imolá-nak megbánta-ni Imré-t]*
pity was Imola-DAT offend- INF Imre-ACC
'It was a pity for Imola to offend Imre.'
- b. *A [holnap elutaz-ó] ügynökök megkapták az utasításokat.*
the tomorrow leave-ing agents received the instructions
'The agents leaving tomorrow have received the instructions.'
- c. *A [Panni által aláír-t] levelek a fiók-ban vannak.*
the Panni by sign-ed letters the drawer-INESS are
'The letters signed by Panni are in the drawer.'

- d. *A professzor [szemüvegét kezében tart- va] bólogatott.*
 the professor his-glasses-ACC in-his-hand hold-ing nodded
 'Holding his glasses in his hand, the professor was nodding.'
 e. *[Londonba érkez-vén] Imre szállodát keresett.*
 London-ILL arriv-ed Imre hotel-ACC searched
 'Having arrived in London, Imre looked for a hotel.'

The second half of the definition is understood as referring to a configuration in which the topmost category symbol of the clause in question is (ultimately) dominated by the topmost category symbol of another clause. The configurations allowed are schematically illustrated in (2a–b), while those in (2c–d) will be excluded.



In (2a–b) the clauses indexed by *b* are considered as embedded in those marked by *a*. Whatever the precise structure of (multiple) coordinate clauses may be, the structures in (2c–d) do not observe the criterion given in the second half of the definition above for subordinate clauses.

The problem of the definition of subordinate clauses can be said to be essentially terminological within the bounds of the discussion of theoretical constructs such as (2a–d). It becomes an empirical issue, however, as soon as actual questions of classification arise, such as the question of which type of configuration a particular clause or construction belongs to. The two types of clauses have usually been distinguished on semantic grounds; the formal differentiation between coordination and subordination was most probably due in traditional intuition to a tacit test or operation which could arguably work in case of every coordinate clause, but applied to no subordination (cf. also Ross, 1967).

According to the procedure, which ignores any semantic or pragmatic ill-formedness, constituent clauses can only be interchanged around the conjunction in coordinate constructions, as in (3)–(5).

- (3) a. *[Esik az eső] és [fúj a szél]*
 falls the rain and blows the wind
 'It's raining and the wind is blowing.'
 b. *[Fúj a szél] és [esik az eső]*
 'The wind is blowing and it's raining.'
- (4) a. *[A regény érdekes] de [a vers gyöngye]*
 the novel interesting but the poem feeble
 'The novel is interesting, but the poem is feeble.'
 b. *[A vers gyöngye] de [a regény érdekes]*
 'The poem is feeble, but the novel is interesting.'
- (5) a. *[Eszernyővel járnak az emberek] tehát [rossz idő van]*
 with-umbrella go the people so bad weather is
 'People are carrying umbrellas, so the weather is bad.'
 b. *[Rossz idő van] tehát [esernyővel járnak az emberek]*
 'The weather is bad, so people are carrying umbrellas.'

In another class of construction, a similar operation of clause switching leads to ungrammaticality.

- (6) a. *[Az feltűnő volt] hogy [Andor dolgozott]*
 it striking was that Andor worked
 'It was striking that Andor was working.'
 b. **[Andor dolgozott] hogy [az feltűnő volt]*
- (7) a. *[Akkor érkezett meg Eszter] amikor [a víz felforrt]*
 then arrived PREV Esther when the water boiled
 'Esther arrived (just then) when the water was boiling.'
 b. **[A víz felforrt] amikor [akkor érkezett meg Eszter]*

Note that in comparing (3a)–(5a) with (6a)–(7a) we pretended that the conjunctions between the clauses have equal status, that is, that they behave as if they were between coordinate clauses. Clearly, those in (6)–(7) do not pass the test, which conforms well with the intuition that (6)–(7) are examples of matrix/embedded clauses.

As was to be expected, this procedure works only for a limited class of cases; there are a large number of matrix/embedded constructions in which constituent clauses are freely interchangeable, provided restrictions on the invariability of meaning within each pair are set aside.

- (8) a. *[Süt a nap] bár [tél van]*
 shines the sun although winter is
 'The sun is shining, although it's winter.'
 b. *[Tél van] bár [süt a nap]*
 'Although it is winter, the sun is shining.'

- (9) a. [Esik az eső] ha [fúj a szél]
falls the rain if blows the wind
'It rains if the wind blows.'
b. [Fúj a szél] ha [esik az eső]
'The wind blows if it rains.'
- (10) a. [Nyitva van az ajtó] mivel [tele van a terem]
open is the door since full is the room
'The door is open since the room is full.'
b. [Tele van a terem] mivel [nyitva van az ajtó]
'The room is full since the door is open.'

Observe, however, that in sentences like (8)–(10) another kind of clausal exchange is applicable, see (11), which is impossible in typical coordination structures, as shown in (12).

- (11) a. [Bár tél van] [süt a nap]
'Although it's winter, the sun is shining.'
b. [Ha fúj a szél] [esik az eső]
'If the wind blows, it rains.'
c. [Mivel tele van a terem] [nyitva van az ajtó]
'Since the room is full, the door is open.'
- (12) a.*[És fúj a szél] [esik az eső]
'And the wind is blowing, it's raining.'
b.*[De a vers gyöngé] [a regény érdekes]
'But the poem is feeble, the novel is interesting.'
c.*[Tehát rossz idő van] [esernyővel járnak az emberek]
'So the weather is bad, people are carrying umbrellas.'

If the clause can take along the conjunction preceding it, sentences like (6) and (7) will also pass the clause-switching test.

- (13) a. [Hogy Andor dolgozott] [az feltűnő volt]
that Andor worked it striking was
'That Andor was working was striking.'
b. [Amikor a víz felforrt] [akkor érkezett meg Eszter]
when the water boiled then arrived PV Esther
'When the water was boiling, Esther arrived.'

The clause-switching test relies on a well-known distinction between coordinate and subordinate structures according to which the conjunction is a constituent of the embedded clause, but it is not a constituent of either clause in coordinate constructions. This is to be understood in a syntactic rather than a phonological or prosodic sense, in which the coordinate

conjunction is usually cliticized onto the first (accented) item of the clause following it in Hungarian.¹

1.2. Coreferential Relations Between Clauses

Another, less traditional, device in exploring the structural properties of various kinds of complex sentences is offered by binding theory. The principles of binding theory are as follows.²

(14) Principle A:

An anaphor must be bound in its governing category.

Principle B:

A pronominal must be free in its governing category.

Principle C:

An R-expression must be free.

Since binding (or rather its essential ingredient, c-command) is an asymmetric structural relationship, taking binding theory for granted can help us determine how to represent complex sentences. To illustrate this point, we make use not of the usual scenario of binding, but of ANAPHORIC EPITHETS, such as *the fool* below, as discussed by Chomsky (1986b, 79ff.), see (15). (The expressions which are or are intended to be coreferent are coindexed.)³

- (15) a. [John_i turned off the motor] but [the fool_i had left the headlights on]
b.*[John_i didn't realize [that the fool_i had left the headlights on]]

Although epithets count as R-expressions, they can be coreferent with another R-expression unless the epithet is c-commanded, that is, bound, by it. In (15a), a coordinate construction, neither subject c-commands the other, so they can be coreferent. Since in (15b) the subject *John* c-commands the complement clause and its subject, the epithet cannot be coreferent with the matrix subject.

Adjunct clauses like concessives do not, however, group with complement clauses as regards the antecedent–epithet relation, see (16), from Chomsky (1986b, 79f.).

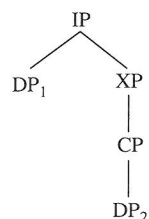
- (16) a. [Reagan_i was elected [although the former actor_i is regarded by many with a good deal of skepticism]]
b.*[Reagan_i is aware [that the former actor_i is regarded with a good deal of skepticism]]

It follows that while complement clauses are c-commanded by matrix subjects, adjunct clauses like (16a) are not, which is in harmony with the assumption that complement clauses must be θ -governed by some

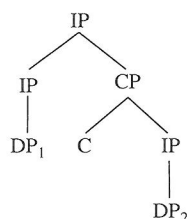
θ -assigner, such as a verb, but adjunct clauses (including concessives) can be adjoined to IP, since they need no thematic roles.

One more minor point has to be clarified before we return to discussing Hungarian: matrix subjects c-command not only complement clauses but also, for example, relative clause adjuncts of complements, so the distinction between complements and adjuncts is misleading. Rather, we should differentiate between clauses that can be (embedded within) arguments and clauses that cannot be (embedded within) arguments. We call the former A-CLAUSES and the latter NON-A CLAUSES. Below a schematic illustration is given.

(17) a. A-clauses:



b. Non-A clauses:



The case in Hungarian agrees closely with what we have seen in English. Examples for coordination, an A-clause, and a non-A clause, respectively, are given in (18).

- (18) a. *Elek_i időben hazaért, de a szerencsétlen_i nem találta a kulcsot.*
 Alec in-time got-home but the unlucky not found the key-ACC
 'Alec got home in time, but the unlucky guy didn't find the key.'
- b. **Elek_i nem tudta, hogy a szerencsétlen_i elvesztette a kulcsot.*
 Alec not knew that the unlucky lost the key-ACC
 '*Alec didn't know that the unlucky guy had lost the key.'
- c. *Elek_i megpróbálta kinyitni az ajtót, bár a szerencsétlen_i elvesztette a kulcsot.*
 Alec tried open-INF the door-ACC although
 'Alec tried to open the door, although the unlucky guy had lost the key.'

The two independent procedures applied here can show that clauses that are usually uniformly classified as concessive in the more traditional literature are in fact of two syntactic types: some are coordinate, others are embedded. Further clear cases of non-A clauses are provided, for example, by clauses of reason (19a) or comparative clauses (19b).

- (19) a. *Elek_i nem tudta kinyitni az ajtót,*
 Alec not could open-INF the door-ACC
mert a szerencsétlen_i elvesztette a kulcsot.
 because the unlucky lost the key-ACC
 'Alec couldn't open the key because the unlucky guy had lost the key.'
- b. *Elek_i kinyitotta az ajtót, ahogy a szerencsétlen_i ki szokta nyitni, a könyökével.*
 Alec opened the door-ACC as the unlucky
 PV used open-INF the with-his-elbow
 'Alec opened the door as the unlucky guy always does: with his elbow.'

In most of what follows, we are concerned with A-clauses, that is, with clauses that can be (embedded in) arguments. They are discussed in the next two sections: first relative clauses, then *hogy* 'that' clauses are examined. The position of embedded clauses in the matrix sentence is the subject of section 4. Finally, section 5 addresses two topics that could not be integrated into other sections: the omission of the complementizer, and the problem of the question particle.

In outlining the framework of the discussion, we have followed traditional divisions and terminology, although the topics of the individual sections (such as relative or *that*-clauses) are irrelevant from the vantage point of theoretical analysis. Yet, this arrangement may help orient readers if they wish to locate particular properties of Hungarian on the one hand, and it will still provide room for reviewing a number of theoretical issues, on the other.

2. RELATIVE CLAUSES

2.1. Introduction

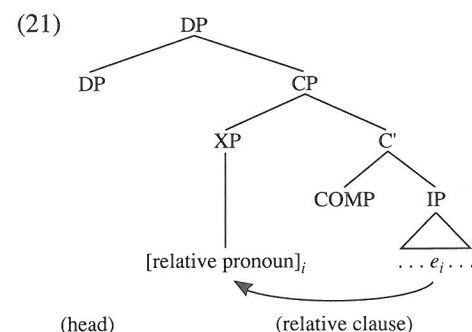
A relative clause is generally understood as an embedded clause that contains at least one empty category interpreted as a variable, whether the clause is apparently independent (a FREE RELATIVE) or is adjoined to a maximal category, which is called the head (a DEPENDENT CLAUSE), and whether or not it is introduced by an overt operator, usually in the form of a relative pronoun.

As was specified in the previous section, non-finite clauses are excluded from the scope of this chapter, so various constructions (whose heads are

identified below in traditional terms) possibly qualifying as relative clauses are not subjected to analysis here.

- (20) a. *a [könyvet olvas-ó] lány* (present participle)
 the book-ACC read- PART girl
 'the girl reading a book/books'
- b. *a [tegnap olvas-ott] könyv* (past participle)
 the yesterday read- PART book
 'the book read yesterday'
- c. *a [holnap olvas-andó] könyv* (future participle)
 the tomorrow read- PART book
 'the book to be read tomorrow'

The structure commonly attributed to a (dependent) relative clause is as in (21).⁴



Unlike English, French, Persian, and a large number of other languages, which (can) make use of a complementizer, relative clauses in Hungarian, as in Georgian, Finnish, Latin, and another extensive set of languages, must always have (an expression containing) an overt relative pronoun, which regularly occurs in initial position in all three types of relative clauses that can be distinguished. The three types are: clauses adjoined to pronominal heads [PHC, cf. (22a)], apparently headless or free relatives [FRC, cf. (22b)], and clauses adjoined to heads freely constructed from lexical items or, in current terminology, from R (referring) expressions [LHC, cf. (22c)].

- (22) a. *az, ami-t Alec olvasott* (PHC)
 that what-ACC Alec read
 'what Alec read'
- b. *Ø amit Alec olvasott* (FRC)
 what-ACC Alec read

- c. *az a könyv, amely-et Alec olvasott* (LHC)
 that the book which-ACC Alec read
 'the book which Alec read'

This classification can be criticized from two directions: one may argue that PHC is a subtype of LHC, or that FRC is a variety of PHC. The former assumption is untenable because the two kinds of head cannot freely substitute for each other: although relative pronouns of the type of *ami* 'what' can co-occur with LHCs, *amely* 'which' is not a possible option in a PHC. If we claim that FRCs are a variety of PHCs, we will have to suppose either that a free relative arises through the deletion of the pronominal head in the PHC or that there is an empty category in the head. While these positions are not outright impossible, the difficulties surrounding them are pointed out below and in subsequent sections.

2.2. Relative Clauses with Pronominal Heads

As a descriptive introduction to relative clauses with pronominal heads (PHCs), it must be made clear at the beginning that the relevant heads need not be exclusively nominal; adjectival, see (23a), and adpositional heads, see (23b), are just as acceptable.⁵

- (23) a. *Emil nem maradt [AP olyan, amilyen gyerekkorában volt]*
 Emil not remained such what in-his-childhood was
 'Emil didn't remain the same as (what) he was in his childhood.'
- b. *Kevesen jártak még [PP ott, ahol az emuk élnek]*
 few went yet there where the emus live
 'Few people have been to where the emu lives.'

Wherever applicable, the distinction between PHCs and LHCs, based on the interchangeability of relative pronouns as outlined at the end of the previous section, is upheld. For example, in the LHC version of (23b), given in (24a), both relative pronouns *amelyben* 'in which' and *ahol* 'where' are possible. In the PHC (23b), however, only the latter is grammatical, compare (24b).

- (24) a. *Kevesen jártak még [PP abban az országban, amely-ben/ ahol az emuk élnek]*
 few went yet that-INESS the country-INESS
 which-INESS/where the emus live
 'Few people have been to the country in which/where the emu lives.'
- b. **Kevesen jártak még [PP ott, amelyben az emuk élnek]*

We may conjecture that the choice of the relative pronoun depends on whether or not the head is specific, since pronominal heads of relative clauses are not themselves specific: it is the clause that makes the entire noun phrase specific, if at all. Lexical heads, on the other hand, can easily be specific, so they allow the use of the relative pronoun *amely* 'which'.⁶

That the pronominal head has control over the choice of the relative pronoun is shown not only by the pairs *olyan-amilyen* and *ott-ahol* in (23), but also by many more examples, some of which are given in (25), in which the first item is the pronominal head and the second the relative pronoun.

- (25) *akkora-amekkora* 'of such size-as what size'
annyi-amennyi 'as many/much-as (how many/much)'
addig-ameddig 'until then-until when'
úgy-ahogy 'in that manner-in which manner'

It is intriguing that in addition to the cases in which they are semantically justifiable, because both the head and the relative pronoun occur in their literal senses, as in (25), such pairs must also be used when, under a literal interpretation, they do not make sense.

- (26) a. *Ernő kijárta az iskolát azóta, amióta *amikor*
 Ernie finished the school-ACC since-then since-when/when
megnősült.
 he-got-married
 'Ernie has finished school since he got married.'
 b. *Lajos addig futott, ameddig a fehér csík meg volt*
 Louis up-to-there ran up-to-where the white line pv was
húzva.
 drawn
 'Louis ran as far as the white line was drawn.'
 c. **Lajos addig futott, ahol a fehér csík végetért.*
 where the white line ended
 'Louis ran up to where the white line ended.'

In (26a) the form *amióta* 'since when' has to be used notwithstanding the fact that it is not what the relative pronoun means in the clause, which specifies a point in time. Again in (26c), the logically motivated relative pronoun and clause cannot appear in construction with the pronominal having a terminative ('up to') suffix.

So far only definite pronominal heads have been illustrated in noun phrases as is evidenced by the definite/objective conjugation (DO) on the verb in (27a). However, that is not the only option: if the pronominal head *olyan* 'such (thing/person)' introduces the clause, the interpretation is non-specific. In (27), *meg-talál* 'PERF-find' requires specific (including definite) objects, while *talál* 'find' can be satisfied only by a nonspecific one.⁷

- (27) a. *Ella meg-talált-a azt, aki beszél franciául?*
 Ella PERF-found-DO that-ACC who speaks in-French
 'Has Ella found the one who speaks French?'
 b. *Ella talált olyat, aki beszél franciául?*
 'Has Ella found someone who speaks French?'

2.3. Free Relative Clauses

In contrast with relative clauses having pronominal heads (PHCs), free relative clauses (FRCs) appear to be immediately and exclusively dominated by a maximal category without an intervening head.

- (28) a. [_{DP} [_{CP} *Amit Elek olvasott*]] *érdekes volt.*
 what Alec read interesting was
 'What Alec was reading was interesting.'
 b. *Anna elvette* [_{DP} [_{CP} *amit Elek olvasott*]]
 Anna took what Alec read
 c. *Richárd cigarettázott* [_{PP} [_{CP} *amíg Júlia evett*]]
 Richard smoked while Julia ate
 d. [_{PP} *Ahol a két folyó találkozik*] *már sok kincset találtak.*
 where the two river meet already much treasure they-found
 'Where the two rivers meet a lot of treasure has been found.'

Since, however, X-bar theory does not allow one category to be immediately and exhaustively dominated by a different one, structures of the kind [_{DP} CP] or [_{PP} CP] are ruled out. The literature provides two ways to account for free relatives: either assuming an empty category in the head, or taking the relative WH-phrase to be the head. We discuss these alternatives in the next two sections.

2.3.1. EMPTY PRONOMINAL AS HEAD

Hirschbühler and Rivero (1983), drawing on work by Kuroda (1968), Quicoli (1972), and Bresnan and Grimshaw (1978), comply with the requirements of X-bar syntax by suggesting that there can be two types of (free) relative clause: in the first one the clause is adjoined to a maximal projection whose category is the same as that of the dominating node, making the maximal projection the head of the construction. The content of this constituent (i.e. the antecedent of the relative clause) is an empty category, as illustrated in the Catalan example (29).

- (29) *Invito* [_{NP} [_{NP} *e*]] [_{COMP} [_{NP} *qui*]] [_S *has invitat e*]]
 I-invite who you-have invited

Hirschbühler and Rivero argue for this "Comp analysis" by invoking matching phenomena, that is, those where the relative WH-phrase has the same function in the matrix clause as in the embedded one. (The other option, the "Head analysis," in which the relative WH-phrase is itself in the head position, is discussed in the next section.)

Hirschbühler and Rivero assume that the empty antecedent has no properties at all and allows the relative WH-phrase in the clause to be "accessible to subcategorization." If, however, the empty category is subjected to examination in the light of recent literature, we may come to a different conclusion. For obvious reasons, the empty category in (29) is in a governed position, is assigned a thematic role and a case. Consequently, it cannot be an NP-trace or a PRO. It could be a WH-trace only if it had an antecedent in a non-argument position; otherwise, it would have to be interpreted as a free variable and would thus be blocked. But there is no possible A'-chain or A'-binder in structures like (29), so this alternative must also be abandoned. The properties listed here converge on the only option left: identifying the empty category as a phonetically empty pronominal, that is, pro.

Turning our attention to Hungarian, we see that taking the empty head to be pro has strong motivation.

- (30) [DP [DP e] [CP Amit Elek olvasott]] érdekes volt.
 what Alec read interesting was

First of all, Hungarian is a pro-drop language. Second, pro is always definite, just like free relative clauses (FRCs).⁸

- (31) a. *Elek megvett-e a könyvet, aztán Anna elolvast-a* pro-ACC
 Alec bought- DO the book-ACC then Anna read- DO
 'Alec bought the book, and then Anna read it.'
 b. *Elek ismert-e/ *ismert [amit Anna olvasott]*
 Alec knew- DO/knew-IO what-ACC Anna read-IO
 'Alec knew what Anna was reading.'

In addition, regular instances of pro-drop, like FRCs, are possible only in subject or object position, see (32).

- (32) a. *Elek ismert-e (őt/ azt).*
 Alec knew- DO him/her/it-ACC
 b. *Elek foglalkozott *(vele).*
 Alec dealt with-him/her/it
 c. *Elek ismert-e [(azt) amit Anna olvasott]*
 Alec knew- DO that-ACC what-ACC Anna read
 'Alec knew what Anna was reading.'

- d. *Elek foglalkozott [(azzal) amit Anna olvasott]*
 that-INSTR

'Alec was dealing with what Anna was reading.'

The present proposal, which argues for an empty pronominal head, can provide a natural account for the "matching problem," the phenomenon that the relative pronoun can have a case different from what is assigned by the verb to the DP dominating the relative clause. At least in relation to structural cases, it is possible in Hungarian for a free relative clause to have a relative pronoun whose case differs from that assigned to the DP dominating the clause. In (33a) the verb governs an object DP with a clause whose relative pronoun is nominative, and in (33b) the relative pronoun of the clause in the subject DP is in the accusative. In other words, the empty head is not "transparent": the verb cannot govern into the clause.

- (33) a. *Elek lát-t-a [ami Anna előtt volt]*
 Alec saw-DO what-NOM Anna before was
 'Alec saw what was in front of Anna.'
 b. *[Amit Elek látott] Anna előtt volt.*
 what-ACC Alec saw Anna before was
 'What Alec saw was in front of Anna.'

If, however, the clause is headed by the empty pronominal pro, pro will be assigned the case in the matrix clause, and the case of the relative pronoun can be independent.

2.3.2. THE RELATIVE PRONOUN AS HEAD

The head analysis as advocated by Bresnan and Grimshaw (1978) maintains that free relative clauses come in all categorial varieties, such as NP, PP, AdvP, or AP, as illustrated below.

- (34) a. *I'll buy* [NP *what(ever)* [*you want to sell e*]]
 b. *John will leave* [PP *when(ever)* [*Mary leaves e*]]
 c. *I will live* [PP *in whatever town you live e*]]
 d. *I'll word my letter* [AdvP *however carefully you word yours e*]]
 e. *John will grow* [AP *however tall his father grew e*]]

Bresnan and Grimshaw suggested that clauses of each type were headed by relative pronouns of the respective categories, thus satisfying the requirement that a maximal projection must have a head of the same category.

Reconsidering these constructions, Larson (1987), in turn, argued that Bresnan and Grimshaw's proposal would entail a discrepancy between

“full” relative clauses, those that have a lexical expression in their heads and which are invariably NP-adjuncts, and free relatives, whose category is not restricted in any way. His remedy, in short, is this: adverb-headed free relatives are really AP-headed ones, while AP-headed relatives are actually free comparatives. What is more important to us in the context of this discussion is Larson’s reanalysis of PP-headed free relatives. He claims that they are all NP-headed relatives, whose relative pronoun is interpreted as a quantifier.

- (35) a. [_S I will live [_{PP} in [_{NP} [_{NP} whatever town] [_S you live [_{PP} e]]]]]
 b. [_S [_{NP_i} whatever town [you live [_{PP} e]]] [_S I will live [_{PP} in e_i]]]
 c. [_S [_{NP_i} whatever town [you live [_{PP} in e]]] [_S I will live [_{PP} in e_i]]]

The S-structure (35a) undergoes LF-movement in (35b), and in (35c) the content of the empty PP has been reconstructed along the line of ordinary antecedent-contained deletion structures.

Not all of Larson’s arguments apply to Hungarian: since this language does have full relatives with adjectival (A) as well as adverbial and adpositional (P) heads (see section 2.2), we need not claim that all relative clauses are headed by DPs. We will thus assume that there are two types of head analysis.

- (36) [_{IP} [_{PP} ahol] [_{CP} [_{PP} e] [_{IP} a víz fertőzött [_{PP} e]]] [_{IP} nem
 where the water contaminated not
 szabad fürödni]]
 must bathe-INF
 ‘Where(ever) the water is contaminated, one mustn’t bathe.’

- (37) a. [_{IP} [_{PP} [_{DP} ami] [_{CP} [_{PP} e] [_{IP} Kati megérkezett]]] óta]
 what Cathy arrived since
 [_{IP} megváltozott]]
 changed-3SG
 b. [_{IP} [_{PP} ami-óta] [_{CP} [_{PP} e] [_{IP} Kati megérkezett]]] [_{IP} megváltozott]]
 ‘Since Cathy arrived, she has changed.’

In (36) the place adverbial is unanalyzable, except for the relative prefix *a-*; that is, we have no reason to suppose that there is a DP-headed clause underlying the structure. In (37a), however, the postposition *óta* must be attached to a DP, and nothing indicates that it must be part of the embedded clause, which is then headed by a DP, the relative pronoun *ami*.⁹ In the first case, the relative pronoun is clearly interpreted as a quantifier, excluding a referential reading (i.e., ‘One mustn’t bathe anywhere where the water is contaminated’). This is shown by the impossibility of a headless version for a clause with a referential pronominal head, as in (23b), repeated as (38a).¹⁰

- (38) a. *Kevesen jártak még* [_{PP} ott, ahol az emuk élnek]
 few went yet there where the emus live
 ‘Few people have been to where the emu lives.’
 b. **Kevesen jártak még* [_{PP} ahol az emuk élnek]

In the second case, (37a–b), the possibility of a quantifier interpretation is less transparent, though not out of the question. It can be highlighted by adding the formative *csak* ‘only, ever’ to the relative pronominal, which augments the meaning of the sentence with that of a quantified time adverbial, such as ‘always’. Observe that it cannot be used in a sentence whose predicate is a change-of-state verb, like (37), and thus cannot accommodate such a quantified adverbial, see (39b).

- (39) a. [_{IP} [_{PP} ami-óta csak] [_{CP} [_{PP} e] [_{IP} Kati megérkezett]]]
 what-since ever Cathy arrived
 [_{IP} keményen dolgozik]]
 hard work-3SG
 ‘Ever since Cathy arrived, she has been working hard.’
 b. **[Ami-óta csak Kati megérkezett] megváltozott.*
 ‘Ever since Cathy arrived, she has changed.’

The interpretation of these free relative clauses, which have a relative WH-phrase in their heads, can be given along the lines of a proposal offered by Chomsky (1986b, 109) for empty operators (O), as in the construction in (40).

- (40) *John_i is too stubborn* [_{CP} O_k [_{IP} PRO_j to talk to e_k]]

The variable *e_k* must be strongly bound, but since the empty operator does not specify a range, the variable must be associated with an antecedent in a c-commanding position that can assign it a value. In (40) *John* is in such a position.

If we now return to the Hungarian examples, we see that the alleged relative pronoun is interpreted as a quantifier in the matrix clause, that is, it is not moved out of the clause but is generated in the head position. Consequently, the WH-trace in the relative clause must have an empty operator (O) antecedent in an A’-position, whose value is determined by the WH-quantifier in the head. Note that these quantificational heads have very general meanings (‘place, time, manner, thing’, etc.). For example, the approximate LF interpretation of (36) is as in (41).

- (41) a. [_{IP} [_{PP} [_{PP} ahol] [_{CP} [_{PP} O_i] [_{IP} a víz fertőzött
 where the water contaminated
 [_{PP} e_i]]] [_{IP} nem szabad fürödni]]
 not must bathe-INF
 ‘Where(ever) the water is contaminated, one mustn’t bathe.’

- b. [[For every *x* [such that the water is contaminated at *x*]] [one must not bathe at *x*]]

The options outlined above for the analysis of free relative clauses do not seem to have identical coverage: they were not presented as independent of grammatical functions; examples for the empty pronominal head came from subject or object relative clauses, while the case for the relative pronominal heads was formulated on the basis of PPs. Obviously, recoverability does not allow for the suppression of (pronominals carrying) inherent case or postpositions, and that explains why Hungarian has only subject and object pros. But the phenomenon that relative pronouns in heads display a quantificational meaning should not be restricted to clauses in construction with heads in other than structural cases. Data from Hungarian show that it is not the case: both subject and object clauses can be assigned a quantificational interpretation.

- (42) a. *Tegy-ed* [_{DP} *pro* [*amit* *mondtam*]]
do-IMP-DO what-ACC said-1SG
'Do what I told you to.'
b. **Tegy-él* [_{DP} [*amit* *mondtam*]]
do-IMP-IO
- (43) a. *Tegy-él* [_{DP} *amit* *akarsz*]
do-IMP-IO what-ACC want-2SG
'Do what(ever) you want.'
b. **Tegy-ed* [_{DP} *amit* *akarsz*]

In (42a) the definite conjugation shows that there must be an empty pronominal in the head of the DP, and indeed the reference is definite: 'Do the thing that I told you to do'. Indefinite conjugation on the verb results in ill-formedness, see (42b). On the other hand, (43a) has indefinite conjugation on the verb and the DP containing the clause is analyzed as expressing a quantificational meaning: 'Do anything you want to do'. The two constructions are in complete contrast, since the definite conjugation in (43b) is ungrammatical.

This apparently perfect distribution is slightly disturbed by the co-occurrence of a full pronominal head with both the definite and the indefinite conjugation.

- (44) a. *Tegy-ed* [_{DP} *azt* [*amit* *mondtam*]]
do-IMP-DO it-ACC what-ACC said-1SG
'Do what I told you to.'
b. *Tegy-él* [_{DP} *azt* [*amit* *akarsz*]]
do-IMP-IO it-ACC what-ACC want-2SG
'Do what(ever) you want.'

We contend that only one type of pronominal can be pro-dropped in Hungarian, and it must be the canonical personal pronoun, which has definite reference and agrees with the definite conjugation on the verb. In other words, the pronoun in (44b), which has a quantificational interpretation and does not trigger definite conjugation, cannot be pro-dropped. To show that this is a valid generalization, compare the following versions in answer to the question in parentheses [cf. also (27)].

- (45) (*Van francia könyv a polcon?*
'Is there a French book on the shelf?')
a. *Az-t nem talál-ok* (*de olaszt igen*).
it-ACC not find-1SG-IO but Italian-ACC yes
'I can't find one/any (but I can find an Italian one).'
b. **Az-t nem talál-om*.
it-ACC not find-1SG-DO
'I can't find it.'
c. **pro Nem talál-ok* (*de olaszt igen*).
d. **pro Nem talál-om*.

Although (45b) is grammatical by itself, it is not acceptable as an answer to the question in parentheses, since definite reference is misplaced in this context. Its otherwise legitimate pro-dropped version (45d) of course fares no better. But (45c), the supposed pro-dropped variant of (45a), is also ungrammatical, and that is sufficient evidence for the assumption that the pronominal *az* cannot be pro-dropped in its quantificational use.

It stands to reason to claim that the head of free relative clauses that have a quantificational interpretation cannot be pro; this head position has to contain the relative pronoun, and consequently, the usual position of the relative pronoun within the clause is occupied by an empty operator.¹¹ Whether the relative pronoun can, in effect, be deleted in Hungarian is a question that is addressed in the next section as well as in section 2.5.

2.4. Relative Clauses with Lexical Expressions in Their Heads

Descriptively, the constructions discussed here differ from those with pronominal heads primarily in that their heads are selected from an open class of items. They also display the same three categories: nominal, adjectival and adverbial (PP).

- (46) a. [_{DP} [_{DP} *az* *a színdarab*] [_{CP} *amit* *Péter látott*]]
that the play which-ACC Peter saw
érdekes volt.
interesting was
'The play Peter saw was interesting.'

- b. *Péter most nem [AP [AP olyan sápadt] [CP mint amilyen János
Peter now not such pale as what John
volt tegnap]]
was yesterday
'Peter is not as pale as John was yesterday.'*
- c. [PP [PP a ház mögött] [CP ahol Péter dolgozik]] sok
the house behind where Peter works many
szúnyog van.
mosquito is
'Behind the house, where Peter is working, there are a lot of
mosquitoes.'

As shown by the translation, (46c) is nonrestrictive and the clause identifies the place where Peter is working as 'behind the house', rather than the house itself. This second reading is accessible if the clause becomes restrictive, another possible interpretation of the sentence in (46c). The restrictive sense can be unequivocally produced by means of the demonstrative expression.¹²

- (47) [PP [PP a mögött a ház mögött] [CP ahol Péter dolgozik]]
that behind the house behind where Peter works
sok szúnyog van.
many mosquito is
'Behind the house where (= in which) Peter is working there are a
lot of mosquitoes.'

Relative clauses embedded in adjectival phrases can also be restrictive or nonrestrictive.

- (48) a. *Péter magas volt, mint (amilyen) az igazgató.*
Peter tall was as what the principal
'Peter was tall, like the principal.'
- b. *Péter olyan magas volt, mint (amilyen) az igazgató.*
such
'Peter was as tall as the principal.'

As follows from the usual properties of this distinction, the nonrestrictive version (48a) means that Peter was tall, while this is not entailed by the restrictive one in (48b): Peter could be tall, but it is in principle equally possible that he was short. All it asserts is that his height was the same as that of the principal.

The structure of the adjectival clause is particularly interesting because, on the one hand, the relative pronoun is preceded by *mint*, that is, it is not in initial position, and, on the other, the relative pronoun can be omitted.

We return to the first observation in section 2.5.3, but first we call attention to a qualification concerning the deletion of the relative pronoun.

The adjectival relative pronoun can be deleted only if the whole relative clause is elliptical, as for example those in (48), where the adjective *magas* 'tall' and the copula are not present. If, however, the predicates of the two clauses differ, as in (49), the adjectival relative pronoun must be overt.

- (49) *András sötét-ebb-re festette az eget, mint *(amilyen-nek)*
Andrew dark-er-SUBL painted the sky-ACC than what-DAT
azt Elek fényképén látom.
it-ACC Alec's photo-SUPER see-1SG
'Andrew painted the sky darker than what it looks to me in Alec's
photo.'

It seems then that the deletion of the adjectival relative WH-phrase is a function of recoverable deletion of another kind: antecedent-contained deletion.

Nominal (or DP) heads of relative clauses have four major varieties: they can be formed with (a) the definite article, (b) the non-specific demonstrative *olyan* 'such', (c) the definite article with the demonstrative *olyan*, and (d) the demonstrative *az(ok)* 'that/those'.

- (50) a. [DP [DP [D a] [NP bor/ könyv]]
the wine/book
[CP amit a boltban láttam/ lehet kapni]
what the shop-INE saw-1SG/may-be buy-INF
'the wine/book which I saw in the shop; wine/books which can be
bought in shops'
- b. [DP [DP D [NP (egy) olyan bor/ könyv]] [CP amit a boltban láttam]]
a such wine/book
'(some) wine / a book that I saw in the shop'
- c. [DP [DP [D az]] [NP olyan bor/ könyv]] [CP ami boltban kapható]]
the such wine/book what shop-INE for-sale
the wine/books on sale in shops'
- d. [DP [DP [SPEC az] [D' [D a] [NP bor/ könyv]]] [CP amit a
that the wine/ book what the
boltban láttam]]
shop-INE saw-1SG
'the wine/books that I saw in the shop'

Version (c) has solely generic use, which is also possible for (a) and, less naturally, for (d). Type (b) only has nonspecific interpretation; (a) and (d) can have a definite sense—indeed that is the primary interpretation option for (d).

The structures attributed to (50a–c) are unsurprising; (50d), however, is interesting in that it contains a demonstrative, which, as is claimed here, is generated in the Spec of DP.

The items that can occur in the position of *az* in (50d) are the two (proximate and nonproximate) demonstratives *ez* ‘this’ and *az* ‘that’, their plural forms *ezen* ‘these’ and *azon* ‘those’, as well as compounds formed with the demonstratives in the head: *ugyan-ez(ek)/az(ok)* ‘same (pl.)’, *mind-ez(ek)/az(ok)* ‘all this/these/that/those’.

Observe first of all that there are other determiners that have the same meanings as the demonstratives discussed here, such as *ezenle könyv* ‘this book’, *azon/ama bor* ‘that wine’. These determiners differ from the demonstratives above in the following properties, as discussed also by Szabolcsi (this volume).

1. Determiners are never case-marked, but demonstratives must have case.

- (51) a. **ezen-t könyv-et; *amá-val bor-ral*
 this-ACC book-ACC; that-INSTR wine-INSTR
 b. *ezen könyv-et; ama bor-ral*
 ‘this book-ACC’; ‘with that wine’

- (52) a. **ez a könyv-et; *az a bor-ral*
 that the book-ACC; that the wine-INSTR
 b. *ez-t a könyv-et; az-zal a bor-ral*
 this-ACC that-INSTR
 ‘this book-ACC’; ‘with that wine’

2. Determiners can never occur as maximal projections, unlike demonstratives.

- (53) a. **Ezen/Ama megérkezett tegnap.*
 this/that arrived yesterday
 b. *Ez/Az megérkezett tegnap.*
 ‘This/That arrived yesterday.’

3. Determiners can co-occur in a single constituent with an overt possessor, as shown by the possibility of focusing the DP containing them, the accepted test of constituency in Hungarian. Focusing a possessive DP that contains a demonstrative is not possible, see (54), in which the focused item is indicated by an informal subscript F.

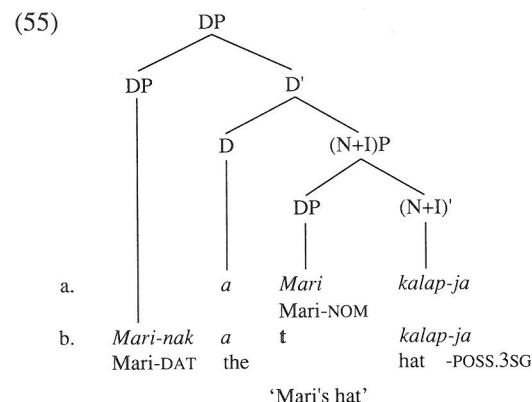
- (54) a. *Nem [_F Elek-(nek) ama könyv-é-t] olvastam.*
 not Alec-NOM/DAT that book-3SG-ACC read-1SG
 ‘It wasn’t that book of Alec’s that I’ve read.’

- b. **Nem [_F Elek-(nek) az-t a könyv-é-t] olvastam.*
 Alec-NOM/DAT that-ACC the
 c. *Elek-nek_i nem [_F az-t a e_i könyv-é-t] olvastam.*
 ‘It wasn’t that book of Alec’s that I’ve read.’

In (54a) the possessive DP contains a determiner, so it is possible to focus the DP intact. Since (54b) is not grammatical, the only way its (otherwise legitimate) meaning can be expressed is by moving the possessor out of the DP and then focusing the rest of the DP, as in (54c).¹³

It follows that the demonstratives are maximal projections, DPs, and since they precede the definite article, the only position available for them is the Spec of DP, which is also the landing site of dative-marked possessors, as was shown by Szabolcsi (this volume). Since dative possessors must be outside the DP if there is a demonstrative inside, they must be in complementary distribution, and the demonstrative is generated in the Spec of DP. We may then suppose that the demonstrative is assigned case through Spec–Head Agreement by the head D, whose presence is obligatory in the construction.

So far we have ignored the question of the occurrence of the demonstrative with a nominative possessor. Recall that, according to Szabolcsi’s analysis, the possessor is generated in the Spec of NP, where it is assigned nominative, and that it can move into the Spec of DP, receiving dative, as in (55), which is Szabolcsi’s (37).



If the demonstrative is generated in the Spec of DP, the Spec of NP must be free for a nominative possessor to occupy, as is evidenced by the data.

- (56) a. [_{DP} Ezt [_{D'} az [_{NP} [_{DP} ő [_{N'} új könyv-é-t]]]] olvastam.
 this-ACC the he-NOM new book-3SG-ACC read-1SG
 ‘I’m reading this new book of his.’

- b. ?[_{DP} *Ezt* [_{D'} *az* [_{NP} [_{DP} *Elek* [_{N'} *új* könyv-é-t]]]]] olvasom.
 this-ACC the Elek-NOM new book-3SG-ACC read-1SG
 'I'm reading this new book of Alec's.'
- c. [_{DP} *Ezt* [_{D'} *az* [_{NP} [_{DP} *pro* [_{N'} *új* könyv-é-t]]]]] olvasom.
 'I'm reading this one of his new books/this new book of his.'

Observe that the demonstrative and the possessor can each make the NP definite; the presence of a demonstrative outside of the possessor can add no further specification, so the reading of the demonstrative in (56a) is nonrestrictive. That is also the only reading available for (56b), which for reasons beyond our understanding is worse than (56a). If, however, the possessor is covert, as in (56c), both the restrictive and the nonrestrictive readings of the demonstrative are possible (as shown by the translation), although the structural configuration is not different. The behavior of the overt versus covert pronominals with respect to (non)restrictive modification is most probably due to the properties of pro-drop in Hungarian. A droppable pronoun that supplies background or presupposed knowledge is, as a rule, suppressed. That is the case in (56c), where the pronoun does not interfere with the restrictive interpretation of the demonstrative, whereas the overt pronoun blocks such a reading in (56a), as does the demonstrative in relation to the pronoun, leaving the adjective *új* 'new' as the only candidate for restrictive modification.

These properties of the co-occurrence of demonstratives and possessors carry over to DPs containing relative clauses. In other words, if the possessor is overt, the relative clause that is adjoined to possessive DPs can only be nonrestrictive, as is illustrated by the translations in (57a), but it can be restrictive along with a pro possessor, compare (57b).

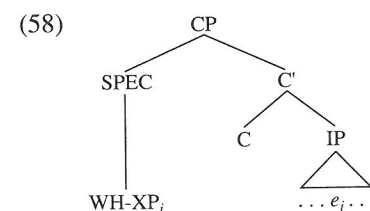
- (57) a. *Ismerem* [_{DP} [_{DP} *az-t* *az* ?ő/?**Elek* *új* könyv-é-t]]
 know-1SG that-ACC the he/Alec-NOM new book-3SG-ACC
 [_{CP} *amelyet olvasol*]]
 which read-2SG
 'I know that new book of his/Alec's, which you are reading.'
- b. *Ismerem* [_{DP} [_{DP} *az-t* *az* *pro* *új* könyv-é-t]] [_{CP} *amelyet olvasol*]]
 'I know that one of his new books that you're reading.'

Observe that the grammaticality judgments are worse for (57a) than for the comparable (56a–b). This may result from the fact that the possessor and the obligatorily nonrestrictive demonstrative are accompanied by another nonrestrictively interpreted construction, the relative clause, and the stacking of nonrestrictive adjuncts is probably disallowed.

2.5. Complementizers and the Position of the Relative Pronoun

2.5.1. THE PROBLEM

The standard view of the structure of the projection of the Complementizer in languages which have clause-initial subordinating conjunctions, like English, French, and a host of others, maintains that the Specifier position to the left of the Comp can be filled in by WH-movement in question and/or relative clauses, particularly if the WH-phrase is in a leftmost position in the embedded clause, as in (58).



Evidence for the standard view, which makes it possible for a WH-phrase and a Complementizer to co-occur, was first provided in Chomsky and Lasnik (1977) on the basis of Middle English, as in (59). Since then a large body of data has been accumulated from various languages, such as Bavarian (60a), Norwegian (60b), Dutch (60c), or Canadian French (60d), including even present-day English, as in (61).¹⁴

- (59) a. *a compas which that contenith a large brede*
 b. *the gode man, whose that the place is*
- (60) a. *I woaß ned [wann daß da Xavea kummt]*
 I know not when that the Xavier comes
 'I don't know when Xavier is coming.'
- b. *Jeg forfalte Jan [hvem som var kommet]*
 I asked Jan who that had come
 'I asked Jan who had come.'
- c. *de jongen [aan wie dat Jan het probleem had voorgelegd]*
 the boy to whom that Jan the problem had presented
 'the boy to whom Jan had presented the problem'
- d. *la fille [avec qui que je parle]*
 the girl with who that I speak
 'the girl with whom I'm speaking'

- (61) a. *I am not sure* [_{CP} [*what kind of ban*]_i [_C *that*] [_{IP} *FIFA has e_i in mind*]]
 b. *no matter* [*what choice_i that the committee makes e_i*]

Hungarian, in turn, has no comparable constructions. On the one hand, interrogative WH-phrases are placed in a pre-INFL or preverbal position and can be preceded by a complementizer, as in (62a). On the other hand, relative WH-phrases are clause-initial, obligatory, and can co-occur with no (other) complementizer, see (62b–d).

- (62) a. *Nem tudja* [*hogy Péter tegnap kit_i látott e_i*]
 not know-3SG that Peter yesterday who-ACC saw-3SG
 'He doesn't know who Peter saw yesterday.'
 b. *a tanú* [*aki_i Pétert tegnap látta e_i*]
 the witness who Peter-ACC yesterday saw-3SG
 'the witness who saw Peter yesterday'
 c. **a tanú* [*aki_i hogy Pétert tegnap látta e_i*]
 that
 d. **a tanú* [*(hogy) (aki_i) Pétert tegnap látta e_i*]

The question we wish to address in the present section is this: What is the structure of the left periphery in the relative clause; that is, in what position does the relative WH-phrase occur?

2.5.2. PREVIOUS PROPOSALS

In the literature on the syntax of Hungarian, surprisingly little heed has been paid to the problem outlined above. In a proposal predating CP-analyses, Horvath (1986) makes the following suggestions. The landing site of WH-movement is the Comp node, as it is in its English counterpart. This claim is based on three observations. (a) The relative pronoun must appear in absolute initial position in the relative clause. (b) The landing site of WH-movement is the Comp node, and the WH-phrase is RIGHT-ADJOINED to the complementizer. (c) *az* is a complementizer, base-generated in the COMP position, just as *hogy* 'that' is. This is possible, according to Horvath, because *az/a-* is a morpheme attached to all WH-words in relative constructions.¹⁵

- (63)
-

Since at the time of Horvath's proposal no constraints concerning the movement of heads and maximal projections were in force, the transformation illustrated in (63) did not violate any principle. What is objectionable is the fact that she makes no effort to show that the alleged head of Comp *az* occurs as a true complementizer in constructions other than relative clauses.

Marác (1989) does not discuss relative clauses, and therefore he makes no explicit claims concerning their structure. But the properties he attributes to these constructions emerge with sufficient clarity from other analyses, specifically in relation to the Complementizer *hogy* and the diagrams illustrating relative clauses, as seen in (64).¹⁶

- (64)
-

Marác's proposal shows Hungarian relative clauses to be identical with those in the languages illustrated in (59)–(61). In other words, the problem introduced in section 2.5.1 will not be resolved under his analysis either.

2.5.3. COMPLEMENTIZERS

Before we face the problem of relative WH-phrases, let us first see what lexical items can be seen as complementizers in Hungarian. For some item to be classified as Comp, it will be necessary that the relevant words or morphemes be generated in the functional head position, rather than moved there from a clause-internal category.

It is assumed here that the category Comp can be satisfied by items that have no role in the clause itself, that is, that would violate the principle of full interpretation or the like (cf. Chomsky, 1986b) unless they are generated in their surface positions.

This provision will justify the categorization of the two most frequent subordinating conjunctions as Comp: *hogy* 'that' and *ha* 'if'.

- (65) a. [*Hogy Anna éhes volt*] meglepte Pált.
 that Anna hungry was surprised Paul-ACC
 'That Anna was hungry surprised Paul.'
 b. [*Ha Anna éhes volt*] Pál megetette őt.
 if Anna hungry was Paul fed her
 'If Anna was hungry, Paul fed her.'

- c. *Pál észrevette azt [hogy-ha Anna éhes volt]*
 Paul noticed it-ACC that-if Anna hungry was
 'If Anna was hungry, Paul noticed it.'

Note that in addition to current *hogyha* in (65c), the reverse order of its constituents, *ha-hogy*, was also quite frequent at an earlier stage in the history of the language.

Another set of clear cases is provided by concessive clauses introduced by the conjunction *bár* 'although', and optionally combined with the subordinating complementizer *ha* 'if', see (66a). In the reverse order, the conjunction occurs in optative clauses, as in (66b).

- (66) a. [(*Ha*)-*bár* Anna éhes volt] *Pál nem vette észre.*
 if-though Anna hungry was Paul not noticed
 'Although Anna was hungry, Paul didn't notice it.'
 b. *Bár (-ha) otthon maradtunk volna!*
 though-if home stayed-we COND
 'If only we had stayed home!'

Since the order of the constituents is variable and neither can be assumed to be more head-like than the other, the type of conjunction illustrated above comprises items that are themselves of the category Comp or combine with other items of the same category. We call this group SIMPLE COMPS.

The other class of complementizers, in turn, contains mergers of a WH-phrase and the general complementizer *hogy*, which can be optionally omitted, as in *mi-vel* (+ *hogy*) 'since'; *mert* (+ *hogy*) 'because'.¹⁷ Even though they may be formally identical with relative WH-phrases, their respective positions could be easily distinguished, as will be seen below. The case-suffixed WH-NPs are most probably generated in a position to the left of the true complementizer, in the Spec of CP, as shown in (67a). There is, in principle, another alternative: we may suppose that they were perhaps originally generated as WH-adjuncts, moved into clause-initial position like other relative pronouns, later reanalyzed as complementizers, and as such they could be complemented by the conjunction *hogy*, as in (67b). Note that there are no data from either the history or the dialects of Hungarian supporting a reverse order of the items involved in the relevant senses, such as **hogy mivel* 'since' or **hogy mert* 'because', and this state of affairs will weigh the balance in favor of the first alternative, as will be clear from section 2.5.4, which discusses the position of the relative WH-phrase within the embedded clause.

- (67) a. [_{CP} [_{SPEC} *mivel*] [_{C'} [_C *hogy*] [_{IP} . . .]]]
 since that
 b. [_{CP} *mivel*_i [_{IP} . . . e_i . . .]]

This second group of complementizers is referred to as COMPLEX COMPS.

The complementizers presented so far have been well known in the literature. There is, however, a conjunction whose properties have never been analyzed in any detail, let alone its classification as Comp suggested.

Comparative constructions in Hungarian have two varieties: one is constructed with a simple case suffix *-nál/nél* 'ADESS, than' and can be used only for the comparative degree and with non-clausal constructions.

- (68) a. *Péter okos-abb volt Andor-nál.*
 Peter smart-er was Andrew-ADESS
 'Peter was smarter than Andrew.'
 b. **Péter (olyan) okos Andor-nál*
 Peter such smart Andrew-ADESS
 Intended sense: 'Peter is as smart as Andrew.'
 c. **Péter okos-abb most Andor-nál volt*
 Peter smart-er now Andrew-ADESS was
 Intended sense: 'Peter is now smarter than Andrew was.'

The other construction can be used without the comparative degree, as in (69), or in a clausal context, as in (70), and is introduced by what traditional grammars call the conjunction *mint* 'as, than'.¹⁸

- (69) a. *Péter olyan okos [mint Andor]*
 Peter that smart as Andrew
 'Peter is as smart as Andrew.'
 b. *Péter annyi diákot látott [mint Andor]*
 Peter that-many student-ACC saw as Andrew
 'Peter saw as many students as Andrew.'
 (70) a. *Péter okos-abb [mint Andor volt öt éve]*
 Peter smart-er than Andrew was five year-LAT
 'Peter is smarter than Andrew was five years ago.'
 b. *Péter több diákot látott [mint szakácsot]*
 Peter more student-ACC saw than cook-ACC
 'Peter saw more students than cooks.'

The way *mint* associates with other complementizers and functional categories is more in line with what simple Comps can do than with what complex Comps are capable of. If we observe combination options, we see that *mint* can occur both to the left and to the right of the canonical complementizer *hogy*.¹⁹

- (71) a. *Ki- ment inkább, mint-sem hogy ki- dob- ják.*
 out-went-3SG rather than-not that out-throw-3PL-DO
 'He went out rather than being thrown out.'

- b. *Fösvényebb bátyám, hogy sem mint megajándékozhatna.*
 more-niggardly brother-1SG that not than present-may-3SG
 'My brother is too niggardly to present you with a gift.'

It would then follow that similarly to other members of the simple Comp category, *mint* must also be a head—and differs from *amint* 'as, as soon as'.

- (72) *Péter megszólalt [amint/*mint meglátta Annát]*
 Peter spoke as saw-3SG Anna-ACC
 'Peter spoke as soon as he saw Anna.'

The conjunction *amint*, which can merge with *hogy* 'that' into the complex Comp *amint* + *hogy*, cannot occupy any position to the right of the canonical complementizer *hogy*, whether or not the negation word *sem* 'not' is present—unlike *mint* above; **hogy* + (*sem*) + *amint*.

It has been common knowledge in modern grammatical theory that comparative clauses like (69) and (70) are relative clauses (cf. Chomsky, 1977). As is illustrated in section 2.4, the complementizer *mint* can also introduce relative clauses. What is unexpected is the order in which the complementizer and the WH-phrase occur.

- (73) a. *Az ég sötétebb [mint amilyennek Ervin kép-é-n]*
 the sky dark-er than what-DAT Ervin-NOM picture-3SG-SUP
mutatkozik]
 look-3SG
 'The sky is darker than it looks in Ervin's picture.'
- b. *Elemér úgy javította meg a gépet*
 Elmer thus repaired PERF the engine-ACC
[mint ahogy Ervin megmutatta neki]
 as how Ervin showed he-DAT
 'Elmer repaired the engine in the way Ervin had showed him.'
- c. *Elek annyit főzött [mint amennyit a vendégek]*
 Alec that-much-ACC cooked as how-much the customers
rendeltek]
 ordered
 'Alec cooked as much as the customers had ordered.'
- d. *Péter ugyanazt mondta [mint amit én állítottam]*
 Peter same-ACC said as what-ACC I claimed
 'Peter said the same thing that I claimed.'

Since Hungarian is not a prepositional language, and *mint* in particular is not a preposition-like complementizer (unlike English *than*), the site in which relative WH-phrases occur is not one encountered in most of the languages known.

We will suppose here that *mint* is the head of one type of relative clause and the relative WH-phrase is adjoined to the topmost IP node, immediately to the right of the complementizer.

- (74) [CP [C' [C *mint*] [IP WH-phrase_i [IP . . . e_i . . .]]]]

Mint is not the only complementizer that is followed by relative WH-phrases. Even though in present-day Hungarian the conjunction *hogy* 'that' cannot co-occur with relative pronouns, in at least one period in the history of the language this was perfectly possible.²⁰

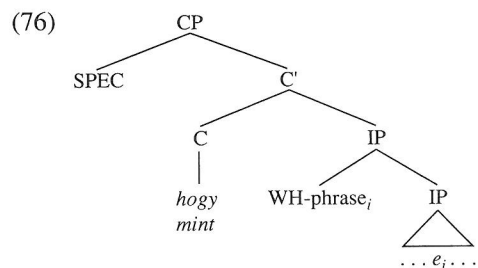
- (75) a. *Vagyon-e valaki tiközöletek, hogy ki látta volna ez*
 is Q someone amongst-you that who saw COND this
templomot?
 temple-ACC
 'Is there someone among you that would have seen this temple?'
 (ca. 1530; Tihany Codex 174)
- b. *Esmég vala egy Soror ez clastromban, hogy ki igen*
 again was one sister this cloister-INE that who very
nagy nehéz kórságal meg betegüle
 great heavy malady-INS PERF fell-ill
 'Again there was a sister in the cloister who fell ill with a very serious malady.'
 (1510; Margit Legend 46)
- c. . . *hogy a városba jönne a farkassal,*
 that the town-ILL would-come the wolf-INS
hogy ki igen fene vala.
 that who very wild was
 'that he would come to town with the wolf which was very wild.'
 (Before 1529; Virginia Codex 56)

In an extended discussion on whether such structures were modeled after examples from Latin, Galambos (1907) claims that the corresponding Latin conjunctions (e.g. *quod qui*) did not exist, therefore the Hungarian construction cannot have emerged as a simple calque. Although he suggests that the source of the combined conjunctions was some kind of union of two types of clauses: one purposive, the other relative, we do not have to follow him this far, particularly because the examples in (75) show no sign of purposive interpretation.²¹

Whichever explanation will, in the end, be adopted for the emergence of these complex relative clause complementizers, it must be clearly seen that some account must be given of the now obsolete *hogy*-relatives. In other words, attributing some structure to the influence of Latin on the vernacular does not provide exemption from analyzing the structure of the construction—especially if it is analogous with one, the *mint*-relative, that is still highly productive in the language.

2.5.4. THE POSITION OF RELATIVE WH-PHRASES

It follows from the above discussion that in both present-day and 16th-century Hungarian, relative WH-phrases are/were not placed in (front of) Comp but in a position immediately to its right, very much according to the structure in (76).



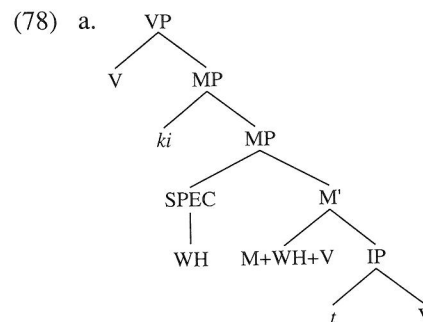
Since no WH-phrase can be demonstrated to land in the Spec of CP, in defense of (76) we should be able to show first what, if anything, can occupy this position. In a number of constructions, it is easy to find preposed or topicalized items that can be said to have moved into Spec of CP: they originate in the embedded clause whose complementizer they immediately precede, as in (77).²²

- (77) a. [IP [CP Péter_t_i [C' ha [IP látod e_i]]] [IP beszélj vele]]
 Peter-ACC if see-2SG speak-IMP with-him
 'If you see Peter, speak with him.'
- b. [IP [CP Péter_t_i [C' hogy [IP láttam e_i]]] [IP elmehetek]]
 Peter-ACC that saw-1SG can-leave-1SG
 '(Now) that I've seen Peter, I can leave.'
- c. [IP [CP Péter_t_i [IP aki_j [IP e_j látta e_i]]] [IP szóljon]]
 Peter-ACC who saw-3SG speak-IMP
 'Whoever saw Peter, (please) speak up.'
- d. [CP Egyébként [C' hogy [IP Bozsik is játszott]]]
 incidentally that Bozsik also played
 'Incidentally, Bozsik also played.'

Note also that the properties of extraction from embedded clauses (focus movement) also calls for a Spec of CP position, see section 3.2.

The next question we must deal with concerns the S-structure position of the relative WH-phrase. Before we argue for the IP-adjunction analysis shown in (76), let us review a recent proposal by Bhatt and Yoon (1992), also discussed by Szabolcsi (this volume). In short, they distinguish between Complementizers (such as *that* in English), which encode both clause-type and mood, and Subordinators (such as Kashmiri *ki* and Hungarian *hogy*),

which carry only information relating to subordinate status. In languages that have the latter type, clause-type and mood are conveyed by another functional head labeled M, which has its projection to MP. In Bhatt and Yoon's view (at least in the languages they examined closely), WH-phrases have to land in Spec of MP, as in the Kashmiri example (78).



- b. *tse chay khabar ki kyaa kor tem*
 you AUX know that what did he

While Kashmiri indeed resembles Hungarian in several respects, and, for example, the Spec of MP position assumed for WH-phrases can be considered equivalent with Brody's (1990) Spec of FP, Kenesei's (1992) and Horvath's (to appear) Spec of IP, or the Spec of VP in É. Kiss (this volume), adjunction of the Subordinator to MP (= IP or VP) could not guarantee its initial position in the clause, since the clause can have an array of adjoined quantifiers and topic (subjects, under É. Kiss's analysis) preceding focus, which is the canonical position for WH-phrases in this language. Observe also that É. Kiss's proposal for a TenseP (whose head encodes modality) crucially divorces the mood indicator from the position of WH-phrases in VP.

With respect to relative clauses, Kashmiri and Hungarian appear to be similar again in that these clauses are introduced by relative WH-phrases that are not in the Spec of MP, whose head in (79) is in bold type.

- (79) a. [*yus laRk amiir **chu***] *su chu myenis baayis kitaab divaan*
 which boy rich is he is my brother-DAT book gives
 'The boy who is rich gives books to my brother.'
- b. [*yelyi bo paRhaaii khatam **kar***] *bo gatsh kashiir*
 when I studies finish do I go-FUT Kashmir
 'When I finish my studies, I will go to Kashmir.'

On the basis of these examples, Bhatt and Yoon hypothesize that in relative clauses the Mood and Subordinator functions are conflated in the relative pronoun.

While this may be possible for some relative clauses in Hungarian, comparative or *mint*-clauses and the data from the 16th century, see (80), are not in support of it. *Mint* and *hogy* then either are Subordinators and the relative WH-phrase indicates clause-type, or they are Complementizers followed by a TenseP (or IP) initial relative WH-phrase, whose position is in need of further clarification.

- (80) a. *Anna előbb érkezett meg [mint amikorra Elek várta]*
 Anna sooner arrived PREV as when-SUBL Alec expected
 'Anna arrived sooner than Alec expected her to.'
- b. *Vala egy szerzetes apáca [hogy mely apáca
 was a cloister nun that which nun
 gyönyörösebb étet eszik vala az egyéb apácáknál]*
 more delicious food-ACC eats PRET the other nuns-ADESS
 'There was a nun who was eating more delicious food than the
 other nuns.' (1510; Book of Parables)

For the time being we will conclude here that (76) shows the general structure of relative clauses in Hungarian, with the proviso that in the present-day language the Complementizer (or Subordinator) *hogy* no longer occurs, and defer further discussion of the complementizer *hogy* until section 5.1.

2.6. Summary

In agreement with current principles of grammatical theory, relative clauses were regarded here as adjuncts to maximal projections, such as DP, AP, and PP. Three subtypes were distinguished: those headed by pronominals, free relatives, and those headed by an R- (or lexical) expression. Pronominal versus R-expression-headed clauses were shown to differ in syntactic properties: they take distinct relative pronouns in some well-defined cases, which may reflect the difference of their respective heads in specificity: pronominal (and quantifier) heads cannot be specific, while lexical heads can.

The problem of the nature of the head of free relative clauses was addressed from two directions: for some it was assumed that the head is a phonetically empty pronominal; for others, that it is the WH-relative pronoun itself interpreted as a quantifier. Arguments from verbal inflection and quantifier interpretation were applied to support our position.

The most important question discussed in relation to relative clauses headed by lexical expressions was the curious position of the (case-marked) demonstrative in the DP containing the clause. It was suggested that they

are generated in the Spec of DP position, thus excluding dative-marked possessors from that position, and giving rise to non-restrictive interpretation in ways still not sufficiently understood.

We tried to strike a new course in the analysis of the position of the relative WH-phrase. Since there is no evidence in Hungarian for a WH-phrase-Comp sequence, but at least two unrelated sets of data support the view that the complementizer precedes the relative pronoun in S-structure, it was suggested that this language be considered as having a different process of WH-relative movement. It is worth noticing that the landing sites to the right of the complementizer and to the left of the verb are all A'-positions possibly undergoing quantifier interpretation.

3. *that*-CLAUSES

3.1. Types of *that*-Clauses

Apparently, the structures corresponding to *that*-clauses in Hungarian, *hogy*-clauses (H-clauses), have all the varieties we witnessed in relative clauses: they can occur (a) with a pronominal head, (b) with a lexical expression, and (c) without any head at all.

- (81) a. *Nem biztattam arra [CP hogy gyorsabban fusson]*
 not encouraged-1SG it-SUBL that faster run-SUBJ-3SG
 'I didn't encourage her to run faster.'
- b. *Az a nézet [CP hogy a diákok felelőtlenek] téves.*
 that the view that the students irresponsible wrong.
 'The view that students are irresponsible is wrong.'
- c. *Emma tudja Ø [CP hogy mikor érkezett]*
 Emma knows that when arrived-3SG
 'Emma knows when she arrived.'

In spite of the analogy, the relationship between the putative head and the H-clause cannot be the same as that between the relative clause and its head, since a relative clause is always an adjunct, whereas H-clauses, like *that*-clauses in English, can be arguments with independent thematic roles assigned to them. As follows from the arguments in section 2.3, this generalization is not called into question by the fact that there are free relative clauses, since they are also analyzed as adjoined to either phonetically null pronominal heads or heads consisting of the relative WH-phrase.

3.1.1. ADJUNCT H-CLAUSES

3.1.1.1. *Free Adjunct H-Clauses.* The only type of free adjunct H-clause is adjoined to IP and is used as a clause of reason. Its site of adjunction is shown by the coreference options of the pronominals and the R-expressions in them as compared to those in VP-adjoined H-clauses.

- (82) a. [IP [CP *Hogy* pro_i *el-fáradt*] [IP *Nóra_i leült*]]
 that pv-tired-3SG Nora down-sat-3SG
 'Since she_i got tired, Nora_i sat down.'
 b. [IP [CP *Hogy* *Nóra_i el-fáradt*, [IP pro_i *leült*]]
 'Since Nora_i got tired, she_i sat down.'
- (83) a. [IP [CP *Hogy* pro_i *el ne fáradjon*]_j [IP *Nóra_i leült e_j*]]
 that pv not tire-SUBJ-3SG Nora down-sat
 'So that she_i shouldn't get tired, Nora_i sat down.'
 b.*[IP [CP *Hogy* *Nóra_i el ne fáradjon*]_j [IP pro_i *leült e_j*]]
 'So that Nora_i shouldn't get tired, she_i sat down.'

Since in (83b) the subject *pro* cannot be coreferent with the R-expression in the clause, the matrix subject must c-command the embedded subject, that is, the H-clause must be adjoined to the VP at the relevant level. In (82b), however, coreference is possible; therefore the clause can only be adjoined to IP.

3.1.1.2. *Embedded H-Clauses.* H-clauses can also be embedded under maximal projections that are adjuncts and have a pronominal head, which is invariably some (inherently) case-marked or pospositional form of *az* 'it'.

- (84) a. *Pál* *ihat* *bort* [DP *at-tól* [CP *hogy a pohár eltört*]]
 Paul can-drink wine-ACC it-ABL that the glass broke
 'Just because the glass broke, Paul can drink wine.'
 b. *Pál* *nem iszik* *bort* [DP *az-óta* [CP *hogy a pohár eltört*]]
 Paul not drinks wine-ACC it-since that the glass broke
 'Paul hasn't drunk wine since the glass broke.'

3.1.2. ARGUMENT H-CLAUSES

3.1.2.1. *H-Clauses with Oblique Pronominal Heads.* H-clauses can occur in oblique complements of adjectives, see (85)–(86), and verbs, see (87)–(88), but they are not the only option for complementhood since noun phrases are equally acceptable, as indicated by the options below each example for H-clauses.

- (85) a. *Büszke volt* [DP *ar-ra* [CP *hogy első lett*]]
 proud was it-SUBL that first became
 'She was proud of having been first.'
 b. *Büszke volt* [DP *az eredmény-é-re*]
 the achievement-3SG-SUBL
 'She was proud of her achievement.'
- (86) a. *Biztosak vagyunk* [DP *ab-ban* [CP *hogy sikert aratunk*]]
 sure-PL are-1PL it-INE that success-ACC have-1PL
 'We are sure that we'll have a success.'
 b. *Biztosak vagyunk* [DP *a siker-ünk-ben*]
 sure-PL are-1PL the success-1PL-INE
 'We are sure of our success.'
- (87) a. *Megfeledkeztem* [DP *ar-ról* [CP *hogy el-men-j-ek*]]
 forgot-1SG it-DELAT that away-go-SUBJ-1SG
 'I forgot to go there.'
 b. *Megfeledkeztem* [DP *a meghívás-ról*]
 forgot-1SG the invitation-DELAT
 'I forgot about the invitation.'
- (88) a. *Csodálkozott* [DP *az-on* [CP *hogy Emma megjött*]]
 was-amazed-3SG it-SUPER that Emma came
 'He was amazed that Emma had come.'
 b. *Csodálkozott* [DP *Emmá-n*]
 was-amazed-3SG Emma-SUPER
 'He was amazed at Emma.'

Since in all the constructions in which the pronominal has oblique case, a full DP is a viable alternative, we assume here that the adjectives and verbs in this class select oblique DPs, which can then contain a pronominal and an H-clause.

3.1.2.2. *H-clauses with Pronominal Heads in the Nominative and the Accusative.* In contradistinction to the oblique complements, it is often impossible to substitute DPs for subject and object H-clauses.

- (89) a. *Félő volt (az)* [CP *hogy a gép elromlik*]
 fearful was it-NOM that the engine breaks-down
 'It was to be feared that the engine would break down.'
 b.**Félő volt* [DP *a gép elromlása*]
 fearful was the engine's breakdown
- (90) a. *Kati az-t képzei* [CP *hogy a gép elromlott*]
 Cathy it-ACC imagines that the engine broke-down
 'Cathy imagines that the engine's broken down.'

- b. *Kati [_{DP} a gép elromlását] képzeli
Cathy the engine's breakdown-ACC imagines

If the clause were generated within a DP, it could not be selected by the verb (and, if the clause were in the subject DP, the verb would not even c-command the clause). Therefore, we assume that the verb can thematically govern the clause and assigns case to the empty pronominal, which acts as an expletive.

3.2. Expletive-Chain Chains

Expletives are referentially empty DPs that are associated with argument DPs or clauses. Chomsky (1986b) argues that an expletive-argument pair constitutes a CHAIN in which the expletive is (ultimately) in a case-marked position, and the argument occupies a θ -position, thus satisfying the requirement that each (maximal) CHAIN contain only one θ -position and only one case position.

- (91) a. *There_i is [_{NP} a man]_i in the room*
b. *It_i is believed [_{CP} that John is intelligent]_i*

In (91a), the relevant CHAIN is (*there_i*, [*a man*]_i), which receives its θ -role in the position of the DP *a man* and its case in that of the expletive *there*. Similarly, in (91b) the CHAIN formed by the expletive and the clause receives a θ -role in the position of the clause and case in that of the expletive in subject position.

An important corollary of this treatment of expletives is the extension of the visibility condition, which states that an element is visible for θ -marking only if it is assigned case or is linked to such a position (Chomsky 1986b, 94), to the effect that it covers not only DPs but clauses as well. That is, in order for a clause to be visible for the assignment of a θ -role, it (that is, its CHAIN) must have case. By comparing *believe* and *seem*, two arguments are offered: (a) *believe*, but not *seem*, can take a case-marked object and case-mark the subject of its embedded clause.

- (92) a. *John believed the claim that he had won*
b. *John believes [_{IP} Bill to be intelligent]*
- (93) a. **It seems the idea that he had won*
b. **It seems [_{IP} Bill to be intelligent]*

(b) Verbs that take clausal complements permit the complement to be questioned if and only if they θ -mark their subjects (Chomsky 1986b, 141).

- (94) a. *John believed that Bill is intelligent*
b. *What did John believe e?*
- (95) a. *It seems that John is intelligent*
b. **What does it seem e?*

It is thus possible to formulate a strict version of Burzio's generalization.

- (96) A verb with a complement assigns case if and only if it θ -marks its subject.

Since we are interested in complement clauses, let us now see their behavior with respect to case-marking. Following Stowell (1981), we illustrate three complement types (DPs, *wh*-clauses, and *that*-clauses) in relation to the four major lexical categories: A, N, P, and V.

- (97) I. Adjective:
a. *I am aware * \emptyset /of your results*
b. *I am aware * \emptyset /of why you had to leave*
c. *I am aware \emptyset /*of that you had to leave*
- (98) II. Noun:
a. *the confirmation * \emptyset /of the new theory*
b. *the examination * \emptyset /of why the theory doesn't work*
c. *the confirmation \emptyset /*of that the theory works*
- (99) III. Preposition:
a. *They talked about their future*
b. *They talked about why they should continue working*
c. **They talked about that they should continue working*
- (100) IV. Verb:
a. *Sarah knew Jack*
b. *Sarah knew who was responsible for the error*
c. *Sarah knew that Jack was responsible for the error*

As for the complements, DPs and *wh*-clauses have to be case-marked; that is why they need to take on the thematically empty preposition *of* in (97) and (98), in which the heads A and N cannot assign them case. In (99), however, where the head is the undisputed case-assigner P, *that*-clauses are ungrammatical. In agreement with Stowell's (1981) case resistance principle, which disallows case assignment to a category bearing case-assigning features, we may suppose that since the head of a *that*-clause or an infinitival cannot be assigned case (both being ultimately a projection of V under Stowell's analysis), *that*-clauses and infinitivals cannot be case-marked. They are nonetheless visible for θ -marking, and even though verbs are

potential case-markers, they do not assign case to their complement *that*-clauses and infinitivals. In short, these two categories are exempt from the visibility condition.²³

If *that*-clauses need no case to be visible for θ -marking, we have to find an answer not only to the question of why there is no expletive in DPs in English but also to the question of why there is an expletive in sentences.

The restriction in English that forbids *that*-clauses to be case-marked does not, however, preclude their forming a CHAIN with a case-marked expletive.²⁴ Note that an expletive must be licensed, in view of the principle of full interpretation of Chomsky (1986b), by a CHAIN that has case and a θ -role. Chomsky (1986b) attributes the occurrence of the expletive in clauses to the extended projection principle, and, following Rothstein (1983), to the obligatoriness of predication in clauses. Abney (1987, 113) disagrees with Rothstein in confining the domain of predication to clauses only and claims that the difference between clauses and DPs consists in the fact that VP, but not DP, requires a subject to predicate of, and since non-thematic subjects in clauses cannot be referential DPs, the expletive is the only choice for that position. Be that as it may, it is the properties of verbal predication that make expletives possible as subjects, rather than the visibility condition.

We now suggest that the empty, non-referential pronominal in Hungarian illustrated in (89)–(90) as well as in (101) is an expletive.

- (101) a. *Az gyakran megesik* [_{CP} *hogy a vonat pontosan érkezik*]
 it-NOM often happens that the train on-time arrives
 'It often happens that the train arrives on time.'
 b. *Anna azt hiszi* [_{CP} *hogy Eszter okos*]
 Ann it-ACC thinks that Esther intelligent
 'Ann thinks that Esther is intelligent.'

Although it has been claimed in the traditional literature as well as in recent transformational studies (cf., e.g., É. Kiss, 1987, 1990) that the pronoun *az* is in a single DP constituent together with the clause, this view raises more problems than it solves.

In the single DP analysis, the clause, which cannot be case-marked, cannot be a complement or argument of the pronominal head since it is devoid of any semantic content. Consequently, as É. Kiss (1990) suggests, it has to be an adjunct to the pronominal, which carries the case, and because the head is empty the thematic role is carried by the adjunct clause. If the pronominal head is phonologically empty (an option discussed in section 4.3), in her analysis it becomes transparent, since *pro* can be deleted and the NP projection is pruned. But this operation, which is designed to allow movement out of the clause, is in violation of the projection principle: if the verb

is subcategorized for a noun phrase at one level of structure, it cannot have a clausal complement at another.²⁵

If the clause is an adjunct, another question arises: How can a matrix predicate select for a clause in its nominal complement? Observe that in a relatively large class of cases no single DP can substitute for the pronoun + clause, with the exception of WH-phrases (and other quantifiers), a state of affairs comparable to one seen in the English constructions (92a–b).

- (102) a. *Mi esik meg a leggyakrabban?*
 what happens the most-often
 'What happens most often?'
 b. * [_{DP} *A vonat pontos érkezése*] *gyakran megesik*
 the train's on-time arrival-3SG often happens
 'The train's arrival on time often happens.'
 (103) a. *Mit hisz Anna?*
 what-ACC thinks Ann
 'What does Ann think?'
 b. * *Anna* [_{DP} *Eszter okosságát*] *hiszi*
 Ann Esther intelligence.3SG.ACC thinks
 'Ann thinks Esther's intelligence.'

Since the semantic selection properties of the matrix verbs in (101) specify propositions as arguments, the corresponding syntactic category must be an H-clause. We might say that the expletive in (101a) is required for the same reason as in the comparable English example: the extended projection principle and the properties of verbal predicates, and in order to be licensed it has to form a CHAIN with the H-clause.

But the occurrence of the expletive in (101b) would still remain unaccounted for. Before we try to account for it, recall that in addition to the structural cases nominative and accusative, expletives can be assigned any oblique case as determined by the lexical governor in question.

- (104) a. *Ar-ról beszélt-em* [_{CP} *hogy mi történt Budapesten*]
 it-SUBL spoke-1SG that what happened Budapest-SUPER
 'I spoke about what had happened in Budapest.'
 b. *Anna ab-ban hitt* [_{CP} *hogy Péter nyer-ni fog*]
 Ann it-INE believed-3SG that Peter win-INF will-3SG
 'Ann believed in Peter's victory.'

It stands to reason to suppose that Hungarian, like English, does not tolerate the case-marking of H-clauses, and if a verb that selects a complement clause has a case to assign, it must be marked on an expletive. The expletive

is then licensed by a CHAIN, which is θ -marked in the position of the clause. Since each complement H-clause has an accompanying case-marked expletive, it must also be assumed that an H-clause, contrary to *that*-clauses in English, must be visible, that is, that the visibility condition is parameterized to include H-clauses in Hungarian, and to exclude *that*-clauses in English.

An interesting consequence of this treatment of Hungarian empty pronominals and H-clauses is that they behave in the logical form component as predicted by Chomsky (1986b, 1989), who suggests that at LF the argument is moved to adjoin (or replace) the expletive. Expletives placed preverbally in Hungarian occur in positions that may receive specific logical interpretations, such as Focus [cf. (105a), in which the focused constituent is marked by a subscript F] or as quantified by 'even', see (105b).

- (105) a. *Pál* [_F *azt*]_i *tanulta meg* [_{CP} *hogy a macska nem ugat*]_i;
 Paul it-ACC learned PV that the cat not barks
 'It is that cats don't bark that Paul learned.'
 b. *Pál még* [*azt*]_i *is meg-tanulta* [_{CP} *hogy a macska nem ugat*]_i;
 Paul even it-ACC also PV-learned
 'Paul even learned even that cats don't bark.'

As is clear from the translations, what is interpreted as Focus and the domain of 'even', respectively, is not the expletive but the clause itself. It is thus reasonable to suppose that at LF the clause is moved to adjoin, or into the position of, the expletive so that it might receive the appropriate reading.

The assumption of expletive–argument CHAINS in Hungarian may help us better understand the phenomenon called Focus-raising (cf. É. Kiss, 1981, 1987, 1990; Horvath, 1986; Marác, 1989; among others). This movement transformation raises a constituent from the embedded clause into the Focus slot of the matrix sentence, prohibiting the presence of the expletive.

- (106) a. *Anna* [_F *az-t_j*] *akarja* [_{CP} *hogy meg-látogat-s-am Péter-t_i*]
 Ann it-ACC wants that PV-visit-SUBJ-1SG Peter-ACC
 'What Ann wants is for me to visit Peter.'
 b. *Anna* [_F *Péter-t_i*] *akarja* (**azt*) [_{CP} *hogy meglátogassam e_i*]
 Ann Peter-ACC wants it-ACC that PV-visit-SUBJ-1SG
 'It is Peter that Ann wants me to visit.'

In addition, when an embedded subject moves into the matrix focus position, its nominative is changed to accusative, that is, it is assigned two cases.

- (107) a. *Anna* [_F *az-t_j*] *akarja* [_{CP} *hogy Péter meg-nyer-j-e*
 Ann it-ACC wants that Peter-NOM PV-win-SUBJ-3SG
a versenyt]_i
 the race-ACC
 'What Ann wants is for Peter to win the race.'
 b. *Anna* [_F *Péter-t_i*] *akarja* [_{CP} *hogy e_i meg-nyer-j-e*
 Ann Peter-ACC wants that PV-win-SUBJ-3SG
a versenyt]
 the race-ACC
 'It is Peter that Ann wants to win the race.'

Note that if the parameterized version of the visibility condition holds, the clauses in (106b) and (107b) will not be visible for θ -marking if they are not assigned case or they are not in a CHAIN with a case-marked expletive.

Solutions to the above problems, namely the absence of the expletive and the issue of case-switching in Hungarian, have been suggested on the example of Kayne's (1981) analysis of case-marking into the Spec of CP in French infinitival clauses, as shown by the moved WH-phrase in (108b).

- (108) a. **Je crois* [_{CP} [_{IP} *Jean être le plus intelligent*]]
 b. [_{CP} *Quel garçon_i* [_{IP} *crois-tu* [_{CP} *e_i* [_{IP} *e_i être le plus intelligent*]]]]]

É. Kiss (1985) and, following her analysis, Marác (1989) both argued that the raised item is assigned case in the Spec of CP in Hungarian too. Whether or not the Spec of CP can be case-marked through Spec–Head agreement, that is, through case-marking of the head of CP, or by some other means, direct case-marking of the CP (rather than its CHAIN) must be allowed. But then the question of why there must be expletives in Hungarian will be left without a plausible answer.

We suggest here that constituents are raised into the position of the expletive in the focus slot of the matrix clause. Suppose that there is Spec-to-Spec movement from the embedded Spec of CP to the matrix focus position (Spec of VP under the analysis followed in this book). The raised focus can then end up having two cases assigned to it: one originating in the lower clause, and, as a result of WH-movement, another inherited from the suppressed expletive whose position the moved constituent ultimately occupies in the matrix clause and whose case it transmits to the clause in order for the clause to be visible for θ -marking. Since the raised constituent is case-marked in the matrix clause, it is not possible for the expletive to show up or be spelled out.

This analysis also fits the data of WH-raising. There are two options available in Hungarian for the raising of WH-phrases.²⁶ One conforms with the properties of raising as discussed above, including case-switching and

wide scope assigned to the moved question-word, see (109a). The other, however, makes use of a dummy, expletive-like question-word *mit* 'what-ACC' in the matrix clause; it leaves the WH-phrase in the embedded clause but assigns matrix scope to it, see (109b).

- (109) a. *Ki-t_i gondolsz [(hogy) meg-látogas-s-unk e_i]*?
 who-ACC think-2SG that PV- visit-SUBJ-1PL
 'Who do you think we should visit?'
 b. *Mi-t gondolsz [(hogy) ki-t látogas-s-unk meg]*?
 what-ACC think-2SG that who-ACC visit-SUBJ-1PL PV
 'Who do you think we should visit?'

As is clear from the translation, which reflects the fact that the two questions (109a–b) are synonymous, the question word *kit* in (109b) must take scope over the matrix clause at LF. Consequently, on one theory of LF, to which we are not necessarily committed, it moves at LF into the position of the dummy question word *mit*, which is functioning here as the interrogative version of the expletive *az* 'it'.²⁷

A constituent can only move out of a clause which is L-marked by a matrix verb, that is, one that is properly governed by the verb. The moved constituent can land in the lower focus position on its way to the matrix clause, but this position can also be filled by material in the lower clause. Note that raising arguments over adjuncts, see (110a), gives better results than the reverse case, see (110b), even if adjuncts can be raised without difficulty from clauses without focus, see (110c)—a distribution of grammaticality comparable to English examples of *wh*-movement.²⁸

- (110) a. *Anna [F az autót_i] akarja [CP e_i hogy [F gyorsan_j]
 Ann the car-ACC wants that fast
 javít-s-am meg e_i e_j]
 repair-SUBJ-1SG PV
 'It is the car that Ann wants me to repair (and) FAST.'
 b. **Anna [F gyorsan_j] akarja [CP e_j hogy [F az autót_i] javítsam meg e_i
 e_j]
 'It is fast that Ann wants me to repair the CAR.'
 c. *Anna [F gyorsan_j] akarja [CP e_j hogy megjavítsam az autót e_j]
 'Ann wants me to repair the car FAST.'***

The lower focus position is not a necessary landing site for arguments, but if there is a focus in the lower clause, no adjunct can be raised across it into the matrix clause on account of an ECP violation. A constituent must move across Spec of CP or else (Ø-)subjacency is violated.

It follows that if a subject has been raised into the matrix focus of a verb that would otherwise assign accusative to the expletive, the raised focus is

also assigned accusative in the matrix clause, and since nominative is morphologically unmarked, the noun phrase will be morphologically marked for accusative, see (111a). In all these constructions, however, the moved constituent is ultimately assigned case in two distinct positions, even if the cases happen to be the same, as in (111b).²⁹

- (111) a. *Anna [F Péter-t_i] akarja e_i [CP e_i [C' hogy meg-nyer-j-e
 ACC
 Ann Peter-ACC wants that PV-win-SUBJ-3SG
 e_i a versenyt]
 NOM
 the race.ACC
 'It is Peter that Ann wants to win the race.'
 b. *Anna [F Pétert_i] akarja e_i [CP e_i [C' hogy meglátogassam e_i]
 ACC ACC
 'It's Peter that Ann wants me to visit.'**

Arguments from verbal morphology, frequent in the literature, are also used to support the view that moved items are case-marked by matrix predicates. As is well known, definite objects require the definite conjugation (DO), while indefinite objects require the indefinite conjugation (IO) on the verb. If the matrix verb case-marks the constituent raised out of the embedded clause, they will have to agree in terms of definiteness.

- (112) a. *Csak [F két dolgo-t_i] akar-ok/*om e_i
 only two things-ACC want-1SG-IO/1SG-DO
 [CP e_i [C' hogy [VP el-mond-j-ál e_i]
 that PV-say-SUBJ-2SG-IO
 'There's only two things that I want you to say.'
 b. *Csak [F ez-t_i] akar-om/*ok e_i
 only this-ACC want-1SG-DO/1SG-IO
 [CP e_i [C' hogy [VP el-mond-j-ad e_i]
 that PV-say-SUBJ-2SG-DO
 'It's only this that I want you to say.'**

It is worth noting here that focus raising is not restricted to object complement clauses of bridge verbs; it is also possible out of subject clauses of matrix predicative adjectives.

- (113) a. *Az fontos [hogy meglátogas-s-ad Emmát]
 it important that visit-SUBJ-2SG Emma-ACC
 'It is important for you to visit Emma.'
 b. *Emmát_i fontos (*az) [e_i hogy [meglátogassad e_i]
 'It's Emma that's important for you to visit.'**

While the approach outlined here can account for the obligatory absence of the expletive and case change of the moved item, it has no natural explanation to offer for the properties of conjugation in case oblique arguments or adjuncts are moved—in fact, no proposal to our knowledge has been successful in this respect. If an oblique noun phrase or an adjunct is raised, the matrix verb has definite conjugation, whether the phrase is definite or indefinite.

- (114) a. [_F *Két ember-rel_i*] *szeret-né-m* *e_i* [_{CP} *e_i* [_{C'} *hogy*
two men-INSTR like-would-1SG-DO that
[_{IP} *Péter találko-z-on* *e_i*]]]
Peter meet-SUBJ-3SG
'It's two men that I'd like Peter to meet (with).'
b.*[_F *Két ember-rel_i*] *szeret-né-k* *e_i* [_{CP} *e_i* [_{C'} *hogy*
like-would-1SG-IO
[_{IP} *Péter találko-z-on* *e_i*]]]
- (115) a. [_F *Holnap_i*] *szeret-né-m* *e_i* [_{CP} *e_i* [_{C'} *hogy*
tomorrow like-would-1SG-DO that
[_{IP} *Péter találko-z-on* *velem* *e_i*]]]
Peter meet-SUBJ-3SG with-me
'It's tomorrow that I'd like Peter to meet me.'
b.*[_F *Holnap_i*] *szeret-né-k* *e_i* [_{CP} *e_i* [_{C'} *hogy*
like-would-1SG-IO
[_{IP} *Péter találko-z-on* *velem* *e_i*]]]

Whereas it might be argued that the instrumental-marked focus in (114a) is a noun phrase and can be assigned an accusative, which then remains morphologically invisible, how an adjunct can be assigned case, as in (115a), and why the matrix verb has definite conjugation in both circumstances remain questions yet to be answered.³⁰

We return to some other aspects of expletive–clause constructions and of raised foci, such as the obligatory occurrence of the complementizer, in section 5.

3.3 Clauses in DPs

In line with Grimshaw's (1990) proposal for complex event and result nominals as applied to Hungarian by Szabolcsi (this volume), we recognize two types of head nominals that co-occur with embedded H-clauses. Recall that result (and simple event) nominals, as in (116a), are claimed to have no argument structure and to assign no thematic roles to their possessor DPs—they simply imply the existence of participants in the situation in their lexical conceptual structures. Complex event nominals, see (116b), on the other hand, retain the argument structure of the verb they are derived from

and assign a thematic role to the DP in the possessor slot, making it inaccessible for external arguments, such as the agent *Emma* in (116b).

- (116) a. [_{DP} [_{DP} *Az elmélet/Emma*] [_{NP} *cáfol-at- a*]] *sikeres volt*.
the theory/Emma-NOM refute-DEV-3SG successful was
'Emma's/The theory's refutation was successful.'
b. [_{DP} [_{DP} *Az elmélet/*Emma*] [_{NP} *meg-cáfol-ás- a*]] *sokáig tartott*.
PV- refute-DEV-3SG long lasted
'The refutation of the theory/*Emma took a long time.'

Result nominals can be complemented by H-clauses in two different structures, one containing the demonstrative *az* 'that' in the Spec of DP, see (117a), the other the expletive pronominal *az* 'it' in the (dative) possessor slot, that is, in the Spec of a DP of a different constitution, see (117b).

- (117) a. [_{DP} [_{DP} [_{SPEC} *Az-t*] [_{D'} *az érv-et*]]
that-ACC the argument-ACC
[_{CP} *hogy az elemzés hiányos*]] *ismer-jük*.
that the analysis deficient know-1PL
'We know the argument that the analysis is deficient.'
b. [_{DP} [_{DP} [_{SPEC} *An-nak_i*] [_{D'} *a* [_{NP} *e_i cáfol-at-á-t*]]]
it-DAT the refute-DEV-3SG-ACC
[_{CP} *hogy az elemzés hiányos_i*]] *ismer-jük*.
'We know the refutation of (the claim) that the theory is deficient.'

In (117a) the clause is a complement of the head nominal as determined by its lexical conceptual structure. In (117b), in turn, the clause is in a CHAIN with the expletive in the dative; thus it has the general thematic role assigned to the possessor in the DP and is interpreted as the theme of refutation as a result of the lexical conceptual structure of the nominal. We note here that, for reasons beyond our understanding, the expletive *az* cannot occur in the Spec of NP position, that is, in nominative case, in possessive DPs (similarly to all other, demonstrative or pronominal, uses of this word and its proximate counterpart *ez* 'this'), so it must be required to move from the NP into the position it occupies in (117b).³¹

Complex event nominals can also contain an H-clause in an expression similar to the one in (117b).

- (118) [_{DP} [_{DP} [_{SPEC} *An-nak_i*] [_{D'} *a* [_{NP} *e_i meg-cáfol-ás- á- t*]]]
it- DAT the PV- refute-DEV-3SG-ACC
[_{CP} *hogy az elemzés hiányos_i*]] *követt-ük*.
that the analysis deficient followed-1PL
'We followed the refutation of (the claim) that the analysis is deficient.'

While the H-clause could of course be generated in the possessor DP slot in the NP together with the expletive—just as in the case of result nominals above—we might consider another option as well. The argument for analyzing *az* as an expletive relied, among other things, on the observation that certain predicates can only have sentential complements. If there are event nominals whose only argument is an H-clause, we will have to reconsider the structure in (118). Szabolcsi's (this volume) *való*-test, which is based on the generalization that whenever *való* is not the only option, the choice of *való* in prenominal adjectivalized constructions invokes the event reading, can be used to show that not all derived nominals can have a DP possessor.³²

- (119) a. [DP [DP *annak_i* [az *előadás közben -i/való*] *állít-ás-a*]
 it-DAT the lecture during I/VALÓ assert-DEV-3SG
 [CP *hogy az elemzés helyes*]]
 that the analysis correct
 'the assertion during the lecture (of the claim) that the analysis was correct'
- b. [DP [DP *az elemzés helyesség-é-nek*]
 the analysis-NOM correctness-3SG-DAT
 [az *előadás közben -i/*való*] *állítása*
 'the assertion during the lecture of the correctness of the analysis']

The choice between the two adjectivalizers *-i* and *való* is free in (119a), which shows that the nominal could be interpreted as either referring to a complex event or as expressing the result of asserting, an act/instance of assertion. In (119b), in turn, *való* is not possible, so if the possessor is filled by a DP, only the result nominal can occur. Consequently, the H-clause in the complex event nominal reading of (119a) cannot be generated in the DP Spec position of the possessive noun phrase, but only as a sentential argument of the head nominal.³³

Another piece of possible evidence for clausal arguments of the nominal comes from the order of constituents. In result nominals, see (120a), but not in complex event nominals, see (120b–c), the H-clause can occur adjacent to the expletive.

- (120) a. [DP [DP *Annak* [CP *hogy az elemzés helyes*]] a *cáfolata*]
 it-DAT that the analysis correct the refutation
 érdektelen.
 irrelevant
 'The refutation of (the claim) that the analysis is correct is irrelevant.'
- b.*[DP [DP *Annak* [CP *hogy az elemzés helyes*]] a *megcáfolása*]
 sokáig tartott.
 long lasted

- c. [DP *Annak_i* a *megcáfolása*] *sokáig tartott* [CP *hogy az elemzés helyes*]_{*i*}
 'The refutation of (the claim) that the analysis is correct lasted long.'

The idea that event nominals can have clausal arguments, as suggested here, is called into question by the fact that it is precisely the verbs requiring exclusively clausal complements that cannot be nominalized, cf. *képzél* 'imagine', **annak képzélése, hogy . . .* 'the imagining of it that . . .'; *mond* 'say', **annak mondása, hogy . . .* 'the saying of it that . . .'; and other examples. If the argument structure of the verb is preserved in derived complex event nominals, one may wonder why exactly these verbs do not nominalize at all. The direction in which a possible solution can be sought is determined by Anna Szabolcsi's observation (this volume) that only perfective verbs can undergo event nominalizations and *képzelés* or *mondás* are imperfective in contrast with their perfective counterparts *el-képzelés* 'imagining' or *ki-mondás* 'saying'.

Whether or not the nominal has clausal arguments, that is, whether or not the H-clause is generated in complex event nominals adjacent to the head noun or in a possessor DP together with the expletive, the relationship between the pronominal *az* and the clause is not in doubt; it is the details of the analysis that are the subject of future research.

3.4. Summary

Unlike relative clauses, the subtypes of *hogy*-clauses were distinguished at first blush not according to the properties of their heads but whether they are arguments or adjuncts. Argument clauses were then discussed with respect to the structures they are embedded in. Oblique pronominal heads were shown to behave differently from pronominal heads having structural cases, since the latter, but not the former, can regularly undergo pro-drop. It was claimed that H-clauses cannot be case-marked and that at least a number of verbs are subcategorized for clauses rather than noun phrases. Consequently, it was contended that both kinds of alleged heads are best analyzed as expletives coindexed with the θ -marked argument clause.

It follows that the clause is interpreted at logical form according to the position the expletive occupies at S-structure in agreement with the principles of grammar and native speakers' intuition. Some of the problems of focus-raising, notably that of multiple case-marking, are also afforded a new account in this analysis, relying on requirements of visibility, though there still remain interesting problems for further research.

Clauses within noun phrases were also claimed to be either adjuncts or arguments. Argument clauses in DPs occur in complex event nominals and

observe the visibility condition by being coindexed with a dative-marked expletive in the Spec of DP (i.e. possessor) position.

4. THE POSITIONS OF EMBEDDED CLAUSES IN THE MATRIX SENTENCE

This section is concerned with two questions: (a) the positions in the matrix sentence in which an embedded clause can occur, and (b) the positions and forms of the expletive *az*. As is well known, the order of constituents in the Hungarian sentence is not rigid, and even clauses can freely move around. On the other hand, whether the expletive is overt or covert depends not only on its own position but also on that of the clause it is associated with. That is why these two issues are discussed concurrently below.

This section provides further support for the expletive–argument analysis of H-clauses. We argue that the expletive occupies the position at the level of S-structure in which the clause is interpreted in logical form—in conformity with the general properties of expletive–argument chains. The issue of why embedded clauses cannot be focused in Hungarian has been left unsolved thus far. The proposal outlined here relies on arguments from prosodic phonology: we suggest that the principle of strict hierarchy is violated if an embedded clause is focused.

4.1. Possible Clause Positions

A clause that is adjacent to its head (or expletive) can occur in more positions than clauses without head expressions or expletives (called INDEPENDENT CLAUSES for short here), which cannot be placed in a nonfinal post-verbal position in the matrix sentence. Their usual position is staked out at either edge, adjoined to IP.

First, relative clauses together with their head expressions are illustrated in (121), (a) in topic, (b) in a quantifier, and (c) postverbally but not finally.

- (121) a. [*Az a diák [aki ismeri Pétert]] tegnap érkezett meg.*
 that the student who knows Peter-ACC yesterday arrived pv
 ‘The student who knows Peter arrived yesterday.’
 b. *Még [az a diák is [aki ismeri Pétert]] tegnap érkezett meg.*
 even also
 ‘Even the student who knows Peter arrived yesterday.’

- c. *Megérkezett [az a diák [aki ismeri Pétert]] tegnap.*
 arrived that the student who knows Peter-ACC yesterday
 ‘The student who knows Peter did arrive yesterday.’

Since H-clauses show the same behavior, they will not be illustrated. Note that (121c) is better with the clause in final position, but it is not at all unacceptable as is.

Independent clauses can also occur among topicalized phrases, but when postverbally placed, they must be final. [Only grammatical examples are illustrated below. Note that *is* ‘also’ cannot cliticize onto clauses, which is why independent clauses cannot be illustrated in a position followed by *is*, cf. (121b)].

- (122) a. *Emmának [hogy ismertem Pétert] nem mondtam meg.*
 Emma-DAT that knew-1SG Peter-ACC not said-1SG pv
 ‘I didn’t tell Emma that I had known Peter.’
 b. *Nem mondtam meg Emmának [hogy ismertem Pétert]*
 ‘idem’

As regards coreference relations, argument and VP-adjunct clauses on the left periphery at S-structure must be reconstructed to account for binding principle violations, see also (82)–(83), since the subject must be able to c-command (the R-expression in) the clause, as seen in (123a–b).

- (123) a. *_[IP] [*Hogy a fiúk_i betegek voltak*] [_{VP} *tudták ő_k/pro_i e_j*]
 that the boys_i sick were knew they
 ‘That the boys_i were sick they_i knew.’
 b. *_[IP] [*Aki a fiúkat látta*] [_{VP} *ismerték ő_k/pro_i e_j*]
 who the boys-ACC saw knew they
 ‘They_i knew (the one) who saw the boys_i.’

4.2. The Role of Expletives

As was stated above, independent clauses cannot occur in all the positions in the Hungarian sentence available for (other) maximal projections. In particular, clauses are prevented from moving into the quantifier field, which is, in descriptive terms, a set of positions starting from the rightmost phrase in the topic and ending in front of the finite verb. This field can contain ‘even’-phrases, negative polarity items, universal quantifiers, focused constituents, and WH-phrases. Moreover, while some embedded clauses can be placed into (some of) these positions if their heads are adjacent, they cannot occur in the focus position even if this condition is fulfilled.

In all these cases, when the position of the embedded clause (with or without the head or expletive) results in decreased acceptability or outright

ungrammaticality, the lexical/pronominal head or the expletive alone is perfectly acceptable.

- (124) a. *Még azt_i is csak Péter tudta* [_{CP} *hogy az elemzés helyes*]_i
 even it-ACC also only Peter knew that the analysis correct
 'Only Peter knew that the analysis was correct.'
 b. *Péter* [_{DP} *mindent e_i*] *tudott* [_{CP} *ami az elemzésre*
 Peter everything-ACC knew what the analysis-SUBL
vonatkozott]_i
 related
 'Peter knew everything that was related to the analysis.'
 c. *Péter csak azt_i tudta* [_{CP} *hogy az elemzés helyes*]_i
 Peter only it-ACC knew that the analysis correct
 'Peter knew only that the analysis was correct.'

The examples in (124) illustrate (a) an 'even' quantifier phrase, (b) a universal quantifier, and (c) focus. If a relative clause is, in effect, extraposed, as in (124b), its trace shows its original position in the DP for purposes of LF-interpretation. If, however, an expletive is in a CHAIN with an H-clause, as in (124a, c), there is no trace into which to reconstruct the clause at LF.

Chomsky (1986b, 1989) suggests that expletive-argument CHAINS, such as those in (125), have a specific function in logical form.

- (125) a. *There_i is a unicorn_i in the garden.*
 b. *It_i was decided* [*that John would leave*]_i

Since the expletive is referentially empty, it cannot receive an interpretation as required by the principle of full interpretation. The argument with which it forms a CHAIN is then adjoined to the expletive at LF and it is the argument that receives the requisite LF-interpretation.

This analysis of expletives in English can be directly applied to the Hungarian examples. Rather than being required by the extended projection principle to fill in for an empty subject, expletives in Hungarian can occur in quantifier field or topic positions where clauses are blocked or have decreased acceptability. Chomsky's proposal raises the clause at LF into the position of the expletive, in effect. That entails that the clause receives the quantifier interpretation that would otherwise have to be assigned to the expletive, which for reasons due to the principle of full interpretation cannot receive a quantifier (or in fact any) interpretation.

That is in perfect correspondence with our intuition of the relevant Hungarian structures: (124a) is understood as if the clause itself were quantified by 'even', and (124c) has the reading in which the clause is focused. We consider this as independent evidence for considering the pronominal *az* an expletive.

4.3. Expletives and Pronominals

When the expletive is adjacent to the clause, they can occur in any position where the clause is otherwise allowed. As was argued above, the expletive that is in CHAIN with an extraposed clause can also occur in any syntactic position. When, however, the expletive follows a clause placed initially in the matrix sentence, not all logically possible versions prove acceptable.

- (126) a. [*Hogy Emma megérkezett*] *azt Ervin tudta.*
 that Emma arrived it-ACC Ervin knew
 'That Emma had arrived, Ervin knew.'
 b. [*Hogy Emma megérkezett*] *azt is tudta Ervin.*
 also
 'That Emma had arrived, Ervin knew even that.'
 c. [*Hogy Emma megérkezett*] *Ervin csak azt tudta.*
 only
 'That Emma had arrived, Ervin knew only that.'
 d.*[*Hogy Emma megérkezett*] *Ervin tudta azt.*
 e. [*Hogy Emma megérkezett*] *Ervin tudta.*
 'That Emma had arrived, Ervin knew.'

In (126a) the expletive is in topic, in (126b) in the scope of 'even' in the quantifier field, and in (126c) in focus. In (126d) the postverbal expletive is ungrammatical, while in (126e) there is no (overt) expletive in the structure, and the sentence is perfectly acceptable. It is this distribution of the expletive to which we devote the present section.

To simplify matters somewhat, we might say that if the clause is placed initially in the matrix sentence, the expletive associated with it can occur in its overt form only to the left of the verb; it is forbidden in postverbal positions. This generalization would, however, be premature.

First of all, the structure [XP . . . pronominal], where the pronominal refers back to the XP, is a familiar construction known as Left Dislocation, and frequently discussed in recent work by É. Kiss (1981, 1987, this volume).

- (127) a. *Emmát* [*azt/őt ismeri Ervin*]
 Emma-ACC that/she-ACC knows Ervin
 'Emma, Ervin knows her.'
 b. *Emmát* [*azt/őt is ismeri Ervin*]
 'Emma, Ervin knows even her.'
 c. *Emmát* [*csak azt/őt ismeri Ervin*]
 'Emma, Ervin knows only her.'
 d.**Emmát* [*ismeri Ervin azt/őt*]

The distribution of grammaticality is the same as in the above case of dislocation of H-clause: the coreferential pronominal (whether the 'neuter' *az* or the 'human' *ő*) cannot occur postverbally.

This phenomenon is not restricted to pronominals coreferentially related to dislocated phrases. The pronominal *az* is also used in referring back to clauses when it is in preverbal positions, see (128a); it cannot, however, appear postverbally, see (128b).

- (128) a. *Lehet [hogy győzől] de azt még nem tud-hat-od.*
 may-be that win-2SG but that-ACC yet not know-may-2SG
 'May be you'll win, but you can't know it as yet.'
 b. *Lehet [hogy győzől] de még nem tud-hat-od (*azt).*

It is self-evident to assume that whenever the pronominal is placed postverbally, it undergoes pro-drop. Evidence for this view can be gained from oblique pronominals used in the same context of back-reference.

- (129) a. *Lehet [hogy győzől] de abban/*benne sose lehetsz biztos.*
 may-be that win-2SG but that-/ it-INE never be-may-2SG sure
 'May be you'll win but you can never be sure of it.'
 b. *Lehet [hogy győzől] de sose lehetsz biztos *abban/benne.*
 'idem'

What we see in (129) is the distribution of the demonstrative versus personal pronominal forms of the pronominal expression used for coreference: while in preverbal positions only the demonstrative version can be used, to the right of the verb there can be but the case-marked form of the personal pronoun *ő*, that is, the inflected case-marker, as is the case in Hungarian (and other Uralic languages), which in this instance is *benn-e* 'INE-3SG = in him/her/it'. Note that just as the personal pronoun can be used to refer back to nonhuman antecedents, the demonstrative can also be applied as coreferential with human antecedents.³⁴

If the personal pronominal form has to be used postverbally, then the obligatory omission of the pronoun in (126d-e), (127d), and (128b) can easily be accounted for. Whereas in oblique cases the choice is between the demonstrative and the personal pronominal forms, in the two structural cases nominative and accusative the choice seems to be between an overt and a pro-dropped form, which is as expected, since on the one hand Hungarian is a pro-drop language and, on the other, the overt nominative and accusative forms of the personal pronoun can only refer to a human antecedent. In other words, the choice in (126d-e), (127d), and (128b) corresponding to the alternatives *abban* 'in that' and *benne* 'in it' in (129a-b) is between an overt *az(t)* 'that-(ACC)' and a pro-dropped phonetically null \emptyset 'it-NOM/ACC'. Thus (126e) is represented more accurately in (130).

- (130) [*Hogy Emma megérkezett*] *Ervin tudta* pro-ACC.
 that Emma arrived Ervin knew
 'That Emma had arrived, Ervin knew (it).'

In contrast with the expletive, which always c-commands the clause it is coindexed with, it follows from the above analysis that the coreferential pronominal (whether overt or not) is a full-blooded pronoun falling under the binding principle. Moreover, the initial H-clause in a Left-Dislocated position can be shown to be outside the binding domain of the instrumental argument of the matrix sentence, see (131a), unlike argument clauses that are simply preposed into topic position, see (131b).³⁵

- (131) a. [*Hogy Emma_i mikor kerül sorra_j*] [*nem közöltem vele_i* pro_j]
 that Emma when comes-to-turn not told-1SG she-INSTR
 'When it was to be Emma's turn, I didn't tell her.'
 b. ?**Azt [hogy Emma_i mikor kerül sorra] nem közöltem vele_i*
 'I didn't tell her when it was to be Emma's turn.'

Recall that clauses supposed to be generated in the VP are reconstructed at LF for purposes of interpretation with respect to the binding principle. Consequently, in (131b) the clause is c-commanded by the instrumental pronominal and binding principle C rules out coreferential interpretation. In (131a), in turn, the clause must be generated as adjoined to IP and is not in any way part of the matrix clause, so it cannot be reconstructed, and in the matrix clause itself there is a pronominal referring to the H-clause in Left Dislocation. It follows that the pronoun case-marked for the instrumental can be coreferent with the R-expression in the initial H-clause since it is free in its local domain and, on the other hand, it does not bind the R-expression *Emma* in the H-clause.

We conclude at this point that whenever the clause is Left-Dislocated, there is no expletive in the matrix sentence. Instead, coreferential (case-marked) pronominals occupy the relevant positions, overt preverbally and phonetically null postverbally. But that does not mean that whenever there is no overt *az* in the matrix sentence, we have to do with a coreferentially used personal pronominal. We now turn to the cases in which the expletive is pro-dropped.

As reported in the literature, expletives can be pro-dropped under certain conditions (cf., e.g., Rizzi, 1986). Since Hungarian is a pro-drop language and the expletive is formally identical with one of the pronominals that can be dropped, the expectation is that the expletive itself can be dropped. The most probable single condition of pro-drop in Hungarian is that pro must be governed by AGR, that is, AGRs or AGRo, since only subject and object pros can be dropped. The evidence supporting expletive pro-drop is not difficult to come by.

First, subjects of weather verbs are obligatorily omitted.

- (132) a. (*Az) villám- l- ik.
 it lightning-AFF_V-3SG
 'Lightning(s) strike(s).'
 b. (*Az) be-este-led-ett.
 it PV-evening-AFF_V-PAST-3SG
 'It has become dark/evening.'

Second, weather verbs can appear only in non-finite clauses which allow for case-marking, that is, in which subjects are in a governed position. This serves to prove that the subject of weather verbs is not PRO but pro.

- (133) a. *[Emma a városba érkez-ve] (ő) dolgozni kezdett.
 Emma-NOM the city-ILL arrive-PRT1 she work-INF began-3SG
 'Having arrived in the city, Emma started to work.'
 b. [PRO A városba érkezve] Emma dolgozni kezdett.
 'Having arrived in the city, Emma started to work.'
 c. [Emmal/pro a városba érkez-vén] Ervin dolgozni kezdett.
 arrive-PRT2
 '(With Emma) having arrived in the city, Ervin started to work.'

The first type of participial (PRT1) clause in (133a–b) does not tolerate nominative (or in fact, any overt) subjects, so the phonetically null subject possible here must be PRO. The second type of participial clause (PRT2), however, allows both a nominative subject or no overt subject; consequently the omission is due to pro-drop. Below we have replaced the verbs of full thematic grids in (133) with weather verbs.³⁶

- (134) a. *[PRO Be-este- led- ve] villámlani kezdett.
 PV-evening-AFF_V-PRT1 lightning-strike-INF began
 b. [pro Beesteled-vén] villámlani kezdett.
 '(With) evening having fallen, lightning began to strike.'

Third, if a verb that has accusative case-marking potential and has a complement (i.e. argument) clause without an overt expletive, as in (135a), carries the definite object agreement affix (DO), there must be a definite object the verb (or the AGRO) governs; otherwise the affix could not occur, see (135b), in which the verb has an infinitival clause complement—without definite object agreement.

- (135) a. Ti tud- já- tok pro [hogy Emma megérkezett]
 you know-DO-2PL that Emma arrived
 'You know that Emma has arrived.'
 b. Ti tud- tok úsz- ni.
 you know-2PL swim-INF
 'You can swim.'

In contrast with the obligatory omission of the (nonthematic) expletive in the subject of weather verbs, pro-drop of the subject expletive is optional with H-clauses, as is the case with subject or object pro-drop in general in Hungarian: pronominals are required to be overt if there is some logical (focus, quantifier) or communicative (topic) function to be carried by them, which crucially requires that they be stressed. [Capitals in (136b) and (137b) signal focus stress.]

- (136) a. Bűnös volt-ál pro.
 guilty were-2SG
 'You were guilty.'
 b. TE voltál bűnös.
 'It was you that was guilty.'
 (137) a. Szomorú volt pro [hogy Emma megérkezett]
 sad was that Emma arrived
 'It was sad that Emma had arrived.'
 b. AZ volt szomorú [hogy Emma megérkezett]
 'What was sad was that Emma had arrived.'

Finally, the behavior of the nominative and accusative expletive is closely matched by that of expletives in oblique cases. Just like coreferential pronominals, expletives can also have a postverbal personal pronominal version.³⁷

- (138) a. Nem foglalkozt-unk azzal/vele [hogy Emma megérkezett]
 not dealt- 2PL that-/it-INST that Emma arrived
 'We didn't deal with Emma's arrival.'
 b. Fél- ek attól/tőle [hogy Emma megérkezik]
 fear-1SG that-/it-ABL that Emma arrives
 'I'm afraid that Emma will arrive.'

The fact that the personal pronominal forms cannot occur preverbally, see (139), makes it possible for us to extrapolate the behavior of pro and claim that the equivalent pro-dropped forms of the expletive in nominative or accusative cannot be positioned preverbally either, see (140a–b), which differ from (135a) and (137a), respectively, only in that pro has been preposed.

- (139) a. Azzal/*vele nem foglalkozt-unk [hogy Emma megérkezett]
 b. Attól/*tőle fél-ek [hogy Emma megérkezik]
 (140) a. *pro Ti tudjátok [hogy Emma megérkezett]
 you know-2PL that Emma arrived
 b. *pro Szomorú [hogy Emma megérkezett]
 sad that Emma arrived

In conclusion, the forms of the expletive were shown to vary according to its position in the sentence, and also depending on the case assigned to it. Expletives in nominative and accusative can be dropped, which mirrors the behavior of personal pronouns, or pronominals in general. Expletives in oblique cases can change into the corresponding case-marked pronominal forms.

4.4. On the Prohibition Against Clauses in Focus

The prohibition against clauses in focus is a peculiarity of Hungarian sentence structure that was first noted by É. Kiss (1981). That it is exceptional, even mysterious to some extent, follows from the general properties of the focus position and those of expletive-clause CHAINS.

As is well known, the focus position in a Hungarian sentence can be filled by a single constituent, or more precisely, a single maximal projection. If any maximal projection is free to move into the focus slot, we would expect embedded clauses also to occur in this position, whether as CPs, see (141a), or as constituents of some other category, such as complement clauses, as in (141b), or relative clauses in noun phrases, see (142a–b). That, however, is not the case. (The intended focus is indicated by a subscript F at the end of the constituent.)

- (141) a. **Ervin csak* [_{CP} *hogy Emma megérkezett*]_F *tudta*.
 Ervin only that Emma arrived knew
 b. **Ervin csak* [_{DP} *azt a tényt* [_{CP} *hogy Emma megérkezett*]]_F
 that-ACC the fact-ACC
 tudta.
 ‘It’s only the fact that Emma had arrived that Ervin knew.’
 c. **Ervin csak* [_{DP} *azt_i* [_{CP} *hogy Emma megérkezett*]]_F *tudta*.
 d. *Ervin csak* [_{DP} *azt_i*]_F *tudta* [_{CP} *hogy Emma megérkezett*]_i
 ‘What Ervin knew was only that Emma had arrived.’
- (142) a. **Ervin csak* [_{DP} *azt* [_{CP} *aki tegnap érkezett*]]_F *látta*.
 Ervin only that-ACC who yesterday arrived saw
 b. **Ervin csak* [_{DP} *pro* [_{CP} *aki tegnap érkezett*]]_F *látta*.
 c. *Ervin csak* [_{DP} *azt* CP]_F *látta* [_{CP} *aki tegnap érkezett*]_i
 ‘Ervin saw only the one who arrived yesterday.’

Under the analysis presented in sections 2 and 3, H-clauses are generated in expletive–argument CHAINS and it would be tempting to account for the ill-formedness of (141c) by claiming that the pronominal *az* cannot be generated in a single constituent with the H-clause. However, as seen in all the other ungrammatical examples in (141)–(142), all the unchallenged

single constituents are just as unacceptable in focus—provided they contain clauses.

Based on the relationship between the clauses and the heads, we might try to derive the ungrammaticality from the fact that (at least some of) the clauses are adjoined to their heads, as in (141b) and (142a–b).³⁸ Then, for reasons related to the interaction between extraposition and focus (cf. Guéron, 1980, and, for a more current analysis, Rochemont and Culicover, 1991), adjunction structures would be forbidden in focus. The structure in (141a), however, in which only the clause is focused, would still remain unaccounted for. Suppose we propose that in (141a) the clause is focused not by itself but together with its invisible expletive *pro*, which is blocked preverbally, as was argued in the previous section. Even if that is a possible explanation for one type of ungrammaticality, it does not stand closer scrutiny since the H-clause must be allowed to move into the focus slot on its own, leaving its expletive *pro* in a postverbal position, as it were. The H-clause is a single maximal projection and there is no logical or semantic reason why it could not be focused.

In fact, our problems are apparently aggravated by the analysis that was suggested in the previous section. If expletive–argument CHAINS undergo argument raising at LF and the clause is adjoined to (or substitutes for) the expletive to receive the appropriate interpretation, which is for focus in the cases discussed here, clauses simply cannot, by some putative general constraint, be prevented from moving into the focus slot.

Since we seem to have exhausted all our syntactic options, and we cannot invoke semantic constraints, it is possible that the prohibition of focusing clauses can be accounted for by phonological restrictions. We will not go into greater detail of our proposal, based on recent work in prosodic phonology.³⁹ We assume that a focused item forms a phonological phrase (PPh) with any material to its right, up to the next item that has unreduced stress or the end of the clause, reducing the stress by one level of each item in the PPh. (Stress levels are indicated at the beginning of the words by ["] for unreduced or full stress and by ['] for reduced stress; unstressed words are unmarked. Note that Hungarian has invariable word-initial stress.)

- (143) a. [_{IP} [_{PP} *Tegnap*] [_{DP} *Péter*] [_V *látta*] [_{DP} *Máriát*] [_{DP} *a boltban*]]
 yesterday Peter saw Maria-ACC the shop-INE
 ‘Yesterday Peter saw Maria in the shop.’
 b. [_{PPh} "*Tegnap*] [_{PPh} "*Péter*] [_{PPh} "*látta*] [_{PPh} "*Máriát*] [_{PPh} *a boltban*]
- (144) a. [_{IP} [_{PP} *Tegnap*] [_{DP} *Péter*] [_V *látta*] [_{DP} *Máriát*] [_{DP} *a boltban*]]
 + f

- b. [P_{Ph} "Tegnap] [P_{Ph} "Péter látta 'Máriát a 'boltban]
+f

'It was Peter that saw Maria in the shop yesterday.'

Phonological phrases are formed, in effect, of each daughter constituent of IP and VP in a neutral sentence, that is, in which no constituent is marked for focus by some diacritic +f, as illustrated in (143a–b). If, however, some constituent occupies the focus position, it will be obligatorily marked for prosodic focus and will be in a single PPh with any (prosodic) constituents that follow it until the end of the clause or another focused constituent is reached, cf. (144a–b).⁴⁰

Clauses placed in the focus position will then be blocked for reasons arising from the requirements of prosodic phonology. If an embedded clause is focused, the resulting prosodic structure will contradict the principles of prosodic phonology, which demand that constituents be arranged in a strict hierarchy, that they not be nested into one another, and that constituents of different levels not co-occur alongside one another. But tensed clauses are, by definition, of a prosodic level higher than PPhs: they constitute Intonational Phrases (IPh). Consequently, the prosodic representation of a sentence containing a focused embedded clause, such as (141a), whose syntactic structure is given in (145a), should assume the impossible form in (145b).

- (145) a. [IP *Ervin csak* [CP *hogy Emma megérkezett*]_F *tudta*]
+f

Ervin only that Emma arrived knew

- b. *[P_{Ph} "Ervin] [P_{Ph} [IPh [P_{Ph} *csak hogy "Emma*] [P_{Ph} "megérkezett]]
tudta]

It follows that all examples of sentential embedding in focus are blocked by the same principle of the strict hierarchy of prosodic constituents.

Note that it is of course possible for there to be more than one IPh in a single sentence; the focus position, however, is one which has to form a PHONOLOGICAL PHRASE with the material following it, and an intervening INTONATIONAL PHRASE clearly violates the strict hierarchy principle.⁴¹

4.5. Summary

In this section an overview of possible matrix clause positions of embedded sentences was given. Then, following the expletive–argument analysis proposed in section 3, it was demonstrated how in each case the clause is interpreted according to the S-structure position of the expletive. A pronominal associated with an embedded clause was shown to be expletive

only if it precedes and c-commands the clause. When the reverse is the case, that is, if the clause precedes, and sometimes c-commands, the pronoun, it is a case of coreferential interpretation. In other words, clauses are not preposed but are generated in left-dislocated positions and are coreferentially related to pronominals in the matrix clause.

The conditions of occurrence of the phonetically empty form of the expletive were related to the general properties of pro-drop in Hungarian: expletive subjects of weather verbs are obligatorily suppressed, and the expletives associated with clausal arguments are pro-dropped if they have no logical or communicative functions, that is, when they are not topics or parts of quantified expressions. We also pointed out an analogy between nominative–accusative expletive pro-drop and the demonstrative/personal pronoun alternation in oblique expletives, supporting our position. Throughout, we rejected a position that would analyze clauses with an overt pronominal head as constituting a single DP and those without one as independent H-clauses, whether arising through tree-pruning or generated as such.

We believe ourselves to have made significant progress in accounting for the impossibility of focusing clauses. Since it cannot be derived from either syntactic or semantic principles, an explanation based on prosodic phonology was attempted, which requires that phonological constituents be in strict hierarchy. It was demonstrated that if a clause is focused, structures violating the strict hierarchy requirement are generated.

5. MISCELLANEOUS ISSUES IN EMBEDDING

5.1. Omission of the Complementizer

The complementizer *hogy* can be deleted under two different kinds of circumstance: (1) when the deletion is triggered from outside the clause, and (2) when the internal structure of the clause makes the absence of *hogy* possible.

5.1.1. EXTERNAL CONDITIONS OF *hogy*-DELETION

By EXTERNAL CONDITIONS we understand the circumstances that characterize the environment of the embedded sentence. It seems 'that'-deletion can be simply derived from the general empty category principle (146), as proposed by Stowell (1981).

- (146) Empty categories must be properly governed.

(147) a. Proper government:⁴²

A properly governs *B* iff *A* θ -governs, case-marks, or antecedent-governs *B*.

b. θ -government:

A θ -governs *B* iff *A* and *B* are sisters and *A* is a zero-level category which θ -marks *B*.

Stowell argues that if an XP is properly governed, then so is its head, and *that* is the head of the clause. He notes that the complementizer *that* can be omitted following VERBS OF SAYING, such as *know*, *think*, or *say*, but not if verbs of a different kind precede it, e.g. *mutter*, *sigh*, *whisper*, *shout*, *murmur*, and so on. This state of affairs is due to the lack of θ -marking of the clause by verbs of the latter set, which then cannot properly govern the embedded sentence. Verbs of this second class are called MANNER OF SPEAKING VERBS. In addition to preventing the deletion of the complementizer, they also block the preposing of the embedded clause since they cannot θ -mark and thus properly govern (the trace of) the clause.

(148) a. *Ben already knew [(that) the teacher was lying]*

b. [*That the teacher was lying*]_i *Ben already knew e_i*

(149) a. *Bill muttered [* (that) the teacher was lying]*

b. * [*That the teacher was lying*] *Bill muttered*

Stowell's condition is well attested in Hungarian: no manner of speaking verb allows the deletion of the lower complementizer.⁴³

(150) *Benő azt motyogta [(hogy) a tanár hazudott]*

Ben it-ACC muttered that the teacher lied

'Ben muttered that the teacher was lying.'

The preposing test, however, seems to break down in this language, where a case-marked expletive shows that the clause is assigned a θ -role.

(151) [*Hogy a tanár hazudott*] *azt Benő_F motyogta.*

'It was Ben that muttered that the teacher was lying.'

Instead of the preposing test, there is another means by which manner of speaking verbs can be differentiated from verbs of saying. Only manner of speaking verbs allow for a choice between the definite (DO) and the indefinite conjugation (IO) if accompanied by H-clauses, see (152b-c); verbs of saying must take the definite conjugation, as in (152a).

(152) a. *Benő azt állított-al/ *állított-Ø [(hogy) a tanár hazudott]*

Ben it-ACC claimed-DO/ claim-IO that the teacher lied

'Ben claimed that the teacher was lying.'

b. *Benő azt motyogt- a [(hogy) a tanár hazudott]*

it-ACC muttered-DO

'Ben muttered that the teacher was lying.'

c. *Benő motyogott-Ø [(hogy) a tanár hazudott]*

muttered- IO

'idem'

When the verb has indefinite conjugation, it can assign no case to an expletive, so the clause is not visible for θ -marking. Therefore, the clause must be an adjunct licensed by the lexical conceptual structure of the verb. Moreover, the clause cannot be preposed either, see (153). This is the configuration analogous to the English example in (149), since only a verb in indefinite conjugation can be said to have no argument clause.

(153) * [*Hogy a tanár hazudott*] *Benő motyogott.*

Instead of the two-way distinction in English, Hungarian has a three-way differentiation: (a) verbs of saying behave as predicted: since they C-select for clausal complements, they can directly θ -mark them, making it possible for the complementizer to delete; (b) manner of speaking verbs may have noun phrase complements which can consist of an expletive-argument CHAIN of the form V [_{DP} expletive-CP], but the verb cannot directly θ -mark the clause, and therefore the complementizer cannot delete; finally, (c) manner of speaking verbs may have VP-adjunct complement clauses, frozen in their adjoined positions since their trace cannot be governed.⁴⁴

It is of course not sufficient to show that the CP containing *hogy* can be properly governed at some level of structure. We know that proper government of the trace of the clause in English does not license the deletion of the complementizer [cf., e.g., (148b)]. Similarly in Hungarian, the complementizer of a moved (i.e. preposed or extraposed) clausal argument of a verb of saying cannot be deleted either. It is the lack of proper government of the clause by the verb at S-structure that blocks the deletion of the complementizer whenever the embedded clause is moved from its original position, that is, adjoined to VP or IP. As is expected, the constraint in (146) must hold for S-structure. There are, however, a few observations that are worth noticing.

First of all, it is somewhat surprising to see that verbs that would be classified as regular verbs of saying do not allow the omission of the embedded complementizer. (Stress indications as in section 4.4, but given for matrix clauses only.)

(154) a. "*Azt hiszem [(hogy) az akku kimerült]*"

it-ACC believe-1SG that the battery went-dead

'I think (that) the battery is dead.'

- b. *A "srácok "azt tervezik [(hogy) Olaszországba mennek]*
 the kids it-ACC plan that Italy-ILL go-3PL
 'The kids are planning to go to Italy.'
- (155) a. *"Azt "tudom [* (hogy) az akku kimerült]*
 it-ACC know-1SG
 'I know (that) the battery's dead.'
- b. *A "srácok "azt "kétlik [* (hogy) Olaszországba mennek]*
 it-ACC doubt
 'The kids doubt (that) they'll go to Italy.'

The difference can be traced back to the behavior of the verbs with respect to focusing. Verbs of the first set, illustrated in (154), are stress-avoiding as specified by Komlósy (this volume), and the matrix sentences are neutral in that there is no focused constituent in them. The verbs in (155), however, are of the class that must be stressed; consequently they must occur in focused sentences, and in the stress patterns given, the verbs themselves must be focused.

As was said before, it is not sufficient for the verb to govern the trace of the moved clause in order that the complementizer could be deleted; the verb must be a sister of the clause at S-structure (or if one follows the proposals for flat, non-configurational structures, the verb must be adjacent to the clause). But in (155) the clause cannot be said to have moved, so it must be the verb that is separated from the clause by some focusing operation, such as movement into a functional category, as suggested by Brody (1990), Horvath (to appear), Kenesei (1992), or Piñón (1992).

That focusing in general, and focus-raising in particular, affects the deletability of the complementizer has often been observed in the literature (cf., e.g., É. Kiss, 1987, Marác, 1989), and is illustrated in (156).

- (156) a. *"Azt "én akarom [* (hogy) Ervin beszél-j- en]*
 it-ACC I-NOM want-1SG that Ervin speak-SUBJ-3SG
 'It is me that want Ervin to speak.'
- b. *"Én "Ervin-t_i akarom [* (hogy) e_i beszél-j- en]*
 I Ervin-ACC want-1SG that speak-SUBJ-3SG
 'It is Ervin that I want to speak.'

The fact that focusing in the matrix clause blocks the deletion of the embedded complementizer gives further support to the proposals cited in the paragraph above, which account for focusing by obligatory movement of the verb into the head of a higher functional projection. Since the details of this analysis fall outside the scope of the present discussion, we refer the reader to the literature cited above.

A proposal along similar lines can be put forward to account for the impossibility of *hogy*-deletion in the clausal complements of non-finite forms of verbs that would not otherwise block this operation.⁴⁵

- (157) a. *Butaság volt [azt hin- ni [* (hogy) az akku kimerült]]*
 silliness was it-ACC believe-INF that the battery went-dead
 'It was a silly thing to believe (that) the battery was dead.'
- b. *[Azt gondol-va [* (hogy) Olaszországba mennek]]*
 it-ACC think- PRT that Italy-ILL go-3PL
Emma bérbeadta a házat.
 Emma rented the house-ACC
 'Thinking (that) they'd go to Italy, Emma rented out the house.'

Again, particulars of the analysis of non-finites would lead us too far afield here.

Since the deletion of *hogy* is a function of proper government by VERBS, complement clauses of nouns—whether arguments of complex event nominals, see (158a), or just participants in the lexical conceptual structure of other nouns, see (158b)—cannot have their complementizers deleted. Although adjectives can assign θ -roles, because of the specification mentioning verbs in (146), the complementizer of their complement clauses cannot be deleted either, see (158c–d).

- (158) a. *an-nak az állít- ás- a [* (hogy) az elemzés helyes]*
 it-DAT the assert-DEV-3SG that the analysis correct
 'the assertion of (the claim) that the analysis is correct'
- b. *az az állít- ás [* (hogy) az elemzés helyes]*
 that the assert-DEV
 'the assertion that the analysis is correct'
- c. *Érdekes (volt) pro [* (hogy) az akku kimerült]*
 interesting was that the battery went-dead
 'It is/was interesting that the battery was dead.'
- d. *Az volt érdekes [* (hogy) az akku kimerült]*
 it was
 'What was interesting is that the battery was dead.'

5.1.2. INTERNAL CONDITIONS OF *hogy*-DELETION

All constraints prohibiting *hogy*-deletion can be bypassed by a simple condition: if the clause is interrogative, *hogy* can be omitted without respect to whatever may require its presence from outside the clause. (Q indicates the question clitic.)

- (159) a. *Csak Emma_F tudja* [(hogy) miért merült ki az akku]
 only Emma knows that why went-dead the battery
 'Only Emma knows why the battery is dead.'
 b. [(Hogy) miért merült ki az akku] *csak Emma_F tudja*
 'Why the battery is dead, only Emma knows.'
 c. *Kíváncsi vagyok* [(hogy) kimerült- e az akku]
 curious am that went-dead-Q the battery
 'I'm curious whether the battery is dead.'
 d. *A kérdést* [(hogy) kimerült- e az akku] *megválaszolta.*
 the question-ACC that went-dead-Q the battery answered-3SG
 'He answered the question whether the battery was dead.'

The following configurations are illustrated in (159): (a) focused matrix sentence, (b) preposed clause, (c) complement clause of an adjective, and (d) noun complement clause. And in all of these environments, which would in general block *hogy*-deletion, the complementizer can be freely dispensed with. We assume here that the +WH feature of the complementizers of question clauses is responsible for the option of a non-overt complementizer in these structures. (For more on embedded questions, see section 5.2.)

Another, fairly predictable, configuration for *hogy*-deletion arises in the case of multiple complementizers. When, in separate clauses, more than one Comp is lined up in the sentence, one of them can be omitted, and it is always the one that is semantically more vacuous, namely *hogy*.

- (160) a. *Biztosak vagyunk benne* [(hogy) [akár győzünk, akár nem]
 certain-PL are-1PL it-INE that whether win-1PL or not
izgalmas verseny lesz
 exciting contest will-be
 'We are certain that, whether or not we'll win, it will be an exciting contest.'
 b. *Emma felismerte* [(hogy) [ha Ervin nem érkezik meg]
 Emma recognized that if Ervin not arrives PV
bajban leszünk
 trouble-INE will-be-1PL
 'Emma has recognized that if Ervin does not come we'll be in trouble.'

Note that Szabolcsi (this volume) invokes a similar rule of haplology to rid DPs of multiple articles, that is, heads of DPs.

The last condition to be discussed here that allows 'that'-deletion is a function of the modality of the embedded sentence. The verb forms constructed with the affix *-j* were classified under IMPERATIVE in the Hungarian linguistic tradition. Since, however, Pataki (1976) pointed out interesting

distinctions, it has been customary to make reference to another mood, the SUBJUNCTIVE, which, crucially, does not reverse the order of the preverb and the verb, see (161), as the imperative does, see (162).⁴⁶

- (161) a. *Nem szükséges* [**(hogy) el-men-j-en Emma*]
 not necessary that away-go-J-3SG Emma
 'It isn't necessary that Emma go away.'
 b. **Nem szükséges* [(hogy) *men-j-en el Emma*]
 (162) a. *Azt ajánlom* [(hogy) *vizsgál-j-uk meg az ügyet*]
 it-ACC suggest-1SG that examine-J-1PL PV the matter-ACC
 'I suggest that we examine the matter.'
 b. *Azt ajánlom* [**(hogy) meg-vizsgál-j-uk az ügyet*]
 c. *Azt ajánlom* [**(hogy) ma_F vizsgál-j-uk meg az ügyet*]
 today
 'I suggest that we examine the matter TODAY.'

The choice of the mood of the embedded sentence is clearly a function of the matrix predicate. The distribution of grammaticality in (162) induces us to claim that *hogy* becomes covert in the imperative clauses only if the verb is in clause-initial position. Then it may well be that *hogy* is not deleted, but the V + I moves into the position of the next higher functional head, that of the complementizer. That is why *hogy* is absent only if the PV + verb sequence is in inverted order and if there is no constituent to the left of the verb.

5.2. Embedded Questions

Main clause questions in Hungarian do not necessarily differ from non-interrogatives in their word order: WH-questions have a WH-phrase in them, while yes/no questions have a characteristic rising-falling intonation pattern assigned to the last two syllables of the matrix sentence, without regard to where, for instance, focus may fall, or whether the pitch change happens to be placed on constituents of a clause embedded in the matrix question.

Embedded WH-questions closely mimic matrix interrogatives; embedded alternative questions, in turn, must be marked by the question clitic *-e* 'whether'. While the WH-phrase must occupy the focus slot, the question particle has to be cliticized onto the verb. The properties of the question clitic can be reviewed as follows.

1. The clitic and WH-phrases are in complementary distribution, possibly for the same semantic reasons that make an alternative and a WH-question incompatible within the same clause in any language.

- (163) a. *Nem tudom* [*Emma megérkezik-e*]
 not know-1SG Emma comes-Q
 'I don't know whether Emma will come.'
 b. *Nem tudom* [*Emma mikor érkezik meg*]
 when
 'I don't know when Emma will come.'
 c. **Nem tudom* [*Emma mikor érkezik-e meg*]
 '*I don't know whether (it is true or not) when Emma will come.'

2. While its occurrence in a matrix clause is not prohibited, the clitic is obligatory in embedded clauses only. (In its absence the matrix clause has a characteristic rising-falling intonation pattern; if it is present, the intonation is falling, as in WH-questions.)

- (164) a. *Megérkezett (-e) Emma?*
 'Has Emma come?'
 b. *Nem tudom* [*Emma megérkezik *(-e)*]

3. In contrast to WH-phrases, the question clitic can occur only in tensed clauses.

- (165) a. *A milyen virágot szerető embereket szeretné látni?*
 the what flower-ACC liking people-ACC like-CND-2SG see-INF
 'People who like what flowers would you like to see?'
 b. **A virágot szerető-e emberekkel akarsz találkozni?*
 the flower-ACC liking-Q people-INS want-2SG meet-INF
 (166) a. *Ervin nem tud* [*hová menni*]
 Ervin not knows where go-INF
 'Ervin doesn't know where to go.'
 b. **Ervin nem tud* [*menni-e (vagy nem menni)*]
 go-INF-Q or not go-INF
 'Ervin doesn't know whether to go or not to go.'
 c. *Ervin nem tudja, (hogy) men-j-en-e vagy ne (menjen).*
 Ervin not knows-DO that go-SUBJ-3SG-Q or not
 'Ervin doesn't know whether he should go or not.'

The Hungarian clitic *-e* resembles interrogative particles in other Uralic or Altaic languages, though it differs, for example, from Finnish *-KO* or Turkish *MI* in that the latter can cliticize onto categories other than the verb, specifically onto focussed items, which is not possible for the Hungarian clitic, see (167a).⁴⁷

- (167) a. **Ervin azt kérdezte* [*hogy Emma-e érkezett meg*]
 Ervin it-ACC asked that Emma-Q arrived PV

- b. *Ervin azt kérdezte* [*hogy Emma_F érkezett-e meg*]
 'Ervin asked if it was Emma that arrived.'

As (167b) shows, focusing in embedded questions is possible, but it is not different from what we have seen in noninterrogative clauses.

4. Finally, as was mentioned in the previous section, the complementizer *hogy* can be omitted along with the question clitic, just as in embedded WH-questions.

Since the question particle is usually enclitic to the inflected verb, we relate it to INFL (or its equivalent in Hungarian) in the following fashion. Every interrogative clause is marked for +WH in its complementizer, and the feature is licensed either by a WH-phrase or by a question clitic in Comp. The clitic then has to move down onto an appropriate head node, specifically, onto V+I. (In reference to traces, *t* is used below in place of the more customary symbol *e*, in order to avoid confusion with the question clitic *-e*.)

- (168) [_{CP} [_C *t_i*] [_{IP} *Emma* [_{I'} *megérkezik_j -e_i* [_{VP} . . . *t_j* . . .]]]]
 Emma arrives Q
 '. . . whether Emma arrives'

The inflected verb together with the clitic moves back into the position of the clitic in Comp at LF to erase the trace of the clitic and take scope over the clause.

The arguments supporting the claim that the question clitic is generated in Comp are mostly indirect. First of all, in an earlier period of Hungarian it was possible to use a question complementizer *ha* 'if', which invariably occurred in initial position.⁴⁸

- (169) a. *lássuk meg, ha megmíveli vagy sem*
 see-SUBJ-1PL PV if cultivate-3SG-DO or not
 'let us see whether he cultivates it or not'
 b. *nem tudom, ha holnapra tartják*
 not know-1SG if tomorrow hold-3PL
 'I don't know whether they hold it till tomorrow'

Secondly, in SOV languages the regular position of the question complementizer is clause-final, consider the 'neutral' question in Turkish.

- (170) *Kitapları aldın mı?*
 books-PL-ACC bought Q
 'Did you buy the books?'

In the Ob-Ugric languages related to Hungarian, which have retained SOV order throughout, that is still the position of the question particle. But even

in 15th-century Hungarian the most frequent position of the clitic was final, though the language had long ceased to have an SOV order.

- (171) a. *Nemde három férfiakat, megbéklyóztattak, eresztettek*
 not-yes three men-ACC chained-PL-ACC drove-3PL
a tűz közepébe-e
 the fire's middle-ILL-Q
 'Did they drive three chained men into the middle of the fire?'
 b. . . . *ismerted a parancsolatokat-e?*
 knew-2SG the commandments-ACC-Q
 'Did you know the commandments?'

Since Hungarian is no longer a strict SOV language and it has initial complementizers, the question clitic may have changed positions following the complementizer, as data illustrating its transitory position on some constituent between the verb and the end of the sentence indicate in Simonyi (1882).

The examples above do not support the assumption that the question particle is a clause type/mood indicator in line with Bhatt and Yoon's (1992) proposal (cf. Szabolcsi's, this volume, and also section 2.5.4 above). Under this analysis it would be generated as the head of the MP, which is arguably identical with the VP, containing the inflected verb, that is, (V + I)P, or IP in Hungarian, since that is where WH-phrases are placed at S-structure. Alternatively, it could be generated in TenseP, according to É. Kiss (this volume).

Whether the clitic is generated in Infl or Tense, it cannot be a head. But it can be shown to undergo head-movement in a well-known (though not widely endorsed) dialect, in which if there is a head category to the left of the inflected verb, it can host the question clitic—in fact, it has to.

- (172) a. . . . *Emma* [_{PV} *el-e*] *ment*
 Emma away-Q went
 'whether Emma went away.'
 b. . . . *Emma* [_{Neg} *nem-e*] *ment el*
 not
 'whether Emma didn't go away'
 c. . . . [_{Neg} *nem-e*] *Emma*_F *ment el*
 'whether it wasn't Emma that went away'

If the clitic is generated in Infl, there is no reason for it to move onto the next higher head. However, if it is generated in Comp, it can undergo head-movement and can cliticize onto the next highest category, the head of NegP or the preverb.⁴⁹

If we assume that the clitic is the head of a CP marked for +WH, it is also easier to account for why its occurrence is optional in main clause

questions. Note that Radford (1988) lists a large number of languages (including German, Persian, Irish, and Old English) in which the question complementizer optionally occurs in matrix clauses, which suggests that Hungarian can be classified with these languages. In this respect, it is the unrestricted omission of *hogy* in question clauses rather than its optional occurrence that is regarded as the crucial factor. However, this latter property of *hogy*, which is common to embedded alternative and WH-questions, is not accounted for under this analysis.

6. SUMMARY

A discussion of subordination or embedded clauses, especially in one language only, is not a frequent topic in theoretical linguistics, and understandably so. In this field of study, as in other disciplines, research concentrates on finding general principles rather than describing properties of a single language. But this enterprise can also be interesting, so long as it provides enough food for theoretical thought.

We set out to achieve a felicitous compromise in this chapter between description and theory: giving an overview of the relevant constructions as well as trying to outline the problems and dilemmas, or to propose analyses wherever possible.

We now recapitulate some of the most important points discussed here. In distinguishing the types of embedded clauses we made use of binding theory; it was suggested that it might serve as a valuable device in analyzing syntactic hierarchies.

Among the subtypes of relative clauses, free relatives were paid the most attention: the fact that they are sentential, yet they have a different dominating phrase node, is apparently a violation of the principles of the X-bar module. We adopted a two-pronged approach: one subclass of free relatives was argued to have an empty category, specifically, a pro in its head; another has the relative WH-phrase (interpreted as a quantifier) in that position with an empty operator binding the WH-trace in the relative clause itself.

The crucial problem we addressed in discussing relative clauses with lexical expressions in their heads was the status of the demonstrative. It was claimed that they are (case-marked) DPs in the Spec of the DP containing the relative clause.

New evidence from a so far unanalyzed comparative construction as well as from the history of Hungarian was invoked in order that a more precise analysis could be put forward for the position of the relative pronoun. In conclusion, the relative WH-phrase, unlike in most languages discussed in

the literature, was shown not to be in the Spec of CP, but in an (IP) adjunct position immediately to the right of the Complementizer.

Hungarian 'that'-clauses, or *hogy*-clauses, are apparently always accompanied by the pronominal *az* 'it'. It was argued that this dummy word has the same function as expletives in other languages: it can be case-marked so the clause could be visible for thematic role assignment, although differences between the behavior of English and Hungarian clauses vis-à-vis case-marking were also noted.

In accordance with the analysis of expletive–argument constructions, it was suggested that if a constituent is raised from the embedded clause into the matrix focus, it has to move into the empty position of the expletive in the matrix focus, and it is assigned (accusative) case by the matrix verb that governs the clause. The absence of the expletive in focus raising is then accounted for by identifying the position of the raised item with that of the expletive.

Following Szabolcsi's analysis of DPs, we assumed that it is possible for a DP to contain an expletive, contrary to the case in English, for well-motivated reasons: complex event nominals have an argument structure, and if argument clauses have to be visible in Hungarian, they must be associated with a case-marked expletive, which in argument-taking nominals is in the Spec of DP position.

The discussion of the possible positions of clauses in matrix sentences also draws on properties of expletives, namely, that the argument moves at LF into the position of the referentially empty, and therefore uninterpretable, expletive. This assumption will extend over clauses that cannot be focused in S-structure—for phonological reasons, as was argued here. These clauses, however, can be moved into focus at LF, giving the required interpretation.

The omission of the expletive was related to the general behavior of pronominals: they can either take personal pronominal forms or be dropped in postverbal, but not in preverbal, ones.

Finally, two specific problems were addressed. The account of the omission of the complementizer *hogy* drew on Stowell's (1981) requirement of proper government of the embedded clause by the matrix verb. It was then argued that the question clitic is generated in the head of CP and moves by head movement onto intervening heads (in some dialects) or the head of IP (in all).

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NOTES

¹Some conjunctions are placed within the clause, usually following the first syntactic constituent.

- (i) *Süt a nap, a szél azonban nem fúj.*
shines the sun the wind however not blows
'The sun is shining; the wind, however, is not blowing.'

²See, for example, Chomsky (1981, 1986b). Terms are used in their customary senses. Anaphors are reflexives and reciprocals, R-expressions are referential NPs, including quantifiers and their traces.

The governing category for some item *A* is the minimal domain containing *A*, its governor, and an accessible subject or SUBJECT.

A binds *B* iff *A* c-commands and is coindexed with *B*.

³Note that if pronominals, rather than epithets, were used, (15b) would be grammatical and we would be left without a further option to distinguish between embedded clauses.

⁴We will use this structure in reference to Hungarian relative clauses for the time being. Note, however, that in section 2.5 a different analysis is put forward for the position of the relative WH-phrase in Hungarian.

⁵Note that the gloss for (23a) is somewhat misleading: *amilyen* 'what' is unquestionably an adjective here, unlike English *what*.

⁶The distinction between \pm -specific is corroborated by the choice of relative pronouns along with quantified heads.

- (i) *minden/ valami [amit/*amelyet olvasott]*
 everything/something what/ which-ACC he-read
 'everything/something that he read'

⁷Compare Szabolcsi's (this volume) discussion of 'definiteness effect verbs', and also (i)–(ii).

- (i) *Ella megtalált(-a) (*)egy kutyát/olajat/a választ.*
 Ella PERF-found-DO a dog/ oil/ the answer-ACC
- (ii) *Ella talált(*-a) egy kutyát/olajat/*a választ.*
 'Ella has found a dog/ oil/ the answer.'

Note that a *dog* can be either specific or nonspecific in Hungarian, too.

⁸DO stands for 'definite/objective conjugation', IO for 'indefinite/objectless conjugation'.

⁹Note that we contend here that the free relative clause (37) is not derived from or related to the pronominal-headed one in (26a), in which the relative pronoun is indeed within the embedded clause.

The S-structure (37b) can be derived from (37a) by CP extraposition—unless postpositional constructions are reanalyzed as case-marked expressions, an option we are unable to pursue here, but see Kenesei (1993a).

¹⁰The word *wherever* is somewhat misleading as a translation for the quantifier sense, compare *Few people have been to wherever the aardvark lives*, in which it has referential use: '... to the place where the aardvark lives, wherever it is.' *Anywhere* is impossible in this context: **Few people have been to anywhere where the aardvark lives*.

¹¹This proposal does not extend to structures like (37), compare also (39b), which have no quantificational interpretation. But these sentences have paraphrases in *that* clauses introduced by expletives.

- (i) [_{PP} *Az-óta* [_{CP} *hogy Kati megérkezett*]] *megváltozott*
 it-since that Cathy arrived changed
 'Cathy has changed since she arrived.'

Quantificational interpretation is unavailable for (i), and such paraphrases are not possible for quantificational relative clauses, as is clear from the discussion.

¹²The reduplication of the postposition in constructions containing the demonstrative is an intriguing feature of Hungarian PPs, especially in the context of arguments for or against treating them as case suffixes, see note 9.

¹³This observation is called into question by structures reported by É. Kiss (personal communication), such as (i), which is claimed to show that everything between the quantifier and the verb forms a single constituent in focus. Even focusing operators like *csak* 'only' can precede the dative possessor, as in (ii).

- (i) *Mindenki [Elek-nek ezt az új könyvét] olvassa.*
 everyone Alec-DAT this-ACC the new book-3SG-ACC reads
 'It's this NEW book of Alec's that everyone's reading.'
- (ii) *Mindenki csak [Eleknek ezt az új könyvét] olvassa.*
- (iii) *Mindenki Eleknek_i csak [_{DP} ezt az _{e_i} új könyvét] olvassa.*
 'It's only this new book of Alec's that everyone's reading.'

Since *csak* can follow the possessor in (iii), demarcating the focused constituent from the left, and the dative possessor can never follow the demonstrative, we propose that the dative possessor is moved and adjoined to the DP in (i)–(ii).

¹⁴The examples in (59) are from Chaucer: (59a) from the *Treatise of the Astrolobe*, (59b) from the Squire's Tale, *Canterbury Tales*. The original source of (60a–d) are given in Radford (1988) as Bayer (1984, 24), Taraldsen (1978, 631), den Besten (1978, 647), and Lefebvre (1979, 80), respectively, while the examples in (61) are from Radford (1988, 500).

¹⁵The word (or morpheme) *az/a-* in relative pronouns is also derived from the demonstrative *az* 'that', which forms a single word of relative pronouns, as in *a-ki* 'that-who'. Before the rise of the compound forms, relative WH-phrases were identical with interrogative ones, for example *ki* 'who'. Note that although relative pro-forms prefixed with *az/a-* are more frequent than those without it, the latter are by no means rare or unacceptable even in present-day Hungarian.

¹⁶CP* is the topmost CP, headed by Comp. The lower CPs are recursive adjunction structures for topicalized and focused phrases, cf. Marác (1989, 35ff., 332ff.).

¹⁷*Mi-vel* is literally 'what-INSTR, with what', and *mert* is derived from *mi-ért* 'what-TRANSL, for what (reason)'; both are homonymous with the corresponding relative pro-forms.

¹⁸As regards the origins of *mint*, it is related to the homonymous interrogative and relative WH-word *mint* 'how' and is also derived from *mi* 'what'.

¹⁹Examples in (71) are from Klemm (1928, 520, 551). Note that (71b) is rather archaic. The item in the middle, *sem* 'neither', is a result of the merger *is* 'also' + *nem* 'not', generally a process of head movement and cliticization.

There is also a combination of *mint* + *ha* 'as if' into a single complementizer, not illustrated here.

²⁰Representative examples below are from early 16th century Hungarian. Sources: Simonyi (1882) and Galambos (1907).

²¹Cf. Galambos (1907, 14ff.). Note that the argument from the history of Hungarian parallels the one from Middle English applied in Chomsky and Lasnik (1977).

²²For more examples of the allegedly nonstandard, though widely used, type of (77d) and a statistical analysis, see Kontra (1992) and the references therein. To be sure, (77d) itself is from a prestigious daily.

²³For a different argument to the same effect, see Áfarli (1988), who proposes to link the expletive to the external argument of the passive verb, leaving the clausal complements of these verbs without a CHAIN, namely, case.

For a proposal concerning the case-marking potential of Comp in infinitival clauses, see Kenesei (1993b).

²⁴This accounts for their occurrence (infrequent, marked, and even idiosyncratic though it may be) in complement positions to verbs and prepositions, see Postal and Pullum (1988), from which (i)–(ii) are taken.

(i) *They never mentioned it to the candidate that the job was poorly paid*

(ii) *You may depend upon it that we won't abandon him*

For a counterargument, see Authier (1991).

²⁵The deletion of pro is allegedly allowed due to its recoverability from verbal inflection. But this amounts to mingling issues relating to the justification of pro-drop with those of deletion: pro-drop itself is possible because of the properties of verbal inflection.

²⁶See É. Kiss (1987) and Marác (1987), both drawing on Kenesei (1982).

²⁷The fact has gone unnoticed that in focused expletive clause constructions the same LF-movement (or equivalent scope assignment) of embedded focus has to take place to account for the wide scope of the embedded focus, compare (i) with (107a).

(i) *Anna* [_F *azt*] *akarja* [_{CP} *hogy* [_F *Péter*] *nyer-j-e* *meg a versenyt*]
Ann it-ACC wants that Peter win-SUBJ-3SG PV the race-ACC
'It is Peter that Ann wants to win the race.'

Note that the movement of embedded foci at LF does not observe Subjacency, analogously with WH-movement in languages without overt WH-movement, such as Chinese or Japanese, and with LF-focus movement in English.

(ii) *Jane reads books that criticize JACK.*

(iii) *Anna* [*AZOKAT a könyveket*] *olvassa* [*amelyek PÁLT bírálják*]
Anna those the books-ACC reads which Paul-ACC criticize
'The *x* that Anna reads books that criticize *x* is Paul.'

For more on this issue, see Kenesei (to appear).

²⁸For example, compare ?*Which_i man do you wonder when_j to meet e_i e_j?* with ?**When_i do you wonder which man_j to meet e_j e_i?*

²⁹Recall that when the possessor in possessive noun phrases moves into the Spec of DP, it is also assigned a case different from the nominative it receives in the

Spec of NP, as seen in Szabolcsi (this volume). That is another obvious, though also somewhat mysterious, instance of double case-marking in this language.

³⁰Note also that if antecedent government is not necessary, as in the raising of arguments, their movement into and, consequently, their case-marking in Spec of CP cannot be guaranteed.

Chomsky's (1992) extension of his (1989) and Pollock's (1989) discussions of the role of functional categories to AGRO, on the one hand, and the requirement of feature-checking, on the other, could offer a better answer to the problems discussed here. It could spell out the Spec of AGROp as an expletive whenever the verb has a clausal complement, and it is this position through which raised foci could move into the Spec of TP, a possible terminal for Focus-movement, see (i)–(ii).

(i) . . . [_{AGRS'} AGRs [_{TP} *az-t_k* [_{T'} *V_i-AGRO_j-T*] [_{AGROp} *e_k* [_{AGRO'} [_{AGRO} *e_j* [_{VP} . . . [_V *e_j*] CP_{*j*}]]]]]]

(ii) . . . [_{AGRS'} AGRs [_{TP} *XP_k* [_{T'} [*V_i-AGRO_j-T*] [_{AGROp} *e_k* [_{AGRO'} [_{AGRO} *e_j* [_{VP} . . . [_V *e_j*] CP . . . *e_k* . . .]]]]]]]]

Under this analysis, movement cannot terminate in Spec of AGROp because the +F feature of focused items, which they are freely assigned, must be checked in the Spec of TP, while movement of the verbal complex V-AGRO-T is relegated to LF in line with the suggestions in Chomsky (1992). However, the question of why matrix predicates are marked for definite conjugation when adjuncts or oblique NPs are raised is still left without an obvious answer. For more on the syntax of focus, see Kenesei (to appear).

É. Kiss's proposal (1987, personal communication 1992) to allow the verb to agree with a clause marked [+specific] is in conflict with her claim (cf. section 3.2) that clauses are adjuncts and cannot be case-marked. It would also run into the problems posed by the projection principle as discussed in the section referred to.

³¹Anna Szabolcsi (personal communication, 1986) has called my attention to the even more mysterious observation that if *az* and *ez* are in the plural, they are acceptable as nominative possessors.

(i) **az/ ez kalap-j-a*
that/this-NOM hat-POSS-3SG

(ii) *an- nak/en- nek a kalapja*
that-DAT/this-DAT
'the hat of this/that (one)'

(iii) *az- ok/ez- ek kalapja*
that-PL/ this-PL
'the hat of these/those (ones)'

³²In evaluating the grammaticality judgments of these and the following sentences in this section much care has to be exercised. First of all, speakers who do not find the *való*-test discriminating will be unable to distinguish between the relevant structures. Second, the speakers who regard the examples to differ in

grammaticality may only agree in relative degrees of acceptability, rather than some absolute measure.

³³For an additional set of examples tested with native speakers, consider structures (i)–(iv), in which *való* is regularly judged to be more grammatical.

- (i) **A vádlott bűnösségének egy éven belüli kijelentése (nem lehetséges.)*
the accused's guiltiness's one year within assertion not possible
- (ii) *A vádlott bűnösségének egy éven belül való kijelentése*
'The assertion of the guilt of the accused within one year (is not possible)'
- (iii) **Annak az egy éven belüli kijelentése, hogy a vádlott bűnös*
its the one year within assertion that the accused guilty
- (iv) *Annak az egy éven belül való kijelentése, hogy a vádlott bűnös (nem lehetséges.)*
'The assertion within a year (of it) that the accused is guilty (is not possible.)'

³⁴See Pléh and Radics (1978) for examples like (i).

- (i) *Emma_i üdvözölte Ervint_p, de az_j*_i nem válaszolt.*
Emma greeted Ervin-ACC but that not replied
'Emma greeted Ervin but he didn't reply.'

³⁵Judgments are precarious in these examples, and the differences in grammaticality may be minute at first sight; however, they are systematic and across the board.

³⁶I owe these examples to András Komlósy (personal communication). It follows from these observations that if nominative is a function of AGRs, PRT2 forms are AGR-marked—contrary to accepted wisdom.

Note that owing to the extended projection principle, weather verbs, too, must have subjects.

³⁷Recall that oblique personal pronouns are formed of the case suffix and the appropriate agreement marker placed as if it were a possessive affix, as in *vel-e* 'INST-3SG; with-it'.

³⁸Note that a different kind of construction is also prohibited from being focused: nominals with case-marked complements. According to Grimshaw's (1990) theory, the case-marked DPs following the nominals are not arguments of the head but complements made available by lexical-conceptual structures.

- (i) **Ervin-t [DP a várakozás Emmá-ra]_F idegesítette.*
Ervin-ACC the wait Emma-SUBL upset
'It was the wait for Emma that upset Ervin.'

³⁹Cf. Nespore and Vogel (1986), Vogel and Kenesei (1987), Kenesei and Vogel (to appear). For a more thorough presentation, see Kenesei (1993a).

⁴⁰For the PPh formation rule and for additional evidence for the PPh in Hungarian, see the literature cited in the previous note.

⁴¹In the few cases where a focused clause (always a free relative) is acceptable, there seems to be a reinterpretation of prosodic constituency.

- (i) *Csak [DP [CP aki-nek van pénz-e]] me-het a Kaszinóba*
only who-DAT is money-3SG go-may the Casino-ILL

- (ii) [_{IPh} [_{PPh} *Csak aki-nek "van pénz-e me-het a 'Kaszinóba]]*
'Only whoever has money can go to the Casino.'

⁴²After Chomsky (1986a), but omitting the definitions of case-marking and antecedent government, which are irrelevant in the present context.

⁴³Note that here and throughout we disregard the stylistic device of using quotations in place of *hogy*-clauses, showing apparent similarity to the effects of *hogy*-deletion.

⁴⁴Adjunct H-clauses are a highly interesting topic, also in relation to verbs whose oblique expletive is missing.

- (i) *Ervin elámult (azon) [hogy Emma időben érkezett]*
Ervin was-amazed it-SUPER that Emma in-time arrived
'Ervin was amazed (at it) that Emma had come in time.'

Note that such expletives cannot be pro-dropped on account of recoverability. Preposing is of course out of the question if the expletive is absent. For these and other related observations, see Kenesei (1993a).

⁴⁵It seems that the deletion of *hogy* in the complement of an infinitive is unacceptable for all dialects. As regards participial matrix verbs, there is a greater variation of judgment. It may well be the case that verb-raising into participial INFL applies in some dialects, while others lower the INFL onto the verb.

⁴⁶Independent of the requirements of subjunctive, focusing is of course possible in the clause in (162b), also entailing the reversed order of the preverb and the verb.

- (i) *Nem szükséges [*(hogy) Emma_F men-j-en el]*
'It isn't necessary for EMMA to go away.'

For one group of speakers, focusing in the embedded clause, see (162c), renders *hogy*-deletion possible. It certainly shows the close relationship between subjunctive and the complementizer, but I have no plausible account.

⁴⁷See the Finnish example in (i) (see Karlsson, 1983; Vainikka, 1989, among others) and the Turkish construction in (ii), see Underhill (1976).

- (i) *Leena kysyi [että Jukka-ko hattunsa oli hukkanut]*
Leena asked that Jukka-Q hat-ACC-3SG had lost
'Leena asked if it was Jukka that had lost his hat.'
- (ii) *Kitapları sen mi aldın?*
book-PL-ACC you Q bought-2SG
'Was it you that bought the books?'

I was informed by Sándor Mokány (personal communication) that there may be dialects of Hungarian which allow the question clitic on maximal projections, a claim I have been unable to substantiate. Note, however, that some dialects are known to permit XP-clitic strings in one type of echo question.

- (iii) *Emma érkezett meg. —Emma-e?*
Emma arrived pv Emma-Q
'It's Emma that's come. —Is it Emma indeed?'

⁴⁸Examples are from Simonyi (1883, 134ff.). Spelling is modernized.

⁴⁹Note that whatever the category of the preverb may be, it is different from other so-called reduced or incorporated complements, since the latter cannot host the clitic.

- (i) **Emma könyvet- e olvas*
Emma book-ACC-Q reads
'whether Emma is reading books?'
- (ii) **Emma moziba- e ment*
Emma cinema-ILL-Q went
'whether Emma went to the movies?'

COORDINATION

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1. INTRODUCTION

Coordinated DPs and VPs in Hungarian exhibit the well-known universal properties of coordination. According to the coordinate structure constraint (see Matthews, 1981), only constituents belonging to the same category can be conjoined (DP + DP), (V + V), (VM + VM), (ADV + ADV); other combinations result in ill-formed constructions *(DP + V), *(VM + ADV), *(DP + ADV). (See Sag, Gazdar, Wasow, and Weisler, 1985, for a sophisticated analysis of data like [NP and AP]). Only verbs that are assumed to have the same thematic structure (i.e., the same θ -roles are played by the arguments) can be conjoined.

The coordinated structure constitutes ONE constituent in the sentence, and the syntactic category of the whole coordinate structure is identical with the major syntactic categories forming the coordinate structure. Bloomfield's classical distributional approach is true for Hungarian coordinative constructions: they are a kind of ENDOCENTRIC structure; the coordinate phrase belongs to the same form-class as its two or more immediate constituents. In the enumerations containing three or more members, there is one coordinate CONJUNCTION before the last coordinated constituent.

The number of members of a coordinate structure is not restricted by the grammatical rules in Hungarian, so that coordinate structures are MULTIPLE-HEADED (a universal property). In Hungarian coordinated sentences, the binary and the n -ary conjunctions (Dik, 1968) may occur. Typically, the