THE NOUN PHRASE

Anna Szabolcsi

Department of Linguistics
University of California
Los Angeles, California 90024

INTRODUCTION

This chapter consists of two parts. The first part discusses the global structure of the Hungarian noun phrase, with specific reference to the behavior of possessors and determiners. The second part is concerned with arguments and adjuncts of derived nominals. The discussion centers around the following main claims.

1. There is a detailed parallelism between the structures of noun phrases (DPs) and clauses (CPs), involving inflection, possessor extraction, and articles as complementizers.
2. *Have*-sentences are existential sentences involving possessor extraction.
3. The argument frame of complex event nominals is identical to that of the underlying verb.
4. The deverbal affix in nominals may have either a plain verb or a complex verb in its scope.

There are many important topics concerning the noun phrase that are not touched on here. In some cases the reason is that another chapter of this volume discusses them. In particular, noun phrase internal subordinate clauses as well as demonstratives are discussed by Kenesei, adjectival modification and participial constructions by Komlósy, and coordination by Bánréti.

In this section I review some of the core data discussed in the chapter and informally outline the hypotheses used to account for them. The analyses were first presented in Szabolcsi (1981, 1986a) and in Szabolcsi and Laczkó (1992). The theoretical framework of Chomsky (1981) forms the general background of the detailed discussion; one significant exception, as explained in section 3, is that I adopt the more articulated clausal structure proposed in Chomsky (1986). When I make use of further theoretical assumptions, I mention their sources.

As is typical of SOV languages, simple noun phrases exhibit a determiner–numeral–adjective–noun–case marker order (the noun is not marked as plural in the presence of a numeral).

(1)   *a   két   fekete kalap-ot*
      the two black hat- ACC
      'the two black hats (accusative)'

When a possessor is present, it is morphologically unmarked (nominative), and the possessed noun agrees with it in person and number.

(2) a. *a   te   kalap-ja- i- d*
       the you(-NOM) hat- POSS-PL-2SG
       'your hats'
    b. *(a) Mari   kalap-ja- i*
       the Mari(-NOM) hat-   POSS-PL(-3SG)
       'Mari's hats'

This leads me to assume that the possessor is structurally parallel to the subject, and the possessed, to the finite predicate, of clauses. Assimilating (1) to infinitives, I proceed to examine the behavior of possessive noun phrases and the consequences of the clausal analogy.

Possessors can occupy two different prenominal positions. In addition to (2b), for instance, we have (3).

(3)   *Mari-nak a-   kalap-ja- i*
   Mari-DAT the hat- POSS-PL(-3SG)
      'Mari's hats'

Here the possessor is in the dative, rather than in the nominative, and precedes, rather than follows, the definite article (whose presence is commented on below). Other than that, the same agreement is triggered on the possessed, and the two constructions do not differ in meaning. They differ in that a nominative possessor cannot be extracted, but a dative possessor can.

(4) a.*Mari   fekete volt a   kalap-ja.   cf. (2b)
       Mari(-NOM) black was the hat- POSS(-3SG-NOM)
       'Mari's hat was black.'

b. *Mari-nak fekete volt a   kalap-ja.*   cf. (3)
   Mari-DAT black was the hat- POSS(-3SG-NOM)
   'Mari's hat was black.'

Possessor extraction will be assimilated to subject extraction (in configurational languages like English). The by now standard assumption is that the subject has to move in two steps: first to a peripheral escape hatch position, and from there, out of the clause. Word order and morphology makes it very natural to assume that this is exactly what happens in the above examples, too: the dative-marked position is the escape hatch. Thus the rough structure of the relevant part of (4b) is as in (4b'). α is analogous to the full clause (S' or CP), and β to its propositional part (S or IP).

(4b')

Mari-nak ...   t' a   t   kalap-ja
Mari-DAT   the   hat -POSS-3SG
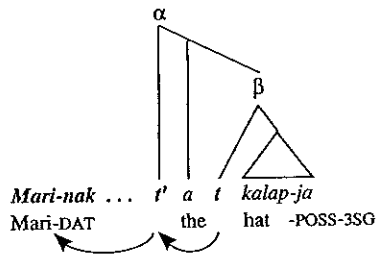
I propose that the definite article in the above examples is the analog of the complementizer. This is supported both by its syntactic position and by the fact that it may co-occur with all other determiners (whence it must have a function distinct from theirs).

(5) *a   te   valamennyi titk-   od*
     the you(-NOM) each   secret-POSS.2SG
     'your every secret'

I suggest that both complementizers and articles are subordinators in that they serve to enable a "proposition" to act as an argument. The fact that in many languages, including English, neither complementizers nor articles play a purely subordinator role is accounted for with reference to conflation with clause-type indicators/quantifiers.

The definite article can be dropped in possessive constructions under descriptively complex conditions. It will be observed, however, that indefinite possessive constructions differ from definite ones not only in lacking a definite article but also in that they must have the possessor extracted.

(6) a. *Nem ismert-em [Mari   nővér- é-   t]*
        not knew -I   Mari (-NOM) sister- POSS(-3SG)-ACC
        'I did not know Mari's sister.'

b. *Mari-nak nem ismert-em* [t′ t *nővér- é-* t]
   Mari-DAT not knew-I sister- POSS(-3SG)-ACC
   'I never knew any sister of Mari.'

This observation, together with the semantic universal that existential verbs only combine with indefinite noun phrases, will underlie a very simple account of *have*-sentences and related examples, including the puzzling phenomenon that a nominative noun phrase agrees with a dative co-argument in person and number.

(7) a. *Van bor.*
       is wine(-NOM)
       'There is wine (available).'
    b. *Mi-nek-ünk van bor- unk.*
       we-DAT-1PL is wine-POSS.1PL(-NOM)
       'We have wine (available).'

(7b′) *minekünk van* [t′ t *borunk*]

The second part of the chapter focuses on arguments and adjuncts of derived nominals. It first addresses the question of how the argument structure of nouns compares with that of verbs and then goes on to examine the syntax of adverbial arguments and adjuncts.

First, the observation made in connection with other languages, that only nouns denoting (aspectually complex) events have obligatory arguments, is confirmed. *Megvizsgálás,* but not *vizsgálat,* requires a Theme.

(8) a. *A beteg másod-szor való*
       the patient(-NOM) second-time being
       meg -vizsgál- ás- a felesleges volt.
       PREV-examine-DEV-POSS.3SG(-NOM) unnecessary was
       'The examination of the patient for a second time was unnecessary.'
    b.**A másod- szor való meg -vizsgál- ás felesleges volt.*
       the second-time being PREV-examine-DEV(-NOM) unnecessary was
       '*The examination for a second time was unnecessary.'
    c. *A másod -szor-i/második vizsgál-at felesleges volt.*
       the second-time-SUFF/second examine-DEV(-NOM) unnecessary was
       'The second examination was unnecessary.'

Second, the absence of an agent from (8a) is addressed. Only one structural case is available for arguments inside the noun phrase: the nominative in the possessor's position. If there is an internal argument, it will take up this nominative, whence the external argument has no case and therefore cannot surface. The grammaticality of (8a) is not accounted for by making the

external argument of nouns optional (suppressed), however. I argue that in Hungarian the argument frame of event nominals is identical to that of the underlying verb. The absence of the external argument is acceptable if it has a controlled or an "arbitrary" interpretation (cf. PRO).

(9) a. *Az orvos   megtagadta Mari   meg-vizsgál- ás- át.*
       the doctor(-NOM) refused   Mari(-NOM) PREF-examine-DEV-POSS.
       3SG-ACC
       'The doctor*ᵢ* refused PRO*ᵢ* to examine Mari.'
    b. *Mari   meg -vizsgál- ás- a   mindig felesleges.*
       Mari(-NOM) PREF- examine-DEV-POSS.3SG(-NOM) always unnecessary
       'It is always unnecessary PRO_arb to examine Mari.'

Next, the syntax of adverbial arguments and adjuncts of nouns is investigated. Hungarian being a historically head-final language, these adverbials are (mainly) prenominal. Two distinct constructions are available. In one construction the adverbial form is retained.

(10) a. *az el   fut- ás*
        the away run-DEV
        'the running away'
     b. *a   Pest- re érkez -és*
        the Pest-to arrive-DEV
        'the arrival in Pest'

In the other construction the adverbial has to be adjectivalized. This was the case in (8), for instance: the adverb *másodszor* 'for a second time' is adjectivalized by the formatives *való* or *-i*. Compare (11a,b) with (8a,c).

(11) a. *a   beteg   másod -szor *(való) meg -vizsgál- ás- a*
        the patient(-NOM) second-time   being PREV-examine-DEV-POSS.
        3SG
     b. *a   másod- szor- *(i) vizsgál- at*
        the second-time-SUFF examine-DEV

I account for the contrast between the two constructions with reference to the scope of the deverbal suffix DEV. If just the verb is nominalized, the resulting noun combines with adjectivalized adverbials. If a larger unit, including the adverbial itself, is nominalized, adjectivalization does not take place. But even in the latter case, the scope of the suffix extends beyond the verb only at the abstract level of logical form. This is shown by the fact that inherent case, but not accusative, is available in the construction exemplified in (10).

2. BASIC FACTS ABOUT WORD ORDER AND MORPHOLOGY IN THE NOUN PHRASE

Constituent order in Hungarian clauses is relatively free (see É. Kiss, this volume). The behavior of noun phrases deviates from this in two extreme directions. Noun phrases come in two types. In the statistically rather rare type, the numeral and the adjective of an indefinite may assume the inflectional suffixes of the noun and scramble freely. Note that these suffixes include number and case, but not gender agreement: Hungarian has no grammatical gender.

(12) a. *Kalap-ot   het-   et   látt-am feketé- t.*
    hat-   ACC seven-ACC saw- I black- ACC
    'As for hats, I saw just seven that were black.'

  b. *Fekete kalap-ot het-   et   látt-am.*
    black hat- ACC seven-ACC saw- I
    'As for black hats, I saw just seven.'

  c. *Kalap-ok-at csak feketé-k- et   látt-am.*
    hat-   PL-ACC only black- PL-ACC saw- I
    'As for hats, I saw only black ones.'

See Károly (1958), Hale (1981), Szabolcsi (1983a, 1986b), Marácz (1989), and van Riemsdijk (1987). This type is not discussed further in this chapter.

The statistically common type has completely rigid constituent order, and inflection is present only on the head noun. The data below are standard and are extensively discussed in Simonyi (1914), Lotz (1939), and Hall (1944), for instance.

The order is Det–Num–Adj–N(–pl)–Case. (On case markers and postpositions, see the data and discussion in section 5.5.) Hungarian has an overt definite article *a(z)* 'the' (*a* before a consonant, *az* before a vowel), deriving from demonstrative *az* 'that.' It is traditionally assumed that the unstressed version of the numeral *egy* 'one' is an indefinite article; I argue that it is either a quantifier or a numeral, but not an article, and hence assume only a Ø indefinite article. It is remarkable that singular count nouns can have a Ø article. Neither the noun nor the demonstrative is marked as plural in the presence of a numeral.

(13) *a* 'the'
    Ø 'a(n), some'
    minden 'every'
    e, eme, ezen 'this'   *két* 'two' *fekete* 'black' *kalap* 'hat'
    ama, azon 'that'
    melyik 'which'
    semelyik 'no, neither'

For demonstratives there is another construction, which is possible only with the items *ez* 'this (one)' and *az* 'that (one),' and can be schematized as DEM-SUFF* *a(z)* (Num) (Adj) N-SUFF*. SUFF* stands for all inflectional morphological material on the noun (number, possessive, case, etc., including postpositions that do not govern oblique case, see section 5.5). Compare (14a,c) with (14b,d), which exemplify type (13).

(14) a. *ez- ek-ről   a   part- ok-ról*
        this-PL-from the shore-PL- from
        'from these shores'
    b. *e   part- ok-ról*
        this shore-PL- from
        'from these shores'
    c. *ez- ek felé   a   part- ok felé*
        this-PL toward the shore-PL toward
        'toward these shores'
    d. *e   part- ok felé*
        this shore-PL toward
        'toward these shore'

The (14a) construction is only briefly touched on in this chapter and is analyzed in more detail in Kenesei's.[1]

In the prenominal Adj position we also find participial modifiers and adjectivalized adverbial or oblique/postpositional arguments and adjuncts to the noun. Two of the adjectivalizers are the particle *való* and the suffix *-i* (discussed in sections 12.1 and 16).

(15) a. *a   te- vel- ed   beszél-ő fiú*
        the you-with-2SG talk- ing boy
        'the boy talking with you'
    b. *a   Mari-val   való   vihar után- i   találkoz-ás*
        the Mari-with being storm after- SUFF meet-   DEV
        'the meeting with Mari after the storm'

Oblique and postpositional complements may also be postnominal, in which case they are not adjectivalized. This option is gaining more and more ground, but the rules have not settled completely.

(16) a. *a   találkoz-ás   Mari-val   vacsora után*
        the meet-   DEV Mari-with dinner after
        'the meeting with Mari after dinner'

Neither accusative case nor any dummy case marker like English *of* or French *de* is available to the complements of the noun in Hungarian.

With these in mind, let us proceed to possessive constructions. In this section I present only the basic data whose significance is straightforward. Further observations will be added below.

Possessive constructions are uniform; factors like animacy of the possessor, alienability of the possession, simple noun possessed, or deverbal nominal with an event structure make no difference. Thus phrases like 'the man's car', 'the edge of the knife', and 'the destruction of the city' have identical morpho-syntactic structures, as follows.[2]

The possessor is always prenominal. In the version that everyone takes to be basic, it has no suffix. Traditional grammar (which in this case means all literature preceding Szabolcsi, 1981) followed classical terminology and analyzed it as a possessive modifier. This analysis is completely unsubstantiated, however. This possessor does not share any of the syntactic properties of modifiers; on the other hand, it resembles subjects of sentences in that it triggers person–number agreement on the possessed noun and, when pronominal, can be dropped under the same conditions. Given that nominative is the only case in Hungarian that has no overt suffix, it seems natural to take the possessor to be the structural analog of the subject, bearing nominative case.

The paradigm is as below. When the possessor is a pronoun, the construction is introduced by the definite article. Whether a similar article precedes a proper name possessor is subject to dialectal variation. Some comments on morphology follow the examples.

(17) a. *az én   kalap-om*
the I(-NOM) hat- POSS.1SG
'my hat'

b. *a te   kalap-od*
the you(-NOM) hat- POSS.2SG
'your hat'

c. *az ő   kalap-ja*
the he/she(-NOM) hat- POSS.3SG
'his/her hat'

d. *a mi   kalap-unk*
the we(-NOM) hat- POSS.1PL
'our hat'

e. *a ti   kalap-otok*
the you.PL(-NOM) hat- POSS.2PL
'your hat'

az én   kalap-ja- i- m
the I(-NOM) hat- POSS-PL-1SG
'my hats'

a te   kalap-ja- i- d
the you(-NOM) hat- POSS-PL-2SG
'your hats'

az ő   kalap-ja- i
the he/she(-NOM) hat- POSS-PL
(-3SG)
'his/her hats'

a mi   kalap-ja- i- nk
the we(-NOM) hat- POSS-PL-1PL
'our hats'

a ti   kalap-ja- i- tok
the you.PL(-NOM) hat- POSS-PL-2PL
'your hats'

f. *az ő*   *kalap-juk*
the he/she(-NOM) hat- POSS.
3PL
'their hat'

az ő   *kalap-ja- i-k*
the he/she(-NOM) hat- POSS-PL-
3PL
'their hats'

g. *(a) Mari*   *kalap-ja*
the Mari(-NOM) hat- POSS.
3SG
'Mari's hat'

(a) Mari   *kalap-ja- i*
the Mari(-NOM) hat- POSS-PL
(-3SG)
'Mari's hats'

h. *a fiú-k*   *kalap-ja*
the boy-PL(-NOM) hat- POSS.
3SG
'the boys' hat'

a fiú-k   *kalap-ja- i*
the boy-PL(-NOM) hat- POSS-PL
(-3SG)
'the boys' hats'

Four comments are in order here.

1. Possessive inflection is almost identical to verbal inflection, with the following twist: with singular possessors (17a,b,c) it corresponds to the definite object conjugation, and with plural possessors (17d,e,f), to the indefinite object conjugation. The historical reason is not known, but the possessive paradigm is the more regular of the two.

2. In the glosses I follow Mel'čuk (1973) in distinguishing three inflectional features: POSS 'possession' (corresponding to 'tense/mood' on verbs), PL 'plurality of possessed,' and 1SG 'person–number agreement with possessor.' These are important to my syntactic analysis; on the other hand, I do not wish to commit myself to the three-morpheme segmentation Mel'čuk proposed: Hungarian inflectional morphology is not as fully agglutinative as he suggests. See Abondolo (1988) and Kornai (1989) for details.

3. When the possessor is 3rd person plural, its plurality is marked only once in the construction: on the possessed noun when the possessor is pronominal (and droppable), see (17f), and on the possessor when it is lexical, see (17h). The same pattern is observed in Turkish (George and Kornfilt, 1981) and Welsh (Rouveret 1991). I return to this issue in connection with possessor extraction.

4. The English translation is not quite faithful to the singularity/plurality of the possessed. *A mi kalapunk* (17d) means either than we each own one hat, or that we collectively own one hat; and *a mi kalapjaink* means that we either individually or collectively (but not cumulatively) own more than one hat. Similarly for (17e,f,h).

Hungarian is a pro-drop language: unstressed personal pronouns can be dropped whenever their features are recoverable. (Indeed, they must

be dropped unless their presence serves some specific communicative purpose.) Accordingly, unstressed pronominal possessors can be dropped.

(18) a. *a   MI   kalap-unk*
       the we-NOM hat-   POSS.1PL
       'OUR hats'
   b. *a   kalap-unk*
       the hat-   POSS.1PL
       'our hats'

Possessive constructions with an empty noun possessed are reminiscent of VP ellipsis. Possession is indicated by the special morpheme *-é* which, together with agreement, is suffixed onto the possessor. The presence or absence of an article follows the same rules as in full possessive constructions.

(19) a. *az eny-é-   m*
       the I- POSS-1SG
       'mine, sg.'
   b. *(a) Mari-é*
       the Mari-POSS.3SG
       'Mari's one'

az eny-é-   i -m
the I-   POSS-PL-1SG
'mine, pl.'

(a) Mari-é-   i
the Mari-POSS-PL(-3SG)
'Mari's ones'

The possessor has one, and only one, alternative position within the noun phrase: in the dative, it precedes the article. As the glosses indicate, inflection on the possessed is unaffected.

(20) a. *Mari-nak a   kalap-ja [-i]*   from (17g)
      Mari-DAT the hat-   POSS[-PL](-3SG)
      'Mari's hat[s]'
   b. *a   fiú- k- nak a   kalap-ja   [-i]*   from (17h)
      the boy-PL-DAT the hat-   POSS[-PL](-3SG)
      'the boys' hat[s]'
   c.??*én-nek-em a   kalap-ja [-i]-   m*   from (17a)
      I- DAT-1SG the hat-   POSS[-PL]-1SG
      'my hat[s]'

For reasons I do not understand, personal pronoun possessors are hardly acceptable in this order, even when stressed. I nonetheless assume that examples like (20c) are grammatical, because in all the crucial respects to be discussed below, pronominal and lexical possessors behave alike.

PART I
POSSESSORS AND DETERMINERS

3. ON THE CLAUSAL ANALOGY TO BE PROPOSED

In this chapter I lay out a significant parallelism between the structures of Hungarian noun phrases and (configurational) clauses. The first version of this analysis was put forth in Szabolcsi (1981, 1983b), where I proposed the structure in (21a), which is to be compared with the then-standard clausal structure (21b), cf. Chomsky (1981):

(21) a. [Tree diagram: NP' branching to KOMP and NP; NP branches to a(z), NP', Infl [±poss] [(AGR)], N']

b. [Tree diagram: S' branching to COMP (that) and S; S branches to NP, Infl [±tense] [(AGR)], VP]
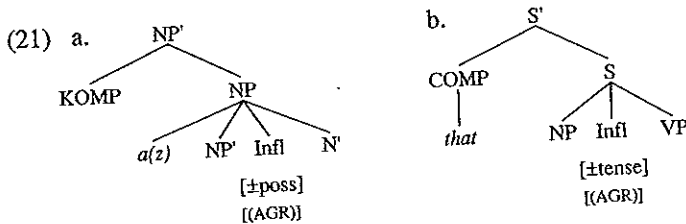
Both structures contain a lexical item not properly attended to. In the noun phrase structure, *a(z)* 'the' hangs unlabeled from NP; in the clausal structure, *that* is in the same COMP position that serves as a landing site for WH-movement. Among other things, attention to such details was the critical factor in motivating a revision of both analyses. In Szabolcsi (1986a, 1987, 1989) I proposed the structure (22a), compare Chomsky's (1986) (22b).

(22) a. [Tree diagram: DP branching to SPEC and D'; D' branches to D (a(z)) and (N+I)P; (N+I)P branches to DP and (N+I)'; (N+I)' branches to DetP and N+I [±poss] [(AGR)]]

b. [Tree diagram: CP branching to SPEC and C'; C' branches to C (that) and IP; IP branches to NP and I'; I' branches to I and VP; [±tense] [(AGR)]]
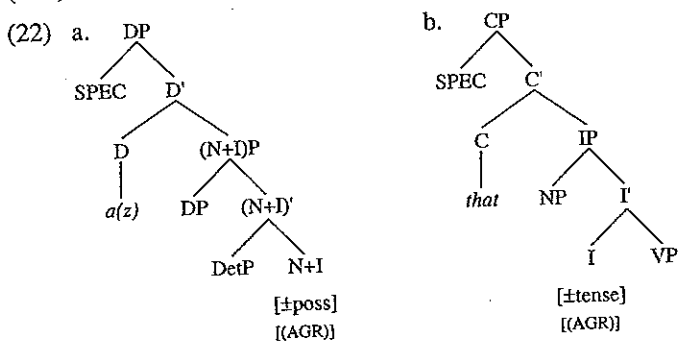
I label the full noun phrase DP in acknowledgement of Abney's (1986, 1987) proposal. A brief comparison of the main similarities and differences may be useful here.[3]

(23) a. Szabolcsi: The (Hungarian) noun phrase has a sentence-like struc-
        ture. It contains inflection. It is headed by a determiner.
        Abney: The (English) noun phrase has a sentence-like structure.
        It contains inflection. It is headed by a determiner.
     b. Szabolcsi: (Hungarian) inflection is "real" inflection, whereas the
        determiner that heads the noun phrase is an analog of the com-
        plementizer (C). That is, DP = CP.[4]
        Abney: (English) inflection (viz., 's, Abney, 1986, or empty AGR,
        Abney, 1987) and the determiner that heads the noun phrase be-
        long to the same category. That is, DP = IP.
     c. Szabolcsi: (Hungarian) determiners fall into two distinct catego-
        ries. Only the article belongs to the category D that heads the noun
        phrase.
        Abney: All (English) determiners belong to the category D that
        heads the noun phrase.

Abney (1987) builds on my analysis of Hungarian in two ways. On the one hand, the observations concerning inflection and the co-occurrence of possessors and determiners are used to motivate details of his proposal concerning English. On the other hand, he reanalyzes some of the Hungarian facts along those lines. I briefly comment on his reanalysis in section 4; given the focus of this volume, I will not attempt to work out a proposal for English. It may be important to bear in mind that some of the global differences between Abney's analysis and mine stem not from disagreement, but from the fact that he explicitly restricts his attention to the justification of an inflection-like head in the noun phrase, and thus a large portion of the arguments presented below go beyond the scope of his proposal.

Below I motivate (22a) in detail. The order of presentation is as follows. Section 4 discusses the structure of (N + I)P. Observations concerning how the possessor DP receives its nominative case and thematic role (section 4.1), and how it interacts scopally with the quantifier of the possessed (section 4.2), motivate the claim that I has no projection of its own (section 4.3). Sections 5 and 6 discuss the top part of DP. Section 5 focuses on possessor movement: on the existence of a SPEC of DP position that is distinct from the nominative position (section 5.1), on this SPEC being an operator position (section 5.2), on the mechanics of possessor movement (section 5.3), and, finally, on the relation between extracted possessors and their source DPs at the sentence level (section 5.4). Comments are added

on inflected postpositions (section 5.5). Section 6 elaborates the analogy between articles and complementizers. First, the distinction of two categories of determiners is justified with reference to their co-occurrence (section 6.1); then it is proposed that articles and complementizers fulfil a similar subordinator function (section 6.2). Finally, the question of why not all languages distinguish subordinators from other determiners is addressed (section 6.3).

Further issues pertaining to the definite/indefinite distinction and *have*-sentences are discussed in sections 7 and 8.

## 4. THE STRUCTURE OF THE INFLECTED NOUN PHRASE

In (17) above the basic facts are presented concerning the nominative case of the possessor and the presence of possessive and agreement morphology on the possessed noun. These make it natural to assume that [+poss, agr] inflection on the noun licenses nominative case and pro-drop for the possessor, just as [+tense, agr] inflection on the verb licenses nominative case and pro-drop for the subject. Pushing the analogy further, we may assimilate plain noun phrases to [−tense] infinitives and assume that they have [−poss] inflection, rather than no inflection.

What syntactic status shall we attribute to nominal inflection? Concerning verbal inflection, there are two conflicting views. On the one hand, it has been suggested for English, French, and many other languages that inflectional elements are not just affixes but heads of their own functional projections. Surface structure is produced by a series of head movements (in the course of which the verb merges with the inflectional heads) and a series of NP movements (in the course of which the arguments of the verb reach the specifier position of the highest inflectional projection). See for example Chomsky (1986), Abney (1987), Pollock (1989), Sportiche (1990), and Koopman (1992). On the other hand, most proposals concerning Hungarian sentences have assumed that verbal inflection does not have a projection of its own and, in general, NP movement (as opposed to WH-movement) has not been appealed to. See Kiss (this volume), as well as Brody (1990). Brody (1989) also argues that inflection does not have its own projection in Old English and Italian. Thus the choice between the two analyses may be an empirical one.

In this chapter I adopt a "mere suffixes" analysis of Hungarian nominal inflection, cf. (22a). I have two reasons, beyond the fact that this choice is consonant with Kiss's and Brody's positions. One, it is significantly simpler and entirely sufficient for the discussion of the data this chapter is

concerned with. Two, the "inflectional heads" analysis runs into theory-internal problems in accounting for significant data pertaining to thematic role assignment and scope interpretation, to be explained below. Thus, if further research does not resolve these problems, the "mere suffixes" analysis may be substantially preferable.[5]

One plausible version of an "inflectional heads" analysis of the Hungarian noun phrase is (24). Num(ber) as a functional head is argued for in Ritter (1991).

(24)
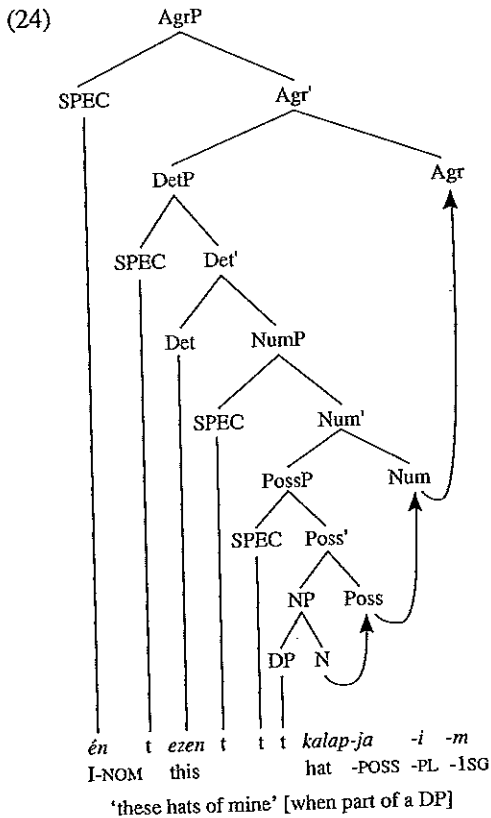
Here the possessor DP is base-generated as a sister of N. Both DP and N undergo a series of movements. The raising of DP into the specifier of AgrP position is forced by the fact that nominative case is assigned by the agreement portion of inflection. N, on the other hand, has to pick up its inflectional suffixes by merging with the heads Poss, Num, and Agr one after the other. (I omit the traces of the latter head movements to simplify the diagram.)[6]

There are at least two further desiderata that the structure has to meet. It has to explain how the possessor receives its thematic role, and it has to explain how the possessor interacts scopally with quantifiers in Det. We consider these in turn.

4.1. The Possessor's Thematic Role

The possessor DP being a full-fledged noun phrase, it needs a thematic role. What shall this role be, and what shall assign it? First of all, it is clear that the usual labels (Agent, Theme, etc.) do not suffice. Classical grammarians present a long list of the typical relations that obtain between the possessor and the possessed (for Hungarian, see Hadrovics, 1969). But even such lists do not grasp the fact that any ad hoc relation justifies the use of the possessive construction. For instance, *my train* need not be one that I built or one that I own: it may be one that I ride to work, one that I just missed, one that I like to watch passing by at dusk, or what have you. Such an arbitrary role can hardly be anticipated in the lexical conceptual structure of the noun, especially since we have no evidence for its existence in non-possessive constructions. However, it can naturally be attributed to a functional component of the construction. I assume it comes from the possessive morpheme or, equivalently, the syntactico-semantic feature. (Anderson, 1983, proposed that in such cases *'s* assigns a role in English.) On the other hand, deverbal nouns with an aspectually complex event structure assign the same standard thematic roles as verbs; for example, in *egy probléma fölmerülése* 'the emergence of a problem' *egy probléma* has the same Theme role as in *Fölmerült egy probléma* 'A problem emerged'. Shall we assume now that such deverbal nouns are direct θ-markers? Various reasons have been quoted in the literature against such a view, as in Grimshaw (1990). In line with these, I propose that even in this case the possessive morpheme (or feature) is necessary to transmit the role to an argument in syntax.

To systematize these options, I make the following assumptions. Thematic role assigning abilities are to be factored into two components: (a) a FORMAL ABILITY to assign a role which merely serves to satisfy the θ-criterion, and (b) an ability to SPECIFY THE CONTENT of a role. It is natural to assume that only lexical categories can have the specific ability (b); functional categories may at best have the formal ability (a). In our case, Poss is claimed to have (a) but not (b), and event nominals to have (b) but not (a). If we now assume that N and Poss form not only a morphological unit but also a thematic role assigning unit, then Poss will always license the possessor in view of (a), and if N happens to be an event nominal, it may join in and specify the content of the role in view of (b).

But note now that thematic role assignment is assumed to be uniform from D-structure to logical form, which amounts to saying that it cannot be dependent on either XP movement or head movement. With respect to (24) this means that at least the N projection and the Poss projection need to be collapsed into one. DP must be base-generated within an N + Poss projection. Adherence to the fully articulated structure (24) would require a revision of the role of D-structure in recording thematic relations.

4.2. The Possessor's Scope

Next, consider scope interaction. In English, this issue may seem to be of marginal interest because of the scarcity of relevant data, but the phenomenon exists, so consider (25) to whet your appetite.

(25) a. (*I closely watched*) *John's every step.*
     b.?(*I was able to watch*) *few men's every step.*

(25a) illustrates the fact (ignored in Jackendoff, 1977, and in much related work) that the possessor can be followed by a quantifier. Although at first sight this may seem possible only with nouns that are "agentive" in some sense, the range of possibilities is wider, although stylistically marked: the set denoted by the noun just has to be open-ended (which acts surely are).

(26) a.**He wants me to meet his every aunt.*
     b. *He wants me to meet his every girlfriend.*

Now first consider what (25a) means.

(27) a.*'For every x, if x is a step, x is John's and I watched x.'
     b. 'For every x, if x is a step of John, I watched x.'

This shows that the meaning of *John's every step* is not composed of the meanings of *John* and *every step* but, rather, of the meanings of *John*, *every*, and *step of* y. Now let us go further to (25b). Strained as it may be, it clearly only has the interpretation on which the possessor *few men* takes scope over the quantifier *every* belonging to the possessed:

(28) a.*'For every x, for few men y, if x is a step of y, I watched x.'
     b. 'For few men y, for every x, if x a is step of y, I watched x.'

These data are even more compelling in Hungarian, due to the fact that the possessor can be followed by any determiner except the articles, without any restriction on the possessed noun. The examples in (29) are equally grammatical and natural (I add *sok* 'many', *kevés* 'few' and *egy(ik)* 'one', although they may be numerals in syntax).

(29)

$$
\textit{Mari} \text{ 'Mari-NOM'}
\left\{
\begin{array}{l}
\textit{minden} \text{ 'every'} \\
\textit{e, eme, ezen} \text{ 'this'} \\
\textit{ama, azon} \text{ 'that'} \\
\textit{melyik} \text{ 'which'} \\
\textit{kevés} \text{ 'few'} \\
\textit{sok} \text{ 'many'} \\
\textit{egy(ik)} \text{ 'one'} \\
\textit{valamennyi} \text{ 'each'} \\
\textit{bármelyik} \text{ 'either'} \\
\textit{semelyik} \text{ 'neither'} \\
\textit{*a(z)} \text{ 'the'} \\
\textit{*az a(z)} \text{ 'that the'} \\
\textit{*ez a(z)} \text{ 'this the'}
\end{array}
\right\}
\left\{
\begin{array}{l}
\textit{fönök-e} \text{ 'boss-POSS.3SG'} \\
\textit{szav-a} \text{ 'word-POSS.3SG'} \\
\textit{kalap-ja} \text{ 'hat-POSS.3SG'}
\end{array}
\right\}
$$

The interpretation of these is exclusively the one I attributed to *John's every step*, namely, (27b).

Similarly, the following sentences are all grammatical (although they sound less cluttered with a dative possessor, an option to be discussed below), and their interpretation is exclusively the one I attributed to *few men's every step*.

(30) *Megfigyelt-ük két ember   minden lépés-é-   t.*
      watched- we two man(-NOM) every   step -POSS.3SG-ACC
      'For two men *y*, for every *x*, if *x* is a step of *y*, we watched *x*.'

(31) *Kevés ember   minden lépés-é-   t   tudt- uk megfigyel-*
      few   man(-NOM) every   step- POSS.3SG-ACC could-we watch-
         ni
         INF
      'For few men *y*, for every *x*, if *x* is a step of *y*, we were able to watch *x*.'

Let us now return to structure (24) and see how it accounts for the lack of ambiguity here. If we adopt the modification above and assume that the root position of the possessor is inside an N + Poss projection, all may seem well. Poss and/or the trace of DP will supply the variable *y* for 'step of *y*'. It is within the scope of *minden* 'every'. The possessor, as before, raises to the specifier of AgrP in order to receive nominative case; in this position it is outside the scope of *minden* 'every'.

Nevertheless, a problem arises. Raising constructions are known to be scopally ambiguous: the raised element can take either the scope it has in its surface position or the scope it would have in its D-structure position.

(32)

```
                          AgrP
                       /        \
                   SPEC          Agr'
                               /      \
                           DetP        Agr
                         /      \
                     SPEC       Det'
                              /      \
                           Det      (N+POSS)P
                                    /        \
                                  DP        N+POSS
```

kevés	ember	t	minden	t	lépés-e
few	man (-NOM)		every		step -POSS.3SG
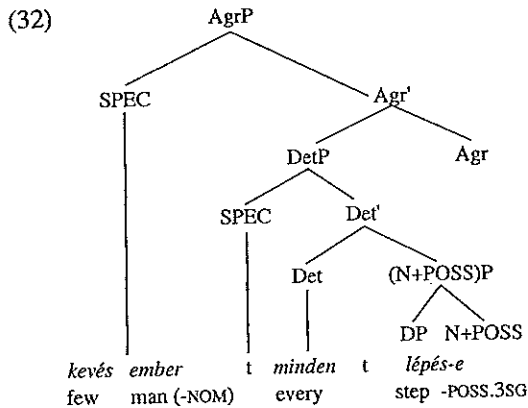
(33) *A unicorn seems to be approaching.*
    'There is a unicorn which seems to be approaching.'   or
    'It seems that there is a unicorn approaching.'

If this kind of ambiguity is indeed diagnostic of structures in which a noun phrase raises in order to obtain case, then the fact that in (32) the possessor lands above Det does not guarantee that it eventually takes scope there: the raising analysis predicts that it can also take scope under Det, in its root position. But we have just seen that the structure is not ambiguous: the latter interpretation does not exist. This speaks against the raising analysis: the possessor cannot originate below Det. But in section 4.2 we concluded that it must originate inside the N + Poss projection. There is only one way to reconcile these two conclusions, namely, to eliminate the independent Agr-projection as well, so that the possessor receives both its thematic role and its case in the same position. Such an analysis is proposed in section 4.3.

The same arguments speak against Abney's (1987) analysis of the Hungarian facts, according to which the determiner and inflection are generated under the same D node, and inflection merely lowers onto the possessed noun in phonetic form. PF lowering will not account for either the thematic role facts or the scope interpretation facts discussed above.

4.3. A "Suffixes" Analysis of the Noun Phrase

Let us now consider the "suffixes" alternative [cf. (22a)].

(34)

```
              (N+I)P
            /        \
          DP        (N+I)'
          |         /    \
          |      DetP    N+I
          |        |      |
          |        |      |
      két  ember  minden  kutyá-ja
      two  man (-NOM) every  dog  -POSS.3SG
        'two men's every dog'[when part of a DP]
```
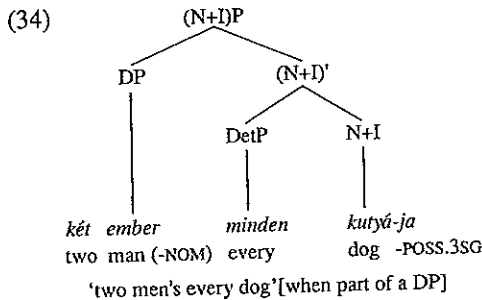
Here the head of the projection is the inflected noun N + I as a whole. Recall that I may be [−poss] or [+poss, agr]. [+poss] changes the argument structure of the [−poss] noun in the manner derivational affixes do.

(35)   *dog*[−poss] : *dog*[+poss] = *victim* : *victimize*

The original external argument of *dog*[−poss]/*victim* becomes the internal argument of *dog*[+poss]/*victimize,* and the new external argument is contributed by the suffix. In view of the [agr] feature, N + I assigns nominative case to its specifier DP. As regards thematic roles, N + I trivially satisfies the requirement that it be one thematic role assigning unit. I assume that a thematic role can be assigned to the specifier. DetP [headed by the same items listed in (29)] bind the old external argument slot of N. Finally, consider scope interpretation.

First, N + I$_{[+poss,agr]}$ gets the logical interpretation in (36). This guarantees the correct constituents of interpretation.

(36) $\lambda x \lambda y[N(x) \ \& \ R(y,x)]$
      'the set of x–y pairs where x is a N and bears some relation R to y,
        and the range of y is restricted by the agr features'

Second, the possessor and the quantifier belonging to the possessed are in the correct scopal order—and that order cannot be changed. Why? Given that DP is base-generated where it is, it cannot be lowered into the scope of DetP: only DetP could raise out of the scope of DP. But there are good reasons to exclude this. One may be adherence to May's (1977, 1985) assumption that only full noun phrases (DPs) raise for scope. This has in fact been challenged by Dobrovie-Sorin (1993), who proposes the following distinction: the raising of full noun phrases creates restricted quantification and a specific interpretation, whereas the raising of mere quantifiers creates

unrestricted quantification and a non-specific interpretation. The adoption of this view will not cause problems, either. On the one hand, Dobrovie-Sorin argues that the mere quantifier raising option is only available to numerals and not to universals, for instance. On the other hand, numerals on the non-specific interpretation do not take wider scope than other quantifiers. Thus no undesired interpretation will arise, and (34) is on the whole unproblematic.

The question arises how we analyze and interpret noun phrases that have no overt DetP following the nominative possessor. In section 7.1 I discuss this in detail, and I will claim that they have a [+definite] feature.

5. THE STRUCTURE OF DP: POSSESSOR EXTRACTION

The claim that the possessive construction has a sentence-like structure becomes interesting if further data can be insightfully analyzed in this light. Data concerning possessor extraction are one case in point.

In section 2 I mentioned that the possessor has an alternative, dative-marked variant in the noun phrase, see (20). This differs from the nominative variant in that it can be extracted. I will assimilate the mechanics of possessor extraction to that of subject extraction, arguing specifically for the analysis in (37).

(37)

				DP	(N+I)'
a.			(a)	Mari	kalap-ja
			the	Mari-NOM	hat -POSS.3SG
b.		Mari-nak	a	t	kalap-ja
c.	Mari-nak	t'	a	t	kalap-ja
	but				
d.	*Mari		(a)	t	kalap-ja
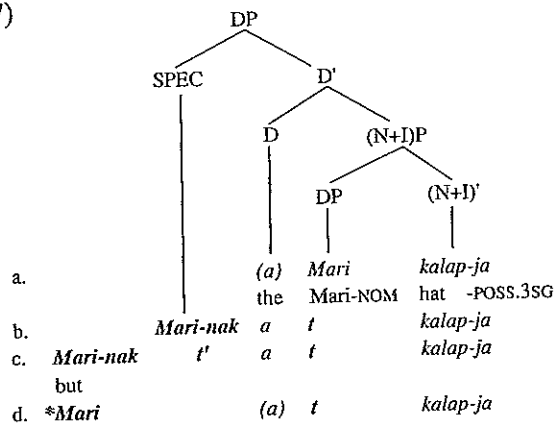
I will point out that the interest of these data lies not only in the DP/CP parallelism, but also in the fact that they provide support for a specific analysis of subject extraction.

The analysis involves two sets of claims. One set of claims pertains to the behavior of the possessor, somewhat independent of the precise nature of the article $a(z)$ 'the' that appears in the construction. The second set of claims pertains to the article being an analog of the complementizer in clauses. Given that major portions of data are involved in the discussion of both, I separate them into two sections. In section 5 I focus on the possessor, and in section 6, on the article.

The main claims to be made in this section are as in (38)–(41). I refer to the "dative-marked possessor" as "-*nak* possessor."

(38)   The -*nak* possessor is a constituent of the noun phrase, and it is not only morphologically, but also structurally, distinct from the nominative possessor.

(38)   The specifier of DP has some characteristics of operator positions.

(40)   The possessor cannot be extracted directly from its root position, but it can be if it proceeds through the specifier of DP.

(41)   Once the possessor leaves DP, it and the DP behave as if they were independent, though anaphorically related, arguments of the verb.

It is to be noted that only the possessor can be extracted from DP; inherently case marked complements and adjuncts cannot.

5.1. On the Distinctness of Two Possessor Positions Within DP

Let us begin with (38). Given that Hungarian has relatively free word order, and given that the -*nak* possessor need not be adjacent to the possessed noun, the suspicion may arise that they never really form a constituent. This can be refuted straightforwardly by showing that they together undergo WH-movement and focus-movement, which affect only constituents. (Both target the same preverbal position, whose nature is discussed by É. Kiss, this volume.)

(42)   *Kati   ki- nek a   kalap-já-   t   látta?*
        Kati(-NOM) who-DAT the hat-   POSS.3SG-ACC saw
        'Whose hat did Kati see?'

(43)   *Kati (nem) csak Mari-nak a   kalap-já-   t   látta*
        Kati not only Mari-DAT the hat-   POSS.3SG-ACC saw
        'Kati saw (not) only Mari's hat (but . . .)'

They can also be conjoined.

(44) *Kati Mari-nak a   kalap-já-   t   és   Péter-nek a   kabát-*
Kati Mari-DAT the hat- POSS.3SG-ACC and Peter-DAT the coat-

   já-   t   látta.
   POSS.SG- ACC saw
'What Kati saw was Mari's hat and Peter's coat.'

Next, we need to show that the structural position of the *-nak* possessor is different from the nominative possessor's. The most important argument in favor of this is that the former precedes, and the latter follows, the article *a(z)*; thus it is crucial to show that the article that precedes the nominative possessor does not (need to) belong to this possessor but rather to the whole of the construction. The data are descriptively complicated but, to my mind, uncontroversial.

First, as was noted in connection with (17), personal pronoun possessors in present-day Hungarian are always preceded by *a(z)* (a significant case when they are not is discussed in section 6). But personal pronouns normally do not take an article (of course).

(45) a. *az én   kalap-om*
         the I(-NOM) hat- POSS.1SG
         'my hat'

     b.**én   kalap-om*
         I(-NOM) hat- POSS.1SG

az én   kalap-ja- i- m
the I(-NOM) hat- POSS-PL-1SG
'my hats'

**én   kalap-ja- i- m*
I(-NOM) hat- POSS-PL-1SG

(46) a.**Az én   isz- om.*
         the I(-NOM) drink-1SG

     b. *Én   isz- om.*
         I(-NOM) drink-1SG
         'I drink.'

If only pronominal possessors exhibited this pattern, it might be possible to analyze (45)–(46) entirely differently from non-pronominal constructions. But the pattern of (45)–(46) is essentially replicated by names of persons in the Upper Tisza and the Debrecen dialects, documented in Simonyi (1914), Magda Szabó's novel *Freskó* (1958), and Magda Szabó (personal communication, 1988). These dialects are unique in that names of persons do not take an article but as possessors they are preceded by one. The (*) in (47b) indicates that the article-less form is not ungrammatical but it is not the usual form in this dialect:

(47) a. *a János   kalap-ja*
         the Janos(-NOM) hat- POSS.3SG
         'Janos's hat'

     b.(*)*János   kalap-ja*
         Janos(-NOM) hat- POSS.3SG

(48) a.*A János   isz- ik.
      the Janos(-NOM) drink-3SG
     b. János   isz- ik.
      Janos(-NOM) drink-3SG
      'Janos drinks.'

These contrasts mean that, at least in (45) and (47), $a(z)$ belongs to the whole possessive construction and is not part of the possessor. I assume that in the spirit of parametric variation it is legitimate to use dialectal data to support a unified analysis. Thus I conclude that in other cases, where the possessor itself has an overt or covert article, or some other determiner, there is an $a(z)$ missing (deleted, as I argue in section 6). As a result, in the statistically speaking typical case the determiner we actually see is in fact part of the nominative possessor. This is the case in both (49) and (50). (50) presents two dialects (neither Upper Tisza) that differ in whether proper names take an overt article in their own right. In the rest of the paper I use the (50b) variant unless otherwise indicated.

(49) a /egy/minden fiú   kalap-ja
       the/one/ every   boy(-NOM) hat- POSS.3SG
       'the/a/every boy's hat'

(50) a. a   Mari   kalap-ja   cf. a   Mari
       the Mari(-NOM) hat- POSS.3SG   the Mari
       'Mari's hat'   'Mari'
     b. (*a) Mari   kalap-ja   cf. (*a)Mari
       the Mari(-NOM) hat- POSS.3SG   the Mari
       'Mari's hat'   'Mari'

These latter facts make the picture superficially complicated, but they do not seem to call into question that "possessor-independent $a(z)$" exists. It "(re)surfaces" in the examples in (51), which are synonymous with the ones above.[7]

(51) a. János-nak a — kalap-ja   cf. (47a)
       Janos-DAT the   hat- POSS.3SG
       'Janos's hat'
     b. a /egy/minden fiú-nak a   — kalap-ja   cf. (49)
       the/one/every boy-DAT the   hat- POSS.3SG
       'the/a/every boy's hat'
     c. Mari-nak a   — kalap-ja   cf. (50)
       Mari- DAT the   hat- POSS.3SG
       'Mari's hat'

5.2. On the Operator Character of SPEC of DP

It is the relation between the nominative and the -nak possessors that interests us in this section. I take the above data to mean that their structural positions are different. And since they are in complementary distribution, I argue that the possessor moves from the post-article position into the pre-article position.

This movement is analogous to the movement of the subject to the clause-initial position (formerly COMP, currently SPEC of CP). For ease of reference, from now on I call this position SPEC of DP, although its exact nature is only established in the subsequent sections.

(52) [$_{DP}$ [$_{SPEC}$ Mari-nak] [$_{D'}$ a [$_{(N + I)P}$ t kalap-ja]]]

One reason to believe that SPEC of DP is analogous to SPEC of CP is that it seems to be an operator position. First, in present-day Hungarian bare operator possessors must move here.

(53) a. *ki   kalap-ja
         who(-NOM) hat-   POSS.3SG
      b. ki-   nek a t kalap-ja
         who-DAT the hat- POSS.3SG
         'whose hat?'

Similarly for aki 'who (relative)', melyik 'which one', mindenki 'everyone', senki 'no one', and numerals with an empty head noun, hány 'how many [ones]', három 'three [ones]', and so on. Possessors consisting of a WH or quantificational determiner and a noun, and possessors that do not have any lexical operator features, move to SPEC of DP optionally.

(54) a. hány   fiú   kalap-ja
         how-many boy(-NOM) hat-   POSS.3SG
         'how many boys' hats'
      b. hány   fiú-nak   a t kalap-ja
         how-many boy-DAT the hat- POSS.3SG
         'how many boys' hats'

and similarly for melyik fiú 'which boy', amelyik fiú 'whichever boy', minden fiú 'every boy', semelyik fiú 'neither boy', a fiú 'the boy', Mari, and so on. Note that it is clearly bare operatorhood, rather than indefiniteness, that characterizes the class patterning with (53). For similar contrasts among operators, see Ambar, Lois, and Obenauer (1986).[8]

Second, although non(-bare) operator possessors move to SPEC of DP optionally, it appears that, once there, they acquire an abstract operator feature (or, alternatively, possessors that in fact move may have always had

one). This assumption, together with pied piping, provides a simple explanation for the patterning of multi-layered possessive constructions. The important observation is that if *Mari* becomes a *-nak* possessor, the containing DP, *Mari-nak a barát-ja* 'Mari's friend', must also do so: (55d) is ungrammatical.[9] I use article-less *Mari* for simplicity's sake. All versions mean the same.

(55) a. *Mari   barát- ja   kalap-ja*
          Mari(-NOM) friend-POSS.3SG(-NOM) hat-   POSS.3SG
          'Mari's friend's hat'
      b. *Mari   barát- já-   nak a kalap-ja*
          Mari(-NOM) friend-POSS.3SG-DAT the hat- POSS.3SG
      c. *Mari-nak a   barát-já-   nak a kalap-ja*
          Mari-DAT the friend-POSS.3SG-DAT the hat- POSS.3SG
      d.*Mari-nak a   barát- ja   kalap-ja*
          Mari-DAT the friend-POSS.3SG(-NOM) hat- POSS.3SG

This pattern is easily understood if we assume that the operator feature of the most deeply embedded possessor in SPEC percolates onto its containing DP, forcing it to move to SPEC itself. (*Where did he go, do you think?* may be analyzed as a similar, though more restricted, case of clausal pied piping.)

To sum up, SPEC of DP is a non-thematic operator position. The question arises whether it is an argument (A) or non-argument (A-bar) position in current terms. The above would suggest it is A-bar, but the fact that the possessor acquires a *-nak* 'dative' morpheme here may be disturbing. It is assumed in Mahajan (1990) that case-marking is the defining property of A-positions. *-nak* is presumably not a real case marker here, however. On the one hand, the possessor moves into SPEC of DP from an already case-marked position. On the other hand, the *-nak* morpheme serves a variety of other un-case-like purposes, such as marking modifiers in left dislocation and in complex predicate constructions (*Boldog-nak boldog vagyok* 'Happy I am,' *Boldog-nak látszol* 'You seem happy,' etc.). I have nothing insightful to say about how *-nak* arises, but its source is certainly DP–internal (presumably, D itself). The reason is that *-nak* is available in vocatives, discussed in section 6, in which event it cannot have a DP–external source.

5.3. Possessor Movement

With all this in mind, let us turn to possessor movement. Recall (37), abbreviated here.

(37) a. $[_{DP} [_{SPEC} \quad\quad] [_{D'} a [_{(N+I)P} Mari \ kalap\text{-}ja]]]$
     b. $[_{DP} [_{SPEC} Mari\text{-}nak] [_{D'} a [_{(N+I)P} \quad t \ kalap\text{-}ja]]]$
     c. $Mari\text{-}nak \ldots [_{DP} [_{SPEC} \quad t' \ ] [_{D'} a [_{(N+I)P} \quad t \ kalap\text{-}ja]]]$
     d. *$Mari \quad \ldots [_{DP} [_{SPEC} \quad\quad] [_{D'} a [_{(N+I)P} \quad t \ kalap\text{-}ja]]]$

The basic observation is that the nominative possessor is confined to the adjacent-to-possessed position, whereas the -nak possessor surfaces either in the pre-article position or outside the noun phrase (in complementarity with the nominative possessor). Whichever version of generative syntax of the past two decades we are assuming, these facts indicate that the possessor is capable of moving first to a peripheral position, and then out of the noun phrase, but not of moving out of the noun phrase in one swoop. This is exactly analogous to the procedure assumed for subject extraction in configurational languages like English. Note, though, that in the case of subjects this procedure had been established on more or less speculative grounds, which led proponents of other theories to deny the involvement of a peripheral position on the whole. What is particularly interesting about the possessor data is that they provide more solid theory-neutral evidence for the assumed procedure than any of the actual subject extraction data I am aware of in the literature. More precisely, they provide evidence for the existence of a peripheral position, distinct from the nominative one, and for the relatedness of the detached possessor to this peripheral position, as opposed to the nominative one. They of course do not provide evidence for the global claim that these relations are to be captured by movement (literal or metaphorical), as opposed to some other theoretical device, since such claims cannot be directly justified by data.

Naturally, not every version of generative syntax is equally successful in accounting for all the details of this procedure. Note in particular the presence of the article $a(z)$, which I argue to be analogous to the complementizer in clauses. Although some cross-linguistic variation was known, preoccupation with the blocking effect of *that* in English gave rise to theories that treated the complementizer as a mere nuisance for subject extraction, as in (56).

(56)   *Who do you think (*that) left?*

The article in the Hungarian noun phrase, on the other hand, does not harm possessor movement at all. This discrepancy was the main reason why in Szabolcsi (1981) I left $a(z)$ practically unanalyzed, compare (21a) above. Rizzi (1990), exploring the C-headed clausal structure proposed in Chomsky (1986), put forth the first detailed theory of extraction according to which the complementizer, overt or covert, is potentially a blessing, rather than a curse, for the movement of subjects. The Hungarian possessor movement data can now be seen as providing specific support for Rizzi's theory.

In Szabolcsi (1989) I provide a detailed account of possessor extraction in Rizzi's terms. I refrain from reproducing it here as it is rather technical in nature. Let me summarize it as follows. The possessor cannot extract in one swoop because its root position is not governed by an active head. By moving to SPEC of DP first and entering into abstract specifier–head agreement with D, it turns D into an active governor of its trace in the root position. In SPEC of DP it is governed by the verb, so it can move on.

Most languages do not exhibit possessor extraction; they typically lack even the first step of movement. In case the structure of their noun phrases is by and large similar to the one I assume for Hungarian, Rizzi's theory offers two basic options to explain the absence of possessor movement. One is that the possessor is unable to trigger specifier–head agreement with D (for instance, because it is not a plain noun phrase); the other is that D cannot carry even abstract agreement features. I have no account of why the requisite agreement relation is such a rare phenomenon.[10]

5.4. Possessors Outside the Noun Phrase

Finally, let us examine the behavior of the extracted possessor and the DP containing its traces. As É. Kiss (this volume) explains in detail, Hungarian sentences wear their logical form on their sleeves. Descriptively, the semantically significant s-structure positions listed in (57) may be distinguished.

(57)   Left-disloc* Topic* Quantifier* Focus V + I Neutral*
       (abbreviated LD*   T*   Q* F V + I N*)

The linear order of Q, F, and N corresponds to their scopal order (unless stress on N overrides, which I will ignore here). LD takes the same narrow scope as N. T is "referential/specific." See (60).

The communicative motivation for extracting the possessor from DP is to allow the two to participate separately in topic–focus and scope relations.

(58) a. [$_T$ *Péter-nek*] *csak* [$_F$ *Mari*] *látta* [$_N$ *a   kalap-já-   t*]
        Peter-DAT only   Mari saw   the hat- POSS.3SG-ACC
        'As for Peter, only Mari saw his hat.'

    b. [$_T$ *Péter-nek*] [$_Q$ *mindenki*] *csak* [$_F$ *a   kalap-já-   t*] *látta.*
        Peter-DAT   everyone only   the hat- POSS.3SG-ACC saw
        'As for Peter, everyone saw only his hat (e.g., no one saw his coat).'

I assume that possessor extraction takes place when the whole construction is in its base-generated N position. The extracted possessor lands in an N

position in the first step. This does not violate any principle of grammar: any phrase in N position may receive a thematic role from the verb, but once the verb dealt out all its thematic roles, no phrase in N position will receive one. Thus, we may say, the position the possessor moves into qualifies as non-thematic. After this both the extracted possessor and the source noun phrase may move on or may stay. (58a) for instance will be derived as follows:

(58) a. $[_T$ *Péter- nek*$]_1$ $[_F Mari]_2$ *látta* t_2 t_1'' $[t_1'$ *a* t_1
          Peter-DAT   Mari(-NOM) saw   the
          kalap-já-   *t*]
          hat-   POSS.3SG-ACC

As we shall see below, the possessor and the leftover portion of the noun phrase have considerable freedom in movement; thanks presumably to some process that "reconstructs" the moved phrase into its original position, the moved possessor need not c-command its traces in s-structure. Reconstruction has limits, however. (For further discussion, see Szabolcsi, 1986c).

(41)   Once the possessor leaves DP, it and the DP behave as if they were independent, though anaphorically related, arguments of the verb.

(59)   When BINDEE is an expression containing a trace of movement, an anaphor, or a bound variable pronoun, and BINDER is supposed to bind into BINDEE (as a moved phrase, as an antecedent, or as a quantifier, respectively), their relative s-structure positions can be anything except
                * [BINDEE]> [BINDER]
     where both BINDEE and BINDER are scope-bearing expressions, and BINDEE has BINDER in its scope.

Further, binding into a BINDEE in T position by a BINDER that linearly follows it is ruled out independently in view of T's discourse-related specificity. The effect of this largely overlaps with that of weak crossover. I ignore T below. Thus the positions in (57) will form hierarchy (60) for (59).

(60)   Q>F>N/LD

For brevity's sake I restrict the demonstration to possessor–trace and antecedent–reciprocal relations and only list a suggestive subset of the relevant permutations. To make examples easier to decipher, the positions are labeled informally as in (57), and traces other than those in BINDEE are omitted. Glosses in (62) are simplified.

(61) a. [F *csak Mari-nak*] *fekete* [N t′ t *minden kalap-ja*]
        only Mari-DAT black   every hat- POSS.3SG(-NOM)
    'Only x = Mari, x's every hat is black'

    b. [Q t′ t *minden kalap-ja*]   *fekete* [N *Mari-nak*]
        every hat- POSS.3SG(-NOM) black   Mari-DAT
    'Mari's every hat is black'

    c. [LD t′ t *minden kalap-ja*] [F   *csak Mari-nak*] *fekete*
        every hat- POSS.3SG(-NOM) only Mari-DAT black
    'As for every y, y x's hat, only x = Mari, y is black (viz., only Mari
    has all black hats)'

    d.*[Q t′ t *minden kalap-ja*] [F   *csak Mari-nak*] *fekete*
        every *hat-* POSS.3SG(-NOM) only Mari-DAT black
    'Every y, y x's hat, only x = Mari, y is black'

(62) a. [F *a   fiúk*] *olvassák* [N *egymás*   *verseit*]
        the boys read   each other's poems
    'It is the boys who read each other's poems.'

    b. [Q *egymás*   *verseit is*]   *olvassák* [N *a   fiúk*]
        each other's poems also read   the boys
    'The boys read also each other's poems.'

    c. [LD *egymás*   *verseit (is)*] [F *a   fiúk*] *olvassák*.
        each other's poems also   the boys read
    'As for reading each other's poems, it is the boys who do that.'

    d.*[Q *egymás*   *verseit is*] [F *a   fiúk*] *olvassák*.
        each other's poems also the boys read
    'Each other's poems, too, are read by the BOYS.'

In the (a) examples BINDER c-commands BINDEE. In (b), BINDEE
c-commands BINDER and takes scope over it, but BINDER itself is not
a scope-bearing element, so reconstruction is possible. In (c), BINDEE
c-commands BINDER but, being in LD, it does not take scope over it.
Finally, (d) is ungrammatical, because BINDEE takes scope over a scope-
bearing BINDER.

5.5. A Note on Inflected Case Markers and Postpositions

Let me conclude this section by mentioning that Marácz (1984) proposed
an analysis of a subclass of postpositional phrases along the lines of
Szabolcsi (1981, 1983b). Most case markers, see (63), and most postposi-
tions, see (64), in Hungarian agree with their noun phrases in person and
number when that noun phrase is a personal pronoun.[11]

(63) a. *én-től- em*   but *Péter-től*
      I- from-1SG   Peter-from
      'from me'   'from Peter'

(64) a. *én-mögött-em*   but *Péter mögött*
      I- behind-1SG   Peter behind
      'behind me'   'behind Peter'

Marácz observed that the noun phrase in the inflected postpositional phrase may, although marginally, switch to the dative and extract. In this case even non-pronominals trigger overt agreement.

(63) b.*Péter-nek-től (-e)*
      Peter-DAT from(-3SG)
      'from Peter'

(64) b. *Péter-nek mögött-e*   vs. *Péter-nek mögött*
      Peter-DAT behind-3SG   Peter-DAT behind
      'behind Peter'

Accordingly, he proposed a structure for such postpositional phrases that was very similar to the structure proposed for noun phrases.

While I cannot do justice to this interesting analysis here, let me point out one factor, not considered by Marácz, that needs to be taken into account. Inflected PPs do bear interesting similarities to noun phrases but also exhibit a number of puzzling differences. Historical linguists (Bárczi, Benkő, and Berrár, 1967) claim that both case markers and postpositions of this type derive from nouns, and the construction is indeed historically a possessive construction. The fact that these items exhibit various stages of a not yet fully completed suffixation process will then explain the puzzling differences hinted at above. A careful synchronic analysis of these data would presumably benefit from awareness of this historical process.

6. SUBORDINATORS: ARTICLES AND COMPLEMENTIZERS

The syntactic analysis of possessor extraction suggests some analogy between the article *a(z)* (D) and the complementizer (C): both are functional categories whose SPEC is a designated landing site for operators and serves as an escape hatch for movement. In this section I argue that the analogy goes beyond this: the article, just like the complementizer, is a subordinator: it enables a propositional entity to act as an argument of a higher predicate.

This claim is motivated in the following steps. I first focus on the rela-
tionship between the article and other determiners. I show that the article
is not just one of the determiners since it can co-occur with them, and then
I go on to discuss the cases in which either the article or the real determiner
seems absent. In the second round I propose a subordinator analysis for the
article, using arguments related to the structure of vocatives, for instance.
Third, the conflation of subordinators and quantifiers will be assimilated to
the clause-level conflation of subordinators and clause-type indicators.

6.1. On the Co-occurrence of Articles and "Other" Determiners

The fact that nouns may be doubly determined in Hungarian had not
been observed in either descriptive or theoretical literature before Szabolcsi
(1986a). The reason is that in the statistically speaking typical case the
co-occurrence of determiners (DETs) is strictly prohibited. [Review (13)
and (29) for fuller lists.]

(65) a.
$$
\left\{
\begin{array}{ll}
az & \text{'the'} \\
ezen/azon & \text{'this/that'} \\
minden & \text{'every'} \\
melyik & \text{'which'} \\
\ldots &
\end{array}
\right\}
\quad \textit{állítás}(om) \text{ 'claim(-POSS.1SG)'}
$$

'the/this/every/which/ . . . claim (of mine)'

b.*
$$
\left\{
\begin{array}{ll}
a \; minden & \text{'the every'} \\
minden \; a & \text{'every the'} \\
minden \; ezen & \text{'every this'} \\
\ldots &
\end{array}
\right\}
\quad \textit{állítás}(om) \text{ 'claim(-POSS.1SG)'}
$$

These data create the impression that all the determiners compete for the
same position. That this is false becomes clear, however, as soon as some
string, to be notated as $, manages to intervene between the two items. In
that case determiners split into two groups. $a(z)$ 'the' appears preceding $,
and only there, whereas all others appear following $, and only there.[12]
Moreover, they may co-occur, so that we cannot say that the article gets
into its surface position by fronting, as was pointed out to me by M. Brody
(personal communication, 1986). The pattern is summarized in (66).

(66)   D $ Det N   where D = $\{a(z), \emptyset\}$
                          Det = $\{minden, \; ezen, \; melyik, \; \ldots \}$

What are the $s that can intervene between D and Det? I am aware of two
entirely independent possibilities; their independence is important as it
indicates that pattern (66) is not the peculiarity of an individual construc-
tion. One $ may be an overt possessor in the nominative (whether pro-
nominal or not). That is, data like (45) and (29) can be combined.

(67) *az én   minden állítás-om*
      the I(-NOM) every   claim-POSS.1SG
      'my every claim'

The other relevant construction is the one with a prenominal participial
modifier, as in *tőled kapott* 'received from you'. This may either immedi-
ately precede the head noun (here *levél* 'letter'), as in (68a), or it may be
separated from it by a Det (here *valamennyi* 'each'), as in (68b). In the
latter case, however, an article appears obligatorily.

(68) a. *Valamennyi [től- ed kapott] levél   rövid volt.*
        each   from-2SG received letter(-NOM) short was
        'Each letter received from you was short.'
     b. *A [től-ed   kapott] valamennyi levél   rövid volt.*
        the from-2SG received each   letter(-NOM) short was
        'Each letter received from you was short.'
     c.*A valamennyi [től- ed kapott] levél   rövid volt.*
        the each   from-2SG received letter(-NOM) short was
     d.*[Tőled   kapott] valamennyi levél rövid volt.*
        from-2SG received each   letter short was

The crucial observation to be made now is that whereas the presence of the
article is required in one set of the examples and prohibited in the other,
this makes no difference for interpretation. That is, (68a,b) are synony-
mous and, similarly, the interpretation of (67) differs from that of (65a)
with *-om* only in that it contains a stressed rather than a dropped pronoun.
(Both *minden* 'every' and *valamennyi* 'each' are distributive quantifiers,
exactly like their English counterparts.) It is therefore convenient to as-
sume that an article is underlyingly present in all cases, but its surface
realization is restricted. The emergent generalization is as in (69).[13]

(69) Haplology:
      a. The co-occurrence of D and Det is grammatical if they are linearly
         separated by some intervener.
      b. Contiguous strings of the type D Det, or D D, are ungrammatical.
         Ungrammaticality can be eliminated either by deleting *a(z)* of D
         in phonetic form, or by moving the constituent that contains Det
         or the second D.

This rule requires that the D Det or D D string be eliminated regardless of
whether the two items are related to the same head noun or to different
head nouns. This is borne out by the examples in (70)–(72). In analogy to
(67) and (68b), I assume that *minden fiú* 'every boy' derives from *a minden*

fiú 'the every boy' via article deletion, as in (70). Deletion is indicated by #. In (71) *minden fiú* appears as a possessor. (71a,b) correspond to the steps in (70). In (71c) the outer D is deleted because it would be adjacent to *minden*. (71d) represents the alternative of moving *minden fiú* to [SPEC,DP] and leaving the outer D intact. Note that if the possessed noun had a Det, as in (72) on the next page, possessor movement would result in a D Det sequence, triggering D-deletion again.

(70) *a   minden fiú => # minden fiú
      the every boy   every boy

(71)

a.		*a(z)	a(z)	minden	fiú	kalap-ja
		the	the	every	boy(-NOM)	hat -POSS.3SG
b.		*a(z)	#	minden	fiú	kalap-ja
c.		#	#	minden	fiú	kalap-ja
d.	minden fiú-nak	a(z)		t		kalap-ja
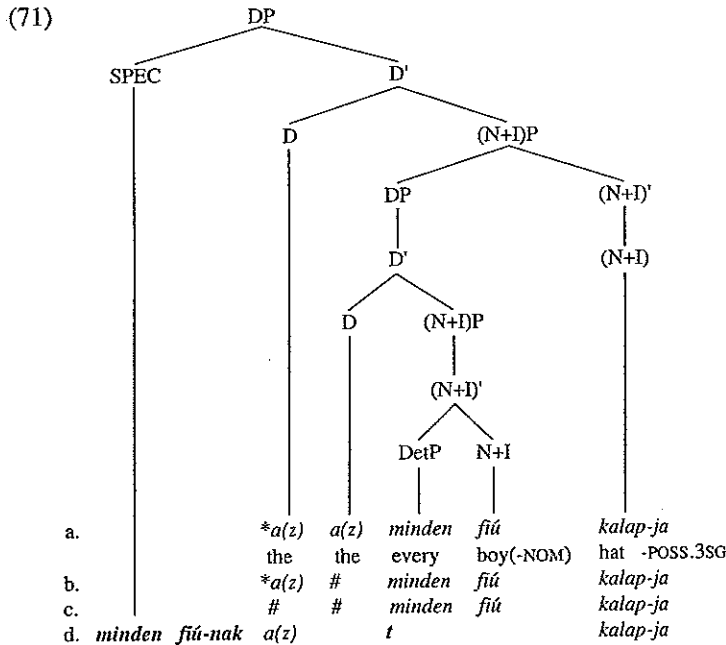
As regards proper names, I will assume that they always come with an underlying D, but the visibility of D for haplology varies with types of proper names and with dialects. Details are discussed in Kornai (1985) and Szabolcsi (1986a).

A similar Papago example is quoted from Hale's work in Abney (1987). Evidence that the bracketing in (73b) is correct is that *'am* is a DET that combines with *weco* but not *miisa*. Here the illegitimate *'am g* sequence is eliminated by deletion of *g* or by extraposition.

(72)

```
                        DP
              _____/_____
           SPEC                   D'
            |              _____/_____
            |             D            (N+I)P
            |             |          ___/\___
            |             |        DP        (N+I)'
            |             |        |        __/\__
            |             |       D'     DetP   (N+I)
            |             |    __/\__      |      |
            |             |   D   (N+I)P   |      |
            |             |   |     |      |      |
            |             |   |   (N+I)'   |      |
            |             |   |   __/\__   |      |
            |             |   | DetP  N+I  |      |
            |             |   |  |     |   |      |
```

a.		*a(z)	a(z)	minden	fiú	minden	kalap-ja
		the	the	every	boy(-NOM)	every	hat -POSS.3SG
b.		*a(z)	#	minden	fiú	minden	kalap-ja
c.		#	#	minden	fiú	minden	kalap-ja
d.	*minden fiú-nak a(z)			t		minden	kalap-ja
e.	minden fiú-nak #			t		minden	kalap-ja

(73) a. *'am [g   miisa] weco
          DET DET table   underneath

      b. 'am [miisa] weco
          DET table   underneath
          'under the table'

      c. 'am weco   [g   miisa]
          DET underneath DET table
          'under the table'

The question arises why the D–DET sequence is ungrammatical. I have no explanation to offer for the time being, but I conjecture that the reason may not be a deep one. This is corroborated by the fact that one such sequence is actually grammatical in English. Its existence was brought to my attention by A. Radford.

(74) *the every whim of Mrs. Thatcher*

Similar sequences are observable in Modern Greek, Korean, and Japanese, for instance (I thank G. Agouraki, J. W. Chang, and K. Ohta for the data, respectively). They differ from the Hungarian data, however, in that (1)

the possible combinations are more restricted, and (2) the first member of the sequence appears to contribute more to interpretation than Hungarian $a(z)$.

(75) a. *kathe pedhi*   b. *to   kathe pedhi*[14]   (Greek)
        every child   the every child
        'every child'   'every child'

(76) a. *motun salan*   b. *i/   ku   motun salan*   (Korean)
        every person   this/the every person
        'people (generic)'   'all the(se) people'

(77) *so   no   watasi no   subete no   hon*   (Japanese)
      the GEN I   GEN every GEN book
      'my every book'

The significance of these data is twofold.

(78) Two categories of determiners, D and Det, need to be distinguished. D (the articles) heads the noun phrase. Det (all others) belongs inside (N + I)P.

(79) Since D and Det can co-occur, what role each plays needs to be clarified.

Let me briefly comment on (79). There are two basic approaches to determiners in current semantic theories.

In Montague grammar and generalized quantifier theory, all determiners play the same role: they are interpreted as functions from noun denotations to noun phrase denotations (or, equivalently, they bind the external argument place of the noun). The Hungarian data are problematic for this approach because a noun cannot be doubly determined in its sense, so that either D or Det must have some different role. The data suggest that Dets play the traditional role, and D needs an as yet unrecognized role.

In discourse representation theories, determiners do not play the same role. The articles (together, presumably, with the demonstratives) contribute to the creation of noun phrases that are interpreted as familiar or novel discourse referents (familiarity corresponds to definiteness, and novelty to indefiniteness). Quantifiers, on the other hand, are interpreted as global instructions for the construction of discourse representations. As the bifurcation is reminiscent of the D versus Det distinction, this approach may look more promising, but the Hungarian data are equally problematic for it. The reason is that quantified noun phrases do not have corresponding discourse referents which could be called familiar or novel. Thus no interpretation can be assigned to 'the every N' using standard assumptions.

In this way it seems that the above data constitute a challenge not only for syntactic, but also for semantic theories.

6.2. Articles as Subordinators

Recall now that we are working toward the full justification of a proposal under which the article is analogous to the complementizer.

(22) a.
```
            DP
          /    \
       SPEC     D'
              /    \
            D      (N+I)P
            |      /    \
           a(z)  DP    (N+I)'
                        /    \
                     DetP    N+I
                           [±poss]
                           [(AGR)]
```

b.
```
            CP
          /    \
       SPEC     C'
              /    \
            C      IP
            |     /  \
          that  NP    I'
                     /   \
                    I     VP
                  [±tense]
                  [(AGR)]
```
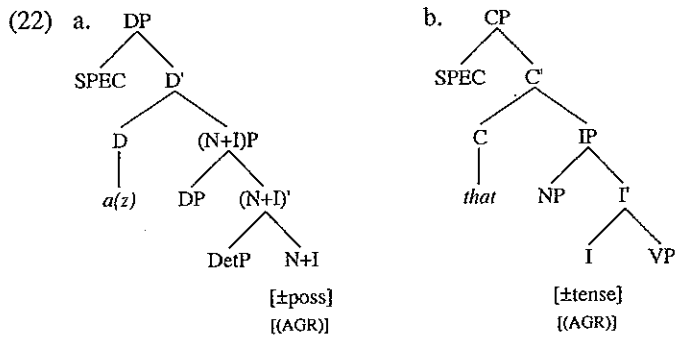
Important preliminary conclusions have been reached: D is a functional head that plays a similar role in possessor extraction to what D plays in subject extraction and, being distinct from real determiners, it needs some function within the noun phrase. The critical question left to be answered is this: Can we attribute analogous functions to D and C? Following Szabolcsi (1986a, 1987) the suggestion is as in (80) (the proposal is refined below).

(80) a. Only phrases in the canonical argument format can function as arguments of θ-role assigning heads.

b. Both the complementizer and the article are subordinators in the sense that they enable the clause or noun phrase to act as arguments.[15]

There are general syntactic considerations that lend some plausibility to the claim that arguments in the above sense come with a subordinator. First consider what categories, besides noun phrases, are assigned thematic roles. In terms of Chomsky (1981), they are embedded finite clauses, infinitival clauses, and small clauses. Embedded finite and infinitival clauses are standardly assumed to have a complementizer, whether overt or phonetically null. Small clauses are a misfit because they do not have a complementizer but require a thematic role. However, Stowell (1991) argues that they in fact undergo restructuring, at s-structure or at LF. He proposes that this is forced by a principle like (81a) or (81b).

(81) a. A predicative category may not function as an argument.

b. Only a referential category may function as an argument.

On this proposal, small clauses no longer constitute an exception.

Next, consider categories that do not act as arguments. Matrix clauses are a case in point, and we know that in most languages they may not have a complementizer (I return to exceptions below).

(82) *That John left.

Let us now look for an analog of matrix clauses in the domain of noun phrases. Vocatives suggest themselves, since they are quite obviously not arguments of any predicate. The question is, May vocatives contain an article?

It is well known that in many languages/dialects names of persons take an article. Such is the case, for instance, in various dialects of German and Hungarian (but never in languages with a word-final article, e.g., Scandinavian, Macedonian, and Bulgarian; F. Kiefer, personal communication).

(83)   *Der Peter kommt.*
       the Peter comes
       'Peter is coming.'

(84)   *Jön   a   Péter.*
       comes the Peter
       'Peter is coming.'

It is clear that in (83)–(84) the presence of the article is a purely formal requirement: it does not change the meaning of the name in any usual sense. Nonetheless, even in those dialects the article is impossible in the vocative.

(85)   *Peter, komm!*   versus   *Der Peter, komm!*
       'Peter, come'

(86)   *Péter, gyere!*   versus   *A   Péter, gyere!*
       Peter come-IMP.2SG   the Peter come-IMP.2SG
       'Peter, come'

Similarly, I noted that possessive constructions whose nominative possessor is a personal pronoun are invariably introduced by an article [cf. (17) and (45)]. Vocatives are the one exception.

(87)   *Én   barát- om,   gyere!*   versus
       I(-NOM) friend-POSS.1SG . . .
       'My friend, come'

       Az én   barát- om, gyere!
       the I (-NOM) friend-POSS.1SG

The absence of an article from vocatives is precisely what my proposals concerning the D/C parallelism and subordination predict.

It may be interesting to point out that D is not absent from vocatives, only genuinely empty. The arguments for this are similar to the arguments concerning the presence of C in matrix clauses. For instance, the possessor of the vocative may be in the dative, making use of the SPEC of D position, just as the SPEC of C can be filled in matrix questions.

(88) a. *Péter   barát- ja!*
        Peter(-NOM) friend-POSS.3SG
        'Peter's friend'
    b. *Péter- nek barát- ja!*
        Peter-DAT friend-POSS.3SG
        'Peter's friend'

Related facts are discussed in Longobardi (1990), who proposes that vocative *Gianni mio* 'John my' differs from argumental *il mio Gianni* 'the my John' in that *Gianni* underwent N-to-D movement. For some reason, no similar movement into D is possible in Hungarian.

(89) a. *Kicsi János!* versus b.**János kicsi!*
      little Janos   Janos little
      'Little Janos'

Incidentally, C and D raise the intriguing theoretical question of how it is possible for a head category to project when it is genuinely empty of lexical content. I have no answer to offer.

6.3. The Parameter of Subordinator Conflation

There are at least two puzzling facts that remain to be explained by the above proposal. The first is that although matrix clauses and vocatives tend not to have complementizers and articles, respectively, in some languages they do. For instance, in Korean (90) and Romanian (91).

(90) *John-i   wa- ss- ta.*
      John-NOM come-PAST-DECL
      'John came.'
(91) *Frate- le meu!*
      brother-the my
      'my brother, vocative'

These data are in conflict with the claim that articles and complementizers are subordinators.

The second puzzling fact is that while articles and quantifiers or demonstratives can co-occur in Hungarian and, to a more restricted extent, in

some other languages [cf. (75)–(77)], in many other languages they cannot. Why is that so, if articles have a distinct subordinator role of their own?

I wish to suggest that while these data certainly call for a refinement of the proposals made in the previous sections, they can be accommodated in a coherent way and thus provide further support for the proposals.

Bhatt and Yoon (1992) argue that items broadly classified cross-linguistically as complementizers have two distinct functions: to serve as subordinators and to indicate clause type. In languages like English these two functions are lexicalized in a single morpheme. In many languages with robust agglutinative morphology, however, these are carried by two separate morphemes. They cite the Korean paradigm (92), for instance.

(92) a. *John-i   wa- ss- ta*
          John-NOM come-PAST-DECL

      b. *Bill-un [John-i   wa- ss- ta- ko] sayngkakhan-ta*
          Bill-TOP John-NOM come-PAST-DECL-SUB thinks-   DECL

      c. *John-i   wa- ss- ni?*
          John-NOM come-PAST-INTERROG

      d. *Bill-un [John-i   wa- ss- nya-   ko] mwuless-ta*
          Bill-TOP John-NOM come-PAST-INTERROG-SUB asked-   DECL

Some further languages that they claim exhibit the same property are Japanese, Kashmiri, and Hungarian. To wit, the Hungarian morpheme *hogy* 'that' co-occurs with both question words and the interrogative particle *-e* in embedded clauses. *-e* is also possible in matrix questions (it is in complementary distribution with question intonation).

(93) a. *Nem tudom, hogy hol   van János.*
          not know-I SUB where is   Janos(-NOM)
          'I don't know where Janos is.'

      b. *Nem tudom, hogy megjött-e   János.*
          not know-I SUB came- INTERROG Janos(-NOM)
          'I don't know whether Janos has arrived.'

      c. *Megjött-e   János?*
          came- INTERROG Janos
          'Has Janos arrived?'

(*-ä*, the equivalent of *-e* in strictly SOV Ob-Ugric languages, is a clause-final particle. I assume that *-e* cliticized onto V during the SOV period of Hungarian and moved along with it when V ceased to be final.)

Bhatt and Yoon's observations offer the following solutions to our puzzles. First, only those complementizers are not expected to appear in matrix clauses that are either pure subordinators or conflate the subordinator and the clause-type indicator functions. If a complementizer is a pure clause-type indicator, there is nothing strange about its appearance in a matrix context.

Second, it seems reasonable to look on determiners as having two functions: that of a subordinator and that of a quantifier/demonstrative, the latter being a natural counterpart of clause-type indication. These two functions can also be either conflated or lexicalized separately. I submit that languages like English typically conflate these two functions, whereas Hungarian systematically lexicalizes them as separate morphemes: the Hungarian article is indeed a pure subordinator. If these assumptions are tenable, then the fact that the exact details of the analysis of Hungarian noun phrases do not carry over to, say, English, does not speak against the plausibility of the analysis. On the contrary, it can be seen as a matter of parametric variation.

It is interesting to observe that Hungarian has a pure subordinator both at the clausal and at the noun phrase level. Let us recall now that Korean and Japanese allow for the co-occurrence of certain articles/demonstratives and quantifiers; and these languages also have separate subordinating and clause-type indicating complementizers. Thus, we may risk conjecture (94).

(94) There is a correlation between clause-level and noun-phrase level subordinator conflation in a language.

The verification of this conjecture requires much further empirical research. One factor that makes (94) somewhat difficult to check is that agglutinating SOV languages which, according to Bhatt and Yoon (1992), typically have distinct subordinating and clause-type indicating complementizers, often lack an article. (The Hungarian article is a relatively late development, too.) Note, though, that while languages tend to be cross-categorially consistent, there is no theoretical necessity for (94) to be true. Thus Bhatt and Yoon's analysis of complementizers and my analysis of determiners may well be maintained even if (94) does not turn out to be correct.[16]

With these modifications, I consider the DP/CP parallelism to be established.

7. SPECIFICITY AND DEFINITENESS IN THE NOUN PHRASE

The purpose of this section is to show that the subordinator analysis of articles is compatible with the common wisdom that $a(z)$ has to do with definiteness and Ø with indefiniteness. In section 7.1 I propose that the ±definiteness of the noun phrase is really determined within (N + I)P, and the form of the article D is a result of a concord-like process, in interaction with D-deletion. A few remarks on definite object agreement are added in section 7.2. Further issues related to non-specificity are taken up in section 8.

7.1. ON SPECIFICITY AND DEFINITENESS

Noun phrases that contain the article *a(z)* 'the' may or may not contain one of the Dets *minden* 'every', *ezen* 'this', *melyik* 'which', or others. On the other hand, noun phrases containing these Dets may or may not contain *a(z)* 'the'. Thus we have three types.

(95) *a [vel- ed való] minden/ezen/melyik találkozás*
      the with-2SG being every/ this /which meeting
      'every/this/which meeting with you'

(96) *minden/ezen/melyik találkozás*
      every/ this/ which meeting
      'every/this/which meeting'

(97) *a   találkozás*
      the meeting
      'the meeting'

As is noted in section 6, the quantificational and definiteness characteristics of (95) and (96) do not differ, which suggests that those characteristics are determined by Det. On the other hand, the article does appear to make a contribution in (97), since its omission creates a very different meaning.

(98) *találkozás*
      meeting
      'a meeting'

The assumption that *a(z)* plays different roles in (95) and in (97) is not very attractive, however. Therefore I propose (99).

(99) a. DetP determines both the quantification and the definiteness of the noun phrase through determining these properties of (N + I)P.
     b. DetP may be phonetically empty (viz., a feature).
     c. *A(z)* 'the' or Ø 'a, some' is selected for D in agreement with the definiteness of D's complement (N + I)P.

How shall we classify Dets for definiteness? *Ezen* 'this', *melyik* 'which', *valamelyik* 'one of the', *semelyik* 'none of the', and so on are obviously definite. The case of *minden* 'every' is more controversial. While it is traditionally not taken to be definite, it sides with definites in that noun phrases containing it cannot appear in existential contexts that exhibit the so-called definiteness effect.[17]

(100) a. *Van két könyv.*
         is   two book
         'There are two books.'

b.*Van ezen könyv.
   is   this book
   'There is this book.'
c.*Van minden könyv.
   is   every   book
   'There is every book.'

Milsark (1977) calls noun phrases that are excluded here STRONG, and various formal explications of this notion have been proposed since then; see Barwise and Cooper (1981), Szabolcsi (1983c, 1986a), de Jong (1987), Keenan (1987), Diesing (1990). My assumption, like de Jong's and Diesing's, is that the relevant notion of strength involves the fact that the noun phrase carries an existential presupposition, and that is why it cannot occur in contexts like (100). Informally, strength amounts to a kind of specificity; definiteness is a special case of specificity.

All the above mentioned Dets, ranging from ezen 'this' to minden 'every', co-occur with the D $a(z)$ 'the' if something intervenes. Thus I conclude that what $a(z)$ signals in the general case is strength (specificity), and not necessarily definiteness.[18]

Returning to (99), let us consider case (b), where the noun phrase has $a(z)$ but no overt Det. As mentioned above, for the sake of uniformity I assume that DetP may consist of mere features, [± definite] and [± specific], and these determine the choice of $a(z)$ or Ø in D. [+def] and [−def, +spec] (N + I)Ps select $a(z)$ 'the,' and [−spec] (N + I)Ps select Ø.

(101) a.   D'
          /   \
        D   (N+I)P[+def]
        | |
        | (N+I)'
        | /   \
        | DetP   N+I
      a(z)   {ezen
             [+def]}

       b.   D'
          /   \
        D   (N+I)P[+def,+spec]
        | |
        | (N+I)'
        | /   \
        | DetP   N+I
      a(z)   {minden
             [+spec]}

       c.   D'
              /   \
            D   (N+I)P[−def,−spec]
            | |
            | (N+I)'
            | /   \
            | DetP   N+I
            Ø   [−spec]
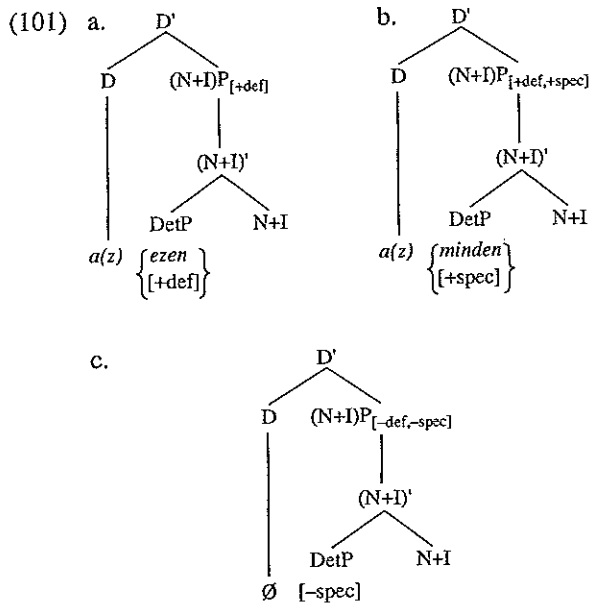
The question arises whether the choice of these features is free in the absence of an overt Det. It is not entirely free; for instance, whether the noun phrase contains a numeral and if so, what kind, constrains the interpretation options for Det.

(102) a. Noun phrases with (unmodified) numerals can be either [+specific] or [−specific]. This accords with Milsark (1977).

   b. Numerals modified by *legalább* 'at least', *legföljebb* 'at most', *pontosan* 'exactly', and others typically do not allow for the [+specific] reading. This squares with Liu's (1990) and Beghelli's (1992) findings.

   c. When N + I is non-possessive, (N + I)P can be [+specific] only if an overt numeral or Det is present.

Since both [+spec, -def] and [+spec, +def] noun phrases select for $a(z)$ in D, some further observations are in order. When there is no overt $ intervening between D and DetP (cf. section 6.1), [+def] noun phrases require an overt $a(z)$, but merely [+spec] noun phrases cannot have one. On the other hand, when some $ intervenes, as in (103c,d), there is no knowing whether the noun phrase is [+def] or only [+spec].

(103) a. a (két) találkozás
      'the (two) meeting(s): definite'

   b. *két találkozás*
      'two meetings: indefinite, specific or non-specific'

   c. *a [veled való] (két) találkozás*
      '(the/a) (two) meeting(s) with you: definite or specific'

   d. *az én (két) kalap-om*
      'my (two) hat(s): definite or specific'

Absent a deeper analysis, I propose to account for these latter facts by assuming that the features [+def] and [+spec] differ in visibility for the haplology rule (69).[19]

(104) a. The feature [+spec] is a "visible" for filter (69) and hence triggers $a(z)$-deletion in phonetic form.

   b. The feature [+def] is not a "visible" and hence does not trigger $a(z)$-deletion.

Note that $a(z)$-deletion takes place in phonetic form, so that it does not affect interpretation, and $a(z)$-deleted forms behave differently from those having Ø in D. One such difference is used in section 7.2.

The selection of the lexical item to fill D in agreement with the definiteness/specificity of its complement (N + I)P is reminiscent of complementizer selection in agreement with the tensedness of inflection.[20]

(105) a. *I know that the mail will be brought up here.*

   b. *I arranged for the mail to be brought up here.*

One difference is that Tense is a head in current terms, whereas I assumed that determiners are in a specifier position. We may either assume that the properties of DetP can be inherited by the maximal projection, in which case this difference will not matter, or we may reanalyze (N + I)P, an enterprise which I do not find impossible but which I will not engage in here. (Recall that in section 4 I did not specifically focus on DetP in my argument against functional projections.)

A point of cross-linguistic relevance may be added here. The claim that in noun phrases like *a találkozás* 'the meeting' the presence of an overt article merely signals the independently established definiteness of the noun phrase accords with the fact that many languages do not have overt articles but nevertheless make the requisite semantic distinctions.

7.2. Object Agreement

It deserves mention that Hungarian has a morpho-syntactic phenomenon related to definiteness, namely, definite object agreement. Since object agreement has received significant attention in recent literature (e.g., Enç, 1990; Mahajan, 1990), it may be useful to review some of the Hungarian data.

The first observation to be made is that object agreement in Hungarian does not have a clear-cut semantic correlate. The class of noun phrases that trigger the definite conjugation roughly coincides with that of definites, but there are important points of deviation. One concerns the classification of *minden* 'every'. In most of its environments *minden* triggers indefinite conjugation, which is identical to that exhibited by intransitive verbs.

(106) a. *Eltitkol-   om   a /ezen/valamennyi találkozás-t.*
         keep-secret-DEF.1SG the/this /each   meeting-   ACC
         'I keep[def] the/this/each meeting secret.'
      b. *Eltitkol-   ok minden/három találkozás-t.*
         keep-secret-1SG every /three   meeting- ACC
         'I keep[not def] every/three meetings secret.'
      c. *Fut-ok.*
         run-1SG
         'I run.'

If, however, *minden* co-occurs with *a(z)*, we have to switch to definite conjugation. This is particularly interesting because the two constructions do not in any way differ in specificity/definiteness.

(107) a. *Eltitkol-   om   a [veled   való] minden találkozás-t.*
         keep-secret-DEF.1SG the with-2SG being every   meeting- ACC
         'I keep[def] every meeting with you secret.'

  b.*Eltitkol-   ok a [veled   való] minden találkozás-t.
       keep-secret-1sg the with-2sg being every   meeting- ACC
       'I keep[not def] every meeting with you secret.'

On the other hand, we cannot even say that definite conjugation is triggered
by either overt a(z) 'the' or ezen 'this' or others, because (1) proper names
and 3rd person pronouns trigger it, although they are only semantically
definite but may/must not have a(z); and (2) in the majority dialect, all
possessive constructions trigger it, even if they have no a(z) and, more
strikingly, even when they are non-specific indefinite. Data pertaining to
the possessive construction are discussed in section 8.1, (121)--(124). In any
case, the range of noun phrases that trigger definite conjugation is seman-
tically inhomogeneous.

  A second observation is that, in distinction to Turkish, for instance (see
Enç, 1990), direct objects always bear the same accusative case marker in
Hungarian, irrespective of whether they trigger object agreement or not.
Although I have no explanation of this difference, I wish to point out, with
conjecture (108), that there seems to be a cross-linguistic generalization
lurking here.

(108) Only in languages that have no overt articles do non-specific direct
           objects fail to be accusative-marked (or, in general, fail to be
           marked in the same way as specific direct objects).

8. HAVE-SENTENCES AND NON-SPECIFIC POSSESSIVES

8.1 Have-Sentences and Non-Specific Possessives

  Sentences asserting possession ("have-sentences") have format (109) in
Hungarian. This format is invariant, irrespective of the animacy of the
possessor or the nature of possession.

(109) Mari-nak van-nak kalap-ja-   i.
        Mari-DAT be- 3PL hat-   POSS.3SG-PL(-NOM)
        'Mari has hats.'

This resembles the pattern familiar from Russian and other languages in
that the possessive verb is of the be-type, not of the have-type, with the
possessed in the nominative.

(110) U Mari- i   byl-   i   shl'ap-y.   (Russian)
        at Maria-GEN be.PAST-3PL hat- PL
        'There were hats with Maria' or 'Maria had hats.'

It also differs from the Russian pattern in crucial respects, though. First, the possessor is not in a locative form, but in the dative; second, the nominative possessed agrees with the dative possessor in person and number. Compare (109) with (110) and with the distinct Hungarian locative construction (111).

(111)   *Mari-nál van-nak kalap-ok.*
        Mari-at be- 3PL hat- PL(-NOM)
        'There are hats with Mari.'

The agreement between the dative and the nominative arguments deserves some attention because it is cross-linguistically quite unusual. Two arguments of a predicate do not normally agree with each other in person and number. [The only standard exception is when one is an anaphor/pronoun and the other is its antecedent; in (109) this is obviously not the case.] Standard accounts of agreement do not predict the existence of such a phenomenon, either: agreement is thought to arise between heads and their specifiers. The question thus arises whether pattern (109) justifies a major revision of theories of agreement. Steele (1990), who observes a rather similar pattern in Luiseño, indeed proposes such a revision.

(112)   *noo p   no-   taana   qala*
        I   AUX 1SG.POSS-blanket is
        'I have a blanket.'

Following Szabolcsi (1981), I argue that Hungarian does not make such a revision necessary: the properties of pattern (107) can be shown to follow rigorously from independently established empirical generalizations. Kayne (1993) extends this analysis to further languages.

The argument is as follows. Compare (109) with (113).

(113)   *Mari-nak el- tűn-   t- ek   a   kalap-ja-   i.*
        Mari-DAT PREF-disappear-PAST-3PL the hat- POSS.3SG-PL(-NOM)
        'Mari's hats disappeared.'

The morphological details of (109) and (113) are point-by-point identical. But in the case of (113) the possibility of co-argument agreement does not arise: we had ample reasons to assume that the agreement of *Mari-nak* and *a kalap-ja-i* is DP–internal agreement, and *Mari-nak* is simply extracted from DP. Thus, if we can show that possessor extraction takes place in (109) too, there is no need for contemplating co-argument agreement at all.[21]

There is one major stumbling block in the way of that argument. Namely, (113) has (114a,b) corresponding to it, with DP–internal *Mari(-nak)*, whereas the same option is not available for (109).

(114) a. *El- tŭn-   t- ek a Mari*
         PREF-disappear-PAST-3SG the Mari(-NOM)
         kalap-ja-   i.
         hat- POSS.3SG-PL(-NOM)
         'Mari's hats disappeared.'
      b. *(Csak) Mari-nak a   kalap-ja-   i*
         only   Mari-DAT the hat- POSS.3SG-PL(-NOM)
         tŭntek   el.
         disappear-PAST-3PL PREF
         '(Only) Mari's hats disappeared.'
      c. *(Csak) Mari-nak tŭntek   el   a*
         only   Mari-DAT disappear-PAST-3PL PREF the
         kalap-ja-   i.   cf. (113)
         hat- POSS.3SG-PL(-NOM)
         '(Only) Mari's hats disappeared.'

(115) a.*Van-nak Mari   kalap-ja-   i.*
         be- 3PL Mari(-NOM) hat- POSS.3SG-PL(-NOM)
      b.*(Csak) Mari-nak kalap-ja-   i   van-nak.*
         only   Mari-DAT hat- POSS.3SG-PL(-NOM) be- 3PL
      c. *(Csak) Mari-nak van-nak kalap-ja-   i.*   cf. (109)
         only   Mari-DAT be- 3PL hat- POSS.3SG-PL(-NOM)
         '(Only) Mari has hats.'

That is, possessor extraction seems obligatory in the context of the possession sentence. This is also unusual, though much less shocking than co-argument agreement: what we seem to be dealing with is the obligatoriness of an otherwise standard process, rather than the occurrence of a wholly non-standard process. I will point out, however, that even the obligatoriness of possessor extraction is fully predictable here.

Consider possessive constructions (116)–(117) in English.

(116)   *I haven't read Chomsky's poem.*

(117)   *I haven't read a poem of Chomsky's.*

Sentence (116) says that there is a poem by Chomsky that I have not read. This poem may be definite, his only poem, or merely specific, one of his poems that is salient in discourse; but (116) cannot be used if Chomsky has no poem at all. (117) on the other hand is ambiguous: it may say that there is a specific poem by Chomsky that I have not read, or that I have not read any poem by Chomsky, possibly because he has none. Similar effects arise in interaction with a universal.

(118)   *Everyone has read Chomsky's poem.*

(119) *Everyone has read a poem of Chomsky's.*

For (118) to be true, everyone must have read the same poem, whereas (119) on one reading allows for everyone to have read a different poem. The basic observation to be made is that *Chomsky's poem* is always specific (potentially also definite), whereas *a poem of Chomsky's* is either specific or non-specific. In the latter case it takes narrower scope than any scope-bearing element in the sentence.

The question to be addressed now is how the same semantic distinction is expressed in Hungarian. The reason why the answer is not self-evident is that Hungarian lacks the postnominal possessor construction of (117) and (119).[22] In the absence of dummy case markers, inflection is the only source of case for the possessor. In its own way, however, Hungarian follows a somewhat similar strategy in making the specific/non-specific distinction. The basic generalization, to be illustrated below, is (120).

(120) a. When the possessor is inside DP (in the nominative or in the dative), DP is specific (potentially also definite).

      b. For DP to be non-specific, it must have the possessor extracted (in addition to not containing any specific determiner, of course).

None of the sentences in (121)–(123) contains an overt article. We know that in such a case D may contain [−spec] $\emptyset$ or it may have a [+spec] $a(z)$ deleted. In (121) and in (122) the possessor is DP–internal [in (122) the focusing operator *csak* 'only' is added in order to guarantee that the dative possessor forms a constituent with the possessed, rather than being merely adjacent to it]. The noun phrases only have the definite/specific interpretation in these cases. In (123) the possessor is extracted and the non-specific interpretation is available. This demonstrates that possessor extraction is a sine qua non for the non-specific interpretation.[23]

(121) *Nem olvas-t-   ad   [Chomsky   vers- é-   t]*
      not read- PAST-DEF.2SG Chomsky(-NOM) poem-POSS.3SG-ACC
      'You haven't read Chomsky's poem.'

(122) *(Csak) [Chomsky-nak t vers- é-   t]   nem olvas-t-*
      only   Chomsky-DAT poem-POSS.3SG-ACC not read-
      ad.   (archaic)
      PAST-DEF.2SG
      'It is (only) Chomsky's poem that you haven't read.'

(123) *Chomsky-nak nem olvas-t-   ad t t   vers- é-   t.*
      Chomsky-DAT not read- PAST-DEF.2SG poem-POSS.3SG-ACC
      'You haven't read any poem of Chomsky's.'
      ?'You haven't read Chomsky's poem.'   (archaic)

One way to formulate this generalization is to say that whenever [SPEC, (N + I)P] is [−spec] and D is (consequently) Ø, the possessor must be extracted. (I return to the question as to why this is so in section 8.2.)

Incidentally, notice the fact, hinted at after (107) above, that the possessed noun object triggers definite conjugation on the verb, irrespective of its interpretation. These data are from the majority dialect, and they indicate quite unambiguously that object agreement cannot be used as a semantic litmus test. It is interesting to point out, however, that there is a minority dialect in which object agreement is more semantic. In that dialect (121) and (122) would still have the definite object form *olvas-t-ad*, but (123) would have the option of *olvas-t-ál*.

(124)   *Chomsky-nak nem olvas-t-   ál   vers- é-   t.*
        Chomsky-DAT not read- PAST-2SG poem-POSS.3SG-ACC
        'You haven't read[not def] any poem of Chomsky's.'

Let us return to our main argument now. The nominative argument in the *have*-sentence has no [+spec] determiner. Moreover, the word order contrast between specific (121)–(122) and non-specific (123) holds in all contexts. We may conclude that the obligatoriness of possessor extraction in the *have*-sentence merely signals that a non-specific interpretation of the nominative argument is required. In other words, if we can explain why the nominative argument has to be non-specific here, all the mysteries evaporate.

Such an explanation is readily available. Compare (109) with (125).

(109)   *Mari-nak van-nak kalap-ja-   i.*
        Mari-DAT be- 3PL hat-   POSS.3SG-PL(-NOM)
        'Mari has hats.'

(125)   *Van-nak kalap-ok.*
        be- 3PL hat-   PL(-NOM)
        'There are hats.'

The latter is the standard existential sentence in Hungarian, and it contains the same verb as the possession sentence.[24] Syntactically speaking, the only difference between the two is that (125) has a [−poss] nominative argument and (109) a [+poss] one, with its possessor extracted. But now we know that existential verbs cross-linguistically require a non-specific indefinite argument; this is the well-known definiteness effect. The conclusion is straightforward.

(126)   The *have*-sentence in Hungarian is an existential sentence with a
        [+poss] nominative argument. Given that (1) the existential verb
        requires a non-specific indefinite argument and (2) a [+poss] DP

has a non-specific indefinite interpretation only if its possessor is extracted, possessor extraction in the *have*-sentence is obligatory.

Recall the interpretation assigned to the possessed noun in (36).

(36) $\lambda x \lambda y [N(x) \,\&\, R(y,x)]$
     'the set of x–y pairs where x is a N and bears some relation R to y, and the range of y is restricted by the agr features'

Thus, the literal interpretation of (109) is as in (127).

(127)   *Mari-nak van-nak kalap-ja-*   *i.*
     Mari-DAT be- 3PL hat- POSS.3SG-PL(-NOM)
     'Mari has hats = lit. There exist hats that stand in some relation R to Mari.'

In Szabolcsi (1986a) I put forth an informal semantic argument to the effect that this is indeed the correct interpretation, and the notion of possession need not be invoked.

Further arguments in support of this analysis come both from English and from Hungarian. As for English, note that at least relational *have* is a definiteness effect verb, as was observed by B. Partee.

(128)   *I have a/ *the sister.*

It seems to me that the only reason why non-relational *have* does not appear to be a definiteness effect verb is that sentences like (129) have an interfering locative interpretation.

(129)   *I have the/every/John's book.*
     'I have the/every/John's book with me.'

Such interference does not arise in Hungarian: a truly locative construction (*nálam van* 'is with me') has to be used.

The Hungarian verb *van* is indeed just one of many definiteness effect verbs, which means that its properties are not merely explainable but are also completely standard. There are open classes of verbs which are characterized by the following properties: (1) they are bleached verbs whose meanings are practically reduced to the assertion of (a change in the state of) existence; (2) they require that one of their complements be a non-specific indefinite; where (3) that complement is properly case-marked— nominative, accusative or even quirky; and (4) they form a syntactic complex predicate with the complement. Some examples are *érkezik* 'arrive', *szerez* 'obtain', and *jut* 'acquire'. (130)–(132) demonstrate that these verbs do not take a definite complement; and when the complement is indefinite, it is necessarily interpreted as having narrower scope than sentential negation, which shows that it is [−specific].

(130) a. *Nem érkez- ett*   (*a*)   *vendég.*
       not   arrive-PAST(-3SG) (*the) guest(-NOM)
       'There arrived no guest.'
   b. *Mari-nak nem érkez- ett*   (*a*)   *vendég-e.*
       Mari-DAT not arrive- PAST(-3SG) (*the) guest- POSS.3SG(-NOM)
       'Mari had no guest arriving.'

(131) *Nem szerez-t-   em (*a*)   kalap-ot.*
     not   obtain-PAST-1SG (*the) hat-   ACC
     'I obtained no hat.'

(132) *Nem jut-   ott- am (*a*)   kalap-hoz.*
     not   acquire-PAST-1SG (*the) hat-   OBL
     'I acquired no hat.'

The same verbs have prefixed counterparts, whose meanings are not bleached and which do not exhibit the same effects. The fact that most languages do not overtly distinguish the two meanings of such verbs explains why the definiteness effect appears to be much smaller scale than in Hungarian.

Szabolcsi (1986a,1986d,1986e), which discuss pertinent data in detail, assign *van/érkezik/szerez* + non-specific complement units to the class of GENERALIZED LEXICAL INTEGERS,[25] which also includes complex predicates consisting of a verb and a locative or predicative complement.

(133)   Generalized lexical integer

Complement	Verbal head
(két) kalap	*van*
two hat	is
(két) kalap-ot	*szerez*
two hat -ACC	obtain
(nagyon) magas	*lesz*
very tall	become
(nagyon) magas-nak	*tart*
very tall -DAT	consider
a város-ba	*kerül*
the town -into	get

The common feature in the class is that the verbal head is bleached or simply has only logical/grammatical content, and the complement serves to substantiate it; that is, the complement provides the specific lexical content of the complex predicate. The fact that a noun phrase inside such complex predicates must be non-specific follows from the bleached character of the verb. It is natural to assume that only verbs with specific lexical content may assign a thematic role. Hence the noun phrase inside the complex predicate

does not receive a thematic role. A noun phrase can do without a thematic role only if it is non-referential. The assumption is that only non-specific noun phrases can be non-referential in the requisite sense. (On the other hand, the complex predicate can assign thematic roles to noun phrases that lie outside; its complement already substantiated it.)

It may be interesting to note that de Hoop's (1992) principle of contrastiveness falls out as a consequence of the above. She notes that [+specific] noun phrases only occur with predicates that are (potentially) contrastive. *I did not STEAL the book, I BOUGHT it* would represent such a contrast. Now note that a predicate is contrastive if and only if it has some specific (non-logical/non-grammatical) content. A purely grammatical/bleached predicate has nothing to build a contrast on. In my terms, a non-contrastive verb fails to license a specific complement precisely because it cannot assign it a thematic role.

8.1. Appendix: An Open Question

To conclude, let me note that although the above train of thought provides a satisfactory account of *have*-sentences, there is a genuinely open question here. Namely, why does the possessor have to be extracted in order for the non-specific reading to obtain? I am not able to answer this question but, as I consider it very interesting, I will provide data to promote further research.

In a very surfacy way, the Hungarian generalization is the same as in English. The presence of a prenominal possessor gives rise to specificity.[26] For the possessive construction to be non-specific, its top must be as bare as that of non-possessive non-specific DPs. English achieves this effect by making the possessor postnominal; Hungarian achieves it by extracting the possessor.

Both cases seem to fall under a typologically motivated generalization proposed by Lyons (1984, 1986). In then-current terms, prenominal possessors, definite articles, universals, and so on, all qualified as N''' specifiers, in distinction to numerals (N'' specifiers) and postnominal possessors (N'' complements).

(134) Noun phrases with N''' material are definite/specific; (non-specific) indefinite noun phrases have at most N'' material.

This, however, will not constitute an explanation, for two reasons. One reason is that present-day syntactic theory has good empirical reasons for not lumping the said items together under the heading N''' material, so that (134) is not even expressible any more. The other reason is that even in early 1980s terms, Hungarian fit the generalization only if by N''' material we meant 'overt, or non-overt but lexical, N''' material'. On the one hand,

in order for the possessor to have been extracted, there must be traces present above the N" level; but they obviously do not count here. On the other hand, as I show below, even a dropped pronominal possessor inside the noun phrase creates specificity; so pro apparently does count.

How can we determine whether pro is extracted or stays in place? There is at least one quite unambiguous diagnostic that must be sensitive even to the movement of a phonetically empty element—namely, the coordinate structure constraint. If we try to coordinate a [−poss] DP with a [+poss] one that has its possessor pro-dropped, and coordination is grammatical, we must conclude that pro stays inside its DP, or else the movement of pro out of just one conjuct would violate the coordinate structure constraint. On the other hand, if coordination is ungrammatical (and we have no other explanation why it should be so), this will indicate that pro moved. The data below indicate that the coordination of two definites along these lines is grammatical—but the coordination of two non-specific indefinites is not. (Naturally, both sentences are grammatical if both or neither conjuncts are [+poss].)

(135) *Vizes lett   a   kalap-od   és a   sál*
       wet became the hat- poss.2sg(-nom) and the shawl(-nom)
       'Your hat and the shawl became wet.'

                                                      cf. [a pro *kalap-od*]

(136) **Van kalap-od   és   sál.*
       is   hat- poss.2sg(-nom) and shawl(-nom)
       'There is a hat of yours and a shawl.'

                                          cf. pro . . . [t' Ø t *kalap-od*]

(136) indicates that even the pro possessor must be extracted in order for the noun phrases to receive a non-specific interpretation. Thus, it is lexically significant material, whether overt or non-overt, that matters for generalization (134).

PART 2
ARGUMENTS AND ADJUNCTS OF DERIVED NOMINALS

9. INTRODUCTION

This second part of the chapter is concerned with arguments and adjuncts of derived nominals. At several points it draws directly from T. Laczkó's work, as is indicated below. Two larger issues are addressed.

The first issue is what nouns, if any, have an argument structure in the
sense relevant for the θ-criterion, and how nominal argument structures
compare with verbal argument structures. Consider the verb *megfoszt* 'de-
prive', which has three obligatory arguments.

(137)   *A   közgyűlés   megfoszt-ott- a   az elnök-   öt*
        the assembly(-NOM) deprive- PAST-DEF.3SG the president-ACC

        a   kiváltság-ok-tól.
        the privilege-PL-from
        'The general assembly deprived the president of [his] privileges.'

The derived nominal *megfoszt-ás* 'deprive-DEV' (where 'DEV' stands for 'de-
verbal nominalizing suffix' in the glosses) differs from this in the following
way: the expression of all three arguments gives a very cluttered but gram-
matical result (138a); the omission of the agent is fully acceptable (138b);
the omission of the oblique argument is completely unacceptable (138c);
and the omission of the theme is unacceptable (138d) except under special
conditions, see (178c).

(138) a.   *?az   elnöknek   a   közgyűlés által a   kiváltság-ok-tól*
           the president(-DAT) the assembly by   the privilege-PL-from

           való   megfoszt-ás- a
           being deprive- DEV-POSS.3SG
           'the deprivation of the president of [his] privileges by the as-
           sembly, viz., the fact that the assembly deprives/ed the presi-
           dent of [his] privileges'

      b.   *az   elnök-   nek a   kiváltság-ok-tól   való*
           the president-DAT the privilege-PL-from being

           megfoszt-ás- a
           deprive- DEV-POSS.3SG
           'the deprivation of the president of [his] privileges'

      c.   **az   elnök   megfoszt-ás- a*
           the president(-NOM) deprive- DEV-POSS.3SG
           'the deprivation of the president'

      d.(*)*a   kiváltság-ok-tól   való   megfoszt-ás*
           the privilege-PL- from being deprive- DEV
           'the deprivation of privileges'

These data clearly indicate that at least some arguments of some nouns are
obligatory. Exactly which arguments of which nouns is discussed below,
taking Gramshaw's (1990) proposals as a point of departure. I will confirm
her distinction between complex event and other nominals, but I argue
against external argument suppression in Hungarian.

The second larger issue to be addressed concerns the contrast (139)–
(140) in the syntactic expression of oblique arguments and adjuncts,
originally observed in Laczkó (1985).

(139)   *az elnök*   *kiváltság-ok-tól *(való) megfoszt-*
        the president(-NOM) privilege-PL- from being deprive-
        ás- a
        DEV-POSS.3SG
        'the deprivation of the president of [his] privileges'

(140)   *az elnök*   *kiváltság-ok-hoz (?való) jut-*
        the president(-NOM) privilege-PL- to   being acquire-
        tat- ás- a
        CAUS-DEV-POSS.3SG
        'the endowment of the president with privileges'

The oblique argument of *megfosztás* 'deprivation' is always accompanied by the word *való* 'being' (or by some functionally equivalent item) in prenominal position. The same holds for the majority of oblique arguments and adjuncts. On the other hand, the oblique argument of *juttatás* 'endowment' either cannot or need not be accompanied by *való* in the same prenominal position (the disjunction comes from dialectal variation). Laczkó observed that the latter pattern occurs in a subset of those cases where the existence of a complex predicate has been postulated in the Hungarian sentence. (On complex predicates, see Horvath, 1981; Komlósy and É. Kiss, this volume; and section 8.1.) One further example:

(141) a. *A közgyűlés inkompetensnek nyilvánította az elnököt.*
          'The assembly declared the president incompetent'
      b. *az elnök*   *inkompetens-nek (?való) nyilvánít-*
          the president(-NOM) incompetent-DAT   being declare-
          ás- a
          DEV-POSS.3SG
          'declaring the president incompetent'

The questions to be addressed concern the scope of the deverbal suffix, the thematic role assigning abilities of nouns, and the role of the word *való*. My answers to these questions rely on but also deviate somewhat from Laczkó's (1985, 1992).

10. ON THE ARGUMENT STRUCTURE ANALYSIS TO BE PROPOSED

The lexical argument structure of nouns has received considerable attention in generative grammar in recent years. Two of the central questions have been as in (142)–(143).

(142)   Do nouns have an argument structure in the sense relevant for the
        θ-criterion?

(143)   If (some) nouns do, how do nominal argument structures compare
        with verbal argument structures?

For a variety of approaches, see, among others, Abney (1987), Grimshaw
(1990), Safir (1987), Williams (1987), and Zubizarreta (1987). Of these,
Grimshaw provides the simple and general answers in (144)–(145).

(144)   Nouns denoting complex events have an argument structure. Oth-
        ers, including those denoting results, have only adjuncts.

(145)   Nominal argument structures differ from verbal argument struc-
        tures in that the external argument of nouns is suppressed by the
        same process that makes the external argument in passives op-
        tional.

I examine the Hungarian data with these answers as my points of departure.
My claims are as in (146)–(147).

(146) a. It is possible to formulate a syntactic test (the *való*-test) that safely
          sets apart complex events and results.
      b. The data thus obtained confirm Grimshaw's claim that (only)
          complex events have an argument structure.
      c. It can be shown that these complex event nominals are true nouns,
          not gerunds.

(147) a. Superficially, there are differences between the argument struc-
          tures of verbs and complex event nominals. The relevant gener-
          alizations cannot be properly stated in terms of either grammat-
          ical functions or thematic roles.
      b. The above differences are not to be attributed to external argu-
          ment suppression, contra Grimshaw. They can be explained with
          reference to (1) case assignment and (2) the availability of con-
          trolled or arbitrary PROs. Hence the identity of verbal and nom-
          inal argument structures can be defended.
      c. The PRO of nouns is in lexical structure, not in syntax.

The facts and claims presented below were first discussed in Szabolcsi and
Laczkó (1992). The text of sections 10–14 is adapted from Szabolcsi
(1992a), with permission of the copyright holder, Elsevier Science Pub-
lishers.

11. GRIMSHAW ON COMPLEX EVENT AND RESULT NOMINALS

Grimshaw's (1990) proposal can be briefly summarized as follows. A noun has an argument structure if its lexical representation specifies a set of thematic roles like agent, patient, and so on; and the assignment of each role to a (phonetically overt or empty) argument is obligatory. The contrasts in (148) may serve as an indication of why this is controversial. While *announcement* appears to bear the same semantic relation to *the speaker* and to *the news* as *announce* does, the presence of those noun phrases is obligatory with *announce,* but not with announcement.

(148) a. *The speaker announced*   *the speaker's announcement of*
            the news.   *the news*
      b.*Announced the news.*   *(the) announcement of the news*
      c. *The speaker announced.*   *the speaker's announcement*
      d.*Announced.*   *the announcement*

Grimshaw's analysis of such examples has three components. First, she observes that the noun *announcement* has two readings, a complex event reading and a result reading. The two can be distinguished by a battery of tests. The most important test is based on aspectual modifiers like *in an hour* or *for an hour.* The first is standardly used to diagnose telic, and the second atelic, predicates. Therefore, if they can be added to a noun, this indicates that it has the same kind of event structure associated with it as verbs do. (See Walinska de Hackbeil, 1984, and Tenny, 1989. Modifiers like *frequent* or *constant* are also diagnostic of eventhood.)

(149) a. *John whistled for an hour/*in an hour.*
      b. *John's whistling for an hour/*in an hour*

(150) a. *The speaker announced the news in an hour/ *for an hour.*
      b. *the speaker's announcement of the news in an hour/ *for an hour*

In the presence of the aspectual modifier, *whistling* is understood as 'the fact/event of John's whistling' and not as 'the sound that John produced'; and similarly, *announcement* is understood as 'the fact/event of the speaker's announcing something' and not as 'the (content of the) text announced'. Grimshaw calls the first the complex event reading, and the second the result reading. Complex event nominals are also characterized by the facts that they do not pluralize (151) and that they need not have a determiner, but if they have one, it can only be *the* (152).

(151)   *announcement(*s) of the news in an hour*

(152)   *Ø/the/*a/*that announcement of the news in an hour*

(Nouns like *trip, event,* or *ceremony* also denote events in another sense (cf. Zucchi, 1989) but they do not have the above characteristics and thus fall into the same category as simple objects and results. I take it that Grimshaw's complex events or, at any rate, the Hungarian ones I discuss, have a propositional interpretation in Zucchi's sense.)

Second, Grimshaw observes that complex events assign specific thematic roles, like verbs; results only imply the existence of certain participants in the situations they are used in. This will account for the fact that in (148a) *announce* and *announcement* (as a complex event) are parallel in that both arguments are present and receive strictly thematic interpretations. It will also account for the fact that nominal (148c) is ungrammatical on the same complex event reading with *the speaker* as agent; it lacks an internal argument. It is grammatical only if *announcement* is a result and *the speaker* has the much looser interpretation of a participant in the announcement situation—an interpretation that a possessor can naturally assume, cf. section 4.1. For the same reason, (148d) is grammatical only on the result reading.

So far this leaves (148b) unexplained. In (148b) we have a complex event, but the external argument is absent. Here comes the third component of Grimshaw's theory. She writes, "The subject of nominals shares with the *by* phrase of the passive the interesting characteristic of being systematically optional . . . . This property reflects the a[rgument]-structure representation of passive and nominal predicates, which have "suppressed" a-structure positions corresponding to the optional phrases. Suppressed positions cannot be satisfied by arguments, nor can they theta-mark arguments. However, they can license *argument-adjuncts* (a-adjuncts), including the *by* phrase and the possessive. A-adjuncts, like arguments and unlike adjuncts, are regulated by relationship to an a-structure, yet like adjuncts and unlike arguments, they do not satisfy a-structure positions" (1990:107). (Grimshaw also assumes that the argument structure of complex event nominals differs from that of verbs and passives in having an external event argument Ev similar, but not identical, to Williams's R.)

In what follows I examine the Hungarian data in this light. The complex event versus result part of Grimshaw's claim is perfectly clear and therefore easy to check. The argument-adjunct part is perhaps less transparent, but the passive analogy makes it more accessible: unexpressed nominal subjects are claimed to have the same properties as unexpressed *by* phrases.

Caveat: The complex event interpretations of deverbal nominals is not fully productive in English; for example, speakers find *the invitation of Mary, the stinging of Peter,* and so on unacceptable or marginal. I wish to point out that the Hungarian patterns discussed below are fully productive and the examples sound natural. I am often forced to translate them using gerunds; this is only for the reader's convenience, however: in section 13.1 I explicitly argue that the Hungarian examples are not gerunds.

12. COMPLEX EVENTS HAVE ARGUMENTS

12.1. Complex Events: The Való-Test

All proposals in the literature mentioned in section 10 agree with Grimshaw's that the complex event versus result distinction plays a role in the characterization of nominals with and without an argument structure. (See the characterization of the distinction above.) It is therefore crucial to have a test that is applicable across the board and safely makes the event versus result distinction.

The form of derived nominals does not provide a clue. The same productive suffix *-ás/-és* is used for all purposes.

(153) *hivatkoz-ás* 'reference', *félreért-és* 'misunderstanding', *említ-és* 'mention'

Some non-productive suffixes, e.g., *-AT,* may yield only results, but I know of no suffix that yields only complex events.

(154) a. *tapasztal-at* 'experience'   *tapasztal-ás* 'experiencing'
     b. *kínál-at* 'supply'   *kínál-ás* 'offering'
     c. *felad-at* 'task'   *felad-ás* 'assigning'

In the rest of this chapter I gloss *-ÁS* as 'DEV' for 'deverbal nominalizing suffix'.

Will Grimshaw's tests that are briefly reviewed in section 11 always make the required distinction in Hungarian? The results of the pluralization test are by and large replicated. However, given that its diagnostic value has been disputed (Zubizarreta 1987) and given that not all derived nominals denote potentially countable events anyway, this alone cannot tell apart arbitrary complex events and results. Nor can the possibility of complex event nominals being determinerless, for it appears to be specific to English; in Hungarian, abstract and generic terms have a definite article. The observation that complex events do not take Dets seems safe (I propose to explain it by placing the event argument Ev in the same XP position that DetP occupies in simple noun phrases), but the countability problem again prevents it from being a universally applicable test.[27]

Given that we are in the business of identifying nouns with an event structure, the aspectual modifier test is of utmost relevance and, when applicable, gives the results Grimshaw predicts for English. Aspectual modifiers combine only with complex event nominals—in (155)–(156), the (c) examples are unacceptable—and the internal argument of an event nominal cannot be missing—the (b) examples are unacceptable. Note that the internal argument appears in the possessor's position, bearing nominative case. I return to this below.

(155) a. *a háború   egy év- en belül való befejez-és- e*
      the war(-NOM) one year-LOC within being end-   DEV-POSS.3SG
      'the ending of the war within one year'
   b.**az egy év- en belül való befejez-és*
      the one year-LOC within being end-   DEV
      'the ending within one year'
   c.**az egy év- en belül való tűzszünet/ jó   befejez-és*
      the one year-LOC within being ceasefire / good end-   DEV
      'the ceasefire/happy ending within one year'

(156) a. *a csapat-ok   egy év- en át   való*
      the troop -PL(-NOM) one year-LOC through being
      irányít-   ás- a
      command-DEV-POSS.3SG
      'the commanding of the troops for a year'
   b.**az egy év- en át   való irányít-   ás*
      the one year-LOC through being command-DEV
      'the commanding for a year'
   c.**az egy év- en át   való csata / felső szintű*
      the one year-LOC through being battle / high level
      tárgyal- ás
      negotiate-DEV
      'the battle/high-level negotiation for a year'

There are, however, verbs and, therefore, deverbal nouns that do not lend themselves to this test. (As far as I can see, the same holds for English.) Verbs like *át-vészel* 'through-last' and *ki-bír* 'out-stick' mean approximately 'survive'. They are obligatorily transitive perfective verbs that select for internal arguments denoting a (simple or complex) event with its own temporal extension. Given their perfectivity, they do not combine with 'for a year', and given that their object itself defines a time span, they do not combine with 'in a year', either.

(157) a. **John lasted through the war in/for a year.*
   b. *János   át-   vészel-t- e a háború-t (*egy*
      Janos(-NOM) through-last- PAST-3SG the war-   ACC one
      év- en át   /belül).
      year-LOC through/within
      'Janos lasted through the war (*in/for a year).'

Nevertheless, intuitively they seem like bona fide achievements, and their nominals behave like Grimshaw's complex events.

(158) a. *a háború   át-   vészel-és- e*
      the war(-NOM) through-last- DEV-POSS.3SG
      'lasting through the war'

b.*az át-   vészel-és
the through-last- DEV
'(the) lasting through'

Overall, the above tests are suggestive but cannot be used to diagnose arbitrary examples. Fortunately, there exists a Hungarian-specific test that does the job. This test, to be explained below, relies on the choice between two adjectivalizers, *való* and *-i*. (Adjectivalization is discussed from another perspective in section 16.2.) I admit I have no idea why the phenomenon works the way it does, but the results seem very clear.

As noted in the introductory sections, prenominal arguments and adjuncts to nouns have to be either adjectives or adjectivalized adverbs. Two adjectivalizers are the suffix *-i* 'belonging to' and the word *való* 'being'. The latter is formally a participle but acts as a mere formative here, since the corresponding predication is usually completely ungrammatical.

(159) a. *a   Mari után való vágyód-ás*
the Mari after being long- DEV
'longing for Mari'
b.*A   vágyód-ás   Mari után volt.*
the long-   DEV Mari after was
'The longing was for Mari.'

These adjectivalizers attach to adverbials, nouns with inherent case markers, and nouns with postpositions. The examples in (160) illustrate the patterns of adjectivalizer choice. I gloss *-i* as 'I' and *való* as 'VALO' in order to highlight them. *Való* is possible everywhere, but *-i* attaches only to uninflected postpositions and adverbs.

(160) a. *Mari után*   — *Mari után -i*   — *Mari után való*
Mari after   Mari after-I   Mari after VALO
b. *tegnap*   — *tegnap- i*   — *tegnap   való*
yesterday   yesterday-I   yesterday VALO
c. *hanyag(-ul)*   — * *hanyag-ul-i*   — *hanyag-ul való*
sloppi(- ly)   sloppi- ly-I   sloppi- ly VALO
d. *Mari-hoz*   — * *Mari-hoz-i*   — *Mari-hoz való*
Mari-to   Mari-to- I   Mari-to VALO
e. *(ő)után -a*   — * *(ő)után-a- i* — *(ő)után -a   való*
he-after-3SG   he-after-3SG-I   he-after-3SG VALO

This means that while the adjectivalized version with *való* happens to have alternatives *Mari után-i* in (160a), *tegnap-i* in (160b), and plain adjective *hanyag* in (c), it is the only option in (160d) and (160e). The circumstance that alternatives are lacking here is purely morphological and is therefore accidental from a syntactic point of view; in this way it exemplifies the rare phenomenon that a purely morphological fact has syntactic relevance, as we will see directly.

Traditional Hungarian linguistics makes only a stylistic comment on the above alternation: the *való* forms are said to be "somewhat awkward" when a shorter alternative is available. But the difference is in fact far from stylistic. Whether such an alternative exists makes a crucial difference in distinguishing complex events and results. The generalization, illustrated below, is as in (161).

(161)   Whenever *való* is not the only option (that is, when either an un-
derived adjective or *-i* adjectivalization is also available), the
choice of *való* in the prenominal adjectivalized construction un-
ambiguously invokes the complex event reading.

(162) illustrates the case where *való* is not the only option. What we find is that (162a) with *-i* adjectivalization is ambiguous between the event and the result reading, and (162b) with *való* only has the event reading. These judgments are corroborated by the fact that only the *-i* version is compatible with the predicate 'take literal notes of', which is applicable to a speech but not to a fact/event of speaking.

(162) a. *A   Mari ellen-   i felszólal-ás   értelmetlen volt.*
the Mari against-I speak-   DEV(-NOM) senseless   was
'Speaking against Mari was to no avail.'
'The speech against Mari was unintelligible.'
b. *A   Mari ellen   való felszólal-ás   értelmetlen volt.*
the Mari against VALO speak-   DEV(-NOM) senseless   was
'Speaking against Mari was to no avail.'
*'The speech against Mari was unintelligible.'
c. *Szó szerint jegyez-t-   ék   a   Mari ellen-   i felszólal-*
literally   note- PAST-3PL the Mari against-I speak-
ás- ok-at.
DEV-PL- ACC
'Literal notes were taken of the speeches against Mari.'
d.*Szó szerint jegyez-t-   ék   a   Mari ellen   való*
literally   note- PAST-3PL the Mari against VALO
felszólal-ás   (-oka)-t.
speak- DEV(-PL)- ACC
'Literal notes were taken of speaking against Mari.'

(163) illustrates the case where *való* is the only option [see the ungram-
maticality of (163a)]. Here the presence of *való* does not disambiguate the construction. (163b) has both the event and the result readings, corrobo-
rated by (163c).

(163) a.*A   Mari-ra-i hivatkoz-ás   értelmetlen volt.*
the Mari-to-I refer-   DEV(-NOM) senseless   was

b. *A   Mari-ra való   hivatkoz-ás*   *értelmetlen volt.*
the Mari-to VALO refer-   DEV(-NOM) senseless   was
'Referring to Mari was to no avail.'
'The reference to Mari was unintelligible.'

c. *Szó szerint jegyez-t-*   *ék   a   Mari-ra való   hivatkoz-*
literally   note- PAST-3PL the Mari-to VALO refer-
ás- ok-at.
DEV-PL- ACC
'Literal notes were taken of the references to Mari.'

The significance of this phenomenon, ill understood as it is, consists in the
fact that it offers a way to test the complex eventhood of any arbitrary
example. Whenever a noun allows some argument or adjunct to be adjec-
tivalized in two ways, we know that it admits of a complex event interpre-
tation. Notably, even the problematic example (158) is shown to be a com-
plex event.

(158) c. *a   háború   nehézség nélkül- i/való át-   vészel-*
the war(-NOM) difficulty without-I/VALO through-last-
és- e
DEV-POSS.3SG
'lasting through the war without difficultly'

This, in turn, allows us to check whether the obligatoriness of arguments
correlates with the complex event reading. I checked a representative sam-
ple of Hungarian derived nominals against the *való*-test (in conjunction
with the other tests where applicable), and the results fully confirmed Grim-
shaw's claim.

(164)   Nouns denoting complex events have an argument structure in the
          sense that they take obligatory arguments and assign canonical
          thematic roles to them. Other nouns only have adjuncts.

On a comparison of verbal and nominal argument structures, see section
13.2.

12.2. Some Comments on the Complex Events Issue

A few remarks are in order here. First, although the complex event
versus result ambiguity has received a lot of attention in the literature, it is
to be noted that the majority of nouns formed from perfective verbs only
have the complex event reading, e.g., *le-dob-ás* 'down-throw-DEV', *föl-
merül-és* 'emerge-DEV', and so on. These are fully productive and carry no
special meaning—unlike results, which are often lexicalized with some not

fully general interpretation. Complex events can even be recognized in the *Explanatory dictionary of the Hungarian language* (*A Magyar Nyelv Értel-mező Szótára*, 1959–62): they are assigned no separate entry; only the entry of the corresponding verb notes the possibility of their formation. Results typically have a separate entry, but complex events do only if they need to be distinguished from a homophonous result nominal. In this latter case the formula *az a tény, cselekvés, hogy* . . . 'the fact/activity that . . . ' is used in the explication.

The existence of "complex event reading only" nominals indicates the independence of the event versus result distinction, contrary to Doron's (1989) hypothesis, for instance, according to which it is merely derivative of a distinction in case-assigning properties. It also seems problematic for Zucchi (1989), on the assumption that his propositional interpretation of nominals corresponds to my complex events. The problem stems from the fact that he derives the propositional interpretation from the non-propositional one—but only the propositional version is fully productive.

Before proceeding to the comparison of verbal and nominal argument structures, let me note that the perhaps deepest question seems open for the time being.

(165) Why do only nominals with aspectual structure have an argument structure?

Neo-Davidsonian semantics might seem to provide an easy answer. According to that theory, the entities traditionally held to be arguments and adjuncts to the predicate are instead modifiers of an event variable. The representation of *John's destruction of the barn* might thus be as in (166).

(166) THE ev [destruction(ev) & subject(John,ev) & object(the barn,ev)]

The answer to our question would be that those arguments belong to the event variable, not to the noun, and hence can only be present if an event variable is present.

There are unfortunately two problems which make this explanation not straightforward, if not untenable. First, a Davidsonian event need not be an event in the aspectual sense. This is relevant here because no complex event nominal can be formed from stative verbs. Second, the Davidsonian view does not recognize obligatory arguments; according to it, all argu-ments are modifiers (adjuncts). In this way the above proposal would not do as an explanation of why only complex event nominals have obligatory arguments. It is conceivable, however, that a significantly modified version of it may eventually be revealing.

13. NOMINAL ARGUMENT STRUCTURES

13.1. Nouns, Not Gerunds

In what follows I investigate the argument structure of complex events in more detail. First, however, an important question needs to be answered. Are these nominals true nouns, rather than gerunds? The significance of this is obvious. It is agreed that gerunds are verbal and not only have an argument structure, but their argument structure is in fact identical to that of the corresponding verb—so that they do not tell us anything about the argument structure of nouns.

There are at least three reasons to believe that the events introduced above are true nouns. First, they take case markers in precisely the same ways as nouns do. Second, they are modified by adjectives, not adverbs (the adjective may either be underived, see *kegyetlen,* or obtained through the adjectivalization of an adverb, see *ok nélkül való*).[28]

(167) a. *Mari   ok   nélkül való kegyetlen megsért-*
            Mari(-NOM) reason without being cruel   insult-
            és- e
            DEV-POSS.3SG
            'that Mari was cruelly insulted without a reason'
      b.*Mari   ok   nélkül megsért-és- e*
            Mari(-NOM) reason without insult- DEV-POSS.3SG
      c. *Mari   kegyetlen-ül megsért-és- e*
            Mari(-NOM) cruel-   ly insult- DEV-POSS.3SG

Third, they do not assign accusative case.[29]

(168) a. *megsért-i   Mari-t*
            insult- DEF.3SG Mari-ACC
            'insults Mari'
      b.*a   Mari-t   (való) megsért-és*
            the Mari-ACC being insult- DEV
      c. *megsért-és Mari-t*
            insult- DEV Mari-ACC

We may also mention that according to É. Kiss (1987), the Hungarian equivalents of gerunds are inflected infinitives.

13.2. Apparent Differences Between Verbal and Nominal Argument Structures

Once we decide that a complex event nominal has an argument structure, the question arises whether it is identical to that of the corresponding verb.

In what follows I show that, at least on the surface, it is not. The next question is in what terms the differences can be stated. For instance, can they be stated in terms of thematic roles or grammatical functions? Again, my answer is in the negative.

In this section I present the basic data and illustrate that the data cannot be satisfactorily characterized either in terms of thematic roles or in terms of grammatical functions. Given that it is difficult to present all the data along dimensions that are eventually inappropriate to describe them, I relegate some additional facts to the following sections, where I present what I take to be the correct picture.

Stated in terms of the argument structure of the corresponding verb, the (non-)generalizations concerning the expression of the arguments of event nominals are as follows. The examples below come in pairs; the judgments for the (b) examples concern the interpretation on which the understood subject is the same as the overt subject of the (a) example. When the (a) version is impossible, a sentence labeled "context" is provided instead.

Agent subjects appear as possessors or in an *által* 'by' phrase and can mostly remain unexpressed; (171) illustrates a case where they cannot.

(169) a. *Péter   Mari ellen   való felszólal-ás- a*
              Peter(-NOM) Mari against being speak-   DEV-POSS.3SG
              'Peter's speaking against Mari'
       b. *a   Mari ellen   való felszólal-ás*
              the Mari against being speak- DEV
              'speaking against Mari'

(170) a. *Péter   Mari által való megszégyenít-és- e*
              Peter(-NOM) Mari by   being humiliate-   DEV-POSS.3SG
              'the humiliation of Peter by Mari'
       b. *Péter   megszégyenít-és- e*
              Peter(-NOM) humiliate-   DEV-POSS.3SG
              'the humiliation of Peter'

(171) a. *Péter   méh által való megcsíp-és- e*
              Peter(-NOM) bee by   being sting- DEV-POSS.3SG
              'the stinging of Peter by a bee'
       b.**Péter   megcsíp-és- e*
              Peter(-NOM) sting-   DEV-POSS.3SG
              'the stinging of Peter [by some animal]'

Experiencer subjects appear only as possessors and can mostly remain unexpressed; (174) illustrates a case where they cannot.

(172) a. *Péter   ok   nélkül való szenved-és- e*
              Peter(-NOM) reason without being suffer- DEV-POSS.3SG
              'Peter's suffering without a reason'

   b. *az ok   nélkül   való   szenved-és*
      the reason without being suffer- DEV
      'suffering without a reason'

(173)   Context: *Péter átvészelte a háborút.*
                 'Peter lasted through the war.'
        a   háború   (*Péter által való)   átvészel- és- e
        the war(-NOM) Peter by   being through.last-DEV-POSS.3SG
        'lasting through the war (*by Peter)'

(174)   Context: *Az épület átvészelte a háborút.*
                 'The building lasted through the war.'
        **a   háború   átvészel-   és- e*
        the war(-NOM) through.last-DEV-POSS.3SG
        'lasting through the war'

Theme subjects appear as possessors and may or may not remain unexpressed; (176) illustrates a case where they can.

(175) a. *a   probléma   tegnap   délután   való   fölmerül-*
          the problem(-NOM) yesterday afternoon being emerge-
          és- e
          DEV-POSS.3SG
          'the emergence of the problem yesterday afternoon'
       b.**a   tegnap   délután   való   fölmerül-és*
          the yesterday afternoon being emerge- DEV
          'the emergence yesterday afternoon'

(176) a. *Péter   kút- ba   való   bele-zuhan-ás- a*
          Peter(-NOM) well-into being into-fall- DEV-POSS.3SG
          'Peter's falling into the well'
       b. *a   kút- ba   való   bele-zuhan-ás*
          the well-into being into-fall- DEV
          'falling into the well'

(177) a. *a   trendvonal   szünet nélkül   való   emelked-és- e*
          the trend line(-NOM) break without being rise-   DEV-POSS.3SG
          'the trend line's rising without interruption'
       b.**a   szünet nélkül   való   emelked-és*
          the break without being rise-   DEV
          'rising without interruption'

Objects appear as possessors and **may not** remain unexpressed. The marginal acceptability of (178c) will be attributed to passivization; see Komlósy (this volume).

(178) a. Péter   János által való megver-és- e
          Peter(-NOM) Janos by being beat- DEV-POSS.3SG
          'beating up of Peter by Janos'

     b.?*a János által való megver-és
           the Janos by being beat- DEV
           'being beaten up by Janos'

     c. ?a megver-és
            the beat- DEV
            'being beaten up'

Oblique complements retain their original case/postposition and are as obligatory with the noun as with the verb. *Belezuhan* 'fall into' subcategorizes for an oblique complement.[30]

(179) a. a kút- ba való bele-zuhan-ás
          the well-into being into-fall- DEV
          'falling into the well' .

     b.*a bele-zuhan-ás
          the into-fall- DEV
          'falling into'

Transitives with **instrument or natural force subjects** do not have grammatical nominalizations.

(180) Context: *A folyó elárasztotta a falut.*
                'The river flooded the village.'

     a.*a folyó   eláraszt-ás- a
          the river(-NOM) flood- DEV-POSS.3SG
          'the river's flooding'

     b.*a falu   eláraszt-ás- a
          the village(-NOM) flood- DEV-POSS.3SG
          'the flooding of the village'

The above is the catalog of differences to be discussed below. On the other hand, the following data will not be discussed, and are added merely for the reader's information.

When the noun is derived from an optionally intransitive version of a transitive verb, one might expect it to behave like any deverbal noun derived from intransitives, but it does not.

(181) a. Mari   mos.
          Mari(-NOM) wash(-3SG)
          'Mari washes prototypical object [= clothes]'

     b. a mos- ás
         the wash-DEV
         'the washing of clothes'
         'the manner/habit of washing clothes'

    c. *Mari   mos- ás- a*
       Mari(-NOM) wash-DEV-POSS.3SG
       *'the fact that Mari washes clothes'
       'Mari's manner/habit of washing clothes'

As the translations indicate, the complex event reading is not available for
(181c) on the intransitive construal, only on the transitive construal! Why
this is so is a mystery, but I suspect it has to do with lexical argument
incorporation. Detransitivization is sometimes accounted for by saying that
the internal argument's role is discharged to a prototypical object in the
lexicon. If this is responsible for the absence of the complex event reading,
then we expect the lexical incorporation of an overt element (compound-
ing) to yield the same results. And it does.

(182) b. *a   pizza- ev- és*
       the pizza- eat-DEV
       'the eating of pizza'
       'the manner/habit of eating pizza'
    c. *Mari   pizza- ev- és- e*
       Mari(-NOM) pizza- eat-DEV-POSS.3SG
       *'the fact that Mari eats pizza'
       'Mari's manner/habit of eating pizza'

Furthermore, verbs that Komlósy (this volume) characterizes as "accent-
demanding" or "accent-avoiding" cannot be nominalized at all, either as
complex events or as results. This, again, I have no explanation for.

(183) a. *A tünetek "tüdőgyulladásra utalnak.*   (accent-avoiding)
       'The symptoms indicate pneumonia'
    b.**a tünetek tüdőgyulladásra (való) utalása*
       'the fact that the symptoms indicate pneumonia'

(184) a. *Mari "tart Pétertől.*   (accent-demanding)
       'Mari fears Peter.'
    b.**Mari Pétertől (való) tartása*
       'Mari's fear of Peter'

13.3. Sketch of the Argument

The significance of the data in section 13.2 is as follows. The theories
mentioned in the introduction would all be rather successful in explaining
the majority of these data but, to my knowledge, would all run afoul of the
differential behavior of subclasses of agent, experiencer, and theme sub-
jects. That is, they would be unable to explain why the possibility of leaving
subjects unexpressed varies with the particular noun, or even the context,
that we are considering.

248

In what follows I sketch an approach that accounts for the variation in (169) through (177). This will involve developing an alternative account of the whole set of data in (169) through (178), the reason being that the variation does not seem to be accountable for by just adding something to standard assumptions.

The essence of the proposal is as follows. I assume that the argument frame of the complex event nominal is identical to that of the corresponding verb. In particular, there is no subject suppression à la Grimshaw. The apparent differences between verbal and nominal argument structures can be explained with reference to (1) case assignment, and (2) the assumption that the unexpressed argument is PRO. It is (2) that the explanation of variation derives from. PRO must be either controlled or arbitrary, and the availability of these possibilities does indeed depend on a wide variety of factors. This proposal is supplemented with two further considerations. One is a slightly unorthodox interpretation of arb, and the other is the claim that the PROs in question are in lexical, not syntactic, structure.

13.4 Case Assignment

(185) is a standard assumption, and (186) is uncontroversial in Hungarian.

(185)   A noun phrase has phonetic matrix and case, or it is an instance of a legitimate kind of caseless empty category (NP trace or PRO).

(186) a.   The only structural case available in the noun phrase is nominative, assigned by [+poss, agr] inflection. That is, neither accusative assignment nor any device like of-insertion is available.

b.   *Által*, like *by* in English, is only usable with agents in the noun phrase.

c.   Inherent cases/postpositions remain unaffected by nominalization.

It follows that every noun phrase argument must get case in line with (186), or it must be NP trace or PRO, or else ungrammaticality arises.

Starting with (186c), inherent case always licenses, and requires, an overt noun phrase. This yields (179) and the observation that the overt expression of oblique arguments is both unproblematic and obligatory. (The precise mechanics of case checking under adjectivalization is immaterial here.) (186a,b) mean that if there is just one argument in need of structural case, it can always get nominative in the possessor's position. If there are two such arguments, then one of them, if an agent, can resort to *által* 'by', o one of them must remain unexpressed. We must be able to show now tha

in the starred examples there is no appropriate empty category—namely, PRO—that could play the role of the argument that we choose, or are forced to, leave unexpressed.

14. PRO VERSUS SUPPRESSION

14.1. The Diagnostics of PRO Versus Suppression

PRO, as we generally know it, has the characteristics in (187).

(187) a. PRO is the highest ranking argument of its functional complex.
      b. PRO is controlled or receives an arbitrary interpretation.

If the unexpressed argument of event nominals has the same characteristics, it must be PRO.

(187) implies that the unexpressed argument, if PRO, must be a subject. Descriptively speaking, this does not distinguish my proposal from Grimshaw's, who assumes that subjects can be suppressed. In any case, we now have an account of the fact that the object of the corresponding verb cannot be left unexpressed under nominalization, compare (178) and (180a). [I assume that (178c) represents marginal passivization. The existence of morphologically unmarked passive stems is argued for independently by Komlósy, this volume.]

What really makes a difference is (187b). Recall that Grimshaw assimilates the suppression of nominal subjects to the suppression of the *by*-phrase in passives. This latter process is unconstrained in the following sense: (1) it has no contextual prerequisite (whenever the *by*-phrase can be spelled out, it can also be omitted), and (2) the nature of the omitted phrase is unconstrained (e.g., if *John was bitten by the dog* is grammatical, then *John was bitten* can also be used in a situation when the biter is a dog). The use of PRO is not unconstrained in the same respects. (1) There is a contextual requirement, that is, controlled PRO needs a control verb and a controller DP; and (2) when this is not met, it must get an arbitrary interpretation. Now, we know that all arbs, whether they be PRO, pro, or overt 3PL pronouns, must be [+human]. These considerations imply the simple diagnostics in (188).

(188) a. A subject that can be left unexpressed in an unconstrained manner can be said to be suppressed.
      b. A subject that can only be left unexpressed if it is either controlled or [+human] is PRO.

In section 14.2 I show that control is in fact possible; this, as C. Piñón has pointed out to me (personal communication), already shows that the un-expressed nominal subject cannot be suppressed, since implicit *by*-phrases cannot be controlled. In section 14.3 I turn to the data concerning arbitrary interpretation. We may already note here, however, that in all the remaining ungrammatical examples (169b), (174), (175b), (177b), the implicit sub-ject is [−human].

14.2. Controlled PRO

In this and the following sections I argue that the unexpressed subject of a Hungarian complex event nominal is PRO: either controlled or arbitrary. Roughly, the analyses are as in (189)–(190).

(189) *Péter_i*   *megtagadta* PRO_i *a*   *vers*   *felmond-*
       Peter (-NOM) refused   the poem(-NOM) recite-

        ás- á-   t.
        DEV-POSS.3SG-ACC
        'Peter refused to recite the poem.'

(190) PRO_{arb} *a*   *titkárnő*   *elbocsát-ás- a*
              the secretary(-NOM) fire-   DEV-POSS.3SG(-NOM)

      mindenki-t   meglepett.
      everyone-ACC surprised
      'The firing of the secretary surprised everyone.'

In the examples to follow I will not spell PRO_i out; the principled reason for this is discussed in section 15.

Control is possible only if there is an appropriate control predicate avail-able. This introduces the first kind of variation into the data. The appro-priateness of the control predicate means (1) that it selects a non-finite complement of the right sort, and (2) its meaning is compatible with the specific meaning of the complement.

While I cannot go into details with these issues here, let me illustrate their relevance as follows. First, the set of control predicates that select event nominals differs from the set of those that select infinitives. For example, *elkezd* 'start' and *un* 'be bored by VP-ing' take either an infinitive or an event nominal; *abbahagy* 'stop VP-ing' and *megtagad* 'refuse' take only an event nominal, and *akar* 'want' (in the control sense) only an infinitive.

(191) a. *Péter elkezdtel unta felmonda-ni a   vers- et.*
          Peter started/ bored recite- INF the poem-ACC
          'Peter started/was too bored to recite the poem.'

b. *Péter abbahagyta/ megtagadta felmonda-ni a   vers- et.*
Peter stopped/   refused   recite-   INF the poem-ACC
'Peter ceased/refused to recite the poem.'

c. *Péter nem akarta felmonda-ni a   vers- et.*
Peter not wanted recite-   INF the poem-ACC
'Peter did not want to recite the poem.'

(192) a. *Péter elkezdte/ unta   a   vers   felmond-*
Peter started/   bored the poem(-NOM) recite-
ás- á-   t.
DEV-POSS.3SG-ACC
'Peter started/was bored with reciting the poem.'

b. *Péter abbahagyta/ megtagadta a   vers   felmond-*
Peter stopped/   refused   the poem(-NOM) recite-
ás- á-   t.
DEV-POSS.3SG-ACC
'Peter stopped reciting/refused to recite the poem.'

c. *Péter nem akarta   a   vers   felmond-*
Peter not wanted the poem(-NOM) recite-
ás- á-   t.
DEV-POSS.3SG-ACC
'Peter did not want the reciting of the poem [* in the control
sense]'

Second, control predicates selecting event nominals may restrict the the-
matic role of the controlled argument in a way those selecting infinitives do
not. The clearest case is perhaps *elkezd* 'start'. It combines with any in-
finitive but only with agentive nominals. The same holds for *abbahagy* 'stop'
when it is applicable at all.

(193) a. *Péter korán elkezdett öreged- ni.*
Peter early started   grow.old-INF
'Peter started to grow old early.'

b. *Péter korán elkezdte/ abbahagyta az öreged- és- t.*
Peter early started/ stopped   the grow.old-DEV-ACC
'Peter started/stopped growing old early.'

(194) a. *A   szél elkezdett fúj- ni.*
the wind started   blow-INF
'The wind started to blow.'

b. *A   szél elkezdte/ abbahagyta a   fúj- ás- t.*
the wind started/ stopped   the blow-DEV-ACC
'The wind started/stopped blowing.'

Third, certain meanings may simply not combine.

252

(195) a. *A növény-nek árt   a   kiszárad-ás.*
the plant- DAT harms the out.dry- DEV(-NOM)
'Drying out is harmful for the plant.'

b. *Péter-nek árt   a   kocog-ás.*
Peter-DAT harms the jog- DEV(-NOM)
'Jogging is harmful for Peter.'

c. **A* problémá-nak árt   a   fölmerül-és.*
the problem- DAT harms the emerge- DEV(-NOM)
'Emerging is harmful for the problem.'

d. **A* szél- nek árt   a   fúj- ·ás.*
the wind-DAT harms the blow-DEV(-NOM)
'Blowing is harmful for the wind.'

(194)–(195) are especially interesting because they exemplify the behavior of two kinds of event nominals that I actually did not find any appropriate control predicates for. One is nominals with instrument or natural force subjects, such as *fújás* 'blow-DEV', and the other is nominals meaning 'coming into existence,' such as *fölmerülés* 'emerge-DEV.' This gives half the explanation of why their subjects can never be left implicit. The other half will be related to their [−human] character.

It needs to be emphasized that I am not making a general claim of the sort, "Natural force subjects cannot be left unexpressed." I do not exclude the possibility that more careful examination may reveal one good control predicate, for instance. In this way I am making a weaker claim than most authors in the literature. The whimsicality of the data seems to justify the weakness of the claim, but naturally, the case can be strengthened if independent evidence arises.

Finally, I note that in examining the data I interpreted control in a rather broad sense, to include control by implicit benefactive arguments of predicates like *kellemetlen* 'unpleasant', as in Koster (1987).

14.3. PRO~arb~

Hungarian data concerning 3PL pro, PRO in infinitives, and unexpressed arguments in nominals suggest that the usual notion of arbitrary interpretation needs to be modified. Since my observations square well with Cinque's (1988) independent findings, I merely illustrate the matter here with 3PL pro and refer the reader to Cinque's paper for details discussion.

There are two uses of 3PL pro that are not replicated by the overt 3PL pronoun *ők*.

(196) *Itt   gyakran pro megsérül- nek.*
here often   get-injured-3PL
'People often get injured here.'

(197) pro *kopog-t-   ak. Talán   Mari   lesz   az.*
            knock-PAST-3PL perhaps Mari(-NOM) will-be that
            'Someone knocked [on the door]. It will be Mari, perhaps.'

In neither case does pro refer to "them," a plurality of contextually given individuals. In the first case it has a quasi-universal (generic) interpretation, and in the second, a quasi-existential one. Cinque observes that the two interpretations correlate with the generic versus definite tense/aspect of the sentence and mentions Rizzi's suggestion that this phenomenon is reminiscent of unselective binding of a subject variable by a tense operator. This contextual dependency is important because it allows us to attribute both interpretations to a single lexical item. The unity of the two cases is corroborated by the fact that pro must be [+human] in both cases. For instance, (196) may not mean 'Animals often get injured here', and (198) is impossible.

(198) *pro *ugat-t-   ak. Talán   Rin-tin-tin lesz   az.*
            bark-PAST-3PL perhaps R.   will-be that
            'Something barked. It will be Rin-tin-tin, perhaps.'

I henceforth use ARBITRARY as a cover term for these two interpretations.

To see the significance of this extension of arb for the complex event nominals data, let us recapitulate the line of reasoning followed here. I am suggesting, contra Grimshaw, for instance, that the unexpressed argument of such nominals is not suppressed but is PRO. This can be proven if the argument in question is subject to the same constraints PRO is. The most evident constraint is that uncontrolled PRO must have an arbitrary interpretation, in which case it must also be [+human]. This reasoning crucially presupposes that all cases in which the unexpressed argument is not controlled but [+human] are indeed interpretable as arbitrary. Now, the traditional notion of arb only covers the quasi-universal interpretation. The quasi-existential interpretation, on the other hand, is highly reminiscent of the existentially quantified interpretation standardly attributed to agentless passives: *John was hit* 'Someone/something hit John'. Given that unexpressed event nominal subjects can have an existential interpretation, illustrated below, it might seem that this forces us to accept Grimshaw's proposal to assimilate them to unexpressed *by*-phrases. If, however, we have independent evidence that arb covers both interpretations, then this need is eliminated. This is what originally led me to investigate the general arb issue, obtaining convergent results with Cinque's.[31]

With these in mind, let us return to the event nominals data. First, the unexpressed subject can have a quasi-universal interpretation.

(199) a. *Péter/az épület átvészelte a háborút.*
            'Peter/the building lasted through the war.'

b. *Mi   tesz- i   lehető- vé a   háború*
what(-NOM) make-3SG possible-OBL the war(-NOM)
átvészel-   és- é-   t?
through.last-DEV-POSS.3SG-ACC
'What makes it possible for a person to last through the war?'
*'What makes it possible for a thing to last through the war?'

(199a) shows that *átvészel* 'last through' takes a human as well as a non-human subject. But in (199b) the implicit subject can only be understood as [+human].
Second, the quasi-existential interpretation is also contingent on the [+human] feature.

(200) a. *Mari-nak az ellenfél által való legyőz-és- e*
Mari-DAT the rival   by being beat- DEV-POSS.3SG(-NOM)
bosszantotta Kati-t.
upset   Kati-ACC
'The beating of Mari by [her] rival upset Kati.'
b. *Mari-nak a   legyőz-és- e*   *bosszantotta Kati-t.*
Mari-DAT the beat- DEV-POSS.3SG(-NOM) upset   Kati-ACC
'The beating of Mari upset Kati.'

(201) a. *Mari-nak a   méh által való megcsíp-és- e*
Mari-DAT the bee by being sting- DEV-POSS.3SG(-NOM)
bosszantotta Kati-t.
upset   Kati-ACC
'The stinging of Mari by the bee upset Kati.'
b.*Mari-nak a   megcsíp-és- e*   *bosszantotta Kati-t.*
Mari-DAT the sting- DEV-POSS.3SG(-NOM) upset   Kati-ACC
'Mari's being stung upset Kati.'

Experiencers and agents are typically, though not exclusively, [+human]. This accounts for the fact that such subjects can mostly remain unexpressed, compare (169)–(174).
Theme subjects of verbs like *fölmerül* 'emerge' are never [+human]; compare also *Fölcsendült a zene* 'Music sounded', *Megcsillant a remény* 'Hope arose (lit. flashed)'. Theme subjects of other kinds of verbs may be either [+human] or [–human]; for example, *emelkedik* 'rise' may apply to a person or to a trend line. Hence the distribution of nominalization data in (175)–(177).
Finally, instruments and natural forces are by definition [–human]. Compare the grammatical (202a), where *elárasztás* 'flooding' has a human subject, with the ungrammatical (202b), where its subject is a natural force, as shown in (180).

(202) a. *A mérnök elárasztotta a falu-t.   A falu*
the engineer flooded   the village-ACC the village(-NOM)
eláraszt-ás- á-   nak szörnyű következmény-
flood-   DEV-POSS.3SG-DAT horrible consequence-
e-   i   voltak.
POSS.3SG-PL(-NOM) were
'The engineer flooded the village. The flooding of the village had
horrible consequences.'

b. *A folyó elárasztotta a falu- t.* *A falu **elárászt-ás- á- nak**
the river
szörnyű következmény-e- i voltak.
'The river flooded the village. The flooding of the village had
terrible consequences.'

I take it that these facts prove that the unexpressed subject in Hungarian
event nominals obeys the same constraints as PRO, as opposed to being
unconstrained like suppressed *by*-phrases.

14.4 The Moral of the Data in Section 13.2

Let me briefly comment on the statistical kind of comments I made about
the data in section 13.2.

Agent subjects were claimed "mostly" to be able to remain unexpressed.
This is so because there are many good control predicates available for
events with agent subjects, and agents are also more often than not
[+human]. With a smaller inventory of control predicates, the same holds
for experiencer subjects.

Theme subjects fall into at least two categories. Those of nominals de-
noting 'coming into existence' can never be left unexpressed, and this is due
to the fact that there appear to be no sensible control predicates for them,
nor are they (in these cases) [+human]. (*Születés* 'being born' would be
different.) Theme subjects of other nominals have good control predicates
(e.g., *árt* 'be harmed by', *elkerül* 'be saved from', etc.) and/or may even be
[+human]. These circumstances entail that no global prediction can be
made for a category like "theme (unaccusative) subjects."

Objects and inherently case-marked complements cannot remain unex-
pressed, because we have no such PROs.

Finally, the explanation of the absence of grammatical nominalizations in
events with instrument or natural force subjects is independent of the as-
sumption that such subjects are not external arguments. It follows from the
lack of good control predicates and from the [−human] feature.

These considerations indicate that the statistical character of the data
does not mean that there are no strict, black-and-white principles of

grammar underlying them. What it means is, simply, that the pertinent generalizations cannot be stated in terms of grammatical functions and thematic roles. This latter observation also appears to support the view, expressed in Dowty (1988, 1991), that thematic roles, with the possible exception of agent, are not the desired theoretical entities. That is, the correct generalizations about argument-taking predicates are not to be made in terms of the roles of their individual arguments but rather in terms of the semantic classes those predicates belong to. See also Rappaport and Levin (1986).

15. THE STRUCTURE OF DP AND THE LOCATION OF PRO

Finally, let me consider the question of where the PROs assumed in the previous sections are located.

In Part I, I attributed the structure in (203) to a simple Hungarian noun phrase.

(203)
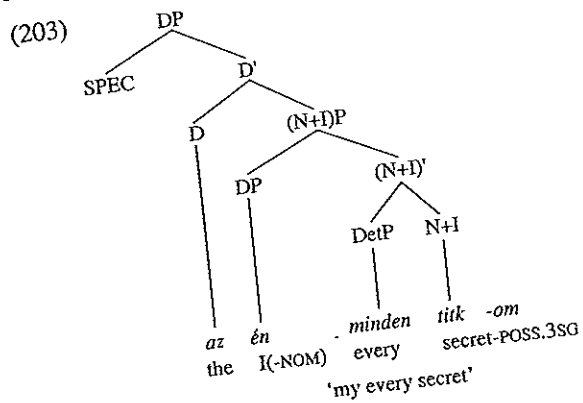
One feature of this proposal is that two kinds of determiners are distinguished. Articles are assigned to category D, which is assimilated to clausal C. *Minden* 'every' and so on, on the other hand, head DetP and play the role traditionally attributed to determiners, namely, quantify over the external argument place of N. This distinction may immediately explain why complex events take an article but not a quantifier: they can be complementized but not quantified over. The DetP slot may be occupied by Grimshaw's event argument Ev. If Ev is by nature [+definite], it will always co-occur with the definite complementizer.

Let us see how PRO can be accommodated. There are two problems with extending the usual assumption, that PRO is in syntax, to our case.

The first case to consider is of type (204), where inflection on the noun is [−poss]. The only problem with the analysis below derives from my assumption that the possessor DP's thematic role is always assigned, or transmitted, by [+poss]. If that is correct, PRO in (205) will not be able to receive its agent role.

(204)   *a   fut- ás*
        the run-DEV
        'the running'

(205)

```
              DP
              |
              D'
             /  \
           D     (N+I)P
           |     /    \
           |   DP    (N+I)'
           |   |     /    \
           |   |   XP     N+I
           |   |   |       |
           a  PRO  Ev   fut-as [-POSS]
```
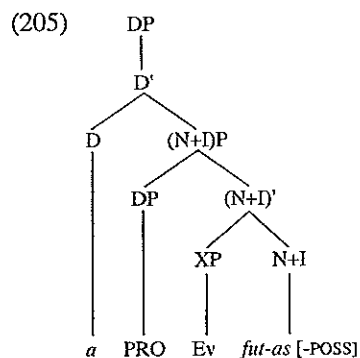
More transparent is the problem with type (206).

(206)   *a   Péter   megszégyenít-és- e*
        the Peter(-NOM) humiliate-   DEV-POSS.3SG
        'the humiliation of Peter'

(207)

```
              DP
              |
              D'
             /  \
           D     (N+I)P
           |     /    \
           |   DP    (N+I)'
           |   |     /    \
           |   |   DP     N+I
           |   |   |       |
           a  Péter *PRO  meg-szégyenit-és-e
```
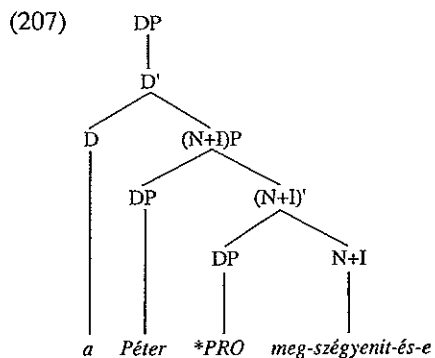
The problem is that there is simply no room for PRO. The possessor position is occupied by the theme that needs case. We can at best place PRO under $(N + I)'$, at the cost of sacrificing Ev. But even that will not do, since PRO will not be the highest ranking argument. (Abney, 1987, notes that his proposal makes room for PRO in the noun phrase. That remark applies to the intransitive case, not this.) Thus, I conclude, PRO cannot be in syntax. It is not my aim in this paper to develop a specific theory of where it is; below I sketch just one rough solution.[32]

We may assume that PRO is in lexical structure. This is possible if we make the following assumptions: (1) Lexical structure has the same kind of articulation as syntactic structure, as in Hale and Keyser (1990), for instance; (2) contra Hale and Keyser, lexical structure represents not only internal arguments but also the subject; and (3) it is possible to discharge thematic roles to specific items already in the lexicon, somewhat in the spirit of Borer (1984) and Rizzi (1986). If these assumptions are tenable, then we can have (208)–(209).

(208) *futás*, lexical structure #*n*

PRO *fut-ás*
      run-DEV
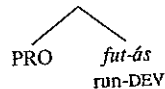
(209) *megszégyenítés*, lexical structure #*n*

PRO

x   *megszégyenít-és*
humiliate   -DEV

The #*n*'s indicate that these are just one among these item's lexical structures. They bear the same relation to PRO-free lexical structures as that of detransitivized *eat* does to transitive *eat*. It is assumed that these have distinct lexical structure, the former having its object slot filled by a prototypical object of eating. In all these cases, when these items enter syntax, only their *x* slot is active. Since nouns like *megszégyenítés* 'humiliation' come with only one active argument slot from the lexicon, I assume that this can be directly filled by the possessor, and NP–movement within the noun phrase is not necessary.

To sum up, I have argued that complex event nominals in Hungarian have the same argument structure as the corresponding verbs. In particular, they were shown to have PRO, rather than suppressed, subjects. The question arises now whether my observations invalidate Grimshaw's claims. It seems to me they need not. As far as I can see, the critical contrasts that

motivate my analysis for Hungarian are not replicated in English. This means that the two analyses may be simultaneously correct. The Hungarian facts qualify Grimshaw's proposal in another sense, though. Namely, she appears to take it for granted that subject suppression is not only a fact of English, but also the only theoretical possibility. Hungarian shows that things can be otherwise, so that the parameters of nominalization require further research.
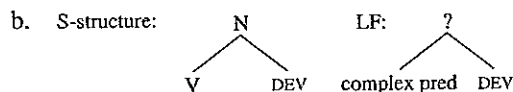
16. ADJECTIVALIZATION AND THE SCOPE OF THE DEVERBAL SUFFIX

16.1. On the Scopal Analysis to be Proposed

The sections above focus on arguments of complex event nominals, with special attention to subjects and objects. The data the rest of this chapter is concerned with pertain largely to oblique arguments and adjuncts, irrespective of whether they belong to event or result nominals. When the distinction is not relevant, arguments and adjuncts are subsumed under the cover term COMPLEMENT. Drawing from Laczkó (1985), Abney (1987), Pesetsky (1985), Milsark (1988), and Szabolcsi and Laczkó (1992), I postulate at least two different scope assignments for the deverbal suffix.

(210) a. S-structure: N   LF: N

                            V   DEV   V   DEV
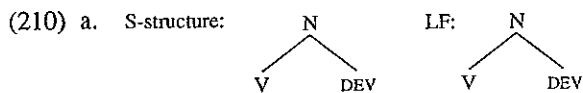
         example: *a Pestre való érkezés*, see section 16.2

      b. S-structure: N   LF: ?

                            V   DEV   complex pred   DEV

         example: *a Pestre érkezés*, see section 16.3

The assumption that the suffix always has V-scope at S-structure is intended to account for the fact that deverbal nouns are uniform in that they never assign accusative case. Differences in their behavior is accounted for with reference to the scope of DEV at the level of logical form.

16.2. Adjectivalization

It has been amply demonstrated above that prenominal oblique complements have to be adjectivalized in the general case. Besides the adjectivalizers *való* 'being' and -*i* 'belonging to' (see especially section 10.1), other items play a similar but more restricted role. *Történő/történt* 'happening/ happened' may be used with complex event nouns derived from dynamic verbs, especially if they have an affected argument. Just as in the case of *való*, they have to be regarded as formatives, rather than true participles, since the corresponding predications are usually ungrammatical.

(211) a. *Péter-nek a   szék- be   történ- ő   bele-botl- ás- a*
         Peter-DAT the chair-into happen-ing into-bump-DEV-POSS.3SG
         'Peter's bumping into the chair'

     b.**Péter   bele-botl- ás- a   a   szék- be*
         Peter(-NOM) into-bum-DEV-POSS.3SG(-NOM) the chair-into
         történt.
         happened
         'Peter's bumping happened into the chair.'

Result nominals have a variety of adjectivalizers (*vonatkozó, folyó, folytatott, tartott, végzett, érzett,* etc.) which are more or less truly participial. See Laczkó (1985, 1990), and Szabolcsi and Laczkó (1992).

The phenomenon of adjectivalization is not well understood. Therefore I only briefly mention a few questions that an account would have to answer. (Somewhat similar data from Marathi are discussed in Csúri, 1989.)

The first question is why adjectivalization is necessary. I assume that in these cases the deverbal nominalizing affix has exactly the verb in its scope at every level of representation; that is, *belebotlás* 'into-bump-DEV' and its brothers are strictly nouns. We may then stipulate that a prenominal modifier of a Hungarian noun must take the form of an adjective. This is even descriptively a stipulation, since (1) nouns in many head-final languages combine with prenominal PPs, and (2) even in Hungarian, postnominal PPs are increasingly available (see section 2).

The second question is how the requisite relation between the noun and the adjectivalized complement (adj-comp) is established. First of all, the adj-comp may be an argument of the noun. This is surprising since, except for the very restricted type of *the German invasion of Russia,* adjectives do not play argumental roles. But this problem alone is not insurmountable.

If the adjectivalizer were only used to mediate between nouns and their arguments, there would be a variety of ways in which to explain its role. A particularly neat treatment could be devised in terms of logical semantics. *Való* and its brothers could be looked on as type-lifters, whose role is to reverse the function/argument relation within a constituent.

(212)

where *való* is $\lambda XP\ \lambda N\ [N(XP)]$
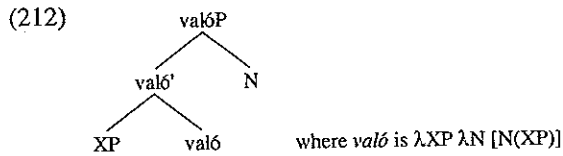
Való here is construed as a function(al category) which first combines with an oblique XP and then with a deverbal noun that subcategorizes for exactly that kind of XP and interprets the XP as an argument of N. This is the canonical scenario for lifting (see any introduction to Montague grammar, for instance), and I think that intuitively it gives a very faithful picture here. But there are problems with it. One syntactic problem to be solved here concerns the fact that *való* combines with a head N, rather than a maximal projection, but let us assume that this is solvable. More embarrassing is the fact that adj-comps may also be adjuncts and, as we shall see below, they may even form a complex predicate with the noun. The type-lifter interpretation of the adjectivalizers does not naturally extend to these cases. In view of this, the problem of adjectivalization will be left for further research.

16.3. Nominalization of Complex Predicates

Prenominal adjectivalization is not always obligatory; sometimes it is even impossible. As was observed in Laczkó (1985, 1990) and Szabolcsi and Laczkó (1992), the pertinent cases correspond to a subset of those when a complex predicate of some sort has been postulated at the sentence level in Hungarian. The descriptive characteristics of such complex predicates are as in (213).

(213) a. The complex predicate consists of a verbal modifier (VM) and a verb stem.
   b. The VM is usually a head category, N, Adj, P, V, Adv; in one type it is a PP.
   c. The VM is not referential; it forms a semantic unit with the verb.
   d. In neutral word order, phonologically VM + V form a clitic group.
   e. Focus and non-contrastive verb negation are in complementary distribution with VM in the preverbal position (when the verb is finite); in their presence the VM appears behind the verb.

For discussion, see Horvath (1981), É. Kiss and Komlósy (this volume), and Szabolcsi (1986d,1986e), summarized in section 8.1.

The important properties of complex predicate nominalizations are as in (214).

(214) a. The VM must be prenominal: *V-DEV VM
       b. Some VMs cannot, others need not, be adjectivalized, see below.
       c. The non-adjectivalized VM and the deverbal noun form a clitic group, exactly like VM + V, and nothing may intervene between them (except negation, which incorporates between VM and V when VM is a prefix).

Adjectivalization is ungrammatical in cases (215)–(220).

(215)   VM is a verbal prefix: *a le való ugr-ás
        a   le-   ugr-   ás
        the down-jump-DEV
        'the jumping down'

(216)   VM is an oblique idiom chunk: *az ő hideg-re való tét-el-e
        az őr   hideg-re tét-el- e
        the guard(-NOM) cold- onto put-DEV-POSS.3SG
        'the killing of the guard'

(217)   VM is N/Adj, the underlying V is the copula: *Péter katona/beteg
        Péter   katona/ beteg vol-t -a   való vol-t-a
        Peter(-NOM) soldier/sick be-DEV-POSS.3SG
        'Peter's being a soldier/sick'

(218)   V = van (with any subcategorization):   *a távol való lé-t
        a. a   távol-lé- t
            the away-be-DEV
            'the absence'
                                                 *a rossz-ul való lé-t
        b. a   rossz-ul-lé- t
            the bad- ly-be-DEV
            'the state of not being well'
                                              *Péter náthá-ja való vol-t-allé-t-e
        c. Péter   náthá-ja
            Peter(-NOM) cold- POSS.3SG
            'Peter's (having a) cold'

(219)   VM is an infinitive: *az úsz-ni való akar-ás
        az úsz- ni akar- ás
        the swim-INF want-DEV
        'wanting to swim'

(220)   VM is in the nominative or accusative:
                                              *vendég való érkez-és
        a. *vendég   érkez- és
           guest(-NOM) arrive-DEV
           'arrivals of guests'

b.*újság-   ot olvas-ás   *újság-ot való olvas-ás
   newspaper-ACC read- DEV   OK *újság-olvasás* (compound)
   'newspaper reading'

In the second set (221)–(222), some speakers prefer adjectivalization but
do not require it; others find adjectivalization ungrammatical. Judgments
are rather consistent.

(221)   Stative predicative constructions:
        a. *Péter   okos- nak tart-ás- a*   %*Péter okos-nak*
                                                            való tart-ás-a

        Peter(-NOM) smart-DAT hold-DEV-POSS.3SG
        'considering Peter smart'
        b. *Péter gazember-nek nevez-és- e*   %*Péter gazember-nek*
                                                            való nevez-és-e

        Peter(-NOM) rascal- DAT call- DEV-POSS.3SG
        'calling Peter a rascal'

(222)   Resultative predicative constructions:
        a   kerítés   piros-ra   %*a kerítés piros-ra való fest-és-e*
        the fence(-NOM) red- to
           fest- és- e
        paint-DEV-POSS.3SG
        'painting the fence red'

Finally, all speakers find adjectivalization optional when VM is an XP. But
when this XP itself is modified, the *való* version is preferred.

(223)   Locative and directional XP constructions:
        a. *a   Pest-en   tartózkod-ás*   *a Pest-en való tartózkod-ás*
           the Pest-LOC stay-   DEV
           'the stay in Pest'
        b.*a   havas Pest-en   tartózkod-ás*   *a havas Pest-en*
                                                       való tartózkod-ás

           the snowy Pest-LOC stay-   DEV
           'the stay in snowy Pest'

(224) a. *a Pest-re érkez- és*   *a Pest-re való érkez-és*
         the Pest-DIR arrive-DEV
         'the arrival in Pest'
      b.*a   poros Pest-re érkez- és*   *a poros Pest-re való érkez-és*
         the dusty Pest-DIR arrive-DEV
         'the arrival in dusty Pest'

Following Laczkó's (1985) original insight but somewhat modifying his
analysis, I propose the following.

The fact that the deverbal nominal is modified by adjectives in one con-
struction and by adverbials in the other can be accounted for by assuming

that the scopes of DEV are different in the two cases. If DEV has only the verb stem in its scope, its complement (= argument/adjunct) is adjectivalized. If DEV has both the complement and the verb stem in its scope, the complement retains its adverbial form, since the head it directly combines with is still verbal.

The first question that arises is at what level of representation this scope difference obtains. Crucial here is the fact that derived nominals never assign accusative case, compare (168) and (220b). It is agreed that accusative is assigned at s-structure by [+V] heads. Hence all derived nominals must be [−V] at s-structure: the s-structure scope of DEV is invariably the verb stem. Thus the above proposed difference can come about only at the level of logical form; I assume that DEV raises at LF to take scope over the VM + V unit. This is tenable if we assume that predicative or oblique complements bear a semantic relation to the head that is established at LF and does not need to be formally licensed at s-structure, unlike accusative case.

The second question is why DEV has exactly VM + V in its scope at LF. The data suggest the generalization in (225).

(225) a. The nominalizing suffix must have a fully specified conceptual structure in its scope.
   b. The nominalizing suffix must have the smallest possible fully specified conceptual structure in its scope.

It is typical of complex predicates that their verb stem is empty or bleached. Thus they do not have a fully specified conceptual structure of their own, only once they combined with their VM (cf. the notion of a generalized lexical integer in Szabolcsi 1986d, 1986e). In view of (225a), this means that the suffix must raise high enough to have the whole complex predicate in its scope.

On the other hand, we see that the more contentful the verb stem or the VM of the complex predicate is, the more available *való* becomes. This suggests that the suffix must raise sparingly, taking only as little in its scope as necessary. This circumstance may be formulated as (225b).

It was pointed out in (214c) that VM and V + DEV must be adjacent and form a phonological word. Note the stresses in (226b).

(226) a.*a   Pest-en   hosszú   tartózkodás
          the Pest-LOC long   stay-DEV
          'the long stay in Pest'
     b. a   hosszú 'Pest-en (*')tartózkod-ás
          the long   Pest-LOC   stay-   DEV
          'the long stay in Pest'
     c. a   Pest-en   való   hosszú   tartózkod-ás
          the Pest-LOC VALO long   stay-   DEV
          'the long stay in Pest'

This may follow from the requirement that the conceptual structure in the scope of DEV must be the smallest possible. Or, alternatively, the formation of nominalized complex predicates may be a product of the word formation component in an extended sense. If that is correct, then (225b), and perhaps even (225a), may follow from the nature of compounding/derivation in general.

ACKNOWLEDGMENTS

I am grateful to Pamela Munro and Edith Moravcsik for detailed and very helpful comments on the first version of this chapter.

REFERENCES

Abney, S. (1986). *Functional elements and licensing.* Talk presented at GLOW.

Abney, S. (1987). *The English noun phrase in its sentential aspect.* Ph.D. dissertation, Massachusetts Institute of Technology, Cambridge.

Abondolo, D. M. (1988). *Hungarian inflectional morphology.* Akadémiai Kiadó, Budapest.

Ambar, M., X. Lois, and H. Obenauer (1986). Move Infl and sentential arguments. *GLOW Newsletter* 16, 17–18.

Anderson, M. (1983). Prenominal genitive NPs. *The Linguistic Review* 3, 1–25.

Bárczi, G., L. Benkő and J. Berrár (1967). *A magyar nyelv története* (The history of the Hungarian language). Tankönyvkiadó, Budapest.

Barwise, J., and R. Cooper (1981). Generalized quantifiers and natural language. *Linguistics and Philosophy* 4, 159–219.

Beghelli, F. (1992). A minimalist approach to quantifier scope. *North Eastern Linguistic Society* 23, 65–80.

Bhatt, R., and J. Yoon (1992). On the composition of COMP and parameters of V2, in R. Bates, (ed.), *Proceedings of the Tenth WCCFL* 41–53. CSLI, Stanford, Calif.

Borer, H. (1984). The projection principle and rules of morphology. *North Eastern Linguistic Society* 14, 16–33.

Brody, M. (1989). Old English impersonals and the theory of grammar. *University College London WPL* 262–296.

Brody, M. (1990). Remarks on the order of elements in the Hungarian focus field, in I. Kenesei (ed.), *Approaches to Hungarian* 95–123. JATE, Szeged.

Chomsky, N. (1981). *Lectures on government and binding.* Foris, Dordrecht.

Chomsky, N. (1986). *Barriers.* MIT Press, Cambridge, Mass.

Cinque, G. (1988). On *si* constructions and the theory of *arb. Linguistic Inquiry* 19, 521–583.

Csúri, P. (1989). *The NE construction in Marathi and the genitive.* Unpublished ms., Brandeis University, Waltham, Mass.

Diesing, M. (1990). *The syntactic roots of semantic partition.* Ph.D. dissertation, University of Massachusetts, Amherst.

Dobrovie-Sorin, C. (1993). What does QR Raise? *The Syntax of Romanian.* Mouton de Gruyter, Berlin.

Doron, E. (1989). Derived nominals in Hebrew, in J. Payne (ed.), *The structure of noun phrases.* Mouton de Gruyter, to appear.

Dowty, D. (1988). On the semantic content of the notion 'thematic role', in G. Chierchia et al. (eds.), *Property theory and natural language semantics,* 69–130. Reidel, Dordrecht.

Dowty, D. (1991). Thematic proto-roles and argument selection. *Language 67,* 547–619.

Enç, M. (1990). The semantics of specificity. *Linguistic Inquiry 22,* 1–27.

Füredi, I. (1884). Genitivusnak látszó dativus (Dative seeming like genitive). *Magyar Nyelvőr 13,* 123–127.

George, L., and J. Kornfilt (1981). Finiteness and boundedness in Turkish, in F. Heny (ed.), *Binding and filtering,* 105–158. Croom Helm, London.

Giorgi, A., and G. Longobardi (1991). *The syntax of noun phrases.* Cambridge University Press, Cambridge.

Grimshaw, J. (1990). *Argument structure.* MIT Press, Cambridge, Mass.

Hadrovics, L. (1969). *A funkcionális magyar mondattan alapjai* (Foundations of a functional syntax of Hungarian). Budapest.

Hale, K. (1981). *On the position of Warlpiri in a typology of the base.* Distributed by the Indiana University Linguistics Club, Bloomington.

Hale, K., and J. Keyser (1990). Chapters 1 and 2 of book manuscript, Massachusetts Institute of Technology, Cambridge.

Hall, R. (1944). *Hungarian grammar.* Linguistic Society of America, Baltimore.

de Hoop, H. (1992). The principle of contrastiveness. *Proceedings of WCCFL 11,* to appear.

Horvath, J. (1981). *Aspects of Hungarian syntax and the theory of grammar.* Ph.D. dissertation, University of California, Los Angeles.

Huang, C.-T. J. (1982). *Logical relations in Chinese and the theory of grammar.* Ph.D. dissertation, Massachusetts Institute of Technology, Cambridge.

Jackendoff, R. (1977). *X-bar syntax: A study of phrase structure.* MIT Press, Cambridge, Mass.

Joannovics, Gy. (1873). A *nek* névrag (The nominal suffix *nek*). *Magyar Nyelvőr 2,* 151–157, 209–215, 296–304.

de Jong, F. (1987). Generalized quantifiers: The properness of their strength, in H. van Benthem and A. ter Meulen, (eds.), *Generalized quantifiers in natural language,* 21–45. Foris, Dordrecht.

Károly, S. (1958). Az értelmező és az értelmezői mondat a magyarban (Apposition and appositional clause in Hungarian). *Nyelvtudományi Értekezések 16.* Akadémiai Kiadó, Budapest.

Kayne, R. (1993). Toward a modular theory of auxiliary selection. *Studia Linguistica 47,* 3–31.

Keenan, E. L. (1987). A semantic definition of 'Indefinite NP', in A. ter Meulen and E. Reuland, (eds.), *Representation of (In)definiteness,* 286–319. MIT Press, Cambridge, Mass.

Kiefer, F. (1986). The possessive in Hungarian: a problem for natural morphology. *Acta Linguistica Scientiarum Academiae Hungaricae 35,* 139–149.

É. Kiss, K. (1987). Egy főnévi igeneves szerkezetről (On an infinitival construction in Hungarian). *Általános Nyelvészeti Tanulmányok* 17, 153–171.

Koopman, H. (1992). *Licensing heads.* In D. Lightfoot and N. Hornstein, (eds.), *Verb movement.* Oxford University Press, to appear.

Koopman, H., and D. Sportiche (1991). The position of subjects. *Lingua* 85, 211–258.

Kornai, A. (1985). The internal structure of noun phrases, in I. Kenesei (ed.), *Approaches to Hungarian,* 1, 79–93. JATE, Szeged.

Kornai, A. (1989). *On Hungarian morphology.* Dissertation, Hungarian Academy of Science, Budapest.

Koster, J. (1987). Anaphoric and non-anaphoric control, in J. Koster (ed.), *Domains and dynasties* 109–145. Foris, Dordrecht.

Laczkó, T. (1985). Deverbal nominals and their complements in noun phrases, in I. Kenesei (ed.), *Approaches to Hungarian,* 1, 93–119. JATE, Szeged.

Laczkó, T. (1990). On arguments and adjuncts of derived nominals: a lexical-functional approach, in I. Kenesei (ed.), *Approaches to Hungarian,* 3, 123–147. JATE, Szeged.

Laczkó, T. (1992). *Complex predicates and derived nominals in Hungarian: A case of lexical incorporation.* Unpublished ms., CSLI, Stanford; KLTE.

Lehr, A. (1902). Magam-ról (On 'self'). *Akadémiai Értesítő* 13, 557–578, 605–624.

Liu, F. (1990). *Scope dependency in English and Chinese.* Ph.D. dissertation, University of California, Los Angeles.

Longobardi, G. (1990). *N-movement in syntax and in LF.* Unpublished ms., Universita di Venezia.

Lotz, J. (1939). *Ungarische Grammatik.* Stockholm.

Lyons, Ch. (1984). *Genitive case and definiteness.* Talk presented at the Groningen Round Table on the Representation of (In)definiteness.

Lyons, Ch. (1986). The syntax of English genitive constructions. *Journal of Linguistics* 22, 123–143.

A Magyar Nyelv Értelmező Szótára (Explanatory dictionary of the Hungarian language) (1959–1962). Akadémiai Kiadó, Budapest.

Mahajan, A. (1990). *The A/A-bar distinction and movement theory.* Ph.D. dissertation, Massachusetts Institute of Technology, Cambridge.

Marácz, L. K. (1984). *The grammar of PP.* M.A. thesis, Groningen.

Marácz, L. K. (1989). *Asymmetries in Hungarian.* Ph.D. dissertation, University of Groningen.

May, R. (1977). *The grammar of quantification.* Ph.D. dissertation, Massachusetts Institute of Technology, Cambridge.

May, R. (1985). *Logical form: Its structure and derivation.* MIT Press, Cambridge, Mass.

Mel'čuk, I. (1973). On the possessive forms of the Hungarian noun, in F. Kiefer and N. Ruwet, (eds.), *Generative grammar in Europe,* 315–333. Reidel, Dordrecht.

Miller, Ph. (1992). Morphological marking misses the head. *Proceedings of WCCFL* 11, to appear.

Milsark, G. L. (1977). Toward an explanation of certain peculiarities of the existential construction in English. *Linguistic Analysis* 3, 1–29.

Milsark, G. L. (1988). Singl-*ing*. *Linguistic Inquiry* 19, 611–635.

Pesetsky, D. (1985). Morphology and logical form. *Linguistic Inquiry* 16, 193–246.

Pollock, J.-Y. (1989). Verb movement, universal grammar, and the structure of IP. *Linguistic Inquiry* 20, 365–425.

Radics, K. (1980). Typological and grammatical notes on nominal sentences. In O. Ikola, (ed.), *Congressus quintus Fenno-Ugristarum III*. Turku.

Rappaport, M., and B. Levin (1986). What to do with theta-roles. *MIT Lexicon Project Working Papers* 11.

van Riemsdijk, H. (1987). *Movement and regeneration*. Unpublished ms., Tilburg University.

Ritter, E. (1991). Two functional categories in noun phrases; Evidence from Modern Hebrew, in S. D. Rothstein (ed.), *Perspectives on phrase structure: Heads and licensing*, 37–62. Academic Press, San Diego.

Rizzi, L. (1986). Null objects in Italian and the theory of *pro*. *Linguistic Inquiry* 17, 501–557.

Rizzi, L. (1990). *Relativized minimality*. MIT Press, Cambridge, Mass.

Rouveret, (1991). *Functional categories and agreement*. Talk presented at GLOW, Leiden.

Safir, K. (1987). The syntactic properties of lexical thematic structure. *Natural Language and Linguistic Theory* 5, 561–601.

Siloni, T. (1990). On the parallelism between CP and DP: the case of Hebrew semi-relatives. *Proceedings of the Leiden Conference of Junior Linguists.*

Simonyi, Zs. (1914). *A jelzők mondattana* (The syntax of nominal modifiers). Budapest.

Sportiche, D. (1990). *Movement, agreement, and case*. Unpublished ms., University of California, Los Angeles.

Steele, S. (1990). *Pass it on: A combinatorics-based approach to feature-passing*. Unpublished ms., University of Arizona, Tucson.

Stowell, T. (1991). *Small clause restructuring*, in R. Freidin (ed.), *Principles and Parameters in Comparative Grammar*, 182–218. MIT Press, Cambridge.

Szabolcsi, A. (1981). The possessive construction in Hungarian. *Acta Linguistica Scientiarum Academiae Hungaricae* 31, 261–289.

Szabolcsi, A. (1983a). Focussing properties, or the trap of first order. *Theoretical Linguistics* 10, 125–146.

Szabolcsi, A. (1983b). The possessor that ran away from home. *The Linguistic Review* 3, 89–102.

Szabolcsi, A. (1983c). A specifikus/nem specifikus megkülönböztetésről (On the specific/non-specific distinction). *Nyelvtudományi Közlemények* 85, 83–91.

Szabolcsi, A. (1986a). *A birtokos szerkezet és az egzisztenciális mondatok* (The Possessive Construction and Existential Sentences). Doctoral dissertation, Akadémiai Kiadó, 1992.

Szabolcsi, A. (1986b). Comparative superlatives. *MIT Working Papers in Linguistics,* 8, 245–266.

Szabolcsi, A. (1986c). Operator binding and reconstruction. *MIT Working Papers in Linguistics,* 8, 266–280.

Szabolcsi, A. (1986d). From the definiteness effect to lexical integrity, in W. Abraham and S. de Meij (eds.), *Topic, Focus, and Configurationality*, 321–348. John Benjamins, Amsterdam.

Szabolcsi, A. (1986e). Indefinites in complex predicates. *Theoretical Linguistic Research* 2, 47–84.

Szabolcsi, A. (1987). Functional categories in the noun phrase, in I. Kenesei (ed.), *Approaches to Hungarian*, 2, 167–190. JATE, Szeged.

Szabolcsi, A. (1989). Noun phrases and clauses: Is DP analogous to IP or CP? in J. Payne (ed.), *The structure of noun phrases*, to appear. Mouton de Gruyter, Berlin.

Szabolcsi, A. (1992a). Subject suppression or lexical PRO? The case of derived nominals in Hungarian. *Lingua* 86, 149–176.

Szabolcsi, A. (1992b). Subordination: Articles and complementizers, in I. Kenesei and Cs. Pléh (eds.), *Approaches to Hungarian*, 4, to appear.

Szabolcsi, A., and T. Laczkó (1992). A főnévi csoport szerkezete (The structure of the noun phrase), in F. Kiefer (ed.), *Magyar mondattan* (Hungarian syntax) 179–299, Akadémiai Kiadó, Budapest.

Tang, Ch.-Ch. J. (1990). A note on the DP analysis of the Chinese noun phrase. *Linguistics* 28, 337–354.

Tenny, C. (1989). *Nominalizations and aspectual structure*. Unpublished ms., Massachusetts Institute of Technology, Cambridge.

Tompa, J. (ed.) (1962). *A mai magyar nyelv rendszere* (The system of contemporary Hungarian). Budapest.

Valois, D. (1991). *The internal syntax of DP*. Ph.D. dissertation, University of California, Los Angeles.

Walinska de Hackbeil, H. (1984). On two types of derived nominals, in D. Testen, V. Mishra, and J. Drago (eds.), *Papers from the Chicago Linguistic Society Parasession on Lexical Semantics* 308–332.

Williams, E. (1987). Implicit arguments, the binding theory, and control. *Natural Language and Linguistic Theory* 5, 151–180.

Woisetschlaeger, E. (1983). On the question of definiteness in 'an old man's book'. *Linguistic Inquiry* 14, 137–154.

Zubizarreta, M.-L. (1987). *Levels of representation in the lexicon and in the syntax*. Foris, Dordrecht.

Zucchi, A. (1989). The propositional interpretation of noun phrases, in M. Stokhof and L. Torenvliet (eds.), *Proceedings of the Seventh Amsterdam Colloquium*, 663–685. ITLI, Amsterdam.

NOTES

[1] The morphological analysis of the examples has been a subject of debate; for example, the vowel *o* in *partok* has been argued to belong to the stem, or to the suffix, or to neither. See Abondolo (1988).

[2] Two different allomorphs of the possessive morpheme may distinguish alienable and inalienable possession, as in *a tehén borj-a* 'the cow(-NOM) calf-POSS.3SG' versus *a paraszt borjú-ja* 'the farmer(-NOM) calf-POSS.3SG'. See Kiefer (1986).

[3] A very interesting early version of the DP proposal is to be found in Walinska de Hackbeil (1984), motivated by the analysis of event versus result nominals.

[4]Valois (1991) explores the DP = CP hypothesis in connection with French and English, and Siloni (1990) in connection with Hebrew.

[5]I am grateful to D. Sportiche for discussion.

[6]There is an immediate technical problem with (24). The head noun must pick up its inflectional suffixes in a series of head movements. Head movement is not allowed to skip an intervening head. But here the movement of N + Poss +Num to Agr skips the intervening Det. Given that the surface positions of the nominative possessor and the determiner firmly establish the hierarchy of DetP and AgrP, I see no way to overcome this problem.

[7]The dative counterpart of (45a) is for some reason marginal, compare (20c). Kornai (1985), who chooses to ignore the dialectal data, claims that in type (45a) the article belongs to the possessed, but the (stressed!) pronoun is not a possessor, rather, an unsuffixed (as yet) agreement marker on the article; I find this morphologically unrealistic. As for (51), he simply takes this construction to be unrelated to the one discussed above.

[8]There is no scope interaction between the possessor and the article. For instance, *minden fiú képe* and *minden fiúnak a képe* both mean 'every boy's (individual) picture'. There is no Hungarian noun phrase with the meaning 'the picture which has every boy in it'. It is true, though, that when in fixed expressions the quantified possessor denotes a collective possessor, it is in the nominative: *mindenki kedvence* 'everyone's favorite (cca. kiss-ass)', *minden oroszok cárja* 'Czar of all the Russians'. Compare Huang (1982) and Tang (1990) for Chinese.

[9](55a) and (55c) are somewhat awkward but fully grammatical.

[10]It will be interesting to briefly comment on the position of traditional Hungarian linguistic literature concerning the above data. I already mentioned in section 3 that my nominative possessor is unanimously called a possessive modifier. Next, it is stipulated that when the article intervenes between it and the possessed, the possessive modifier is in the dative. More interesting are the views on the detached possessor. Whether it is a dative argument of the verb or a possessive modifier was the topic of a famous thirty-year debate in the journal *Magyar Nyelvőr*, initiated by Joannovics (1873). Joannovics maintained that when the word order position of the possessive modifier changes, it becomes a dative argument. He based this on historical claims and the following agreement facts. 3rd person plural lexical possessors trigger 3rd person singular agreement when they are inside the noun phrase, compare (17h) and (20b), repeated here. When they do not form a constituent with the noun possessed (in our terms, when the possessor moved out of the noun phrase), however, they trigger 3rd person plural agreement, see (i), which is the same as what (stressed or dropped) pronominal possessors trigger, compare (17f). More precisely, (i) is only obligatory in one dialect; in others, singular agreement is maintained after extraction. Joannovics considers those dialects sinfully innovative.

(17) h. *a   fiú- k   kalap-ja*
       the boy-PL(-NOM) hat-   POSS.3-SG
       'the boys' hat'

(20) b. *a   fiú- k- nak a   kalap-ja*
       the boy-PL-DAT the hat-   POSS.3SG

(i)   *a   fiú- k- nak . . . a   kalap-juk*
      the boy-PL-DAT . . . the hat- POSS.3PL

(17) f. *az ő   kalap-juk*   or   *a   kalap-juk*
        the he/she(-NOM) hat- POSS.3PL   the hat- POSS.3PL
        'their hat'   'their hat'

I assume that this agreement pattern can be accounted for with reference to some strategy like "Mark plurality only once within a constituent" and need not mean (as Joannovics tacitly assumes) that whenever we see the form *kalap-juk,* we have a dropped pronoun. What is remarkable is that those arguing against Joannovics reasoned in exactly the same way as a generative grammarian would (although they never addressed the question of how a possessive modifier can get separated from the possessed noun). Füredi (1884), for instance, showed that the sudden emergence of a dative argument is incompatible with the "subcategorization" of the predicate of the sentence, and Lehr (1902, 606) even formulated something like the projection principle: "I do not know about such magic transforming powers of word order. . . . The possessive modifier remains a possessive modifier, however the position of the possessed noun may change." Nevertheless, these counterarguments largely sank into oblivion. Even the current standard descriptive grammar, Tompa (1962), has contributors adopting Joannovics's position unquestioningly.

[11]The few case markers that do not agree (temporal *-kor,* locative *-on* and *-ig*) do not combine with personal pronouns at all. Accusative personal pronouns in first and second persons have basically agreeing but synchronically not entirely transparent forms: *eng-em(-et)* '1SG.ACC', *tég-ed(-et)* '2SG.ACC', *ő-t* '3SG.ACC', *mi-nk-et/ benn-ünk-et* '1PL.ACC', *ti-tek-et/benn-etek-et* '2PL.ACC, *ők-et* '3PL.ACC'. Postpositions that do not agree govern locative *-on* on the noun phrase: *a ház-on kívül/át/keresztül* 'besides/through/across the house'.

[12]More precisely, DETs fall into two groups:

(i)   D (precedes the nominative possessor):
       a(z) 'the, 0 'a(n), some', *ez a(z)* 'this', *az a(z)* 'that'

(ii)   Det (follows the nominative possessor):
       minden 'every', *e, eme, ezen* 'this', *ama, azon* 'that', *melyik* 'which', *kevés* 'few', *sok* 'many', *egy(ik)* 'one', *valamennyi* 'each', *bármelyik* 'either', *semelyik* 'neither', etc.

Some comments are in order concerning the membership of classes D and Det.

First, the category Det is heterogeneous: in addition to quantifiers and demonstratives, I listed certain numerals here. Moveover, in section 7 I assign even the phonetically empty [±definite] and [±specific] features to this category. Whether Det is to be split into various subcategories is immaterial to my present concerns.

Second, I listed *egy* 'one' only among Dets, although the traditional assumption is that its stressed variant is a numeral and its unstressed variant is an article. My decision had two kinds of motivation. On one hand, the linear position of *egy* is always like that of Dets.

(iii) a. *a /*minden/*egy(ik) te   titk- od*
        the/*every /*one   you(-NOM) secret-POSS.2SG
    b. *a   te   minden/egy(ik)/*a   titk- od*
        the you(-NOM) every /one   /*the secret-POSS.2SG

On the other hand, whether *egy* is stressed or not is predictable from whether it is in focus or not, so the two variants need not be assigned to two different categories.

Third, the complex demonstratives *ez a(z)* 'this the = this' and *az a(z)* 'that the = that' are simply listed under D, although the restrictive and the non-restrictive versions presumably have different structures. In the restrictive version, where *ez/az* is stressed, *ez/az* may occupy the [SPEC,DP] position (see Kenesei, this volume). On the other hand, in the unstressed non-restrictive version *ez/az a(z)* seems like one complex D. Since the dative-marked possessor is in [SPEC,DP], the above analysis will explain why the restrictive version cannot form a constituent with it, while the non-restrictive version can.

(iv) a.*Én csak* [DP *Péternek* "ezt [D' *a* [(N + I)P *javaslatát*]]] *támadom, azt nem.*
        'It is only THIS proposal of Péter's that I am attacking; THAT one I am not.'
    b. *Én csak* [DP *Péternek* [D' *erre a* [(N + I)P *javaslatára*]]] *akartam felhivni a figyelmet.*
        'All I wanted was to draw attention to this proposal of Péter's.'

[13]I am glossing over some subtle descriptive points here. The haplology rule would need to be refined in order not to exclude *a minden könyvet elolvasó ember* 'the every book-ACC reading man = the man who reads every book'. For some reason, D Det is fully acceptable when the second element of the sequence belongs to a prenominal participial clause. On haplology, see Miller (1992).

[14]C. Condoravdi (personal communication) informs me that the presence of *to* has nothing to do with whether the elements in the domain of quantification are known to speaker and hearer or whether their existence is already established in the discourse. On the other hand, *to* appears to add some emphasis with the flavor of *ke* 'too, even'. In other words, *to* makes some semantic contribution here, but not one that is describable in terms of definiteness.

[15]In Szabolcsi (1992b) I propose the following semantic interpretations for the subordinator. In Montague grammar, C and D may be regarded as λ-operators that bind variables over possible worlds and properties, respectively, thus yielding propositions and generalized quantifiers as canonical arguments. In discourse representation theory, the subordinator may be claimed to serve as, or mark the existence of, a discourse referent (individual or group).

[16]C. Condoravdi (personal communication) informs me that the complementizer *oti* does not co-occur with WH-phrases in Modern Greek. On the other hand, both *oti* 'that' clauses and WH-clauses may be nominalized by *to* 'the'.

[17](100b) has an irrelevant good reading on which it does not assert existence but serves to draw attention to the book. This reading can be eliminated by negation or questioning. (100c) never has such a reading.

[18]The distribution of the definite article *a(z)* in generic and non-generic contexts is practically the same as in Italian, cf. Longobardi (1990). For instance, Hungarian differs from English at the following points.

(i)   Abstract nouns take a definite article: *a bölcsesség* 'the wisdom', *a kémia* 'the chemistry', etc.

(ii)   Both singular and plural definites serve as generics: *Az oroszlán Afrikában él.* 'the lion Africa-in live(-3sG)'/*Az oroszlánok Afrikában élnek.* 'the lion-PL Africa-in live-3PL', both meaning 'Lions live in Africa.'

(iii)   On the other hand, bare singulars and plurals only have an existential reading: *Oroszlánok Afrikában élnek.* 'lion-PL Africa-in live-3PL', meaning 'It is Africa where there are lions.'

[19]Further complications arise in connection with dialectal variation in the visibility of the [+def] feature of proper names and the behavior of place names. I will not go into details here. See Kornai (1985) and Szabolcsi (1986a).

[20]I assume that the [±specific] feature of DetP is inherited by (N + I)P, and the selection of *a(z)* or Ø in D is sensitive to this.

[21]On the basis of the data in Steele (1990) I imagine that a similar analysis carries over to Luiseño, namely, that *noo* is an extracted possessor, not a co-argument of *no-taana*. However, I have to leave it to the experts to determine whether the detailed arguments that support the Hungarian analysis below can be replicated for Luiseño.

[22]Note that in *verse Chomskynak* 'poem-POSS.3sG Chomsky-DAT' the two words do not form a constituent.

[23]*A(z)*-deletion in (121) occurs because the proper name possessor has an underlying article. (122) and (123) on the specific reading are practically ungrammatical in present-day Hungarian. However, there exists an archaic option to delete *a(z)* even in these cases, so the strings are not completely ruled out. What is relevant to us, though, is that the archaic versions are [+spec].

[24]This verb *van* differs from both the locative verb and the copula. An easy way to demonstrate this is to point out that in the 3sG indicative the copula must be, and the locative verb may be, phonetically empty, but the existential/possessive must not. Radics (1980) observes that these data square with universal tendencies.

A note on the noun phrases that occur in the Hungarian possession sentence. *There*-insertion contexts in English come in two varieties, with or without a coda, and the former, which is not purely existential, accepts a wider range of indefinites than the latter.

(i)   *There are two of the books* *(on the table).*

(ii)   *There are proportionally more boys than girls* *(in the garden).*
        [*because nonsensical, 'there are more boys who are existing boys than girls who are existing girls']

(iii)   *There's fifty per cent of the students* *(who are without support).*

In Hungarian, (i) and (ii) with a coda will qualify as locative constructions and thus have no possession analog. The effect in (iii) can be replicated, however.

[25]This name is due to considerations concerning the lexical integrity hypothesis.

[26]Exceptions to this generalization in English are discussed in Woisetschlaeger (1983), such as *men's shoes* 'the type of shoes men wear'. Hungarian employs compounds for this purpose: *férfi-cipő* 'man-shoe'.

[27]Note, 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.'

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

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

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

[29]There 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.

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

[31]Some 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.

[32]An 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).