

GRAMMATICAL FUNCTIONS, LMT, AND CONTROL IN THE HUNGARIAN DP
REVISITED

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Abstract

The aim of the paper is to offer a critical evaluation of previous LFG accounts of Hungarian DPs containing derived complex event nominals and, by combining some aspects of some of these accounts, to propose a new and more principled analysis. My main assumptions and claims are as follows. There are two possessor forms and two [-o,-r] grammatical functions in the Hungarian DP: (SUBJ) and (POSS). Either possessor form can realize either grammatical function. The two forms are in complementary distribution. The explanation for this complementarity is that Hungarian possessive constructions are head-marking, and the morphological structure of Hungarian nouns is such that only one overt possessive relationship can be encoded. The highest argument in the argument structure can also be covert, realized by a SUBJ-PRO. LMT as developed for the clausal level can be adopted in this DP domain in a principled manner, including the (SUBJ) Condition.

1. Introduction

All generative approaches so far agree that in Hungarian there is a class of nominals derived from verbs by the *-ás/-és* suffix (glossed as DEV below, short for deverbal nominalizing suffix) which express complex events in Grimshaw's (1990) sense. They are assumed to inherit the argument structure of the input verb in its entirety.

The aim of the paper is to offer a critical evaluation of previous LFG accounts of Hungarian DPs containing derived complex event nominals and, by combining some aspects of some of these accounts, to propose a new and more principled analysis. The main issues to be addressed are as follows:

- a) the inventory (and nature) of grammatical functions;
- b) the consequences of this inventory for LMT;
- c) the treatment of control phenomena.

As will be clear from the subsequent discussion, these aspects of the analysis are interrelated.

My main assumptions and claims will be as follows. There are two possessor forms and two [-o,-r] grammatical functions in the Hungarian DP: (SUBJ) and (POSS). Either possessor form can realize either grammatical function. The two forms are in complementary distribution. The explanation for this complementarity is that Hungarian possessive constructions are head-marking, and the morphological structure of Hungarian nouns is such that only one overt possessive relationship can be encoded. The highest argument in the argument structure can also be covert, realized by a (SUBJ)-PRO. LMT as developed for the clausal level can be adopted in this DP domain in a principled manner, including the (SUBJ) Condition.

The paper has the following structure. After this introduction, first I will present the data: the basic facts (2.1) and the problem (2.2). Next, I will give a critical overview of previous LFG accounts (3). Then I will propose the new account (4). This will be followed by some concluding remarks (5).

2. The data

When referring to the core arguments of intransitive and transitive predicates, I will use the well-established notational convention shown in (1).

- (1) a. S: subject of intransitive verbs
 b. A: subject of transitive verbs
 c. P: object of transitive verbs

2.1. The basic facts

There are two distinct ways of expressing the possessor in the Hungarian DP. It can be in either the nominative or the dative. Consider the examples in (2).

- (2) a. (a) János kiabál-ás-a
 the John.NOM shout-DEV-3SG
 ‘John’s shouting’
- b. János-nak a kiabál-ás-a
 John-DAT the shout-DEV-3SG
 ‘John’s shouting’
- c. a dokumentum megsemmisít-és-e (János által)
 the document.NOM destroy-DEV-3SG (John by)
 ‘the destruction of the document (by John)’
- d. a dokumentum-nak a megsemmisít-és-e (János által)
 the document-DAT the destroy-DEV-3SG (John by)
 ‘the destruction of the document (by John)’

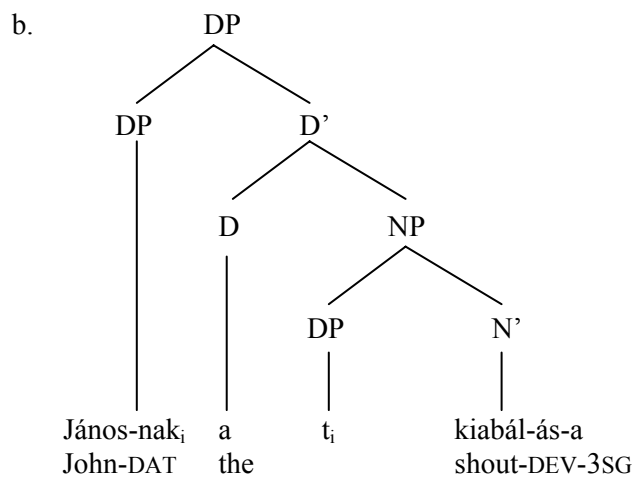
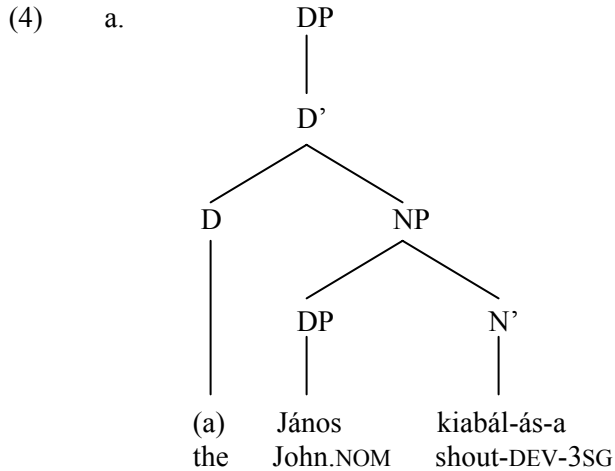
As (2a) and (2b) show, the S argument is realized as the possessor either in the nominative or in the dative, respectively. As is exemplified by (2c) and (2d), in the transitive case it is always the P argument that is expressed as the possessor, again, either in the nominative or in the dative, respectively, and the A argument has an OBL function, and it is optional.

It is important to point out that the two possessor variants are in complementary distribution in Hungarian, as opposed to their English counterparts, the *’s* and *of* constituents. Compare the ungrammatical Hungarian example in (3a) and its felicitous English counterpart in (3b).

- (3) a. *János-nak a dokumentum megsemmisít-és-e
 John-DAT the document.NOM destroy-DEV-3SG
- b. John’s destruction of the document

For the purposes of the present paper, I will adopt Szabolcsi’s (1994) original structural approach to Hungarian DPs.¹ According to Szabolcsi, the dative possessor and the nominative possessor have two different structural positions: the former precedes the definite article: [SPEC, DP], and the latter follows it: [SPEC, NP].

¹ My adopting Szabolcsi’s basic structural view, formulated in a GB framework, does not mean that I also accept the other aspects of her analysis. For instance, I do not assume a derivational (that is, transformational) relationship between the two possessor positions.



As (4b) shows, on Szabolcsi's GB account the nominative and dative possessor positions are transformationally related. This is an elegant way of capturing the complementary distribution of Hungarian nominative and dative possessors.

2.2. The problem: control

It is a basic requirement for any principled approach to draw parallels between infinitival and derived nominal constructions with respect to control into these constituents when their "subject" argument is unexpressed. It is this problem and its ramifications that have motivated my revisiting previous LFG analyses of these DP phenomena.

Consider the examples in (5).

- (5) a. János kiabál-t.
 John.NOM shout-PAST.3SG
 'John shouted.'
- b. János elkezd-ett kiabál-ni.
 John.NOM start-PAST.3SG shout-INF
 'John started to shout.'

c. János kiabál-ás-a
 John.NOM shout-DEV-3SG
 ‘John’s shouting’

d. János elkezd-te a kiabál-ás-t.
 John.NOM start-PAST.3SG.DEF the shout-DEV-ACC
 ‘John started the shouting.’

In (5a), there is a finite intransitive clause with an overt S argument realized as the subject. In (5b), this clause has an embedded infinitival counterpart. Its covert S argument is still assumed to have the subject grammatical function. This is a standard case of functional control. In (5c), there is a DP containing a noun head derived from an intransitive verb. Its overt S argument is realized by the possessor constituent. In (5d), the corresponding “intransitive” DP has been embedded in a clause. The nominal predicate in this DP has a covert S argument which we can assume to have the possessor function. This is another typical control situation. Thus, the intransitive parallel illustrated in (5b) and (5d) can be naturally captured. The subject argument (S) is missing from (5b) and the possessor argument (S) is missing from (5d), and both can be assumed to be controlled in the usual manner.

Now let us take a look at the related transitive cases in (6).

(6) a. János elkezd-te énekel-ni a dal-t.
 John.NOM start-PAST.3SG.DEF sing-INF the song-ACC
 ‘John started to sing the song.’

b. János elkezd-te a dal énekl-és-é-t.
 John.NOM start-PAST.3SG.DEF the song.NOM sing-DEV-3SG-ACC
 ‘John started the singing of the song.’

In (6a), the patient argument has the object function, and it is still the subject argument (A), which is unexpressed, that can be equally naturally handled by the well-established control mechanism. However, the possessor (expressing the P argument) is present in (6b), and there can only be one possessor argument in a Hungarian DP, as was shown in (3a). So the problem (6b) raises is how one can accommodate the missing agent in this system so as to ensure that it should be controllable in a principled manner.

3. Previous LFG accounts

In the three subsections below, the earlier analyses will be given a critical overview with respect to the following criteria:

- A) the proposed number and nature of semantically unrestricted grammatical functions in the DP,
- B) the applicability of LMT in the given framework,
- C) the possible treatment of the control problem presented in section 2.2.

The key examples I will refer back to in the three subsections are as follows.

(7) a. overt S/nom
 János kiabál-ás-a cf. (5c)
 the John.NOM shout-DEV-3SG
 ‘John’s shouting’

- b. overt S/dat
 János-nak a kiabál-ás-a
 John-DAT the shout-DEV-3SG
 ‘John’s shouting’
- c. covert S
 a kiabál-ás
 the shout-DEV
 ‘the shouting’
- (8) a. overt P/nom – overt A/obl
 a dokumentum megsemmisít-és-e János által
 the document.NOM destroy-DEV-3SG John by
 ‘the destruction of the document by John’
- b. overt P/dat – overt A/obl
 a dokumentum-nak a megsemmisít-és-e János által
 the document-DAT the destroy-DEV-3SG John by
 ‘the destruction of the document by John’
- c. overt P/nom – covert A
 a dokumentum megsemmisít-és-e cf. (6b)
 the document.NOM destroy-DEV-3SG
 ‘the destruction of the document’
- d. overt P/dat – covert A
 a dokumentum-nak a megsemmisít-és-e
 the document-DAT the destroy-DEV-3SG
 ‘the destruction of the document’

3.1. Laczkó (1995), (2000), and (2002)

As far as these three works are concerned, Laczkó (1995) offers the basic analysis. Laczkó (2000) modifies the LMT aspect and Laczkó (2002) proposes an alternative way of treating control.

A) On all three accounts, there is only one [-r] grammatical function postulated in the Hungarian DP: (POSS). It is taken to be realized by either nominative or dative possessor constituents, which naturally captures the empirical generalization that the two forms are in complementary distribution.

B) Laczkó (1995) draws a close parallel between (POSS) in Hungarian DPs and (SUBJ) in Hungarian clauses. In the LMT dimension of the analysis, it introduces the (POSS) Condition corresponding to LFG’s (SUBJ) Condition at the clause level. The essence of the mapping mechanism is that the deverbal nominalizing suffix optionally demotes the highest [-o] argument.² In the intransitive (unergative) case there must not be demotion, otherwise the (POSS) Condition would be violated, while in the transitive case there must be demotion, otherwise it would be impossible to ensure that the [-r] argument should be mapped onto (POSS). By contrast, Laczkó (2000) proposes an ergative mapping pattern, which can be viewed as a more principled analysis:

² It does not choose between the two fundamental types of demotion: suppression and associating the [+r] feature with the highest [-o] argument.

- (9) a. Map the [-r] argument onto (POSS). Otherwise:
 b. Map the highest [-o] argument onto (POSS).

C) In the intransitive control case, Laczkó (1995) simply assumes that there is an anaphorically controlled (POSS)-PRO in the f-structure of the DP. The tentative, and admittedly very marked, solution in the transitive case is that a PRO is inserted in the argument structure of the derived nominal, without any grammatical function, and this PRO is controlled in a special way. Laczkó (2002) sets out to develop a uniform treatment of control. The proposal is that in the transitive case the highest [-o] argument is associated with the \emptyset grammatical function symbol, which, contrary to previous assumptions, has two functions: a) the usual encoding of suppression (that is, the existential quantification of the given argument), b) the association of the ‘PRO’ feature with the given argument. According to this analysis, the control of arguments with a ‘PRO’ feature uniformly takes place at the level of semantic structure (as opposed to the customary f-structure), irrespective of the question of whether this feature originates from an ordinary “syntactic” PRO, as in the intransitive nominal case, or it is provided by this new function of the \emptyset symbol.

(10) and (11) below, corresponding to the examples in (7) and (8), respectively, summarize the most important aspects of the three accounts.

- (10) a. overt S/nom → (POSS)
 b. overt S/dat → (POSS)
 c. covert S → (POSS)-PRO

- (11) a. overt P/nom → (POSS) – overt A/obl → (OBL) / \emptyset
 b. overt P/dat → (POSS) – overt A/obl → (OBL) / \emptyset
 c. overt P/nom → (POSS) – covert A → lexical PRO / \emptyset -PRO
 d. overt P/dat → (POSS) – covert A → lexical PRO / \emptyset -PRO

My collective assessment of these analyses is as follows. LMT is well-developed, especially the modified version in Laczkó (2000). However, given that only one [-r] grammatical function is assumed, control cannot be treated in a both uniform and unmarked way. Laczkó (1995) violates both requirements, while Laczkó (2002) attains uniformity, but it makes a very radical shift: in order to accommodate the transitive case, it relegates the treatment of all control phenomena to a different domain: semantic structure. This analysis is not fully developed³ and its ramifications are not considered at all. For instance, one immediate consequence of this stance is that binding phenomena are also supposed to be handled in semantic structure.

³ In addition, the proposal is spelt out in a somewhat outdated Halvorsen (1983)-style semantic framework.

3.2. Komlósy (1998)

A) This analysis employs two [-r] grammatical functions in the Hungarian DP: a) (POSS), which is always associated with overt constituents, whether in the nominative or in the dative, b) (SUBJ), which is always covert, and it is functionally controlled.

B) There is no LMT aspect to this account.

C) It provides an excellent, unmarked, and uniform treatment of control phenomena in Hungarian DPs, including the recalcitrant transitive case. Its essence is that it is invariably the covert (SUBJ) argument that is controlled.

(12) and (13) below, corresponding to the examples in (7) and (8), respectively, summarize the most important aspects of Komlósy's (1998) analysis.

(12) a. overt S/nom → (POSS)

b. overt S/dat → (POSS)

c. covert S → (SUBJ)-PRO

(13) a. overt P/nom → (POSS) – overt A/obl → (OBL)

b. overt P/dat → (POSS) – overt A/obl → (OBL)

c. overt P/nom → (POSS) – covert A → (SUBJ)-PRO

d. overt P/dat → (POSS) – covert A → (SUBJ)-PRO

I would like to make the following comments on this approach.

A) I find Komlósy's (SUBJ) function rather mysterious. It is taken to be always phonetically null, which appears to me a stipulation, given that in the intransitive case the following natural parallel suggests itself. (Compare (12) and (14).)

(14) a. overt S/nom → (SUBJ)

b. overt S/dat → (SUBJ)

c. covert S → (SUBJ)-PRO

B) It seems that Komlósy's system could only accommodate an LMT dimension with considerable difficulty. The main problem I envisage is as follows. Although the (SUBJ) function is available in the Hungarian DP domain, in addition to the (POSS) function, with the same [-o, -r] features, the (SUBJ) Condition could not be adopted because of the (12a,b) aspect of Komlósy's analysis. It is easy to see that both my critical remarks pertain to exactly the same property of this account: Komlósy's assuming the (POSS) function to be associated with the overt possessor constituent of the DP containing a noun head derived from an intransitive verb. In my new proposal I will set out to change this aspect of Komlósy's approach, among other things.

C) The unquestionably ingenious trait of Komlósy's account is the proper introduction of a controllable (SUBJ) function in both the intransitive and the transitive cases, thereby rendering the treatment of control phenomena both uniform and unmarked, that is, absolutely principled. In the new proposal I will keep this aspect of his analysis.

3.2. Chisarik and Payne (2003)

A) Chisarik and Payne (2003) also employ two $[-r]$ grammatical functions in the Hungarian DP: a) (SUBJ), which is always expressed by the dative possessor constituent, b) (ADNOM), which is always realized by the nominative possessor. They propose that English DPs allow exactly the same two $[-r]$ functions: the 's genitival constituent has the (SUBJ) function, while the *of* constituent has the (ADNOM) function. The difference between the two languages is that the two functions cannot co-occur in Hungarian, while they can in English, cf. (3a) and (3b). Chisarik and Payne (2003) capture this contrast by introducing what they call the Asymmetrical Possessor Parameter. Its essence is that derived nominal predicates in English and similar languages allow two $[-r]$ arguments in their argument structures, while DPs in Hungarian and similar languages allow only one such argument. Consider:⁴

$$(15) \quad * \quad \begin{array}{cc} \ominus & \ominus \\ | & | \\ -r & -r \end{array}$$

Chisarik and Payne's (2003) further important assumption is that, just like at the clausal level, the (SUBJ) function in the DP domain is discourse-related, most naturally associated with the topic (TOP) discourse function.

B) The LMT dimension of their analysis incorporates the $[\pm\text{discourse}]$ feature as well:

(16)

	+d	-d	
	-r	-r	+r
-o	SUBJ	ADNOM	OBL _⊖
+o		OBJ	OBJ _⊖

According to them the (SUBJ) function is discourse-oriented both at the clausal and at the DP levels, while all the other functions are $[-d]$. With respect to the other two features, the (ADNOM) function, peculiar to the DP domain, shares their values with (SUBJ): (ADNOM) $\rightarrow [-d, -r, -o]$ vs. (SUBJ) $\rightarrow [+d, -r, -o]$. Naturally, the (OBJ) and (OBJ_⊖) functions are not available at the DP level.

C) Chisarik and Payne (2003) do not discuss control relations at all.

(17) and (18) below, corresponding to the examples in (7) and (8), respectively, summarize the most important aspects of Chisarik and Payne's (2003) analysis.

⁴ The authors claim that their solution is an extension of the clausal asymmetrical object parameter of Bresnan and Moshi (1990) to the DP domain. I would like point out that what the authors really seem to intend simply cannot be such an extension, because Bresnan and Moshi (1990) are concerned with the intrinsic featural classification of arguments in argument structures, while Chisarik and Payne (2003) deal with grammatical functions. The former rule was designed to block the co-occurrence of two arguments with the $[-r]$ intrinsic feature, while, in all probability, the latter was meant to prevent two arguments from being mapped onto grammatical functions with the $[-r]$ feature. Therefore, Chisarik and Payne's (2003) Hungarian parameter should have taken the following form, instead of (15) above:

$$(i) \quad * \quad \begin{array}{cc} \ominus & \ominus \\ | & | \\ GF_i & GF_j \\ [\alpha, -r] & [\beta, -r] \end{array}$$

- (17) a. overt S/nom → (ADNOM)
 b. overt S/dat → (SUBJ)
 c. covert S → ?
- (18) a. overt P/nom → (ADNOM) – overt A/obl → (OBL)
 b. overt P/dat → (SUBJ) – overt A/obl → (OBL)
 c. overt P/nom → (ADNOM) – covert A → ?
 d. overt P/dat → (SUBJ) – covert A → ?

My most important critical remarks are as follows.

A) In agreement with all the other previous analyses (Szabolcsi (1994), Laczkó (1995, 2000), Komlósy (1998), etc.), I do not find Chisarik and Payne's (2003) strict nominative possessor → (ADNOM) grammatical function and dative possessor → (SUBJ) grammatical function correlation plausible enough, despite the fact that their motivation is clear. a) If there are two distinct positions in a structure and, moreover, two distinct forms are associated with these positions, then naturally the null hypothesis is the postulation of two distinct functions. b) The possibility of the Hungarian-English formal-functional parallel is really appealing (ADNOM: nominative constituent – *of* constituent, SUBJ: dative constituent – *'s* constituent). My fundamental problem is that the relevant English and Hungarian possessor constituents are radically different in nature. While I readily accept the generalization that the English *'s* constituent and *of* constituent differ in that the former, in Chisarik and Payne's (2003) analysis the one realizing the (SUBJ) function, is discourse-, that is, topic-oriented, and the latter, expressing the (ADNOM) function, is not,⁵ I think the two corresponding Hungarian possessor constituents simply do not exhibit these characteristic features, contrary to Chisarik and Payne's (2003) claim. My explanation for this contrast is that, as is well-known, English noun phrase structure and clause structure show a very close resemblance:

- (19) a. DP's N of DP
 b. DP V DP

It is straightforward to draw a parallel between the subject positions (functions) and their well-attested, default topic-relatedness in the two structures. In Hungarian, by contrast, there are topic positions at the clausal level, and although subjects are very strong candidates for topichood, the choice is also determined by other significant factors,⁶ and there can be several topics simultaneously. Furthermore, in the Hungarian DP both the dative and the nominative possessor positions precede the noun head; therefore, they do not exhibit the same kind of discourse functional contrast as the English counterparts, compare (19a) and (20):

- (20) DP_{dat} D DP_{nom} N

⁵ See, for instance, the cognitive grammatical analysis by Taylor (1994) along these lines, also discussed from an LFG perspective in Laczkó (1995).

⁶ For an overview, see É. Kiss (1992), among other works.

For instance, the topic (*the lady's*) – non-topic (*of the lady*) contrast in English in (21) does not have a Hungarian parallel in (22).

(21) a. the lady's car

b. the car of the lady

(22) a. a hölgy-nek az autó-ja
 the lady-DAT the car-3SG
 'the lady's car'

b. a hölgy autó-ja
 the lady.NOM car-3SG
 'the lady's car'

In the overwhelming majority of the cases the two possessor forms are entirely interchangeable without any systematic semantic (e. g., discourse-related) or other kinds of contrast. Cases when only one of the two forms is possible or (strongly) preferred are discussed in Szabolcsi (1994) and Chisarik and Payne (2003). As has already been mentioned, Szabolcsi postulates one function and Chisarik and Payne (2003) assume two. I agree with Szabolcsi, who offers principled explanations in most instances of this limited partial contrast in the use of the two forms without invoking two distinct grammatical functions.⁷ Although Chisarik and Payne's (2003) move is also logical theoretically speaking (two forms → two functions), it is not absolutely necessary. It can be claimed that one and the same function can have two different realizations, and when two forms are available, it is quite natural for them to develop some partial division of labour. It is to be emphasized again in this connection that the two constituents in the Hungarian DP can never co-occur (as opposed to the English DP); thus, there is no unquestionable need for associating two distinct grammatical functions with them (to avoid violating the biuniqueness principle).⁸

I would also like to add that although the fact that the two possessor forms in Hungarian cannot occur simultaneously weakens the motivation for assuming that they realize two distinct functions, it does not automatically justify postulating that they express the same function. There may be several different factors responsible for such non-co-occurrence. As I have shown above, Chisarik and Payne (2003) do propose a principle, see (15). However, in footnote 4 I pointed out that this principle cannot be taken to be an extension of Bresnan and Moshi's (1990) proposal. What is more, it belongs to an entirely different dimension, and it should take a considerably different form, because I do not suppose that Chisarik and Payne (2003) had the following parameter for the English DP in mind, which would follow from their generalizations.

(23) ⊕ ⊕
 | |
 -r -r

This would be their Symmetrical Possessor Parameter. Its immediate consequence would be that Chisarik and Payne (2003) would have to assume the following morpholexical process, in Ackerman's (1992) sense, for English nominalization:

⁷ Limitations of space prevent me from going into these details; therefore, I defer a detailed discussion to a different forum.

⁸ Chisarik and Payne (2003: 196) erroneously mention the principle of coherence in this context.

$$(24) \quad \begin{array}{ccc} < \Theta & \Theta > & \\ | & | & \\ -o & -r & \end{array} \rightarrow \begin{array}{ccc} < \Theta & \Theta > & \\ | & | & \\ -r & -r & \end{array}$$

This could hardly have been their intention, because in actual fact it would run counter to Bresnan and Moshi's (1990) generalization about English: according to them this language, just like Hungarian, is an asymmetrical language.⁹ If we change Chisarik and Payne's (2003) parameter into what most probably they originally intended (see (i) in footnote 4) then, without any further support or elaboration, it will be more stipulative than principled.¹⁰

B) Chisarik and Payne (2003) assume that although both (SUBJ) and (ADNOM) are [-o, -r] grammatical functions, the former is hierarchically superior to the latter. However, they do not derive this from any principle or factor. Moreover, at a later point they claim that the "SUBJ relations in both languages are [...] a subset of the ADNOM relations" (p. 195). I think the relationship between the two functions in Chisarik and Payne's (2003) system would require further elaboration (also see next point).

C) Just like Komlósy's account, Chisarik and Payne's (2003) analysis cannot adopt the classical clausal version of LMT to the DP domain without complications. The main problem is that although they also employ the (SUBJ) function, they cannot retain the (SUBJ) Condition.

D) As has already been mentioned, they do not deal with control at all. In this connection it is a further problem, partially related to the previous point, that despite the fact that their system employs two [-r] grammatical functions, and one of them is the (SUBJ) function, it could only handle control phenomena in a rather marked and complicated way. For instance, it would have to assume that (ADNOM)-PRO was also possible, and, furthermore, that (SUBJ)-PRO could also realize an argument which was not the highest in the hierarchy.

4. The new account

In this section I will develop an analysis which aims at a synthesis of what I consider the favourable aspects of the previous accounts discussed above. It has the following main components.

A) I assume that there are two [-o, -r] functions in the Hungarian DP: (SUBJ) and (POSS). Naturally, this view contrasts with my previous assumptions, and it is comparable, to a considerable extent, both to Komlósy's (1998) and to Chisarik and Payne's (2003) analysis.¹¹

⁹ There are two indications that Chisarik and Payne (2003) did not have (n) in mind. On the one hand, when they discuss mapping in the English DP domain, they keep talking about a < -o, -r > argument structure (p. 197). On the other hand, when they explain their formalized parameter they write "... Hungarian [...] does not permit two [-o, -r] arguments" [...] "English [...] does permit two [-o, -r] arguments" (p. 197). I think it obvious that they intended to refer to [-o, -r] *grammatical functions* rather than [-o, -r] arguments.

¹⁰ Let me also mention at this point that in my new solution to be presented in section 4 I also have to cope with a similar kind of complementarity. In my estimation, the explanation I offer will be more principled. It will be based on the obligatory head-marking nature of Hungarian possessive constructions as opposed to the dependent-marking nature of their English counterparts.

¹¹ For various kinds of justification for allowing at least one [-r] grammatical function in the NP/DP domain (contra Rappaport (1983), for instance), see Laczkó (2000) and Chisarik and Payne (2003). One very strong argument mentioned in Chisarik and Payne (2003) is that in Hungarian it is possible for expletive pronouns to occur as possessor constituents linked to the clausal argument of a derived nominal predicate (the example is mine):

(i) a-*nnak* a kimond-*ás-a*, hogy János hibáz-*ott*
 it-DAT the state-DEV-3SG that John.NOM err-PAST.3SG
 lit. '*its stating that John has erred'

B) Both these grammatical functions can be realized by either dative or nominative possessors. A covert argument always has the (SUBJ) function. This view partially contrasts with Komlósy's (1998) view and fully contrasts with Chisarik and Payne's (2003) assumptions. On Komlósy's account (POSS) can be expressed in either the dative or the nominative, and (SUBJ) is always covert. In Chisarik and Payne's (2003) analysis, on the other hand, the dative possessor always realizes the (SUBJ) function and the nominative possessor expresses the (ADNOM) function (and no mention is made of covert arguments).

C) Control relations are anaphoric. This contrasts with Komlósy's (1998) functional control assumption, for which he gives no justification. My arguments for the anaphoric view are as follows.

Ca) The controller can also have an (OBL) function:

- (25) Mária ráeröltet-te János-ra a dal
 Mary.NOM force-PAST.3SG.DEF John-SUBL the song.NOM
- elénekl-és-é-t.
 sing-DEV-3SG-ACC

'Mary forced the singing of the song upon John.'

Cb) Split antecedents are possible:

- (26) Mária ráve-tte János-t a dal közös
 Mary.NOM persuade-PAST.3SG.DEF John-ACC the song.NOM joint
- elénekl-és-é-re.
 sing-DEV-3SG-SUBL

lit. 'Mary_i persuaded John_j that they_{i+j} should sing the song jointly.'

Cc) There is no need for postulating that a case-marked DP argument containing a derived nominal head has an (XCOMP) function in Hungarian, in addition to the well-established and typical nominal functions: (SUBJ), (OBJ) and (OBL).

Cd) It is also noteworthy that even in the analysis of English verbal gerunds in Bresnan (2001) anaphoric control is assumed. This is significant because, as is well-known, the internal syntax of these constructions is predominantly verbal (as opposed to their nominal external syntax). By contrast, both the external syntax and the internal syntax of the relevant Hungarian constructions are strictly nominal and, thus, the motivation for assuming anaphoric control is even stronger.¹²

D) Just like in Komlósy (1998), as opposed to all the other previous analyses, namely Laczkó (1995), (2000), (2002), Chisarik and Payne (2003), control relations can be captured in the well-established way in both the intransitive and the transitive cases. The (SUBJ) in the DP domain can also be a "PRO" (without person and number specification), and I assume with Komlósy (1998) that only the (SUBJ) has this privilege. It is only the highest argument in an

¹² I would like to point out an interesting parallel. Both in Bresnan (2001) and here it is assumed that control *into* these nominal constructions is anaphoric. On the other side of the coin, Rappaport (1983) offers very strong and detailed arguments for anaphoric control *within* English nominal expressions containing a derived nominal head, that is, in cases when the nominal predicate has a clausal argument and another argument of this predicate controls one of the arguments of this clausal argument. The generalization that suggests itself is that in languages like English and Hungarian the category N triggers anaphoric control both externally and internally.

argument structure that can be realized by such a PRO, as is argued independently by Szabolcsi (1992) and Komlósy (1998). This principle can be schematically represented as follows.

- (27) a. $\langle \Theta \dots \rangle$
 |
 PRO-
 SUBJ
- b. * $\langle \dots \Theta \dots \rangle$
 |
 PRO-
 SUBJ

E) Just like in Chisarik and Payne (2003), the non-co-occurrence of the dative and the nominative possessors (in whatever functions) must be captured. As I pointed out in connection with (4b), Szabolcsi (1994) elegantly captures this complementarity by assuming that the two possessor positions are derivationally related: she employs [SPEC, NP] → [SPEC, DP] movement. The complementarity poses no problem for either Komlósy (1998) or my previous analyses, because on all these accounts there is a single (POSS) grammatical function that can be realized by either nominative or dative possessors.¹³

In Chisarik and Payne's (2003) approach the dative possessor is strictly associated with the (SUBJ) function and the nominative possessor with the (ADNOM) function, so the complementarity of the two forms has to be explained. In section 3.3 I showed and criticized Chisarik and Payne's (2003) solution.

The new analysis I am presenting here is even more permissive in that either possessor form is allowed to express either grammatical function. In theory, the following four instances of co-occurrence are possible.

- (28) a. dative → (SUBJ) – nominative → (SUBJ)
- b. dative → (POSS) – nominative → (POSS)
- c. dative → (SUBJ) – nominative → (POSS)
- d. dative → (POSS) – nominative → (SUBJ)

Obviously, (28a) and (28b) can be easily ruled out because they would result in the violation of the biuniqueness principle. (28c) and (28d) are on a par and ideally these cases should be blocked in a principled manner. One could import Chisarik and Payne's (2003) solution offered in their system; however, I have already expressed my reservations about it. Instead, my proposal is as follows. In Hungarian, possessive constructions are *head-marking*, and the possessed noun agrees with the possessor for person and number. *The morphological make-up of nouns only allows one such relation to be encoded*, that is, loosely speaking, there is only one morphological slot for this purpose. In (29a) and (29b) I give two simple examples with underived nouns.

¹³ A reminder is in order here: the fundamental difference between Komlósy (1998) and my previous accounts is that Komlósy (1998) also postulates an always covert argument with the (SUBJ) function, in addition to the always overt (POSS) realizable in either nominative or dative form.

- (29) a. János ház-*a*
 John.NOM house-3SG
 ‘John’s house’
- b. János-nak a ház-*a*
 John-DAT the house-3SG
 ‘John’s house’

As these phrases illustrate, the possessor, whether in the nominative or in the dative, agrees with the head noun.¹⁴ Thus, although either possessor form can realize either the (SUBJ) or the (POSS) grammatical function, only one overt possessor constituent can occur in each DP. Naturally, a covert PRO argument can also be encoded in the lexical form of the nominal predicate, and it will appear in the f-structure representation of the DP.

F) The inventory of grammatical functions in the DP domain I assume is shown in (30):

(30)

	-o	+o
-r	SUBJ POSS	—
+r	OBL _θ	—

The (SUBJ) and the (POSS) functions are in the same slot; however, (SUBJ) is superior in two respects. On the one hand, it can be an anaphorically controlled PRO, and, on the other hand, when both are available, (SUBJ) and not (POSS) will be selected. These two properties, however, do not have to be stipulated here, because they follow from broader generalizations about clauses. A) Control theory states that only (SUBJ) arguments can be controlled, see, for instance, Bresnan (1982). B) Mapping theory requires that one of the arguments of a verbal predicator must be mapped onto the (SUBJ) function. This is expressed by the Subject Condition, see, e. g., Bresnan (2001). Although my new account has the extra (SUBJ) function in its inventory (contrary to my previous analyses), my claim is that its LMT aspect is even more principled and much more closely related to the classical version of LMT as applied to the clausal level. Before we take a closer look at how all this works in practice, (31) and (32) below, corresponding to the examples in (7) and (8), respectively, summarize the most important aspects of the new account with respect to distribution of covert and overt arguments as well as that of their grammatical functions.

- (31) a. overt S/nom → (SUBJ)
 b. overt S/dat → (SUBJ)
 c. covert S → (SUBJ)-PRO

¹⁴ It is to be noted that Bartos (2000) argues exactly in the case of 3rd person singular and 3rd person plural non-pronominal possessors that the ending traditionally taken to be an agreement marker is actually the marker of the possessive relationship. Even if this view proves tenable it will not considerably weaken my proposal above, because in all the other persons and numbers the original traditional agreement generalization holds according to Bartos (2000) as well, so this exceptional case can always be treated as a paradigm gap. Moreover, one can also argue that in the problematic case the slot in question is filled with a zero marker, or, alternatively, there is an even simpler solution available in a word-and-paradigm style morphological model, more compatible with LFG, see Laczkó (2001).

- (32) a. overt P/nom → (SUBJ) – overt A/obl → (OBL)
 b. overt P/dat → (SUBJ) – overt A/obl → (OBL)
 c. overt P/nom → (POSS) – covert A → (SUBJ)-PRO
 d. overt P/dat → (POSS) – covert A → (SUBJ)-PRO

Now let us take a closer look at the details of the new analysis.

Fa) the transitive case <A, P >

Consider the example in (33). The relevant DP is in italics.

- (33) *A dal el-énekl-és-e János által mindenki-t*
 the song.NOM PERF-sing-DEV-3SG John by everyone-ACC
 meglep-ett.
 surprise-PAST.3SG

‘The singing of the song by John surprised everyone.’

Given that on this account, just as on Komlósy’s (1998) and Chisarik and Payne’s (2003), in the DP domain there are two grammatical functions with the “subject-like” feature specification [–o, –r], I propose the following basic mapping principle which is more liberal than its clausal counterpart.

- (34) Map either the highest [–o] or the [–r] argument onto (SUBJ).

The lexical form of the nominal predicate is shown (35). The arrays of the theoretically available grammatical functions as well as the most important components of the mapping process are indicated below the two arguments.

- | | | | |
|------|------------------------------|-------------------|----------------------------------|
| (35) | elénekl-és-e
sing-DEV-3SG | N ‘SINGING | < agent , patient >
[–o] [–r] |
| | | | SUBJ/POSS/OBL SUBJ/POSS |
| | (34): | | SUBJ |
| | biuniqueness: | *SUBJ | |
| | (27): | *POSS-PRO | *SUBJ-PRO |
| | | | → overt SUBJ |
| | N morphology: | *overt POSS | |
| | add [+r]: | OBL _{ag} | |

Since the version of the nominal predicate that occurs in (33) has its agent argument mapped onto (OBL)_{ag}, here we will ignore possible mapping paths which obviously could not yield this result. Therefore, as a first step, we can choose the second option in (34) and map the [–r] argument onto (SUBJ). Naturally, biuniqueness, in addition to the consideration just mentioned, prevents us from mapping the agent onto (SUBJ). Another consequence of mapping the [–r] argument onto (SUBJ) is that because of (27) neither argument can be realized by a PRO, so the possibility of expressing the [–o] argument with a (POSS)-PRO is unavailable, and the (SUBJ)-PRO realization

of the [-r] argument is equally impossible. If the [-r] argument is realized as an overt (SUBJ), the morphological make-up of Hungarian nouns also prevents us from realizing the [-o] as an overt (POSS), again in addition to the consideration mentioned above. Thus, this argument has no choice but to be mapped onto (OBL)_{ag} by receiving the [+r] feature. (36) shows the morphosyntactic contribution of the agreement morpheme.

- (36) -e: (↑SUBJ PERS) = 3
(↑SUBJ NUM) = SG

And given that the entire DP is in the nominative, it has the (SUBJ) function in the sentence, encoded by the following conventional LFG annotation in the c-structure.

- (37) (↓CASE) = NOM
(↑SUBJ) = ↓

Let us now take an example of control into a DP containing a nominal predicate derived from a transitive verb. Again, the relevant DP is in italics.

- (38) János elkezd-t-e a dal énekl-és-é-t.
John.NOM start-PAST-3SG.DEF the song.NOM sing-DEV-3SG-ACC
'John started the singing of the song.'

- (39) énekl-és-é-t N 'SINGING < agent , patient >
sing-DEV-3SG-ACC [-o] [-r]
SUBJ/POSS/OBL SUBJ/POSS
(34): SUBJ
biuniqueness: *SUBJ
→POSS
(27): *POSS-PRO
→ overt POSS
N morphology: *overt SUBJ →
(27): SUBJ-PRO

(34) allows us to map the agent onto (SUBJ). Then biuniqueness forces us to map the patient onto (POSS). (27) prevents realizing the patient as a (POSS)-PRO, so it must be overt. The morphological make-up of Hungarian nouns prevents us from also realizing the agent overtly; thus, it has no choice but to be expressed as a (SUBJ)-PRO.

Also note that although in theory (34) also makes it possible for us to swap the mapping of the two arguments: [-o]/(POSS) and [-r]/(SUBJ), the result is predicted to be ungrammatical, consider:

- (40) énekl-és-é-t N 'SINGING < agent , patient >
sing-DEV-3SG-ACC [-o] [-r]
SUBJ/POSS/OBL SUBJ/POSS
(34): POSS
biuniqueness: *POSS
→ SUBJ
(27): *POSS-PRO *SUBJ-PRO
→ overt POSS → overt SUBJ
N morphology: *overt POSS *overt SUBJ

(27) does not allow either argument to be realized by a PRO. The agent does not have the (SUBJ) function, and although the patient is mapped onto (SUBJ), it is not the highest argument. Therefore, both arguments are required to be overtly realized, and this leads to an inevitable violation of the N morphology principle. (41) shows the morphosyntactic contribution of the agreement morpheme.¹⁵

(41) -é: (↑POSS PERS) = 3
(↑POSS NUM) = SG

Naturally, the lexical form of the nominal predicate also has to contain the (↑SUBJ PRED) = ‘PRO’ equation for representing the incorporated (SUBJ)-PRO argument.

And given that the entire DP is in the accusative, it has the (OBJ) function in the sentence, encoded by the following conventional LFG annotation in the c-structure.

(42) -t: (↓CASE) = ACC
(↑OBJ) = ↓

The example in (43) illustrates the fact that possessor pro-drop is also possible, just like other kinds of pro-drop in Hungarian.

(43) János elkezd-t-e az énekl-és-é-t.
John.NOM start-PAST-3SG.DEF the sing-DEV-3SG-ACC
lit. ‘John started its singing.’

The (simplified) lexical form of the relevant morpheme is given in (44).

(44) -é: (↑POSS PERS) = 3
(↑POSS NUM) = SG
(↑POSS PRED) = ‘PRO’

As this representation shows, the morpheme is not only an agreement marker, but also an incorporated pronoun, a (POSS)-PRO.¹⁶

Fb) The intransitive case <S >

In this model, in the intransitive case an overt possessor, whether in the nominative or in the dative, always realizes the (SUBJ) function, for example in (45a) and (45b), respectively. This follows from the (SUBJ) Condition adopted from the LMT as applied to the verbal domain, consider:¹⁷

(45) a. János kiabál-ás-a
John.NOM shout-DEV-3SG
‘John’s shouting’

¹⁵ In the example above it has been lengthened ($e \rightarrow \acute{e}$) because in this case it is followed by the accusative suffix.

¹⁶ And in this case, too, the lexical form of the nominal predicate also contains the (↑SUBJ PRED) = ‘PRO’ equation for representing the incorporated (SUBJ)-PRO argument.

¹⁷ (45) and (46) illustrate the unergative case. The unaccusative case follows exactly the same pattern, because (34) allows the mapping of either the highest [-o] argument or the [-r] argument onto (SUBJ).

- b. János-nak a kiabál-ás-a
 John-DAT the shout-DEV-3SG
 ‘John’s shouting’
- (46) kiabál-ás-a N ‘SHOUTING < agent >
 shout-DEV-3SG [-o]
 SUBJ/POSS/OBL
 (34): SUBJ

When the S argument is covert, it is assumed to be realized by a (SUBJ)-PRO.

- (47) János elkezd-t-e a kiabál-ás-t.
 John.NOM start-PAST-3SG.DEF the shout-DEV-ACC
 ‘John started the shouting.’
- (48) kiabál-ás-t N ‘SHOUTING < agent >
 shout-DEV-ACC [-o]
 SUBJ/POSS/OBL
 (34): SUBJ
 (27): SUBJ-PRO

So this scenario follows from the (SUBJ) Condition, on the one hand, and our anaphoric control assumptions in combination with (27), on the other.

5. Concluding remarks

In this paper I have revisited Hungarian DPs containing complex event nominal predicates. I proposed a modified analysis based on a synthesis of some salient aspects of previous LFG accounts and on some additional ideas. I hope to have proved that this alternative approach is more principled on the whole. The crucial aspects of the analysis are as follows.

- (a) There are two possessor forms (nominative and dative) and positions ([SPEC, NP] and [SPEC, DP]) in the Hungarian DP.
- (b) There are two [-o, -r] grammatical functions in this domain: (SUBJ) and (POSS).
- (c) Either possessor form can realize either grammatical function.
- (d) The two forms are in complementary distribution.
- (e) The explanation for this complementarity is that Hungarian possessive constructions are head-marking (that is, there is obligatory head–possessor agreement), and the morphological structure of Hungarian nouns is such that only one overt possessive relationship can be encoded.
- (f) The highest argument in the argument structure can also be covert.
- (g) The covert argument of the nominal predicate is anaphorically controlled: it is always a (SUBJ)-PRO.
- (h) LMT as developed for the clausal level can be adopted in this DP domain in a principled manner, including the (SUBJ) Condition.
- (i) Although the (SUBJ) and the (POSS) functions have the same featural specifications: [-o, -r], the former is superior in two important and interrelated respects: a) a PRO argument can only be mapped onto (SUBJ), b) one of the arguments in the argument structure of any derived nominal predicate expressing a complex event must be mapped onto (SUBJ).

Finally, let me make two additional remarks.

A) Recently, Kenesei (2003) in an MP framework, criticizing Szabolcsi (1994) and Laczkó (1995), has argued that these Hungarian DPs should be derived from underlying, embedded clauses. He pointed out the shortcomings of these two works with respect to the treatment of control phenomena, and he also claimed that binding relationships can also be naturally captured along his clausal lines. However, I think that the new account I have developed in this paper can cope with all these phenomena in an equally principled manner, without invoking a clausal analysis, which may induce some complications in different (but related) domains.¹⁸

B) I find interesting Chisarik and Payne's (2003) proposal that in the English DP there are also two [-r] grammatical functions: 's- (SUBJ) and *of*- (ADNOM). In a future paper I would like to explore the possibility of extending my analysis of the Hungarian DP to the English facts. It would be a logical extension (and modification in their system) to assume that the *of* constituent can realize either the (SUBJ) or the (ADNOM) function. One immediate and favourable consequence of this move would be that the (SUBJ) Condition could be adopted in the English DP domain as well. But all this requires further investigations.

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¹⁸ I plan to make a detailed comparison between the two types of approaches elsewhere.

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