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Veronika Szabó¹ Bálint Tóth¹ Gábor Alberti¹ Judit Farkas² ¹University of Pécs ²Hungarian Academy of Sciences

Verbal and nominal properties of the productive Hungarian deverbal nominalizations¹

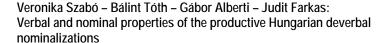
We demonstrate a system of Hungarian deverbal nominalizations, based on our extension of Laczkó's framework (Laczkó 2000), in which such nouns form a uniform system as the ÁS-noun *felfedezés* 'discovery', the T_{EV}-noun *felfedezte(kor)* 'when discovered', the Ó-noun *felfedező* 'discoverer', and the T_{TH}-noun *felfedezett*(je) 'discoveree'. We provide a comprehensive comparison among the complex-event-based and event-type-based of the deverbal nominal construction variants (e.g., *megoperálás* 'operating' *versus operáció* 'operation') on the basis of verbal and nominal properties considered in Broekhuis and Keizer (2012) and properties specific to Hungarian, such as information-structure inheritance, for instance (Alberti and Farkas 2013).

Key words: Hungarian noun phrase; generative syntax; deverbal nouns; verbal properties; nominal properties.

1. Introduction: deverbal nouns in Hungarian

The purpose of this paper is to investigate the properties of Hungarian deverbal nouns, specifically the question whether these nouns have both verbal and nominal

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properties. We attempt to answer this question, by examining four productive suffixes in Hungarian.

As a point of departure, we briefly summarize Grimshaw's (1990) categorization of deverbal nouns. She distinguishes complex-event nouns from simple-event and result nouns. The former category is characterized by the availability of an event reading, and by the "existence of an internal semantic analysis of the event provided by the event structures" (Grimshaw 1990: 59). This, as we will see later, also correlates with the presence of an argument structure, inherited from the input verb (see Table 1, example (1a)). Simple-event nouns also allow an event-reading. They, however, lack an argument structure (1b). Result nouns only allow a resultreading, defined by Grimshaw (1990: 49) as "naming the output of a process or an element associated with the process". Result nouns also lack argument structure, similarly to simple-event nouns (1c).

Table 1: Types of deverbal nouns in English (Grimshaw 1990)

Т	YPES OF DEVERBAL NOUNS	EVENT READING	ARGUMENT STRUCTURE	
Complex- event	(1a) The examination (*of the patient) in ten minutes was successful.	√	✓	
Simple-event	(1b) The examination took a long time.	✓	-	
Result	(1c) The examination was on the table.	-	-	

Our system of categorization, detailed below, is based on the theory put forward by Laczkó (2000), which is itself an extension of Grimshaw's system. We can differentiate between the following types of deverbal nominals: complex-event-based deverbal nouns on the one hand, which denote particular, specific events or the participants of events and event-type-based deverbal nouns on the other hand, which denote typical, and/or institutionalized kinds of events, or the participants of such events. These nouns are derived by conversion from complex-event denoting nouns. Irregular deverbal nouns constitute a significantly more heterogeneous group than do complex-event, and event-type denoting nouns. These nouns can denote results, styles, places, Instruments, or Agents, and are semantically transparent, although the processes by which they are formed are not productive.

In Hungarian, there are four productive derivational suffixes forming deverbal nouns: -As, $-O_{\theta_1}$, $-T_{EV_1}$, $-T_{TH}$ and $-hatn\acute{e}k$. Nouns with the suffix -As denote complex or simple events; \acute{O}_{θ} -nouns productively express one of the "active key partici-



ÓEXP

pants" of the complex or simple-event, even so in Slovenian (Marvin 2015): Agents (AG, 2a), Experiencers (EXP, 2b), Instrument (INST, 2c) or Location (LOC, 2d).

- (2) a. \H{O} lesz az ötödik fejezet meg-ír-ó-ja? \r{O}_{AG} (s)he will.be.3SG the fifth chapter PERF-write- \H{O} -POSS.3SG 'Will he be the writer of the fifth chapter?'
 - b. Ez a férfi Mari lelkes imád-ó-ja. this the man Mari enthusiastic admire-Ó-POSS.3SG 'This man is Mari's enthusiastic admirer.
 - c. Ez a szerkezet lesz ma **a kész termékek** Ó_{INST} this the device will_be.3SG today the ready product.PL

számlál-ó-ja? count-Ó-POSS.3SG

'Will this device be the counter of the prepared products today?'

d. **PEz a szoba volt **Ili tegnapi** Ó_{LOC} this the room be.PAST.3SG *Ili yesterday.ADJ*

meggy-ki-magoz-ó-ja.

sour cherry-out-seed-Ó-POSS.3SG

'This room was the place where Ili performed the destoning of sour cherries yesterday.'

There are two potential kinds of T-nominalization: while T_{EV} -nominalization produces T_{EV} -nouns denoting events essentially in the same way as ΔS -nominalization (3c), T_{TH} -nouns denote the participant of the input complex event which can be taken to have the Theme thematic role (3d). The suffix $-hAtn\acute{e}k$ is a very specific, fixed and inseparable suffix denoting a desire or urge (3e) (Oszoli 2014), see Table 2.

As shown in the table above, when co-occurring with a complex-event denoting noun, postpositions can be attributivized by means of the separate word *való*, one of the present participial counterparts of the copula *van* 'be' (compare (3a) and (4a), see Laczkó (2000: 316–318).

Table 2: Types of Hungarian deverbal nouns



ТүрЕ	SUFFIX	EXAMPLE						
	-Ás	(3) a. A levél elnök által való alá-ír-ás-a the letter president by be.PART under-write-ÁS-POSS.3SG						
		meglepett. surprise.Past.3Sg 'The signing of the letter by the president surprised me.'						
	$-\acute{\mathbf{O}}_{ heta}$	(3) b. Péter lesz az ötödik fejezet meg-ír-ó-ja? Péter will_be.3sG the fifth chapter PERF-write-Ó-POSS.3sG 'Will Peter be the writer of the fifth chapter?'						
۵	-T _{EV}	(3) c. (?) Amerika felfedez-t-é-vel új korszak kezdődött America discover-T-POSS.3SG-INS new age begin.PAST.3SG						
COMPLEX-EVENT BASED	-T _{TH}	'With America having been discovered, a new age has begun.' 3) d. Dóri volt Péter felfedez-ett-je. Dóri be.PAST.3SG Péter discover-T-POSS.3SG 'Dóri was the one discovered by Péter.'						
COMPLEX-	-HAT- NÉK	(3) e. Sír-hatnék-om van. cry-HATNÉK-POSS. 1SG be.3SG 'I am having the urge to cry.'						
EVENT	-Ás	(4) a. Az elnök ezt a tollat a lá-ír-ás-ra the president this.ACC the pen.ACC under-write-ÁS-SUB használja. use.DEF-OBJ.3SG 'The president uses this pen only for signing.'						
PE BASED (SIMPLE EVENT DENOTING)	-Ó θ	(4) b. Péter a megyében a legjobb ír-ó . Péter the county.INE the best write-Ó 'Péter is the best writer in the country.						
YPE BASED (SII DENOTING)	-T _{TH}	(4) c. <i>Ízlett neki Ili főz-t-je</i> . like.PAST.3SGDAT.1SG <i>Ili cook-T-POSS.3SG</i> 'He liked <i>Ili's cooking</i> '						
EVENT-TY	-HAT- NÉK	(4) d. Péter állandó kocsmáz-hatnék-ja Péter constant go_out_to_pubs-HATNÉK-POSS.3SG						
		kiborít. make_angry.3sG. 'Péter's constant urge to go out to pubs makes me angry.'						





1R	-Ás	(5) a. Meg vagyunk elégedve az új lak-ás-sal. PERF be.1PL satisfied the new live-ÁS-INS 'We are satisfied with the new flat.'
IRREGULAR	-Ó	(5) b. Küldtek nekünk egy kis kóstol-ó-t a levesből. send.PAST.3PL DAT.1PL a little taste-Ó-ACC the soup.DEL 'They sent us a taste of the soup.'

2. Nominal and verbal properties of Hungarian deverbal nouns

Since in the present article, we aim to account for both the verbal, and nominal properties of Hungarian deverbal nominals, in the following section, we give a brief overview of the properties we base our analysis on.

2.1. Nominal properties

The first nominal property is pluralization. There are two plural markers in Hungarian, appearing in complementary distribution: -i appears only in possessive contexts, and pluralizes the possessum, while -k appears only in non-possessed contexts, pluralizing the nominal head (Kiefer 2003). The second nominal characteristic is the possibility to take a possessive argument and a possessive suffix agreeing with the possessor. We follow (Kiefer 2003) and also assume a so-called possessedness suffix -(j)A in the structure. In Hungarian, the possessor can either be expressed by an unmarked noun, or by a dative-marked, (-nAk suffixed) noun. The two differ radically in their syntactic behavior, but are semantically identical (Kiss 2002).

Hungarian also possesses a radically extensive case system, with 18 suffixes generally accepted in the literature to be genuine case-markers (Kiefer 2003). While every nominal may bear case suffixes, other categories cannot, therefore, case-marking is also a valuable test in establishing the degree of nominality of deverbal nouns.

Our last test is modification: according to general assumptions (see Broekhuis and Keizer 2012), only nominal phrases may be premodified by adjectives, numerals, articles and other kinds of demonstratives. Table 3 illustrates nominal properties by means of a non-derived, regular noun.



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Table 4. An avam	nla tar raal	171ng naminal	nronartiae h	u maane at a ragular naun
Table 3. All Caalli	ine ioi icai	ואוווצ ווטווווומו	טוטטטווט ט	y means of a regular noun

Poss. ARG.	DEM. PRO-	DEFI- NITE AR-	ADJEC- TIVE	NOUN STEM	POSSESSED- NESS	RAL	CASE SUFF.
	NOUN	TICLE			SUFFIX	SUFF.	
Péternek	ezeket	az	kedvenc	ház	<i>-a-</i>	-i-	t
Péter.	this.PL.	the	favorite	house	POSS.3SG	PL	ACC
DAT	ACC						

Irregular nouns behave like regular non-derived nouns and take part in every process listed above; therefore we can conclude that of all deverbal nouns, it is irregular derived nouns that possess the most nominal features (see 6a and b).

(6) a. Szeretjük **Péternek ezeket** az új lakásait/ love.1PL Péter.DAT this.PL.ACC the new live.Ás.PL.ACC/ vetélkedőit. competition.Ó.PL.ACC

'We love Peters new flats/ quiz shows.'

b. (Egy/Három) új lak-ást/ vetélkedőt láttunk. one/three new live.Ás.PL.ACC/competit.Ó.PL.ACC see.PAST.3PL 'We saw (one/three) new flats/ quiz shows.'

Event-type-based nouns behave similarly to irregular derived nouns in every respect, as the examples below illustrate (7).

(7) a. *Péternek ezeket a(z egyeztetés nélküli)*Péter.DAT this.PL.ACC the *agreement without.ATTR*

látogat-ás-a-i-t nem szeretem.

VISIT-ÁS-POSS, 3SG, PL-PCC no LOVE, DEF-OBJ, 1SG.

'I don't like Péter's visits (without any agreement)'

b. Dühös vagyok **Ilinek erre a tegnapi** angry be.1SG *Ili.DAT this.SUB the yesterday.ADJ*

meg-masszíroz-ó-já-ra.

PERF-massage-Ó-POSS.3SG-SUB

'I am angry with that / this person who massaged Ili yesterday.'



c. Mérges vagyok **a bírónak ezekre a kedvenc** Angry be.1sG the judge.DAT this.PL.SUB the favorite

vádl-ott-a-i-ra.

accuse-T-POSS.3SG-PL.SUB

'I'm angry with the the favorite accused persons of the judge.'

While irregular and event-type-based nominalizations form nouns that possess the classic nominal properties, complex-event-based derivation results in nouns with fewer nominal properties. All of them can have a possessor; however, only T_{TH} -nouns and \acute{O}_{θ} -nouns can be pluralized. Complex-event denoting $\acute{A}s$ -, T- and HATNÉK-nouns cannot host plural suffixes (8).

(8) a. **Péternek a(z előzetes egyeztetés nélkül való)
Péter.DAT the previous agreement without be.PART

meg-látogat-ás-a-i

PERF-visit-ÁS-POSS. 3SG-PL

Intended meaning: 'the occasions on which Péter was visited (without any previous agreement)'

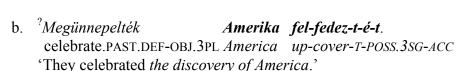
- b. *a film *meg-néz-t-e-i-vel*the film PERF-disturb-T-POSS.3SG-INS / PERF-disturb-T-POSS-PL-INS
 Intended meaning: 'after watching the film (/several times)
- c. *a lefekvés előtt való sír-hatnék-ok/ nyafog-hatnék-ok. the go_to_bed.\(\delta\)S before be.PART cry-HATN\(\delta\)K-PL /whine-HATN\(\delta\)K-PL Intended meaning: 'the urges to whine before going to bed.'

Almost all groups of derived nouns can occur with any kind of case marking, and with any kind of postposition. However, T_{EV}-nouns can appear only as certain oblique case-marked noun phrases (9b,c,d), and are unacceptable with other oblique case markings (9a).

(9) a. *Az izlandiak útja miért nem minősül the Icelander.PL trip.POSS.3SG why not qualify.3SG

Amerika fel-fedez-t-é nek? America up-cover-T-POSS.3SG-DAT

'Why the Icelander's trip does not qualify as the discovery of America?'



- c. (?) Amerika fel-fedez-t-é-vel új korszak kezdődött.

 America up-cover-T-POSS.3SG-INS new age begin.PAST.3SG 'When America was discovered, a new age has begun.'
- d. [?]Amerika fel-fedez-t-e-kor új korszak kezdődött. America up-cover-T-POSS.3SG-TMP new age begin.PAST.3SG 'When America was discovered, a new age has begun.'

Regarding adjectival modification, adverbial-like expressions modifying the input verb can only appear as adjectives besides As-nouns, \acute{O} -nouns and T_{TH} -nouns. T_{Ev} -noun constructions cannot readily host adjectives (and other attributive constructions), only in a few select contexts, determined by the type of the noun. (10).

(10) Amerika [?]1492-es/ ^{??}váratlan/^{??}[Kolumbusz által-i]/ America 1492-Adj/unexpected/Columbus by-ATTR /

*?[Kolumbusz által való] felfedeztével
Columbus by up-cover-T-POSS.3SG-INS
'with America's unexpected discovery in 1492 by Columbus'

A HATNÉK-noun construction cannot be modified by an adjective or attributive expression that serves as a counterpart of an adverb or a converb in the corresponding input verbal construction (11).

(11) a [*néma **némán / **szunyókálva / (*) [fa alatt] való] thespeechless speechless.ADV / nap.CONV / tree under be.PART

ücsörög-hetnék sit around-HATNÉK

'the desire to sit around speechlessly / napping / [under the tree] after lunch.'

Although every non-derived noun may appear both in indefinite and definite constructions (Szabolcsi 1994), deverbal nouns show a more diverse picture: \acute{O}_{θ} and T_{TH} nouns can occur in an indefinite (non-specific) construction; HATNÉK-nouns (12c), ÁS-nouns (12a), and T_{EV} -nouns (12b) can be characterized by a strict distributional restriction. Their phrases are capable of "at least partially" definite (that is, specific) reference. If we replace egy 'a(n)' with egyik 'one of them' in



(12), the constructions are perfect, since noun phrases with the determiner *egyik* 'one of them' are not entirely indefinite (Moravcsik 2003).

(12) a. A feleségem **egy** *(*?'éjfél **után való**) the wife.POSS.1SG a midnight after be.PART

meg-látogat-ás-od miatt hagyott el.
PERF-visit-ÁS-POSS.2SG because_of leave.PAST.3SG away

Intended meaning: 'My wife left me because I paid a visit to you (after midnight).'

- b. ^{??}Ili egy meg-vendégel-t-e-kor elromlott a sütő. Ili a PERF-host-T-POSS.3SG-TMP get_wrong.PAST.3SG the oven 'On an occasion when Ili was regaled, the oven got wrong.'
- c. ^{??}Hát például mindenkit kiborított well for_instance everyone.ACC make_angry.PAST.3SG

egy májusi ebéd után való beszélget-hetnék-ed. a May.ADJ lunch after be.PART chat-HATNÉK-POSS.2SG

'(Why do people avoid me?) Well for instance, an occasion made everyone angry, when the desire came over you to chat after lunch in May.'

We can also observe the impossibility of modifying ΔS -nouns (13a, a'), and T_{EV} -nouns (13b) by demonstrative pronouns and quantifiers. HATNÉK-noun constructions essentially pattern with ΔS -noun and ΔT_{EV} -noun constructions in not readily hosting "regular" quantifiers, especially non-specific ones (13c).

(13) a. **? A nejem kiborult the wife.POSS.1SG freak_out.PAST.3SG

emiatt a meg-látogat-ás-od miatt this because_of the PERF-visit-ÁS-POSS.2S because_of

Intended meaning: 'My wife freaked out about that / this case when I paid a visit to you.'

a'. A nejem kiborult the wife.poss.1sg freak_out.past.3sg

a(z) két/? tíz/? utolsó meg-látogat-ás-od miatt. the two/ten/last PERF-visit-ÁS-POSS.2SG because of

'My wife freaked out about the two / ten / first / second / tenth / last



case(s) when I paid a visit to you.'

a(z) *?három / (?)utolsó / (?)háromszori b. *a cikknek* the article.DAT the three / last / three times.ADJ

át-olvas-t-á-val

across-read-T-POSS.3SG-IN

'when the article had been read through [three times] / [for the last time] /[three times]'

c. a(z) * három / ? utolsó/*gyakori, ebéd után való often.ADJ lunch after be.PART the three / last

beszélget-hetnék-etek

chat-HATNÉK-POSS 2PL

Intended meaning: 'the [three occasions] / [last occasion] / [often occasions] when the desire came over you to chat after lunch'

2.2. Verbal properties

As was the case with nominal properties, below we give a short overview concerning the types of verbal properties we base our analysis on; then proceed to show which of these properties are, and are not characteristic of Hungarian deverbal constructions. Note in passing, that irregular nouns essentially behave like regular nonderived nouns, and they do not have any verbal properties whatsoever.

Tense and mood morphemes are inflectionally marked on the verbal stem, but there is no morphological way of attaching the productive derivational suffixes to the inflected verb forms (Kiefer 2003). The intended tense can only be expressed by temporal adjectives.

In Hungarian, both verbs and nouns can be provided with suffixes referring to person and number. Nouns can host possessive suffixes, while verbs host personal suffixes. It is worth mentioning that two verbal agreement paradigms coexist in Hungarian. On the one hand, the verb obligatorily agrees with its subject both in number and person, on the other, it obligatorily encodes the definiteness of its object, as well as its person (Kiefer 2003). In the case of derived nouns, however, there is only one paradigm: the noun head, that is, the possessee, agrees only with the possessor in number and person.

When present, verbal particles appear immediately left-adjacent to the stem of the verb in neutral sentences (Kiss 2002). In certain verbal constructions the verbal





modifier can occupy other positions, for example in the context of negation. This separatibility is also characteristic of complex-event denoting ÁS-nouns, but only to a low degree (14a, b).

(14) a. A szerződésnek*[nemír-ás-a alá]/*[nem alá-ír-ás-a]/ the contract.DAT not write-ÁS-POSS.3SG under/not under-write-ÁS-POSS.3SG

'[alá nem ír-ás-a] mindenkit felháborított. under not write-ÁS-POSS.3SG everyone.ACC make_angry.PAST.3SG

'It made everyone angry that the contract has not been signed after the lengthy negotiation.'

b. az évtized legmeglepőbb *[(szerződés)-nem-ír-ás-a-alá]/ the decade most_surprising (contract)- not-write-ÁS-POSS.3SG-under/

[**([?]szerződés-)alá-nem-ír-ás-a]/ (contract-)under-not-write-ÁS-POSS.3SG

*²[(szerződés)-nem-alá-ír-ás-a] (contract)-not-under-write-ÁS-POSS.3SG

'the decade's most surprising case when a contract has not been signed'

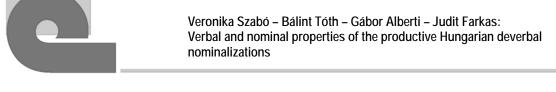
Derived nouns can be characterized by their prohibition against adverbial modification belonging immediately to the noun head, even though verbs only allow adverbial modification. The adverbs of the input verb appear therefore as adjectives in deverbal noun phrases. It should be noted that the appearance of adverbial and converbial modification is not blocked in the HATNÉK-noun type (see the example (15) in which the attributivized postpositional construction *éjfél után* 'after midnight' is followed by the adverb *ébren* 'awake').

(15)^(?)A gyerekekre rájött the child.PL.SUB come over.PAST.3SG

> az éjfél után való ébren marad-hatnék. the midnight after be.PART awake stay-HATNÉK

'The desire came over the children to stay awake after midnight'

It is well known that all verbs must be used in at least one argument structure, but the existence of an argument structure of noun phrases is a question under debate (see Alberti et al. 2015). We follow Laczkó (2000) who claims that complexevent denoting Ás-nouns can essentially be characterized by the "as complete as possible" retainment of the argument structure of the input verb. Our data suggest that oblique arguments retain their syntactic functions and obligatory or optional



status, while non-oblique arguments must undergo some changes. If the input argument structure contains an object, it will occupy the output possessor position; otherwise, the possessor will correspond to the input subject, which remains obligatory, or at least reconstructible. Event-type denoting Ás-nouns behave differently from their complex-event denoting counterparts, since they only partially inherit the argument structure of the input verb, as was described by Grimshaw (1990). They basically inherit the oblique arguments, but with a decreasing degree of obligatoriness.

While in example (16a) the noun *simogatás* 'caress' is a complex-event denoting noun, in (16b) it is a simple-event denoting one. Recall that homophonous Ásnouns can be distinguished by means of the [postposition+való] test, offered by Laczkó (2000: 316–318). The *előtt való* 'before be.PART' (16a) construction, used as an alternative to the adjectival form *előtti* 'before.ATTR' (16b), unambiguously evokes the complex-event reading in (16a). As is shown in (16b), the possessor can be interpreted either as the Agent or as the Theme of the input transitive verb, in contrast to the complex-event denoting variant (16a), where the possessor is obligatorily interpreted as its Theme.

(16) a. Az oroszlán evés előtt való simogat-ás-a the lion eating before be.PART caress-ÁS-POSS.3SG mindenkit megdöbbentett. everyone.ACC shock.PAST.3SG

'Caressing the lion before eating shocked everyone'

b. Az oroszlán evés előtti simogat-ás-a the lion eating before.ATTR caress-ÁS-POSS.3SG mindenkit megdöbbentett. everyone.ACC shock.PAST.3SG

'The caress of the lion before eating shocked everyone'

The output results of \acute{O}_{θ} -nominalization can be evaluated as a highly verbal construction, but less verbal than those of As-nominalization. They inherit the argument structure of the input verb, along with the obligatory or optional status of arguments. In example (17) the ablative case-marked argument can also appear in the construction.



(17) **Jankó, a királylányönfeláldozó meg-ment-ő-je** Jankó the princess self-sacrificing PERF-save-Ó-POSS.3SG

(^(?)a sárkánytól) the dragon.ABL

'Jankó, the self-sacrificing man who saved the princess (from the dragon)'

 $T_{\rm EV}$ -nouns and $T_{\rm TH}$ -nouns pattern with As-nouns and \acute{o} -nouns, respectively, in inheriting the argument structure of the input verb "to the maximum possible extent" (18) — they provide *ab ovo* less acceptable potential constructions, they much less accept the *való*-construction.

(18)^{??}a zsűri tavalyi ki-zár-t-ja a verseny-ből the jury last_year.ADJ out-close-T-POSS.3SG the competition-ELA 'who was disqualified by the jury from the competition last year'

Both types of HATNÉK-nouns essentially pattern with ÁS-nouns insomuch that they almost completely inherit the argument structure of the input verb. Interestingly, both types of HATNÉK-nouns readily inherit oblique case-marked arguments, even though their obligatoriness is weakened to some extent (see 19b).

- (19) *Péterre rájött...* Péter.SUB come over.PAST.3SG
 - a. ... a *?(''medvére való) rá-lő-hetnék. the bear.SUB be.PART onto-shoot-HATNÉK
 - b. ... a Marival/(politikáról való) beszélget-hetnék. the Mari.INS /politics.DEL be.PART talk-HATNÉK

'The desire came over Péter to shoot (at the bear) / to talk [with Mari] / [about politics].'

In contrast to verbs, derived nouns can be characterized by the prohibition against Accusative case marking on their immediate dependents. Note, however,



that HATNÉK-nouns are significantly more verbal than any other type of deverbal nominal, since accusative arguments may appear besides the noun head. The retainment of accusative case marking depends on phonological properties: one-syllable roots, are more likely to show the property in question than longer roots (compare the judgements in the case of *világ* 'world' and *fog* 'tooth' in example 20).

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(20) Ilire rájött
Ili.SUB come_over.PAST.3SG

a világ*(^{?)}-ot) lát-hatnék/ fog* (-at) mos-hatnék.
the world(-Acc)see-HATNÉK/ tooth-Acc-wash- HATNÉK.

'The desire came over Ili to see the world/to wash her teeth.'
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It is a commonly accepted view that in Hungarian, there are positions for functional projections like topics, quantifiers and foci left adjacent to the verb. Therefore, the word order reflects the information structure of the sentence (Kiss 2002). The question arises: does an information structure also exist in the case of deverbal nouns? The empirical data confirm that complex-event denoting As-nouns can be said to possess an internal information structure. We found, at the same time, a very interesting phenomenon: if the possessor of a noun occurs with a quantifier like *mindkét* 'both' within the noun phrase, complex-event denoting constructions have at least two readings. The first one is a narrow scope reading corresponding to a collective interpretation; the second one is a wide scope reading corresponding to a distributive interpretation.

Let us explain it with a concrete example. The input verbal construction in (21a) is unambiguous, the quantifier takes scope over the verb (wide scope), and the structure is interpreted distributively. However, in the deverbal counterpart the construction is ambiguous (21b): It caught Imi unawares that both girls had been invited, Imi wouldn't be surprised if one of the two girls had been invited (narrow scope), or: in the case of both girls, it caught Imi unawares that they had been invited (wide scope).

```
(21) a. Mindkét lányt meghívták a koncertre. both girl.ACC invite.PAST.DEF-OBJ.3PL the concert.sub 'They invited both girls to the concert.'
```



b. *Imit* váratlanul érte
Imi.ACC unexpectedly catch.PAST.DEF-OBJ.3SG

[mindkét lánynak]_{Theme} a meghív-ás-a a koncertre. both girl.DAT the invite-ÁS-POSS.3SG the concert.SUB

narrow-scope reading: 'It caught Imi unawares that both girls had been invited to the concert.'

wide-scope reading: 'In the case of both girls, it caught Imi unawares that they had been invited to the concert.'

In contrast to complex-event denoting nouns, simple-event denoting As-nouns only ever allow the wide scope (distributive) reading, the narrow scope reading is systematically unavailable. This ambiguity is also present in \acute{O}_{θ} -nouns. In the case of complex-event denoting ϕ_{θ} -nouns (22a'), both the wide and the narrow scope reading is freely available, in stark contrast with event-type denoting nouns, which only allow a wide scope reading (22b, b'). The explanation is similar to that of Ásnouns. The homophonous noun bemondó, can be interpreted either as an ó-noun ('person who announces something') or as an event-type denoting noun ('announcer'). If the possessor of the derived noun does not correspond to the object of the input verb, this fact serves as evidence for interpreting it as a type denoting-noun. In variant (22b) below, thus, where the possessor (csatorna 'channel') is not an argument of the input verb bemond 'announce', the output noun bemondó is inevitably to be interpreted as an event-type denoting noun. It can be observed that this sentence variant is unambiguous. This unambiguity is meant "scope-hierarchically", compared to the scope-hierarchically ambiguous alternative variant in (22a) below, where bemondó qualifies as an ó-noun in harmony with the (input) Theme role of the possessor. The (potential) readings are provided through both the translations and the scope-hierarchy representing "formulas" in square brackets ('[X>Y...]'). The symbol ' \supseteq ' denote relations between sets. Therefore, the content of the simplified formula in (22a), for instance, can be paraphrased as follows: "the set of those who announced both pieces of news is a subset of the set of those who were arrested".

(22) a. Letartóztatták [[mindkét hír] bemond-ó-i-t].
arrest.PAST.DEF-OBJ.3PL both news announce-ó-POSS.PL-ACC
narrow-scope reading: [ARREST ⊇ [BOTH_PIECES_OF_NEWS >
ANNOUNCE]] 'Those who announced both pieces of news were arrested.'
wide-scope reading: [BOTH_PIECES_OF_NEWS > [ARREST ⊇ ANNOUNCE]]
'In the case of both pieces of news, those who announced either of them

were arrested.'

b. Letartóztatták [[mindkét csatorna] bemond-ó-i-t].

arrest.PAST.DEF-OBJ.3PL both channel announce-Ó-POSS.PL-ACC

narrow-scope reading: *[ARREST ⊇ [BOTH_CHANNELS > ANNOUNCE]]

Intended meaning: 'Those who work for both channels (at the same time) as announcers were arrested.'

wide-scope reading: [BOTH_CHANNELS > ARREST > ANNOUNCE] 'In the case of both channels, those who work for either of them were arrested.'

In the case of T_{EV} -nouns, they can have also a narrow and a wide scope reading, similar to complex-event denoting T_{TH} -nouns. Event-type denoting T_{TH} -nouns are, on the contrary, unambiguous. Regarding HATNÉK-nouns, both the complex-event and the event-type denoting nouns are scopally ambiguous (compare 23a and b).

(23) a. *A miniszterelnököt ijedséggel töltötte el* the prime minister.ACC fright.INS fill.PAST.DEF-OBJ.3SG away

[[*mindkét koalíciós partner*] alkotmány-módosít-hatnék-ja]. both coalition partner constitution-modify-HATNÉK-POSS.3SG

narrow-scope reading: [?][FRIGHTEN > BOTH_PARTNERS > MODIFY_CONST.] 'It frightened the prime minister that *both coalition partners* had the desire to modify the constitution.'

wide-scope reading: '[BOTH_PARTNERS > FRIGHTEN > MODIFY_CONST.] 'In the case of *both coalition partners*, it frightened the prime minister that they had the desire to modify the constitution.'

b. *A miniszterelnököt ijedséggel tölti el* [[*mindkét* the prime_minister.ACC fright.INS fill.DEF-OBJ.3SG away *both*

koalíciós partner] örökös alkotmány-módosít-hatnék-ja]. coalition partner eternal constitution-modify-HATNÉK-POSS.3SG

narrow-scope reading: [?][FRIGHTEN > BOTH_PARTNERS > MODIFY_CONST.] 'It frightens the prime minister that *both coalition partners* always have a desire to modify the constitution.'

wide-scope reading: '[BOTH_PARTNERS > FRIGHTEN > MODIFY_CONST.] 'In the case of *both coalition partners*, it frightens the prime minister that they always have a desire to modify the constitution.'





2.3. Interim summary

Our tests show unequivocally that all types of deverbal nouns are decisively not verbal, but nominal in Hungarian. There are, however, some differences in the nouns examined here. Irregular Ás- and Ó-nouns are completely nominal; they do not possess any verbal properties. Simple-event denoting Ás- (SED) Ó- (TPD $_{\odot}$) and T_{TH}-nouns (TPD_{TTH}) essentially pattern with their irregular counterparts, but they retain verbal properties to a certain extent. They inherit the "core" input arguments of their verbal inputs.

HATNÉK-nouns (HN, HN_{SED}) cannot be pluralized; they are not compatible with quantification and do not readily form non-specific and predicative phrases. Moreover, they obligatorily retain the accusative case marking of certain arguments and they inherit the input argument and information structure (however, this can rather be regarded as a "theoretical possibility" than an actual practice).

Complex-event denoting $\acute{A}s$ - and T_{EV} -nouns cannot be pluralized and do not allow quantification. $\acute{A}s$ -nouns practically inherit the argument and information structure of their verbal inputs; T_{EV} -nouns are less verbal from that point of view. Although \acute{O} -nouns can be pluralized and are compatible with most forms of quantification, practically inherit the argument and information structure of their verbal inputs. Complex-event denoting T_{TH} -nouns essentially pattern with \acute{O}_{AG} -nouns, but typically provide quite marked potential forms.

We summarize our findings in Table 4. The lighter a cell is, the more nominal – and simultaneously the less verbal – the noun type is in the given respect.



Table 4: The degree of verbalness/nominalness of different nominalizations

NOMINAL					VERBAL								
quantification/ determination	definiteness / referentiality	adjectival modification	case marking	possessive argument	pluralization	information structure	adverbial modification	accusative case-marked arg.	presence / obligatoriness of arguments	separability of verbal modifier	two person/number paradigms	tense and mood	PROPERTIES
<u>;</u> *	??	??	<	<	*	(?)	??	??	(?)	??	*	*	HN
; *	??	<	(?)	<	; *	?	??	?	(?)	<u>*</u> ?	*	*	$\mathrm{HN}_{\mathrm{SED}}$
<u>*</u> ?	??	<	<	<	*	(?)	*?	*?	<	??	*	*	ÁS
<u>;</u>	??	??	??	~	*	?	*?	*?	(?)		*	*	T_{EV}
(?)	?	?	<	<	<	?	*?	*	?	??	*	*	$\acute{O}_{ heta}$
(?)	(?)	(?)	<	<	~	?	*?	*	?		*	*	T_{TH}
(?)	(?)	<	<	<	~	??	*?	*	?	<u>*</u> ?	*	*	SED Ás
~	~	<	~	~	~	*	*?	*	??	*	*	*	TPD Ó _θ
<	<	<	<	<	<	*	*	*	*?		*	*	TPD
~	~	<	<	<	~	*	*	*	*	*	*	*	irregular





3. The syntactic structure of deverbal nominals

In this section we provide the syntactic analysis of three nominal constructions, a regular, a simple-event denoting and a complex-event denoting one, in exactly the same framework elaborated in Farkas and Alberti's paper in the current volume (but elucidating other aspects). Our representation is built upon the essentially morphology-based Hungarian traditions (Szabolcsi and Laczkó 1992; Bartos 2000; Kiss 2002), according to which all morphological markers (case suffixes, plural markers and the possessedness suffix) have an own DP-internal layer in the spirit of Baker's mirror principle (Baker 1985). We use the example in Table 3 in section 2.1. to demonstrate these layers (see Figure 1).

In the PosdP-layer the mere fact of possessedness is checked and it provides a base generated position for possessors the interpretation of which can be calculated on the basis of a conceptual network "around" the noun. As for attributive adjectives, we follow Ihsane and Puskás (2001: 45), whose approach is based on Aboh's (1998) ideas, in inserting functional layers (AttrP) between the DP-layer and the NP-layer for them. The attributive adjective kedvenc 'favorite' in Figure 1 is thus hosted in (Spec,AttrP). The plural suffix -i is the head of a NumP (Bartos 2000). The D head is occupied by the definite article a(z) 'the'. The structure of the noun phrase in Figure 1 also contains a DemP-layer for the demonstrative pronoun ezeket 'this.Pl.Acc' showing the same number and case features as the matrix noun phrase (cf. Ihsane and Puskás 2001: 47). In Figure 1, we have a dative case-marked possessor preceding the definite article, which is typically placed in (Spec,DP) in the literature (e.g., Szabolcsi and Laczkó 1992; Bartos 2000). In our analysis, however, it is placed in a (Spec, PosP) position above the DP-layer, in order to separate a Giusti-style (1996) left-peripheral topic/operator layer (cf. Kiss 1999: 86) from a layer (i.e., the DP-layer) exclusively responsible for the expression of definiteness. The head of the KP is the case suffix itself.

² Peter's house, for instance, can refer not only to such default relationships (in the lexical network) as Peter's owning the given house, and/or his living there, but such (arbitrarily expanded) relationships as his being the homeless person who inspects the garbage cans of the house or his being the agent whose task is to make the residents fill in some questionnaire.

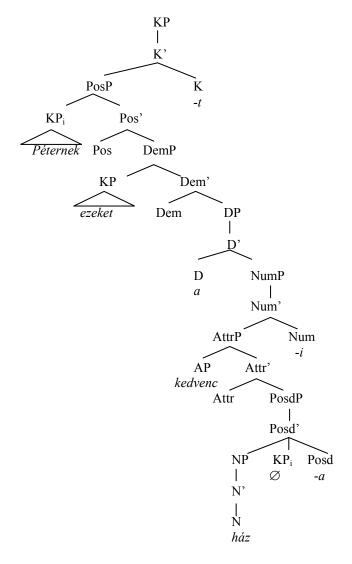


Figure 1: The structure of the regular, non-derived nominal construction *Péternek ezeket a kedvenc házait* 'these favorite houses of Peter's'

Let us turn to the structure of deverbal nouns. We claim that the hybrid (nominal and verbal) character of deverbal constructions can be captured by assuming that, "in the center" of their structure, the deverbal nominalizer (e.g., -Ås, -Ó, -hAtnék, -t) occupies the position of the N head and takes a projection containing a VP deeply embedded inside (Fu et al. 2001). The embedded V cannot project either a T(ense)P, in connection with the observations in 2.2, or an Asp(ectual)P (see Alberti 2004; Kiss 2006), since simple-event denoting deverbal nominal constructions



cannot contain the telicizing-PERFectivizing preverb meg^3 . In the structure of such a noun, like the nominal construction in example (24), represented in Figure 2, the verbal particle occupies (Spec,VP) (and is not raised into (Spec,AspP); cf. Figure 3). Simple-event denoting nouns are similar to regular nouns in having conceptual (non-thematic) possessors (i.e., their possessor does not obligatorily correspond to a designated thematic argument of the embedded verb, namely, to the Agent in this case)⁴ and hence their possessor is base-generated in the PosdP-layer. Therefore, there is no ν P inside the "verbal hemisphere" of this hybrid construction. As was explained in 2.1., simple-event denoting nouns pattern with regular nouns in being capable for undergoing pluralization.

(24) Péternek a kedvenc fel-szólal-ás-a-i-t

Peter.DAT the favorite up-speak-Ás-POSS.3SG-PL-ACC

én is hallottam.

I also hear.PAST.DEF-OBJ.1SG

'I also heard Peter's favorite speeches.'

³ The preverb *meg* signals completion, and it only appears with perfective aspect (see Csirmaz 2004).

⁴ It is not (necessarily) assumed that Peter was the speaker himself (i.e., the Agent of speaking), but he can be interpreted, for instance, as a person who likes certain speeches of members of parliament.

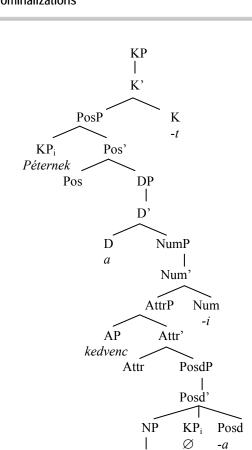


Figure 2: The structure of the simple-event denoting deverbal construction presented in (24).

szólal

ŃР

AdvP felN'

-ás

As for the structure of the complex-event denoting deverbal nominal construction in Figure 3, representing the noun phrase in (25), the appearance of νP in the "verbal hemisphere" is required by the presence of an Agent thematic argument, which plays the possessor role in the "nominal hemisphere". The argument thus gets its thematic role deep in the embedded VP. Due to the fact that this thematic possessor is a NAK-possessor, it is raised into (Spec, PosP). If it is a quantified expression with noun-phrase-internal scope (narrow-scope reading), it is assumed to



be further raised into a $Q_{Pos}P$ -layer built upon the PosP in our cartographic approach, as is represented in Figure 3.⁵

(25) Mindkét képviselőnek az ebéd után való fel-szólal-ás-á-t both representative.DAT the lunch after be.PART up-speak-Ás-POSS.3SG.ACC ellenzem oppose.DEF-OBJ.1SG

narrow-scope reading: 'I'm against the option that *both representatives should speak after lunch*.' (One of them can speak, I don't mind). [AGAINST> BOTH REPRESENTATIVES> SPEAK]

wide-scope reading: 'In the case of both representatives, I'm against the option that they should speak after lunch.' [BOTH_REPRESENTATIVES> AGAINST> SPEAK]

The construction also contains a preverb. In this case, it is raised from (Spec,VP) to (Spec,AspP) in order to express aspect, since complex-event based deverbal nouns obligatorily contain (even) the telicizing-perfectivizing preverb meg.^{6,7}

The postpositional phrase *ebéd után* 'after lunch' has to be attributivized, see the comments on examples (15) in section 2.2. To attributivize the PP, an attributivizer particle *való* 'be.Part' is used, see the explanation concerning example (3a). We assume that *való* occupies the functional head Attr, which offers its specifier position for non-possessor arguments or adjuncts. For the detailed analysis of the structure of complex-event denoting nouns, see Farkas and Alberti (2016) in this volume.

 5 It is also possible for the noun phrase in (25) to have noun-phrase-external scope (wide-scope reading). In this case, there is no $Q_{Pos}P$ -layer in the structure, since the quantifier expression in question belongs scopally to the matrix verb (*ellenzem* 'oppose.DEF-OBJ.1SG'), and hence the quantifier layer is built in the structure of the matrix verb. See also examples (21-23) in section 2.2, and Figure 10 in Farkas and Alberti (2016) in this volume.

⁶ The difference between complex-event denoting and simple-event denoting deverbal nouns can clearly be seen in the following minimal pair: *Péter meg-látogat-ás-a* 'Peter perf-visit-Ás-POSS.3SG' ('visiting Peter') *vs. Péter látogat-ás-a* 'Peter visit-Ás-POSS.3SG' ('Peter's visit'). In the case of complex-event denoting deverbal nouns (even) the preverb *meg* must be retained, while in the case of simple-event denoting nominals, it must be omitted.

⁷ As we described in 2.2, in the context of negation, a NegP can occur between the verbal particle and the embedded V head, suggesting that there is a potential NegP-layer between the layers of AspP and vP.

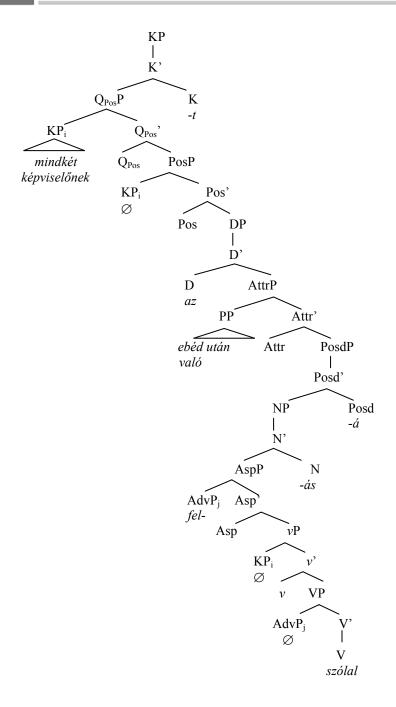


Figure 3: The structure of the complex-event denoting deverbal construction presented in (25)



4. Conclusion

In this paper we investigated the properties of Hungarian deverbal nouns, and specifically the question whether these nouns have both verbal and nominal properties. We scrutinized all deverbal nominalizers that Alberti and Farkas (to appear) claims to be productive in Hungarian (i.e., As, $-O_{\theta}$, $-T_{EV}$, $-T_{TH}$ and $-hatn\acute{e}k$.). The main point in our analysis is that the hybrid (nominal and verbal) character of deverbal constructions can be captured by assuming that, in the center of their structure, the deverbal nominalizer occupies the position of the N head and takes a projection containing a VP deeply embedded inside.

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Authors' address:

Veronika Szabó University of Pécs, Faculty of Humanities, Department of Linguistics Ifjúság útja 6. H-7624 Pécs, Hungary

E-mail: szabo.veronika@pte.hu;





Bálint Tóth

University of Pécs, Faculty of Humanities, Department of Linguistics Ifjúság útja 6.

H-7624 Pécs, Hungary

E-mail: toth.balint.pte@gmail.com

Gábor Alberti

University of Pécs, Faculty of Humanities, Department of Linguistics Ifjúság útja 6.

H-7624 Pécs, Hungary

E-mail: alberti.gabor@pte.hu

Judit Farkas

Hungarian Academy of Sciences, Research Institute for Linguistics

Benczúr u. 33.

H-1068 Budapest, Hungary

E-mail: juttasusi@gmail.com

GLAGOLSKE I IMENSKE OSOBINE PRODUKTIVNIH MAĐARSKIH GLAGOLSKIH POIMENIČENJA

U ovome radu prikazujemo sustav mađarskih glagolskih poimeničenja, kao nadopunu Laczkóva sustava, u kojemu takve imenice tvore jednoobrazni sustav kao ás-imenica felfedező 'otkriće', tEv-imenica felfedezte(kor) 'kada je otkriveno', ó-imenica felfedező 'otkrivatelj' i tTh-imenica felfedezett(je) 'ono što je otkriveno'. Napravili smo sveobuhvatnu usporedbu inačica glagolskih imenskih konstrukcija temeljenih na složenom događaju ili temeljenih na vrsti događaja (npr. megoperálás 'operiraranje' nasuprot operáció 'operacija'). Usporedba je napravljena na temelju njihovih glagolskih ili imenskih osobina koje su 'specifične za mađarski jezik' (v. osobine u tablici označene kurzivom), kao što je npr. nasljeđivanje obavijesne strukture. Što je ćelija u tablici svjetlije boje, to je vrsta imenice prema svojim osobinama "imenskija" te istodobno i manje glagolska.

Ključne riječi: imenska skupina u mađarskom; generativna sintaksa; glagolsko poimeničenje; glagolske osobine; imenske osobine.