

**On a multifunctional derivational affix:
Its use in relational adjectives or nominal modification, and phrasal affixation in
Hungarian¹**

Abstract

The *-i* derivative affix is an old conundrum in the grammar of Hungarian. It is regularly classified as a fully productive affix deriving adjectives from nouns of various semantic properties including geographical and proper names. It is usually also claimed that it can occur on postpositions and some adverbials, but since these are closed classes the use of the affix in these cases is not productive. We challenge the accepted wisdom and argue that the affix is productive across the board and the meanings its derivatives represent are highly predictable. Canonical adjectives have a number of characteristics that these derivative adjectives do not, which suggests that the latter are an alternative to modification-by-noun, rather than adjectives proper. On the other hand, *i*-affixation can take referential noun phrases as its base, a phenomenon found in other morphological processes in this language, as well as in other languages. Referential adjectives based on inherently referential expressions, proper names in particular, can carry over the referential function in a conceptual-semantic, though not in a syntactic sense. *I*-modifiers work much the same way in Hungarian, but there are also differences, as shown in relation to result nominals as well as complex event nominals.

1. Introduction

This is a paper concerned with a single derivational affix in Hungarian that consists of a single phoneme; one could hardly find a less extensive topic, yet this apparently trouble-free morphological item proves to involve a number of interesting problems, some of which will remain intriguing even after the analyses presented here.

I will proceed by introducing the current general view of the affix, which holds it to be a denominal adjectivaliser, then I will argue first that it does not produce adjectives *per se* but is a means of modification of head nouns by a noun. Next, I will show that the base of the affix is often a syntactic phrase rather than a word, calling into question its nature as a simple derivational affix. Finally, its role in action nominals is examined.

2. The conventional wisdom

The derivational affix which is the subject of this paper has apparently caused no problems in the descriptive analyses of Hungarian, which is otherwise rich in complex problems of morphological or morphophonological nature. Since it consists of a nonharmonising unalterable single /i/ phoneme with no allomorphs, it presents little difficulty to (morpho)phonologists.² Its unassuming form and clear definitions of use in the available literature make it particularly unfit for further research. However, as we will try to point out, there is more difficulty behind the simple surface than has been visible so far.

The properties of this affix are carefully listed in Ruzsiczky (1961), and more recently in Kiefer & Ladányi (2000: 175-176) and Ladányi (2007: 114-119), of which the last is cited below in a compressed form and without the full range of illustrations for the time being.

- (1) (a) It is a denominal adjectivaliser.
- (b) It is productive only with respect to nominal bases.
- (c) It is productive with respect to nominal bases only in relation to a set of subclasses, such as names of professions, institutions, geographical objects, concepts, arts and sciences, temporal points or periods, and family names.³

(d) It is unusual when the base is an acronym, or names of substances, artifacts, products of mental efforts, (animal or vegetable) species, and collective nouns as well as abstract nouns expressing state, action or event, which is due to these being blocked by alternative compound constructions in each case.

3. Questioning the conventional wisdom

The first question we will address here is why we should consider the derivatum to be an adjective. It certainly has to be placed prenominally like all (other) adjectives in this language exhibiting strict ‘modifier – head’ orders across the board. But we might suspect some problem here, especially because it turns out that not all prenominal modifiers are adjectives proper. In a previous paper on another derivational affix, the (harmonising) *-ú/ű*, I demonstrated that since this affix is attached to syntactic phrases, that is NPs or DPs, the adjectives it derives are sometimes marginal, and are better termed as PRENOMINAL ATTRIBUTE, and thus the affix itself is a syntactic, rather than a lexical, object (Kenesei 1995). Consider the following example.

- (2) a *Richárd hatalmá-nál nagy-obb hatalm-ú uralkodók*
 the Richard’s power-than great-er power-AFX monarchs
 ‘the monarchs with power greater than Richard’s (power)’

In this agglutinating language *hatalm-ú* ‘power-AFX’ cannot be an adjective since no adjective can be modified by an adjective in the comparative degree (*nagyobb*), which in (2) takes the (case marked) complement DP *Richárd hatalmá-nál* ‘than Richard’s power’ by the force of the comparative affix. So it must be the DP *a Richárd hatalmánál nagyobb hatal(o)m* ‘(the) power greater than Richard’s (power)’ that has the affix *-ú* attached to it, thus making it into a prenominal attributive modifier. That this must be the case is not called into question by lexicalized adjectives ending in *-ú/ű*, such as *hímnem-ű* ‘male sex (N) ~ having male sex, male (Adj)’; *félár-ú* ‘halfprice-d’.

I will argue that the case is analogous with the affix *-i*: it resembles denominal derivational affixes producing canonical adjectives only insofar as the resulting item is placed prenominally. So the noun *asztal* ‘table’ underlies the prenominal (putative) adjective *asztal-i* ‘table- AFX’; used with/on/for/... tables’, which will be glossed mostly as ‘table-ish’ for reasons of simplicity below. If *asztali* is compared with canonical adjectives, whether or not suffixed by *-i*, such as *isten-i* ‘god-ly, divine, superb’ or *remek* ‘fine’, the following regularity obtains.⁴

- (3) (a) Prenominal position
isten-i/remek/asztal-i labda
 god-AFX/fine/table-AFX ball
 superb ball/fine ball/table ball, ball used on tables’
- (b) Intensifier added to adjective
*egy nagyon/kifejezetten isteni/remek/*asztali labda*
 ‘a very/particularly superb/fine/*table ball’
- (c) Comparative degree
*Ez isteni-bb/remek-ebb/*asztali-bb labda mint az.*
 ‘This is a more superb/finer/*more table-ish ball than that one.’

- (d) In nominal predicates
*Ez a labda isteni/remek/*asztali volt.*
'This ball was superb/fine/*table-ish.'
- (e) In predicate complements
*Ez a labda isteni-nek/remek-nek/*asztali-nak látszik.*
'This ball looks superb/fine/*table-ish.'
- (f) Base for adverbial derivation
*Anna isteni-en/remek-ül/*asztali-an dobja a labdát.*
'Anna throws the ball superbly/finely/*in a table-like manner.'

If the list of properties given in (3) is regarded as the set of criteria defining the class of adjectives, and prototypical or canonical adjectives are expected to satisfy all of them, as hypothesized in a different context in Kenesei (2010) for Hungarian, then the derivative *i*-adjectives fulfil only one of them, placing them very low on the scale, in fact so low that they hardly prove to be adjectives any more, as will be argued further below.

That there is a scale of the means of attributive modification has been recognised for quite some time in the literature. Bally (1944) was the first to distinguish between relational and qualifying (or qualitative) adjectives; he showed that relational adjectives in French (and other Romance languages), such as *solaire* in *chaleur solaire* 'solar heat' never occur in prenominal positions, cannot be used as copular predicates, are not gradable, and have a 'nominal value' (Bally 1944: 97) Others have followed this line and pointed out that there is a list of properties or features, including predication, gradability, polarity, pre/postnominal positions (in Romance languages), iterability, coordination, argumenthood, adjacency to the modified noun, whose presence or absence characterise subclasses of attributive modification (cf., for example, Fábregas 2005, Fradin 2007, Bisetto 2010, Koshiishi 2011). Still others have concentrated on the semantics of modification and argued that the semantic representation of denominal adjectives is identical to that of their base-noun (Fradin 2008), or that relational adjectives denote properties of kinds, rather than individuals, as qualifying adjectives do (McNally & Boleda 2004). According to the criteria from this list that apply to Hungarian, such as adjacency to head nouns and the lack of use in predicates or gradability, *i*-affixation appears to produce relational adjectives.

Before we pass judgment on the nature of *i*-affixation, let us see a similar scenario in an unrelated language. As reported by Mezhevich (2002), Russian has a regular adjectivalisation strategy. Where other languages may make use of N+N compounding constructions, Russian applies one of two devices: one is genitive constructions (not illustrated here), and the other is what appears to be prenominal relational adjectives derived from corresponding nouns, as illustrated in the examples below, labelled for the set of criteria canonical adjectives observe, as adapted to Russian.

- (4) (a) Prenominal position
kniž-n-yj magazin
book-ADJ-MASC store
'bookstore'
- (b) Intensifier added to adjective
*očen' kniž-n-yj magazin
very book-ADJ-MASC store

- (c) Comparative form
 *Etot magazin kniž-n-eje, čem tot.
 this store book-ADJ-COMP than that
 ‘This store is more book(ish) than that one.’ (intended meaning)
- (d) In nominal predicates⁵
 *Magazin byl kniž-n-yj
 store was book-ADJ-MASC
- (e) ‘Short form’ adjective
 *Magazin byl kniž-n-o
 store was book-ADJ-MASC

As is apparent from the above, the Russian prenominal derivative adjective closely resembles its Hungarian counterpart.

The behaviour of the Hungarian and the Russian derivative relational adjectives groups them into a category extensively investigated and labelled alternatively as constituents of ‘composite nominals’ (Huddleston & Pullum 2002: 448ff), ‘covert nouns’ (McNally & Boleda 2004: 181), ‘adjectives with a hybrid status’ (Giegerich 2005: 572), or even ‘a category no more than a set of properties that pattern together’ (Fradin 2007: 31).⁶

Nikolaeva & Spencer (2012) discuss the difference between N+N constructions, as in English, which they term ‘MODIFICATION BY NOUN’ (Nikolaeva & Spencer 2012: 222), and the corresponding constructions in Russian, and propose that they are of the same kind of noncanonical type of modification, expressing ‘some pragmatically defined relation between the head noun and its modifier’ (Nikolaeva & Spencer 2012: 224). It follows then that there is a language-dependent property that determines whether the nominal modifier can occur as a noun, and if not, what derivational process it must undergo in order to serve as a modifier. This two-way distinction between languages that either do or do not allow for modification-by-noun, however, does not carry over to languages that allow both procedures. As will be seen below, Hungarian is one such language, and we will investigate the regularities that allow or block one or another type of modification.

Since Hetzron (1978), and more recently in Cinque (2010), but see also Svenonius (2008), it has been shown for several languages that the order of adjectives in the noun phrase follows certain semantic regularities. In Hungarian, too, adjectives are not randomly ordered. The usual placement follows the arrangement given below, in which we have included, and shown in bold type, the items under discussion, called hereunder *I*-MODIFIERS.

(5) **The order of adjectives in Hungarian**

EVAL	SIZE	COLOUR	ORIGIN	<i>i</i> -MOD	MATERIAL	<i>i</i> -MOD	NOUN
<i>kedves</i>	<i>nagy</i>	<i>piros</i>	<i>francia</i>	<i>asztal-i</i>	<i>pamut</i>	<i>asztal-i</i>	<i>labda</i>
nice	big	red	French	table- AFX	cotton	table-AFX	ball
‘nice big red French cotton table ball’							

None of the other adjectives in (5) can replace *asztali* in its immediate prenominal position when it follows the unquestionable noun *pamut*. In other words, that is not a position for canonical adjectives at all. Consequently, the word *asztali*, and all other *i*-derivatives, are items on a par with modification-by-noun in this language.⁷ Observe also that lexicalised *i*-adjectives group with their canonical counterparts in this sequence, thus with evaluative adjectives (for example, *isten-i* ‘god-ly; superb’, *eredet-i* ‘origin-al’, and *egyén-i* ‘individu-al,

peculiar’), with adjectives expressing size (for example, *óriás-i* ‘giant-AFX; gigantic’), and with those referring to origin (for example, *ég-i* ‘sky-AFX; celestial’).

What is more important, however, is the optional occurrence of the *i*-modifier *asztali* before or after the noun *pamut* ‘cotton’. That is significant because whenever two nouns are juxtaposed in Hungarian, no adjective can occur between them. We are now faced with the following choices:

- (a) all N+N constructions are compounds, therefore *i*-modifiers are nouns in disguise;
- (b) the first constituent in some N+N constructions is an adjective in disguise, and that is why an *i*-modifier can be inserted between the two nouns;
- (c) some N+N constructions are compounds, others are syntactic constructions of modification.

Research into N+N compounds and related constructions in English has shown that not all N+N constructions are alike (Bauer 1998, Huddleston & Pullum 2002): they do not all undergo co-ordination reduction (**swim- and sportswear* vs. *active and leisure wear*), their heads cannot always be pronominalised by *one* (**watermills and wind ones* vs. *steel bars and iron ones*), etc. Consequently, some N+N constructions, that is, N+N structures which meet the canonical criteria for compounding, are indeed compounds, others are structures of modification, or in Huddleston & Pullum’s (2002) terminology, COMPOSITE NOMINALS.⁸

Following this track, we can now discard options (a) and (b) and try to adopt option (c) for the Hungarian case. Names of materials like *pamut* ‘cotton’ or *vas* ‘iron’ differ from names of artifacts like *kép* ‘picture’ or institutions like *bank* ‘bank’ in that the former can be followed by *i*-modifiers, whereas the latter cannot be followed by either names of materials or *i*-modifiers, which suggests that names of artifacts or institutions form N+N compounds, while names of materials are parts of N+N composite nominals. Moreover, not all *i*-modifiers are alike either. For example, *asztal-i* ‘table-AFX’ can occur inside an N+N construction whose first constituent is a name of material, but *London-i* ‘London-AFX’ cannot.

- (6) (a) *vas kép/fal-i keret*
 iron picture/wall-AFX frame
 ‘iron picture frame’
 ‘iron wall frame (that is, placed on walls)’
- (b) **kép vas/fal-i keret*
 picture iron/wall-afx frame
- (c) *beton bank/város-i épület*
 concrete bank/town -AFX building
- (d) **bank beton/város-i épület*
 bank concrete/town -afx building
- (e) *London-i pamut ruha*
 London-AFX cotton dress
- (f) **pamut London-i ruha*
 cotton London-afx dress

The regularity presented in (6) can be summed up as follows. N+N constructions have two subtypes depending on their first constituents:

(a) nouns denoting artifacts, institutions, professions, etc., form compounds with their head nouns;

(b) nouns denoting material form structures of modification-by-noun.

It is then reasonable to suppose that in Hungarian nominal modification of head nouns varies between modification-by-noun, that is, N+N constructions, and *i*-derivatives, that is, [N+i]+N constructions. Furthermore, the *i*-derivatives formed from geographical names tend to group with, or even in front of, adjectives of origin, thus they cannot occur inside an N+N structure of modification.

At this point the comparison with Russian breaks down: since Russian lacks the N+N option, it has to fall back on an adjectivalisation strategy, which, however, produces no canonical adjectives but what are usually considered to be relational adjectives.

Observe also that in contrast with regular productive *i*-derivatives, the meanings of the lexicalised ones are not predictable – as is expected. This is a familiar phenomenon in adjective formation since, to quote an analogous case, present participles can also undergo lexicalisation as adjectives, cf. *kitűn-ő* ‘outstand-PRESPART; excellent’, *borzaszt-ó* ‘terrify-PRESPART; terrible’, etc.

4. Defining *i*-derivatives as cases of nominal modification

Once we choose to regard the productive *i*-derivatives not as canonical adjectives but alternatives to modification-by-noun, a number of unrelated observations, such as those listed under (1), fall into a regular pattern. To begin with, take the property in (1d) that *i*-modifiers cannot be derived from acronyms, cf. (7b), although the affix can be freely added to their full forms, as in (7a). The explanation lies most probably in the fact that while the full forms are ungrammatical as parts of N+N constructions, the corresponding acronyms are perfectly possible as (7c-d) illustrates.⁹

- (7) (a) *pénzügyminisztérium-i/bölcsészkar-i* *dolgozó/kiadvány*
‘finance.ministry-AFX/faculty.of.arts-AFX employee/publication’
- (b) **PM-i/*BTK-i* *dolgozó/kiadvány*
‘PM/BTK-AFX employee/publication’
- (c) **pénzügyminisztérium/*bölcsészkar-dolgozó/kiadvány*
‘finance ministry/faculty of arts employee/publication’
- (d) *PM-/BTK-dolgozó/kiadvány*
‘PM/BTK employee/publication’

It looks as if the *i*-affixed and the plain versions of these names of institutions are in complementary distribution as far as modification-by-noun is concerned: the full form cannot partake in an N+N construction but can take the affix *-i*, whereas the corresponding acronym is free to serve as the first part of an N+N compound but it cannot take the affix *-i*. This is the familiar scenario of blocking, except that this time it is a case of two-way or mutual blocking. Why acronyms behave this way is a question that deserves further scrutiny, but we will not pursue the matter here. Let it suffice to state at this point that the phenomenon of complementary distribution in this set of examples points unequivocally to *i*-derivatives as being one alternative to modification-by-noun, or rather, to its being a version of modification-by-noun recalling the claim in the literature that ‘[...] relational adjectives have the semantic and formal behaviour of nouns because they are nouns’ (Fábregas 2007: 31).

In confirmation of this claim, let us now survey the list of nouns that cannot take the affix *-i*. The most conspicuous items are names of substances (8a), or plants and animals (8b, c), instances of meronymy (8d), collective nouns (8e), names of artifacts, whether physical or mental (8f), body parts (8g), and abstract nouns (8h), as recorded in Ladányi (2007: 116-117).¹⁰

- (8) (a) *pamut(*-i) labda*
‘cotton ball’
- (b) *tulipán(*-i) szirm*
‘tulip petal’
- (c) *tigris(*-i) karom*
‘tiger(‘s) claw’
- (d) *autó(*-i) kerék*
‘car wheel’
- (e) *csoport(*-i) terápia*
‘group therapy’
- (f) *szőnyeg(*-i) minta*
‘carpet pattern’
- (g) *mell(*-i) izom*
‘breast muscle’
- (h) *béke(*-i) vágy*
‘peace wish’

In view of the above it would be convenient to claim that *i*-derivatives are blocked wherever an N+N option is possible. But before we commit ourselves to this view, let us return to some of the cases mentioned in (1c) and the corresponding examples cited in note 3, since the case for blocking is far from being as clear-cut as it looks on the basis of the lists in (8).

To begin with, consider names of institutions like *egyetem* ‘university’, where we face the following distribution of N+N vs. *i*-derivative modification.

- (9) (a) *egyetem építés*
‘university construction, construction of (a/the) university’
- (b) *egyetem-i építés*
‘construction at/by/... (a/the) university’
- (c) *egyetem-i tanár*
‘university teacher, professor’
- (d) **egyetem tanár*

In (9a) the noun *university* is an argument of the deverbal noun meaning ‘construction’. In (9b), however, the *i*-derivative is not in an argumental relationship with the head of the

As is shown by the glosses, its meaning is ‘having N, with N, like N’. Now the affix *-s* apparently alternates with *-i*, although with some difference, as the following illustrates.

- (14) (a) *?év-i jelentés*
‘year-ly report’
- (b) *év-es jelentés*
‘idem’
- (c) *a 2011 év-i jelentés*
‘the report of the year of 2011’
- (d) **a 2011 év-es jelentés*

While the affix *-s* attaches to the single word *év* ‘year’, the affix *-i* attaches to the phrase *2011 év* ‘the year 2011’, and although the affix *-i* can occur on the plain noun, the affix *-s* cannot attach to the more complex base. This finding is even more conspicuous in the following contrast.

- (15) (a) [[az elmúlt 3 év] -i] jelentés]
the past 3 year-AFX report
‘(the) report of the past three years’
- (b) [az [elmúlt [3 [év-es jelentés]]]]
the past 3 year-AFX report
‘the past three yearly reports’
- (c) [az [elmúlt [[3 év-es] jelentés]]]
the past 3 year-AFX report
‘the past three-year report’

The affix *-i* in (15a) takes the DP *az elmúlt 3 év* ‘the past 3 years’ as its base (although technically it attaches to the head *év*), the affix *-s* in turn has either the single word *év* or the two-word construction *3 év* ‘3 years’ as its base. This state of affairs is hardly surprising since it is a well-known property of the affix *-s* that it can take [Num/AdjN] units as its base, cf. (16).

- (16) (a) a zöld kalap-os asszony
the green hat-AFX woman
‘the woman with a green hat’
- (b) a 3 dollár-os ár
the 3 dollar-AFX price
‘the price of 3 dollars’

In short then, *-s* takes either single nouns or minimal phrases of Num/Adj+N, or (nonreferential) NPs for its base, but *-i* takes full DPs, which crucially are referential: the expression *the year of 2011*, which is at the base of the modifier of *report* in (14c), is clearly referential, and so is *the past 3 years* in (15a). Note also the following difference.¹²

(17) (a) a 3 óra-i értekezlet
the 3 hour-AFX meeting
'the 3 o'clock meeting'

(b) a 3 órá-s értekezlet
the 3 hour-AFX meeting
'the 3-hour long meeting'

Again, the meeting which is at three o'clock is at a definite point of time, that is, the modifier is fully referential. But when a meeting is three hours long, no referentiality is involved in setting the timespan that defines the length of the meeting.¹³

We may suppose at this point that the difference between the uses of the two affixes lies in their bases: whereas *s*-affixation takes the nonreferential (Num/Adj+)N as its base, at the base of *i*-affixation we find unquestionable referential phrases, in other words, full-fledged DPs, as in (14c), (15a), and (17a).

Another property of *i*-affixation noticed by Hungarian grammarians (Ruzsiczky 1961, Keszler 2000, Ladányi 2007) is its occurrence on proper names. Let us begin with names of persons, where for reasons of simplicity we will use English names instead of Hungarian ones since the 'nationality' of the name makes no difference.

(18) (a) *(Benjamin) Franklin-i találmányok*
'Benjamin Franklin-AFX inventions;
Franklinian inventions'

(b) **Benjamin-i találmányok*
'Benjamin-ian inventions'

(c) *Edward-i kegyetlenség*
'Edward-ian cruelty'

In short, only full names or surnames are allowed, given names are not, probably because they do not identify sufficiently or adequately. The apparent exception in (18c) is acceptable only if the name Edward refers to a king, that is, it has unequivocal reference again. Observe that names of persons do not easily undergo compounding, although no overarching generalisation can be made here, as seen in the following examples.

(19) (a) *fizikus/*Franklin bírálás*
'physicist/Franklin criticising'

(b) *fizikus/Franklin kritika*
'physicist/Franklin criticism'

(c) *fizikus/*Franklin meghívás*
'physicist/Franklin invitation'

(d) *fizikus/Franklin ügy*
'physicist/Franklin affair'

It seems that no proper name is licit in a compound whose head preserves the argument structure of the verb that is at its base, as in (19a,c). If, in line with Grimshaw's (1990)

analysis, which we follow here, no argument structure accompanies the head word, proper names are not blocked. Whatever the case may be, *i*-affixation is not an option even in (19a, c). However, it is certain that the *i*-less forms in (18a, c) are also ungrammatical, so it would seem reasonable to suppose that *i*-affixation is again an alternative strategy wherever N+N compounding is not available.

While the examples in (19b, d) can be interpreted as having referential items inside compounds, the following set corroborates the hypothesis that *i*-affixation takes DPs as their base because the multiword descriptive expressions in them uniquely determine the institution in question. In case the objection is raised that multiword proper names, such as the names of institutions in (20a, b), are treated as single units with respect to compounding, compare the examples in (20c, d), which differ from (20a, b) only in having more than two words in the putative bases of *i*-affixation. Clearly, if *i*-affixation were a subcase of compounding, as was putatively argued in the previous section, then bases of more than two words ought to be equally acceptable, but they are not, for at least a large group of speakers, as signified by the ‘%’ sign.

- (20) (a) a Demokrata Párt-i jelölt
the Democratic Party-AFX candidate
- (b) a Legfelsőbb Bíróság-i ítéletek
the Supreme Court-AFX sentences
- (c) ?% a Modern Demokrata Párt-i jelölt
the Modern Democratic Party-AFX candidate
- (d) ?% a Legfelsőbb Közigazgatási Bíróság-i ítéletek
the Supreme Administrative Court-AFX sentences

Property (1b) states that *i*-affixation is productive only in relation to nominal bases. This generalisation is probably due to the observation that wherever the affix *-i* is attached to nonnouns we apparently have to do with closed lists of items. One such set is postpositions. Since Hungarian is a more or less regular head-final language below the level of the (tensed) sentence, that is, in its NPs, APs, PPs, etc., it has a number of postpositions, ranging from prototypical (‘core’ or ‘central’) to peripheral or transitional ones (cf., for example, Kenesei *et al.* 1998: 86-92, or Asbury 2008). A large subclass of the core postpositions can take on *i*-affixation, but postpositions form a closed class. However, the question arises whether *i*-affixation takes the postposition or the entire postpositional phrase, the PP, as its base. We contend that the latter is the case, and the demonstration is self-evident since no [Postposition+*i*] can exist in this language. The only possible construction is PP+*i*, as seen in (21).

- (21) (a) a *mögött-i/*előtt-i/*mellett-i/... fa
the behind-AFX/before-AFX /beside-AFX tree
- (b) a Pál mögött-i/előtt-i/mellett-i/... fa
the Paul behind-AFX/before-AFX /beside-AFX tree
‘the tree behind /before/beside Paul’

sense, because in the latter the [P+affix] forms a single morphological word, which is a familiar instance of bracketing paradoxes in Hungarian, as was noted in Kenesei (1995).

Not all postpositions can be affixed by *-i*: for instance, for reasons as yet unclear, those expressing goal or direction are excluded, though those conveying source are not, as seen in (26).

- (26) (a) *a Pál elé-i futás
the Paul to.before-AFX running’
- (b) *a réten át-i futás
the field across-AFX running’
- (c) a Pál mögül-i futás
the Paul from.behind-AFX running
‘the run from behind Paul’

Temporal postpositions are acceptable across the board, as are a number of other subtypes:

- (27) (a) a program előtt-i/után-i csend
the programme before-AFX/after-AFX silence
‘the silence before/after the programme’
- (b) a professzor által-i előterjesztés
the professor by-AFX proposal
‘the proposal by the professor’

Seen in this new light, *i*-affixation can no longer be said to be unproductive with respect to nonnominal bases. Since the affix attaches not to Ps but to PPs, which are freely combinable syntactic objects, it must from now on be regarded as fully productive.

Moreover, a large, though closed, set of place and time adverbials also undergo *i*-affixation, yielding pronominal modifiers that often conform to more of the adjectival criteria than the outcome of productive *i*-affixation shown in (3).

- (28) *ottan-i* ‘there-AFX’, *bent-i* ‘inside-AFX’, *lent-i* ‘down-AFX’, *ma-i* ‘today-AFX’,
tegnap-i ‘yesterday-AFX’, *tavaszi-i* ‘spring-AFX’, *tavaly-i* ‘last.year-AFX’,
december-i ‘December-AFX’, *szierda-i* ‘Wednesday-AFX’

Note that all of the items in (28) have referential interpretations, that is, they are not words *per se*, but PPs at whose roots there are referential (deictic) DPs, even though names of seasons, months and days of the week can occasionally have nonreferential uses, as in (29a, b), as contrasting with (29c).¹⁵ By extension, expressions denoting points of time, as well as proper names of various kinds of geographical locations, from cities to continents to mountains can all be affixed by *-i*, and consequently, all are interpreted as conveying specific reference to the locations in question, as seen in (29d).

- (29) a. *tavaszi-i* zöldség
spring-AFX vegetables
- b. *december-i* hó
December-AFX snow

c. *a tavaly december-i hó*
 the last December-AFX snow
 ‘last December’s snow’

d. *2011. december 16-i, London-i, Amerika-i, Volga-i, Himalaya-i,*

However natural the occurrence of the affix *-i* may be on referential proper names of various kinds, ordinary multiword referential DPs must take a different morpheme, namely, the more complex *-beli*, which originates from the still recognizable stem *bel* ‘inside’ plus the very same affix *-i*, and shares the morphological properties of SEMIWORDS, which have some degree of independence as contrasted with affixes, including the options of coordination and ellipsis (cf. Kenesei 2007).

(30) (a) *a magas ház-beli/*-i állapotok*
 the tall house-AFX conditions
 ‘the conditions in the tall house’

(b) *az utcá-nk-beli/*-i állapotok*
 the street-our-AFX conditions
 ‘the conditions in our street’

The same semiword is the only option if the proper name consists of more than two words (for the less permissive group of speakers), cf. (20), or the name of the country is descriptive, rather than nontransparent, as illustrated below.

(31) (a) *a Modern Demokrata Párt-beli/*-i jelölt*
 the modern democratic party-AFX candidate
 ‘the candidate from the Modern Democratic Party’

(b) *az Egyesült Államok-beli/*-i törvények*
 the United States-AFX laws
 ‘the laws in the U.S.’

(c) *az Európai Unió-s/-beli/*-i törvények*
 the European Union-AFX laws
 ‘the laws in/of the European Union’

(d) *a Szovjetunió-beli/*-i törvények*
 the Soviet.Union-AFX laws

(e) *a Bissau Guinea-beli/-i törvények*
 the Bissau Guinea-AFX laws

(f) *a Fülöp-szigetek-beli/-i törvények*
 the Philip-islands-AFX laws
 ‘the laws in the Philippines’

To elaborate, (31a) is a clear case of a three-word proper name, which, for the less permissive group of speakers, is forbidden to take the affix *-i*. Both (31b) and (31c) are descriptive

proper names in two words. And even if the Hungarian rendering of *Soviet Union* has to be pronounced (and spelled) as a single word, for *i*-affixation it is the same descriptive kind as the two-word unit in (31c). Then (31e) is a clear case of a nontransparent proper name, and it appears that (31f) is also interpreted as such, since there is no rational motivation why some archipelago has to be named after a certain Philip. Note that *-beli* is always an option in case of a referential DP without respect to the number of words the DP consists of. In other words, *-beli* is acceptable not only in all of the cases listed in (31), but also in those in (20), that is, if the name of an institution or country is involved. The semantic restriction on the base of *i*-affixation outlined here is, to my knowledge, unparalleled and has gone unnoticed in discussions of the morphology of Hungarian.

Before we move on to survey the role of *i*-affixation in action nominals, let us see the ground we have covered so far. The affix *-i* can be attached to words or phrases. If attached to words, in particular to nouns, it does not derive canonical adjectives as was maintained in the relevant literature, but is a device to circumvent an otherwise impossible option of N+N compounding or modification-by-noun. That is, *i*-affixation of nouns is a case of nominal modification strategy and has no distinct semantics, except that wherever N+N compounding is possible, the equivalents of arguments are reserved for the N+N option, and then the alternative *i*-affixation realizes other, nonargumental, semantic relations.

As a phrasal affix, *-i* attaches to (a) word-size referential proper names of persons and geographical locations, as well as to (deictic) time and place adverbials, (b) multiword temporal DPs and proper names of institutions, and (c) multiword (nongoal) postpositional phrases (PPs) of place and time.

We will not speculate here why one group of speakers allows phrases of proper names no longer than two words, why names of institutions but no ordinary DPs can undergo *i*-affixation, how PPs can be reanalysed as consisting of two items, that is, DP+P, why only temporal DPs of more than two words are possible even in the restrictive dialect, but will leave these issues for further research.

6. Action nominals with *i*-modifiers inside

It has been well-known in the literature of action nominals, particularly since the late 1980's (Kayne 1981, Roeper 1987, Grimshaw 1990, Giorgi & Longobardi 1991) that argument linking in a loose sense works both with NPs (today's DPs) and attributive modifiers, as illustrated in the following examples.

- (32) (a) Libya's Egyptian attack = 'Libya attacked Egypt'
 (b) the Egyptian attack on Libya = 'Egypt attacked Libya'

The attributive modifier *Egyptian*, which Giorgi & Longobardi (1991: 125-129) label as REFERENTIAL ADJECTIVE, can be interpreted in (32a) as having the thematic role of Theme. The modifier *Egyptian* in (32b), however, is interpreted as Agent. Strictly speaking it does not have referential interpretation in either example, and, consequently, it cannot be assigned the thematic roles in question, as is clear from the following contrast in (33a-b), where coreferential items are marked by italics.

- (33) (a) Libya attacked *Egypt* but *it* wasn't occupied at once.
 (b) *Libya's *Egyptian* attack was quick but *it* wasn't occupied at once.

We will argue that since no coreferential relations can be established between (the referential proper name at the root of) the attributive modifier and the pronoun *it* in (33b), referential interpretation is possible only in a conceptual-semantic sense, rather than as in case of a true

syntactic argument, such as in (33a). This is consonant with Grimshaw's (1990) original finding that nouns like *attack* are result nominals without argument structures and contrast with complex event nominals, which can have syntactic arguments.¹⁶

The Hungarian case is somewhat more complex than the English one, primarily due to the behaviour of *i*-modifiers. But before we review the relevant examples let us take a look at their immediate context in action nominals. As was observed by Szabolcsi (1994: 231-265), following Grimshaw (1990), action nominals come in two varieties in Hungarian: result nominals like *támadás* 'attack' do not have argument structures but can have a conceptual-semantic frame in which the DPs, or the *i*-modifier for that matter, can be associated with what corresponds to thematic roles in an argument structure proper. According to Szabolcsi's argumentation, once a head has an argument structure it is inconceivable that the head can occur without its arguments. But nouns like *támadás* 'attack' are perfectly acceptable on their own, as is the English DP *the attack (was successful)*, or its Hungarian equivalent, to be illustrated in the examples below. On the other hand, complex event nominals cannot occur without their obligatory arguments, usually and minimally their internal argument, as first discussed by Grimshaw (1990), and, for Hungarian, by Szabolcsi (1994).

Result nominals and complex event nominals can be easily matched in Hungarian in minimal pairs, in which the action nominal is a plain deverbal noun, while the complex event nominal is derived from the verb having a (usually perfectivising) prefix or preverb.¹⁷

- (34) (a) *a támadás* 'the attack'
 (b) **a meg-támadás* 'the PV-attacking'
- (35) (a) *Egyiptom Líbia-i támadás-a*
 Egypt Libya-n attack-POSS
 'Egypt's attack of Libya; Libya's attack of Egypt'
 (b) *Egyiptom (Líbia-i) meg-támadás-a*
 Egypt Libya-n PV-attack-POSS
 'the attacking of Egypt (by Libya)'
 (c) **a Líbia-i meg-támadás*
 the Libya-n PV-attack-POSS

The noun in (34a) and (35a) is a result nominal; it can stand on its own or, if it is accompanied by nominal or attributive phrases, they can be associated with either or any of the possible conceptual-semantic roles that the head noun is compatible with. In the case of the example in (35a) either the possessor DP *Egyiptom* or the proper name in the root of the *i*-modifier *Líbiai* can serve as either the Agent or the Theme, that is, the 'attacker' or the 'attacked'.

In case of the complex event nominal in (34b) and (35b-c), however, the obligatory internal (Theme) argument must be present; the external (Agent) argument is, however, not obligatory. What is more, the *i*-modifier cannot serve as an internal argument, as shown in (35c), in line with Kayne's (1981) finding as corroborated by Giorgi & Longobardi (1991: 125-129): referential attributes cannot be internal arguments, so they cannot have a Theme thematic role. That is why (35b) has only one interpretation, in contrast with (35a). In other words, the *i*-affixed DP fills an external (Agent) conceptual-semantic thematic role in (35b).

Having now clarified the behaviour of *i*-modifiers with respect to result *versus* complex event nominals, let us continue with one interesting subgroup, those country names that contain the head noun *ország* 'country'. If any compound contains this word, the

interpretation of its *i*-affixed derivative is restricted to a geographical or territorial sense and the otherwise accessible collective meaning referring to the country as a political entity of a people and/or a government cannot be construed.

- (36) (a) Egyiptom magyar támadás-a
 Egypt Hungarian attack-POSS
 ‘Egypt’s Hungarian attack = Egypt’s attack of Hungary’
 ‘Hungary’s attack of Egypt’
- (b) Egyiptom Magyar-ország-i támadás-a
 Egypt Hungaro-country-AFX attack-POSS
 ‘Egypt’s attack of Hungary’
 *‘Hungary’s attack of Egypt’
- (c) *Egyiptom Magyar-ország-i meg-támadás-a
 Egypt Hungary-country-AFX PV-attack-POSS
 *‘Hungary’s attacking of Egypt’

The ordinary adjective *magyar* in (36a) can have either interpretation, that is, Agent or Theme, but the *i*-affixed compound in (36b) has no agentive use. This fact is underlined by (36c), in which the only candidate for the role of the internal (Theme) argument is the DP *Egyiptom*, therefore the agentive interpretation of the same *i*-modifier is forced but cannot go through due to the requirement that it have a territorial interpretation only, resulting in the ill-formedness of the construction.

Note that in a different syntactic context the agentive construal works without any hindrance, as shown in (37).

- (37) Magyar-ország meg-támad-ta Egyiptom-ot
 Hungaro-country PV-attack-ed Egypt-ACC
 ‘Hungary attacked Egypt.’

That this peculiarity is restricted to geographical names containing the compounding head *ország* ‘country’ is evidenced also by alternatives of country names, as illustrated in (38).

- (38) (a) *Líbia Olasz-ország-i meg-támadás-a
 Libya Italo-country-AFX PV-attack-POSS
 *‘Italy’s attacking of Libya’
- (b) Líbia Itália-i meg-támadás-a
 Libya Italy -AFX PV-attack-POSS
 ‘Italy’s attacking of Libya’
- (c) Líbia Thai-föld-i meg-támadás-a
 Libya Thai-land-AFX PV-attack-POSS
 ‘Thailand’s attacking of Libya’

Both *Itália*, an alternative name to the ‘official’ *Olasz-ország* in Hungarian, and *Thai-föld*, in which the head noun *föld* ‘land’ is a close synonym of *ország* ‘country’, are amenable to the agentive option when subjected to *i*-affixation, as demonstrated by the acceptability of (38b-

c). It is solely the names containing *ország* that exhibit the semantic restriction outlined when affixed by *-i*.

The interesting properties of *i*-affixation in action nominals are not limited to country names. Result nominals allow for a wide range of interpretations as was discussed above. Thus, depending on the options offered by the semantics of the constituent phrases the *i*-affixed item can take up different roles.

- (39) (a) a tanterv professzor-i előterjesztés-e
 the curriculum professor-AFX proposal-POSS
 ‘the professor’s proposal of the curriculum’ (professor = Agent)
- (b) Dr. Klein professzor-i előterjesztés-e
 Dr. Klein professor-AFX proposal-POSS
 ‘Dr. Klein’s proposal for professor’ (professor = Predicate)
 ‘Dr. Klein’s proposal (= being proposed) by some professor’ (professor = Agent)
 ‘Dr. Klein’s professorial proposal’ (‘like a professor’ = Quality)

Result nominals, in effect, liberate *i*-affixed nominal modifier to fill whatever roles are compatible with the semantics of the construction, giving further support to the view that *i*-affixation creates derivatives that are in some unspecified general relation with the head noun. One final example illustrates this point in full clarity.

- (40) egyetem-i leépítések
 university-AFX cutbacks
 ‘cutbacks of/by/at/... (the) university/ies’

As was argued in section 4, whereas N+N compounding calls for an argumental role of the first part of the compound, *i*-affixation leaves the function undefined that the affixed noun fills with respect to the head of the compound, within of course the limits that the conceptual-semantic properties of the latter prescribe.

7. Conclusion

It has been shown in this paper that a seemingly simple derivational affix has more surprises in store than the unassuming grammarian is prepared to tackle. It turns out that *i*-affixation

- does not produce canonical adjectives,
- may be attached to words or to phrases,
- when attached to words, it realizes an alternative strategy of modification-by-noun in addition to N+N compounding proper,
- when attached to phrases, the phrases may be
 - a) proper names (of persons, places, and time) of limited complexity,
 - b) referential adverbials of place and time,
 - c) postpositional phrases of any complexity,
- in combination with action nominals it produces quasi-arguments in conceptual-semantic structures; this happens even in complex event nominals, where argument structures proper are possible.

While unmarked nominals, whether nouns in compounds or DPs in action nominals, fill in argumental roles, this function is inaccessible to *i*-modifiers, which have to select from the list of available conceptual-semantic functions that are compatible with the head noun in the construction.

References

- Anderson, Stephen R. 2005. *Aspects of the theory of clitics*. Oxford: Oxford University Press.
- Asbury, Anna. 2008. The morphosyntax of case and adpositions. PhD dissertation, Utrecht: University of Utrecht.
- Bally, Charles. 1944. *Linguistique générale et linguistique française*. Berne: A. Francke.
- Bauer, Laurie. 1998. When is a sequence of two nouns a compound in English? *English Language and Linguistics* 2: 65-86.
- Bisetto, Antonietta. 2010. Relational adjectives crosslinguistically. *Lingue e Linguaggio* IX/1: 65-85.
- Booij, Geert. 2009. Phrasal names: A constructionist analysis. *Word Structure* 2: 219-240.
- Cinque, Guglielmo. 2010. *The syntax of adjectives, A comparative study*. Cambridge, MA: The MIT Press.
- Fábregas, Antonio. 2005. The definition of the grammatical category in a syntactically oriented morphology. Unpublished Ph.D. Dissertation. Madrid: Universidad Autónoma de Madrid/Instituto Universitario Ortega y Gasset.
- Fábregas, Antonio. (2007). The internal structure of relational adjectives. *Probus* 19: 1-36.
- Fradin, Bernard. 2007. Three puzzles about denominal adjectives in *-eux*. *Acta Linguistica Hungarica* 54: 3-32.
- Fradin, Bernard. 2008. On the semantics of denominal adjectives. In Geert Booij, Angela Ralli & Sergio Scalise (eds.), *On line proceedings of the 6th Mediterranean Morphology Meeting*. Sept. 27-30, 2007. Ithaca, Greece.
http://imgd.philology.upatras.gr/el/research/downloads/MMM6_Proceedings.pdf
- Giegerich, Heinz J. 2005. Associative adjectives in English and the lexicon-syntax interface. *Journal of Linguistics* 41: 571-591.
- Giorgi, Alessandra, & Giuseppe Longobardi. 1991. *The syntax of noun phrases: Configuration, parameters and empty categories*. Cambridge: Cambridge University Press.
- Grimshaw, Jane. 1990. *Argument structure*. Cambridge MA: The MIT Press.
- Hale, Kenneth L., & Samuel Jay Keyser. 2002. *Prolegomena to a theory of argument structure*. Cambridge MA: The MIT Press.
- Hetzron, Robert. 1978. On the relative order of adjectives. In Hansjakob Seiler (ed.), *Language universals*. Tübingen: Gunter Narr. 165-184.
- Huddleston, Rodney, & Geoffrey K. Pullum. 2002. *The Cambridge grammar of the English language*. Cambridge: Cambridge University Press.
- Kayne, Richard S. 1981. Unambiguous paths. In Robert May & Jan Koster (eds.), *Levels of syntactic representations*. Dordrecht: Foris. 143-184.
- Kenesei, István. 1994. Subordinate clauses. In Ferenc Kiefer & Katalin É. Kiss (eds.), *The syntactic structure of Hungarian*, San Diego: Academic Press. 275-354.
- Kenesei, István. 1995. On bracketing paradoxes in Hungarian, *Acta Linguistica Hungarica* 43: 153-173.
- Kenesei, István. 2007. Semiwords and affixoids: The territory between word and affix, *Acta Linguistica Hungarica* 54: 263-293.
- Kenesei, István. 2010. How many word classes are there after all? Paper presented at the 14th International Morphology Meeting, May 13-16, 2010, Budapest.
http://www.nytud.hu/eng/kenesei/word_classes.pdf
- Kenesei, I., Robert M. Vago, Anna Fenyvesi. 1998. *Hungarian*. London: Routledge.
- Keszler, Borbála (ed.). 2000. *Magyar grammatika*. Budapest: Tankönyvkiadó.
- Kiefer, Ferenc. 1992. Compounding in Hungarian. *Rivista di Linguistica* 4: 61-78.
- Kiefer, Ferenc, & Mária Ladányi. 2000. Morfoszintaktikailag semleges szóképzés. In Ferenc Kiefer (ed.), *Morfológia*. Budapest: Akadémiai Kiadó. 165-214.

- Koptjevskaja-Tamm, Maria. 2003. Possessive noun phrases in the languages of Europe. In: Frans Plank (ed.), *Noun phrase structure in the languages of Europe*. Berlin: Mouton de Gruyter. 621-722.
- Koshiishi, Tetsuya. 2011. *Collateral adjectives and related issues*. Bern: Peter Lang Verlag.
- Ladányi, Mária. 2007. Produktivitás és analógia szóképzésben. Budapest: Tinta Könyvkiadó.
- McNally, Louise, & Gemma Boleda. 2004. Relational adjectives as properties of kinds. In: O. Bonami & P. Cabredo Hofherr (eds.), *Empirical issues in formal syntax and semantics 5*. Berlin: Lang. 179–196.
- Mezhevich, Ilana. 2002. English compounds and Russian relational adjectives. In: Morrison, G. S., & L. Zsoldos (eds.), *Proceedings of the North West Linguistics Conference 2002*. Burnaby, BC, Canada: Simon Fraser University Linguistics Graduate Student Association. 95-114.
- Nikolaeva, Irina, & Andrew Spencer. 2012. Possession and modification: a perspective from Canonical Typology. In Dunstan Brown, Marina Chumakina, & Greville G. Corbett (eds.), *Canonical morphology and syntax*. Oxford: Oxford University Press. 207-238.
- Payne, John. 1995. Inflecting postpositions in Indic and Kashmiri. In Frans Plank (ed.), *Double case. Agreement by suffixaufnahme*. New York: Oxford University Press. 283-298.
- Rebrus, Péter. 2000. Morfofonológiai jelenségek. In Ferenc Kiefer (ed.), *Morfológia*. Budapest: Akadémiai Kiadó. 763-950.
- Roeper, Thomas. 1987. Implicit arguments and the head-complement relation. *Linguistic Inquiry* 18: 267-310.
- Ruzsiczky, Éva. 1961. A szóképzés. In József Tompa (ed.). *A mai magyar nyelv rendszere, Vol. I*. Budapest: Akadémiai Kiadó. 333-420.
- Scalise, Sergio, & Irene Vogel. 2010. *Cross-disciplinary issues in compounding*. Amsterdam: John Benjamins.
- Spencer, Andrew. 2008. Does Hungarian have a case system? In Greville C. Corbett & Michael Noonan (eds.), *Case and grammatical relations*. Amsterdam: John Benjamins. 35-56.
- Spencer, Andrew. 2009. Case marking on Hungarian pronouns – the need for morph-based referrals. Unpublished MS.
- Svenonius, Peter. 2008. The position of adjectives and other phrasal modifiers in the decomposition of DP. In Louise McNally & Chris Kennedy (eds.), *Adjectives and adverbs: syntax, semantics, and discourse*, Oxford: Oxford University Press. 16-42.
- Szabolcsi, Anna. 1994. The noun phrase. In Ferenc Kiefer & Katalin É. Kiss (eds.), *The syntactic structure of Hungarian*, San Diego: Academic Press. 179-274.

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Notes

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² We can note two problems for the record: a) its juxtaposition to a stem ending in the same /i/ phoneme, and b) the lack of lengthening the short low morpheme final stem vowels, which are issues that we will not consider here; cf. Rebrus (2000: 783), Ladányi (2007).

³ Examples: *professzor-i* ‘professor-ial’, *elnök-i* ‘president-ial’; *egyetem-i* ‘university-AFX’, *parlament-i* ‘parlament-ary’; *Párizs-i* ‘Paris-ian’, *Duna-i* ‘Danub-ian’; *látás-i* ‘vision – visual’, *fogalm-i* ‘concept-ual’; *építészet-i* ‘architectur-al’, *történelm-i* ‘histori-cal’; *hav-i* ‘month-ly’, *délelőtt-i* ‘morning-AFX’; *Shakespeare-i* ‘Shakespeare-an’. Note that spelling rules in Hungarian prohibit capitalising adjectives derived from names. For the sake of clarity, however, not all spelling regulations, in particular those relating to capitalisation, hyphenation and conjoining words, are consistently followed here. The (negative) examples for (1d) are to be provided in (8) below.

⁴ Note that *asztali labda* ‘table ball’ is a nonce formation: Google searches give no relevant results, although the object denoted by it is perfectly possible, as, for instance, a ball used in some game played on a table or a similar surface, such as in table tennis. Similar transparent examples for possible, though currently nonexistent, types of balls are *kert-i/erde-i/város-i labda* ‘garden/forest/city-AFX ball’. The example was chosen precisely in order to illustrate the productive nature of the affix and the derivational process. Incidentally, *asztali* is used in several, partly lexicalised, expressions, for example, *asztali lámpa* ‘table lamp; reading lamp’, *asztali áldás* ‘table blessing; grace’. Examples in this paper were first tested on 12 linguists (students and professionals), then presented to native audiences totalling c. 70.

⁵ In case of explicit contrast, as Mezheovich notes, its occurrence as nominal predicate is possible, cf.:

(i) magazin byl ne product-ov-yj a kniž-n-yj
store was neg food-ADJ-INFL but book-ADJ-INFL
‘It was a bookstore, not a grocery store.’

Similar exceptions obtain also in Romance languages, cf. Bissetto (2010).

⁶ This statement is used to argue against regarding relational adjectives as ‘a category of its own’, but notice that categories are defined precisely by properties that pattern together as claimed in Kenesei (2010) with respect to word-classes in general.

⁷ Note that unlike English, where coordination reduction is not possible for a class of transparent N+N compounds, as reported by Huddleston & Pullum (2002), cf. **back- and toothache*, **tear- and raindrops*, Hungarian allows for coordination reduction in all transparent N+N compounds as demonstrated in Kenesei (2007).

We note here that it is possible to modify the noun in such constructions, cf. (*kültéri*) *kovácsolt vas (kültéri) lámpa* ‘wrought iron outdoor lamp’.

Reviewer 3 finds the order *pamut asztali labda* questionable and suggests corpus-based support for the data presented. However, the paper is based on research into the Hungarian National Corpus (http://corpus.nytud.hu/mnsz/index_eng.html), and, although this example is an intentional nonce formation, as noted in note 4, it has been tested on several audiences. One easily comes across further examples of this kind, where *i*-affixed nouns are ordered before or after names of materials, for example, *kültér-i vas lámpa* ‘outdoor-AFX iron lamp’ vs. *vas kültér-i lámpa* ‘iron outdoor-AFX lamp’, obtained via Google search. Further examples from the Hungarian National Corpus are listed here. Expert help in running the search from Bálint Sass is thankfully acknowledged.

a) N – N+i – N: *fa harc-i kocsi* ‘wooden battle cart’, *fa temetkezés-i ágy* ‘wooden funeral bed’, *fa szerkezet-i elem* ‘wooden constructional unit’; *arany udvar-i topán* ‘gold court(ly) shoes’, *arany tárgy-i bizonyíték* ‘gold material evidence’, *arany nő-i gyűrű* ‘gold women’s ring’; *arany vitézség-i érem* ‘gold heroic medal’

b) N+i – N – N: *haza-i fa ablak* ‘local wooden window’, *fal-i fa óra* ‘wall wooden clock’; *lelk-i arany egyensúly* ‘psychic golden balance’, *elnök-i arany érem* ‘presidential gold medal’, *család-i arany ékszer* ‘family’s gold jewellery’.

⁸ For various, often conflicting, definitions of compounds, see, for example, Scalise & Vogel (2010). For criteria and types of compounds in Hungarian, see Kiefer (1992).

⁹ Reviewer 3 notes that (7b) ‘doesn’t work because such occurrences are covered by the -s affix’. While the form *PM-es* ‘PM-AFX’ does exist and stands for ‘PM-employee’ on its own, it is rarely used in construction with the head noun *dolgozó* ‘employee’ and not at all with *kiadvány* ‘publication’. Besides, the issue addressed here is the contrast between (7a,b) and (7c,d) and not whether (and what) alternative suffixes can be attached to acronyms, a problem mentioned, though not analysed in depth in Ladányi (2007). For more on the affix -s, see Section 5 below.

¹⁰ Booij (2009) cites a similar set of examples from Dutch, another language that has both modification-by-noun and adjectival derivation, cf.:

- (i) *academisch jaar* ‘academic year’ ?*academie-jaar* ‘academy year’
(ii) ?*academisch lid* ‘academic member’ *academie-lid* ‘academy member’

¹¹ Reviewer 1 raises the legitimate question of whether *agy sejtek* in (11d) could refer to cells destined to be put in the brain. I tend to think that they could as confirmed by a limited survey among 11 speakers. This finding is corroborated by comparable examples such as *agy szérum* ‘brain serum’, which could denote any serum from, in, or for the brain.

¹² For some speakers, comprising about one third of my combined audiences of 70 persons (mostly linguists), (17b) can also carry the meaning assigned to (17a), but in this case it is also possible to complement the construction with the affix -i: *a 3 órá-s-i (értekezlet)*, thus underlining the referential interpretation of the base of the affix. Note also that in case of unequivocal expressions for points vs. periods of time no such ambiguity can arise, cf.:

- (i) a. *a fél 3 óra-i/*óra-s értekezlet* ‘the half-3 hour-AFX meeting; the meeting at half three = 2:30’
(ii) b. *a 30 *perc-i/perc-es értekezlet* ‘the 30 minute-AFX meeting; the 30-minute long meeting’

Observe finally that while *fél 3-as értekezlet* ‘half 3-AFX meeting’ is quite acceptable, **3-as értekezlet* ‘3-AFX meeting’ is not. The reason why the affix -s cannot attach to whole numbers is obscure to me.

¹³ Analogous temporal expressions follow a similar pattern in (ia) and (iia), although the nouns can occur in -s affixed forms in nonreferential expressions, as in (ib) and (iib). By contrast, example (iii) must be used in referential phrases.

- (i) a. *nap-i hírek* ‘dai-ly news’ b. *3 nap-os hírek* ‘3 day-AFX news; 3-day-old news’
(ii) a. *het-i edzés* ‘week-ly training’ b. *3 het-es edzés* ‘3 week-AFX training; 3-week-long training’
(iii) *a múlt het-i/*-es edzés* ‘the last week-AFX training; last week’s training’

¹⁴ I owe this observation to an inquiry from, and subsequent discussions with, Andrew Spencer (p.c., 2010). See also Spencer (2008, 2009).

¹⁵ Reviewer 2 notes that I failed to discuss why the affix -i cannot be regarded as a clitic, and, independently, Reviewer 1 draws an analogy with the ‘genitive case’ postposition *kaa* in Hindi-Urdu with reference to Payne (1995), and with the ‘a-of-association’ in Bantu and the Albanian ‘genitive clitic’ with reference to Koptjevskaja-Tamm (2003: 665). *I*-affixation is clearly not on a par with well-attested clitics in Hungarian, such as the enclitic *is* ‘also’ (occurring on various head and phrasal categories) or the alternative question clitic *-e* ‘whether’ attached to, for example, inflected verbs, which can both undergo coordination reduction, unlike the affix -i, cf. **ma- és tegnap-i*, and which observe all of Anderson’s (2005: 33) criteria for clitics. Moreover, the -i affixed items (whether words or phrases) can take on further affixes, including, for example, plural, cf. *ma-i-ak* ‘today-AFX-PL’, *a ház előtt-i-ek* ‘the house before-AFX-PL’, an operation impossible for clitics.

¹⁶ Reviewer 2 notes that Grimshaw’s distinction is inadequate since ‘nouns/nominals are predicates that have at least a referential argument, which may be bound by a determiner or surface as subject in a predicative use of the noun.’ The discussion of this issue would lead too far afield, but cf., for example, Hale & Keyser (2002) on this and related problems.

¹⁷ Verbal prefixes or preverbs (Hungarian *igekötő*, abbreviated as PV here) are much like English adverbial particles but they form part of the base of (further) derivational processes. Again we do not strictly follow Hungarian spelling rules. Complex event nominals are rendered as ‘ing-forms’ in English to show the difference.