Approaches to Hungarian 15: Papers from the Leiden Conference (Amsterdam: John Benjamins, 2017, 255 pages)

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This volume, edited by Harry van der Hulst and Anikó Lipták, contains a selection of papers from the 12th International Conference on the Structure of Hungarian (ICSH12) held at Leiden University on 22–23 May, 2015. The 9 papers in this volume have been selected out of 15 papers presented at the conference. Both the conference abstracts and then the manuscripts submitted to this volume underwent a rigorous anonymous review process: this is reflected in the general high quality of the papers published.

As has been the tradition of ICSH since its inception, the conference was open to submissions from all fields of linguistics as long as the linguistic data under discussion concerns (at least in part) Hungarian. Accordingly, this volume contains papers related various topics of syntax, semantic and phonology. Nevertheless, there are some recurring themes: there are two papers on vowel harmony, two papers on scope ambiguities (in the nominal domain and in the higher functional periphery of the clausal domain, respectively), and two papers related to the semantics of classifiers in Hungarian.

Although the starting point and main empirical focus of the papers is invariably some phenomenon prominently observable in Hungarian, the discussion and analysis in all papers is informed by the current cross-linguistic debate on the theoretical issues at hand. Indeed, in addition to shedding new light on problems in the grammar of Hungarian, most papers in the volume make significant contributions to general debates, such as the structural position of object DPs, the split-DP hypothesis, nominal case assignment or the typology of mass/count vs. classifier languages. In what follows, I will provide a short review and assessment of each paper, in the same order as they appear in the volume.

In their paper titled *Internal-scope taking arguments in the information structure of deverbal nominals in Hungarian*, Gábor Alberti, Judit Farkas and Veronika Szabó bring forward a set of interesting new observations to argue for a split-DP cartographic approach to the Hungarian DP. Their main observation is that certain deverbal nominal constructions have two readings: in addition to the trivial external scope reading (1ii), they also have what the authors dub the internal scope reading (1i):

- (1) Imi ellenzi [mindkét lánynak_{Theme} a Imi oppose.DEFOBJ.3SG both girl.DAT the meghív-ás-á-t a koncertre].
 - PERF.invite-ÁS-POSS-ACC the concert.SUB
 - i. internal scope reading: [OPPOSE > BOTH_GIRLS > INVITE]
 'Imi is against the option according to which both girls should be invited to the concert.' (As for Imi, one of them can be invited).
 - ii. external scope reading: [BOTH_GIRLS > OPPOSE > INVITE]

 'It holds for each of the two girls that Imi is against the option according to which she should be invited to the concert.' (As for Imi, neither girl should be invited.)

Finno-Ugric Languages and Linguistics Vol. 6. No. 2 (2017), 106–133 ISSN: 2063-8825 As the authors note, the necessity to assume a lexical (NP) and a functional (DP) layer for noun phrases has long been accepted cross-linguistically and specifically in the case of Hungarian too (Abney 1987, Szabolcsi 1981, 1994, Bartos 2000a,b, É. Kiss 2000, 2002). Their new claim is that scope ambiguities such as those in (1) point to the existence of an additional operator layer in the Hungarian NP: in other words, the authors propose that similarly to other languages (Giusti 1996, Ihsane and Puskás 2001), the Hungarian noun phrase has a split DP functional layer. The split DP proposal is strongly related to the split CP proposal of Rizzi (1997) and thus it stipulates a deep symmetry between the clausal and the nominal domain.

After considering earlier proposals on the modelling of deverbal nominal constructions (Tóth 2011, Dékány 2014), the authors propose the following structure for cases where the possessor (corresponding to the theme argument of the verb) has internal scope:

(2)
$$\left[_{KP}\right]_{DP}\left[_{QPosAgrP}\right]$$
 mindkét lány $_{i}\left[_{PosAgrP}\right]$ $t_{i}\left[_{PosdP}\right]$ $t_{i}\left[_{PosdP'}\right]$ -a $\left[_{NP}\right]_{N'}$ -ás $\left[_{AspP}\right]$ meg_m $\left[_{Asp}\right]$ hív $_{h}\left[VP\right]$ $t_{m}\left[V'\right]$ $t_{h}\left[_{KP}\right]$ a koncertre

In essence, a quantifier phrase is adjoined to PosAgrP, and the thematic possessor moves to Spec,QP to take internal scope.

In the remainder of their paper, the authors show how this model can be flexibly extended to accommodate internal scope taking non-possessors and account for their scope relations such as below:

Na például mindkét alkalommal mindkét kollégával (3) well for instance the both occasion.INS both colleague.INS mindkét témáról való beszélget-és], az hiba both topic.DEL be.PART talk-ÁS that mistake be.PAST.3SG [MISTAKE > ON_BOTH_OCCS > WITH_BOTH_COLLEAGUES > ABOUT BOTH TOPICS > TALK] Well, for instance, talking on both occasions with both colleagues about both topics, that was a mistake.' (internal scope reading)

The authors also show how their model can account for interesting cases of hybrid scope taking, i.e., where some of the dependents of the embedded verbs take external and others internal scope.

As far as the authors' central claim (summarized briefly above) is concerned, I found the argumentation convincing: the observations are novel and solid, the proposed model follows closely from the facts and it makes the right predictions, and it also dovetails nicely with cross-linguistic claims about a split DP layer.

In addition to this central claim, the authors extend their analysis in two directions. On the one hand, beside the very productive event nominalizer $-\delta$, they examine three less productive nominalizers as well: the agent nominalizer $-\delta$ and the specialized event nominalizers $-te^{t}$ and $-hatn\acute{e}k$, convincingly showing that the scope ambiguities can be observed here as well.

On a minor note: the authors seem to assume that this suffix -t is a variant of the suffix -ett, with the former emerging in cases where the possessor is identical to the theme argument of the verb and the latter otherwise. This is almost certainly not the case. Consider (i) and (ii) (the examples are mine):

More controversially, they examine what they term (following Laczkó 2000:304–313) as simple-event-denoting deverbal nominal constructions, where the possessor is not the theme argument of the underlying verb but some other dependent, such as the agent (e.g. a lányoknak a meghívása 'the invitation by the girls'). However, as the authors themselves note at one point, these constructions are 'typically lexicalized forms': their productivity is limited and their meaning is not necessarily compositionally derived from the meaning of the embedded verb. This makes the reader doubtful as to whether seeking a unified account for these lexicalized expressions and the truly productive cases of deverbal nominalization is on the right track. Luckily, however, this case of possible overgeneralization does not affect the central claim of the paper (the existence of a split DP in the case of productive deverbal nominalizations).

To conclude, the authors of the paper bring interesting new data to the table and present solid arguments in support of their main claim, which is that, similarly to other languages, Hungarian has a split DP (with an operator layer which houses elements taking noun phrase internal scope).

In her study Structural ambiguities and case assignment in Hungarian clausal and phrasal comparatives, Julia Bacskai-Atkari presents a detailed case study of ambiguity phenomena in degree comparatives in English, German and Hungarian. Her main claim is that the seemingly complex set of ambiguity phenomena is reducible to three factors: the type of the degree complement (clausal or phrasal), the general case assignment properties of the language (the extent of case syncretism and the nature of nominative case) and general clause formation rules (specifically, the presence or absence of PredP in tensed clauses and small clauses).

The author examines two types of ambiguities. Type I concerns subject—object ambiguity such as in the clausal comparative from German below:

- (4) Ich iebe dich mehr als meine Schwester.

 I.NOM love.1SG you.ACC more than my.F.NOM/ACC sister
 'I love you more than my sister.'
 - i. 'I love you more than I love my sister.'
 - ii. 'I love you more than my sister loves you.'

In line with earlier research (Lechner 2004), the author argues that the surface string in (4) is the end result of ellipsis. However, since feminine DPs are case syncretic between nominative and accusative in German, this string may in fact correspond to two different underlying forms, hence the ambiguity: *Ich liebe dich mehr als meine Schwester dich liebt*. I love

- (i) a szigetek fel.fedez-t-e the islands PERF.discover-T-POSS 'the discovery of the islands'
- (ii) a rendező fel.fedez-ett-je the director PERF.discover-ETT-POSS 'the discoveree of the director' (i.e., a talented actor discovered by the director)

In addition to the obvious difference in the form of the nominalizing suffix and the following POSS suffix (*t-e* vs. *tt-je*), there is also a striking category mismatch: (i) denotes an event, whereas (ii) denotes an individual. Therefore, it is more justified to assume that these are two different nominalizers (even if etymologically, they may well be related).

you more than my sister loves you.' vs. *Ich liebe dich mehr als meine Schwester ich liebe*. 'I love you more than I love my sister.' However, no such ambiguity arises in Hungarian, where there is no such case syncretism (with the minor and partial exception of possessives).

Hungarian is a language which in addition to clausal comparatives also has phrasal comparatives. Phrasal comparatives carry a lexical adessive case and are routinely analyzed as PPs in Hungarian, cf. É. Kiss (2002). Due to this lexical adessive case, subject—object ambiguity arises:

(5) Jobban szeretlek Márk-nál.
better love.1SG Mark-ADE
'I love you more than Mark.'
i. 'I love you more than I love Mark.'
ii. 'I love you more than Mark loves you.'

Type II ambiguity is more complex and concerns cases such as:

(6) I saw a taller woman than my mother.

LEXICAL READING: 'I saw a taller woman than my mother saw.'

PREDICATIVE READING: 'I saw a taller woman than my mother is.'

The ambiguity arises since the remnant DP can be interpreted as the subject of either a verbal (SEE) or an adjectival (TALL) predicate. Interestingly, the author shows that in German, in the lexical reading, the remnant DP has nominative case, whereas in the predicative reading, the remnant DP receives accusative case through Exceptional Case Marking, which means that no ambiguity arises (unless there is case syncretism). As the author argues, this is due to a structural difference: in the lexical reading, the embedded clause is tensed, whereas is in the predicative reading, it is a tenseless small clause. In Hungarian, the remnant DP is always nominative, even in the predicative reading where we have a small clause. The author argues that this is an instance of nominative as unmarked case (Kornfilt & Preminger 2015) and related to independently attested properties of case assignment in Hungarian small clauses (Matushansky 2012). This means that in clausal comparatives in Hungarian, we can always observe Type II ambiguity. In contrast, in phrasal comparatives, only the predicative reading is accessible (this is, in fact, cross-linguistically attested (Bacskai-Atkari 2015). The author argues that this again is due to tensedness: while adjectival predication (such as phrasal comparatives on the predicative reading) is tenseless, verbal predication (such as phrasal comparatives on the lexical reading and clausal comparatives in general) is tensed.

To conclude, the author introduces a number of intriguing puzzles concerning ambiguities in comparatives and shows that these phenomena can all be explained using standard and independently motivated assumptions on case assignment and clause formation rules, and by assigning an appropriate syntactic structure to the various kinds of degree complements.

In their lucidly argued and thought-provoking paper *Two positions for verbal modifiers: evidence from derived particle verbs*, authors Veronika Hegedűs and Éva Dékány make two main claims: 1) that, similarly to other languages such as German, Hungarian too has inseparable verbal modifiers (VMs) which are merged as high specifiers of the extended *v*P (as opposed to the better-known separable verbal modifiers which are merged as complements of V), and 2) that this is further evidence in support of the claim that cross-

linguistically, objects can be merged as specifiers and not only as complements (Bowers 1993, Hale & Keyser 1993, Arad 1996, Den Dikken 2015).

Verbal modifiers are predicative elements such as verbal particles, bare object nouns and resultatives which in addition to their similar compositional semantic function also share their syntactic distribution. In neutral sentences, they occupy the immediately preverbal position, whereas in non-neutral sentences (progressives, negation, narrow focus, *wh*-interrogatives, imperatives), they are obligatorily postverbal. Consider below an example with the verbal particle *fel* 'up':

- (7) a. *János fel-biciklizett a hegyre*.

 John up-bike.PST.3SG the mountain.SUBL

 'John biked up the mountain.'
 - b. János nem biciklizett fel a hegyre.

 John not bike.PST.3SG up the mountain.SUBL

 'John did not bike up the mountain.'

The authors claim that in addition to this well-known and well-researched class, Hungarian has a set of inseparable verbal particles too, which fail to separate even in non-neutral environments:

- (8) a. János fel-vételizett az egyetemre.

 John up-exam.take.PST.3SG the university.SUBL

 'John took an entrance exam to the university.'
 - b. János nem fel-vételizett az egyetemre.

 John not up-exam.take.PST.3SG the university.SUBL

 'John did not take an entrance exam to the university.'

The authors claim that there exist altogether 10 such verbs in Hungarian. The authors argue that they are derived as follows: first, the particle is attached to the verbal stem (be 'in' + foly 'flow_V' = [be-foly] 'in-flow_V'), then, a nominalizer is attached ([be-foly] 'in-flow_V' + $-\dot{a}s = [[be-foly]-\dot{a}s]$ 'lit. event of flowing-in, fig. influence_N'), then a verbalizer is attached ([[be-foly]-\darkarrow]s] + $-ol = [[[be-foly]-\dot{a}s]-ol]$ 'influence_V'. (This explains why a verb form *foly\darkarrow form does not exist.)

The authors claim that there is some evidence which points to the syntactic visibility of inseparable verbal particles, and thus justifies a morphosyntactic approach. Their tests are based on the old observation that in case of several verbal modifiers, only one of them can be preverbal and the other(s) appear postverbally:

(9) Mari be-festette a haját szőkére. Mari in-dye.PST.3SG the hair.POSS.3SG.ACC blond.SUBL 'Mari dyed her hair blond.'

The authors find that bare objects can freely appear before a verb with an inseparable verbal particle, which points to the syntactic invisibility of the latter. As far as verbal particles are concerned, the results are mixed: while exhaustive and durative particles can cooccur preverbally with inseparable verbal particles, directional and telicizing particles cannot. Concerning resultatives, the authors claim that the results are similarly mixed: while some resultatives such as *halálra* 'to death', *agyon* 'over/to death', *betegre* 'sick' can appear preverbally, others cannot.

Based on this, the authors assume that both separable and inseparable particle verbs are constructed in narrow syntax. Following earlier research, they take verbal particles (VMs in general) to be predicative (É. Kiss 2006) and merged as the predicate of a small clause (SC) the subject of which is the internal argument (Hegedűs 2013). The particles then move to Spec,PredP where semantic incorporation takes place, and then to their surface position in Spec,TP (Surányi 2009a,b, Kenesei 1998):

(10)
$$\left[_{TP} VM T \right]_{VP} v \left[_{PredP} VM Pred \left[_{VP} V \right]_{SC} DP_{internal,arg} VM \right] \right] \right]$$

The authors then argue that inseparability arises when the verbal particle is introduced in a structure lower than the nominalizing head:

The nominal head being a phase head, the particle could only move up to Spec,TP via Spec,NOMP. However, this is impossible due to independently attested reasons: particles being functionally P elements, their movement is movement of a PP category (Hegedűs 2013, Dékány & Hegedűs 2015). However, as the authors show using independent evidence, PPs is Hungarian cannot occupy a specifier position in the extended noun phrase. This means that the particles are in essence trapped below NOMP, and, hence, inseparable.

As far as the non-ability to combine with some other verbal modifiers (basically, telicizing and directional verbal particles) is concerned, the authors propose that this is due to the fact that the 'slot' where these other VMs could be introduced (within the SC which is the complement of V) is already taken by the inseparable verbal particle. Although there is another higher verbal head in the structure (VRB in (11)), its complement position is also filled (by NOMP).

This of course immediately begs the question: what is happening in those cases where VMs can cooccur with inseparable verbal particles (bare nominals, exhaustive and durative verbal particles and resultatives). The authors argue that these exhaustive and durative particles and resultatives, which share the semantic component 'to a full degree', are merged directly in the Spec position of a PredP above VRBP:

Since this position can theoretically accommodate directional and telicizing verbal particles as well, the authors need to provide some additional explanation as to while these particles cannot combine with inseparable verbal particles. One possible explanation provided has to do with a constraint on double telicization of events (Filip 2003). This is problematic, though, as earlier in the paper, the authors argue that some of the inseparable particle verbs are in fact non-telic. The second explanation refers to an unwelcome clash of the two particles in VM position – however, it is unclear while such a clash would be a problem for some particles (directional and telicizing) and not for others (exhaustive and durative).

As the authors duly note, the majority of these inseparable particle verbs can take bare / indefinite / definite objects. This is, however, a challenge for their account so far: since the complement position of both V and VRB is taken, where are these objects

merged? The authors resort at this point to the general proposal that objects can also be merged as specifiers (Bowers 1993, Hale & Keyser 1993, Arad 1996, Den Dikken 2015): their proposal is that the object is merged as the specifier of a projection headed by a Relator-type head which takes VRBP as its complement.

On balance, this is a meticulously researched, lucidly argued and thought-provoking paper. However, I have some doubts as to the empirical basis of the 'narrow syntax' approach. There are several factors which point to these verbs being monolithic lexical elements (the improductivity of the whole phenomenon, the fact that the part following the particle is typically a non-word (*vételizik, *folyásol), the non-compositionality of meaning) and, as we have seen, the most significant observation in favour of a morphosyntactic analysis (the incompatibility with directional and telicizing separable verbal particles) remains unexplained in authors' actual proposal. Since the authors make some very far-reaching theoretical proposals (i.e., that VMs and directs object can be merged in specifier position too), I believe that further study is needed to ascertain that the empirical foundations to these claims are indeed solid.

In his paper A representational account of vowel harmony in terms of variable elements and licensing, Harry van der Hulst develops a new theory of vowel harmony. The gist of this new approach, first presented in van der Hulst (2012) (and to be elaborated in more detail in van der Hulst (to appear)) is that it represents harmony as a licensing relationship between vowels that 'invariably' carry the harmonic element and vowels that only carry this element 'variably' (these latter are traditionally known as alternating vowels). The licensing relationship is also assumed to be local on the nuclear level. After discussing the model, the author proceeds to show how the occurrence of so-called transparent and opaque (together called neutral) vowels can be explained in his model, proposing a theoretical underpinning to the typology of neutral vowels proposed by Kiparsky & Pajusalu (2003). Finally, the author examines cases which violate the proposed condition of nuclear locality and offers an auxiliary condition of 'bridge locality' to accommodate such cases.

The author assumes that phonological primes (so-called elements) are unary (this is characteristic of Radical CV phonology (van der Hulst 2005, in preparation), a version of Dependency Phonology (Anderson & Ewen 1987). Specifically, elements come in to classes: aperture and colour. The colour class includes two elements: U and I, whereas the aperture class is further subdivided into a primary class containing the head elements \forall (high) and A (low) and a secondary class containing the dependent elements NASAL (N) and PHARYNGEAL (A/ \forall). The second fundamental principle of the author's proposal is that element specification is minimal: this is achieved by stipulating a ranking (a partial ordering) of the main elements (A > U > I / \forall) and then applying Dresher's (2009) Successive Division Algorithm (2009) to prune the full specification of vowel (in a given language) by removing elements which are redundant (predictable and compatible with the phonetic structure of the vowel in question).

Thirdly (and crucially), the author proposes that vowel harmony is in essence the licensing of variable elements in nuclei by licensers which are typically vowels in adjacent nuclei containing an invariable instance of the same element. At this point, an important three-way distinction is introduced (ϵ stands for element):

 $a = invariant \epsilon$ (positive vowel)

b = alternating vowel, ε must be licensed to get interpreted

 $c = invariant non-\epsilon$ (negative vowel)

In scenario (a), the vowel is specified in the lexicon as having the element ε , independently of any licensing criteria. In scenario (c), the vowel is specified in the lexicon as *not* having the element ε , independently of any licensing relationships. In scenario (b), it is undecided at the lexical level whether the vowel (as part of a specific morpheme) will emerge with or without the element ε (this being dependent on licensing conditions). Scenario (c) can encode cases of disharmonic roots and non-alternating affix vowels, whereas scenario (b) can encode cases of alternating vowels. The author maintains that this notation, even though it creates a three-way distinction, does not undermine the unary nature of the elements: at the end of the derivation, contrast is being expressed only through the presence or absence of a given element.

Fourthly, and continuing the tradition of Government Phonology (Harris & Lindsey 1995, Ritter 1995, Charette & Göksel 1998, among others), the author argues that variable elements (13b) only emerge if licensed, otherwise they remain silent. In particular, the author argues for what he terms lateral (or syntagmatic) licensing along phonological tiers. Crucially, this licensing is taken to be bidirectional in the default setting: as the author shows later on, this is needed in order to account for root-control systems which have both harmonic prefixes and suffixes and also for dominant-recessive systems.

Fifthly, the author adopts a relatively strict version of locality: two elements are local if and only if they are adjacent with reference to the nuclear tier (nuclear locality). Nevertheless, to account for apparent violations of this concept of locality in cases of transparency, the author posits a second type of locality called bridge locality: in these cases, the locality requirement is being satisfied on a tier which is different from the harmonic tier.

Vowel harmony for a given element ε is then defined as a constraint in (14):

(14) All units X in domain D must be positive or negative for element $[\varepsilon]$.

In the default case, X stands for nucleus, but it can also be a different element in cases of bridge locality.

The most important claim of the author, and the main contribution of his proposal, is that using this system, one can provide a principled and general explanation as to why a given vowel is non-alternating (transparent or opaque) in a given language. That is, instead of resorting to language-specific and arbitrary stipulations, the non-alternating behaviour of vowels can be predicted from their element structure and from the structure of the vowel system of the given language as a whole. Transparent behaviour is possible if a vowel is compatible with the harmonic element ϵ , and opaque behaviour is predicted if a vowel is incompatible with ϵ .

Naturally, beside theoretical elegance, an important test of any new proposal is whether indeed it can provide a principled explanation for a large range of empirical phenomena. In the remainder of the paper, the author first shows on a couple of examples from a diverse set of languages such as Gua (Western Kwa spoken in Ghana), Tangale (West Chadic spoken in Nigeria), Turkish, Finnish and Hungarian how cases of

asymmetry in vowel harmony (transparency and opacity) can be modelled in this system. Then the author proceeds to show how the four-way typology of the behaviour of neutral front vowels in palatal harmony discussed by Kiparsky & Pajusalu (2003) can be modelled in the proposed framework:

(15) A typology of the behaviour of neutral front vowels in palatal harmony (taking [i] as representative):

a. Khanty: [i] = specified with I

b. Finnish: [i] = specified with variable I; positional licensing(on)

c. Uygur: [i] = specified with variable I; positional licensing(off)

d. Mulgi: [i] = unspecified for I

That is, the four-way distinction is captured by adding the parameter of positional licensing (on/off) to the three-way distinction in (13). The author than proceeds to contrast his proposal with earlier accounts such as Rebrus & Törkenczy (2015a,b), van der Hulst (2015) and Polgárdi (2015). Finally, the author discusses 'unexpected' transparency and opacity in Khalka (Mongolian) and the Bantu language of Kibudu and argues that the relevant facts can be explained by resorting to the notion of bridge locality.

In sum, the author presents an interesting new theory of vowel harmony: while this approach incorporates earlier elements of Dependency Phonology and Government Phonology, its novelty lies in the way it captures vowel harmony through the licensing of variable unary elements. In terms of empirical coverage, the early results presented in this paper are promising but as with every new theoretical proposal, much work lies ahead in terms of testing (and refining if necessary) the model on a broad range of relevant data.

In their paper Co-patterns, subpatterns and conflicting generalizations in Hungarian vowel harmony, Péter Rebrus and Miklós Törkenczy examine what happens when coexisting and conflicting patterns of variation in Hungarian front-back vowel Harmony (HVH) are in conflict. The patterns under examination are defined in terms of prosodic structure (monosyllable vs. polysyllable), locality (one vs. several intervening neutral vowels), morphological complexity (monomorphemic vs. suffixed) and whether the suffix in question is harmonically alternating or not. The authors argue that the resolution of these conflicts can be described in terms of a version of the Elsewhere Condition: if several of the patterns (or more precisely, the generalizations underlying the patterns) hold in a given case, it is the more specific generalization that wins.

Hungarian vowel harmony is well-known to feature transparency and antiharmony. In general, a target vowel in a harmonic suffix matches the trigger vowel of the stem in terms of backness: ház-unk vs. *ház-ünk 'our house', föld-ünk vs. *föld-unk 'our land'. However, the vowels (i:, i, e:, e) are neutral: they are transparent: papír-unk vs. *papír-ünk and rövid-ünk vs. *rövid-unk; and they may be antiharmonic in roots which only contain neutral vowels: bén-ul vs. *bén-ül 'become paralyzed'. As the authors show, both transparency and antiharmony show significant variation. Transparency typically exhibits what the authors term 'vacillation', namely, where the same cell in the paradigm of a given stem shows variation: fotel-ünk vs. fotel-unk 'our armchair'. Antiharmony, on the other hand, typically exhibits lexical variation (e.g. Hayes et al. 2009, Linzen, Kasyanenko & Gouskova 2013, Pater 2007, Zuraw 2015, Rebrus & Törkenczy 2015b), where different stems show different harmonic suffix behaviour: bén-ul 'become paralyzed' vs.

vén-ül 'become old'. The authors introduce the following notation: % signifies vacillation whereas | signifies lexical variation.

The first pattern discussed by the authors is a count effect on vacillation (for earlier discussions, cf. Hayes & Cziráky-Londe 2006, Kálmán & Forró 2014, Rebrus & Törkenczy 2015a,b among others). Focusing on the most well-behaving of the neutral vowels (i and i:), the authors show that while these are fully transparent as long as there is only one of them in the relevant context (madrid-unk vs. *madridünk 'our Madrid'), they show variation if there are several of them (martinik-unk % martinik-ünk 'our Martinique'). This pattern is referred to as the Count Effect (CE) in the paper.

Antiharmony is also subject to a count effect, termed Polysyllabic Split (PS) in the paper: while, as we have seen, monosyllabic all-neutral roots exhibit lexical variation (víz-ünk 'our water' | híd-unk 'our bridge'); there are no anti-harmonic monomorphemic roots longer than one syllable: tigris-ünk vs. *tigris-unk. (Polymorphemic stems can exhibit antiharmony, e.g. with the verbalizing suffix -ít: híg-ít-hat 'thin-VRB-MODAL'.)

The authors note that in terms of their effects, CE increases and PS decreases variation. However, both CE and PS decrease disharmony.

The next pattern under examination is a surface-to-surface paradigmatic constraint called Harmonic Uniformity (HU) (Törkenczy, Rebrus & Szigetvári 2013, Rebrus & Szigetvári 2013, and Rebrus & Törkenczy 2016). HU requires that the harmonic class of a suffixed stem be identical to the harmonic class of the stem. This constraint can be in conflict with CE and PS. Consider a root like *madrid* 'Madrid', which requires a back suffix: *madrid-nak* vs. *madrid-nek. Consider now madrid-i 'from Madrid' (with the adjectivizing suffix -i). CE would predict vacillation, however, this is not the case: the pattern we observe is madrid-i-nak vs. *madrid-i-nek (as opposed to martini-nak % martini-nek). Looking at PS vs. HU, híd 'bridge' is an antiharmonic root (híd-ra vs. *híd-re). Adding the adjectivizing suffix -i creates a polysyllabic all-neutral stem, however, contrary to what PS would predict, anti-harmony survives: híd-i-ra vs. *híd-i-re (as opposed to *tigris-nak vs. tigris-nek). In these cases, HU overrides CE and PS.

In terms of effects, HU reduces variation when overriding CE (by eliminating vacillation), and it increases variation when overriding PS (by creating antiharmonic polysyllabbic all-neutral stems). HU increases disharmony when overriding CE (by eliminating harmonic variants such as *madrid-i-nek), and likewise, it increases disharmony when overriding PS (by extending antiharmony to polysyllabic all-neutral stems).

The final pattern discussed by the authors is sequential bias: where the allomorph of a suffix has a preference for frontness/backness in a following alternating suffix (cf. Törkenczy 2011, Rebrus et al. 2012, Törkenczy et al. 2013). Interestingly, this pattern can override HU. Consider the (suppletive) alternation of 3SG.PRES.DEF: *lök-i* 'push-3SG.PRES.DEF' vs. *rak-ja* 'put-3SG.PRES.DEF'. Attaching this suffix to a vacillating stem eliminates vacillation: *martini-z-i-tek* vs. **martini-z-i-tok* 'pour.Martini-DEF-2PL'. (Note the contrast with: *martini-z-tek* % *martini-z-tok* 'pour.Martini-2PL'.)

The authors point out a crucial difference between the general vowel harmony constraint (VH), the count effect (CE) and the polysyllabic split (PS) on the one hand and Harmonic Uniformity (HU) on the other hand. While VH, CE and PS describe the same generalization for all stem types (independent of their inner morphological complexity), HU is defined in terms of the morphological complexity of the stem. In this sense, HU is more specific than VH, CE and PS. The authors argue that the override patterns can be derived from a version of the Elsewhere Conditions (e.g. Kiparsky 1973): in a conflict, the more specific generalization prevails. Similarly, SB applies to harmonic

suffixation whereas HU applies to suffixation in general: again, the specific constraint (SB) prevails over the general (HU).

The authors also present frequency data from the 514-million-word-token Szószablya web corpus (Halácsy et al. 2004). The most striking finding is that the token frequency of those stem types where the generalizations are in conflict is very low: this means that even though the more specific generalizations overrides the more general ones when in conflict (they are dominant), this effect is observable in relatively few forms (making them, in this sense, recessive).

Finally, the authors argue that such an intricate pattern of vowel harmony (showing variability and invariability) could be described, in theory, in different ways: 1) by defining non-overlapping co-patterns, 2) by defining subpatterns where embedding of patterns within patterns is allowed (in the sense that a subpattern describes those cases which are exceptional with regard to the more general pattern) and 3) by defining wide-scope generalizations which hold across all forms. Naturally, in this latter approach, one has to explain what happens in those forms where these generalizations are in conflict. As the authors show, in the case of Hungarian vowel harmony, these conflicts are resolved following the Elsewhere Condition: the more specific generalization prevails. As the authors convincingly argue, while it would be technically possible to capture the relevant data in the non-overlapping pattern and in the subpattern approach as well, these solutions would be inferior in terms of explanatory power.

To conclude, with a forensic attention to detail and meticulous analysis, the authors succeed in providing an elegant and enlightening analysis for patterns of variation in Hungarian vowel harmony which at first sight might have appeared to the reader as rather obscure due to the low token frequency of the relevant forms and the intricate interaction of patterns, subpatterns and subsubpatterns. The discussion is very deep and yet, in essence, theory-neutral: the novelty of this paper lies not in providing a new theoretical proposal for vowel harmony, but rather, in showing that complex patterns of variation can be adequately and parsimoniously described by employing wide-scope generalizations and letting the Elsewhere Condition do the task of conflict resolution.

In her paper Measure constructions in Hungarian and the semantics of the -nyi suffix, Brigitta R. Schvarcz provides a semantics and pragmatics for the -nyi suffix in Hungarian. As the author shows, this suffix is quite versatile: it can attach to container classifiers (16a), to other count nouns (16b) and to lexical measures (16c), and it has different functions in each case:

- (16) a. két pohár-(nyi) bor two glass-NYI wine 'two glassfuls of wine'
 - b. három könyv-*(nyi) cikk three book-NYI article 'three book(ful)s of wine'
 - c. két kiló-nyi liszt two kilo-NYI flour 'approximately two kilos of flour'

When attaching to container classifiers, the suffix seems to have a disambiguating function: while két pohár bor 'two glass wine' may mean either 'two actual glasses filled

with wine' or 'a quantity of wine equivalent two to glasses' (cf. Rothstein 2009 on individuating vs. measure readings), the -nyi-suffixed variant only has the latter, measure interpretation. In the case of a simple count noun, the function of the suffix appears to be to turn this noun into a measure expression: without it, the phrase is ungrammatical (16b). (The author notes that in this sense, -nyi is similar to English -ful, which is optional with standard containers such as cup(ful) but obligatory with ad-hoc containers such as hatful.) Finally, when added to expressions of measure per se, the suffix forces and approximative reading (16c).

In order to account for this plasticity of function and also for the considerable variety in grammaticality judgements of speakers (in certain dimensions of measurement), the author proposes a minimal semantic analysis of *-nyi* as an operator which converts a noun into a measure head. No reference to dimensions of measurement (container, value, temporal, adjectival) is made in the semantics of the operator: any such restrictions are determined pragmatically. Before starting the detailed discussion, the author also clarifies that she will distinguish altogether three readings of a container classifier expression *három iveg bor* 'three bottle wine': the countable actual objects reading 'three actual, physical bottles filled with wine', the countable portions reading 'three separate bottle-sized portions of wine' and the measure reading 'a quantity of wine equivalent to three bottles.² The suffix *-nyi* is infelicitous in the first context, felicitous in the third context, and ambiguous in the second context.

While earlier studies proposed that *-nyi* expressions be treated as adjectives (Kenesei, Vago & Fenyvesi 1998, Kiefer & Ladányi 2000), the author points out that this is problematic as (unlike adjectives) *-nyi* suffixed nouns (*N-nyi*) must be preceded by a numeral: *(egy) könyv-nyi cikk 'a bookful of articles'. The author also provides some evidence from ellipsis that *N-nyi* does not behave as a classifier either. Rather, following Rothstein's (2009, 2017) analysis for English and Modern Hebrew measure phrases, the author argues that *N-nyi* is a measure head such as kilo or liter (cf. Krifka 1989, Landman 2004 on measure heads): that is, *-nyi* induces a shifting operation from noun to measure head. This measure head then combines with a numeral to create a complex measure predicate which is an adjective-like phrase:

(17)
$$\begin{bmatrix} DP \\ NP \end{bmatrix} \begin{bmatrix} MeasP \\ k\acute{e}t \end{bmatrix}$$
 Num $\begin{bmatrix} MeasO \\ poh\acute{a}r \end{bmatrix}$ nyi N]]] $\acute{e}t$ 'two glassfuls of wine'

As expected, Num+N-nyi can be used attributively:

(18) három két órá-nyi ülés-t hallgattam végig three two hour-NYI session-ACC listen.PAST.1SG VM 'I listened to three two-hour lectures.'

The authors points out that Num+N-nyi can also function as a distance or duration adverbial modifying a VP:

² For the significance of this distinction, see Partee & Borschev 2012 and Khrizman, Landman, Lima, Rothstein & Schvarcz 2015.

(19) János három buszmegálló-nyi-ra lakik Maritól.

John three bus.stop-NYI-SUBL lives Mary.ABL

'John lives three bus stops away from Mary.'

Next, the author discusses some of the finer conditions on the (non-)occurrence of *-nyi*. As we have seen, they are obligatory on nouns that are not born as measures (16b). As far as container classifiers are concerned, their appearance is obligatory, but if they appear, they force a non-individuating (measure) reading. There is some inter-speaker variation here as to whether 1) non-standard classifiers obligatorily require *-nyi*, whether 2) container classifiers have a preference for a *-nyi* form if the container does not physically participate in the measuring action and whether 3) *-nyi* is obligatory in adjectival/adverbial uses.

In terms of formal semantics, the author bases her model of *-nyi* on several earlier proposals for *-ful* in English (Krifka 1989, Landman 2004, Rothstein 2009). (While *-nyi* differs from *-ful* in that in addition to volume, it can be used to create measures of other dimensions such as financial worth, distance, time period etc., the author assumes that this is a matter of pragmatics.) Following Rothstein (2012), the author assumes that *two litres* denotes the set of quantities which have value two on the scale calibrated in litre units:

```
(20) two litres

a. [[litre]] \lambda n \lambda x. \text{MEAS}_{\text{VOLUME}}(x) = \langle n, \text{LITRE} \rangle

b. [[two litres]] \lambda x. \text{MEAS}_{\text{VOLUME}}(x) = \langle 2, \text{LITRE} \rangle
```

Based on Schvarcz (2014), the author proposes that the measure interpretation of *N-nyi* is analogous to lexical measures such as *litre*. Accordingly, *-nyi* is an operator of type <<e,t>,<n<e,t>>, turning a nominal predicate at type <e,t> (such as λ xGLASS(x)) into a measure head of type <n<e,t>>.

(21) a. [[-nyi]]
$$\lambda P \lambda n \lambda y. \text{MEAS}(y) = \langle n, P \rangle$$

b. [[pohár-nyi]] $\lambda n \lambda y. \text{MEAS}(y) = \langle n, \lambda x \text{GLASS}(x) \rangle$

The author notes that while this model nicely accounts for the uses of -nyi with container and count nouns (16ab), it cannot be extended to uses with lexical measures (16c): the latter are measure heads to begin with, so the mechanism in (21) clearly cannot apply to them; also, when added to lexical measures, the function of -nyi seems to be different: that of expressing an approximative reading. (The author argues that -nyi with count nouns is inherently approximative, since the unit of measure is not absolute but pragmatically determined by context.) The author proposes that on this reading, -nyi has the same interpretation as Khrizman & Rothstein's (2015) approximate operator: it maps an inherent measure head onto an approximative measure head:

(22) a. [[liter]]
$$\lambda n \lambda x. \text{MEAS}_{\text{VOLUME}}(x) = \langle n, \text{LITRE} \rangle$$
 b. [[liter-nyi]] $\lambda n \lambda x. \text{MEAS}_{\text{VOLUME-APPROX}}(x) = \langle I_n, \text{LITRE} \rangle$ (I_n is a set of intervals which all include n)

To conclude, the author presents a careful study of the various uses of the suffix -nyi in Hungarian and analyzes it as a general measure operator, which has two uses and

semantic functions: as a type-shifting operator turning count nouns into measure heads (16ab) and as a type-preserving operator turning inherent measure heads into approximative measure heads (16c). An interesting question for further research is whether it is possible to provide a fully unified account for these two uses.

In their paper Hungarian classifier constructions, plurality and the mass-count distinction, Brigitta R. Schvarcz and Susan Rothstein argue that, contrary to earlier claims (Csirmaz & Dékány 2014), Hungarian is not a classifier language but, rather, a count/mass language with an unusually high number of nouns which are ambiguous between a count and a mass reading.

Following Chierchia (1998, 2010), it is widely assumed that languages fall into two families in terms of their counting systems. In mass/count languages (such as English), count nouns (but not mass nouns) can be directly modified by numerals (23ab), singular vs. plural predicates are distinguished by plural morphology (23a), count nouns are not preceded by sortal classifiers (23c) and bare singular count nouns cannot be arguments (23d):

- (23) a. I have one cat/three cats.
 - b. *I have one gold. vs. I have one unit of gold.
 - c. *I have one unit/piece/animal of cat. vs. I have one cat.
 - d. *I saw cat. vs. I saw a cat / cats.

In a typical classifier language such as Mandarin Chinese, numerically modified nouns are obligatorily preceded by a quantifier (24ab), singular and plural predicates are morphologically not distinct (24ab), and bare singular nouns are allowed as arguments (24cd)

- (24) a. yi zhi gou vs. *yi gou one CL dog one dog 'one dog'
 - b. wu zhi gou vs. *wu gou five CL dog cs. five dog 'five dogs'
 - c. wo kanjian gou le
 I saw dog SENTENCE.FIN.PART
 'I saw a dog/the dog/dogs.'
 - d. wo mai le shu
 I buy PERF book
 'I bought a book/the book

Chierchia (1998, 2010) theorizes that these patterns show that in a classifier language, all nouns are underlyingly mass, and classifiers denote a function that takes mass nouns and returns count predicates.

As has been pointed out (Csirmaz & Dékány 2014), Hungarian does not fit this typology neatly. It has optional sortal classifiers (25a) and bare singular nouns can be arguments and can be interpreted as plural (25b). This might suggest that Hungarian is a classifier language, although there are some striking differences that set Hungarian apart from a bona fide classifier language such as Mandarin Chinese: firstly, that sortal classifiers in Hungarian are optional (whereas in classifier languages, they are obligatory)

and secondly, that bare singular nouns in Hungarian can only appear in thetic and not in categorical sentences, and they can never be interpreted as definites (whereas there are no such restrictions in classifier languages). In terms of sensitivity to the singular-plural distinction, in the absence of a modifying numeral, singular and plural nouns are distinguished morphologically (25c); however, in the presence of a modifying numeral, this distinction vanishes (25d):

```
(25) a. két
                (szál)
                          rózsa
          two \quad {\rm CL_{thread}}
                          rose
          'two threads(=pieces) of roses'
      b. Rózsát
                       vettem.
          rose-ACC
                       buy.PAST.1SG
          'I bought a rose/roses.'
                                 rózsá-k
      c. (a)
                rózsa / (a)
          (the) rose / (the) rose-PL
          '(the) roses / (the) roses'
      d. három
                   rózsa vs.
                                 *három
                                           rózsák
          three
                   rose vs.
                                 three
                                           rose-PL
          'three roses'
```

These properties clearly mean that Hungarian is a challenge for the mass/count vs. classifier binary typology. Csirmaz & Dékány (2014) suggested that Hungarian is, in fact, a true classifier language where classifiers can come either as lexical classifiers such as szál 'thread' or the general classifier darab 'piece'; or as a phonologically null general sortal classifier (the silent version of darab 'piece'). This means that the optionality of classifiers is only an appearance: the absence of an overt classifier is in fact indicates the presence of a silent one. If Hungarian is indeed a truly classifier language, one expects, following Chierchia (1998, 2010) and Cheng & Sybesma (1999) an absence of morphological plurality, and the facts in (25d) seem encouraging. Note, however, that single-plural morphological distinction is obligatory in the absence of numerical modification (25c). On this point, Dékány (2011) suggests following Borer (2005) that plurality is itself a classifier (even if it differs in a number of significant ways from the more traditional prenominal classifiers), and specifically, that plurality in Hungarian is similar to the Mandarin pre-nominal plural classifier xie (CLp1). Since -k exhibits properties of both plural classifiers and plural markers, Dékány proposes that it be analyzed as a spanning lexical item (Taraldsen 2009) for both CL and PL.

The main claim of the authors of the present paper is that, *pace* Dékány (2011) and Csirmaz & Dékány (2014), there exists a mass/count distinction in Hungarian and that plurality is not a classifier but heads a Number phrase.

First, the authors point out using several tests that bare plural nouns can have kind interpretations, something which would be unexpected if the plural marker were indeed a sortal classifier (which turns inherently mass nouns into count predicates) For instance, consider (26) below, where the bare plural clearly denotes a plurality of kinds (I slightly modified the example used by the authors for ease of exposition.):

(26) Madar-ak állnak a kihalás szélén.
bird-PL stand.PRS.3PL the extinction side.POSS.3SG.SUP
'Some species of birds are on the verge on extinction.'

Secondly, the authors show that the morphological plural can in some cases cooccur with classifiers (e.g. vekni kenyerek CL_{loaf} bread-PL). While some such cases are discussed by Dékány (2011) and explained as instances of Spurious NP Ellipsis, the authors find several cases such as 'loafs of bread' in environments which are clearly not elliptical. Thirdly, the authors show that similarly to English (a prototypical mass/count language), plurality in Hungarian is sensitive to the mass/count distinction: the denotation of a pluralized noun crucially depends on whether it is notionally count or mass: cukr-ok (sugar-PL) may denote 'pieces of sugar' but also 'kinds of sugar'.

From this the authors draw the conclusion that 1) plurality does not incorporate the semantics of a classifier and 2) that the mass/count distinction is very relevant in Hungarian. Based on this, the authors propose that -k is an exponent of plurality and spells out a Num head (cf. Sauerland 2003) which normally takes an NP complement, where N is marked as plural by agreement with the features of Num.

To account for the lack of plural morphology in the case of explicit numerals (25d) and for the hybrid behaviour of Hungarian in terms of the mass/count vs. classifier typology, the authors suggest that nouns in Hungarian come in three kinds. There is a set of nouns which seem to have the typical properties of mass nouns such as szemét 'trash', kosz 'dirt' or homok 'sand':

```
(27) a. *homok-ok
sand-PL
'sands'
b. egy *(szem) homok
one CL<sub>grain</sub> sand
'one grain of sand'
```

There is also a very limited set of nouns which arguably behave like typical count nouns such as *fej* 'head' or *csepp* 'drop':

```
(28) a. Három csepp-et írt fel az orvos.

three drop-ACC write.PAST.3SG VM the doctor

'The doctor prescribed three drops.'

b. *három darab csepp

three CL<sub>piece</sub> drop

'three drops'
```

The authors show that these two sets of nouns also pattern neatly with quantity question words: *hány* 'how many' patterns with count nouns and *mennyi* 'how much' patterns with mass nouns.

To account for the optionality of classifiers with the vast majority of nouns in Hungarian, the authors argue that all these nouns are, in fact, ambiguous between a count and a mass noun. While such 'flexible nouns' have been described in other languages (such as *stone* in English: *How much stone is in the garden?* vs. *How many stones does it take to build a wall?*), Hungarian would be a special case by virtue of having the vast majority of nouns exhibit this flexibility. However, the authors argue convincingly that this is indeed case: in addition to the classifier facts (25a), the co-occurrence with both *hány* (how many) and *mennyi* (how much) also indicates a double behaviour:

(29) a. *Hány könyv vana táskádban?*how.many book is the bag.POSS.2SG.INE
'How many books are there in your bag?'

b. Mennyi könyvet tudsz cipelni?
how.much book.ACC can.PRES.2SG carry.INF
'What quantity of books can you carry?'

Following Barner & Snedeker (2005), Bale & Barner (2009) and Rothstein (2010), the authors argue that count and mass nouns are derived from lexical roots via lexical operations, and ambiguity arises if a root is such that either of these operations can apply to it.

There is one problematic prediction of this otherwise convincing account: on the count reading, we would expect plural nouns to carry plural morphology. As we have seen above, this is not the case: when modified by a numeral, nouns emerge in the singular form (25d). The authors do not provide a full explanation for this, but they do point out that there are various other mass/count (non-classifier) languages which exhibit similar phenomena: in Turkish, cardinal numerals are always followed by singular nouns, and Standard Arabic, Russian and Armenian have comparable (if more complex) patterns; and they also tentatively suggest some possible directions of accounting for such patterns. Finally, the authors draw an interesting parallel with Brazilian Portuguese, which appears to exhibit a similar large-scale mass/count ambiguity (Pires de Oliveira & Rothstein 2011).

To conclude, this paper is an important contribution to the debate on the typological classification of Hungarian in terms of the mass/count language vs. classifier language distinction. While it has been claimed earlier (Csirmaz & Dékány 2014) that Hungarian is a classifier language, the authors convincingly argue here that Hungarian is in fact a mass/count language, in which, however, the vast majority of nouns are ambiguous between the mass and the count reading. While there remain some loose ends in their account (e.g. the lack of plural morphology after numeral modifiers is only partially explained), I think that on balance, they achieve a better empirical coverage with a more parsimonious theoretical apparatus than previous proposals.

In their paper Focus and quantifier scope: An experimental study of Hungarian, Balázs Surányi and Gergő Turi present an empirical study which explores whether having a quantified NP in the structural focus position influences its scope properties (narrow vs. wide scope readings). While earlier studies have found that the topic status of an NP gives rise to wide scope, the authors find that focus status and scope interpretation are, in fact, independent (at least as far as Hungarian is concerned).

Quantifier scope ambiguity can arise in sentences containing more than one quantified expression such as:

(30) Exactly two students did each assignment perfectly.

i. 'Exactly two students are such that they did each assignment perfectly.' TWO > EACH

ii. 'Each assignment is such that it was done by exactly two students perfectly.' EACH > TWO

Several factors have been identified in the literature which influence the availability of relative scope in such sentences. Trivially, if quantifier A linearly precedes quantifier B,

the A > B scope reading is more accessible (Ioup 1975, Fodor 1982, Kurtzman & MacDonald 1993). Precedence in terms of surface symmetric c-command has been shown to play an important role: if A c-commands B on the surface, the A > B interpretation is more readily available than the B > A interpretation (Reinhart 1976, 1983). Not independently from structural c-command relations, thematic and grammatical roles also play a role: subject and agents are more likely to take wide scope than objects and themes (Ioup 1975). The lexical semantic type of the element also matters: elements to the left of the following scale are reported to be more likely to take inverse scope (wide scope over a linearly preceding quantifier) the elements to the right: each > every > all > most > many > several > a few (Ioup 1975). It has been claimed (Liu 1990, Beghelli & Stowell 1997) that downward entailing quantifiers such as few actually reject inverse wide scope categorically. Finally, pragmatic factors such as world knowledge are known to influence scope preferences (e.g. A soldier is standing in front of every building. * 3 > \forall 3, * 6 \text{V} > \exists 3).

In terms of information structure, the (noncontrastive) topic position has been associated with wide scope by several authors (Ioup 1975, Kuno 1982, 1991, Kempson & Cormack 1981, Reinhart 1983, May 1985, Cresti 1995, Erteschik-Shir 1997, Portner & Yabushita 2001, Krifka 2001, Ebert & Endriss 2004).

The effect of focus, however, is debated. Some studies link focus to a narrow-scope interpretation (Kitagawa 1990, 1994, Diesing 1992, Kratzer 1995, Krifka 2001, Cohen & Erteschik-Shir 2002, Pafel 2006), others to a wide-scope interpretation (Williams 1988, May 1988, Langackker 1991, Deguchi & Kitagawa 2002, Ishihara 2002). Erteschik-Shir (1997) claims that contrastive focus triggers wide-scope whereas non-contrastive focus is connected to narrow scope.

It is this latter debate to which the authors contribute by testing the following pair of hypotheses:

- (31) a. Focus Narrow Scope (FNS) hypothesis

 If a quantifier is associated with focus status, then it will (prefer to) have narrow scope with respect to non-focal, non-topical scope-bearing elements in the same finite clause.
 - b. Focus Wide Scope (FNS) hypothesis

 If a quantifier is associated with focus status, then it will (prefer to) have wide scope with respect to non-focal, non-topical scope-bearing elements in the same finite clause.

Before discussing the experimental setup, the authors provide a concise background to quantifier scope in Hungarian. They show that while there is considerable debate as to the theoretical analysis of scope phenomena, and also some data controversy (especially regarding the role of prosody), some crucial facts are uncontested. While the relative scope of two pre-verbal quantifiers follows from their linear order, there is scope ambiguity if one of the quantifiers is preverbal and the other is post-verbal:

- (32) [4 Négy lány is] elolvasta [∀ mindegyik cikket].

 four girl too PRT.read each paper.ACC
 - i. 'Four girls are such that each of them read every paper.' $4 > \forall$
 - ii. 'Every paper is such that it was read by four girls.' $\forall > 4$

The authors also discuss Gyuris's (2006, 2008) finding, which is directly relevant to the study, that such ambiguity is attested in sentences with pre-verbal focus and post-verbal focused quantifiers, under varying informational structural conditions.

In terms of research questions, the authors set out to examine whether, keeping information structure constant, the 1) givenness or 2) focused status of a post-verbal quantifier affects the scope interpretations open to it. Such an effect can be absolute, meaning that either only the linear or only the inverse scope reading is available; or it can be relative, meaning that both readings are available but one of them is preferred. (And of course, it may be the case that no statistically significant effect is detected.)

In the actual experiment, the authors tested the interpretation of sentences like (32), which contained a post-verbal universal quantifier phrase and a preverbal distributive bare numeral phase (the particle *is* 'too' was added to ensure a distributive reading, cf. Szabolcsi 1997). In each target sentence, the information structure status was manipulated in such a way (by means of a preceding small dialogue setting up the context) that either the post-verbal quantifier phrase was focused and the pre-verbal numeral phrase was given, or vice versa. Other factors that might have influenced scope readings such as thematic roles were kept constant. Each test case was a small dialogue presented, in which speaker A made an erroneous statement which was then corrected by speaker B such as below:

(33) Postverbal QP in Focus – Narrow Interpretation

A: context:

Négy előadó is elénekelte valamelyik melódiát. four singer DIST PRT.sang one.of.the melody.ACC 'Four singers sang one of the melodies.'

B: Nincs igazad! is.not right 'You are wrong.'

target:

Négy előadó is elénekelte mindegyik melódiát. four singer DIST PRT.sang each melody.ACC 'Four singers sang each melody.'

Within this conversation, the target sentence is clearly intended in a way that the post-verbal quantifier phrase has narrow scope. The task of the participants in the test was to rate the naturalness of the target sentence on a Likert scale (from 1 to 5). In addition to the context above, participants were also provided with picture stimuli to help them conceptualize the intended meanings: these were simple drawings which depicted the context visually.

The authors designed the experiment carefully: each participant was presented with 20 target trials, 10 control trials and 30 filler trials in a pseudo-randomized order (so that filler items separated every two consecutive test items. The number of the participants (42 students) was also relatively high.

The authors applied non-parametric methods for statistical analysis since the rating results did not meet the requirement of normality (5 was by far the most frequent rating in each condition). A cumulative link mixed models approach with stepwise backward elimination was used, with two fixed factors (SCOPE and ISS (informational structural

status) and two random factors (experiment ITEM and experiment SUBJECT (participant)). The results showed that both SCOPE and ISS had statistically significant main effects. (SUBJECT had a significant random effect whereas ITEM had no significant effect.)

Discussing the results, the first important conclusion drawn is that since both narrow and wide-scope interpretations received high (around 4) acceptability ratings both in the focus and the given conditions, neither the Focus Narrow Scope hypothesis (31a) nor the Focus Wide Scope hypothesis (31b) holds in its strongest, deterministic form. The next question is whether one of the hypotheses is true in its weaker form, expressing preferences. The authors show, however, that even these weaker hypotheses are unsupported by the results. The narrow scope reading in the focus condition has an average rating of 3.91, whereas the wide scope reading in the focus case has an average rating of 3.8: this difference is found to be statistically non-significant. Likewise, the difference between the narrow (4.32) vs. wide (4.16) scope readings is also non-significant in case the post-verbal universal quantifier is given. This suggests that focus status has no effect on scope interpretation.

Interestingly, the results also show that participants found sentences with given post-verbal QPs significantly more acceptable than sentences with focused post-verbal QPs (independently of scope interpretation): as the authors point out, this probably means that the postverbal position is marked for focused material (which is not altogether surprising given well-known facts of focus-fronting in Hungarian, see É. Kiss (2002) for an overview). Also, the main effects results show that independently of the focus vs. given status of post-verbal QPs, narrow-scope interpretation was favoured over wide-scope interpretation. As the authors point out, this is consistent with the cross-linguistic observation that the scope interpretation consistent with the surface linear order is more accessible, which is arguably due to processing complexity differences rather than grammaticality (Tunstall 1998, Anderson 2004).

To conclude, the authors report on a carefully designed experimental study, which sheds further light on a much-debated issue: the relationship of information structure and quantifier scope ambiguity. The results show that focus status does not affect the scope interpretation of universal quantifiers in Hungarian: a finding which, in more general terms, also corroborates the view that topic and focus belong to two distinct dimensions of information structure. The results also yield further support to two longheld assumptions: that surface linear order affects scope interpretation and that postverbal position for focus is marked in Hungarian.

In his paper *VV in Hungarian, Robert M. Vago focuses on heteromorphemic V_1+V_2 sequences created by suffixation, and discusses the various ways (V_1 deletion, V_2 deletion, suffix allomorphy) through which VV clusters are avoided. The author professes to have three aims: 1) to contribute to establishing the facts of hiatus resolution in Hungarian, 2) to provide an analysis of this in Optimality Theoretic terms (Prince & Smolensky 1993) based on Casali's (1997, 1998, 2011) proposal, and 3) to test Casali's predictions on hiatus resolution across suffixes.

Following a rather cursory discussion of the theoretical background of hiatus resolution, the author focuses on the object of his study, which is VV sequences at Root+Suffix and Suffix+Suffix junctures. (Thus, root-internal VV sequences and VV sequences arising at the Root+Root and Clitic+Root junctures are declared to be beyond the scope of the paper.)

Looking at Root+Suffix hiatus resolution, the author differentiates three patterns. The most predominant case is V_2 deletion such as with the suffix $-ol/-el/-\ddot{o}l$:

(34) -ol 'denominal verb'
szám 'number' szám-ol 'count'
pisi 'urine' pisi-[]l 'urinate'

The author proposes the following constraints (based on earlier work by Casali 1997, 2001) in the following ranking:

- (35) a. MAX LEX (Do not delete V in roots and content words.)
 - b. *VV (Vowel sequences are disallowed.)
 - c. MAX MI (Do not delete morpheme initial V.)

This ordering of the constraints produces the correct output:

/hordó+unk/ 'our barrel'	MAX LEX	*vv	MAX MI
hordó+unk		*!	
hord[]+unk	*!		
r hordó + ∫]nk			*
<u>bord[]+[]nk</u>	*!		*

Table 1. V_2 deletion in $V_{RT}+V_{SX}$

There is a more limited number of derivational suffixes where V_1 deletion occurs, such as $-\dot{a}sz/-\dot{e}sz$ which derives names of professions:

The author proposes that these suffixes are exceptional and are indexed to reorder the general constraint ranking shown in Table 1. (On constraint reranking, cf. Gouskova 2013.)

<u>/ erdő+sz/ 'forester'</u>	$*_{ m VV}$	MAX MI	MAX LEX
erdő+ész	*!		
r≈erd[]+ész			*
$erd\ddot{o} + \int sz$		*!	
erd[]+[]sz		*!	*
T-1-1- 2	T Z J.1.4:	! IZ IZ	

Table 2. V_1 deletion in $V_{RT}+V_{SX}$

Third, the author discusses the even smaller set of suffixes where V-deletion fails to occur and VV sequences survive such as -ul/-ül:

(37) eszperantó 'Esperanto' eszperantó-ul 'in Esperanto'

/eszperantó+ul/ 'in Esperanto'	MAX LEX	MAX MI	*vv
r eszperantó+ul			*
eszperant[]+ul	*!		
eszperantó + []l		*!	
eszperantó[]+ []l	*!	*	
Table 3. No deletion	on in $V_{RT}+V_{SX}$		

The proposal here is that these suffixes are indexed for yet another irregular hierarchy:

This part of the paper, while descriptively accurate, might appear somewhat unsatisfactory in terms explanation. The author describes three patterns and shows that all three can be generated by arbitrarily ordering and reordering three cross-linguistically attested constraints. What is to some extent missing is an explanation as to why exactly these 3 orders (out of the theoretically possible 6) are relevant in Hungarian. (Note for example that the 'No deletion' pattern can actually also be derived from another constraint ordering: MAX MI > MAX LEX > *VV.) Also, the hierarchy in Table 1 is dominant in comparison to the others (the vast majority of suffixes are subject to this hierarchy of constraints), but here again, there is no consideration why this should be the case. The question why one suffix should be subject to one hierarchy of constraints and why another suffix to another hierarchy is also not explored. Does this have something to do with the quality or the length of the V₂? Or maybe the productivity of the suffix? Note also that, somewhat unusually and rather frustratingly for readers, the author provides no comparison of the merits of his analysis versus earlier proposals such as Stiebels & Wunderlich (1999) and Siptár (2008). (These works are mentioned but not discussed in detail.)

At the end of this section, the author discusses the interesting phenomena arising when a V-final adjective meets an arbitrary set of V-initial suffixes (including the plural ak/-ek (Siptár & Törkenczy 2000). Here, if V₁ is a low vowel, we have V₂ delition (csúnyá-[/k 'ugly-PL'). If V₁ is high, there is typically no deletion (szomorú-ak 'sad-PL'). If it is mid, either V₂ delition or no deletion occurs (bántó-[]k 'hurtful-PL'). An interesting pattern but one that has been known for a long time, and any attempt at actual explanation is lacking here as well.

After this, the author discusses an alternative of V+V avoidance: allomorphic variation in suffixes. The first such case concerns three deadjectival verbal suffixes: -it 'to make', -ul/-ül'to become' and -odik/-edik/-ödik 'to become'. Consider:

The author claims that the appearance of s here is unpredictable, referring the reader to Siptár's (2008, 2012) suggestion that its appearance is due to analogical influence (there being a widespread adjective suffix which ends in s).

The author also mentions very briefly two other cases of allomorphy which can be interpreted as (at least partly) having to do with the avoidance of V+V sequences at root+suffix junctions: the denominal adjectivizing suffix -(j)ú/-(j)ű (hosszú láb-ú 'long legged' vs. jó formá-jú 'well-formed') and the 3rd person singular and plural suffixes -(j)a/-(j)e and -(j)uk/-(j)ük (bot-ja 'his/her stick', ház-a 'his/her house', kapu-ja 'his/her gate'; botjuk 'their stick', ház-uk 'their house', kapu-juk 'their gate').

Finally, the author discusses hiatus resolution in the case of suffix+suffix, and shows that the patterns of V_2 deletion, V_1 deletion and no deletion are attested here as well (and interestingly, V_2 dominates here too).

 V_2 deletion is attested, among other cases, in conditional suffix+personal suffix sequences (hoz-ol 'you(sg) bring' vs. hoz-ná-[]l 'you(sg) would bring') and in possessive suffix+case suffix sequences (asztal-on 'on (the) table' vs. asztal-á-n 'on his/her table'). The author curiously mentions nominal derivation+inflection sequences in relation to cases such as:

(39) *nyomoz* 'detect' *nyomoz-ó* 'detective' *nyomozó-/]m* 'my detective'

Note however that this is no different from what happens in monomorphemic stems such as magnó-[]m 'my casette recorder', Margó-[]m 'my Margo' or ajtó-[]m 'my door': the internal structure of nyomozó 'detective' plays no role here.

 V_1 deletion is only attested in inflected infinitives: *tanul-ni* 'learn-INF', *tanuln[]-om* 'learn-INF-1SG'. Finally, under the heading 'No deletion', the author discusses that instances of the so-called possessive anaphor suffix -é 'belonging to' and of the special plural allomorph -i 'PL' can be concatenated, in theory, ad infinitum:

(40) Vargá-né 'Mrs Varga' Vargá-né-é 'that belong

Vargá-né-é 'that belonging to Mrs Varga' Vargá-né-é-i 'those belonging to Mrs Varga'

Vargá-né-é-i-é 'that belonging to those belonging to Mrs Varga' Vargá-né-é-i-é-i 'those belonging to those belonging to Mrs Varga'

The author argues that 'No deletion' here is due to two cross-linguistically attested constraints: "Do not delete a long vowel" (hence MAX V, Beckman 1998, 2013) and "Maximize monosegments in morphemes" (hence MAX MS, Casali 1997). Since earlier we saw that there are instances where a long vowel is deleted in the case of V1 deletion (36a), I find the invocation of MAX V (without discussing why it is relevant in some cases and not in others) problematic. MAX MS ensures that -i as the sole exponent of the PL morpheme does not get deleted. Note that this covers -é too, making MAX MS actually superfluous.

To conclude, the author provides in this paper a concise overview of how the *VV constraint at root+suffix and suffix+suffix junctures plays out in Hungarian in terms of different hiatus-resolution (or hiatus-non-resolution) strategies. However, as far as the actual analysis of these intriguing patterns is concerned, the reader is left somewhat unsatisfied, as the model offered in the paper appears in many ways to be arbitrary.

In sum, the 15th volume of *Approaches to Hungarian* presents a collection of studies discussing interesting and diverse phenomena at a high level of scholarship: studies which can be very relevant and indeed enlightening to both students of Hungarian (and Finno-Ugric languages in general) and to a more general audience with an interest in one or several of the theoretical issues discussed. In terms of style and editing, the papers are all well-written and the volume as a whole is also carefully edited: there are very few typos and even fewer real errors such as one or two incorrect glosses. Purists might note that the in-text citation formats are not uniform across the papers, but since most readers

will focus on the papers within their specialty field, this is unlikely to even be noted by most readers. To conclude, both in terms of style and content, this volume is a rewarding read and can expect the interest of a wide audience of linguists.

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