Hungarian morphology doesn’t meet GP

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**CHART 1.** Morphonological alternations

<table>
<thead>
<tr>
<th>TYPE</th>
<th>NOMIN./GLOSS</th>
<th>PLURAL</th>
<th>2PL-POS.</th>
<th>SUPERESSION</th>
<th>INESSIVE</th>
<th>TERMIN.</th>
<th>-ness/-hood</th>
<th>-like</th>
</tr>
</thead>
<tbody>
<tr>
<td>i. LTL</td>
<td>zár ‘lock’</td>
<td>zarák</td>
<td>zarátok</td>
<td>záron</td>
<td>zárban</td>
<td>zárig</td>
<td>zárás</td>
<td>záróerű</td>
</tr>
<tr>
<td></td>
<td>öl ‘pigsty’</td>
<td>ól</td>
<td>ólk</td>
<td>ólon</td>
<td>ólban</td>
<td>ólég</td>
<td>ólég</td>
<td>ólőrű</td>
</tr>
<tr>
<td></td>
<td>hegy ‘mountain’</td>
<td>hegy[c]k</td>
<td>hegy[c]tek</td>
<td>hegy[e]n</td>
<td>hegyben</td>
<td>hegyig</td>
<td>hegyig</td>
<td>hegyszerű</td>
</tr>
<tr>
<td>ii. SVS</td>
<td>nyár ‘summer’</td>
<td>nyárak</td>
<td>nyaratok</td>
<td>nyáron</td>
<td>nyárban</td>
<td>nyárig</td>
<td>nyárság</td>
<td>nyárszerű</td>
</tr>
<tr>
<td></td>
<td>tör ‘space’</td>
<td>terek</td>
<td>teretek</td>
<td>terten</td>
<td>törben</td>
<td>törig</td>
<td>törés</td>
<td>törészerű</td>
</tr>
<tr>
<td>iii. VA</td>
<td>mú ‘work’</td>
<td>művek</td>
<td>művetek</td>
<td>művőn</td>
<td>műben</td>
<td>műég</td>
<td>műeség</td>
<td>műeszerű</td>
</tr>
<tr>
<td>iv. VZA</td>
<td>bokor ‘bush’</td>
<td>bokorok</td>
<td>bokorotok</td>
<td>bokorok</td>
<td>bokorban</td>
<td>bokorig</td>
<td>bokorig</td>
<td>bokorszerű</td>
</tr>
<tr>
<td></td>
<td>ökör ‘ox’</td>
<td>ökörök</td>
<td>ökörtök</td>
<td>ökörön</td>
<td>ökörben</td>
<td>ökörig</td>
<td>ökörig</td>
<td>ökorszerű</td>
</tr>
<tr>
<td></td>
<td>selyem ‘silk’</td>
<td>selyemek</td>
<td>selyemetek</td>
<td>selyemen</td>
<td>selyemben</td>
<td>selyemég</td>
<td>selyemég</td>
<td>selyemszerű</td>
</tr>
<tr>
<td>v. SFVL</td>
<td>anya ‘mother’</td>
<td>anyák</td>
<td>anyátok</td>
<td>anyán</td>
<td>anyában</td>
<td>anyág</td>
<td>anyáság</td>
<td>anyászerű</td>
</tr>
<tr>
<td></td>
<td>remete ‘hermit’</td>
<td>remeték</td>
<td>remetetek</td>
<td>remetén</td>
<td>remetében</td>
<td>remetéig</td>
<td>remetéség</td>
<td>remetészerű</td>
</tr>
<tr>
<td>vi. VH</td>
<td>kár ‘damage’</td>
<td>károk</td>
<td>károtok</td>
<td>káron</td>
<td>kárban</td>
<td>kárig</td>
<td>kárság</td>
<td>kárszerű</td>
</tr>
<tr>
<td></td>
<td>kör ‘disease’</td>
<td>kórok</td>
<td>kórotok</td>
<td>kórón</td>
<td>kórban</td>
<td>kórig</td>
<td>kórság</td>
<td>kórszerű</td>
</tr>
<tr>
<td></td>
<td>tör ‘dagger’</td>
<td>török</td>
<td>törötkök</td>
<td>törön</td>
<td>törben</td>
<td>törig</td>
<td>törés</td>
<td>törészerű</td>
</tr>
<tr>
<td></td>
<td>per ‘law/suit’</td>
<td>per[e]k</td>
<td>per[e]tek</td>
<td>peren</td>
<td>perben</td>
<td>perig</td>
<td>perség</td>
<td>penszerű</td>
</tr>
</tbody>
</table>

**STEM AND/OR SUFFIX DOES NOT CHANGE***

**STEM AND/OR SUFFIX CHANGES***

Note 1: Accent and double accent marks length, but a=[a]i, ó=[ó]i, e=[e] (and [e] in the Dunántúl dialect),
éd=[éd]i; gy=[gy], by=[by], ny=[ny], s=[s], sz=[sz].

Note 2: [e] is in the Budapest dialect.

Note 3: The chart contains only nominal paradigms, and omits the ACCUSATIVE forms, which seem to be
regulated by some form of on-set-to-onset government (the presence of presuffixed vowel is dependent on
the sonority and/or place of articulation of the stem final consonant). All other nominal suffixes can be
grouped with one of the types the columns represent.

Note 4: LTL = Lexically Triggered Lowering, SVS = Stem Vowel Shortening, VA = v-Augmentation, VZA =
Vowel-Zero Alternation, SFVL = Stem-Final Vowel Lengthening, VH = Vowel Harmony

Note 5: There are 3 morphonological alternation types which are available not only for closed stem-
classes: VH, SFVL, Predictable Lowering (i.e. lowering by non-lowering stems: verbal stems are never
lowering, adjectival stems are almost exceptionless lowering, nominal stems vary with lowering stems
being a closed class).

**PROPOSITION 1.** The system in Chart 1 reveals a hierarchy: there is an increasingly larger set of suffixes
triggering the change; if n is triggered by a suffix, n + 1 is also triggered by it and if a suffix does not trigger
n it does not trigger n – 1 either.

**PROPOSITION 2.** Traditional GP analyses (Demirdache 1988, Dunn 1992, Polgárdi & Rebrus 1996, Rebrus
1996, Ritter 1995, Törkenczy 1992) have treated random sets of these alternations as phonological phenomena
without giving any principled reason for the inclusion or exclusion of the others.

**PROPOSITION 3.** Since i–iv in Chart 1 apply only to closed classes of stems they can be viewed as
nonanalytical processes in the lexicon (Kaye 1995). This approach, however,

a. cannot explain the systematic property of suffixation mentioned in Proposition 1;

b. cannot explain the productivity of the suffixations which are unexplainable by phonotactic reasons:

| prose ’Punic’ and punok ‘Punic, pl.’ vs. punk ‘punk’ |
| bár ‘bar’ and bárod ‘your bar’ vs. bàrd ‘hatchet, bard’ |

**ANALYSIS 1: Synthetical suffixation.** Alternation is regulated by proper government, SVS is seen as a
subcase of VZA (Ritter 1995).

Working hypothesis 1: presuffixed vowel is empty

1. bok@r([@]) nay@r([@]) ok bokor, nýår
2. bok@[@]-r@-[k([@])] !nay@r@[@]-r@-[k([@])] melody problem for LTL bokrok, nyarak
3. bok@[@]-on@[@] *nay@r@[@]-on@[@] bokron, nyáron
4. *bok@r@[@]-tok@([@]) *nay@r@[@]-r@-[tok@([@])] bokrotok, nyaratok
5. *bok@r@[@]-k@-[t@([@])]*nay@r@[@]-r@-[k@-[t@([@])]] plural accusative bokrokat, nyarakat
Problem: where does presuffixal vowel belong, to stem or to suffix?
   a. to suffix, then what is the difference between SUPERESSIVE and PLURAL?
      — either there are two PLURAL suffixes, the choice between them lexically conditioned by stem and only one SUPERESSIVE
      — or there is one PLURAL suffix, but this is difficult to represent (this is not a VH process: *tollak ‘pens, feathers’ vs. *golok ‘goals’ and dalok ‘songs’ vs. *falu ‘walls’), it would need an element equivalent to [-low], which is unavailable, and the productive class would have to be marked lexically.

b. to stem, but
   — domain-final full vowel has to disappear
   — domain-final full vowel must not properly govern.

1' *bok(®)ro *nya(®)ra

A more sophisticated approach (László Kálmán p.c., Kornai 1992): floating A element:

1'' bok(®)r(®) nya@r(A)

but since all the elements of [®i] (i.e., A, U and ®) cannot be floating simultaneously, we need the following changes (also needed for the a ~ á alternation in SFVL and SVS):

   a language specific stipulation: ®a → A.®

   a universally plausible process: A.® → AU.® (nonlow back/non-A-headed vowels tend to be round)

Before suffixes begin with a nonempty vowel (e.g. SUPERESSIVE) the floating A deletes.

Problems: needs ambient U (apparently needed anyway) and where does the [®] of bokor come from (no default filling in in GP).

CONCLUSION 1. Since proper government in itself is inadequate to distinguish all stem types and melody is highly problematic, more than one level/degree of syntheticity need to be distinguished.

ANALYSIS 2: Analytical suffixation. Analyticity is revealed by morpheme-externally illicit C clusters.

   kádban ‘in the bathtub’: *[db] ⇒ [kádban] or [kádban]

   kertben ‘in the garden’: *[db] ⇒ [kertben] or [kertben]

It seems reasonable to distinguish harmonizing and nonharmonizing suffixes (e.g. -ban/-ben, -ság/-ség vs. -kor, -serü) by posting the structures [[A][B]] and [[A][B]], respectively. (Note that suffixes like -ig and -ért may be taken to be a harmonizing but contain transparent vowels.) Hence,

   [[anyá][ban]], [[anyá][ig]], [[anya][ság]] vs. [[anya][szerü]]

SFVL cuts across this classification:

   [[anyá][ban]], [[anyá][ig]] vs. anya[ság], [anya][szerü]

CONCLUSION 2. Since VH groups anyában and anyaság together, while SFVL groups anyaság and anyasszerü together, a third type of analytic suffixation needs to be recognized.

REFERENCES


