

Hungarian morphology doesn't meet GP

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CHART 1. Morphophonological alternations

	NOMIN./GLOSS	PLURAL	2PL-POSS.	SUPERESS.	INESSIVE	TERMIN.	-ness/-hood	-like
TYPE	STEM AND/OR SUFFIX DOES NOT CHANGE							
i. LTL	zár 'lock' ól 'pigsty' hegy 'mountain'	zárak ólak hegy[ɛ]k	záratok ólatok hegy[ɛ]tek	záron ólon hegy[e]n	zárban óiban hegyben	zárig ólig hegyig	zárság ólság hegység	zárszerű ólszerű hegyszerű
ii. SVS	nyár 'summer' tér 'space'	nyarak terek	nyaratok teretek	nyáron téren	nyárban térben	nyárig térig	nyárság társág	nyárszerű társzerű
iii. VA	mű 'work'	művek	művetek	művön	műben	műig	műség	műszerű
iv. VZA	bokor 'bush' ökör 'ox' selyem 'silk'	bokrok ökrök selymek	bokrotok ökrötök selymetek	bokron ökrön selymen	bokorban ökröben selyemben	bokorig ökörig selyemig	bokorság ökörség selyemség	bokorszerű ökörszerű selyemszerű
v. SFVL	anya 'mother' remete 'hermit'	anyák remeték	anyátok remetétek	anyán remetén	anyában remetében	anyáig remetéig	anyaság remeteség	anyaszerű remeteszerű
vi. VH	kár 'damage' kór 'disease' tőr 'dagger' per '(law)suit'	károk kórok tőrök per[e]k	károtok kórotok tőrotök per[e]tek	káron kóron tőrön peren	kárban kórban tőrben perben	kárig kórig tőrig perig	kárság kórság tőrség perség	kárszerű kórszerű tőrszerű perszerű
				STEM AND/OR SUFFIX CHANGES				

Note 1: Accent and double accent marks length, but $a=[ɔ]$, $á=[a:]$, $e=[ɛ]$ (and $[e]$ in the Dunántúl dialect), $é=[e:]$; $gy=[j]$, $ly=[j]$, $ny=[ɲ]$, $s=[ʃ]$, $sz=[s]$.

Note 2: $[ɛ]=[e]$ 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 onset-to-onset government (the presence of presuffixal 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 morphophonological 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 exceptionlessly 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,

- cannot explain the systematic property of suffixation mentioned in Proposition 1;
- cannot explain the productivity of the suffixations which are unexplainable by phonotactic reasons:
pun 'Punic' and *punok* 'Punic, pl.' vs. *punk* 'punk'
bár 'bar' and *bárod* 'your bar' vs. *bárd* '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: presuffixal vowel is empty

1	bok@r<@>	nya@r<@>	ok	<i>bokor, nyár</i>
2	bok<@>r-@-k<@>	!nya<@>r-@-k<@>	melody problem for LTL	<i>bokrok, nyarak</i>
3	bok<@>r-on<@>	*nya<@>r-on<@>		<i>bokron, nyáron</i>
4	*bok@r-@>-tok<@>	*nya@r-@>-tok<@>		<i>bokrotok, nyaratok</i>
5	*bok@r-@>-k-@-t<@>	*nya@r-@>-k-@-t<@>	plural accusative	<i>bokrokat, nyarokat</i>

4 bok<@>r-o-toK<@> nya<@>r-a-toK<@> bokrotok, nyarutok
 5' bok<@>r-o-k-a-t<@> nya<@>r-a-k-a-t<@> bokrok, nyarakat

Problem: where does presuffixal vowel belong, to stem or to suffix?

- a. to suffix, but 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. *gólok* ‘goals’ and *dalok* ‘songs’ vs. *falak* ‘walls’), it would need an element equivalent to [-low], which is unavailable, and the productive class would have to be marked lexically.

2' bok<@>r-ok<@> nya<@>r-ak<@> bokrok, nyarak

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

1' *bok<@>ro *nya<@>ra bokok, nyár

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

1'' bok@r<@> nya@r<A> bokor, nyár

but since all the elements of [ɔ] (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 beginning with a nonempty vowel (e.g. SUPERESSIVE) the floating **A** deletes.

Problems: needs ambient **U** (apparently needed anyway) and where does the [o] of *bokrok* 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-internally illicit C clusters.

kádban ‘in the bathtub’: *[db] ⇒ [[kád]ban] or [[kád][ban]]
kertben ‘in the garden’: *[rdb] ⇒ [[kert]ben] or [[kert][ben]]

It seems reasonable to distinguish harmonizing and nonharmonizing suffixes (e.g. *-ban/-ben*, *-ság/-ség* vs. *-kor*, *-szerű*) by positing 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][szerű]]

SFVL cuts across this classification:

[[anyá]ban], [[anyá]ig] vs. anya||ság, [[anya][szerű]]

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

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