Voice assimilation in Hungarian

Péter Szigetvári, Eötvös Loránd University, szigetva@isis.elte.hu

(1) The data

monomorphemically

afgán	[vg]	'Afghan(istani)'	*Agfa*	[kf]	id.
Macbeth	[gb]	id.	*Leeds*	[ts]	id.
Stuttgart	[dg]	id.	*vodka*	[tk]	id.

across a morpheme boundary

háztól	[st]	'house-abl'	*hatból*	[db]	'six-elat'
polgazdként	[stk]	'as political economy'	*lisztből*	[zdb]	'flour-elat'
smaragdféle	[ktf]	'emerald like'	*receptbe*	[bdb]	'recipe-illat'

across a word boundary

kék bélyeg	[gb]	'blue stamp'	*zöld kutya*	[ltk]	'green dog'

(2) The representation of voicing

a. laryngeal elements: L and H.
L=[slack vocal folds], H="[stiff vocal folds]" (KLV 1990 : 216), but (i) these two features cannot cooccur in a segment (Halle & Stevens 1971, Kaye 1995 : 325), i.e. they are not really unary features, (ii) if H is responsible for aspiration (Harris 1994 : 133ff), it is not [stiff vocal folds] but [spread glottis]

b. a binary laryngeal contrast is either H vs. $\emptyset$ or $\emptyset$ vs. L (cf. Harris 1994 : 133ff). Hungarian (probably) has $\emptyset$ vs. L

c. regressive VA is the spreading of L from the trigger ([tb] $\rightarrow$ [db]) or the delinking of L from the target ([zt] $\rightarrow$ [st])

d. The meaning of L
L does not mean that the segment containing it exhibits vocal fold vibration, but that it is markedly voiced: an effort has to be made to produce vocal fold vibration (Chomsky & Halle 1968 : 300f, Hayes 1984). Thus nonobstuents do not contain L, they exhibit spontaneous voicing, which is phonologically irrelevant.

e. problems:

α. why does L delink? more on this in (3)

β. what stops the spreading of L?
standard assumption: L can only spread if the target has a Laryngeal node, L links to the skeleton by the mediation of this node.

f. If (2d) is true, all and only obstruents have Lar, i.e. either [−son] or Lar is redundant in the representation of obstruents. Proposal: Lar is equivalent to h, the [noise] element inherent in obstruents (Harris 1990 : 263). Representations:

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voiced obstruent    voiceless obstruent    sonorant
       x                    x                  x
       |                    |
       h                    h
       |
       L
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g. L spreads backwards until it finds an h on the superficially adjacent segment. (In Russian h-less nonvowels can be skipped: *o*[d] *mzdy* 'from the bribe' (Hayes 1984 : 320); vowels cannot: *taza* *[daza] 'of the pelvis'.)

h. Voiceless sonorants are aspirated (Lombardi 1995b : 51), from which it follows that H is not dominated by Lar (h here). Note that regressive spreading of aspiration is not as obvious as that of voicing (Greek spelling has $\phi\theta$ and $\chi\theta$, but $\pi\phi$, $\tau\theta$, $\kappa\chi$).

(3) The site

a. becoming voiceless = loss of L

b. lenition site:
L is unlicensed in coda (Lombardi 1995a)
L is unlicensed in coda and pre-empty-nuclear onset (Brockhaus 1995)
ablak 'window', *abrak* 'fodder' vs. *paplan* 'quilt', *apró* 'tiny';
hab 'foam', *habnak* 'foam-dat' vs. *ha*[p]*tól* 'foam-abl';
ha[ɟ]*ma* 'onion' vs. *fi*[c]*ma* 'prepuce';
bab 'bean', *bableves* 'bean soup' vs. *babszem* [ps] 'a piece of bean'
⇒ loss of L only occurs before a voiceless obstruent:

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*x   x
 |   |
 h   h
 |
 L
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c. problem: the constraint above makes an implicit reference to the **absence** of a feature: the first position cannot license L only if the second has h without L.

d. conclusions:

α. the site of VA cannot be captured by making reference to syllabic constituents: neither coda, nor pre-empty-nuclear onset position

β. in the formulation of VA the absence of L must be referred to

e. a temporary solution: of two adjacent h's the first is identified with the second ("identified with its governor" (Brockhaus 1995 : 133; though whether it is its governor is doubtful in most cases, cf. Lukács 1997)

(4) Nonobstruents in VA: *v, j, h*

a. prevocalically *v* [ʋ], *j* and *h* are sonorants

b. non-prevocalically *v* and *h* are obstruents [v] and [x], *j* is an obstruent [ʝ]/[ç] only when not next to a vowel

c. data

ásvány	[ʃʋ]	'mineral'	*elvtárs*	[lft]	'comerade'
kedvtelen	[tft]	'depressed'	*két Wrangler*	[tvr]	'two pairs of W. jeans'
céhbeli	[xb]	'guildsman'	*egyház*	[ch]	'church'
bojt	[jt]	'tassel'	*rakj át*	[kj]	'put-imp over'
dobj	[bʝ]	'throw-imp'	*rakj*	[kç]	'put-imp'
dobj ki	[pçk]	'throw out'	*rakj be*	[gʝb]	'put in'
szomj	[mʝ]	'thirst'	*férj*	[rʝ]/[rç]	'husband'
szomjról	[m(ʝ)r]	'thirst-delat'	*férjről*	[r(ʝ)r]/*[rçr]	'husband-delat'

d. problems:

α. how do *v* and *h* become obstruents in non-prevocalic position?

β. why does [x] not become voiced (if an obstruent)?

γ. why is obstruentized [v] and [ʝ] voiced (where does their L come from)?

e. attempts at answers and further details:

ad α. does h get into the representation? if yes, what is its source and is this a case of coda-fortition? if no, how can [v] become voiceless

ad β. assuming that [h] is H (and not h, cf. Szigetvári 1996), it does not get voiced because H and L are incompatible in Hungarian (i.e. there are no voiced aspirates; Szigetvári 1997)

ad γ. ??? (cf. Cyran 1997 : 198ff; but he describes a historical fortition with reanalysis, while here we have a synchronic alternation)

(5) Claims made

a. there is no Lar node, its job is taken over by h

b. H is not [stiff vocal folds], but [spread glottis]

c. H is not dominated by h (i.e. by Lar)

d. [h] is not h, but H (h is [s], especially if there is no R)

e. VA (in Hungarian) is not describable with reference to syllabic constituents, a linear formulation is simpler and more precise (cf. Rubach 1996)

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