Adaptation and suffixation of loanwords with a syllabic /l/ in Hungarian

In the Hungarian vowel harmony system, the form of a suffix is decided by the vowels of the stem, which may be back, front or transparent (front unrounded) vowels (Hayes et al., 2009; Siptár and Törkenczy, 2000). This paper presents an empirical study on the choice of suffix with recent loanwords (e.g. *Google, Kindle)* ending in syllabic /l/, which is not part of the native inventory. If /l/ is treated as a back vowel, then a word with a final /l/ preceded by a front vowel should prefer back suffixes (e.g. *Kindle-nél < Kindle-nál*). Similarly, if /l/ is treated as a front vowel, then a word with a final /l/ preceded by a back vowel should prefer front suffixes (e.g. *Google-nál < Google-nél*). Finally, if the /l/ is treated as transparent, words with final /l/ should prefer suffixes that match the frontness of the vowel preceding the /l/.

The experiment was carried out as an online survey (Becker and Levine, 2012) filled out by 11 participants (native Hungarian speakers). Their mean age was 28 years and they all live in Budapest. The stimuli consisted of 27 English nonce words produced by a native English speaker; 18 of these were test words ending in a syllabic /l/, and the remaining 9 were fillers ending in /-ɪs/. The task was to use these words in a frame sentence, which required choosing either a front or back version of a harmonizing suffix. The participants indicated their preference with a binary forced choice and then ranked the goodness of each stem plus suffix allomorph on a 1–7 scale for all 27 words.

In the forced choice test, the subjects chose front suffixes almost consistently after front + /l/ stimuli (93.2% front suffix choice) and front+/ɪs/ stimuli (100%). On the other hand, while back+/ɪ/ stimuli showed transparency (27.3%), categorization of back+/l/ stimuli seemed to vacillate between transparent and front behavior (47.3%). The results of the rating task showed the same pattern as the forced choice task.

STEM TYPE	FRONT SUFFIX	BACK SUFFIX
frontIS	100%	0%
backIS	27.3%	72.7%
frontL	93.2%	6.8%
backL	47.3%	52.7%

Table 1: Results of the forced choice task

An initial hypothesis could be that the articulatory back properties of the /l/ in the stimulus create a strong preference for a back suffix. However, the results show that is not the case: only 6.8% of the responses categorized front+/l/ stimuli as back. The validity of this hypothesis is further weakened by subject-wise analysis; no subject preferred back suffixes after front+/l/ stems.

An alternative hypothesis is that /l/ is resolved by an epenthetic /ø/, as supported by popular transcriptions, such as "gúgöl" [gu:gøl] for *Google*. This would result in a preference for a front suffix even after back+/l/ stems. Such a preference is not seen in the overall results; although, 4 out of the 11 subjects did prefer said pattern.

A third hypothesis is that /l/ is the nucleus of the syllable with no harmonic quality assigned to it, behaving like transparent vowels, such as /i/. This predicts a preference for front suffixes after front+/l/ stems and back suffixes after back+/l/ stems, which is true for the majority of the subjects (7 out of 11). The overall results also show this transparent pattern, although front suffixes are tolerated more after back+/l/ stems (47.3%) than after back+/ɪs/ stems (27.3%).

The results demonstrate that there is variation between speakers: the subjects' behavior ranges from treating the /l/ as strongly front to treating it as strongly transparent, with mixed patterns in between. Figure 1 shows three examples of subject behavior (HCI5: transparent, NSQ7: mixed, TQX11: epenthetic).

The main findings of this paper are: (i) no subjects treat /l/ as back despite its articulatory properties in the stimuli, and (ii) subjects vary between treating /l/ as front or treating it as transparent. Treating /l/ as front might be the result of its perceptual assimilation to an [øl] sequence, similarly to the phenomenon of "illusory" epenthetic vowels in Japanese speakers' perception (Dupoux et al., 1999). The reason why /l/ can also be treated as transparent is not yet entirely clear. Transparency might be the default harmonic property of a non-native nucleus in Hungarian, but further research is needed to confirm this.
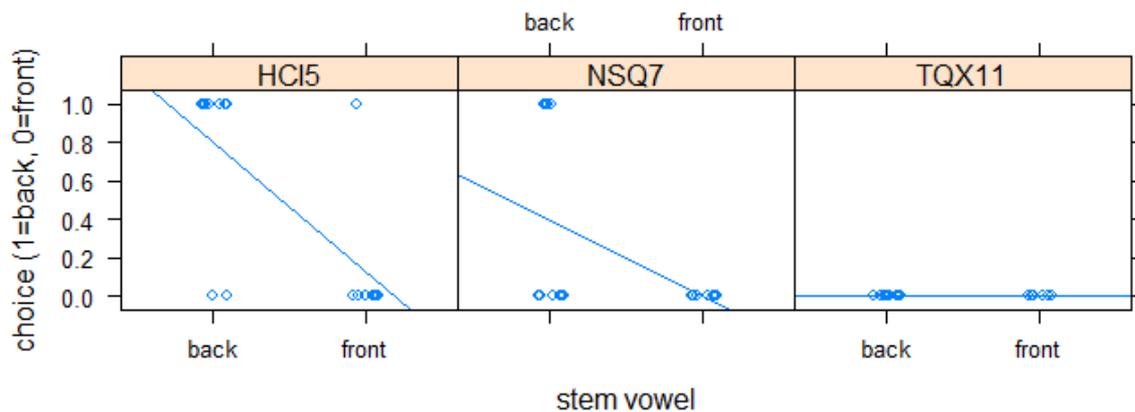

Figure 1: Illustration of between-subject variation

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