Stochastic phonological knowledge in diminutive formation

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Truncative diminutive/hypocoristic forms (DIMs) may be monosyllabic (cf. English *Jess⟨ica⟩, Cam⟨eron⟩, prof⟨essor⟩*). Such forms rarely preserve a consonant cluster at their end (*doc⟨tor⟩, Geoff⟨rey⟩*), when they do it is the clusters that are the least marked in this position that remain (*Clint⟨on⟩, Walt⟨er⟩*). These cases of truncation are governed by well-formedness constraints (Lappe 2003, Alber & Arndt-Lappe 2012).

The formation of Hungarian DIMs is different in at least two respects. On the one hand, these forms are generally bisyllabic with a suffix containing a vowel, hence the truncation of polysyllabic bases is compulsory. If the DIM suffix is vowel initial, and the base contains a consonant cluster, the second (and third) C may be deleted.

Deletion is noncategorical: it involves significant unpredictability. We group the relevant data by cluster types in (1).

(1) Truncation of C_oVCCV… bases in DIMs (N=nasal, R=approximant, S=fricative, P/T=plosive)

a. both consonants are preserved

NT na:**nd**⟨or⟩-i ‘name’, bu**ŋg**⟨ɑlo:⟩-i ‘hideout’, … (7 clusters)
RT mɑ**rʦ**⟨ɛl:⟩-i ‘name’, ko**lb**⟨a:s⟩-i ‘sausage’, … (5 clusters)
ST ɛ**st**⟨ɛr⟩-i ‘name’, gɑ**zd**⟨ɑ⟩-i ‘owner’, … (4 clusters)
PT —
RN bɑ**rn**⟨ɑ⟩-i ‘name’, kø**rɲ**⟨ɛzɛtiʃmɛrɛt⟩-i ‘environment studies’, ... (4 clusters)
RS lu**jz**⟨ɑ⟩-i, ‘name’, bo**lʃ**⟨ɛvik⟩-i ‘bolshevik’, ... (4 clusters)
TR bo**dr**⟨oʃ⟩-i (1 cluster)

b. only the first consonant is preserved

NT —
RT ko**r**⟨ʧojɑ⟩-i ‘ice skate’ (1 cluster)
ST i**ʃ**⟨kolɑ⟩-i ‘school’, lu**f**⟨(t)bɑlon⟩-i ‘balloon’ (2 clusters)
PT ʃɑ**p**⟨kɑ⟩-i ‘cap’, za**ʧ**⟨ko:⟩-i ‘pouch’, … (5 clusters)
RS, RN —
TR mi**k**⟨lo:ʃ⟩-i ‘name’, dɛ**p**⟨rɛssijo:⟩-i ‘apathy’, ... (7 clusters)
other C+R i**m**⟨rɛ⟩-i ‘name’, tɛ**ʃ**⟨(t)ʋe:r⟩-o: ‘sibling’ (4 clusters)
other C+N gi**m**⟨na:zijum⟩-i ‘secondary school’, ʒi**g**⟨mond⟩-ɑ ‘name’ (4 cls)

c. unpredictable

NT —
RT ma:**rt**⟨ɑ⟩-i ‘name’ vs. tø**r**⟨te:nɛlɛm⟩-i ‘history’, ... (7 clusters)
ST i**zg**⟨ɑlmɑs⟩-i ‘exciting’ vs. mo**z**⟨go:⟩-i ‘movie’ (1 cluster)
PT mɑ**gd**⟨ɑ⟩-i ‘name’ vs. ru**g**⟨dɑlo:zo:⟩-i ‘rompers’, … (2 clusters)
RN a:**lm**⟨oʃ⟩-i ‘sleepy’ vs. ʋi**l**⟨moʃ⟩-i ‘name’ (1 cluster)
RS o**rʃ**⟨ojɑ⟩-i ‘name’ vs. ko**r**⟨ʃo:⟩-i ‘jug’, … (2 clusters)

We see that clusters of the NT type, for example, are always retained, while some RT clusters are truncated. On the other end of the scale, NN, SN, or TN clusters are never retained in the DIMs under investigation. We summarize the relevant figures in (2). In the last line of (2) we give the ratio of clusters that are always preserved and half of those that exhibit both strategies to all clusters in the given type.

(2) Ratios of preserved CCs by cluster types

CC-type	**NT**	**RT**	**ST**	**PT**	**RN**	**RS**	**TR**	**{N/S}R**	**{N/S/T}N**
a. **(1a)**	7	5	4	0	4	4	1	0	0
b. **(1b)**	0	1	3	5	0	0	7	4	4
c. **(1c)**	0	7	1	2	1	2	0	0	0
d. **total**	7	13	8	7	5	6	8	4	4
e. **ratio (a+c/2)/(a+b+c)**	**100%**	**65%**	**56%**	**14%**	**90%**	**83%**	**13%**	**0%**	**0%**

The ratios give the following hierarchy of plosive-final cluster types: NT, RT, ST, PT. This coincides with the typologically based markedness hierarchy of these cluster types. That is, the less marked a given cluster is, the more likely it is retained in a truncated DIM form. Markedness is related to frequency: unmarked clusters are generally more frequent than marked ones. (2) shows that an unmarked cluster has greater chances of surviving in a DIM form, likening DIMs to monomorphemic words with respect to consonant clusters. The retention of consonant clusters is probabilistic, depending on a large set of factors, including the perceptibility of the form, homonymy avoidance, etc. The stochastic behaviour of phonotactic patterns is also documented by Hayes & Londe (2006) and Hayes & Wilson (2008).

The connection between truncative DIMs and monomorphemic words is further strengthened by the observation that (i) DIM suffixes are harmonically invariant, so a DIM form is often disharmonic and (ii) a DIM form may behave harmonically differently from its base contra Harmonic Uniformity (Rebrus & Szigetvári 2016). The frequency of consonant clusters in monomorphemic forms is statistically mirrored by DIMs. That is, it is not only the well-formedness of a cluster that decides if it is retained in DIMs, but also the markedness/frequency differences within the set of well-formed clusters.

References

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