

Glide and glottal stop insertion in Czech – a non-serialist account

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This paper discusses an alternative analysis of glide and glottal stop insertion in Czech, for which a Derivational Optimality Theory (DOT) account was suggested in Rubach (2000). It is shown that a Sympathy Theory (McCarthy 1999, 2003) account is also possible, albeit with a slight extension of the model. However, this very same extension can be used to dispense with any supplemental theories altogether.

Czech conforms to the universal tendency of languages to avoid onsetless syllables. It exhibits different strategies to repair such syllables, depending on the position of the syllable in the word (initial or medial) and the quality of the vowels involved. A hiatus with a high front vowel *i* is resolved by inserting a front glide [j], both when the high vowel is the first (1a) and the second (1b) vowel in the sequence.¹ Elsewhere, that is, when two non-high vowels are involved (1e), or when the high vowel is also back (1c,d), the hiatus is tolerated. Word-initially, a glottal stop is inserted before any vowel (1f).

- (1) a. $iV \rightarrow i.jV$ **dialekt** [i.ja] ‘dialect’, **patriot** [i.jo] ‘patriot’
b. $Vi \rightarrow V.ji$ **kokain** [a.ji] ‘cocaine’, **hinduista** [u.ji] ‘Hinduist’
c. $uV \rightarrow u.V$ **silueta** [u.e] ‘silhouette’, **situovat** [u.o] ‘place’
d. $Vu \rightarrow V.u$ **museum** [e.u] ‘museum’, **lyceum** [e.u] ‘high school’
e. $VV \rightarrow V.V$ **poeta** [o.e] ‘poet’, **neandertálec** [e.a] ‘Neanderthal man’
f. $\#V \rightarrow \#\text{ʔ}V$ **Amerika** [ʔa], **ulice** [ʔu] ‘street’

These two ONSET satisfaction strategies in Czech are problematic to classic Optimality Theory (Prince and Smolensky 1993, McCarthy and Prince 1995). An attempt to generate glide insertion word-internally and glottal stop insertion word-initially leads to a ranking paradox, as the ranking for glide insertion within a word (2a) also favours forms in which a glide is inserted at the beginning of the word; when the ranking is reversed (2b), forms with word-internal and word-initial glottal stop insertion are incorrectly selected as optimal.

- (2) a. *RT >> ONSET >> DEP_{IO}(Seg), *MULT-LINK
b. ONSET >> DEP_{IO}(Seg), *MULT-LINK >> *RT

Rubach (2000:298-299) offers a satisfactory DOT account of the Czech data, arguing (2000:312) that a sensible Sympathy Theory account is not possible. In the DOT analysis, word-initial insertion and glottal stops are banned at level 1, only allowing word-internal glide insertion. At level 2, the ranking is geared towards word-initial glottal stop insertion, while high-ranked identity constraints ensure that the changes introduced at level 1 are preserved at level 2.

This paper considers two possible attempts at a sympathy account of glide and glottal stop insertion, taking the word *idiot* ‘idiot’ as its prime example. Two different candidates are considered as the possible sympathetic base, one being $\text{⊗}[i.di.jot]$, a candidate with a word-internal glide only, the other one being $\text{⊗}[ʔi.di.ot]$, with a word-initial glottal stop. The former analysis quickly reaches a dead end as a candidate in which both onset positions are filled by glides $*[ji.di.jot]$ fares equally well on all inter-candidate faithfulness constraints as the actual output, $[ʔi.di.jot]$, does. Consequently, it is not possible to obtain the actual output by comparing it to the sympathetic base.

¹ The data and generalisations are drawn from Rubach (2000: 297ff); see also the references cited therein.

The second hypothesis seems more promising. Assuming, after Rubach (2000:285), that glide insertion is analysed as spreading from the neighbouring high front vowel onto an inserted X-slot (unlike the insertion of any other sound, where a new Root node has to be added), the actual output only differs from the sympathetic candidate by having one X-slot more. The problematic candidate, *[ʔi.di.ʔot], on the other hand, has an extra X-slot as well as additional melody and can therefore be rejected on these grounds, by invoking the DEP(Rt) constraint ('do not insert a root node'; after Lombardi 1998). Note that, as pointed out by Rubach (2000b: 285, ft 24), DEP(Rt) is an extension of the standard theory, because MAX and DEP are typically used to refer to full segments (which in the X-skeletal theory are identified by X-slots), and not to features or nodes. Nevertheless, with such an extension, it is now possible to account for the two diverse insertion processes in Czech.

There is one final twist to the whole account, however. If we follow the logic of the extension of DEP and MAX to root nodes, it seems that the analysis could dispense with sympathy altogether. McCarthy and Prince's (1995:123) O-CONTIGUITY, which militates against word-internal epenthesis and is hence analogous to DEP, but in a different domain, could also be extended to refer to root nodes. O-CONTIG(Rt) would ban word-internal, but, crucially, not word-initial, glottal stop insertion, and hence generate the required results without recourse to any additional sub-theories.

References

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