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**The Inflectional System of Hungarian in Stratal Optimality Theory**

In this presentation my goal is to account for systematic alternations in the verbal and nominal inflectional suffixes of Hungarian. While I will treat the facts of each suffix in detail, including apparent and real exceptions, in this space I will focus on two topics: the appearance of initial low vowels in contexts where mid vowels are expected (“lowering”), and three sets of apparent exceptions. I will propose novel analyses within the framework of Stratal Optimality Theory (Kiparsky 2000, *et seq.*) and argue for its efficacy over previous accounts.

In Stratal Optimality Theory (S-OT) the morphological and phonological properties of lexical words are derived along the following lines (simplified for present purposes). Two levels are postulated: the stem level and the word level. Bare roots serve as input to the stem level morphology (M), which then serves as input to the stem level phonology (P), where optimal output candidates are selected according to the principles of OT (ranked constraints, etc.). Next, the output of the stem level P serves as input to the word level M, whose output is the input to the word level P. Note the crucial fact that the stem level and word level phonologies constitute serial grammars: they have different inputs and outputs and different content (e.g., different constraints and/or rankings). Words derived thus serve as input to the post-lexical level (not relevant for present purposes).

“Lowering” is responsible for the appearance of an initial low A (= *a/e*) in suffixes that otherwise evidence mid O (= *o/ö/e*). (I will use Hungarian orthographic symbols throughout.) There are two main sources for “lowering.” The first is a closed but large set of nominal stems (and a few derivational suffixes). Thus, while the initial vowel of the plural and accusative suffixes are generally mid vocalic (cf. *drót-ok* ‘wire-PL’ and *drót-ot* ‘wire-ACC’), it is low after a “lowering” stem: e.g. *ház-ak* ‘house-PL,’ *ház-at* ‘house-ACC.’ The analysis of “lowering” stems in the recent literature is straight-forward (see Siptár & Törkenczy 2000 and references cited there). “Lowering” stems end in a floating L(ow) feature, which is anchored to a neighboring  $V_e$  (defined as an “empty” x slot on the skeletal tier, unspecified for melodic features, and syllabified as a nucleus), which thereby becomes a low vowel (cf. *ház-ak*, *ház-at* above). In the absence of  $V_e$ , the L feature is not interpreted phonetically. Without “lowering,” suffix initial  $V_e$  becomes O by default (cf. *drót-ok*, *drót-ot* above).

The other source for “lowering” is found in verbal and nominal inflectional suffixes in case they follow another inflectional suffix rather than the stem: e.g. *drót-ok-at* ‘wire-PL-ACC’ (compare *drót-ot*). The conventional analysis (Siptár & Törkenczy 2000 and references cited there) is that all inflectional suffixes ending in a consonant are marked for “lowering” (e.g. /ház<sub>L</sub> +  $V_e k_L$  +  $V_e t/ \rightarrow ház-ak-at$ . However, this move treats inflectional suffixes in exceptional terms, on a par with stems like *ház*. In point of fact, the height of initial  $V_e$  in inflectional suffixes is entirely predictable: O immediately following the stem, A following another inflectional suffix.

My proposal is to treat the O and A realizations of  $V_e$  in terms of two separate default constraints. S-OT provides just the right framework for such an analysis. Accordingly, stem level M provides a template that consists of a bare stem (root) and a set of derivational suffixes (stem to stem derivation), **as well as** a single inflectional suffix that can derive an actual word (stem to word derivation). At stem level P, the default value of  $V_e$  is O. At word level M, additional inflectional suffixes are added, or stem level inflectional suffixes are reentered (word to word derivation) to satisfy the word level morphological template. New sources of  $V_e$  become A by default at word level P. Thus: stem level M: /STEM + PL/  $\rightarrow$  stem level P: /drót +  $V_e k/ =$

[drótok] → word level M: /drótok + ACC/ → / word level P: /drótok + V<sub>e</sub>t/ = [drótokat]. In this system, derivational affixes are the product of stem to stem derivation, while inflectional affixes are the product of stem level stem to word derivation or word level word to word derivation. On the view that word to word derivation inheres at the word level, it follows that no more than one inflectional suffix may be derived at the stem level.

Discussion of apparent exceptions and proposed solutions will include, but not be limited to, the following three cases.

1. A appears in the context where O is expected, namely in immediate post-stem position. In verbs, A can break up the sequence CCC, where the last C is [+consonantal] (Vago 1980). By the way of example, compare *ad-nak* ‘they give’ vs. *áld-anak* ‘they bless.’ I will propose that V<sub>e</sub> is inserted at the word level in satisfaction of the word level constraint \*CCC (omitting some detail); proper constraint ranking will rule out other possible outputs, such as CVCC, CC; V<sub>e</sub> is then filled as A by word level default. Note that this account automatically explains why A appears before C-initial suffixes if not immediately following the stem: e.g. *vár-lak* ‘I wait for you’ but *vár-t-alak* (past), *vár-j-alak* (imperative); *vár-tok* ‘you (pl.) wait’ but *vár-t-atok*, *vár-j-anak*; *vár-nak* ‘they wait’ but *vár-j-anak* (suppletive in the past tense). In contrast, other treatments are stipulative.

The \*CCC constraint, like all constraints in OT, is violable. Stems are highly variable with respect to epenthesis; see Vago (1980) and Siptár & Törkenczy (2000) for details. In the latter work, the facts are analyzed in terms of allomorphy; this misses phonologically based generalizations as to which type of stems and suffixes may condition epenthesis.

2. Verb stems ending in a long vowel followed by a consonant allow word level epenthesis (e.g. /ásít + ni/ ‘yawn-INF’ → *ásít-ani* [a:ʃi:tõni]). The stem final V:C sequence will be analyzed as VCC, where VC hook up to the same vowel melody (= long vowel); see Vago (1980).

3. The suffixes *-ig*, *-ért*, and *-Ul* seem to be exceptions to the constraint \*VV (cf. /hajó + Unk/ → *hajó-nk* ‘our ship’ but *hajó-ig* ‘until the ship,’ *hajó-ért* ‘for the ship,’ *beszél franciá-ul* ‘speaks French’) and pattern with consonant initial suffixes with respect to a number of stem alternation classes: e.g. *bokor-tól* (CVC-) ‘from the bush’ but *bokr-unk* (CC-) ‘our bush’ (cf. *bokor-ig* \**bokr-ig*, *bokor-ért* \**bokr-ért*), *nyár-tól* (V:C-) ‘from summer’ but *nyar-unk* (VC-) ‘our summer’ (cf. *nyár-ig* \**nyar-ig*, *nyár-ért* \**nyar-ért*), *lótól* (V:-) ‘from the horse’ but *lov-unk* (Vv-) ‘our horse; (cf. *lótól* \**lov-ig*, *lótól* \**lov-ért*). The suffixes *-ig*, *-ért*, and *-Ul* will be analyzed as containing an initial “ghost consonant” C<sub>e</sub>, which will “protect” the V from deletion and force the selection of the pre-consonantal variants of the three stem classes exemplified above. This initial C<sub>e</sub> does not pattern with the initial C<sub>e</sub> of the instrumental suffix –C<sub>e</sub>Al and the translative-factive suffix –C<sub>e</sub>Á; in the latter, C<sub>e</sub> assimilates to a preceding consonant, or else receives the default value [v] (see Vago 1980; Siptár & Törkenczy 2000). This fact will be explained as follows. The suffixes –C<sub>e</sub>Al and –C<sub>e</sub>Á enter the lexicon at the stem level, where C<sub>e</sub> is syllabified into onset position; syllabified C<sub>e</sub> undergoes assimilation and default assignment. On the other hand, the suffixes –C<sub>e</sub>ig, –C<sub>e</sub>ért, and –C<sub>e</sub>Ul enter the lexicon at the word level, where syllabification does **not** apply to C<sub>e</sub>; unsyllabified C<sub>e</sub> cannot undergo assimilation and default assignment and is therefore left uninterpreted.

- Kiparsky, P. 2000. “Opacity and Cyclicity,” *The Linguistic Review* 17.351-367.  
Siptár, P. & M. Törkenczy 2000. *The Phonology of Hungarian*. Oxford University Press.  
Vago, R. 1980. *The Sound Pattern of Hungarian*. Georgetown University Press.