

Modelling morpho-phonology: consonant replacements in English and Polish

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The aim of this presentation is to discuss some theoretical implications of consonantal mutations found in English and Polish. The phenomena in question will serve as an empirical basis for the discussion of the nature of a sub-module of grammar referred to as morpho-phonology that has been proposed for Polish by Gussmann (2007).

Gussmann's (2007) approach is an explicit and radical break with the generative tradition of modelling Polish palatalizations. Works such as Laskowski (1975), Gussmann (1980), Rubach (1984) or Bethin (1992) assumed that complicated and, to all intents and purposes, opaque regularities according to which certain Polish consonants surface as palatalised result from the application of re-write rules turning highly abstract underlying and intermediate representations into surface phonetic representations. Instead of referring to abstract representations Gussmann (2007) assumes the existence of a morpho-phonological component of grammar that manipulates chunks of melody whenever certain morpho-phonological or lexical conditions are met.

In this presentation I would like to show how Gussmann's (2007) proposal can be turned into a coherent and constrained theory. In order to achieve this I will make the following assumptions about morpho-phonology:

(1)

- a) Morpho-phonology is a part of the interpretative sub-component of grammar;
- b) Morpho-phonology works prior to phonology;
- c) Morpho-phonology may refer to lexical, phonological and morpho-syntactic categories;
- d) All operations within the interpretative sub-component of grammar work whenever their conditions are satisfied and are strictly local.

Point (1a) denies morpho-phonology the right to concatenate morphemes and their projections. Thus it is in accordance with the general assumption that the operation Merge falls exclusively within the domain of morpho-syntax. Point (1b) precludes the possibility of morpho-phonology appealing to phonological categories other than lexical categories. (1c), on the other hand, allows morpho-phonology to appeal to lexical diacritics, phonological features, morphemes and their projections and the notion of c-command. Finally, (1d) appeals to the assumption about phonological computation shared by many Government Phonologists (see e.g. Kaye 1992) according to which phonological operations take place at all times when their input and environment are met and abridges the domain of application of morpho-phonological regularities.

There are two empirical issues that I would like to address in the presentation. One of them is the existence of two types of fricative mutations in the English language. Both regularities involve the alternation between fortis/voiceless and lenis/voiced fricatives. The first of them will be referred to as English Fricative Mutation I (EFM I). It takes place when certain roots are c-commanded by the number-head valued [plural] and may be illustrated by such pairs as *thief - thieves*, *sheath - sheathes*, *elf - elves*, *house - houses*, etc.

The second type of fricative mutation, English Fricative Mutation II (EFM II), is observed in the cases of roots merged with categorical zero morphemes \emptyset_V or \emptyset_N or with the adjectival -y morpheme, among others. EFM II may be exemplified by such pairs as *thief - to thieve*, *sheath - to sheathe*, *proof - to prove*, *house - to house*, etc. as well as *mouthy* and *lousy*.

I would like to argue that EFM I and EFM II are best accounted for by means of morpho-phonological rules that replace final fricatives of certain lexically marked roots with their

fortis/lenis congeners. I will also argue that the evidence from some noun-noun compounds as well as the assumptions about morpho-phonology presented above, especially point (1d), help unambiguously determine the direction of derivation of the vast majority of the roots undergoing the English Fricative Mutations.

The second empirical issue that I would like to address is the existence of contradictory palatalization replacements in Polish.

Gussmann (2007: 128-129) presents seven types of consonant replacements that are responsible for palatalization processes found in Polish. Among the seven Palatalization Replacements (PR's), several take the same consonants as their inputs, e.g. PR2 and PR5 replace /k/ and /g/ with /t͡s/, /d͡z/ and /t͡ʃ/, /ʒ/ respectively. The prediction made by (1d) is that the diacritics PR2 and PR5 will never be attached to the same morpheme. This is indeed the case. In fact almost all PR's that share their inputs are not attached to the same morphemes. The only problematic case is PR7 presented below.

(2) PR7

t͡s	d͡z	t	ʃ
t͡ʃ	ʒ	t͡ʃ	ɕ

PR7 enters into a conflict with PR1, which is responsible for the replacement of /t/ with /t͡c/. The two diacritics belong to the lexical load of five derivational morphemes: the diminutive morpheme *-ik*, adjectival morphemes *-ist-y* and *-ast-y*, nominalising morpheme *-nik*, and agentive morpheme *-arz* (see Gussmann 2007: 141-142).

In my presentation I would like to argue that in all problematic cases the replacements triggered by PR7 may be dispensed with. There are two kinds of compensatory strategies that may be used instead of placing PR7 on relevant inflectional/derivational morphemes: i) PR7 may be dropped altogether and the combination of other replacements may be used to generate correct outputs; ii) PR7 may be placed on relevant roots rather than on relevant affixes.

It will be shown that the second strategy should be used in order to resolve the conflict between PR7 and PR1. In particular, the replacement of /t/ with /t͡ʃ/ exemplified by the irregular alternation *pl t-a* /plɔntat͡c/ 'to confuse' - *pl cz-* /plɔnt͡ʃɛ/ 'I confuse' and triggered by PR7 must be seen as an idiosyncratic property of certain roots rather than inflectional affixes.

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