

Palatalisation: coronals, cycles, yers, velars, and the Polish *-ek*

dr Grzegorz Michalski

School of English/Faculty of English, Adam Mickiewicz University, Poznań
grzegorz@ifa.amu.edu.pl

This double talk, and hopefully not doubletalk (pun intended), focuses on two issues. The first part offers plausible evidence against splitting vowel~zero alternations and morphophonemic palatalisation in Polish into separate components. By demonstrating lexical items in which both phenomena are mutually dependent this presentation concludes that they are handled by the same module of grammar, viz. phonology.

The second part analyses the Polish diminutive suffix *-ek* as having two allomorphs: the unmarked *-ek*, attaching to stems terminating in labials and coronals on one cycle, and the velar *-ek*, which is hereby claimed to be composed of two morphs, attached to the stem on consecutive cycles.

Almost unremarkable in the case of labials, the native lexical palatalisation pattern in Polish is quite conspicuous in the case of coronals and velars. In segmental terms, the consonants affected can be illustrated in (1) (labials and coronals) and (2) (velars), following Gussmann's (2007: 128) *palatalization replacement* patterns ("PR"). The upper rows show plain consonants, the lower rows show their palatalised counterparts.

Vowel~zero alternations are discussed at length in Rubach (1986), Scheer (2004), or Gussmann (2007), to list just a few references. In short, a vowel that alternates with zero—historically such a vowel is called a *yer*—is phonetically present if not muted by the nucleus of the following CV unit (i.e. syllable); should that CV unit contain a true vowel, the *yer* is absent phonetically, as shown in (3).

When appearing in a CV with a labial or a velar the *yer* that is found is assumed to be non-palatalising, as shown in (3). It is a phonetic fact that in Polish labials only surface as palatalised prevocally or before [j], thus making any claim as to the palatalising nature of the *yer* unfalsifiable. To make matters worse, the only *yer* that forms CV's with velars is non-palatalising; a palatalising *yer* would trigger so-called First Velar Palatalisation, shown in (2), which is not on record in the context of root-internal yers.

Without stressing any serious counterevidence, Gussmann (2007) puts yers in phonology proper, and palatalisation in morphophonology (as a separate module), depriving it of any autosegmental causality. Michalski (2009) puts both phenomena back in a single module, restoring autosegmental causality of palatalisation, but failing to combine it with yers in a conclusive manner.

The first part of the talk offers necessary evidence in yers and coronal palatalisation. As shown in (4), the co-occurrence appears to manifest without exception. While the examples are far from being numerous, the generalisation, largely unstressed in the literature, is the

following: a palatalising yer will only palatalise if actually present in the output. Thus, if a palatalising yer is not present phonetically, the potential target of palatalisation appears in the unpalatalised form. Notice that unlike in the case of labials (or dorsals), the distribution of the palatalised counterparts of the coronals shown in (1) is not dependent on any vowel to follow phonetically.

It will be shown that for reasons of analytic economy vowel~zero alternations and palatalisation in the lexical domain must belong in a single module. Incidentally, this part of the talk also provides evidence for treating Polish as having at least two yers synchronically, thus confirming the lexically-specified melody approach to vowel~zero alternations advocated by Rubach (1986) or Scheer (2004), against early Government Phonology accounts, e.g. Kaye (1990) or Gussmann — Kaye (1993).

The second part of the talk concentrates on the single case where the generalisation about the co-occurrence of yers and palatalisation appears to have an exception: the diminutive *-ek* [ɛk]. As shown in (5), the diminutive has very clear phonological properties: it has a non-palatalising yer. When used with stems terminating in velars, however, the *-ek* appears to trigger palatalisation (First Velar). Moreover, the palatalisation of the pre-diminutive stem-final consonant is permanent, i.e. one of the lower counterparts listed in (2) appears throughout the paradigm, irrespectively of the yer actually appearing on the surface or not—see (6b)—in defiance of the pattern demonstrated in (4).

This part of the talk will demonstrate that it is analytically feasible to treat the velar *-ek* allomorph as being composed of a syntactic tree hosting two phonological exponents that are concatenated with the stem on consecutive cycles. The first exponent to be concatenated consists solely of a palatalising stable (non-yer) vowel, presumably //i//, which causes First Velar through the spreading of its palatality feature, the element {I}, onto the velar, causing the consonant to share the element {I} with the vowel as a common head (as advocated in Michalski 2009); in the binary world, this equals regressive spreading of [-back]. Thus, representationally, the velar is now marked for palatality, and can be interpreted phonetically as distinct from an unmarked/unpalatalised velar.

The second exponent of the two-cycle *-ek* is identical to the unmarked *-ek*; it has a non-palatalising //ɛ// yer. On the relevant cycle, the derived environment is evaluated for possible vowel hiatus, which would indeed appear. However, at this stage, a very well-known constraint found in Slavic languages comes into play. Namely, the left-hand vowel is deleted, as first demonstrated for Russian in Jakobson (1948). When deleted, the palatalising part of the velar *-ek* leaves its element {I} on the consonant it previously palatalised; there is no general constraint in Polish on palatalised consonants present when no vowel follows. Once the original vowel is deleted, the yer of the morph introduced on the latter cycle takes its place. Not being a palatalising vowel, it cannot influence the stem-final consonant; non-palatalising vowels do not depalatalise velars in Polish. In the end, the original velar is phonetically interpreted as a coronal—see the lower row in (2)—while the remaining part of the diminutive now behaves like any other yer-hosting site.

