

**Eötvös Loránd University of Sciences
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ABSTRACT

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**“VELARS AND PROCESSES: THEIR TREATMENT IN
PHONOLOGICAL THEORY”**

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1 Introduction: the hypothesis

The present dissertation discusses the phonological behaviour of velar consonants, /k g x F (ŋ)/, from the perspective of analyzing the various processes velars undergo. In particular, the following thesis will be proven using a large set of data from a range of languages:

(1.1) Thesis:

Velars are assumed to have a phonological representation where place specification may be accommodated, but this hosting site is left empty.

In other words, I assume velars to be placeless in their phonological representation. This hosting site can have a number of formulations, depending on the particular phonological model one chooses. It can be conceived as a Place node, like in Feature Geometry, or an element tier as in Government Phonology, or a particular dependency relation as in Dependency Phonology. According to the thesis, velars share the *presence* of this hosting site in their representation with labial and coronal consonants (and with vowels, of course), while differing from labials and coronals in not having anything to occupy this hosting site.

2 Support for the thesis

The assumption of the *emptiness* of this hosting site is proposed for two reasons. The most important reason is that the behaviour of velars supports exactly this representation – aspects of the evidence will be treated all through the dissertation. The other reason to represent velars as placeless is to tell them apart

from glottals (or laryngeals), which are also placeless, but they even lack such a hosting site altogether. Graphically, velars have then the following representation:

| | |
|-------------------------|-------|
| (1.2) node, tier, etc > | PLACE |
| | |
| specification > | — |

The thesis is supported by phenomena from a range of languages. (i) Vocalizations of velars, (ii) palatalizations of velars, and (iii) velar-to-labial changes are all analyzed as processes that fill in the empty place-hosting site of velars, while (iv) the various reductions to velars as processes leading to the loss of place properties, but not the hosting sites themselves, to yield velars, that is, to leave a bare place site behind. Velar vocalizations uniformly yield glides /j w/, the identity of which is determined by the adjacent vowel: the place property of the vowel spreads into the empty place-hosting site of the velar. Palatalizations similarly involve the spreading of the palatality of the vowel into the empty place-hosting site of velars. Often, labio-velars become labials: this involves the reconfiguration of labiality, from a dependent to a dominant position, or to put it differently, from the secondary place of articulation (as they are called in traditional phonetics) to the primary place of articulation. Labio-velars also turn into simple velars: this is simply the loss of labiality. Velars are frequently the result of various reductions: these involve the loss of the place properties, leaving a velar behind. Finally, sometimes a (v) glide strengthens to a [k], which is taken to be a case where a glide becomes the minimal stop.

So far the thesis may appear straightforward. There seems to exist, however, a general agreement in contemporary phonological thinking (practically all through the generative history of phonology) that there is a direct relation between placelessness and unmarkedness: what is placeless is unmarked. Accordingly, in the light of the thesis proposed here, velars should be interpreted as the unmarked place of consonantal articulation. However, there is an equally general agreement that the unmarked place of articulation is coronal rather than

any other place, as put forward in Paradis and Prunet (1991), in particular. I propose, therefore, that placelessness and unmarkedness do not go hand in hand. In fact, all that I am arguing against is that coronals are placeless. But I leave the question open which place of articulation, if any, should be considered the *unmarked* place of consonantal articulation. I demonstrate that quite a number of the most frequently cited cases in support of the unmarked status of coronals do not seem to constitute firm evidence for coronal unmarkedness (and in fact for markedness in general). This suggests that if coronals are still to be considered unmarked, it will have to have a different reason – such is proposed by Nasukawa and Backley (2004).

As for markedness issues, I accept the proposal by Hume (2003, 2004), and Hume and Tserdanelis (2002) that the markedness issues of places of articulation are perhaps better viewed as language-specific, rather than universal, and that “there is no single, universal unmarked place of articulation” (2002:442). Their conclusion (2002:449) is worth keeping in mind: “markedness considerations do not provide compelling motivation for arguments concerning the structural representation of place features”. Finally, Hume (2003) gives a detailed account of how the interpretation of markedness relations changed throughout the history of phonology, and she draws attention to the fact that Trubetzkoy used the term in a language-particular context (see Chapter 3) – there was originally no universality about this term.

I am not aware of extensive studies to give detailed empirical support for the view put forward here. The idea that velars are placeless is not new, however: Trigo’s (1988) dissertation seems to have made a similar, yet crucially different, claim, as cited by van der Hulst (1994:472). The major difference is that while Trigo identifies velars as placeless (just as it is proposed here), she also assigns the unmarked status to velars. I have nothing similar to state, I will deny that assumption. Again, it is an important aspect of the argumentation below that the above representation for velars does *not* imply that velars are the unmarked consonantal place of articulation. Rather, my claim is that these two issues, placelessness in representations and markedness, are independent problems.

As a matter of fact, certain phonological theories have already implicitly held that velars lack a phonologically relevant place of articulation. For one, government phonology, the broad theoretical framework my investigations are couched in, this a well-known assumption. Harris and Lindsey claim (1995:67): “Vocalization of velars (...) typically results in reduction to zero, sometimes via F. This development is not unexpected, given the assumption that velar resonance is associated with the element [ʌ]”. They do not specify how this assumption can be verified. Incidentally, radical CV phonology (van der Hulst 1994) also claims that velars are placeless. This dissertation can be read as substantiating this assumption of government (and dependency) phonology.

3 Structure of the dissertation

The dissertation consists of nine chapters. The Introduction is followed by two theoretical chapters and five data chapters. Chapter 2 discusses the representation of velars and coronals across phonological theories, and the conclusion will be drawn that the placelessness of velars is not incompatible with a range of phonological theories, from distinctive feature theory (Jakobson and Halle 1956) through feature geometry (Clements and Hume 1995) to government (Harris and Lindsey 1995, Dienes and Szigetvári 1999, and others) and dependency phonology (van der Hulst 1994). It will also be pointed out that coronality can be fruitfully associated with palatality, for instance. Chapter 3 investigates the behaviour of velars from the perspective of markedness, and establishes that placelessness and consonantal markedness do not imply each other. In the meanwhile certain aspects of epenthesis, frequency, assimilations will be discussed. Chapter 4 presents and analyzes the changes to velars through the history of English, especially its Old English period. Chapter 5 analyzes velar processes in the history of Romance languages, especially Iberian Romance and French. The next chapter brings in evidence from a number of non-Indo-European

languages such as various Tai and Chinese varieties as well as Hungarian. A separate chapter, chapter 7 is devoted to a discussion of velar and labial interactions, while chapter 8 analyzes velar palatalizations and other velar–palatal interactions. Conclusions and bibliography closes the dissertation.

4 Scientific results

- (1) The dissertation contributes to the debate what representation velars should be assumed to have.
- (2) The thesis denies that there is a direct link between placelessness and unmarkedness. This approach allows us to concentrate on representations and processes, based on a wide range of linguistic data.
- (3) Some of the data have not yet figured in a detailed discussion on velars. Moreover, some of the phenomena that are often cited to show the placelessness/unmarked status of coronals will be shown not to show this.
- (4) The dissertation also aims at analyzing a range of velar processes. A number of small adjustments to earlier treatments of certain processes will be proposed to describe and analyze these phenomena more adequately.
 - (a) To account for the different patterns of nasal loss before Primitive Germanic */x/ on the one hand, and /s f T/ on the other, it will be proposed that the velar fricative, lacking a phonological place of articulation, is too weak to perform its governing duties over a preceding nasal, therefore, nasality becomes associated with the preceding vocalic slot (=nasalization). To put it differently, the velar /ŋx/ is the most unstable of all the nasal–fricative clusters of Prim. Germanic because the velar does not have a place specification to share with the preceding nasal.
 - (b) In connection with the phonetic interpretation of Old English breaking, it is put forward that the phonetic realization is rather a simple [ə], a vowel without melody.
 - (c) As for the loss of /x/ between sonorants in OE, it is argued that, for a certain well-defined class of words, the traditional

analysis assuming compensatory lengthening is unwarranted because there is no positive evidence, either in the written sources or in phonological theory, that compensatory lengthening took place in words of the $-\{l,r\}h$ type. (d) As far as OE /hw/ clusters are concerned, a possible explanation will be offered for why there is a difference in the later development of *what*, *when*, *wheel* as opposed to *who*. The role of the following labial vowel is pointed out.

- (5) As for labio-velar > labial changes, it will be shown that they occur in prevocalic positions, whereas reductions of labials to velars happen in preconsonantal and word-final positions.
- (6) It is established that velars are much more prone to palatalization than dentals at least because: (i) velars undergo palatalization before any non-low front vowels (not only high front /i/); (ii) are not sensitive to morpheme boundaries while dentals are often restricted in this sense.
- (7) Beyond providing considerable empirical support for viewing velars as placeless, the dissertation has some practical consequences. In at least two cases, the analyses provided here offer a better and more thorough analysis, which in addition draws these seemingly isolated cases into the sphere of more general phenomena. (i) In Hungarian, written evidence clearly shows that the word *uborka* ‘cucumber’ comes from *ugorka*. The received explanation involves dissimilation of $g...k$ to $b...k$. Here it will be analyzed as the spreading of labiality from the vowel to /g/, which is placeless. (ii) For similar considerations, it will be proposed that two Tai words, Siamese *khon* and Po-ai *pün* ‘body hair, feather’, can be related.

5 Selected bibliography

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6 List of publications

Articles in foreign journals:

2003 Velars and empty-headedness in Government Phonology. In: *Rivista di Grammatica Generativa*. Vol.28, pp 45-56. Uni Press.

2005 (to appear). Some notes about the Dutch diminutive suffix. In: Nancy Kula & Jeroen van de Weijer (eds.), *Papers in Government Phonology* [preliminary title]. Special issue of *Leiden Papers in Linguistics* 2.2 (2005), 23-49.

2006 (in press). On the interaction of velars and labials. In: *International Journal of Basque Linguistics*, Bilbao.

Articles in journals published in Hungary:

1999 CURE-Lowering: a current phonological change in RP. In: *The Odd Yearbook* 5, 1999:3-14. ELTE, Budapest.

2001 Vowel harmony in Yakut. In: *The Odd Yearbook* 6, 2001:53-61. ELTE, Budapest.

2004a Velar processes and their representation in phonology. In: *The Odd Yearbook* 7, 2003:11-44. ELTE, Budapest. (=shortened version of MA Thesis)

2004b Towards a typology of velar processes. In: *The Even Yearbook* 6, 2004:74-84. ELTE, Budapest.

2006a Velárisok, koronálisok és a jelöltség–jelöletlenség kérdése [Velars, coronals and issues of markedness]. In: *LingDok* 5, 2006:41-60. JATEPress, Szegedi Tudományegyetem Nyelvtudományi Doktori Iskola (Szeged University of Sciences), Szeged.

2006b. Velars in the history of Old English. In: *The Even Yearbook* 7 (2006), available at <http://seas3.elte.hu/delg/publications/even/2006/06hu.pdf>.

Articles in occasional edited (Hungarian) publications:

2002 [in press] A velárisok és a palatálisok kapcsolatáról – A spanyol és galegó rendhagyó igék bizonyos csoportjának összevetése [On the interaction of velars and palatals – a comparison of certain irregular verbs in Spanish and Galician]. In: ? ELTE, Budapest.

Presentations at international conferences abroad:

2002 Velar processes and their expression in phonology. Presented at the Budapest–Vienna Phonology Roundtable 2, 25-27 March, 2002, Vienna.

2003 Velars and empty-headedness in Government Phonology. Presented at the XXIX Incontro di Grammatica Generativa, 13-15 February, 2003, Università di Urbino.

2004a On the theoretical status of epenthesis. Presented at the Budapest–Vienna Phonology Roundtable 4, 7-9 May, 2004, Vienna.

2004b On the theoretical status of epenthesis. Presented at the 12th Manchester Phonology Meeting, 20-22 May, 2004, Manchester.

2004c Some notes about the Dutch diminutive suffix. Presented at the Workshop on Melody, 3 December, 2004, Universiteit Leiden.

2005 The interaction of velars and labials. Presented at BIDE Student Conference in Linguistics, 23-25 June, 2005, Bilbao, Spain.

2006 Velars lack a place of articulation: empirical evidence, theoretical considerations. Presented at the 14th Manchester Phonology Meeting, 25-27 May, 2006, Manchester.

Presentations at conferences in Hungary:

2002a A velárisok és a palatálisok kapcsolata – spanyol és galegó rendhagyó igék összevetése [On the interaction of velars and palatals – a comparison of certain irregular verbs in Spanish and Galician]. Presented on 29 October 2002, Budapest.

2002b Palatalizáció az óangolban és az újlatin nyelvekben [Palatalization in Old English and Romance languages]. Presented at the 6th Conference of Doctoral Students in Linguistics, 15-16 November, 2002, Szeged.

2003a Velar developments in the history of English. Presented at HUSSE/6, 28-31 January, 2003, Debrecen.

2003b On some velar and palatal interactions. Presented at the Budapest-Vienna Phonology Roundtable 3, 5-6 April, 2003, Budapest.

2003c Velárisok és jelöltség [Velars and markedness]. Presented at the 7th Conference of Doctoral Students in Linguistics, 7-8 November, 2003, Szeged.

2004a Kormányzás-fonológia [Government Phonology]. Presented at PTE-Illyés Gyula Teacher Training College, 11 May, 2004, Szekszárd.

2004b Velárisok, koronálisok, jelöltség, jelöletlenség (még egyszer) [(Once more) about velars, coronals, markedness and unmarkedness]. Presented at the 8th Conference of Doctoral Students in Linguistics, 11-12, November, 2004, Szeged.

2006a On the representation of coronals and velars across theories. Presented at the First CESCL Conference, 29-31 May, 2006, Budapest.

2006b A likvida+/x/ csoportok az óangolban és a pótlónyúlás [Liquid+/x/ clusters in OE and compensatory lengthening]. Presented at the 10th Conference of Doctoral Students in Linguistics, 30 November – 1 December, 2006, Szeged.

Presentations and papers for the PhD Research Seminar:

2002 Velar processes and their expression in phonology. Presented 16 October, 2002, ELTE, Budapest.

2003a Velars and empty-headedness in Government Phonology. Presented at the Research Seminar, PhD Programme in English Linguistics, 26 February, 2003, ELTE, Budapest.

2003b Velars and markedness. Presented at the Research Seminar, PhD Programme in English Linguistics, 3 December, 2003, ELTE, Budapest.

2004a On the theoretical status of epenthesis. Presented at the Research Seminar, PhD Programme in English Linguistics, 24 March, 2004, ELTE, Budapest.

2004b Some grammatical aspects of Thai. Presented at the Research Seminar, PhD Programme in English Linguistics, 6 October, 2004, ELTE, Budapest.

Manuscripts

2006a On *khw*-*f* alternations in Bangkok Thai and other Tai languages. MS, ELTE, Budapest.

2006b Palatalization of #*pl*- and #*kl*- in Iberian Romance and Northern Tai. MS, ELTE, Budapest.

MA Thesis

2002 Velar phenomena: processes and their expression in phonology. MA Thesis. MS. ELTE, Budapest.