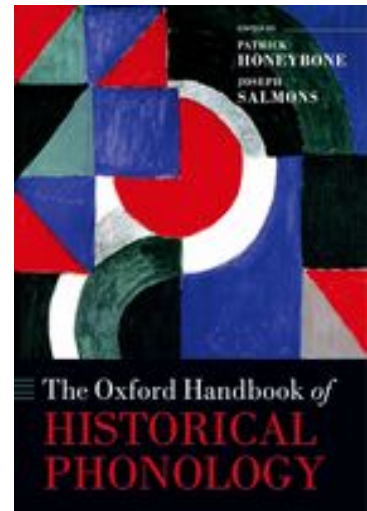


Symposium on Historical Phonology

A symposium to celebrate
Historical Phonology and the
forthcoming publication of the
*Oxford Handbook of
Historical Phonology*



ABSTRACTS BOOKLET

This booklet contains the abstracts for the poster sessions.

13th – 14th January 2014

University of Edinburgh

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A Corpus of Narrative Etymologies from primitive Old English to early Middle English (CoNE): a new tool for research in English historical phonology

Rhona Alcorn & Margaret Laing (University of Edinburgh)

A striking aspect of written Middle English is the sheer number of spelling variants for what are single words with fixed spellings in Present Day Standard written English. It is widely accepted that much of this spelling diversity is systematic, yet CoNE, and its associated Corpus of Changes (CC), is the first history of English to offer a set of etymologies to account for this diversity.

Starting with the phonetic shape an item may be presumed to have had in the dialect-complex that served as input to Old English, CoNE formulates its development, over a time-depth of 700-800 years and by reference to the changes documented in CC, into the set of variant forms attested in early ME. There are currently over 1200 narrative etymologies in CoNE, each treating a morpheme of Germanic origin. These etymologies are underpinned and explicated by 225 linguistic changes (phonological, morphological and orthographic) documented in the CC.

CoNE and the CC are freely-available, web-based resources. They have been produced by staff at the University of Edinburgh's Institute for Historical Dialectology under the leadership of Prof Roger Lass. Our 'show and tell' session will introduce participants to these important new tools.

Kristján Árnason
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On the fate of Nordic sound-shifts

Allowing for possible substratal effects in the Viking period, the phonological history of Icelandic and Faroese can be taken to represent “natural” developments in Common Nordic. (Interference from Low German complicates things in „Continental Scandinavian“, Danish, Swedish and partly Norwegian). I will consider four general trends or shifts which form the essence of this history with similar, but also different, results in the two West-Nordic languages and some Norwegian dialects: the quantity shift (levelling of syllabic quantity), the consonant shift (rise of (pre-)aspiration), brightening (fronting and sometimes delabialisation of back rounded vowels) and diphthongisation (in both consonants and vowels). The underlying question is what it is that spreads when a “change” moves in time or space. How do we account for the fact that both Icelandic and Faroese diphthongise vowels, but in a different manner, and the fact that both languages preaspirate, but in different ways etc.? More often than not the incomplete shifts result in a set of lexicalised (phonemicised) variables. Even the phonologically natural quantity shift ends up in Guðbrandsdal and West Norwegian dialects as lexically determined, dependent on word class etc.

Most likely the initiating forces are trends in articulatory setting (ranking of markedness constraints, if you like), including prosodic or rhythmic patterns, but these trends are disturbed by other (later) trends and (particularly in Icelandic) written norms. The problem is identifying the trends and constraints, giving them appropriate names and content, and in the end contemplating what can be a “unit in phonological change”.

References

- Árnason, Kristján 2011: *The Phonology of Icelandic and Faroese*. Oxford: Oxford University Press.
- Christiansen, Hallfrid 1946 – 1948: *Norske dialekter*. Oslo: Johan Grundt Tanum.
- Garmann, Nina Gram 2008: *The Quantity Shift. A Cognitive Usage-Based Analysis of the Quantity Shift in East Norwegian with Data from Old Norse and North Gudbrandsdal*. Department of Linguistics and Scandinavian Studies. University of Oslo 2008
- Haugen, Einar 1970: Discussion; comments on Hreinn Benediktsson: ‘Aspects of historical phonology 1970’. Benediktsson, Hreinn (ed.): *The Nordic Languages and Modern Linguistics: Proceedings of the International Conference of Nordic and General Linguistics*. University of Iceland. Reykjavík: Vísindafélag Íslendinga, 129–135.
- Küspert, Klaus-Christian 1988: *Vokalsysteme im Westnordischen: Isländisch, Färöisch, Westnorwegisch. Prinzipien der Differenzierung*. Tübingen: Niemeyer.
- Monsson, Odd. 2012: *Kvantitetssystem i nordvestlandsk*. Ph.D.-dissertation. University of Bergen.
- Rundhovde, Gunnvor 1965: *Målet i Hamre, Ijodvokster og stutt utsyn over formverk i eit Nordhordlandsmål*. Bergen, Oslo: Universitetsforlaget.
- Skomedal, Trygve 1971: *Vokalsystemet i Sætesdalsmålet*. Magerøy, Hallvard & Kjell Venås (red.): *Mål og namn. Studiar i nordisk mål- og namnegransking. Heidersskrift til Olav T. Beito*. Oslo-Bergen-Tromsø: Universitetsforlaget, 291–306.
- Steblin-Kamenskij, Mikail Ivanovits (1960), *Den islandske klusilforskyvning I fonologisk fremstilling*. Arkiv för nordisk filologi 75: 79-83.
- (1974) *The Scandinavian Consonant Shift*. Arkiv för nordisk filologi 89: 1-29.
- Thorgeirsson, Haukur. 2013: *Hljóðkerfi og bragkerfi. Stoðhljóð, tónkvæði og önnur úrlausnarefni í íslenskri bragsögu ásamt útgáfu á rímum af Ormari Fraðmarssyni*. Ph.D.-dissertation. University of Iceland

Intrusive-*r* in recently rhotic speech communities

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Despite the traditional claim that intrusive-*r* is only found in complementary distribution with coda /*r*/ (e.g. Giegerich 1999), some phonologists have suggested that there is no computational or systemic bar to a rhotic speaker also having an active *r*-intrusion process (e.g. Uffmann 2007). Empirical work with dialect data has suggested that it is indeed feasible for an individual speaker to have both underlying coda /*r*/ representations and intrusive *r* (see Hay & Sudbury 2005; Barras 2011). However, such a system is rare: it has been argued that dialect contact with non-rhotic speakers may be needed for rhotic speakers to develop intrusive-*r*. In other words the whole process does seem to be linked to loss of a realised coda /*r*/.

I present a comparison between two sets of contemporary English dialect data collected in areas that were rhotic in mid-twentieth century dialect surveys, but which have both since been subject to attrition of rhoticity. Speakers in post-industrial East Lancashire still show relatively strong evidence of rhoticity, albeit with a restricted geographical and social distribution. Speakers in rural Oxfordshire are much more consistently non-rhotic. Both sets of dialect speakers display similar patterns of variable levels of intrusive-*r* production despite the differences in levels of rhoticity across the two dialects. Even where loss of rhoticity is fairly advanced, the overlapping and variable nature of these two phenomena suggests that the development of intrusive-*r* in both dialects is best explained in terms of historical sociophonology.

References

- Barras, W. (2011). *The sociophonology of rhoticity and r-sandhi in East Lancashire English*. PhD dissertation, University of Edinburgh.
- Giegerich, H. J. (1999). *Lexical strata in English: Morphological causes, phonological effects*. Cambridge: Cambridge University Press.
- Hay, J. & Sudbury, A. (2005). How rhoticity became /*r*/-sandhi. *Language* 81. 799–823.
- Uffmann, C. (2007). Intrusive [r] and optimal epenthetic consonants. *Language Sciences* 29. 451–476.

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**What vowels in syllables which don't bear the main stress from
Old English to contemporary English?**

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In contemporary English, besides the three reduced vowels ([ə, ɪ, ʊ]), pronunciation dictionaries such as the LPD or the EPD, also use unreduced vowels to transcribe some unstressed syllables (ˌdeɒn'tology, trans'vestɪtɪ).

The results presented here show that historically, the reduced vowel system is one of the most stable parts of English phonology. In late Old English, the data shows three vowels could appear in unstressed syllables. In Modern English, a similar reduced system could be found as well as unstressed syllables with full vowels resulting from the recent stress changes, as in verbs in –ate (*demonstrate*) in which the stress had moved to the penultimate from the final syllable, which kept its long /e:/ for some time (Lass:1999).

However, this study raises a number of issues. A first problem concerns the data which can be ambiguous as in the case of verbs in –ate. One can only deduce from the absence of comment from orthoepists, though very precise otherwise, that the vowel is not reduced. Besides, their transcription code raises doubts over the letter <a>, as in –ace or –age with ǣ or ā depending on authors and items, or a reduced sound (*cf.* rimes *pallet* – *palate*).

Another issue concerns the level stress in Middle English. After the stress shift in words in –oun (*bacōūn*), Dobson suggests there may have been some form of secondary stress on the final syllable. But how about the initial syllable before the shift: was it stressed? And if not what vowel was there?

References:

- BEAL, Joan, 2000, « Happy-tensing : a Recent Innovation? », in BERMUDEZ-OTERO, R. ; DENISON, D. ; HOGG, R. M. ; MacCULLY, C. B., (eds.), *Generative Theory and Corpus Studies*, Amsterdam : Benjamins, 483–497.
- CAMPBELL, Alan, 1959, *Old English Grammar*, Oxford: Clarendon Press.
- DOBSON, Eric John, 1968, 2nd edition, *English Pronunciation, 1500–1700*, Vol. II, Clarendon Press, Oxford: Oxford University Press.

- ELLIS, Alexander J., 1969, *On early English pronunciation, with especial reference to Shakespeare and Chaucer*.
- JESPERSEN, Otto, 1965 (1909), *Modern English Grammar*, Part 1, London: George Allen & Unwin LTD.
- JONES, Daniel, 1917, *An English Pronouncing Dictionary (On strictly phonetic principles)*, London: Dent & Sons limited.
- JONES, Daniel, 2006, *Cambridge English Pronouncing Dictionary (EPD)*, 17th edition, ROACH, Peter; HARTMAN, James; SETTER, Jane, (eds), Cambridge: Cambridge University Press.
- KING, Robert D., 1965, « Weakly Stressed Vowels in Old Saxon », *Word*, vol. 21: 19–39.
- MacMAHON, April M. S., 2000, *Lexical phonology and the history of English*, Cambridge: Cambridge University Press.
- LASS, Roger, 1994, *Old English, A Historical Linguistic Companion*, Cambridge: Cambridge University Press.
- MINKOVA, Donka, 1991, *The History of Final Vowels in English, The Sound of Muting*, Berlin: Mouton de Gruyter, Topics in English Linguistics, vol. 4.
- MOSSÉ, Fernand, 1959 (1945), 2^{ème} édition, *Manuel de l'anglais du moyen âge, des origines au XIV siècle, I Vieil anglais*, Paris : éditions Montaigne.
- MOSSÉ, Fernand, 1959 (1945), 2^{ème} édition, *Manuel de l'anglais du moyen âge, des origines au XIV siècle, II Moyen anglais*, tome 1^{er} : grammaire et textes, Paris : éditions Montaigne.
- The Cambridge History of the English Language*, Cambridge: Cambridge University Press:
- Vol. I, 1992, *The beginning to 1066*, edited by HOGG, Richard M., *not.* HOGG, Richard M., *Phonology and Morphology* (chap. 3) ;
 - Vol. II, 1992, *1066 – 1476*, edited by BLAKE, Norman, *not.* LASS, Roger, *Phonology and morphology* (chap. 2) ;
 - Vol. III, 1999, *1476–1776*, edited by LASS, Roger, *not.* LASS, Roger, *Phonology and Morphology* (chap. 3) ;
 - Vol. IV, 1998, *1776–1997*, edited by ROMAINE, Suzanne, *not.* MacMAHON, Michael K.C., *Phonology* (chap. 5).
- WELLS, John Christopher, 2006 (1990), 3rd edition, *Longman Pronunciation Dictionary (LPD)*, London: Longman.

EGYPTIAN TRANSFER IN THE GREEK
OF ROMAN PERIOD EGYPTIAN SCRIBES
Sonja Dahlgren

Roman period Egyptian scribes worked in a language contact situation with an official language other than their mother tongue. Although the scribes were trained in Greek, the documents are full of non-standard orthography, previously thought to result from imperfect language learning and the effect of Greek internal phonological development. The goal of this presentation is to show that most of the variation was, in fact, caused by Egyptian phonological influence. The situation is quite clear regarding the interchangeable usage of voiced and voiceless plosives as this opposition did not exist in Egyptian, but there are multiple reasons for non-standard vowel orthography. My study has shown that some variation seems to be caused by under-differentiation of foreign phonological units and some due to the structural differences of the two languages. Egyptian was a consonant-based language with an evidently strong stress accent that reduced unstressed vowels to schwa, and furthermore, consonants strongly affected the quality of the adjacent vowels. Accordingly, my recent findings reveal that most of the misspellings of the Greek vowels occur in the proximity of coronal consonants, and the choices behind the non-standard graphemes are related to the inadvertent transfer of the Egyptian stress system onto Greek. The same phenomenon is present in the non-standard realisations of Greek loanwords in Coptic texts, supporting my theory that the impact of Egyptian explains the vowel variation in the Greek texts written by L1 Egyptian scribes.

AGAINST GRADUAL PHONOLOGIZATION

The conventional wisdom regarding phonologization is that it progresses as a sequence of gradual reanalyses: natural acoustic, physiological and perceptual phenomena are re-analyzed as gradient coarticulatory processes, which are then reanalyzed as categorical phonological processes (Ohala, 1981; Bermúdez-Otero, 2007). I argue that this model of gradual and gradient reanalyses is not well supported by available data on sound change in progress. In fact, based on analyses of the rate of change of multiple vowel variants, and in investigations of mismatches between the predictions based on phonetic versus phonological grounds, it appears that new phonological processes enter the grammar at the *onset* of phonetic changes, rather than as later stage reanalyses of phonetic changes in progress.

Drawing data from the Philadelphia Neighborhood Corpus (Labov and Rosenfelder, 2011), I find that some robust phonetic effects are never phonologized across the 20th century, like the effect of following nasals on the MOUTH vowel, which promote fronting and raising (see Figure 1). These two variants of MOUTH move in lock-step across the entire 20th century. In another example, the raising and fronting of pre-consonantal FACE appears to be phonologized on grounds which disregard phonetic favorability (see Figure 2). At the turn of the 20th century, the most promoting context for FACE raising is a following lateral, yet this context never undergoes the change, with pre-consonantal FACE actually crossing over it.

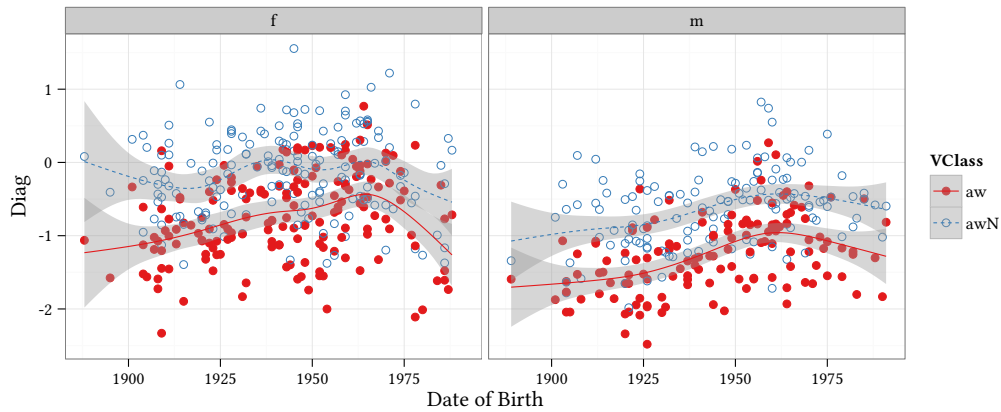


FIGURE 1. The non-phonologization of following nasals on MOUTH

On the basis of statistical analyses of these and other examples, I argue that phonetic precursors are only weak predictors of phonologization, and that instead categorical phonological phenomena enter the grammar while their phonetic correlates are weak or non-existent.

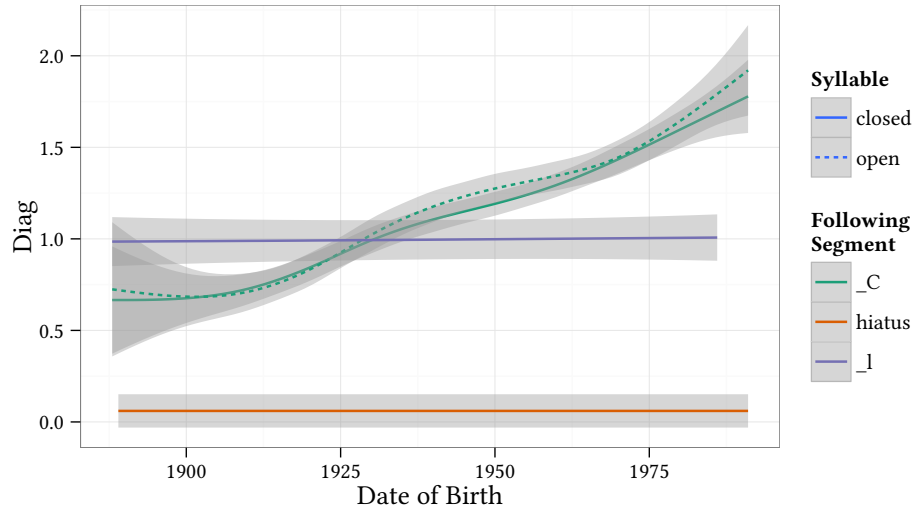


FIGURE 2. The Phonologization of FACE raising, disregarding phonetic favorability.

REFERENCES

- Bermúdez-Otero, R. 2007. Diachronic Phonology. In *The Cambridge Handbook of Phonology*, ed. Paul de Lacy, chapter 21, 497–517. Cambridge: Cambridge University Press.
- Labov, William, and Ingrid Rosenfelder. 2011. The Philadelphia Neighborhood Corpus.
- Ohala, John. 1981. The listener as a source of language change. In *Papers from the parasession on language and behavior*, ed. C S Masek, R A Hendrick, and M F Miller. Chicago Linguistics Society.

Notes on the history of suffixation in -ize

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Questions of competition between various suffixes and *-ize* as well as certain patterns that no longer seem to be productive provide clues to the analysis of the morphophonetics of these suffixes.

Bauer (1983: 222) and Lieber (1998), among others, underline the competition between *-ize* and *-ify*, especially in certain phonological contexts. Patterns with disyllabic final-stressed adjectives (*in'tensify*, *di'versify*) need to be reconsidered: 1/ obsolete *divinize* (attested from 1656) shows that the distributional preference must have settled later; 2/ *'immunize* (1889) shows that such adjectives have not all taken *-ify*; 3/ adjectives like *ab'surd*, *se'vere*, *au'gust*, etc, rarely undergo suffixation either in *-ify* or in *-ize*; 4/ adjectives in *-id* (*solid*, *humid*, *fluid*) often take *-ify* even though they do not have final stress, and it even triggers stress shift: *so'lidify*.

A number of verbs in *-ize* were lost in favour of *-ify*: modern English *sanctify* had a variant *sanctize* (1691) with the same meaning. Indeed, *sanctize* was the only verb with a monosyllabic base in an NC_{obs}C_{obs} cluster.

The historical competition between *-ize* and *-ate* deserves attention. Both suffixes have a similar phonological structure (suffix-initial long vowel in a monosyllabic consonant-final suffix) and most such verbs survive in their *-ate* form only.

Further historically minor patterns: 1/ Now obsolete examples like *abastardize*, *asservilize*, *beruffianize*, *encrueelize*, etc, can explain the accentuation of *amortize* and *acclimatize*. 2/ An intricate semantic as well as formal influence can be detected in the stress patterns of *aggrandize*, *chastise* from disyllabic verbs like *devise*, *advise*, *surprise*.

References

- Bauer, Laura. 1983. *English Word-formation*. CUP, Cambridge.
Durkin, Philip. 2009. *The Oxford Guide to Etymology*. Oxford University Press, Oxford.
Lieber, Rochelle. 1998. The suffix *-ize* in English: Implications for Morphology. In: Lapointe, Steven G., Diane K. Brentari and Patrick M. Farrell (eds.) *Morphology and Its Relation to Phonology and Syntax*. CSLI Publications, Stanford, California, pp.12-33.

Connecting the dots: the phonologization of redundant tenseness across Welsh dialects

Pavel Iosad

This paper considers the relationship between vowel length and tenseness across dialects of Welsh. In many (especially northern) varieties long non-low vowels are obligatorily tense [e: o:] and short ones are obligatorily lax [ɛ ɔ] (e.g. Mayr & Davies 2011). Traditional descriptions consequently disagree on whether length or tenseness is distinctive (e.g. A. R. Thomas 1966, Jones 1971, Awbery 1984). I argue that the system shows a historical development from a pattern where only length is phonologically relevant (Iosad 2012) to the phonologization of originally redundant tenseness. The evidence comes mainly from southern dialects. First, south-west Welsh shows variable laxing of long mid vowels conditioned by the height of the vowel in the next syllable (Awbery 1986, Wmffre 2003)—probably due to a trade-off in inherent length (cf. Crosswhite 2000)—which appears to provide evidence for the independence of tenseness from length. In a further development, I suggest that ‘hardening’ (*calediad*) found in south-eastern dialects (e.g. S. E. Thomas 1983, C. H. Thomas 1975), whereby voiced stops become voiceless after a stressed vowel (e.g. *gwre*[k]ys ‘belt’, pl. *gwre*[g]ysau), provides evidence for the involvement of tenseness in the phonological grammar. More specifically, I suggest that since *calediad* outputs voiceless unaspirated stops (instead of fully neutralizing the fortis/lenis contrast), it is the phonetic realization of a feature whose domain spans the tense vowel and the postvocalic stop, in parallel to the double link of [spread glottis] in fricative-stop sequences (cf. Pétursson 1978, Iverson & Salmons 1995).

References

- Awbery, Gwenllian M. 1984. Phonotactic constraints in Welsh. In Martin J. Ball & Glyn E. Jones (eds.), *Welsh phonology: Selected readings*, 65–104. Cardiff: University of Wales Press.
- Awbery, Gwenllian M. 1986. *Pembrokeshire Welsh: a phonological study*. Llandysul: Welsh Folk Museum.
- Crosswhite, Catherine M. 2000. Vowel reduction in Russian: a unified account of standard, dialectal, and ‘dissimilative’ patterns. In Catherine M. Crosswhite & Joyce McDonough (eds.), *University of Rochester working papers in the language sciences*, vol. Spring 2000, 107–171.
- Iosad, Pavel. 2012. *Representation and variation in substance-free phonology: a case study in Celtic*. Tromsø: University of Tromsø PhD thesis.
- Iverson, Gregory K. & Joseph C. Salmons. 1995. Aspiration and laryngeal representation in Germanic. *Phonology* 12(3). 369–396.
- Jones, Glyn E. 1971. Hyd llafariad yn y Gymraeg. *Studia Celtica* 6. 175–188.
- Mayr, Robert & Hannah Davies. 2011. A cross-dialectal acoustic study of the monophthongs and diphthongs of Welsh. *Journal of the International Phonetic Association* 41(1). 1–25.
- Pétursson, Magnus. 1978. Jointure au niveau glottal. *Phonetica* 35(2). 65–85.
- Thomas, Alan R. 1966. Systems in Welsh phonology. *Studia Celtica* 1. 93–127.
- Thomas, Ceinwen H. 1975. Some phonological features of dialects in South-East Wales. *Studia Celtica* 10–11. 345–366.
- Thomas, Ceinwen H. 1993. *Tafodiaith Nantgarw: astudiaeth o Gymraeg llafar Nantgarw yng Nghwm Taf, Morgannwg*. Caerdydd: Gwasg Prifysgol Cymru.
- Thomas, Siân Elizabeth. 1983. *Astudiaeth o galediad yn Ystalyfera*. Swansea: University College of Swansea MA thesis.
- Thorne, David. 1976. *Astudiaeth gymharol o ffonoleg a gramadeg iaith lafat y maenoriau oddi mewn i gwmud Carnwylion yn Sir Gaerfyrddin*. University of Wales, Cardiff PhD thesis.

Wmffre, Iwan. 2003. *Language and place-names in Wales: the evidence of toponymy in Cardiganshire*.
Cardiff: University of Wales Press.

A-rrhythmia: new evidence about the initial position in Ancient Greek

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This communication puts under scrutiny a hitherto poorly described phenomenon of Ancient Greek, its word-initial non-contrastive geminate *rr^h*-, and examines its implications for the word-initial position in Greek.

Ancient Greek had ‘heterosyllabic’ word-initial clusters, such as *pt*-. If geminates and onset clusters have the same binary structure, then we would expect to find also a singleton~geminate contrast word-initially, such as *p*- ~ *pp*-; but this is not the case. A closer examination of the data, however, reveals that Greek had indeed initial geminates at different stages of its development: in archaic poetry, all sonorants and some *s*’s may behave as geminates root-initially (Magnien 1920, Chantraine 1958); and in Classical Greek, evidence shows that root-initial *r* remained a geminate, reconstructed as aspirated *rr^h*- (Lejeune 1972, Steriade 1982, Stephens 1990, Jatteau 2013).

In this communication, we propose to account for the puzzling patterns of the Greek initial geminates by building on the idea that the problem in Ancient Greek is not about having initial geminates *per se*, but about having an initial singleton~geminate *contrast* encoded in the lexicon. We examine the different behaviours of the initial geminates in the three corpora where it is visible: archaic poetry (almost free variation), classical tragedy (gemination within words and in groups {clitic + host}) and classical comedy (gemination all over the board), and propose an account of the three patterns, relying on the distinction between storage and computation, as the result of a regular Neogrammarian sound change as defined by Bermúdez-Otero (2007).

References

- Bermúdez-Otero, Ricardo. 2007. Diachronic phonology. In Paul de Lacy (ed.), *The Cambridge handbook of phonology*, 497–517. Cambridge: Cambridge University Press.
- Chantraine, Pierre. 1958. *Grammaire homérique. Tome 1, Phonétique et morphologie*. Paris: Klincksieck.
- Jatteau, Adèle. 2013. Autour de rho aspiré en grec ancien. *Lalies* 33.
- Lejeune, Michel. 1972. *Phonétique historique du mycénien et du grec ancien*. Paris: Klincksieck.
- Magnien, V. 1920. L’alternance rythmique chez Homère. *Mémoires de la Société de linguistique de Paris* XXII. 70–94.
- Scheer, Tobias. 2012. *Direct interface and one-channel translation: a non-diacritic theory of the morphosyntax-phonology interface*. (2). Berlin : Mouton de Gruyter.
- Stephens, Laurence D. 1990. Initial *ῑ*- in Attic: New Evidence for the Effect of Lexical Status and Syntactic Configuration on the Gemination of *ῑ*- after Final Short Vowels. *Illinois Classical Studies* 15(1). 55–75.
- Steriade, Donca. 1982. Greek prosodies and the nature of syllabification. Cambridge (MA): MIT.

Kluge's Law: its place among the Germanic sound shifts and consequences for the PIE obstruent inventory

Roland Noske

Kluge's Law (KL) of Proto-Germanic is traditionally described as a total assimilation of a pretonic nasal to a preceding voiced obstruent. It chronologically follows the spirantization and deaspiration parts of Grimm's Law (GL), as well as Verner's Law (VL), and precedes Occlusivization and the devoicing part of GL.

This traditional ordering is problematic, because:

- (i) GL's spirantization and deaspiration are chronologically separated from GL's devoicing, although GL is widely seen as a chain shift;
- (ii) there is a very complicated detour via GL's spirantization, VL (voicing), occlusivization and GL's devoicing ($tn > \theta n > \delta n > \delta \delta > dd > tt$) instead of a direct derivation $tn > tt$;
- (iii) in practice, *n* **only** assimilates to preceding **voiced** stops, whereas phonetic research shows that voiced geminates (especially voiced fricative geminates) encounter aerodynamic difficulties (Dmitrieva 2012, Hayes & Steriade 2004, Jaeger 1978, Ohala 1983, Westbury & Keating 1986);
- (iv) original PIE sibilants do not assimilate to preceding obstruents and do not occlusivize either; this puts into question the validity of the fricative detour in the derivations.

This paper shows these problems disappear under the assumption of Glottalic Theory (where PIE D^h and D have been replaced by D and $T^?$, respectively). Under the same theory, GL and VL can be analysed as a single, bifurcating, chain shift (Noske 2012). I will show that KL applied chronologically before GL/VL (a stance taken on independent grounds by Luick 1940). In addition, the environments of KL and VL are essentially the same and can be expressed by a single constraint in an output-driven model of description.

References:

- Dmitrieva, Olga. 2012. *Geminate Typology and the Perception of Consonant Duration*. PhD dissertation, Stanford University.
- Hayes, Bruce and Donca Steriade (2004) "Introduction: The phonetic bases of phonological markedness." In Hayes, Bruce, Robert Kirchner and Donca Steriade (eds.), *Phonetically Based Phonology*. Cambridge: Cambridge University Press, 1-33.
- Jaeger, Jeri. 1978. "Speech aerodynamics and phonological universals". *Proceedings of the Berkeley Linguistics Society*, 311-329.
- Kluge, Kluge, Friedrich. 1884. "Die germanische consonantendehnung." *Beiträge zur Geschichte der deutschen Sprache und Literatur (PBB)* 9, 149-186.
- Kroonen, Guus. 2011. *The Proto-Germanic n-stems. A study in diachronic morphophonology*. Amsterdam/ New York: Rodopi.
- Lühr, Rosemarie. 1988. *Expressivität und Lautgesetz im Germanischen*. Heidelberg: Winter.
- Luick, Karl. 1940. *Historische Grammatik der englischen Sprache*. Bd. 1, Abt. 1-2. Leipzig: Bernhard Tauchnitz.
- Noske, Roland. 2012. "The Grimm-Verner Chain Shift and Contrast Preservation Theory." In Botma, Bert & Roland Noske (eds.), *Phonological Explorations. Empirical, Theoretical and Diachronic Issues*, 63-86. Berlin: Walter de Gruyter.
- Ohala, John. 1983. "The origin of sound patterns in vocal tract constraints." In: MacNeilage, Peter F. (ed.), *The production of speech*. New York: Springer-Verlag, 189-216.
- Westbury, John R. & Patricia Keating. 1986. "On the naturalness of stop consonant voicing." *Journal of Linguistics* 22, 145-166.

Verner's Law: A Three-in-One Model

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Since its discovery, Verner's law has been extensively treated by linguists. However, most accounts describe its phonetic nature rather than make phonological generalizations (cf. Ringe 2006:102–105). Even phonologists mostly treat it as a uniform rule and often present it in a simplistic way, e.g.:

[+cont] → [+voiced] after unstressed vowel (Bromberger & Halle 1989: 164)

We propose an analysis of Verner's law as a complex of different phonological rules. Two binary distinctions can be drawn:

- (1) Structure-preserving vs. non-structure-preserving change;
- (2) Transparent vs. non-transparent change: If a change is transparent, the underlying representation remains intact being present in morphologically related words.

1. Non-transparent structure-preserving change: $f, \theta, h > \beta, \delta, \gamma$ in isolated lexical items
Proto-Germanic **hunθám* > **hundám* '100'

After the phonetic change had happened, there was no synchronic evidence of whether [ð], which occurred in the neutralization position, was underlyingly a /θ/ or a /ð/.

2. Transparent structure-preserving change: $f, \theta, h > \beta, \delta, \gamma$ in alternating morphemes
Proto-Germanic **wérθanan* ~ **wurθún* > **wurðún* 'to become ~ they became'
Even after the phonetic change there was enough evidence for an underlying /θ/.

3. Non-structure-preserving change: $s > z$
Proto-Germanic **deusám* > **deuzám* 'animal'

Since /z/ was absent from the phonological inventory of Proto-Germanic, [z] must have been an allophone of /s/.

We claim that Verner's law is a heterogeneous process comprising three different types of change. The same heterogeneity holds for various processes of phonological change cross-linguistically. Further examples will be presented in the paper.

References

- Bromberger, Sylvain, and Morris Halle. 1989. "Why Phonology Is Different." *Linguistic Inquiry*, 20, 51–70.
- Ringe, Donald. 2006. *From Proto-Indo-European to Proto-Germanic*. Oxford: Oxford University Press.

Graphic geminates as diacritics in the *Ormmulum* and in Thomas Sheridan's *General Dictionary of the English Language* (1780)

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We aim to compare the representational logic and phonological principles behind the doubling of consonants in Ormm's manuscript and in Thomas Sheridan's "system for respelling". In the *Ormmulum*, graphic geminates do not represent phonological geminates, but act, in certain contexts, as a means "to reflect/project a short vowel for the vowel graph that immediately precedes" (Anderson & Britton 1997:300), unambiguously fulfilling a "diacritic function" (Murray 1995:127). Similarly, Sheridan makes use of ostensibly ambisyllabic consonants in his transcriptions in a manner that is clearly not linearly segmental (Pouillon & Ballier 2013). In both cases, information is given about the preceding vowel, namely, that it is short; see for instance Ormm's <ennglissh> and Sheridan's <a¹f¹-fa¹-bi¹l¹-ly¹-ty¹> for *affability*.

This comparison sheds light on the evolution of the cognitive status of the short vowel, from epilinguistic intuition to proto-phonological representation. Though he applies it more consistently than his predecessors (Mokrowiecki 2012), Ormm was not the first to make use of such a device – perhaps in a complex relation to still recent "sound changes [...] such as Homorganic Cluster Lengthening and Closed Syllable Shortening" (Mailhammer 2007:37). By the fifteenth century, consonant doubling after short vowels became the orthographic norm (Scragg 1974:50). Sheridan applies the same logic in his respellings; a key distinction, however, is that he explicitly refers to syllable boundaries, and extends the doubling of consonants in his transcription system to words that do not have double consonants in the spelling. We aim to describe this (pre)-conceptualization of CVC.

ANDERSON, John & BRITTON, Derek (1999) "The orthography and phonology of the *Ormmulum*", *English Language and Linguistics* 3/2, 299-334.

MAILHAMMER, Robert (2007). "On syllable cut in the *Ormmulum*", in Cain & Russom (eds.), *Studies in the History of the English Language III: Managing Chaos*, Mouton de Gruyter, 37-61.

MOKROWIECKI, Tomasz (2012). "Reduplication of consonant graphemes in the *Ormmulum* in the light of late old english scribal evidence", *Studia Anglica Posnaniensia* 47/4.

MURRAY, Robert (1995). "Orm's phonological-graphic interface and quantity in Early Middle English", in Fix (ed.), *Quantitätsproblematik und Metrik: Greifswalder Symposium zur germanischen Grammatik, Amsterdamer Beiträge zur Älteren Germanistik* 42, special volume, 125-147.

POUILLON, Véronique & BALLIER, Nicolas (2013). "The treatment of syllables and syllable boundaries in Thomas Sheridan's English pronouncing dictionary of 1780", paper presented at "La Sillaba", April 11th, Pescara.

SCRAGG, Donald (1974). *A History of English Spelling*, Manchester: Manchester University Press.

The life cycle of nasal velarisation in Ibero-Romance

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Synchronically, word-final nasals place-neutralise to [DORSAL] in many dialects of Spanish: this yields a pattern of coda nasal velarisation (e.g. *pan* ‘bread’ [paŋ]: see Harris 1984).

However, a number of descriptive studies have revealed that the application of the velarisation process varies cross-dialectally.

	Word-final		Word-medial preconsonantal		Word-medial prevocalic	
Salvadoran Spanish (Hernández 2011)	Yes, variable	[pan]~[paŋ]	No data			
NW Peninsular Spanish (Ramsammy 2012)	Yes	[paŋ]	No	[kaNpo] ‘field’ [kaN̥to] ‘chant’	No	[kana] ‘grey hair’
Venezuelan Spanish (D’Introno & Sosa 1988)			Yes, variable	[kampo]~[kaŋpo] [kaŋ̥to]~[kaŋ̥to]		
Cuban Spanish (Hammond 1979)						
Galician (Colina & Díaz Campos 2007)					No	[kampo] [kaŋ̥to]

In this presentation, I discuss how these synchronic dialectal patterns reflect different stages in the life cycle (Bermúdez-Otero 2007, 2011; Bermúdez-Otero & Trousdale 2012) of Ibero-Romance nasal velarisation. I show, firstly, that velarisation has expanded from its original conditioning environment in Venezuelan and Cuban varieties by *rule generalisation* (Vennemann 1978). Thus, diachronic relaxation of the constraints responsible for restricting velarisation to word-final contexts in the less advanced varieties has resulted in a gradual expansion of the rule in the more advanced varieties. Secondly, I discuss a different extension of word-final velarisation in Galician. As shown, velarisation occurs both word-finally and word-medially in Galician: however, word-medial velarisation is restricted to a closed class of functional vocabulary. I argue that this is the result of a narrowing of the domain of application of an advanced version of the velarisation rule that exclusively targets function words in the stem stratum, and subsequent lexicalisation of forms with [ŋ]. Crucially, however, the older version of the velarisation rule that applies at the word level also remains in operation synchronically. Galician therefore provides an interesting case illustrating how domain narrowing and lexicalisation need not go hand-in-hand with the automatic elimination of the older version of the rule from the grammar (cf. Roberts 2012).

References

- Bermúdez-Otero, R. (2007). Diachronic phonology. In de Lacy, P. (ed.) *The Cambridge handbook of phonology*, 497–517. Cambridge: Cambridge University Press.
- Bermúdez-Otero, R. (2011). Cyclicity. In Ewen, C., E. Hume & K. Rice (eds) *The Blackwell companion to phonology*, 2019–2048. Malden: Wiley-Blackwell.
- Bermúdez-Otero, R. & G. Trousdale (2012). Cycles and continua: on unidirectionality and gradualness in language change. In Nevalainen, T. & E. Closs Traugott (eds) *The Oxford handbook of the history of English*, 691–720. Oxford: Oxford University Press
- Colina, S. & M. Díaz Campos (2007). The phonetics and phonology of intervocalic velar nasals in Galician. *Lingua* 116: 1245–1273.
- D’Introno, F. & J. M. Sosa (1988). Elisió de nasal o nasalizació de vocal ej caraqueño. In Hammond, R.M. & M. C. Resnick (eds) *Studies in Caribbean Spanish Dialectology*. Washington: Georgetown University Press.
- Hammond, R. M. (1979). The velar nasal in rapid Cuban Spanish. *Colloquium on Spanish and Luso-Brazilian Linguistics*. Washington: Georgetown University Press.
- Harris, J. W. (1984). Autosegmental Phonology, Lexical Phonology and Spanish nasals. In Aronoff, M. & R. Oehrle (eds) *Language Sound Structure*. Cambridge: MIT Press.
- Hernández, J. E. (2011). Measuring rates and constraints of word-final nasal velarization in dialect contact. In Ortiz-López, L. A. (ed.) *Selected Proceedings of the 13th Hispanic Linguistics Symposium*. Somerville: Cascadia Proceedings Project.
- Ramsammy, M. (2012). Word-final nasal velarisation in Spanish. *Journal of Linguistics* 49(1): 215–255.
- Roberts, P. (2012). Latin rhotacism: a case study in the life cycle of phonological processes. *Transactions of the Philological Society* 110: 80–93.
- Vennemann, T. (1978). Phonetic analogy and conceptual analogy. In Baldi, P. & R. N. Werth (eds) *Readings in historical phonology: chapters in the theory of sound change*, 258–274. Philadelphia: Pennsylvania State University Press.

Inverse compensatory lengthening in Latin: weight preservation or phonologisation? *Ranjan Sen, University of Sheffield*

The sporadic Latin ‘*littera*-rule’ changed long vowel + singleton (V:C) into short vowel + geminate (VCC): *littera* > *littera* ‘letter’. This ‘inverse compensatory lengthening’ (Hayes 1989) occurred in 3rd-1st centuries BC to judge from inscriptional evidence, and can be straightforwardly explained by weight preservation.

However, the rule can be distilled into three phonetically-guided processes, supporting Kavitskaya’s (2002) phonologisation model of CL. A clear diachronic V:C > VCC occurred in ‘high vowel + voiceless obstruent’: high vowels are intrinsically the shortest, and vowels are commonly shorter before voiceless obstruents than other consonants (see Keating 1985: 120). Therefore, the *phonologically long* vowels which were *phonetically shortest* by nature, in the environment where they were *phonetically shorter* still, became *phonologically short*, by phonologisation of that duration. The concomitant lengthening of the consonant can be explained by the hypothesis, supported by several Latin phenomena, that closed-syllable vowels in Latin were longer than their open-syllable counterparts (Sen 2012), contrary to near-universal expectations. Therefore (Figure 1), the short phonetic duration of high vowels before voiceless obstruents resulted in their reanalysis from long vowels in open syllables to short vowels in closed syllables, a structural context to which their longer-than-expected phonetic duration could be attributed. As the only segment which could be causing the closure, the following voiceless stop was realised as a geminate with minimal aerodynamic difficulty.

The process can be explained by a reductionist account of diachronic phonology (e.g. Blevins 2004), rather than invoking structural constraints on change such as ‘weight preservation’.

Figure 1. Phonologisation analysis of (i) the *littera*-rule, (ii) no change

	Stage 1	Stage 2
(i) CV: _[+high] T _[-voice]	V C	V C
Speaker produces		
Listener interprets	CV: <u>i</u> .C...	CVC.C...
(ii) CV: _i .C (other)	V C	V C
Speaker produces		
Listener interprets	CV: <u>i.C...</u>	CV: <u>i.C...</u>

References

- Blevins, J. (2004). *Evolutionary Phonology: the emergence of sound patterns*. Cambridge: Cambridge University Press.
- Hayes, B. (1989). ‘Compensatory lengthening in moraic phonology’. *Linguistic Inquiry* 20: 253-306.
- Kavitskaya, D. (2002). *Compensatory lengthening: phonetics, phonology, diachrony*. New York; London: Routledge.
- Keating, P. A. (1985). ‘Universal phonetics and the organization of grammars’, in V. A. Fromkin (ed.), *Phonetic Linguistics: essays in honor of Peter Ladefoged*. London: Academic Press, 115-32.
- Sen, R. (2012). ‘Reconstructing phonological change: duration and syllable structure in Latin vowel reduction’. *Phonology* 29 [3]: 465-504.

PHONETIC BIASES AND SYSTEMIC EFFECTS IN THE ACTUATION OF SOUND CHANGE

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In this talk, I investigate the role of phonetic biases and systemic effects in the actuation of sound change through computer simulations. Phonetic biases are physiological and psychoacoustic constraints on speech. Approaches that view phonetic biases as the source of sound change predict that sound change should occur much more frequently than it does. The main reason for this problem is a narrow focus on isolated sound categories. If we shift our attention from individual categories to sound systems, this problem disappears: the effects of phonetic biases are countered by other pressures within the system, and the predicted systems are stable.

I present results from a large number of simulations, which show that complex sound systems evolve towards stable states in an adaptive landscape. These stable states are determined not only by phonetic biases, but also by other factors such as contrast maintenance and the physical boundaries of phonetic space. As the complexity of the sound system is increased, the relative importance of non-phonetic factors becomes higher, and that of phonetic biases lower. The implications of these results are clear: bias-based approaches do not necessarily overestimate the probability of sound change.

This approach also provides a partial explanation as to why sound change occurs when it does. I will argue that sound change may occur as a response to changes in non-phonetic factors (e.g. changes in functional load). This may in turn lead to changes in the sound system.

RECONSTRUCTING THE DEVELOPMENT OF /s/-VOICING IN QUITO SPANISH

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In this paper, we consider possible diachronic pathways leading to the development of /s/-voicing in Quito Spanish. /s/-voicing applies in word-final pre-sonorant sibilants (Vs#N, canonical codas) as well as in word-final pre-vocalic vowels (Vs#V, derived onsets), but it fails to apply in word-initial and word-medial prevocalic environments (V#sV and VsV, canonical onsets). Bermúdez-Otero (2011) and Strycharczuk et al. (2013) analyse this pattern as overapplication of voicing in derived onsets. The emergence of opacity effects in language change is attributed to reinterpretation of a phrase level process as a word level one, formalised within a cyclic model of grammatical architecture.

The present work presents an alternative diachronic scenario, drawing on new phonetic evidence from Quito Spanish and Castilian Spanish. Our data indicate that resyllabification in both dialects is partial, with derived onsets forming an intermediate category between canonical onsets and canonical codas. Based on this, we argue that the asymmetric behaviour of derived onset and canonical onset /s/ in Quito Spanish is not due to an earlier stage of grammatical restructuring, but rather, it follows from the fact that the two environments do not share a unique prosodic representation. We further discuss how different phonetic cues to partial resyllabification may be subject to subphonemic cross-dialectal variation, which offers a potential solution to the actuation problem in the phonologisation of /s/-voicing.

References

- Bermúdez-Otero, R. (2011). Cyclicity. van Oostendorp, M., C. J. Ewen, E. Hume & K. Rice (eds.), *Blackwell companion to phonology*, Chichester: Wiley-Blackwell, vol. IV, pp. 2019–2048.
- Strycharczuk, P., M. van 't Veer, M. Bruil & K. Linke (2013). Phonetic evidence on phonology-morphosyntax interactions. Sibilant voicing in Quito Spanish. *Journal of Linguistics* Available on CJO 2013 doi:10.1017/S0022226713000157.

The status of ‘false’ geminates in Old English

Penelope Thompson

The focus of this paper is a process of degemination in Old English affecting weak past participles, and its interaction with vowel deletion. In particular, the paper argues that there is evidence to suggest that final orthographic double consonants in Old English are pronounced. Hogg (1992) assumes that final geminates are merely orthographic, while Kurath (1956) assumes that they are analogical to inflected spellings. In contrast, I argue that the variation in spelling is the result of a phonological process of degemination, and not, therefore, representative of analogy or orthography. The geminates under investigation in this paper are the ‘false’ geminates created by high vowel syncope. High vowel syncope is expected to remove medial vowels in inflected forms with a heavy root syllable, as in *lǣded+e* ‘led’ → *lǣdde*. In West Saxon, this prosodically conditioned process overapplies in weak Class 1 past participles with roots ending in *t/d*, with deletion occurring after light syllables, as in *settan* ‘set’ *set+ed+um*_(Past.Part.Dat.) → *settum*, and also in uninflected participles: *seted* → *sett*. The root-final dental and the stem-forming *-ed* come together following deletion to form a geminate: *lǣded+e* ‘led’ → *lǣdde*. The result is the creation of geminates in a range of environments, including intervocalic, final, and following both heavy and light syllables. I attempt to account, on the basis of data taken from Cosijn’s *Altwestsächsische Grammatik* (1888), for the phonological pressures that cause the geminates to be simplified variably in certain environments and obligatorily in others.

Competing Analyses of Old English Meter: *Modelling and Automated Analysis*

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I present a computational method of verse analysis that automatically infers metrical patterns in Old English(OE) alliterative verse. The method involves processing pairs of half-lines based on established phonological and morphological theories for syllable division, syllable weight, and foot parsing. The output is a scansion of the entire text in terms of primary (‘/’), secondary (‘\’) and unstressed positions (‘x’).

A key step in the automated analysis is the identification of prosodic word structures, to model the rhythmic organization of OE, as I assume that verse stress is firmly grounded in prosodic word structure. OE foot-structure is seen as binary and left-headed, but has alternatively been accounted for in terms of the moraic trochee (Bermúdez-Otero&Hogg 2003), the syllabic trochee (Minkova 2006), as well as by identifying a specific pattern of metrical coherence, known as the *Germanic Foot* (Dresher&Lahiri 1991). The computational approach presented here implies claims about the suitability of assumed foot types by comparing the overall processing accuracy obtained. A theory that brings prosodic and metrical structure together is therefore regarded as inherently more promising, but the method does not essentially rely on any specific choice.

I tested this method on a digitized version of the complete *Beowulf* and compared the automatically parsed output against well-known scansions (e.g. Bliss 1962). Preliminary results show that a basic implementation already obtains a promising degree of accuracy, with the potential to further extend and refine the method.

References

- Bermúdez-Otero, Ricardo & Richard M. Hogg (2003). “The actuation problem in Optimality Theory: phonologization, rule inversion, and rule loss”. In D. Eric Holt (ed.), *Optimality Theory and language change* (Studies in Natural Language and Linguistic Theory 56), 91-119. Dordrecht: Kluwer.
- Bliss, A. J. (1962). *The Metre of Beowulf*. Oxford: Blackwell Publishing.
- Dresher, E. B., & Lahiri, A. (1991). “The Germanic Foot: Metrical Coherence in Old English”. *Linguistic Inquiry*, 22(2), 251-286.
- Minkova, Donka (2006). “Old and Middle English Prosody”. In Kemenade, A. v., & Los, B. (Eds.). *The Blackwell Handbook on the History of English*. Oxford: Blackwell Publishing, 96-124.

Layered OT
Gary Taylor-Raebel

A split between the disciplines of diachronic and synchronic phonology dates to Saussure's (1916/1983) misconception that diachronic information is irrelevant and too complex to be incorporated into synchronic studies. His proposal for separate disciplines consequently led to a split between the more diachronically relevant phonetics and the more synchronically relevant phonology. This approach was endorsed by Trubetzkoy (1939/1969) and subsequent phonological research.

Phonology has progressed and is now at a stage where discussions are possible whether these splits were justified. Models exist which may be used to demonstrate both diachronic and synchronic information and thus also both phonological and phonetic information.

One of the important features of the constraints concept in OT is that they must be empirically grounded (cf. Archangeli & Pulleyblank 1994). Functional phonology (Hayes 1997, Boersma 1998) has gone some way to incorporate a more phonetic basis into the constraints system. I propose to go further and introduce the idea that faithfulness/markedness constraints (FMC) may be broken down a level comprising articulatory/perceptual constraints (APC). FMCs may share APCs thus overlapping each other. A ranking of APCs (and a reranking for diachronic research) will enable us to see the interrelatedness between FMCs, and account for synchronic variation, a shortcoming of OT at present.

Constraints on perceptual considerations such as stress placement will thus link with faithfulness constraints also sharing identical constraints for example.

A possible further layer could be added splitting APCs into neuro-motor constraints etc. to bring a further level of phonetic analysis.

Archangeli, D. & Pulleyblank, D., 1994. *Grounded phonology*. Cambridge, Mass. and London: MIT Press

Boersma, P., 1998. *Functional phonology*. The Hague: Holland Academic Graphics

Hayes, B.P., 1997. *Phonetically driven phonology: The role of Optimality Theory and inductive grounding*. California: UCLA

Saussure, F. de, 1916/1983. *Course in general linguistics*. Translated by Roy Harris, London: Gerald Duckworth & Co. Ltd.

Trubetzkoy, N.S., 1939/1969. *Principles of phonology*. Translated by C.A. Baltaxe, Berkeley: University of California Press

Interaction of derhoticisation and NURSE merger from synchronic and diachronic perspectives

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Using data drawn from the *Accent and Identity on the Scottish/English Border* (AISEB) project, this paper will discuss evidence of the merger of the BIRD, BERTH and BURT sets in the English spoken in two Scottish border towns, Gretna and Eyemouth, and will relate it to patterns of derhoticisation in these varieties and in Scottish English more generally. The interaction of this collapse of qualitative distinctions among short vowels before /r/ and the lenition and loss of the coda /r/ itself is considered in the light of the phonological and social factors that gave rise to the current situation – one of non-rhoticity and a fully merged NURSE set – in many varieties of English English, including Standard Southern British English (SSBE). We argue that the loss of acoustic distinctiveness among the BIRD, BERTH and BURT vowels in contemporary Gretna English, along with a reduction in the frequency of /r/-ful pronunciations of candidate rhotic forms among younger speakers, signals a recapitulation of earlier changes that resulted in the SSBE pattern seen today. Three issues in particular are addressed: (1) whether derhoticisation is a necessary precondition for the NURSE merger to take place; (2) whether the retention of an alveolar tap realisation of coda /r/ might act as a barrier to the qualitative collapse of preceding short vowels; and (3) whether an overtly realised alveolar approximant in coda position might, through /r/-colouring, promote the merger of the three vowels even if rhoticity is preserved in the long run.

[245 words]