

Report on my participation in the Poznań Linguistic Meeting 2013.
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The Poznań Linguistic Meeting 2013 (PLM 2013) took place in Poznan, Poland from 29 August to 1 September 2013.

There were interesting talks as can be seen in the programme:

http://ifa.amu.edu.pl/plm/2013/PLM2013_Programme

The most interesting item was for me the discussion of language complexity by Dafydd Gibbon. Here is the synopsis of my own contribution.

Kluge's Law: chronology, limits on co-articulation, geminate fortition

Kluge's Law (KL) of Proto-Germanic (PGmc) is traditionally described as the total assimilation of a pretonic nasal to a preceding voiced obstruent. It chronologically follows acts 1 and 3 of Grimm's Law (GL; spirantization of plain stops and de-aspiration of voiced aspirates, respectively), as well as Verner's Law (VL), and precedes Occlusivization and act 2 of GL. Table (1) (adapted from Kroonen 2011:50) illustrates the derivations from Proto-Indo-European (PIE) to PGmc for the combinations of plain stop + *n*, voiced aspirate + *n* and voiced stops + *n* (the three types of stop in PIE) respectively:

(1)	Dutch <i>wit</i>	English <i>bottom</i>	Middle High German <i>stutzen</i>
PIE	* <i>kuit-nó-</i>	* <i>b^hud^h-nó-</i>	* <i>stud- néh₂-</i>
GL, acts 1 & 3	* <i>hwiθ-ná-</i>	* <i>bud-ná-</i>	N.A.
VL	* <i>hwið-ná-</i>	* <i>buð-ná-</i>	N.A.
KL	* <i>hwiðða-</i>	* <i>buðða-</i>	* <i>studdō-</i>
Occlusivization	* <i>hwidda-</i>	* <i>budda-</i>	N.A.
GL, act 2	* <i>hwitta-</i>	* <i>butta-</i>	* <i>stuttō-</i>
PGmc	* <i>hwitta-</i>	* <i>butta-</i>	* <i>stuttō-</i>

These traditional derivations are problematic, because:

- (i) acts 1 and 3 of GL are chronologically separated from act 2, although GL is widely seen as a chain shift;
- (ii) there is a complicated detour via spirantization, voicing, occlusivization and devoicing (*tn>θn>ðn>ðð>dd>tn>tt* instead of *tn>tt*);
- (iii) in practice, *n* **only** assimilates to preceding **voiced** stops, whereas phonetic research shows that voiced geminates (especially voiced fricative geminates as in **hwiðða-*) encounter aerodynamic difficulties (Dmitreeva 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 of **hwitta-* and **butta-*.

Kortlandt (1988, 1991) presents an analysis of KL under the Glottalic Theory of PIE (where *T*, *D^h*, *D* have been replaced by *T*, *D*, *Tʔ* respectively (upper case characters generalize over place of articulation)). In Kortlandt's analysis, KL precedes GL but follows VL. For the PIE > PGmc derivation of **hwitta-*, there is no more a detour via spirantization and occlusivization, but there still is one via

voicing and devoicing. Furthermore, problem (iii) remains. Because of the postulated order VL>KL>GL, Kortlandt's analysis is also incompatible with the recent insight that under Glottalic Theory, VL and GL can be analyzed as a **single process** (GVL; Perridon 2007, 2008; Noske 2009, 2012).

I will present here arguments in favour of the chronology: KL > GVL instead of the order VL > KL > GL as proposed by Kortlandt. The upshot is that all four problems mentioned above then disappear. I will also show that KL was not really an assimilation conditioned by the fact that a following vowel is stressed, but by fact that a **preceding vowel is unstressed**, and thus has the same conditioning as Verner's Law. This conditioning can be grounded in phonetic research, e.g. by De Jong et al. (1993), showing that co-articulation effects are reduced or blocked in (post-)stress environments. This view can be formally captured in a view of phonological processes as being output-driven, where constraints are separated from the processes they determine.

Under Glottalic Theory, the PIE forms in table (1) are: **kuit-nó-*, **bud-nó-* and **stut²-néh₂-*. Because act 2 of GL (D > T) no longer exists under the same theory, a separate process of geminate fortition needs to be postulated for the derivation PIE **bud-nó-* > **budda* > PGmc **butta-*. Such a process is straightforward and present in many languages (e.g. Japanese, Kawahara 2006).

References:

- De Jong, Kenneth, Mary E. Beckman & Jan Edwards (1993): "The interplay between prosodic structure and coarticulation." *Language and Speech* 36, 197-212.
- 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.
- Kawahara, Shigeto. 2006. "A faithfulness ranking projected from a perceptibility scale: the case of [+voice] in Japanese". *Language* 82.3, 536-574.
- Kluge, Kluge, Friedrich. 1884. "Die germanische consonantendehnung." *Beiträge zur Geschichte der deutschen Sprache und Literatur (PBB)* 9, 149-186.
- Kortlandt, Frederik. 1988. "Proto-Germanic obstruents." *Amsterdamer Beiträge zur älteren Germanistik*, 27, 3-10.
- 1991. "Kluge's law and the rise of Proto-Germanic geminates." *Amsterdamer Beiträge zur älteren Germanistik*, 34, 1-4.
- 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.
- Noske, Roland. 2009. "Verner's law, phonetic substance and form of historical phonological description." *Proceedings JEL'2009 (dis)continuu, 6th Nantes Linguistic Meeting*, 33-42.
- 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.
- Perridon, Harry. 2007. "De medeklinkers van het Oer-Germaans. Een nieuwe kijk." In Post van der Linde, Carola & Lars van Wezel (eds.), *Twai tigjus jere: jubileumnummer van het mededelingenblad van de Vereniging van Oudgermanisten, uitgegeven ter gelegenheid van het twintigjarig bestaan van de Vereniging*, 5-8.

--- 2008. "Reconstructing the obstruents of Proto-Germanic." In: Lubotsky, Alexander Markovitsj, Joseph Schaeken & Jeroen Wiedenhof (eds.), *Evidence and Counter-evidence. Essays in honour of Frederik Kortlandt*, Amsterdam/New York: Rodopi.

Westbury, John R. & Patricia Keating. 1986. "On the naturalness of stop consonant voicing." *Journal of Linguistics* 22, 145-166.

My contribution led to a vivid discussion between Piotr Gąsiorowski (a specialist on Germanic historical linguistics) and me, among others concerning the validity of the Glottalic Theory.

In all, the conference was very useful for my research, especially for the contacts I was able to make.