

PROTO-GERMANIC OBSTRUENTS

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Ten years ago I published a new reconstruction of the Proto-Indo-European system of obstruents, arguing for the absence of an original distinction between voiced and voiceless phonemes in the proto-language (1978). According to the conception outlined there, the historically voiced plosives were earlier aspirated and glottalized lenes, and the rise of an opposition between voiced and voiceless obstruents was a common innovation of all branches except Anatolian and Tocharian, resulting from the loss of aspiration in the north and glottalization in the south of the Indo-European language area. In subsequent years I argued that there is evidence for later preservation of the original glottalized plosives not only in Balto-Slavic and Armenian, as I had done earlier, but also in Indo-Iranian, Greek, Italo-Celtic, and Germanic (e.g., 1985). This obviously has consequences for the reconstruction of the Proto-Germanic system of obstruents, which will be discussed in the present contribution.

As I pointed out in my article on the PIE. obstruents (1978: 111f.), there is no evidence that the original aspirated plosives ever yielded fricatives in Proto-Germanic times (cf. already Meillet 1908: 89f.). The major indications which are relevant in this connection are the following:

- (1) A comparative analysis of the Scandinavian evidence points to original plosives in word-initial position (cf. Einarsson 1941: 43ff.).
- (2) In Old English, initial /g/ was a plosive before consonants and back vowels (Moulton 1954: 24), so that the rise of a fricative before front vowels must have been posterior to the palatalization.
- (3) There is no Old Saxon spelling evidence for a fricative pronunciation of initial /g/, which can be established on the basis

of the Middle Low German and modern dialectal evidence only (Moulton 1954: 32).¹

(4) In Old Norse, the preterit suffix of weak verbs with a stem ending in *l* or *n* is a dental plosive if the preceding syllable is heavy, but a dental fricative if the preceding syllable is light, e.g. *deilda* 'divided', *kenda* 'taught' (inf. *kenna*), *valða* 'chose', *vanða* 'accustomed'. The simplest way to account for the difference is the assumption that an intervocalic plosive **d* became a fricative at the stage between the first and the second syncope. Thus, the syncope in **dailidō* yielded **däildō*, the intervocalic development of the dental plosive in **walidō* then yielded **waliðō*, the syncope in the latter form yielded **walðō*, and the shortening of final vowels eventually yielded the attested forms *deilda* and *valða*. If this reconstruction of the relative chronology is correct, it follows that the intervocalic dental plosive was preserved at the time of the earlier syncope.

(5) Intervocalic **ð* was lost before *r* when the intervening vowel was syncopated in Proto-Norse, e.g. *fiórir* 'four', *hvárir* 'which', Gothic *fidur-*, *hvaþarai*. Since the cluster was not simplified in *veðr* 'weather' from **uedhrom*, Russ. *vědro*, the dental plosive in this word had apparently not yet become a fricative at the time of the younger syncope. Thus, the rise of a fricative in *veðr* was evidently posterior to the loss of the fricative with compensatory lengthening in *fiórir* and *hvárir*, which was in its turn posterior to the syncope in **fiður-* and **hwaðar-*.

(6) Old Norse *batt* 'bound', *helt* 'held', Gothic *haihald* point to preservation of the plosive before the apocopated ending **-e*. The final fricative of Go. *faifalp* 'folded' was assimilated to the preceding resonant in ON. *fell* 'covered the head', as it was in *fimm* 'five'; the forms *hell* and *felt* are analogical. If the obstruent **d* had been a fricative at the time of the apocope, it would have yielded *-þ* in Gothic and be assimilated to the preceding resonant in Old Norse. It follows that the fricative of Go. *anabaup* 'ordered', ON. *bauð* from **bhoudhe* is an innovation, while the corresponding dental plosive of West Germanic must be an archaism.

1. Dr Norbert Voorwinden informs me that *Iosef* alliterates with *God* and *good* in Old Saxon, which renders this point immaterial.

Since the Proto-Germanic voiced obstruents have a twofold origin, their reconstruction as plosives poses a chronological problem with respect to Verner's law. There are two possibilities:

(1) Verner's law was posterior to the rise of the voiceless fricatives *f*, *þ*, *x* which resulted from Grimm's law. This is the usual view. It implies a development $*t > *p > *ð > d > ð$, e.g. in English *father*, OE. *fæder*, ON. *faðir*, Gr. *patér*. Since the dental obstruent was preserved in ON. dat.sg. *feðr*, Gr. *patrí*, it must have been a plosive at the stage discussed under (5) above (cf. Kortlandt 1978: 113). The objection that the dental obstruent may have been restored in this form does not hold in view of the word *leðr* 'leather', Old Irish *lethar*, where such a restoration is impossible.

(2) Verner's law was anterior to the rise of voiceless fricatives which resulted from Grimm's law. This is Vennemann's view (1984). I think that it is correct. In my earlier discussion I stuck to the traditional view, mainly because of ON. *enn* 'still', which cannot be separated from *endr* 'again', OHG. *enti* 'earlier' (1978: 113). The assimilation in ON. *enn* points to a fricative, as in *fimm* and *fell*. The antinomy is resolved if we derive *enn* from acc.sg. $*anþu$, Gr. *ánta*, and assume that the umlaut was analogical, while OHG. *enti* can be identified with Gr. *antíos*. There is no evidence for a root-stressed loc.sg. form $*anþi$ beside $*andi$ (Gr. *anti*) and $*unþē$ in Germanic, in spite of Lühr's effort to prove the contrary (1979). If we identify ON. *enn* with Skt. *ánti*, the plosive of the common Germanic prefix *and-* remains unexplained. (For the stress of $*unþē$ cf. Gathic inst.sg. *aśī* = $*fī$ 'reward' and Beekes 1985: 197.)²

The hypothesis that Verner's law was anterior to Grimm's law has several advantages beyond the points which have been mentioned thus far. It provides a simple chronology for the Runic forms *fadiz* (Strö), *fabir* (Rök), ON *faðir* (Lehman 1986: 101). The rise of the younger futhark was evidently conditioned not by the voicing of the fricatives *f*, *þ*, *x*, but by the loss of occlusion in the

2. Perhaps we do have to assume a root-stressed paradigm on the strength of *enn* and $*unþē$ and a derivative to account for *endr* and OHG. *enti*. If this is correct, it remains unclear why the prefix *and-* adopted the plosive of the derivative.

plosives *b*, *d*, *g*. Moreover, the total merger of the preterit formative **-dh(ē)-* with the participial formative **-t(o)-* is best explained by an early phonological merger of the two obstruents, followed by a long period of analogical adjustments. There can be no doubt that the analogical processes operated in both directions. On the one hand, the suffix of OE. *gehæfd* 'had', *gesægd* 'said', *gehygd* 'mind', Go. *gahugds* was taken from the dental preterit. The original consonant was preserved in OE. *hæft* 'captive', Go. *andahafits* 'answer'. On the other hand, the perfect presents ("praeteritopraesentia") created a preterit on the basis of the participle, e.g. OE. *cūðe* 'could', *cūð* 'known'. Rückumlaut preterits are also a creation on the basis of the participle, e.g. OE. *worhte* 'worked', *pūhte* 'seemed'. They replace earlier perfects (strong preterits), as is clear from the root vowel of *warhte* beside *worhte*, also *pōhte* beside *pūhte*, with secondary transfer to the paradigm of *pencan* 'think' on the analogy of *sōhte*, *sēcan* 'seek'. The original perfect was preserved in *brēc*, *brūcan* 'use', which adopted the regular ending of the strong verbs in the participle *brocen*, cf. Go. *bruhta* 'used', and OE. *coren* 'chosen' replacing earlier *cost*. The ablaut was most widely preserved in the case of Go. *brahta*, *briggan* 'bring', OE. *brōhte*, *bringan*, OHG. *brāhta*, *bringen*.

The hypothesis that Verner's law was anterior to the rise of the voiceless fricatives is compatible with the early rise of Proto-Germanic voiced plosives as a result of the dialectal Indo-European loss of aspiration. Both developments are at variance with the traditional reconstruction of PIE. simple voiced stops yielding Proto-Germanic simple voiceless stops which were subject to a number of gemination processes in various Germanic language areas and shifted to affricates in Old High German. We must therefore reconsider the phonetic character of the Proto-Germanic voiceless plosives.

The usual reconstruction of simple voiceless plosives for Proto-Germanic does not account for the multifarious reflexes which we find in the daughter languages. The following developments are of major importance:

(1) Preaspiration in Icelandic, e.g. in *epli* 'apple', *opna* 'open', *vatn* 'water', *batna* 'improve', *mikla* 'increase', *teikn* 'token', *verpa* 'throw', *elta* 'pursue', *verk* 'work'. These examples show that the

preaspirated stops do not reflect clusters but directly represent the voiceless plosives of Proto-Germanic. Since the same reflexes are found in the Norwegian dialect of Jæren (cf. Oftedal 1947), preaspiration is an inherited feature in these words.³

(2) Preglottalization in the western dialects of Danish: the so-called *vestjysk stød* (cf. Ringgaard 1960). The classic view that it represents “en ljudaffektion, som intrædt ved tænes i visse stællninger” (Kock 1891: 368fn.) does not explain the rise of the glottal stop.

(3) Gemination in Swedish, e.g. in *vecka* ‘week’, *droppe* ‘drop’, *skepp* ‘ship’, cf. ON. *vika*, *dropi*, *skip*, OE. *wice*, *dropa*, *scip*, Finnish *viikko*. This gemination is unexplained.

(4) Assimilation of *mp*, *nt*, *nk* to *pp*, *tt*, *kk* in the larger part of Scandinavia. The nasal consonant was apparently devoiced by the preaspiration of the following plosive and then lost its nasal feature.

(5) Gemination of *k* before *j* and *w*, e.g. ON. *lykkja* ‘coil’, *bekkr* ‘brook’, *nǫkkvi* ‘boat’, *rækkr* ‘dark’. Similarly, gemination of *t* before *j* in a limited area, e.g. Swedish *sätta* ‘set’. (West Germanic geminated all consonants except *r* before *j* and is therefore inconclusive.)

(6) Gemination of *p*, *t*, *k* before *r* and *l* in West Germanic. The same development is found sporadically in Scandinavia; this suggests that we have to do with the loss of an archaic feature (such as preaspiration) rather than with an innovation. In Icelandic, preaspiration is lost before *r* and preserved before *l* (Haugen 1941: 101).

(7) Standard English inserts a glottal stop before a tautosyllabic voiceless plosive, e.g. *lea’p*, *hel’p* (Brown 1977: 27). There is no reason to assume that this is a recent phenomenon.

(8) The High German sound shift yielded affricates and geminated fricatives, e.g. OHG. *pfad* ‘path’, *werpfan* ‘throw’, *zunga* ‘tongue’, *salz* ‘salt’, *kind*, *chind* ‘child’, *trinkan*, *trinchan* ‘drink’, *offan* ‘open’, *wazzar* ‘water’, *zeihhan* ‘token’. These reflexes suggest a complex articulation for the Proto-Germanic voiceless plosives

3. It is probable that the preaspiration in Lappish must be attributed to Germanic influence.

from which they developed. In the traditional theory, the origin of the gemination is unexplained. Note that the High German sound shift has a perfect analogue in the English dialect of Liverpool, where we find e.g. *kx* in *can't*, *back* (Hughes and Trudgill 1987: 66).

The developments listed here receive a natural explanation if we start from the system of obstruents which must be reconstructed for Balto-Slavic. In this branch of Indo-European, the unaspirated lenes of the proto-language are reflected as voiced plosives preceded by a glottal stop, e.g. Latvian *pēds* 'footstep', *nuōgs* 'naked' from **pe'd-*, **no'g-*, cf. OE. *fōt*, *nacod*. (The circumflex accent denotes a glottal catch.) When the voiceless plosives were lenited to fricatives in Germanic, voicedness was lost as a distinctive feature. This is my reformulation of Grimm's law. The Proto-Germanic system of obstruents, which lacked voiced phonemes, has been preserved largely unchanged in modern Icelandic (and in the Norwegian dialect of Jæren), except for the fact that relaxation of the glottal stop yielded preaspiration (cf. Haugen 1941). The original glottal stop was preserved in the western dialects of Danish in spite of the general lenition of obstruents characteristic of this language. It was assimilated to the following plosive in Swedish *veck*, *droppe*, *skepp*, *sätta*. It devoiced and subsequently eliminated a preceding nasal consonant in the larger part of Scandinavia, e.g. ON. *drekka* 'drink'. It was assimilated before *kj* and *kw* in ON. *lykkja*, *nokkvi*, and before *p*, *t*, *k* plus resonant in West Germanic. It was preserved before a tautosyllabic plosive in modern English. It was oralized and after a vowel assimilated when the following plosive was lenited to a fricative as a result of the High German sound shift, a development which was probably arrested by the loss of the glottal stop in the Low German area.

I find no evidence for preservation of the glottalic feature in Gothic. Unlike the other Germanic languages, Gothic appears to have developed a distinction between voiced and voiceless phonemes at an early stage, probably under the influence of its non-Germanic neighbors. The new voiced plosives developed fricative allophones, which still remained strictly distinct from the voiceless fricatives in Wulfila's days, as Roberge has recently shown (1983). There is a trace of the Proto-Germanic absence of

voiced obstruents in the Gothic words *Kreks* 'Greek' and dat.pl. *marikreitum* 'pearls', which were apparently borrowed from Latin *Graecus*, *margarīta* at a stage when no voiced plosives were available.

As a summary, the following schematic representation illustrates my view of how the system of obstruents developed from Proto-Indo-European to Gothic:⁴

I. Proto-Indo-European.

	glottalized	plain	aspirated
fortis		<i>t</i>	
lenis	<i>t'</i>		<i>t^h</i>

II. Dialectical Indo-European (Proto-Balto-Slavic).

	glottalized	plain
voiceless		<i>t</i>
voiced	<i>'d</i>	<i>d</i>

III. Proto-Germanic (Proto-Norse, Proto-English, Proto-German).

	plosive	fricative
fortis	<i>'t</i>	
lenis	<i>t</i>	<i>þ</i>

IV. Gothic.

	plosive	fricative
voiceless	<i>t</i>	<i>þ</i>
voiced	<i>d</i>	

4. Verner's law must be dated to stage II. It yielded a voiced variant of the PIE. fricative **s*, which became phonemic when the stress was fixed on the initial syllable of the word. The rise of *r* from **z* may be viewed as a consequence of the loss of voicedness as a distinctive feature which Grimm's law entailed in the theory advocated here. It appears that the rephonemicization of voicedness in Gothic forestalled the rhotacism. I am inclined to date the fixation of the stress before Grimm's law in Gothic and after Grimm's law in the other Germanic languages. This chronological difference explains a number of seemingly independent characteristics of Gothic: (1) the preponderance of barytone forms, (2) the elimination of Verner alternations, and (3) the absence of rhotacism.

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