

OLD HIGH GERMAN POSTVOCALIC B, D AND G:  
STOPS OR FRICATIVES?

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The postvocalic reflexes of Indoeuropean \*bh, \*dh and \*gh, as well as \*p, \*t and \*k under the conditions of Verner's law, in the Old High German dialects (c. 750-1050) are generally considered to have been stop obstruents (see Fourquet 1954, Moulton 1959, Penzl 1970, Braune/Eggers 1975). The consonants in question were usually represented in the medieval manuscripts by the Latin letters b, d and g respectively. Most linguists accept the claim that the non-postvocalic reflexes of these consonants had become stops prior to historical times. At issue here is the question whether the postvocalic reflexes of these consonants were indeed the stops indicated by the orthography of the Old High German period.

The immediate reflexes of Indoeuropean \*bh, \*dh and \*gh in the Proto-Germanic period are considered to have been the fricatives \*ǣ, \*ð and \*ȝ (see Moulton 1972 for thorough discussion). While these consonants developed into stops in non-postvocalic environments (word-initial, post-nasal, in gemination), the evidence from the older Germanic languages attests to the retention of fricatives in postvocalic environments: In Gothic we find intervocalic b, d alternating with word-final f, þ (giban 'to give', gaf 'gave', blo:dis 'blood's', blo:þ 'blood'). The interpretation of this alternation, despite the orthographic problems, is one of voiced and voiceless fricatives. Gothic g does not evidence a similar alternation in the orthography. However, most scholars interpret the phonetic realization of g as patterning similarly to that of b and d, or as a fricative in all environments. Old Norse also evidences postvocalic fricatives as reflexes of these consonants (gefa 'to give', gaf 'gave', biöfa 'to offer', bauf 'offered'). The fricatives found in both intervocalic and word-final position are interpreted as voiced fricatives--one often finds ð in place of þ. As in Gothic, Old Norse g remains unclear from the orthography.

In the so-called West-Germanic languages we find a more differentiated situation: Germanic \*d is

reflected as a stop in all environments: Old English be:odan/be:ad, Old Saxon biotan/bo:d, Old High German biotan/bo:d or biotan/bo:t 'to offer/offered'. For Germanic \*b Old English exhibits f (wi:f 'wife', wi:fes 'wife's'). For Germanic \*g we find the new graph ȝ, which is interpreted as a fricative (eaȝe 'eye', ȝenoȝ 'enough'). The further development of ȝ in Middle English attests to its fricative character. The Old English pattern for \*b and \*g (postvocalic fricatives) is by and large considered to represent the basis for the continental West-Germanic languages or in the case of Old High German what we may call pre-Old High German.

Table 1. Orthographic representation of Germanic \*b, \*d and \*g in the Old High German dialects.

Middle Franconian:	<u>b</u> - <u>v</u> - <u>f</u>	<u>d</u>	<u>g</u>
Rhenish Franconian:	<u>b</u>	<u>d</u>	<u>g</u>
East Franconian:	<u>b</u>	<u>t</u>	<u>g</u>
Alemannic:	<u>p</u> - <u>b</u>	<u>t</u>	<u>k</u> - <u>g</u>
Bavarian:	<u>p</u>	<u>t</u>	<u>k</u> - <u>g</u>

In table (1) the dialects of Old High German are listed from north to south indicating how the orthographic practices in each dialect area represented the consonants derived from Germanic \*b, \*d and \*g (see Braune/Eggers, pp. 159-78). In Middle Franconian we find d and g with no differentiation. Reflexes of \*b are recorded as b (initially), v (intervocalically), f (finally). Rhenish Franconian and East Franconian exhibit no differentiation at all in the reflexes. Alemannic and Bavarian reveal the tendency to represent all three consonants with p, t, k rather than b, d, g, with the use of t being most consistent.

At this stage we are faced with the apparent development from fricatives to stops (Proto-Germanic/Pre-Old High German to Old High German) in these consonants. Only in the case of Middle Franconian b-v-f is there any reflection of the historical antecedent. The orthographic tradition established in this Old High German period, especially with regard to the representation of these consonants has changed little to this day. In fact, it is essentially this orthographic representation of stop obstruents which forms

the basis for the pronunciation of these consonants in Modern Standard German. Only one exception has been made, requiring fricative pronunciation in the word-final suffix -ig [-iç].

Aside from the orthographic tradition, these consonants have continued to develop in the several dialects. It is the evidence from the modern dialects which calls into question our previous, as well as the traditional, interpretation of the Old High German orthography. The evidence from the modern dialects by and large indicates fricative pronunciation in the reflexes of postvocalic Germanic \*b and \*g. Only the dialects in the extreme southwestern area (Swabian and Swiss German) reveal stop reflexes. Even in the case of \*d we find some interesting exceptions to the development of a stop reflex.

Reflexes of postvocalic Germanic \*b (Schirmunski, pp. 303-04): Middle Franconian (Riparian and Moselle Franconian) confirms the evidence from Old High German for this dialect. Intervocalic v alternates with final f: le:və 'love', sterəvə 'die', keləvə 'calves', af 'off', vi:f 'wife', kaləf 'calf', karəf 'basket'. In South Moselle Franconian we find a bilabial fricative w in both environments: kalw 'calf', bleiw 'I stay', glewə 'glue', kelwə 'calves'.

In the dialects south of Middle Franconian we encounter the bilabial fricative w in intervocalic position except in Swabian and Swiss German where \*b is reflected as a weak stop b. In word-final position all of these dialects have the weak stop b. Hessian: gra:wə 'dig', grab 'grave', khelwər 'calves', khəlb 'calf', blaiwə 'stay', blaibt 'he stays'. Significantly, loan words exhibit a fricative as the reflex of intervocalic b: bi:wəl 'Bible', tu:wag 'tobacco'. Also, pronoun/verb inversion can result in a fricative: ic hab vs. haw-ic 'I have'. A synchronic analysis would thus most likely include a rule of intervocalic spirantization.

The phonetic descriptions of both the bilabial fricative w and the stop b suggest a very weak articulation. In a study on a South Bavarian dialect published in 1897, it was reported that

... der Expirationsdruck ist äußerst gering,  
die Dauer des Verschlusses nur momentan. Das  
b der Inster Mundart ... ist das überhaupt

mögliche Minimum der stimmlosen Verschlußbildung. Jeder Versuch, sie schwächer zu bilden, führt zu dem w-Laute, mit dem sich der Stimmton verbindet. (Quoted in Schirmunski, p. 304)

Descriptions of the w also indicate a minimum of closure for an obstruent. Any further reduction would result in the loss of the segment. Not surprisingly one frequently encounters forms where \*b has simply been lost: Ripuarian jit 'he gives', Alsatian bli: 'stay'.

Reflexes of postvocalic Germanic \*g (Schirmunski, pp. 310-16): The fricative reflexes of postvocalic \*g in the modern dialects parallel to some extent those of \*b. However, the range in the dialects of fricative reflexes for \*g is slightly less than in the case of \*b. The border between intervocalic fricative and intervocalic stop for \*g runs just north of the same border for \*b in the west, with Swabian and Swiss German again exhibiting the stop. In the east, the area of South Bavarian is added to that of the dialects with intervocalic stop. The lack of territory for \*g-fricatives vis-à-vis the \*b-fricatives is compensated for by a greater variety of reflexes.

Schirmunski (pp. 310) organizes the reflexes of \*g into six main types:

I. Alternation of g with x: South Palatine fliçə 'fly', naxl 'nail', folçə 'follow', dāx 'day', we:c 'path'.

II. Alternation of i with ʃ: South Hessian wajə 'car', a:ʒə 'eye', reije 'rain', sorje 'worry'.

III. Loss of \*g except after liquids: West Palatine māe 'stomach', fro:ə 'ask', fo:l 'bird', mārje 'morning'. In some dialects loss of \*g is found only after back vowels: Lothringian frā: 'ask', zain 'say', le:jen 'lay', fli:jen 'fly'.

IV. Retention of \*g only before liquids: Thuringian rain 'rain', sā: 'say', dro: 'carry', fo:xl 'bird', šbi:cl 'mirror', jaxr 'hunter'.

V. Reflex of \*g is x: Bavarian də:x 'day', we:x 'path', jaxr 'hunter'.

VI. Reflex of \*g is a semi-vowel, either u or i:  
 Alsatian sa:uə 'say', šla:uə 'hit', ge:iə 'against',  
kri:iə 'get', föüel 'bird'.

Reflexes of postvocalic Germanic \*d (Schirmunski, p. 317): As for Germanic \*d, it is simply interesting to note that even in an apparently certain case of stop development we find examples in the modern dialects which permit some doubt. We find many examples of rhotacism: Palatine bi:rə 'offer', šnairə 'cut', ne:riç 'necessary'; also occurring in enclitics: haric 'I had', se:rə 'he says', merəm 'with him'. Other reflexes include the fricative ð and sometimes l: North Palatine bá:ðe 'bathe', gu:ðe 'good', raiðe 'ride'. We also find examples of total loss of \*d: Upper Hessian loi 'people', möi 'tired', khel 'apron'.

To derive the postvocalic reflexes of Germanic \*b, \*d and \*g in the modern dialects (except for Middle Franconian v - f), we must postulate a general rule of intervocalic--and in some instances postvocalic--weakening. Such weakening processes are not uncommon and are discussed frequently in linguistic literature. A rule or rules deriving the modern fricative reflexes would also account for the occurrence of fricatives in loan words and in syntactic inversions. It would be quite plausible to have such a rule or rules apply only to intervocalic environments to account for the stop reflexes in word-final position.

Such a characterization of this process would, however, create a difficulty in that we would have to assume that the development to Old High German (Germanic fricatives become Old High German stops) is reversed in the subsequent development to the modern dialects. We would be confronted with a linguistic flip-flop. The pre-Old High German development (fricatives become stops in postvocalic position) would have to be characterized as a strengthening process. Then, at precisely that moment when the stronger segments are realized, the process reverses itself and becomes one of intervocalic/postvocalic weakening. On the other hand, if these segments had not become stops in the first place, at least not in intervocalic position, the modern dialects would simply reflect a continuing development in the Germanic fricatives. The question would then arise as to the interpretation of the Old High German orthography.

While the medieval scribes were amazingly consistent in their spellings, we find a few examples which may shed some light on our problem. With regard to b, we find examples of v and w as substitutes (avant or auant 'evening'), as well as b and v as substitutes for Old High German f (gra:bo, gra:uo vs. gra:fo 'count'). It became quite common in later Bavarian texts to find b and w used interchangeably (bort/wort 'word'). As for g, we find many alternate spellings (gh, ch, hc, h), especially in word-final position (mach 'may', genuch 'enough'). We also find examples of g used for Old High German ch (spra:ge 'language', ku:gen 'cake', durg 'through'), as well as for j (gehan 'speak', eiger 'eggs'). Even as late as the seventeenth and eighteenth centuries literary usage reflected some orthographic confusion. We find forms such as Petersilge 'parsley' and -gen as a diminutive suffix in words like Mädgen 'girl'. Through spelling pronunciations some of these forms are now part of Modern Standard German (gären 'ferment', Gischt 'spray', Metzger 'butcher').

We are confronted by the very distinct possibility that in the central dialects and some of the southern dialects of Old High German, orthographic postvocalic b and g and perhaps even p and k did not represent stops, but on the contrary fricatives. Obviously, we cannot solve this problem without considering the position of these consonants within the entire obstruent system or systems of the dialects. However, we can make some observations which may point the way to a solution. Interestingly, we find the use of "stop" graphs for these consonants in those dialects which participate most extensively in the second or High German sound shift (Germanic \*p, \*t, \*k become fricatives and affricates). For instance, in Middle Franconian postvocalic \*p does not shift to f and the fricative graphs v and f are used to represent the reflexes of postvocalic \*b. At the other extreme, in Bavarian or Alemannic where all postvocalic \*p, \*t, \*k shift, we find no orthographic fricatives reflecting \*b and \*g. Yet, in Middle High German times (c. 1050-1350) Bavarian texts already indicate fricative spellings for intervocalic \*b.

The modern dialect evidence together with our observations above suggests that there was a four-way obstruent distinction in intervocalic position in Old High German: affricate, long stop, voiceless and voiced fricatives. If in the case of the labials, the

affricate is represented by pf, ph or the like, the long stop by double consonant pp (bb), and the voiceless fricative by f (ff), we must still select a graph to represent the remaining voiced fricative. If the alphabet from which we are borrowing our symbols lacks such a sound, then it is not implausible that we would select b. A simplex b would distinguish this sound from the other possible obstruents in postvocalic position.

We have certainly raised more questions concerning Old High German orthographic practice than we have solved. Most of the evidence marshalled against the traditional view of b, d and g as stops is circumstantial, even speculative. A rigorous study of the orthography of Old High German is called for. If our contention that at least b and g represented intervocalic fricatives can be substantiated, much of the historical analysis of the German obstruent system will have to be rewritten.

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