

# The Language of the Northwestblock

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According to Kuhn's Northwestblock hypothesis, the language of populations that settled the Northwest of Central Europe in the last centuries BC spoke neither Celtic nor Germanic, but instead a different Indo-European idiom. Kuiper even postulates a northern European substratum. The arguments brought up in favor of that are the large number of geminates, the variation between *\*p*, *\*b*, *\*pp*, *\*bb*, *\*ff*, the occurrence of *\*mp* at the root of the first syllable, and the words with initial *\*p* (initial *\*b*, the source of Germanic *\*p*, is exceedingly rare in the Indo-European lexicon). However, before assigning strange sound patterns of Germanic to a substratum language, it is necessary to examine if the phonological phenomena in question could have emerged in Germanic itself. As I have previously shown in my monograph *Expressivität und Lautgesetz im Germanischen*, published in 1988, nasalized obstruent clusters with *\*p* serve to convey sensory impressions, while the variation between *\*p*, *\*b*, *\*pp*, *\*bb*, *\*ff* is partly phonetic, partly expressive. Furthermore, I will show that initial *\*p* is due to a productive Germanic phonetic law. For all relevant words, I furthermore check whether there are factual circumstances that would necessitate borrowing.

Unrecorded extinct languages can sometimes be identified by traces that they leave in those languages on which sufficient information is available. Until now, lexical evidence has played a significant role in exploring those languages. However, the phonological evidence can be considered as well. Substrate influence can be seen in sound changes that have no obvious reason.<sup>1</sup> In terms of phonology, the language of the so-called Northwestblock deserves our attention. The proponent of this construct, Hans Kuhn, working with Hachmann *et al.* (1962), asserts that populations that settled the Northwest of Central Europe in the last centuries BC spoke neither Celtic nor Germanic, but instead a different, unknown Indo-European

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<sup>1</sup>Schrijver 2003; 2014. For the Germanic language cf. Hawkins 2009.

idiom. Although this view has usually been rejected – if not entirely, then at least in many or most details<sup>2</sup> –, Kuhn's hypothesis is held in higher esteem nowadays.<sup>3</sup> We are talking about a northern European substratum,<sup>4</sup> which Kuiper (1995) has called the “language of geminates”.<sup>5</sup> Indeed, in languages spoken in this area, in North Germanic and in the northern parts of the West Germanic region, a large number of geminates are documented.<sup>6</sup> Kuiper further notes the variation between

(1) \**p*, \**β*, \**pp*, \**bb*, \**ff*, \**mp*

at the end of the first syllable, arguing that words with these sound patterns reveal a non-Indo-European alternation and must therefore be substratum words in Germanic.<sup>7</sup> Kuhn himself added words with initial \**p* to the heritage of the language of Nordwestblock speakers. As initial \**b*, the preform of Germanic \**p*, is extremely rare in the Indo-European lexicon,<sup>8</sup> Germanic \**p* seems to be an unexpected sound in this position.

Before assigning aberrant sound patterns of Germanic to a substratum language, it is necessary to examine if the phonological phenomena in question could have emerged in the language that shows all these occurrences, *i.e.* in Germanic itself. As I have already published on these issues, I will repeat

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<sup>2</sup>Neumann 1971.

<sup>3</sup>Salmons 1992: 81ff.

<sup>4</sup>Boutkan 1998; Quak 2000: 134; Roberge 2010: 407f. Schrijver (2003: 221ff.) postulates a northern European substratum language to which belong not only the Northwest Germanic languages, but also Saami. A common phonological feature would be gemination. See further Schrijver 2009; 2011.

<sup>5</sup>Schrijver (2011: 217ff.) assumes that the Consonant Shift in the Rhineland ultimately goes back to language shift from Gallo-Romance to Germanic in the early Middle Ages. Gallo-Romance would be the point of origin.

<sup>6</sup>But geminates are also found in the more southerly Old High German.

<sup>7</sup>Schrijver 1997: 126.

<sup>8</sup>Probably, an assimilation of \**b* > \**m* took place (Haider 1983: 86; Kümmel 2012: 304 with literature). For another solution cf. Weiss 2009. The *mediae* in Indo-European were not simply voiced explosives. Several explanations are at hand: The Proto-Indo-European *mediae* were glottalized stops, *i.e.* ejectives or glottalized voiceless plosives (Gamkrelidze-Ivanov 1973), pre-glottalized lenis plosives (Kortlandt 1985) or glottalized injectives (Haider 1983).

the results of my investigations here. In my monograph *Expressivität und Lautgesetz im Germanischen*, published in 1988, I dealt with nasalized obstruent clusters and gemination in word-medial position. While my statements on gemination have been commented upon, most recently by Guus Kroonen, my studies on nasalization have not yet been taken into consideration. For this reason, I will address that here. The rise of initial \**p* will also be discussed in greater depth, because this sound reveals a productive Germanic sound change. It will be shown that the emergence of this sound is linked to the rise of geminates. The linkage of these sound changes is, to my mind, new. Finally, the semantics of Germanic words with initial \**p* will be studied more closely, as the question arises whether it really is an indicator of borrowing. Starting with gemination in word-medial position, we continue with nasalized obstruent clusters, then moving on to Germanic \**p* in initial position, to conclude with the semantics of words with this stop.

### 1. Gemination in word-medial position

In the Germanic languages, geminated obstruents are predominately found in the *n*-stems. Many of them show ablaut:

- (2) \**χriþan-*, \**χritta-* ‘fever’ (OHG *rīdo*, MHG *ritze*)<sup>9</sup>  
 \**greuþan-*, \**gruppa-* ‘basket’ (OE *grēofa*, MDu, *groppe(n)*  
 ‘iron pan’)<sup>10</sup>

Ablaut is an Indo-European derivational mechanism surviving in the Germanic languages until the Middle High German period. If the geminated obstruents came from the Northwestblock language, the Germanic words with ablaut must have integrated a non-Germanic, foreign sound pattern into words that comply with the known rules of Indo-European word-formation. As this is exceedingly unlikely, Friedrich Kluge<sup>11</sup> (1884) formulated a Proto-Germanic sound law to explain the origin of the Proto-Germanic doubled consonants

<sup>9</sup>Kroonen 2011: 232ff.; Schaffner 2001: 549ff.

<sup>10</sup>Lühr 1988: 243f.; Kroonen 2011: 161f.

<sup>11</sup>The name “Kluge’s law” was coined by Kortlandt 1991. Cf. de Vaan 2000: 171.

\**kk*, \**tt*, \**pp* as originating in the assimilation of *n* to a preceding voiced consonant, under the condition that the *n* was part of a suffix which was accented in ancestral Proto-Indo-European. Instead of nasal assimilation, however, I suggested gemination before a nasal that was consequently lost. A parallel sound development is found in Pāli, cf.

(3) Skt *svapna-* ‘sleep’ > Pāli *soppa-* < \**svappna-*<sup>12</sup>

Murray & Vennemann (1983) convincingly analyze this sound development as “a means of eliminating the poorest syllable contacts”, a phenomenon that is also reflected in West-Germanic consonant gemination.<sup>13</sup> The scale of “consonantal strength” is decisive here:

(4a)				voiceless	
				fricatives	voiceless
	glides	liquids	nasals	voiced stops	stops
→					

Cf. the structure formula in (4b):

(4b) VC<sub>r</sub>#C<sub>m</sub>V with *r* being stronger than *m*

Another motivation for consonant gemination by a resonant is presented by Denton in her study on the West Germanic Consonant Gemination (1999; cf. Denton 2003; Denton & Davis 2009). Her proposal is based on the fact that voice-onset time (VOT) may be affected in pre-resonant positions in syllables most often following the first stressed syllable. Thus, certain resonants would have the capability to strengthen preceding consonants by which a close coarticulation of the consonants with the following resonants would arise. Hereby, noisy or fortis coarticulations of consonant-resonant clusters would trigger gemination (Denton 2007), because the priming effect of existing geminates would provide an impetus for many of the stretched consonants to be interpreted as geminates. However, the Syllable Contact Law can be included (cf. Lühr 2015). The listener selected the

<sup>12</sup>Skt *chadman-* > Pāli *chaddan-* ‘cover, veil’. Also gemination in front of liquids is documented in this language: Skt *takra-* ‘buttermilk’ > Pāli *takka-*

<sup>13</sup>Hill (2009) is very critical of Preference Theory.

gemination interpretation, because in this way bad syllable contacts could be avoided (for the category of CHOICE, cf. Blevin's 2004 Evolutionary Phonology framework).

However, while Middle Indic gemination results from nasals, liquids, and semivowels and West-Germanic gemination from liquids and semivowels, Proto-Germanic gemination arises only in front of *n*.<sup>14</sup> The result was *\*pp*, *\*tt*, *\*kk*. Similar to the Upper German shift of geminated voiced stops to geminated voiceless stops during the West-Germanic consonant gemination, the geminated voiced stops resulting from *n*-gemination became voiceless. As the Germanic lexicon demonstrates, there are hundreds of words with geminated voiceless stops or with one voiceless stop developed from generalizing the voiceless feature within the paradigm. We will come back to this leveling when dealing with the word for 'plow'. Consequently, Kluge's sound law in its revised version is undoubtedly valid.

Contrary to the claims of the Nordwestblock substratum language, doubled voiceless stops are an innovation in Germanic, as Proto-Indo-European lacked a length distinction for consonants.

However, only voiceless stops arise from gemination by gemination before the nasal *n*. Therefore, an explanation for

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<sup>14</sup>The objection is that in the case of *n*-gemination lengthening must have occurred in front of *\*m* as well does not hold, because *m* and *n* can have different strength degrees. This is shown, for instance, by the sonority plateau with R[esonant]R[esonant]-onsets. The order of the nasals is *mn*, cf. formations of the root *\*mneh<sub>2</sub>* (Greek μμνήσκω). Thus, on the scale of consonantal strength, *m* takes precedence over *n*, and as *m* is stronger than *n*, no gemination occurs by *m*, but only by *n*. Another objection against the assumption of true gemination is the following: Why are the voiced fricatives *\*b*, *\*d*, *\*g* doubled, while the voiceless fricatives *\*f*, *\*p*, *\*χ* are not? (Kroonen 2011: 51). Also in this case, the syllable contact law offers a solution. If *\*f*, *\*p*, *\*χ* were doubled by *n*-gemination, *\*f*, *\*p*, *\*χ* were lenited in the syllable onset, cf. the Old High German rendering <fethdhahha> [fep̄ðaxa] in Isidor. However, in contact with *n* an onset "lenited spirant + *n*" was weaker, i.e. more sonorous than the syllable coda. For this reason the *n*-gemination would not have applied. In the case of gemination of the voiced fricatives *\*b*, *\*d*, *\*g* and the voiced stops *\*b*, *\*d*, *\*g*, the voiced fricatives *\*b*, *\*d*, *\*g* would have become voiced stops before *\*n* first. In this scenario, *n*-gemination would only affect occlusives and leave fricatives untouched (Sergio Neri, p.c.), cf. Lühr 2014.

geminated voiceless fricatives and geminated voiced stops must be found. To start with geminated voiceless fricatives, words with such a sound pattern are extremely rare. As can be shown, the geminated fricatives have different origins. They originated partly in sound symbolism, partly in assimilation:

(5a) OE *pohha* ‘burse’<sup>15</sup> < \**puχχan-*

(5b) OE *moppe* ‘moth’, MLG *mutte*, MDu. *mot(te)* < \**mupχan-* < \**mup-kan-*<sup>16</sup>

OHG *laddo*, *lat(t)o* ‘asser’, *ladda*, *latta* ‘tignum’, MHG *lat(t)e* ‘lath’, ME *lathe* ‘lath’ < \**lapχan-*, -*ōn-* < \**lap-kan-*<sup>17</sup>

OHG *chleddo*, *chletto*, *chledda*, *chletta*, MDu. *clesse*, *clisse* ‘burdock’ < \**kliβχan-*, -*ōn-* < \**kliβ-kan-*, -*ōn-*<sup>18</sup>

Geminated voiced stops are more frequent than geminated fricatives. Kluge explained them by analogy:

(6) “Die doppelformen [ahd. *chnabo* und *knapp-* (aus *knab-*)] führten durch association zu zwei neuen formenpaaren: man bildete zu *knabo* eine neue geminationsform *knabba* oder zu der geminierten form *knapp-* im anschluss aus *knabo* eine form mit einfacher consonanz *knapa*: jenes ist das mhd. *knappe*, dies das ags. *cnapa*.” (1884: 176)<sup>19</sup>

But if this were the case, the assumed generalization of

(7a) \**b̥* : \**bb* instead of \**p* : *pp* (< \**f*/*\*b̥* : *pp*)

would concern the spreading of voiced stops, that means, a leveling from the less marked to the more marked would occur,<sup>20</sup> cf.

<sup>15</sup>Lühr 1988: 206 ff., 251 f., 255; but cf. Kroonen 2011: 289f.

<sup>16</sup>Kroonen (2011: 219 f.) starts with a preform \**mupkan-* with change to \**mukpan-*. In the cluster \*-*kβ-*, the \**k* was subsequently fricativized under the influence of the \**β*; cf. OFri. *krocha* ‘scuttle’? (322).

<sup>17</sup>But cf. Kroonen 2011: 214 ff.

<sup>18</sup>Lühr 1988: 255; but cf. Kroonen 2011: 237f.

<sup>19</sup>This view is accepted by Kroonen (2011: 78), concluding “that the paradigmatic interchange of \**b̥* and \**pp* [which] gave rise to \**bb* und \**p* fully predicts the allomorphic variation that is attested across the Germanic dialects.”

<sup>20</sup>To pronounce voiced stops, speakers have to make complex articulatory adjustments (e.g. advancing tongue roots, larynx lowering). They must send air to their closed mouth (Ohala & Riordan 1979; Ohala 1983). In fact, many languages disprefer voiced obstruents (e.g. Hawaiian, cf. Hayes & Steriade

(7b) G : GG (← G: KK)

Therefore, I suggested another explanation for the geminated voiced stops. As the meanings of words with geminated voiced stops fall into specific semantic fields, I suggest that in Germanic geminated voiced geminates originated in child phonology, and that adults, like nowadays, adopted words with this sound pattern into their own language.

(8) Icel *krobbi* ‘body of little children’, MLG *kodde* ‘piglet’, Nw. dial. *tobba* ‘mare; tiny, disheveled female being (besides MHG *zūpe* ‘she-dog (bitch)’ < \**tūbbōn-*)<sup>21</sup>, MLG *sugge* ‘little pig’<sup>22</sup>, G *Dappe*, *Tappe* ‘paw’ (in *Dappe* the *bb* could also have an onomatopoeic function)

After having become established in the phonological system, geminated voiced stops could also be used to express other meanings such as words denoting soft, round, limp things.<sup>23</sup>

(9) ON *koddi* ‘pillow’, Swedish *rugge* ‘bush’, EDu *klodde* ‘knot’, Norwegian dial. *mugge* ‘heap of 10 sheaves of corn’, MLG *schobbe* ‘sheaf’, ON *stubbi*, *stubbr* ‘stub’, Nw. dial. *knubb* ‘wooden block’, Saterlandic Frisian *tabbe* ‘tap’

They could prompt an emotive function as with pejoratives:

(10) MDu *slobbe* ‘sludge’, MLG *dobbe* ‘pool’, MLG *podde*, *pudd* ‘toad’, OHG *chrotta* ‘toad’, MHG *rūp(p)e* ‘ealpout’, MLG *slagge(n)* ‘cold and damp weather, dirty weather’  
 (11) MUPG *mugge* ‘horse disease’, OHG *scratto* ‘larva, lar malus’, ON *skabb* ‘scabies’<sup>24</sup>

Finally small and protruding phenomenon are expressed:

(12a) LG *hobbe* ‘little hill’, OHG *kratto* (< \**kraddan-*) ‘basket’, MLG *snebbe*, *snibbe* ‘bill’, OE *twigge* ‘twig’, MLG *tagge* ‘twig’ (to Goth. *tagl* ‘hair’, EFri. *tāk(e)* ‘sting, thorn,

2004).

<sup>21</sup>Fick & Torp 1911: 151.

<sup>22</sup>Fick & Torp 1911: 442.

<sup>23</sup>Smith 1973: 21.

<sup>24</sup>Fick & Torp 1911: 451.

(spine), tip')<sup>25</sup>, OE *sceagga* 'hair', literally 'being at the top of something' (to Icelandic *skagi* 'peninsula')  
 (12b) MHG *tāpe* 'paw' (\**đēbban-*), OHG *hāccho*, MHG *hā(c)ke* 'hook' (\**hēggan-*), OHG *chrācco* 'uncinus, fuscina' (\**krēggan-*), OHG *chrāppo* 'aspidius, uncinus' (\**krēbban-*), MHG *snācke*, *snōcke* 'midge' (\**snēggan-*) (Lühr 2015)

In this function the geminated voiced stops resemble Croatian words with diminutive suffixes. Croatian is one of the most productive Indo-European languages when it comes to diminutives:<sup>26</sup>

(13) *grančica* ('small branch' – 'small part of a branch'),  
*sanak* ('short sleep'), *smiješak* ('light smile'), *plamičak*  
 ('light flame')<sup>27</sup>

In conclusion, I assume that the geminated voiced stops in Germanic are instances of sound symbolism.

However, in Germanic the establishment of geminated voiced stops has a necessary precondition: Since this language had geminated voiceless stops caused by *n*-gemination, geminated voiced stops could emerge from it by stop weakening in intervocalic position.<sup>28</sup> The sound symbolism here is organized in terms of the phonemic polarity *strong* vs. *weak*.<sup>29</sup> Undoubtedly, the vocabulary employing these sounds existed besides neutral words, which are always the largest part of the vocabulary of a language.

To sum up: geminated voiceless stops, geminated voiceless fricatives and geminated voiced stops are Germanic creations. None of these geminates constitute traces of a substratum language.

<sup>25</sup>Fick & Torp 1911: 153.

<sup>26</sup>Diminution in Croatian is expressed by special suffixes. For a comparison of diminutives and augmentatives in Dutch, German, and Polish and of diminutives in Russian and Swiss German, cf. Klimaszewska 1983, Kurt 2009.

<sup>27</sup>It depends on context whether the meaning small or pejorative is intended; cf. *grmečak* 'small bush', 'small scraggy bush'.

<sup>28</sup>Cf. Colantoni & Marinescu (2010) for such sound changes.

<sup>29</sup>For this polarity, cf. Anderson 1998: 105.



## 2. Nasalized obstruent clusters

Continuing to nasalized obstruent clusters, the recognition that the Germanic lexicon is organized in words with neutral connotation and words associated with a secondary meaning is decisive. Germanic words with non-inherited nasals belong to the second part of the lexicon. However, contrary to previous research literature, where the nasal was analyzed as a way to express feelings, emotions or affects, I argued that in Germanic this sound contributes to the communication of sensory impressions. It is a so-called phonestheme that is found in words denoting sounds and as a consequence of synaesthesia also in words denoting shininess, sparkling, brightness, and iteration of movements. Nasalization here is a wide-spread phenomenon emerging independently in several Indo-European languages and beyond. It is a matter of natural sound symbolism. Examples are:<sup>30</sup>

(14) Lat. *clangere* ‘to cry, resound’, G *klingen*, Gr. κλάγγη ‘sound’

(15a) words denoting sounds

PGmc. *\*trampō-* ‘to stomp’ vs. *\*trappō-* ‘trample’

Post-PGmc. *\*brankō-* ‘to break’ vs. *\*brakō-* ‘to crack’

(15b) words denoting glance, sparkle, brightness

PGmc. *\*blanka-* ‘shiny’ vs. *\*blaka-* ‘shiny’

PGmc. *\*brangō-* ‘to shine’ vs. *\*bragō-* ‘to shine, flicker, glimmer’

(15c) words denoting iteration of movement

PGmc. *\*gingē-* ‘to move unsteadily’ vs. *\*gigō-* ‘to waggle’

(15d) MLG *vlunk* ‘wing, windmill sail’ vs. MLG *vlögel* ‘wing’

As in the past, Modern German nasalization of words denoting sounds is very common:

(15e) German *manschen* vs. *matschen* ‘to splash about’

German *panschen* ‘to splash about’ vs. *patschen* ‘to slap’

The words in (15e) are characterized by rhyming codas. A lot of such words with a nasal as phonestheme can be found:

<sup>30</sup>Cf. Lühr 1988: 181ff.

(16a) words denoting sounds

\**stampō*- ‘to stamp’ - \**strampō*- ‘to stamp firmly’ -

\**trampō*- ‘to stamp one’s foot’ - \**đrampō*- ‘to trample’

(16b) words denoting glance, sparkle, brightness

\**blanka*- ‘shiny’ - \**sprankila*- ‘spot on the skin’ - MLG,

MDU *spranke* ‘spark, glimmer’

(16c) words denoting iteration of movements

\**slinga*- ‘to swing’ - \**svinga*- ‘to swing’

However, the presence of nasalized rhyming words as well as sound symbolism with the phonestheme *n* in Germanic contradicts the assumption of a substratum influence, because these phenomena are linguistic universals. They are often the result of a secondary association.<sup>31</sup> As imitation in general is undoubtedly an initial stage in the early development of human language vocabulary,<sup>32</sup> one can be sure that populations settling in the Northwestblock area, long before Germanic speakers arrived there, used rhyming words and sound symbolism. The speakers of Germanic did not adopt these sound patterns; they could create them themselves,<sup>33</sup> cf. also nasalized words for iteration of movement with the cluster \**mp* as mentioned in Kuiper’s list:

(17) Swiss German *gampen* ‘to juggle with a bench or chair’, *plampen* ‘to dandle, to swing loosely back and forth, to dangle’, *schwampelen* ‘to sway, to waver’

Low German *gampeln* ‘to juggle’, *ampeln* ‘to move hands and feet eagerly’, *hampeln* ‘to move back and forth’<sup>34</sup>

### 3. Germanic \**p* in word initial position

Let us recall the phonological situation in Pre-Proto-Germanic: As the preform of Germanic \**p*, Indo-European \**b*, is very rare, a phonological gap arose in Germanic. This resulted in the absence of a phonemic contrast in parts of the phonological system: words that are allowed in the

<sup>31</sup> Liberman 2005.

<sup>32</sup> Moreno Cabrera 2012.

<sup>33</sup> Also exclamations and interjections, present in all known human languages, are remnants of an early stage in vocal communication out of which human modern speech emerged (Swadesh 1971: 158).

<sup>34</sup> Lühr 1988: 185.

phonological system of a language are absent. Whereas Germanic *\*t* and *\*k* are well-attested, *\*p* is not. To dispense with this asymmetry, two phonological developments conspired. The possible loss of a so-called *s*-mobile<sup>35</sup> in Proto-Indo-European as well as in the daughter languages evolved into a productive process creating doublets with and without *s*. The driving force behind this alternation, i.e. the *s*-loss and its rise as a productive mechanism is the fact that normally the sounds building the syllable onset also occur in the word onset. As Pulgram (1970) has shown, the same sequential constraints that operate at the beginning of a word should be operative at the beginning of a syllable, cf. the word medial position caused by *n*-gemination with the word initial position:

(18)	Word medial position	Word initial position
	Coda    Onset	Onset
	-k        k-	k-
	-t        t-	t-
	-p        p-	-

For reasons of symmetry, Germanic attempted to fill the *p*-gap in word initial position. This was done by reintroducing *\*p* resulting from a *sp*-cluster after the removal of *s*.

As Southern (1999: 255) pointed out, this *s*-loss is maintained as the central mechanism behind *s*-mobile, both in Indo-European-inherited and with later Germanic-internal doublets. Structurally, this would represent archaism-retention with respect to the Indo-European proto-language, as well as innovative extension of applicability of movable-*s* alternations. The reasons are to be found in the markedness of *sC*[obstruent]-clusters. Hence, there emerged partial corrections and a confusion-driven *s*-loss and *s*-addition interchange. The remnants of this mechanism can be traced in every Indo-European daughter language, on both + and – *s* sides. However, only in Germanic and Balto-Slavic<sup>36</sup> it survives

<sup>35</sup>For such phenomena cf. Kutzelnigg 1979; Plank 1981.

<sup>36</sup>Latv. *kāudze* 'haystack' / *skaudze* 'haystack'; cf. MHG *schocke* 'haystack'

Latv. *trūops* 'beehive' / *struops* 'beehive'; cf.

MHG *strump* 'stump, log'

Lith. *tarpas* 'interval' / Latv. *starpa*, *starps* 'interval'

OPr. *spoyyno* '(beer-)foam' / OCS *pěna* 'foam', Lat. *pūmex*, cf. Lith. *špāinė*,

as a dynamic mechanism, with some vestiges in Greek, Celtic, and Indic.

In Germanic, manifestations before and after the First Sound Shift must be distinguished, cf.

(19) *sk-*

(19a) before the First Sound Shift

Germanic *h-* / *sk-*: OE *hāwian* 'to look' / OE *scēawian* 'to look'

(19b) after the First Sound Shift

Germanic *k-* / *sk-*: Nw. dial. *keiv* 'awry' / ON *skeifr* 'crooked, curved'

(20) *st-*

(20a) before the First Sound Shift

Germanic *þ-* / *st-*: ON *þjórr* 'bull, ox' / Goth. *stiur* 'bull, ox'

(20b) after the First Sound Shift

Germanic *t-* / *st-*: OHG *zart* 'weak, frail, thin' (< \**tarda-*), MLG *terlik* 'young salmon' / MHG *sterz* 'handle, stem, stalk' (< \**sterta-*)

(21) *sp-*

before the First Sound Shift

Germanic *f-* / *sp-*: OHG *fincho* 'finch' / Swed. dial. *spink* 'finch'

Moving on to the *p-* / *sp-* doublets that arose after the First Sound Shift, we will discuss the etymology of words with this onset. The data were compiled by Lühr & Matzel (1986)<sup>37</sup>. One striking example is the following:

(22) PGmc. \**plega-* 'to care for' > OE *plēon* 'to risk, to dare', OFri. *plega*, OS *plegan*, OHG *phlegan* 'to stake, to risk, to vouch for, to protect, to care for, to be used to' vs. PGmc. \**spulg-ē/ō-* > MHG *spulgen* 'to use, to be used to' cf. Schwabenspiegel (279,7) *spulget getragen / pfliget zu tragenne*<sup>38</sup>

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S.-Cr. dial. *spjēna* 'foam', Lat. *spūma* (Southern 1999: 283ff.).

<sup>37</sup>Southern (1999: 220 ff.) has taken over this list without mentioning the source.

<sup>38</sup>Lühr & Matzel 1986: 265.

The underlying root *\*spelg<sup>h</sup>*- is phonotactically sound, but not attested outside Germanic<sup>39</sup>.

Another example is:

(23) PGmc. *\*pi-þa-n-* ‘supplied with fat’ > OE *piða* ‘the insides, pith, marrow’, PGmc. *pittan-* > MDu. *pitte* ‘marrow, pit, kernel’, MLG *pitte* ‘marrow, strength’, PGmc. *\*piddaka-* > MLG *peddik* ‘marrow’ (with expressive softening of *tt* > *dd*) vs. PGmc. *\*spikka-* > MHG *spec* ‘bacon’<sup>40</sup>

These Germanic words are derived from the root Indo-European *\*(s)peh<sub>1</sub>-i-* ‘to thrive’ (Ved. *spāyātai* ‘shall get fat’, *sphīyate* ‘gets fat’)<sup>41</sup>

#### 4. The semantics of words with onset *\*p* in Germanic

Now let us move on from phonetics to semantics in order to examine whether words with initial *\*p* in Germanic can be borrowings from a substratum language. As borrowed terms generally enter a recipient language as a *terminus technicus*, the vocabulary with initial *\*p* in Germanic must be examined for such words. Indeed, there are terms denoting objects associated with agriculture, for example:

(24) OHG *plough* ‘plow’, ON *pallr* ‘plank’, MHG *pflock* ‘stake’, OE *plot(t)* ‘patch of ground’

Starting with ON *pallr* ‘plank’, borrowing of a word with this meaning was not necessary in Germanic. A plank is not representative of an old cultural technique. In the daily life of the speakers of Germanic, there have always been planks. The Common Germanic word for ‘plank’ is:

<sup>39</sup>This root does not appear in LIV. A possible preform *\*speld<sup>h</sup>*- is mentioned under the root *?(s)pelt-* ‘to split’ (OHG *spaltan* ‘to split’, ksl. *ras-plaštq*, *-platiti* ‘to separate’; LIV 577).

<sup>40</sup>Lühr & Matzel 1986: 270.

<sup>41</sup>LIV 584.

(25) \**burda-* ‘board’ (Goth. *footu-baurd* ‘footstool’, ON *borð* ‘board, plank, table’, OE *bord* ‘board, table’, OFries. *bord*, OHG *bort*;<sup>42</sup> cf. OHG *bret* ‘board, plank’ < Pre-Proto Germanic \**b<sub>h</sub>erH-tō-* to Indo-European \**b<sup>h</sup>erH-* ‘to hew with sharp tool’: ON *berja* ‘to strike’)<sup>43</sup>

In reality, ON *pallr* ‘plank’ is another example of s-loss in Germanic. It belongs to:

(26) ON *spōlr* ‘pole’, ME *spale* ‘splinter’, derivations from Proto Germanic \**spel-* ‘to split’<sup>44</sup>

ON *ffjōl* ‘board, platform’ (< \**pelā*) shows s-loss prior to the First Sound Shift.

Additional examples of s-loss are MHG *pflock* ‘stake’ and OE *pearroc* ‘enclosure’:

(27) PGmc. \**plukka(n)-* (< \**plukna-*) > MHG *pfloc* (-*ck-*), *pflocke*, MLG *phloc* ‘peg’ vs. PGmc. \**spelk-a/ō-* > ON *spjalk* ‘skewer’, OE *spelc*, *spilk* ‘rail, splint’, MDu. *spalke* ‘wood fragment’<sup>45</sup>

The etymology of \**plukka(n)-* has to be discussed together with the word for ‘plow’ (see below).

(28) OE *pearroc* ‘enclosure’ vs. OHG, OS *sparro* ‘post, beam’ (< \**sper-*)

Just as ON *pallr*, MHG *pflock*, and OE *pearroc*, Goth. *peika-* in *peika-bagms* ‘palmtree’ cannot be derived from a substrate language, because there is a variant with s-mobile in Germanic. We thus find:

(29) PGmc. \**pīk-a/ō-* > Goth. *peika-bagms* ‘palmtree’, ON *pīk* ‘point(ed stick)’, OE *pīc* ‘point(ed tool)’ vs. \**spīkō* ‘splinter’ > ON *spīk* ‘wooden nail, woodchip’, ME *spyk*

<sup>42</sup>EWA II, 251f.; but cf. Kroonen 2011: 149ff.; 2013: 86, 77 (\**burzda-* to \**burzda-* ‘edge’).

<sup>43</sup>LIV 80.

<sup>44</sup>Lühr & Matzel 1986: 262f.

<sup>45</sup>Lühr & Matzel 1986: 265.

This also applies to other words meaning ‘point’:

(30) PGmc. \**pīla-* > OE, ME *pīl* ‘arrow’, ON *pīla*, OHG *pfīl*, MHG *phīl* vs. PGmc. \**spīl-a/ō(n-)* > MLG *spīl* ‘pole, pointed stick’, ON *spīl* ‘piece of wood’, MHG *spīl* ‘spear-point’<sup>46</sup>

Double forms exist also for OE *plot* ‘patch of land’:

(31) PGmc. \**plutta-* > OE *plott* ‘patch of land’ vs. \**splutta-* > OE *splott* ‘patch, land-parcel’ < Pre-PGmc. \**spj̥-t-no-* (to PGmc. \**spalda-* ‘to split’)<sup>47</sup>

The truly agricultural term ‘plow’ causes problems because a variant with *s*-mobile is lacking:

(32) PGmc. \**plōga-* > ON *plógr* ‘plow, groove in a board’, OE *plōh*, OFri. *plōch*, MDu. *ploech*, OHG *pfluog*

The word is first attested as *plauormati* in Pliny’s *Naturalis Historia*<sup>48</sup>. As \**plōga-* also has the meaning ‘livelihood’ in OHG, it has been derived from the verb PGmc. \**plegan-* ‘to take care of’. If so, there must have been a semantic shift from ‘to be used to’ to ‘live’ to ‘to plow’<sup>49</sup>. However, in view of the etymology of the inherited word for ‘plow’ in Germanic, which appears in ...

(33) Goth. *hoha\** (acc.sg. *hohan*) (cf. OHG *huohilīn* ‘*aratiuncula*, small furrow’)<sup>50</sup>

... a basic meaning ‘branch, twig’ is more plausible for \**plōga-* ‘plow’, cf. the cognates:

(34) Skt. *śákhā-* ‘branch, twig’, Arm. *c’ax* ‘branch’, Lith. *šakà* ‘branch’, with ablaut Ru. *soxá* ‘(wooden) plow, hook plow’, Bulg. *sochá*, S.-Cr. *sòha* ‘(wooden) plow’, Alb. *thak(ë)* ‘awn, beard, pin, peg, tassel, fringe’<sup>51</sup>

<sup>46</sup>Lühr & Matzel 1986: 269; but cf. Holthausen 1934: 246: OE *pīl* is borrowed from lat. *pīlum* ‘arrow’.

<sup>47</sup>Lühr & Matzel 1986: 265f.

<sup>48</sup>Puhvel 1964.

<sup>49</sup>Kroonen 2013: 398.

<sup>50</sup>cf. EWA IV 1257f.

<sup>51</sup>Kroonen 2013: 239.

Indeed, one early type of plow is a crooked stick with an iron tip attached, sometimes with rawhide, which simply scratched the ground. Assuming that PGmc. \**plōga-* also referred to such an item, a connection between PGmc. \**plōga-* with MHG *pflock* ‘stake’ seems plausible. To this formation, a *s*-mobile variant does exist:

(35a) PGmc. \**spelk-a/ō-* > ON *spjalk* ‘skewer’, OE *spelc*,  
*spilk* ‘rail, splint’, MDu. *spalke* ‘wood fragment’<sup>52</sup>

However, in this case the divergent root final tectal phonemes PGmc. \**g* and \**k* have to be explained. As mentioned above, this root variation stems from *n*-gemination. The development was as follows: As a stake, twig, or wood fragment is a piece split off from a tree, a Pre-Proto-Germanic root \**spelg<sup>h</sup>-* ‘to split’ can be postulated that developed a variant \**pelg-* by *s*-loss after the First Sound Shift. Next, a double \**k* arose in the pre-form of MHG *pflock*, < \**plukka-* < \**plug-no-*<sup>53</sup> by *n*-gemination. The \**k* was generalized in the *s*-mobile variant \**spelk-a/ō*, but not in PGmc. \**plōga-* ‘plow’. The long \**ō* here may be analogical to the aforementioned Indo-European word PGmc. \**χōχα-* ‘plow’. Consequently, the words for ‘plow’ would have been *Reimformen*.

(35b) MHG *pflock*, < \**plukka-* < \**plug-no-* with double \**k*  
 by *n*-gemination

(35c) \**plōga-* ‘plow’: \**χōχα-* ‘plow’

Even if this analysis of PGmc. \**plōga-* ‘plow’ may appear somewhat complicated, it is in agreement with the sound laws and analogies operating in Germanic.

All in all, the basic meanings of the words with initial PGmc. \**p* do not suggest that these are lexical items adopted from a substratum language.

## Conclusion

None of the discussed issues, geminated voiceless and voiced stops, geminated voiceless fricatives in word medial

<sup>52</sup>Lühr & Matzel 1986: 265.

<sup>53</sup>\**plugna-* shows an analogical syllabification instead of \*\**pulgna-* (< \*(*s*)*plg<sup>h</sup>-no-*).



position, nasalized obstruent clusters, and Germanic \**p* in initial position, need to be indicators of borrowing from a substratum language. Kuiper's nasalized obstruent clusters are instances of natural sound symbolism being found also in *Reimformen*. Geminated voiceless fricatives are mostly due to assimilation, and geminated voiceless stops are caused by a Proto-Germanic sound law, the *n*-gemination. Long voiced stops could emerge from geminated voiceless stops by stop weakening in intervocalic position<sup>54</sup>. These sounds appear in words denoting soft, round, limp, and small things as well as in pejoratives. *N*-gemination is also partly responsible for Germanic \**p* in initial position. Due to the productive process of *s*-loss and *s*-addition in the Germanic word onset, the gap that arose from the lack of \**b* in Indo-European was filled by \**p*, the variant of initial \**sp*. This procedure was favored by the trend towards harmonizing word onset and syllable onset. Furthermore, the meanings of the words with initial \**p* do not support the assumption of an underlying substratum language. Thus, if we want to detect a linguistic substratum underneath Germanic, we may have to look for features other than those discussed above.

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<sup>54</sup>Cf. Colantoni & Marinescu (2010) for such sound changes.

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