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Author: Pronk-Tiethoff, Saskia Elisabeth
Title: The Germanic loanwords in Proto-Slavic : origin and accentuation
Issue Date: 2012-11-28

7 THE ORIGIN OF THE LOANWORDS

7.1 INTRODUCTION

In the present chapter, the phonological, morphological and semantic characteristics of the loanwords will be discussed. On this basis, it will be summarized and further investigated which indications enable us to establish the Germanic donor language of the loanwords. In §5.2-§5.6, the certain loanwords from Germanic were discussed and these 78 words form the basis of this chapter. In the following overview, the loanwords are schematically listed:

	Proto-Slavic:	Meaning:	Stem class:
AP (a)	*bljudo	'plate, dish'	n. o-stem
	*bukъ	'beech'	m. o-stem
	*buky	'beech(nut); letter; book, document'	f. ū-stem
	*duma	'advice, thought, opinion'	f. ā-stem
	*koldędźь	'well, spring'	m. jo-stem < m. o-stem
	*lixva	'interest, usury'	f. ā-stem
	*lukъ	'chive, onion'	m. o-stem
	*nuta	'cow, cattle'	f. ā-stem
	*orky	'box'	f. ū-stem
	*pěnędźь	'penny, coin'	m. jo-stem < m. o-stem
	*plugъ	'plough'	m. o-stem
	*šelmъ	'helmet'	m. o-stem
	*skrin(j)a	'chest'	f. a- or jā-stem
	*stǫpa	'pestle, mortar'	f. ā-stem
	*tynъ	'fence'	m. o-stem
	*vitędźь	'hero, knight'	m. jo-stem < m. o-stem
	*volxъ	'Romance-speaking person/people'	m. o-stem
	*xlěbъ	'loaf, bread'	m. o-stem

	*xyzъ/-a, *xysъ/-a, *xyžъ/-a, *xyšъ/-a	'small house, cottage'	
AP (b) heavy	*cěsarь, *cesarь, *cьsarь	'(Roman) emperor'	m. jo-stem
	*cьrky	'church'	f. ū-stem
	*grędelь	'plough-beam, axis'	m. jo-stem
	*korljь	'king'	m. jo-stem
	*kupiti	'to buy'	
	*kusiti	'to try, taste'	
	*lagy	'bottle, cask'	f. ū-stem
	*lěkъ	'medicine'	m. o-stem
	*lugъ	'lye, caustic soda'	m. o-stem
	*myto	'toll, payment'	n. o-stem
	*ǫborъ(kъ)	'bucket, quantity of grain'	m. o-stem
	*pъlkъ	'regiment, crowd'	m. o-stem
	*skutъ	'hem; clothing covering the legs'	m. o-stem
	*trǫba	'trumpet'	f. ā-stem
	*vino	'wine'	n. o-stem
	*vinogordъ	'vineyard'	m. o-stem
	*xlěvъ	'cattle shed, stable'	m. o-stem
	*xǫsa	'robbery, trap'	f. ā-stem
	*xъlmъ	'hill'	m. o-stem
AP (b) light	*brъnja	'harness, suit of armour'	f. jā-stem
	*gonoziti	'to save'	
	*goneznǫti	'to recover'	
	*kotьlъ	'kettle'	m. o-stem
	*kъbьlъ	'tub; quantity of grain'	m. o-stem

	*kъnędźь	'prince, ruler'	m. *jo*-stem < m. *o*-stem
	*lьvъ	'lion'	m. *o*-stem
	*nebozězъ/*nabozězъ	'wood drill'	m. *o*-stem
	*osьlъ	'donkey'	m. *o*-stem
	*ovotjь,*ovotje	'fruit'	m. *jo*-stem; n. *jo*-stem
	*petьlja	'noose, snare'	f. *jā*-stem
	*popъ	'clergyman, (Orthodox) priest'	m. *o*-stem
	*postъ	'fast, Lent'	m. *o*-stem
	*postiti sę	'to fast'	
	*redъky, *rъdъky	'radish, *Raphanus sativus*'	f. *ū*-stem
	*skotъ	'cattle'	m. *o*-stem
	*stьklo	'glass(ware)'	n. *o*-stem
	*velьblǫdъ	'camel'	m. *o*-stem
	*xrьstъ	'cross, Christ, baptism'	m. *o*-stem
	*krьstъ	'cross, Christ, baptism'	m. *o*-stem
AP (c)	*dъlgъ	'debt'	m. *o*-stem
	*jьstъba	'(heated) room'	f. *ā*-stem
	*lьstь	'cunning (trick)'	f. *i*-stem
unkn. AP	*bъdьnja, *bъdьnjь	'tub'	f. *jā*-stem; m. *jo*-stem
	*gobina/*gobino	'wealth, abundance'	f. *ā*-stem; n. *o*-stem
	*gobьdźь	'wealth, abundance'	m. *jo*-stem < m. *o*-stem
	*gorazdъ	'experienced, able' (adj.)	
	*likъ	'choir (?)'	m. *o*-stem
	*pergynja	'impenetrable covert (?)'	f. *ja*-stem
	*pila	'saw, file'	f. *ā*-stem
	*retędźь	'chain(s)'	m. *jo*-stem < m. *o*-stem

	*skъlędźь, *stъlędźь, *štъlędźь	'coin'	m. *jo*-stem < m. *o*-stem
	*userędźь	'earring'	m. *jo*-stem < m. *o*-stem
	*užasъ	'horror, amazement'	m. *o*-stem
	*(u-)žasnǫti	'to terrify, frighten'	
	*vaga	'weight; scales'	f. *ā*-stem
	*vъrtogordъ	'garden'	m. *o*-stem
	*xǫdogъ	'skill (?)'	m. *o*-stem
	*xula	'abuse, revile'	f. *ā*-stem
	*xuliti	'to abuse, revile'	

The following words are probably of Gothic origin: PSl. *bljudo, *dъlgъ, *gobina/*gobino/*gobъdźь, *kotьlъ, *kupiti, *kusiti, *lěkъ, *lixva, *lьstь, *lьvъ, *osьlъ, *stьklo, *userędźь, *užasъ, *(u-)žasnǫti, *velьblǫdъ, *vino, *vinogordъ, *xlěbъ.

The majority of the loanwords seem to stem from West Germanic dialects or, more specifically, from High and Low German dialects. As for the West Germanic loanwords, it is for most words impossible to decide between High and Low German origin: PSl. *bukъ, *buky, *bъdьnja/*bъdьnjь, *cьrky, *gonoziti/*goneznǫti, *grędelь, *jьstъba, *kъnędźь, *lugъ, *lukъ, *nebozězъ/*nabozězъ, *nuta, *pěnędźь, *plugъ, *retędźь, *šelmъ, *stǫpa, *trǫba, *tynъ, *vaga, *vitędźь, *vъrtogordъ, *xǫdogъ, *xula/*xuliti, *xysъ/-a, *xyšъ/-a, *xyzъ/-a, *xyžъ/-a are probably of West Germanic origin, but the exact donor dialect cannot be established. The words PSl. *korljь, *kъbьlъ, *lagy, *ǫborъ(kъ), *skrin(j)a and *xrьstъ seem to stem from High German, whereas PSl. *ovotjь/*ovotje, *petъlja, *pila, *redьky/*rьdьky and *xlěvъ might have been borrowed from Low German dialects.

The donor language of PSl. *brъnja, *cěsarь/*cesarь/*cьsarь, *duma, *gorazdъ, *koldędźь, *krьstъ, *likъ, *myto, *orky, *pergynja, *popъ, *postъ/*postiti sę,

*pъlkъ, *skotъ, *skutъ, *skъlędźь/*stъlędźь/*štъlędźь, *volxъ, *xǫsa and *xъlmъ remains unclear.[126]

7.2   PHONOLOGICAL ADAPTATION OF THE LOANWORDS

7.2.1   INDICATIONS ABOUT THE DONOR LANGUAGE

In the following section, an overview will be given of the innovations in Gothic and in West Germanic that may provide information about the donor language of the loanwords in Proto-Slavic.

When the loanwords entered Proto-Slavic and became integrated in the language, they were adapted to the existing phonological system of Proto-Slavic. The phonological system of Proto-Slavic around the beginning of the first millennium, roughly 0-300 AD, has been reconstructed as follows: it consisted of the obstruents: *p, *b, *t, *d, *k, *g, *ʔ, *s, *z, *x; the resonants *m, *n, *r, *l; the approximants *j, *w and the vowels *i, *ī, *iN, *e, *ē, *eN, *a, *ā, *oN, *u, *ū, *uN. This inventory reflects a stage after the merger of *a, *ā with *o, *ō into *a, *ā, and after the rise of nasal vowels (*iN, *eN, *oN, *uN), but before the loss of the laryngeals as segmental phonemes (Kortlandt 2002a: 9, 2003b: 4). In the following centuries, up until the end of Proto-Slavic, the language changed radically. Not all changes can be listed and elaborated on here. For an overview and relative chronology of the development of Proto-Slavic, I refer to Kortlandt 2002a.

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[126] Kiparsky in some cases assumes a different origin of the Slavic word than the donor language supposed here. He considers PSl. *kъnędźь, *nebozězъ/*nabozězъ, *nuta, *šelmъ, *xlěvъ, *xǫdogъ (which I regard as borrowings from West Germanic) to stem from Proto-Germanic. PSl. *buky/*bukъ would have been borrowed on four different occasions from different Germanic dialects. From the words for which it is in my view impossible to decide about the origin, Kiparsky regards PSl. *cěsarь/*cesarь/*cьsarь, *likъ, *lixva, *lьstь, *pъlkъ, *skutъ, *xǫsa as (Balkan) Gothic loanwords; *duma, *gonoziti/*goneznǫti, *pergynja, *skotъ, *tynъ, *volxъ, *xъlmъ as Proto-Germanic loanwords and *brъnja, *myto, *orky, *popъ, *postъ/*postiti sę, *skъlędźь/*stъlędźь/*štъlędźь as West Germanic loanwords (1934: 226-270). Kiparsky remains undecided about the origin of PSl. *lьvъ and does not include the word in his main corpus and neither does he regard PSl. *dъlgъ, *gorazdъ, *koldędźь, *redьky/*rъdьky, *užasъ, *(u-)žasnǫti, *vъrtogordъ, *xula/*xuliti as Proto-Slavic loanwords from Germanic.

The following overview shows the basic correspondences between the vowel systems of the Germanic donor languages and of different stages that have been reconstructed for Proto-Slavic.

Germanic donor phoneme	Correspondence in early Proto-Slavic (0-300 AD)	Correspondence in late Proto-Slavic (750-900)
*ī	*ī	*i
*ē₁	*ē	*ě
*ū	*ū	*y
*ō	*au	*u
*ā (WGmc. only)	(*ā)	*a
*i	*i	*ь
*e	*e	*e
*u	*u	*ъ
*a	*a	*o
*ai	*ai	*ě
*au	*au	*u
*am, *an, *um,*un	*oN	*ǫ
*em, *en, *im, *in	*eN	*ę[127]
(*ei = [ī] (Goth.)	(*ī)	*i)[128]
(*iu (Goth.)	-	*ju)[129]

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[127] Words with a tautosyllabic sequence of vowel and *m or *n developed into a nasal vowel *ǫ or *ę in Slavic, depending on the vowel: Germanic *am/n and *un yielded PSl. *ǫ, e.g., WGmc. *stampa-, *trumba- > PSl. *stǫpa, *trǫba. Germanic *in yielded PSl. *ę: PGmc. suffix -inga- > PSl. -ędźь, NWGmc. *grindila- (or *grendila-) > PSl. *grędelь.
[128] Only PSl. *lixva, see below.
[129] Only PSl. *bljudo, see below.

7.2.1.1   THE DEVELOPMENT OF PGMC. *$\bar{E}_1$

PGmc. *$\bar{e}$ (< PIE *$\bar{e}$) is traditionally written as *$\bar{e}_1$ and phonetically reconstructed as [ē] or [æ].[130] The reflexes of PGmc. *$\bar{e}_1$ in Gothic are different from the reflexes in West Germanic: the Gothic reflex is /ē/ and the reflexes in Old High German, Old Saxon and Old Norse are /ā/, e.g., Goth. -letan, OHG lāzan, OS lātan, ON láta 'to leave, let' (in Anglo-Frisian, PGmc. *$\bar{e}_1$ is reflected as /æ/).

In the traditional view, PGmc. *$\bar{e}_1$ is supposed to have developed into ā in the entire Northwest Germanic dialect continuum, before it was fronted again to æ in Anglo-Frisian; the reflex ē in Gothic is regarded as an archaism (cf. Nielsen 1985: 232-235). According to another interpretation, put forward by Bennett, the change of PGmc. *$\bar{e}_1$ to *ā took place in the central Germanic dialects only, but not in the peripheral languages Gothic, Old English and Old Frisian (1950: 232-235).[131]

As we have seen above, the reflex of PGmc. *$\bar{e}_1$ is ā in High and Low German and ē in Gothic. On the basis of this contrast, PSl. *lěkъ must be regarded as a Gothic loanword and PSl. *vaga as a West Germanic loanword.

7.2.1.2   THE RAISING OF PGMC. *E IN GOTHIC

In Gothic, PGmc. *i and *e merged into i, whereas these vowels remained distinct in North and West Germanic. On the basis of this development, PSl. *šelmъ cannot be a borrowing from Gothic. Because PSl. *goneznǫti does not reflect the raising of PGmc. *e, the word, as well as PSl. *gonoziti, is likely to derive from West Germanic. Although 'lion' is not attested in Gothic, it is attractive to derive PSl. *lьvъ from Gothic because of the i-vocalism in the

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[130] PGmc. *$\bar{e}_1$ is distinguished from PGmc. *$\bar{e}_2$, which occurs in a limited number of (categories of) words only, for example in loanwords from Latin and certain verbal classes. In the Germanic languages, *$\bar{e}_2$ has usually more closed reflexes that PGmc. *$\bar{e}_2$, e.g., Goth. her, ON hér, OHG hiar, hear, hier, OS hēr, OFri. hēr, hīr < PGmc. *hē₂r 'here'. PGmc. *$\bar{e}_2$ is traditionally thought to represent [ē] phonetically (König/Van der Auwera 1994: 23). Kortlandt reconstructs a diphthongal realisation [ea] for *$\bar{e}_2$ (2010: 189). PGmc. *$\bar{e}_2$ (if it is indeed to be reconstructed as a diphthong [ea]) was monophthongized in Northwest Germanic, except in High German, where the symmetry in the vocalic system was restored by diphthongizing *ō (Kortlandt 2010a: 191).

[131] The theory that the original reflex of *$\bar{e}_1$ in West Germanic is [ē] or [æ] rather than /ā/ is supported by the fact that the reflex of this vowel appears as ē in writings by classical authors in the first centuries AD, e.g., those by Caesar who writes Suēbi (not **Suābi) for the Germanic tribe Suebi (Bennett 1950: 235; cf. Nielsen 1985: 232-235 for a detailed discussion of the problem). The reflex of PIE *ē in the Dutch dialects of West Flanders, Zealand, South Holland, Utrecht, and the southern part of North Holland as æ is considered to be an archaism (Kortlandt 1986: 440).

Proto-Slavic borrowing. If we derive PSl. *xlěvъ from a reflex of PGmc. *hlew(j)a- 'cover (against the weather)' instead of from a reflex of PGmc. *hlaiwa- 'burial mound, grave', then the word must also have been borrowed from West Germanic because PGmc. *hlew(j)a- is reflected in Gothic as hlija*.

7.2.1.3   THE UMLAUT IN (NORTH AND) WEST GERMANIC

In North Germanic and West Germanic, several umlaut processes can be distinguished: these are the a-umlaut, i-umlaut and u-umlaut. No umlaut took place in Gothic. The umlaut processes started as allophonic variation in the accented vowel influenced by the vowel in the following syllable. The umlaut processes were phonemicised at different moments; the a-umlaut was phonemicised the earliest and the u-umlaut the latest (Nielsen 1985: 93). The reflexes of the u-umlaut are limited to North Germanic (Nielsen 2000: 264) and will not therefore be further discussed in this chapter.

As a result of the a-umlaut, the mid and low vowels PGmc. *a, *ē₁ or *ō in second syllables lowered short high vowels in the preceding stressed syllable: PGmc. *i > e and PGmc. *u > o (Hirt 1931: 45, Nielsen 1985: 218). The a-umlaut also affected *u in the Proto-Germanic diphthong *eu: in those positions where the umlaut operated, PGmc. *eu developed into eo in Old High German and into eo, io, ia or ie in Old Saxon (Braune/Reiffenstein 2004: 49-51, 57, Gallée 1910: 79).

The a-umlaut is shared by the earliest attested North and West Germanic languages. The Runic inscription on the golden horn of Gallehus, which has been dated to the early fifth century (probably around 400) already shows the reflex of the a-umlaut: horna 'horn', rather than *hurna. The a-umlaut might be dated to late Proto-Germanic, although it must have operated after the Goths moved away from the Proto-Germanic dialect continuum, in view of the fact that the a-umlaut is not attested in Gothic.

Because the a-umlaut might be dated as early as late Proto-Germanic, it is expected that the a-umlaut is reflected in the West Germanic loanwords in Proto-Slavic. Langobardic generally participated in the Northwest Germanic a-umlaut. The language has nevertheless u instead of expected o before an l in closed syllables, e.g., fulcfree 'free', Culdo (personal name, cf. OHG Goldericus) (Bruckner 1895: 80-85). It remains therefore unclear whether PSl. *pъlkъ and *xъlmъ stem from Gothic or from Langobardic. PSl. *stъklo clearly derives from Gothic because the a-umlaut in West Germanic lowered *i in the initial syllable to e and yielded OHG stehhal. PSl. *ovotjь/*ovotje can be identified as a West Germanic loanword because the initial syllable shows the a-umlauted reflex of the Proto-Germanic prefix *ub- to ob-.

NWGmc. *trumba 'trumpet' (PSl. *trǫba) and PGmc. *brunjō- 'harness, breastplate' (PSl. *brъnja) did not participate in the a-umlaut because the a-umlaut did not operate before a nasal cluster (Braune/Reiffenstein 2004: 35). It is unclear why (N)WGmc. *stubō does not show reflexes of the a-umlaut in High German.

As a result of the i-umlaut, the North and West Germanic stressed back vowels *a, *ā, *o, *ō, *u and *ū were fronted before *i, *ī or *j in the following syllable (Braune/Reiffenstein 2004: 55).[132] It has been thought that the i-umlaut started in Anglo-Frisian before the Anglo-Saxon migration to Britain (the i-umlaut has been dated to the sixth century in Old English), and spread from there to Old Norse, where it has been dated to the seventh century (dating by Luick, cf. Nielsen 1985: 89-90). It has more recently been believed that the Germanic umlaut processes are caused by "subphonemic variation in the accented vowels in umlaut conditions, i.e. before a, i, u in the following syllables" and were phonemicised at different points of time (Nielsen 1985: 93). This means that the interpretation of the i-umlaut as a development that spread from Anglo-Frisian to other Northwest Germanic languages cannot be maintained (ibid). Kortlandt dates the i-umlaut after the Anglo-Frisian palatalization and second English palatalization because the umlauted vowels did not palatalize *k and *g (2010a: 277). In his relative chronology of phonological developments in Anglo-Frisian, he regards the i-umlaut to be a late development that took place independently in Anglian and Frisian (2010a: 280).

Nielsen considers the i-umlaut to have been phonemicised in Old Norse by the time of the Blekinge inscriptions, which he dates to the seventh century (2000: 121). Kortlandt dates the writing of both the Stentoften and the Björketorp rune stones that were found in Blekinge before the i-umlaut of short vowels, but he dates the Stentoften rune stone before or around the i-umlaut of long vowels, whereas the Björketorp rune stone dates from after the i-umlaut of long vowels (2010a: 308-309; on the separation of the i-umlaut of long and short vowels, cf. Kortlandt 1992b). In contrast to the umlaut reflexes in Old English and Old Norse (which have early umlaut reflexes of all back vowels), only the "Primärumlaut" of *a > e is attested in Old Saxon and Old High German until the tenth century. This reflex is found from the eighth century onwards. The umlaut in Old High German dates after the loss of final short vowels after a long

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[132] PGmc. *e was raised to *i in North and West Germanic before *i, *ī, *j in the following syllable. This development might have been Proto-Germanic (Braune/Reiffenstein 2004: 19-20, 32).

root syllable, cf. OHG *anst*, GDsg. *ensti* 'favour' (Kortlandt 1993b: 19). The *i*-umlaut of the other back vowels is attested in Middle High German and Middle Low German manuscripts from the tenth century onwards (Braune/Reiffenstein 2004: 55-56), and is therefore not expected to be reflected in the Proto-Slavic loanwords.

The loanwords PSl. **kotъlъ* and **osъlъ* do not reflect the *i*-umlaut and point to a donor form **katil-* and **asil-*, respectively. The same goes for PSl. **gobina/*gobino/*gobъdźь*. For this reason, these words have often been regarded as borrowings from Gothic. Nevertheless, because the *i*-umlaut occurred relatively late in the West Germanic dialects the Slavs came into contact with, it cannot be excluded that the words were borrowed from West Germanic before the *i*-umlaut took place. PSl. **petъlja* and **redъky* (**rъdъky*), on the other hand, do reflect the Germanic *i*-umlaut and must therefore be regarded as late borrowings from West Germanic. The vocalism in the initial syllable of PSl. **pěnędźь* results from compensatory lengthening of **penn-* > **pěn-*. PSl. **pěnędźь* must therefore derive from a Germanic form in which the initial syllable of original **pandinga-/*pantinga-* had umlauted to **pen-*. This is one of the reasons to derive PSl. **pěnędźь* from West Germanic.

7.2.1.4 RHOTACISM OF **Z TO R IN (NORTH AND) WEST GERMANIC

In North and West Germanic, PGmc. **z* developed into *r* (Nielsen 2000: 213ff.). This development is called rhotacism. Rhotacism did not take place in Gothic, where PGmc. **z* is retained as *z* (and devoiced to *s* in final position), e.g., Goth. *dius*, OS *dior-*, OHG *tior* 'wild animal' (E *deer*). Nielsen regards it "safe to conclude" that the change **z* > *r* was not completed by the end of the Early Runic period.[133] Because the development of PGmc. **z* to *r* took place in West Germanic prior to the earliest attestations in manuscripts, the rhotacism can be dated somewhere between the fourth/fifth and eighth centuries.

The effects of the rhotacism are not found among the Proto-Slavic loanwords from Germanic, with the exception of the Kashubian, Slovincian and Polabian reflexes of NWGmc. **nabagaiza-*: Kash. *ńebᵘòzwř*; Slnc. *ńebừɵzǫ̯ř*; Plb. *nebüʒår*. PSl. **gorazdъ* has been regarded as a loanword from Gothic because of the absence of the rhotacized reflex, but this is not a compelling argument because the rhotacism in West Germanic cannot be accurately dated and seems to have operated relatively late.

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[133] Kortlandt identifies Runic <R> with voiceless *r* which originated from the "general devoicing of obstruents in North-West Germanic as a result of Grimm's law" (2003c: 73).

7.2.1.5 GEMINATES IN GERMANIC

Several gemination processes have taken place in Proto-Germanic, as well as in West Germanic, which have led to the existence of a large amount of geminate consonants in the Germanic languages (*pp, *tt, *kk; *bb, *dd, *gg; *ff, *þþ, *hh; *ss). In West Germanic, obstruents geminated before *j and partly also before *r, *l, *w (*n). The geminate was sometimes shortened after a long vowel, and regularly in auslaut or before another consonant (Braune/Reiffenstein 2004: 80, 95-102; the details are left out of consideration). The Proto-Germanic geminates occur especially frequently in the *n*-stems and in the second class of weak verbs (Kroonen 2011: 41). Geminated stops are very rare in Gothic and are found in only four words: Goth. *sakkus* 'sack' (Lat. *saccus*), *smakka* 'fig tree', *skatts* 'money' and *atta* 'father'. Kroonen supposes that the geminated stops in Gothic were in fact more frequent than Wulfila's Bible translation leads one to suspect and that the geminates are for unclear reasons underrepresented in the Gothic texts. The same has been supposed for the Old Saxon *Heliand* epic. Although geminated stops are amply attested in Middle Low German and thus probably existed in Old Saxon as well, they are infrequently rendered in the *Heliand* manuscript (2011: 110-111).

The Proto-Slavic phonological system did not possess geminate consonants and the Germanic geminates are therefore not expected to be represented as such. The geminate consonant of the donor form of PSl. *skotъ (and *smoky, if that word is to be regarded as a loanword from Germanic, cf. §6.2, s.v. PSl. *smoky) is reflected as a single consonant.

7.2.1.6 FRICATIVES IN GERMANIC: GRIMM'S LAW AND VERNER'S LAW

The consonantal system of Proto-Germanic was shaped by a restructuring of the consonant system that affected all PIE stops and is called Grimm's law. According to the classic formulation, Grimm's law is a consonant shift that turned the PIE voiceless stops *p, *t, *k$^{(w)}$ into fricatives, PGmc. *f, *þ, *h$^{(w)}$. The PIE voiced stops *b, *d, *g$^{(w)}$ yielded voiceless stops PGmc. *p, *t, *k$^{(w)}$. The PIE voiced aspirated stops *b^h, *d^h, *g$^{h(w)}$ lost their aspiration. In the traditional analysis, the reflexes of the PIE voiced stops *b, *d, *g$^{(w)}$ were reconstructed for Proto-Germanic as voiced fricatives *ƀ, *đ, *g (e.g., Kluge 1913: 48, Streitberg 1900: 116). It has more recently been supposed that the PIE voiced aspirated stops turned into simple voiced stops *b, *d, *g$^{(w)}$ in Proto-Germanic (e.g., Kortlandt 1988: 3-4, Ringe 2006: 100). The reason for this is that the fricative pronunciation (as in Low German and Dutch) seems to be more recent than the pronunciation as stops (as in Scandinavian, English and High German) (Beekes/De Vaan 2011: 132).

In a number of Germanic words, the PIE voiceless stops $*p$, $*t$, $*k^{(w)}$ have a voiced realization, either as voiced stops or as fricatives (in the same way as the PIE voiced aspirated stops $*b^h$, $*d^h$, $*g^{h(w)}$). PIE $*s$ is, similarly, often reflected as $*z$ in Germanic. This voicing was explained by Verner's law: the voiceless obstruents became voiced unless the preceding vowel carried the PIE accent. Goth. *broþar* thus has a voiceless fricative *þ* (< PIE $*t$) because the obstruent directly followed the originally accented syllable of PIE $*b^h r\acute{e}h_2 t\bar{e}r$ 'brother'. The reflexes of PIE $*ph_2 t\acute{\bar{e}}r$ 'father', on the other hand, e.g., Goth. *fadar*, ON *faðir*, OE *fæder,* have a voiced obstruent because the stress originally followed the obstruent. The obstruents remained voiceless when they stood in word-initial position (cf. Beekes/De Vaan 2011: 131).

According to the traditional interpretation, Verner's law followed Grimm's law. It was thought that PIE $*p$, $*t$, $*k^{(w)}$ became PGmc. $*f$, $*þ$, $*h^{(w)}$ and that these fricatives, as well as $*s$, became voiced according to the conditions specified by Verner's law. According to the idea proposed by Vennemann (1984) and taken over by Kortlandt (1988: 5-6), the sequence of Grimm's law and Verner's law in Germanic must be reversed: PIE $*p$, $*t$, $*k^{(w)}$ and $*s$ became voiced before the stress and yielded PGmc. $*b$, $*d$, $*g^{(w)}$ and $*z$, and the stops later merged with the reflexes of the PIE voiced aspirated stops. The voiced reflexes of PIE $*p$, $*t$, $*k^{(w)}$ after Verner's law did not merge with the PIE voiced stops $*b$, $*d$, $*g^{(w)}$, but rather remained distinct. This has been considered the main objection against the reversed order of Grimm's law and Verner's law. This objection disappears with the reinterpretation of the Proto-Germanic consonantal system in the light of the glottalic theory. According to the glottalic theory, PIE $*b$, $*d$, $*g^{(w)}$ were in fact preglottalized consonants, which explains why the voiced reflexes of PIE $*p$, $*t$, $*k^{(w)}$ did not merge with PIE $*b$, $*d$, $*g^{(w)}$ after Verner's law: the latter stops were preglottalized and the former were not (cf. Beekes/De Vaan 2011: 134).

The idea that the PIE voiced stops $*b$, $*d$, $*g^{(w)}$ had to be reconstructed with a glottalic feature was proposed by Gamkrelidze/Ivanov (1973), Kortlandt took over this idea (1977, 1978a), and argues that the glottalic feature has, by and large, been retained into the separate branches of Indo-European (e.g., 1978a, 1985a). He reconstructs the pre-Germanic (dialectical Indo-European) system before Verner's law and Grimm's law as follows: $*t$, $*\hat{ʔ}d$ (= traditional PIE $*d$), $*d$ (= traditional PIE $*d^h$) (1988: 9). He argues that the traditional reconstruction of Proto-Germanic plain voiceless stops (which developed from the PIE plain voiced stops $*b$, $*d$, $*g^{(w)}$) cannot explain the "multifarious reflexes" of these stops in the Northwest Germanic languages, in the form of preaspiration, preglottalization or gemination (English, German and Icelandic, for example, have an aspirated pronunciation of the voiceless stops $*p$, $*t$, $*k$ in initial position) (1988: 6). These features are much easier to explain if one assumes that

the Proto-Germanic plain voiceless stops were preglottalized. Modern standard English, where tautosyllabic voiceless stops are preglottalized, e.g., *leaˀp*, *helˀp*, and the western Jutlandic dialect of Danish have supposedly directly retained the Proto-Germanic preglottalization (Kortlandt 1988: 6-8).

In the light of this system, Kortlandt reinterprets Grimm's law differently from the traditional analysis, which regards Grimm's law as a consonant shift. According to Kortlandt's reconstruction, the consonantal system of pre-Germanic consisted of the following stops before Grimm's law: *ᵗt, *ˀd, *d (as well as *tt from Kluge's law (cf. Beekes/De Vaan 2011: 134), which is left out of consideration here). The plain voiceless stops then lenited to fricatives, *t > *þ, etc.. According to Kortlandt's reformulation of Grimm's law, voicedness was lost as a distinctive feature in Germanic when the voiceless stops were lenited to fricatives (1988: 8), yielding the Proto-Germanic system *þ (< PIE *t), *'t (< traditional PIE *d), *t (< traditional PIE *dʰ). Kortlandt thus reconstructs the Proto-Germanic system of obstruents as a system without voiced obstruents, as in found today in Icelandic and dialects of Norwegian (ibid.). He finds no evidence for the preservation of the glottalic feature in Gothic and supposes that Gothic already at an early stage developed a distinction between voiced and voiceless phonemes due to contact with speakers of other languages (1988: 8-9). The same happened in most other Germanic languages under the influence of neighbouring languages (Kortlandt p.c.).

7.2.1.7 *THE GERMANIC FRICATIVES IN THE LOANWORDS*

The Germanic fricatives *f, *þ, *h⁽ʷ⁾, *s were taken over as such by the Proto-Slavs only in those cases where the Proto-Slavic inventory possessed a corresponding fricative. In other cases, the Germanic fricative was replaced by a stop. The early Proto-Slavic consonant system included the fricatives *s, *z, *x. The first palatalization of velar consonants supplemented the Proto-Slavic inventory with *š and *ž (§7.2.2.3). The Germanic fricative *f has been replaced by the corresponding voiceless stop *p in Proto-Slavic: *pila, *pъlkъ, *pergynja, *petьlja, *postъ/*postiti sę. The fricative *þ is not attested among the donor words. PGmc. *h was rendered as PSl. *x: *šelmъ, *volxъ, *xlěbъ, *xlěvъ, *xǫdogъ, *xǫsa, *xula/*xuliti, *xyzъ/-a, *xysъ/-a, *xyžъ/-a, *xyšъ/-a, *xъlmъ.[134] PGmc. *hʷ was borrowed as *xv, the only example being PSl. *lixva. The second element of the compound that was the donor of PSl. *userędźь is a reflex of

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[134] PSl. *šelmъ reflects the first Proto-Slavic palatalization of velar consonants, in which *š developed from PSl. *x (cf. §7.2.2.3).

PGmc. *hringa 'ring'. The initial h- in this cluster was retained in Gothic, as well as in Old Saxon, until the ninth century. The Old High German manuscripts occasionally fail to write initial *h- from the second half of the eighth century (Braune/Reiffenstein 2004: 147-148). In view of the retention of initial h- in Gothic and the late date of its loss in West Germanic, PSl. *userędźь was likely borrowed from a donor that had retained the h, but the fricative is nevertheless not reflected in the loanword.

Germanic words containing the reflex of PGmc. *s are regularly borrowed with *s in Proto-Slavic: *cěsarь/*cesarь/*cьsarь, *kusiti, *lьstь, *osьlъ, *skotъ, *skrin(j)a, *skutъ, *skъlędźь/*stьlędźь/*štьlędźь, *stǫpa, *stьklo, *užasъ, *(u-)žasnǫti, *xǫsa, *xysъ/-a/*xyšъ/-a (also PSl. *xyzъ/-a, *xyžъ/-a).[135] The reflex of Verner's law is probably attested in the Proto-Slavic loanwords *xǫdogъ, *gonoziti and *gonleznǫti. The *z of the second element in the Germanic compound *nabagaiza- (< PGmc. *gaisá- 'spear') might be reflected in US njeboz, OCz. nebozěz, neboziez, Cz. nebozez, dialectal Cz. nábosez and Slk. nebožiec. The Proto-Slavic forms *xyzъ/-a, *xyžъ/-a do not seem to go back to a Verner alternation because PGmc. hūsa- does not have Verner reflexes in any of the Germanic languages.

7.2.1.8   THE HIGH GERMAN CONSONANT SHIFT
The High and Low German dialects are separated from each other by the High German consonant shift. According to the traditional analysis, the High German consonant shift shifted the West Germanic voiceless stops to affricates or fricatives, and rendered the voiced stops voiceless. The West Germanic stops *p, *t, *k developed in different ways according to their position in the word. The consonant shift did not occur after fricatives and in the combination *tr.

- in inlaut and auslaut after a vowel, PGmc. *p, *t, *k developed into geminate fricatives ff, ss, hh, which were shortened in auslaut and before a consonant, sometimes also after a long vowel. The new s remained distinct from the old Proto-Germanic *s (see below).
- in anlaut, in inlaut and in auslaut after a resonant, and in geminated position, PGmc. *p, *t, *k developed into affricates: *p > pf <pf, ph>, *t > ts <z> (<zz, tz> for the geminated affricates) *k > [kx] <kh, ch> (Braune/Reiffenstein 2004: 84-85).[136]

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[135] PSl. *skrin(j)a is in some Slavic languages attested with initial š-, which might be a more recent borrowing from German.
[136] The High German orthography is not completely suited to render the new consonants resulting from the consonant shift: the grapheme <z> denotes both the fricative and the affricate

The reflex of PGmc. *b is most often written as <p> in High German writings, but writings with <b> also occur. Middle Franconian dialects have the reflex *v* (in auslaut *-f*) from PGmc. *b in inlaut and in auslaut after a vowel, just as in Old Saxon. PGmc. *d is reflected as *t* in all of High German (including parts of Franconian), e.g., Goth. *dauhtar*, OS *dohtar*, but OHG *tohter* < PIE *d^hugh_2-tér-* 'daughter', PGmc. *g is reflected as <g> in Franconian dialects of High German. In Upper German dialects, the graphs <g>, <k>, <c> occur next to each other for PGmc. *g (Braune/Reiffenstein 2004: 87-89).

The High German consonant shift was a process that may have started between the third and fifth centuries and lasted until approximately the eighth century.[137] On the basis of research of names and toponyms, it was supposed that the consonant shift started with the fricativization of the alveolar stop *t. The fricativization of PGmc. *t is first reflected in the sixth century. The change of *p > *-ff-* or *pf-* has been dated to the sixth/seventh centuries and the change of *k > *-hh-* [x] or *ch-* [kx] to the seventh/eighth centuries. The chronological difference is supported by the fact that the lenition of *t has spread over the entire High German dialect area, whereas *p > *pf* is attested in Upper German and East Franconian and the affrication of *k to *kx* in the southern Upper German dialects only; the Franconian dialects of High German were thus less affected by the consonant shift than the Upper German dialects (Braune/Reiffenstein 2004: 86-87).

Kortlandt gives a different interpretation of the material (1996), which fits with his reinterpretation of the Proto-Germanic system of obstruents as *þ (< PIE *t), *'t (< PIE *d), *t (< PIE *d^h). He attributes the origin of the High German

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that developed from *t. The graphs <pf, ch> can also denote both the fricative and the affricate from *p (Braune/Reiffenstein 2004: 85).

[137] There is some debate about the beginning of the consonant shift: Meillet and Vennemann date the beginning of the High German consonant shift to the first century AD, while Braune places the beginning of the consonant shift around the year 600. The majority of scholars seem to date the consonant shift between the sixth and eighth centuries (cf. Braune/Reiffenstein 2004: 92 for references, Meillet 1922: 42). Kortlandt dates the beginning of the High German consonant shift immediately after the gemination before *j in West Germanic, which he considers to be a "comparatively recent development" (1996: 55-56).

The High German consonant shift must have taken place after the borrowing of Latin loanwords into Germanic during the imperial epoch because these loanwords participated in the sound shift (Meillet 1922: 42). According to Braune/Reiffenstein, the High German consonant shift regularly operated on all loanwords from Latin that entered Germanic before the eighth century (2004: 82). The sound shift appears to have been almost completed when the oldest remaining Old High German texts were written.

consonant shift to "a lack of firm closure in the latter part of the glottalic plosives". As a result of this, the glottalic stops were lenited to fricatives and the glottal occlusion was oralized (1996: 56). In Kortlandt's interpretation, the High German consonant shift only affected the Proto-Germanic glottalized stops. Because the absence of distinction in voice that arose as a result of Grimm's law, the stops that are traditionally reconstructed as voiced for Proto-Germanic were not affected (i.e., PGmc. *t (traditionally reconstructed as PGmc. *d < PIE *dʰ) remained unchanged).

With the exception of PSl. *xrьstъ, the reflexes of the High German consonant shift are not attested in the Germanic loanwords in Slavic. Among the loanwords from High German, it would not be unexpected to find lenited reflexes of the Proto-Germanic voiceless stops. These reflexes are, however, conspicuously absent. There are several possible reasons for this absence: the words might have been borrowed relatively early before the beginning of the High German consonant shift, the words might have been borrowed from Low German dialects rather than from High German or the Proto-Slavs might have adopted the loanwords in a way that the reflex of the consonant shift was no longer visible. The latter scenario is indeed probable in case of the affricates *pf*, *kx* [kx] and the fricative *f*: PGmc. *f* was in loanwords regularly replaced by PSl. *p because the Proto-Slavic phonological system did not contain the corresponding labiodental fricative, nor did the Proto-Slavic phonological system contain the affricates *pf* and *kx*.

The reflexes of PGmc. *'t in High German after the consonant shift are a dental affricate and fricative *ts* and *(s)s*. The new dental High German *s* remained distinct from the earlier alveolar fricative *s (Kortlandt 1996: 56). This dental articulation of the new High German affricate *ts* might also explain why High German *ts* was not identified with the Proto-Slavic (palatal) affricate *c (/tś/).

Proto-Slavic did have the fricative *x (which in the loanwords corresponds to the reflex of PGmc. *h) and for this reason, it can be expected that both High German sound shift reflexes from the fricative *(h)h* resulting from fricativisation of *k could be reflected in Proto-Slavic, as in PSl. *xrьstъ.

7.2.1.9   *LOANWORDS THAT ULTIMATELY DERIVE FROM LATIN*

The Latin loanwords in Germanic can be divided in a layer of early, Proto-Germanic, loanwords and a layer of later, West Germanic, loanwords. The Proto-Germanic loanwords from Latin that were subsequently borrowed from Germanic into Proto-Slavic, are: PGmc. *arkō (PSl. *orky), *asil- (PSl. *osьlъ), *kaisar (PSl. *cěsarь/*cesarь/*cьsarь), *katila- (PSl. *kotьlъ), *kaupōn (PSl. *kupiti), *papa- (PSl. *popъ), *ulband- (PSl. *velьblǫdъ), *wīnan (PSl. *vino).

(N)WGmc. *le(w)o is attested in West Germanic only (the Old Norse form is considered to be a loanword from Old English (De Vries 1977: 353)), but on the basis of the vocalism of PSl. *lъvъ, it seems likely that the word stems from Gothic, even though the word remained unattested in Gothic.

If a Germanic loanword from Latin is attested only in West Germanic, we are likely to deal with a later, regional borrowing. Among the Proto-Slavic loanwords from Germanic, the ones that can be regarded as West Germanic loanwords from Latin, are: (N)WGmc. *aimbara- (PSl. *ǫborъ(kъ)), *budiniō (PSl. *bъdьnja/*bъdьnjь), Christ (also Goth. Krist, PSl. *xrъstъ/*krъstъ), *kirikō (PSl. *cьrky), *kubil- (PSl. *kъbъlъ), *lāgel(l)a (PSl. *lagy), *pandinga-/*pantinga- (PSl. *pěnędźь), *radik- (PSl. *redьky/*rьdьky), *skrīn- (PSl. *skrin(j)a), *stubō (PSl. *jьstъba).[138]

For this reason, PSl. *ǫborъ(kъ), *bъdьnja/*bъdьnjь, *xrъstъ, *cьrky, *kъbъlъ, *lagy, *pěnędźь, *redьky/*rьdьky, *skrin(j)a, *jьstъba can be regarded as loanwords from West Germanic or, more specifically, from High or Low German dialects.

In a number of words, the late date of borrowing from Latin into Germanic can be confirmed because the Germanic loanword reflects the voicing of Latin intervocalic voiceless stops (which is a development that took place in the western part of the Romance language family around the middle of the first millennium). This is the case with WGmc. *aimbara- (from Lat. amphora), *budiniō (from Lat. butina), *kubil- (from Lat. cūpella) and probably *stubō (from Lat. *extūfa). The Latin loanwords relating to Christian terminology (OHG Christ, Goth. Krist and WGmc. *kirikō) must have entered Germanic after the break up of Proto-Germanic because Proto-Germanic ceased to exist as a linguistic unity at the beginning of the Christian era.

7.2.2   Indications concerning the dating of the borrowings

7.2.2.1   Diphthongs in Germanic and Proto-Slavic

Proto-Germanic has been reconstructed with the diphthongs *eu, *ai, and *au and perhaps *ei. The PIE diphthong *ei had become a monophthong *ī in all of Germanic before the oldest texts were written (Meillet 1922: 60). The diphthong

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[138] Reflexes of *aimbara-, *budiniō, *pandinga-/*pantinga-, *skrīn-, *stubō are attested in Old Norse and/or later Scandinavian, but De Vries regards those words as loanwords from Low German or Old English (cf. De Vries 1977: s.v. bytta, pengr/penningr, skrín and stofa).

*ei in the donor form that yielded PSl. *lixva might, therefore, already have monophthongized to [ī] when the word was borrowed into Proto-Slavic. Whether or not this is the case cannot be established on the basis of the Proto-Slavic form: if the word was borrowed with the diphthong *ei it would have monophthongized in Proto-Slavic to *ī as well.

The Germanic diphthong *eu was affected by the a-umlaut in Northwest Germanic when it stood before *a, *ē₁ or *ō. In these positions, PGmc. *eu became OHG io through *eo. In those cases in which the Proto-Germanic diphthong *eu was not affected by the a-umlaut, it became iu in Old High German, which is attested from the earliest manuscripts (Braune/Reiffenstein 2004: 49). In Old Saxon, PGmc. *eu is reflected as eo, io, ia, ie before the vowels a, e and o or when no vowel followed and raised to iu when it was followed by *i, *j, *w, (*u) in the following syllable (Gallée 1910: 79). The Proto-Germanic diphthong *eu regularly developed into a diphthong iu in Gothic (since every PGmc. *e became i in Gothic), which is directly reflected in the Proto-Slavic loanword *bljudo < **bjudo.

In Old High German, PGmc. *ai developed into ē before r, h, and w. This monophthongization has been dated to the seventh century and probably started off in the north. In other positions than before r, h, and w, PGmc. *ai remained a diphthong and developed into ei by the end of the eighth century (Braune/Reiffenstein 2004: 44-47). In Old Saxon, PGmc. *ai is reflected as ē in all positions (Gallée 1910: 70). PGmc. *ai probably already had a monophthongal value in Gothic. The writing <ai> is thought to have represented a long or short [æ] (cf. §1.2.1.2), which would be directly continued in the Proto-Slavic loanword *xlěbъ.[139] PSl. *užasъ and *(u-)žasnǫti are thought to derive from Goth. usgaisjan 'to terrify, frighten'. The Slavic reflex *ē of the Gothic monophthong [æ] caused the velar *g to palatalize according to the first palatalization, after which PSl. *ē was regularly lowered to *a. The fact that PSl. *nebozězъ/*nabozězъ underwent the second and not the first palatalization of velar consonants indicates that the word was either borrowed from a West Germanic dialect that retained the diphthong *ai or that the word was borrowed relatively late. The vocalism of PSl. *likъ, which is thought to derive from a reflex of PGmc. *laika-, remains unexplained.

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[139] Cf. §5.3, s.v. *cěsarь for discussion about the origin of the word. I do not regard PSl. *xlěvъ 'cattle shed, stable' as a loanword from Goth. hlaiw 'grave', as many scholars seem to do, but rather as a borrowing from a West Germanic reflex of PGmc. *hlew(j)a- 'cover (against the weather)' (cf. §5.3, s.v. *xlěvъ).

In Old High German, PGmc. *au* monophthongized to *ō* before *h* and all alveolar consonants. This process started in the eighth century. In early High German documents, the Proto-Germanic diphthong *au* was retained as such. In other positions, the diphthong *au* developed into *ou* in the ninth century (Braune/Reiffenstein 2004: 47-49). In Old Saxon, PGmc. *au* became *ō* in all positions. The Proto-Germanic diphthong *au* had probably yielded a monophthong [ɔ] in Gothic, which was written as <au> (cf. §1.2.1.2). Among the loanwords, those forms that contained original Germanic *au* are reflected with *u* in Proto-Slavic, irrespective of their origin: PGmc. *skauta-* > PSl. *skutъ, Goth. *kaupjan* > PSl. *kupiti*, Goth. *kausjan* > PSl. *kusiti*, NWGmc. *lauka-* > PSl. *lukъ, NWGmc. *nauta-* > PSl. *nuta*, NWGmc. *laugō* > PSl. *lugъ.

Most Germanic loanwords that are reconstructed with a diphthong in the root seem to have been borrowed into Proto-Slavic when the diphthong had already monophthongized in Germanic. Except for PSl. *bljudo* (see above), the only words that contained a diphthong were probably the words with *ai* and *au* that were borrowed from West Germanic.

The Proto-Slavic system initially contained the inherited diphthongs *ei*, *eu*, *ai* and *au*. PIE *eu* developed into *iou* in Balto-Slavic times. It developed to *jau* when *o* and *ō* delabialized to *a* and *ā* in an early stage of Proto-Slavic (Kortlandt 2002a: 9). PSl. *jau* further developed along similar lines as *au* and yielded *ju* eventually. The other diphthongs monophthongized in Proto-Slavic as follows: *ei* > *ẹ̄* > *ī*, *ai* > *ē* (*ě*), *au* > *ō* > *ū*. In late Proto-Slavic, the outcome of the monophthongization of the diphthong *ei* is *ī* and of *au* is *ū*, but the development went though a stage in which the results of the monophthongization of *au* and *ei* were long mid vowels, rather than high vowels: *ei* > *ẹ̄* and *au* > *ō* (Kortlandt 2002a: 9, 12). The beginning of the monophthongization can be dated to approximately 0-300 AD (Kortlandt 2003b: 4), but the process is likely to have been operative for a considerable time because the constraints on the syllabic structure remained until the end of Proto-Slavic.

7.2.2.2 GERMANIC *Ō CORRESPONDING TO PSL. *U

In the Germanic loanwords in Proto-Slavic, Gmc. *ō* in the stem regularly corresponds to late PSl. *u*: PGmc. *bōk-* (PSl. *bukъ, *buky*), PGmc. *dōma-* (PSl. *duma*), NWGmc. *plōga-* (PSl. *plugъ*), PGmc. *hōlōn, *hōlian* (PSl. *xuliti*). In Proto-Slavic, the mid-open back vowels *o* and *ō* have supposedly been absent from the phonological system for some time. Early in Proto-Slavic, *a* and *ā* merged with *o* and *ō* and delabialised to *a* and *ā* again at a later stage. A new long vowel *ō* developed when the

monophthongization of the diphthongs started to operate: the Proto-Slavic diphthong *au initially monophthongized to *$ō$.

The reflex *$ō$ (and, similarly, PSl. *$ē̦$ < *ei) was retained in Proto-Slavic until the vowel system started to shift: the rounded back vowels *u, *$ū$ and *uN delabialised into unrounded central vowels *y, *$ȳ$ and *yN.[140] The delabialization of *u, *$ū$ and *uN to *y, *$ȳ$ and *yN left a gap in the phonological system, which was filled by the raising of the long mid vowel *$ō$ (< *au) to *$ū$. The front vowel *$ē̦$ (< *ei) was similarly raised to *$ī$. This raising can in any case be dated after (or simultaneously with) the delabialization of *u, *$ū$ and *uN because *$ū$ < *$ō$ remained distinct from *$ȳ$ < *$ū$.

It is likely that the loanwords were borrowed from Germanic when the process of monophthongization in Proto-Slavic was operative and had already yielded the new long vowel *$ō$. The Germanic *$ō$ was thus identified with the *$ō$ that existed for some time in Proto-Slavic and later developed into *$ū$.

7.2.2.3   PALATALIZATIONS OF VELAR CONSONANTS IN PROTO-SLAVIC

The first palatalization of velar obstruents showed the following results: *k > *$č$, *g > *$ǯ$ (> *$ž$), *x > *$š$ before *e, *$ē$, *i, *$ī$ or *j. The second palatalization of velars yielded *k > *$ć$, *g > *$dź$, *x > *$ś$ before the new front vowel *$ē$ (> *$ě$) that had arisen through the monophthongization of the diphthong *ai. The so-called regressive palatalization of velars was probably part of the same process (Vermeer 2000). As a result of the regressive palatalization of velars, a velar consonant became palatalized after the high front vowels *i, *$ī$, *iN unless they were followed by a consonant or by one of the high back vowels *u, *$ū$, *uN (cf. Kortlandt 2002a: 9-10).

PSl. *$šelmъ$ and *$užasъ$/*$(u-)žasnǫti$ underwent the first palatalization of velar consonants in Slavic. It follows that these words were borrowed when the first palatalization was still operative, at the latest shortly before the beginning of the second palatalization.

PSl. *$cěsarь$ (cf. s.v. *$cěsarь$ for the other forms *$cesarь$ and *$cьsarь$), *$cьrky$ and *$nebozězъ$/*$nabozězъ$ show the palatalised reflex of *c < *k and *z < *g resulting from the second palatalization of velar consonants. The suffix *$-ędźь$ in Proto-Slavic (attested in PSl. *$koldędźь$, *$kъnędźь$, *$pěnędźь$, *$retędźь$, *$skъlędźь$/*$stъlędźь$/*$štъlędźь$, *$userędźь$, *$vitędźь$) reflects the Germanic suffix

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[140] Kortlandt dates this development to around 300-600 (2003b: 4). The result of this development is attested, for example, in PSl. *$tynъ$ (cf. PGmc. *$tūna$-), PSl. *$xyzъ$/*$xysъ$ (cf. PGmc. *$hūsa$-).

*-inga- and underwent the progressive palatalization, which was caused by the nasal vowel *ę < *in. The progressive palatalization is also attested in PSl. *gobьdźь from a reflex of PGmc. *gabiga-.

7.3 MORPHOLOGICAL ADAPTATION OF THE LOANWORDS

7.3.1 INTRODUCTION

The Germanic loanwords joined the following declensions when they were accommodated to the Proto-Slavic morphological system: masculine *o/jo*-stems, neuter *o/jo*-stems, feminine *ā/jā*-stems, feminine *i*-stems and feminine *ū*-stems. The masculine *u*-stem declension was a disappearing morphological category already in the earliest attested forms of Slavic. In all Slavic languages, already in Old Church Slavic, the *u*-stem and *o*-stem declinations have become mixed, and words that originally belonged to the *u*-stem declination are not clearly identifiable. PSl. *dъlgъ* may have been borrowed into Proto-Slavic as an *u*-stem, cf. §8.3.1. The masculine *u*-stems in Proto-Slavic were exclusively or mainly monosyllabic (Orr 1996: 316-317), and for this reason the Germanic polysyllabic masculine *u*-stems PGmc. *asilu-* and Goth. *ulbandus** may have become masculine *o*-stems in Slavic. Although the neuter *o/jo*-stems must have been productive at the time of the borrowings, the original Germanic neuters regularly changed gender in Slavic; the only Proto-Slavic neuter form continuing a Germanic neuter form is *vino* (see below).

7.3.2 GERMANIC PREFIXES AND SUFFIXES

The words PSl. *gonoziti/*goneznǫti* and *gorazdъ* reflect the Germanic prefix *ga-. This prefix is attested in the form *ga-* in Gothic and as *gi-* in Old High German. The form *gi-* predominates first in the Franconian dialects, and later spread to the Alemannian and Bavarian dialects. From the second half of the ninth century, *gi-* is predominant in all Old High German dialects (Braune/Reiffenstein 2004: 74). The form of the prefix is *ge-* or *gi-* in Old Saxon. The prefix *ga-* is widely used in Germanic and was especially productive in Gothic (Lehmann 1986: 132). PSl. *gonoziti/*goneznǫti* are nevertheless likely to derive from West Germanic (obviously before the change of PGmc. *ga-* to *gi-* or *ge-*) because the Gothic raising of PGmc. *e* to *i* is not reflected in PSl. *goneznǫti*.

The Germanic suffix *-inga-* is attested with the following loanwords into Proto-Slavic: *koldędźь, *kъnędźь, *pěnędźь, *retędźь, *skъlędźь/*stъlędźь/*štъlędźь,

*userędźь, *vitędźь*. The suffix occurs with a number of different meanings: it is most frequently used for creating denominative masculine nouns denoting persons (e.g., kinship terms). This use does not occur in Gothic but it becomes increasingly frequent in the other Germanic dialects. The variant *-unga-* is also found, mainly in Old Norse (Kluge 1926: 11-12). Because the use of the suffix *-inga-* for denominative masculine nouns denoting persons does not occur in Gothic, PSl. *vitędźь* and *kъnędźь* must stem from West Germanic.

The suffix *-(l)inga-/-(l)unga-* is used to form coin names in all of Germanic. This use is also more widespread in Northwest Germanic than in Gothic (cf. OHG *silbarling* 'silver coin, piece of silver', but Goth. *silubreins* '(piece) of silver'); the suffix *-(l)inga-* for coin names only occurs in Goth. *skilliggs** 'solidus' (Kluge 1926: 53-54). PSl. *pěnędźь* might, therefore, from a morphological viewpoint be considered to be a loanword from West Germanic, rather than from Gothic (cf. §7.2.1.3 for phonological reasons to regard PSl. *pěnędźь* as a West Germanic loanword).

The Proto-Slavic suffix *-ędźь* seems to occur in Proto-Slavic exclusively or almost exclusively with Germanic loanwords. Apart from the seven words with this suffix discussed in this thesis, Vaillant only mentions a number of later Nordic loanwords, especially into Old Russian, e.g., *Varjagъ* 'Varangian' < ON *varingr* and a small number of words with limited distribution in the Slavic languages that might or might not have been borrowed from Germanic. The most important of these are: OR *rabotjagъ* 'slave' (also attested in Old Polish and Old Czech), OR *sterljag-* 'sterlet (*Acipenser ruthenus*, a kind of sturgeon)' from G *Störling* 'small sturgeon', P *mosiądz* 'brass' (also attested in Czech) from G *Messing* 'brass', R *govjáz* '*Symphytum officinale*' (also attested in Ukrainian, Czech, Serbian/Croatian, Slovene, Bulgarian, Macedonian).[141] Vaillant mentions a small number of other words, but these are "mots à finale obscure" (1974: 502-503).

A number of loanwords reflect the Germanic suffix *-ila-*. This suffix derives masculine instrument names mainly from verbs. This use is especially frequent in Old High German, but according to Kluge, it can be coincidental that Gothic has no attestations of this suffix, except for the Latinised form *(h)usabandilus*

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[141] R *govjáz* and its cognates go back to PSl. *govędźь*, which has been analysed as a compound of PSl. *govędo* 'head of cattle' and *ęzykъ* 'tongue, language' and thus literally means 'ox-tongue' (REW 1: 258, ESSJ 1: 141). The plant belongs to the family of *Boraginaceae*, which is characterised by its hairy leaves, hence the derivation of the plant-name from 'ox-tongue', cf. similar names for other plants in the same family as E *Ox-tongue* (*Anchusa officinalis,* also Du. *Gewone ossentong*) and E *Residual ox-tongue* (*Pentaglottis sempervirens,* Du. *Overblijvende ossentong*).

'garter'. It is not clear whether Goth. *katils* reflects the same suffix (Kluge 1926: 48). The Proto-Slavic loanwords from Germanic reflecting the suffix *-ila-* are PSl. *grędelь, *petьlja* and perhaps *kotьlъ*.

The Germanic feminine suffix *-(i)lō(n)-* also builds instrument names, as in OHG *fihala, fihila* (PSl. *pila*). The function of the suffix *-la-* in Goth. *stikls* (PSl. *stьklo*) is unclear (ibid.: 47-48).

Finally, the suffix *-l-* appears as a substitute suffix in a number of Latin loanwords in Germanic: WGmc. *lāgel(l)a* (< Lat. *lagoena*; PSl. *lagy*), PGmc. *katila-* (< Lat. *catīnus*; PSl. *kotьlъ*), WGmc. *kubil-* (< Lat. *cūpella* or *cūpellus*; PSl. *kъbьlъ*), PGmc. *asila-* (< Lat. *asinus*; PSl. *osьlъ*). It has often been argued that these words were borrowed from the corresponding Latin diminutive forms. This indeed seems to be the case with WGmc. *kubil-* < Lat. *cūpella/cūpellus* because the Germanic word corresponds to the meaning of these Latin forms rather than that of Lat. *cūpa* (cf. §5.4, s.v. *kъbьlъ*). For the other Germanic words, the reason why they would have been borrowed from a Latin diminutive form is less clear. It has therefore been supposed that the Latin words with a suffix *-(i)n-* regularly replaced this suffix with the in Germanic more frequent suffix *-(i)l-* when the words were borrowed into Germanic (Green 1998: 204-205, Kluge/Seebold 2002, s.v. *Lägel*). Kluge posits a sound law that changed PGmc. *-n-* in unstressed syllables to *-l-* (1913: 68). This is a less likely scenario, especially because all the examples he adduces are loanwords, primarily from Latin.

7.3.3   Gender change of Germanic neuter nouns

Germanic neuters in general did not retain their original gender when they entered Proto-Slavic. The only exception is PSl. *vino* from a reflex of PGmc. *wīnan* 'wine' (n. *a*-stem). The change of gender of the Germanic neuter nouns in Slavic has been regarded as a problem in the study of Germanic loanwords in Proto-Slavic. It must, however, be noted that not only the Germanic neuter noun loanwords in Proto-Slavic change gender, the Latin neuter loanwords in Proto-Slavic for the most part change gender as well and mainly become masculine (or occasionally feminine) (M. Matasović 2011: 277).

The Germanic neuter words that have changed gender are:
- PSl. *nuta* (f.) from a reflex of NWGmc. *nauta-* 'cattle' (n. *a*-stem).
- PSl. *pъlkъ* (m.) from the Gothic or Langobardic reflex of PGmc. *fulka-* (n. *a*-stem). PGmc. *fulka-* is usually reconstructed and attested as a neuter *a*-stem (e.g., Fick/Falk/Torp 1909: 235). OS *folk* is neuter (Holthausen 1954: 21, Tiefenbach 2010: 99). In Old and Middle High German, the word is also attested with neuter forms, although masculine

forms occur as well (Seebold 2008: 312). The attestation *fulcus* in the late eighth-century *Reichenauer Glossen* seems to imply a masculine form, but it is impossible to base conclusions on this because the gloss appears in a Latinised form. It has also been argued that the word in the *Reichenauer Glossen* is not of Gothic origin but rather stems from Old Low Franconian (EWA 3: 451-452). The gender of the unattested Gothic form and of Langobardic *fulc-* remains unclear. Because the Germanic form has been reconstructed as a neuter *a*-stem and because the word is neuter in the early attestations in Germanic, the donor of the Proto-Slavic form is likely to have been neuter.

- PSl. **xlěvъ* (m.) derives from a reflex of PGmc. **hlew(j)a*, which is attested as neuter in Old English, Old Frisian and Old Norse. The gender in Gothic unclear (Lehmann 1986: 187). For Old Saxon, Holthausen assumes either masculine or neuter, but Tiefenbach considers OS *hleu* to be masculine (Holthausen 1954: 34, Tiefenbach 2010: 170).
- PSl. **xyzъ/-a*, **xysъ/-a*, **xyžъ/-a*, **xyšъ/-a* (m. and f.) derive from a reflex of PGmc. **hūsa-*, which is attested as a neuter in all Germanic languages.

In the literature, two other examples of the change of gender from Germanic neuter to masculine in Slavic are adduced, but these words are more likely to go back to Germanic masculine *a*-stems:

- PSl. **lukъ* (Matasović 2000: 131). The Germanic forms are likely to derive from a masculine proto-form (cf. Bammesberger 1990: 53): ON *laukr* is masculine. Seebold considers OHG *louh* to be masculine as well (2008: 542). Holthausen considers OS *lōk* to be masculine and Tiefenbach lists the compounds with *-lōk* to be either masculine (*asklōk* 'shalot', *knuflōk* 'garlic', *unlōk* 'onion') or masculine and/or neuter (*bioslōk* 'chives', *hollōk* 'onion') (Holthausen 1954: 48; Tiefenbach 2010: 16, 31, 175, 214, 428).
- PSl. **tynъ* (Stender-Petersen 1927: 513, Matasović 2000: 131). The Germanic forms are generally masculine and seem to go back to a masculine proto-form as well (cf. Bammesberger 1990: 73): OHG *zūn* is regarded as masculine (Seebold 2008: 1005).

We are therefore dealing with four Germanic neuter nouns that changed gender after being borrowed into Proto-Slavic: PSl. **nuta, *pъlkъ, *xlěvъ, *xyzъ/-a*, **xysъ/-a, *xyžъ/-a, *xyšъ/-a*. PSl. **nuta* became feminine in Proto-Slavic because it was perceived as a collective noun.

The only word that is a neuter in Proto-Slavic as well as in Germanic is PSl. **vino*. The neuter gender of PSl. **vino* might have been influenced by PSl. **vinogordъ* which was borrowed from the Gothic compound *weinagards* and in which the medial **o* is a regular reflex from the Gothic medial *a*.

Apart from PSl. *vino*, there are other Proto-Slavic neuter forms in the corpus, but they all go back to Germanic masculine or feminine forms: *stьklo* was borrowed probably from Goth. *stikls* (m.) and the change of gender of this word has been explained as secondary to other designations for materials such as PSl. *zolto* 'gold', *sьrebro* 'silver' (Stender-Petersen 1927: 397). PSl. *myto* was borrowed from OHG *mūta* (f.) and might be a singulative form of an earlier collective noun. PSl. *bljudo* was borrowed from Goth. *biuþs* (m.). The word shows variation in gender very early in the attested Slavic languages; in every language in which the word is retained, it occurs as a neuter *o*-stem, but it also appears as a masculine *o*-stem in OCS *bljudъ* as well. I suppose, also on the basis of accentological evidence (cf. §8.3.3.1), that the word was originally borrowed as a masculine word and very early, still in the Proto-Slavic period, analogically became neuter.

Ranko Matasović explains the virtual absence of original Proto-Slavic neuter nouns among the loanwords from Germanic by the transition of thematic neuter nouns with initial stress to the masculine gender. In the prehistory of Slavic, the thematic neuter nouns with initial stress had become masculine, e.g., PIE *dʰuór-o-m* yielded OCS *dvorъ* m. 'court(yard)', but cf. Lat. *forum* 'market, forum', which is neuter. Matasović dates this change of gender relatively late in Proto-Slavic after the borrowing of the loanwords from Germanic: he assumes that the Germanic neuter words were borrowed into Proto-Slavic as neuters originally and later on participated in the general transition of thematic neuter nouns to masculines (2000: 130-131, 2008: 51).[142]

According to the dating Kortlandt gives for the transition of part of the thematic neuter nouns to masculines, this chronology is impossible: Kortlandt dates the development to (late) Balto-Slavic because the same transition seems to have taken place in Baltic (2002a: 6-7 for Old Prussian, 1982: 5-6 for Latvian, 1993a for Lithuanian, cf. 1975: 45). It is unlikely that the same development took place in Proto-Slavic and Baltic independently. The new barytone neuter nouns that arose after Hirt's law, according to which the stress was retracted to a pretonic vowel immediately followed by a laryngeal, did not become masculines. It follows that the transition of barytone neuter nouns to the masculine gender must have been completed before Hirt's law (Kortlandt 2002a: 5).

In PIE, the NAsg. ending of the neuter *o*-stems was *-om*. This ending was replaced by the pronominal ending *-od* in the oxytone neuters in

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[142] Matasović calls this development Illič-Svityč's law, but I will refrain from this in order to avoid confusion with the 'other' Illič-Svityč's law (see below, cf. also §2.5, §8.3.3.1).

Balto-Slavic.[143], [144] Then, *o before a final nasal narrowed to *u, so the NAsg. ending of the Balto-Slavic barytone neuters became *-uN. The replacement of the ending of the oxytone neuters resulted in the separation of the neuter barytone and oxytone paradigms and to the merger of the old barytone neuters with the barytone masculine o-stems. The old barytone neuters merged with the masculine paradigm in the singular in Proto-Slavic, e.g., NAsg. *dvorъ, but they retained the original neuter ending in the plural for some time, Npl. *dvora. The fact that the old masculine o-stems and the new masculine forms resulting from original barytone neuter o-stems remained distinct from each other in Proto-Slavic is shown firstly by the fact that the original neuter o-stems (the *dvorъ-type) did not participate in Illič-Svityč's law, i.e., the general shift of AP (b)-stressed masculine o-stems to AP (c) (cf. §2.5, §8.3.3.1). The barytone neuter o-stems were still distinct from the masculine o-stems when Illič-Svityč's law operated, probably because of the differing plural forms.

Another indication that the old masculine o-stems and the new masculine forms resulting from original barytone neuter o-stems remained distinct in Proto-Slavic is given by the accentuation of the Germanic loanwords in Proto-Slavic: the original Germanic masculine donor words were treated accentologically differently from the original neuter donor words, which indicates that the Germanic neuter nouns did not become 'ordinary' masculine nouns at the moment they were borrowed into Proto-Slavic (cf. §8.3.3.1). Because the original AP (b)-stressed masculine o-stems had become mobile, the Proto-Slavic masculine o-stems with AP (b) by and large continue old neuters (Kortlandt 1975: 44-46, 1983: 183, Derksen 2008: 10-11).

If the change of gender of the original Germanic neuter nouns in Proto-Slavic cannot be attributed to the general transition of thematic neuter nouns with initial accent to the masculine gender, the question remains why PSl. *pъlkъ, *xlěvъ and *xysъ/*xyšъ/*xyzъ/*xyžъ have become masculine in Proto-Slavic (but feminine forms of the latter word are also amply attested). A possible explanation might be that these words were identified with the reflexes of the original barytone neuter o-stems, which fell together with the masculines in the

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[143] Kortlandt explains this substitution by the fact that the Balto-Slavic Asg. ending *-oN (< PIE *-om) had become "markedly unstressed" (1975: 45).

[144] The replacement of the ending *-om by the pronominal ending *-od in the oxytone neuters in Balto-Slavic has been dated before the operation of Hirt's law in Balto-Slavic because the oxytone neuters that, according to Hirt's law, retracted the stress to a pretonic syllable that was immediately followed by a laryngeal did not participate in the change of gender from neuter to masculine, e.g., S/Cr. jȁto 'flock', Vedic yātám (Kortlandt 2002a: 5).

singular (but not in the plural) and had AP (b) in Proto-Slavic. This explanation does not account for PSl. *xysъ/*xyšъ/*xyzъ/*xyžъ because this word has AP (a) in Proto-Slavic.

7.3.4   THE FEMININE Ū-STEMS IN PROTO-SLAVIC

It is an interesting phenomenon that quite a number of Germanic loanwords have joined the feminine *ū*-stem flexion in Proto-Slavic. These are words that mainly continue Germanic feminine *ō*-stems. The following words in the corpus belong to the feminine *ū*-stems: *buky, *cъrky, *lagy, *orky, *redьky/*rьdьky.

The Proto-Slavic feminine *ū*-stems basically continue the PIE *-*uH*-stems. The number of inherited feminine *ū*-stems in Slavic is very small and the type has largely disappeared as a separate stem class in the attested Slavic languages (the old nominative form is retained in, e.g., OP *kry*, Slov. *krî*, but R *krov'* 'blood'). However, at some point in the history of Proto-Slavic, the feminine *ū*-stem flexion must have been exceedingly productive, which is shown by the fact that this stem class includes many loanwords. This productive pattern has often been connected to the loanwords from Germanic. For this reason, Slavic *ū*-stems of unknown origin have sometimes been considered to be of Germanic origin, even if Germanic origin is difficult from a phonological viewpoint. For example, the main reason for PSl. *mъrky 'carrot' to have been explained as a loanword from Germanic seems to be that the word is a feminine *ū*-stem in Slavic (Knutsson 1929: 31 36, Skok 1972: 469), but the etymology of PSl. *mъrky as a loanword from a reflex of WGmc. *murhōn 'carrot' is formally impossible (cf. §6.3, s.v. PSl. *mъrky). However, the occurrence of the feminine *ū*-stems among the loanwords into Slavic cannot be limited to the loanwords from Germanic languages in Proto-Slavic: the feminine *ū*-stem flexion is frequently found among the loanwords from Latin and early Romance dialects as well (Matasović 2011: 279 280), and the feminine *ū*-stems are also frequent among later, post-Proto-Slavic loanwords from German (cf. Knutsson 1929).

It has often been attempted to connect the occurrence of the feminine *ū*-stems among Germanic loanwords to an attested or reconstructed declension type or ending in Germanic. This has, on the whole, remained without avail. Kiparsky concludes: "Es besteht keine Möglichkeit, slav. -*y* im Auslaut auf einen ganz bestimmten Laut zurückzuführen, da es mit großer Sicherheit 4 verschiedenen Lauten entspricht. Offenbar war die *y*-Deklination eine Kategorie, unter welcher alles zusammengefasst wurde, was nicht in das übliche Schema passte" (1934: 295). More or less the same is said by Stender-Petersen, who regards it a matter of coincidence which words became *ū*-stems in Proto-Slavic: "beliebige

Substantive [konnten] ohne eigentlichen Anlass ins Schema der *ū*-Flexion übergeführt werden." (1927: 524).

Knutsson, who has devoted an entire study to this problem, thinks the borrowings stem from West Germanic and dates the borrowing of the Proto-Slavic feminine *ū*-stems after the development of PSl. **y from earlier **ū. He explains the transfer of these loanwords to the *ū*-stem declension by the phonetic closeness of PSl. **y and the German ending ***-e* (1929: 27). He concludes that "die nicht betonten Vokale in den Endungen, die im Mitteldeutschen oder schon früher zu *e* werden, in den deutschen Lehnwörtern im Slavischen durch slav. *y* ersetzt werden *konnten* [marking of *konnten* in the original]" (1929: 64). Knutsson connects this development to the appearance of the early Slavs in Bohemia, Moravia and Pannonia where they came under western cultural influence from the seventh century onwards. He therefore assumes that the majority of the Proto-Slavic feminine *ū*-stems were borrowed from Old or Middle High and Low German between 800-1200 (1929: 42). This dating is rather late for words to have a distribution throughout the Slavic language area. Knutsson concludes that the loanwords semantically point to a "gewisse kulturelle Einheit", which implies "konsolidierte Verhältnisse" and "friedliche[r] Verkehr zwischen Slaven und ihren Nachbarvölkern" (1929: 41). The words that Knutsson considers to be certain Germanic loanwords, are: PSl. **bersky 'peach, apricot', **bruky 'wild cabbage (*Brassica oleracea*), turnip (*Brassica napobrassica*)', ***draty/drety* 'string, waxed end', **kony 'jug', **kruky 'crutch, stick', **lagy 'bottle, cask' (cf. §5.3), **lany '(shipping) rope', **laty 'slat, strip of wood', **liny '(shipping) rope', ***listy/*lišty* 'edge, border', **nuny 'nun', **pany 'pan', **peky 'casserole', **raty 'rat', **riny 'trench, gutter', **ruky 'several plants, e.g., Hedge mustard (*Sisymbrium officinale*)', **ruty 'several plants, e.g., Common rue (*Ruta graveolens*)', **skaly 'scales; basin', **stǫdy 'tub'. With the exception of **lagy, most of these loanwords have been borrowed after the disintegration of Proto-Slavic, and only into the Slavic languages that bordered on the German language area (West Slavic and Slovene); Knutsson himself dates the borrowing of these words after 850 (1929: 24).[145]

The words that, according to Knutsson, have been borrowed from Germanic before about 850, are: **męty 'mint' (cf. §6.1), **mъrky 'carrot' (cf. §6.3), **orky 'box' (cf. §5.2), **pigy 'fig, quince' (cf. §6.2, fn. 115), **plosky 'bottle', ***redъky/*rъdъky* 'radish, *Raphanus sativus*' (cf. §5.4). Knutsson then discusses the words that have been regarded as loanwords from pre-Gothic or Gothic and

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[145] PSl. **bersky probably rather stems from Romance (M. Matasović 2011: 179-180).

concludes that these also rather stem from West Germanic: *bordy* '(battle) axe, bearded axe' (cf. §1.1), *bъči* 'vat, vessel' (cf. §6.1), *buky* 'beech(nut); 'letter, book' (cf. §5.2), *cьrky* 'church' (cf. §5.3), *koty* 'anchor', *smoky* 'fig (tree)' (cf. §6.2) (1929: 65).

The solution proposed by Knutsson is not very attractive because it implies a matter of chance and does not satisfactory explain why certain feminine words became *ū*-stems, while others followed the more expected *ā*-stem declination. This theory does not explain how the Romance loanwords or the later German loanwords came to have joined the *ū*-stem flexion either.

Many of the loanwords that are included in Knutsson's overview refer to domestic plants, fruit trees, technical instruments and containers. This "gewisse kulturelle Einheit" was the main reason for Knutsson to look for a contact area in which friendly relations between the Slavs and the neighbouring Germanic peoples existed (1929: 41-42). The predominance of loanwords referring to domestic plants, fruit trees and containers corresponds, however, exactly to the semantic classes to which Proto-Slavic feminine *ū*-stems that were borrowed from Latin or early Romance belong: Maja Matasović notes that the Latin loanwords into Proto-Slavic that have become feminine *ū*-stems are mainly words denoting plants and containers (2011: 279-280). There thus seems to have been a tendency at work by which loanwords (both from Romance and Germanic) denoting domestic plants (and fruit trees) and containers analogically joined the feminine *ū*-stems in Proto-Slavic and post-Proto-Slavic.[146] This undermines Knutsson's theory that the Slavic feminine *ū*-stems refer to consolidated relations between Slavic and Germanic peoples and to a western cultural influence on the Slavs in Bohemia, Moravia and Pannonia between 800-1200.

There are only a few feminine *ū*-stems that can really be regarded as Proto-Slavic and pan-Slavic loanwords from Germanic. These words are: PSl. *buky, *cьrky, *lagy, *orky, *redъky/*rъdъky*. It is not possible to assign these words to one specific donor language: PSl. *orky* might on formal grounds be either Gothic or West Germanic, *buky* and *cьrky* probably stem from West

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[146] The same might have applied to the technical instruments, which Knutsson sees as another defined semantic group within the feminine *ū*-stems. It must be noted that almost all the technical terms that are represented in Knutsson's corpus seem to refer to shipping terms. In general, the technical loanwords from either Germanic or Latin and early Romance into Proto-Slavic do not have the tendency to become feminine *ū*-stems.

Germanic, *lagy certainly is a West Germanic loanword and *redъky/*rъdъky is a late loanwords from Low German. For this reason, it is unlikely that the ending in Proto-Slavic corresponds to a single ending in Germanic.

It is, however, remarkable that all Germanic loanwords that follow the ū-stem declination in Slavic have a velar consonant before the ending. The feminine loanwords with a stem ending in a non-velar consonant, on the other hand, on the whole become Proto-Slavic ā/jā-stems: PSl. *brъnja, *bъdьnja, *duma, *jьstъba, *lixva, *nuta, *pergynja, *petъlja, *pila, *skrin(j)a, *stǫpa, *trǫba, *xǫsa. The only exception in this distribution is PSl. *vaga, but this word might be a late loanword. I, therefore, suppose that initially, the distribution of the feminine words over the ā/jā-stem and ū-stem declensions was governed by the stem-final consonant: feminine words with a stem ending in a velar became ū-stems, whereas words with a stem ending in another consonant became ā/jā-stems. At a later stage of Proto Slavic, the ū-stem declension became productive for loanwords from other languages as well, especially for words referring to various kinds of plants and containers. Because of this productivity, the feminine ū-stems in Proto-Slavic came to include many loanwords from later Germanic languages/dialects and from Latin and other Romance languages.

7.4 SEMANTIC LAYERING OF THE LOANWORDS

In the present section, I will provide a classification of the loanwords into semantic categories. It will be investigated whether there is a relation between the semantic group to which a word belongs and its Germanic donor language. This chapter builds on my article "Semantička polja germanskih posuđenica u praslavenskome" (2010), but differs in a number of details. I have added a semantic category 'skills and mental concepts' and in a small number of cases, I listed a word in another semantic category than I did in the article. The most important difference is the fact that I used the corpus devised by Kiparsky (1934) as the basis of the article, whereas the present chapter is based on my own corpus. This means that the words PSl. *avorъ, *bordy, *bugъ, *bъči, *glazъ, *klějь, *mur(in)ъ, *op-, *remy, *smoky, *tjudjь, *želsti are left out here, and the words PSl. *dъlgъ, *gorazdъ, *koldędźь, *lьvъ, *redъky/*rъdъky, *užasъ, *(u-)žasnǫti, *vъrtogordъ, *xula and *xuliti are added.

7.4.1 EARLIER RESEARCH

In several scholarly works, the Germanic loanwords in Proto-Slavic have been divided into semantic categories. Friedrich Kluge was the first to make a

semantic classification of the Germanic loanwords in Slavic and his classification is the most adequate to date. He distinguishes five semantic categories: 1. *Staatlich-kriegerische Begriffe*; 2. *Begriffe des Handels und Verkehrs*; 3. *Worte für Ackerbau und Viehzucht, Feld und Wald, Haus und Hof*; 4. *Worte für Künste und Fertigkeiten* and 5. *Kirchlich-religiöse Begriffe* (1913: 41-42).

Investigations into the semantics of Germanic loanwords were later undertaken primarily by Stender-Petersen, but Ranko Matasović and Dennis Green have also included the semantic distribution of the Germanic loanwords in Proto-Slavic in their research. The majority of this research only deals with the earliest Germanic loanwords and leaves the West Germanic loanwords in Proto-Slavic out of account: Kluge's corpus consists of the words that were borrowed "zumeist im 3.-5. Jahrh. aus dem Germanischen und teilweise speziell aus dem Gotischen" (1913: 40). Stender-Petersen included the loanwords from Proto-Germanic and Gothic and Green limits himself to the Gothic loanwords in Proto-Slavic.

The most elaborate semantic classification is made by Adolf Stender-Petersen (1927). He assumes two layers of Germanic loanwords in Slavic: the oldest layer of loanwords consists of words borrowed into Slavic from Proto-Germanic and is dated to the last centuries BC (cf. §1.3.1). The later layer of loanwords consists of Gothic words and is dated to the period between 213 and at least 376 (1927: 171). In his book, Stender-Petersen arranges the loanwords into a large number of semantic categories. The oldest layer of Proto-Germanic loanwords comprises the following semantic categories: 1. *Völker- und Volksbezeichnungen*; 2. *Herrscher- und Machtbezeichnungen*; 3. *Waffenterminologie*; 4. *Hausbautechnische Ausdrücke*; 5. *Gehöftsterminologie*; 6. *Geländeterminologie*; 7. *Werkzeugs-, Gefäss- und Gerätbezeichnungen*; 8. *Bezeichnungen für Nahrungsmittel*; 9. *Wirtschaftsterminologie*; 10. *Ausdrücke für gesellschaftliche Pflichten*; 11. *Bezeichnungen für Künste und Fertigkeiten*. The second period comprises the following categories: 1. *Bezeichnungen für Donau, Römer und Kaiser*; 2. *Neue Fauna und Flora*; 3. *Geld- und Geldhandel*; 4. *Bezeichnungen für Nutz- und Luxuswaren*; 5. *Gotisch-slavischer Arianismus*; 6. *Gotische Schrift* (1927: ix-x).

According to Ranko Matasović, the main semantic categories that cover the Germanic loanwords in Proto-Slavic are "ona [polja] koja sadrže riječi koje se često posuđuju [those fields containing words that are often borrowed]: 1. *graditeljstvo* [building]; 2. *konfiguracija zemljišta* [landscape terminology]; 3. *termine iz socijalne sfere* [societal terminology] and 4. *nazive za životinje i stoku* [names for animals and cattle]" (2008: 51).

In his book *Language and History in the Early Germanic World,* Dennis Green divides the Gothic loanwords in Proto-Slavic into five semantic categories: 1. trade; 2. political power; 3. agriculture; 4. warfare and 5. skills (1998: 173).

Zbigniew Gołąb also discusses the semantics of the Germanic loanwords in Proto-Slavic, but he does not classify them in semantic categories. He remarks that the semantics of the loanwords are "quite broad", which points to "multifarious relations": there are objects belonging to everyday life, as well as "very important" social terms. Gołąb follows Martynov in distinguishing between so-called penetrations and regular borrowings. The former could only have entered Proto-Slavic in truly bilingual areas (the westernmost part of Slavic territory has been suggested as a contact zone) and encounter a synonym in the receiving language (cf. §1.3.4). Words that, according to Gołąb, entered Slavic through penetration include PSl. **nuta* 'cow, cattle', **želsti* 'to repay, pay for', **xlěbъ* 'loaf, bread', **xǫdogъ* 'skill (?)', **xǫsa* 'robbery, trap', **lьstь* 'cunning (trick)'. According to Gołąb, these words refer to "important social and economic phenomena" and, in case of **xǫsa* and **lьstь,* show an "obvious moral depreciation" of the Germanic meaning (1991: 383-384).

On the basis of the present corpus, which consists of both Gothic and West Germanic loanwords, the main semantic categories in which the loanwords can be divided, are:
1. power and warfare
2. skills and mental concepts
3. technical terminology
4. trade
   a. general
   b. money and buying
   c. containers
5. Christian terminology
6. yard and home grown/made products

The following overview shows the correspondences and differences between the semantic classifications described above:

Pronk-Tiethoff	Kluge	Stender-Petersen	Matasović	Green
power and warfare	Staatlich-kriegerische Begriffe	Herrscher- und Machtbezeichnungen; Waffenterminologie	societal terminology	political power; warfare

skills and mental concepts[147]	Worte für Künste und Fertigkeiten	Bezeichnungen für Künste und Fertigkeiten		skills
technical terminology		Werkzeugs-, Gefäss- und Gerätbezeichnungen		
trade: general	Begriffe des Handels und Verkehrs		societal terminology	trade
trade: money and buying		Ausdrücke für gesellschaftliche Pflichten; Geld- und Geldhandel		
trade: containers		Werkzeugs-, Gefäss- und Gerätbezeichnungen		
Christian terminology	Kirchlich-reli-giöse Begriffe	Gotisch-slavischer Arianismus		
yard and home grown/made products	Worte für Ackerbau und Viehzucht, Feld und Wald, Haus und Hof	Bezeichnungen für Nahrungsmittel; Wirtschaftstermino-logie; Hausbautechnische Ausdrücke; Gehöftsterminologie	building	agriculture
		Geländeterminologie	landscape terminology	

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[147] This semantic category is not listed in Pronk-Tiethoff (2010).

		Neue Fauna und Flora	names for animals and cattle	
		Völker- und Volksbezeichnungen		
		Bezeichnungen für Donau, Römer und Kaiser;		
		Bezeichnungen für Nutz- und Luxuswaren		
		gotische Schrift		

According to the material presented in this dissertation, a very clear and hitherto largely unnoticed semantic category is formed by the technical terms. The reason why this category has remained largely unnoticed probably lies in the fact that many scholars have taken only supposed Proto-Germanic and Gothic loanwords into Proto-Slavic into account, whereas the technical terms that were borrowed from Germanic generally derive from West Germanic.

It is striking that Stender-Petersen distinguishes many more semantic categories than the other scholars. Some of these semantic groups consequently contain only a small number of words; the category *Gotische Schrift*, for example, consists only of the word PSl. *bukъ/*buky. Stender-Petersen distinguishes a category *Werkzeugs-, Gefäss- und Gerätbezeichnungen*, but this semantic category can, in my view, better be subdivided: the words denoting instruments and tools must be separated from the words for containers because the words denoting instruments and tools are (generally West Germanic) loanwords resulting from the fact that the Germanic society was technically more advanced than the Proto-Slavic society, whereas the words for containers are both Gothic and West Germanic loanwords that were mainly borrowed in relation to trade. Stender-Petersen attributes the Christian terminology to Proto-Slavic contacts with the Arian Goths, but it is more likely that the Christian terms entered Slavic through contacts with speakers of West Germanic because there is no evidence that the Slavs were ever Arians.

On the basis of the corpus, there are no indications to posit a separate semantic category of words referring to parts of the landscape ("landscape terminology"

(Matasović), "Geländeterminologie" (Stender-Petersen) and "Feld und Wald" (Kluge, as part of his third category)). The reason for establishing this semantic category is mainly because of the word PSl. *bergъ 'slope, bank', which is sometimes regarded as a Germanic loanword (cf. §6.2).

The semantic category of words relating to house-building ("building" (Matasović), "Hausbautechnische Ausdrücke" and "Gehöftsterminologie" (Stender-Petersen)) has been distinguished because of words like PSl. *jъstъba '(heated) room', *tynъ 'fence', *xlěvъ 'cattle shed, stable' and *xyzъ/-a, *xysъ/-a, *xyžъ/-a, *xyšъ/-a 'hut, cottage', but I have ranged these words in the category "yard and home grown/made products".

7.4.2   THE SEMANTIC CLASSIFICATION

In the following section, I will discuss in more detail the classification into six semantic categories that I distinguish on the basis of the present corpus.

7.4.2.1   1. POWER AND WARFARE

The Proto-Slavs borrowed a number of words from Germanic relating to rulers and society: PSl. *cěsarъ, *cesarъ, *cьsarъ '(Roman) emperor'; *korljь 'king'; *kъnędźь 'prince, ruler'; *vitędźь 'hero, knight' as well as words for different kinds of weaponry and military equipment: *brъnja 'harness, suit of armour'; *šelmъ 'helmet', *pъlkъ 'regiment, crowd'.

Gołąb mentions that the number of Germanic loanwords words relating to weaponry is "rather insignificant" (1991: 384), but, few though they are, these words form a well-defined sub-group within this semantic category.

In the Byzantine war manual *Stratēgikon*, dating from the late-sixth century and attributed to the Emperor Maurice, the war equipment of the Slavs is described as follows. None of the items described by Emperor Maurice are part of the weaponry terms that were borrowed from Germanic:

> "They are armed with short javelins, two to a man, and some of them with stout shields that are cumbersome. They use wooden bows and short arrows smeared with a poisonous drug, and this kills if a man wounded by it is not safeguarded in time by a draught of antidote, by other aids known to the science of the doctors, or if the wound is not cut away immediately so that it does not spread to the rest of the body." (Dennis 1984: 121).

While the military loanwords from Germanic in Proto-Slavic include types of weapons that were unknown to the Slavs, the army-related loanwords from Latin in Germanic cover a much wider range of words, which is due to the fact

that Germanic people served as mercenaries in the Roman army. In Germanic, we therefore find Latin loanwords relating to the daily life in a Roman camp (e.g., Goth. *anno* 'soldier's pay', Goth. *spaikulatur* 'guard'), and not exclusively terms relating to the battle field as is the case with the Germanic loanwords in Proto-Slavic (Green 1998: 202-204).

7.4.2.2   2. SKILLS AND MENTAL CONCEPTS

To this category belong PSl. *duma* 'advice, thought, opinion', *gorazdъ* 'experienced, able', *lъstъ* 'cunning (trick)', *xǫdogъ* 'skill (?)', *xǫsa* 'robbery, trap' and perhaps *užasъ*, *(u-)žasnǫti* and *xula/*xuliti* '(to) abuse, revile'.

7.4.2.3   3. TECHNICAL TERMINOLOGY

A number of words relate to technical innovations. These include words for tools: PSl. *pila* 'saw, file', *nebozězъ/*nabozězъ* 'wood drill' and *stǫpa* 'pestle, mortar', a type of plough: *plugъ* 'plough' and *grędelъ* 'plough-beam, axis', the chemical term *lugъ* 'lye, caustic soda', the material *stъklo* 'glass(ware)'. Other words in this group are *petъlja* 'noose, snare' and *retędźъ* 'chain(s)'.

7.4.2.4   4. TRADE

The Slavic and Germanic peoples are known to have maintained commercial relations with one another. This is reflected in many loanwords that relate to trade, money (cf. 4b below) and containers (cf. 4c below).

4A GENERAL

In his discussion of the words relating to viticulture among the Latin loanwords in Germanic, Green distinguishes between 'itinerant' and 'static' terms. Products as 'wine' and 'vinegar' could have been transported and traded anywhere and are thus 'itinerant' terms, whereas terms like 'winepress' or 'to pick grapes' are necessarily connected to areas in which viticulture was practised and are therefore to be considered 'static' terms. Both 'itinerant' and 'static' terms are among the numerous viticultural loanwords from Latin into Germanic (1998: 211-212). Significantly fewer viticultural words were borrowed from Germanic into Proto-Slavic. The only examples are the itinerant term PSl. *vino* 'wine' and the static term *vinogordъ* 'vineyard'.[148] The word for 'donkey' was borrowed

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[148] Green supposes different Germanic origins for PSl. *vino* and *vinogordъ* because the former is a mobile trade-word, whereas the latter word was taken over "in a wine-growing district

from Latin into Germanic in relation to trade because the Romans used donkeys (and mules) to transport their wares overland and thus introduced the donkey into northern Europe (Green 1998: 204) (cf. also Cr. *tòvar* 'load, shipment', but dialectally also 'donkey'). The word was subsequently borrowed from Germanic into Proto-Slavic as * osъlъ* 'donkey'. Two words for cattle were borrowed from Germanic: PSl. *nuta* 'cow, horned cattle' and *skotъ* 'horned cattle'. The meaning of the Germanic donor of PSl. *skotъ* indicates that the word was used to denote possession and might thus relate to trade.

Words relating to market trade are PSl. *kupiti* 'to buy', *kusiti* 'to try, taste' and *vaga* 'weight, scales'. PSl. *lěkъ* 'medicine' was perhaps borrowed in relation to trade as well.

4B Money and buying

Trade with the Germanic peoples is directly reflected in two denominations (currencies) that the Proto-Slavs borrowed from Germanic: PSl. *pěnędźь* 'penny, coin' and *skъlędźь/*stъlędźь/*štъlędźь* 'coin'. The words *lixva* 'interest, usury' and *dъlgъ* 'debt' point to money dealing. The word *myto* 'toll, payment' refers to the toll that traders had to pay for importing or exporting their goods and thus falls on the interface of the semantic categories 'trade' and 'power/society'.

4C Containers

Trade relations between the Slavs and Germanic peoples are also reflected in the large amount of words denoting containers, which often denote measures of capacity in the individual Slavic languages as well: PSl. *lagy* 'bottle, cask', *ǫborъ(kъ)* 'bucket, quantity of grain', *bъdьnja/*bъdьnjь* 'tub', *kotъlъ* 'kettle' and *kъbъlъ* 'tub, quantity of grain'. Other words for containers and vessels are: PSl. *bljudo* 'plate, dish', *orky* 'box' and *skrin(j)a* 'chest'. The original meaning of PSl. *orky* is not clear: apart from 'box', it means 'grave, tomb' in a number of Slavic languages.

Words for boxes, cases, crates and other containers are very susceptible to borrowing; the majority of words in this category were borrowed from Latin into Germanic, before they were borrowed from Germanic into Proto-Slavic.

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further south" (1998: 174). This seems to be unnecessarily complicating; the most natural assumption is to think that PSl. *vino* and *vinogordъ* were borrowed from the same Germanic source; this could have been in a wine growing district, but it is also conceivable that the *vinogordъ* was regularly referred to in a trade situation.

7.4.2.5   5. CHRISTIAN TERMINOLOGY
A number of words relating to Christianity are borrowed from Germanic: PSl. *cьrky 'church', *popъ 'clergyman, priest', *postъ 'fast, Lent', *postiti sę 'to fast', *gonoziti 'to save' (also *goneznǫti 'to recover'), *xrьstъ and *krьstъ 'cross, Christ, baptism'.

Contact between speakers of Slavic and West Germanic has been attributed to the eastward expansion of the Roman Catholic Church and the later Frankish expansion in the same direction (Andersen 2003: 47) and this explains the number of Germanic loanwords relating to Christianity in Slavic. The Slavs are likely to have been at least partly Christianised before the mission of the Slavic apostles Cyril and Method in 863. The conversion of Slavs to Christianity in the Slavic principality of Carantania, for example, began in the middle of the eighth century. Carantania's ruler Hotimir (in contemporary documents also *Chetmarus, Cheitumarus*), the nephew and successor to duke Gorazd (cf. §5.6, s.v. PSl. *gorazdъ), was a Christian who was probably raised in a monastery in Bavaria (cf. Schramm 2007: 62ff.). According to the chronicle in which the conversion of the inhabitants of Bavaria and Carantania is described, Hotimir's attempts to install Christianity first led to disturbances among his people. After some time, the revolts died down and priests were sent to Carantania to do missionary work. Schenker supposed that a large part of the population of Carantania was Christianized by the end of the eighth century (1995: 24, also Leeming 1974: 131, cf. § 6.3, s.v. PSl. *kormola). If Christian terms had first entered Slavic together with the mission of Cyril and Method, a pan-Slavic distribution can hardly be expected (although this remains a difficult subject because PSl. *korljь, which was supposedly borrowed approximately 75 years before the mission of the apostles, did manage to spread through the entire Slavic language area).

As is clear from the overview above, the religious loanwords from Germanic are clearly words relating to the Christian faith. This is in contrast with the Proto-Slavic loanwords from Iranian, which comprise more mythological and abstract religious terms, e.g., PSl. *rajь 'heaven', *bogъ 'god' (cf. Zaliznjak 1962: 41-44, Benveniste 1967).

7.4.2.6   6. YARD AND HOME GROWN/MADE PRODUCTS
Words for part of the (farm) yard or village, are PSl. *jьstъba '(heated) room', *tynъ 'fence', *vъrtogordъ 'garden', *xlěvъ 'cattle shed, stable' and *xyzъ/-a, *xysъ/-a, *xyžъ/-a, *xyšъ/-a 'hut, cottage'. Words for fruit, garden vegetables and domestic products are: *lukъ 'chive, onion', *ovotjь/*ovotje 'fruit', *redьky/*rьdьky 'radish, *Raphanus sativus*', *xlěbъ 'loaf, bread'.

7.4.2.7   7. REMAINING WORDS
Obviously, not all words can belong to one of the categories distinguished above. The remaining words are: *buky* 'beech(nut); letter; book', *bukъ* 'beech', *gobina/*gobino*, *gobьdźь* 'wealth, abundance', *koldędźь* 'well, spring', *likъ* 'choir (?)', *lьvъ* 'lion', *pergynja* 'impenetrable covert (?)', *skutъ* 'hem, clothing covering the legs', *trǫba* 'trumpet', *userędźь* 'earring', *velьblǫdъ* 'camel', *volxъ* 'Romance-speaking person/people', *xъlmъ* 'hill'.

7.4.3   THE ORIGIN OF THE LOANWORDS IN THE SEMANTIC CATEGORIES

In none of the semantic categories, the words can exclusively be regarded as either Gothic or West Germanic. The semantic groups in which the large majority of words stem from West Germanic are the semantic categories 'technical terminology' (with the exception of PSl. *stьklo*), 'yard and home grown/made products' (with the exception of PSl. *xlěbъ*) and 'Christian terminology' (with the possible exception of PSl. *krъstъ*). This indicates that the Slavs took technical items, Christianity and words relating to the farm yard mainly over from the West Germanic peoples, rather than from the Goths. In the category 'yard and home grown/made products', the words PSl. *xlěvъ*, *ovotjь/*ovotje* and *redьky/*rъdьky* seem to stem from Low German dialects.

The semantic categories 'power and warfare' and 'trade' appear to contain Gothic as well as West Germanic loanwords in more or less equal numbers. The origin of the words referring to 'skills and mental concepts' are by and large unclear.

There is a more elusive difference between the loanwords that are borrowed from Gothic and those that are borrowed from West Germanic. The Gothic loanwords include those referring to money dealing (e.g., PSl. *lixva, *dъlgъ*) and luxury products (e.g., PSl. *stьklo, *userędźь*), whereas the West Germanic loanwords more seem to refer to domestic terms (e.g., PSl. *lukъ, *nuta, *ovotjь/*ovotje, *xlěvъ*) and practical instruments and utensils (e.g., PSl. *pila, *plugъ, *stǫpa*). Except for PSl. *kotьlъ*, the words for containers that were clearly borrowed in relation to trade (because they denote measures of capacity) stem from West Germanic, viz., PSl. *bъdьnja/*bъdьnjь, *kъbьlъ, *lagy, *ǫborъ(kъ)*.