Alexander Mankov
Institute of Linguistics of the Russian Academy of Sciences, Moscow; St. Tikhon's Orthodox University for the Humanities, Moscow;
mankov@iling-ran.ru

Proto-Indo-European Nom.-Acc. Dual and the Germanic Dual of nouns

In this article, I present a brief outline of Proto-Indo-European endings of nouns in the nom.-acc. dual and discuss the Germanic noun for "breast", which supposedly had dual forms in Proto-Germanic. OIcel. *brjóst* n. and OE *brēost* n. may reflect the dual **breust-ō* (< PIE **-ō*, the dual of thematic nouns). Because of the homonymy with the neuter nom.-acc. plural in *-ō* (< PIE **-ā*), this form was reanalysed as n. pl. and became a thematic neuter (like Goth. *daur* 'door'). Goth. *brusts* directly reflects PGerm. **brust-iz*, the athematic plural (like OIcel. *dyrr*). OSw. *bryst* n. is ambiguous because it can reflect PGerm. **breust-ō* (dual and pl.), **brust-ī* (dual), **brust-iz* (pl.). The Proto-Germanic "breast" could originally be a proterokinetic noun with an ablauting root, **breust-/*brust-*. As the inflexional expression of duality is extinct, nouns which denote paired organs can develop alternative ways to express it. The article describes such nouns in Swedish dialects of Estonia.

Keywords: nominative and accusative dual; Proto-Indo-European; Proto-Germanic.

Indo-European Nom. and Acc. Dual

The specific ending of nom.-acc. dual in Proto-Indo-European is reconstructed as **-h_1* (Fortson 2010: 117; cf. Malzahn 1999). It is found in athematic masculine and feminine nouns in Greek, e.g. πόδε, μητέρε, with -ε from the vocalised **-h_1*. As for athematic masculine and feminine nouns in Sanskrit, they have *-ā* (and *-āu*), which was probably taken from the thematic declension (Brugmann 1911: § 201). Athematic neuter nouns have *-ī* (e.g. Skt. *čakṣuṣī*, of *čakṣus-* n. 'eye'), for which PIE **-ĭh_1* is reconstructed (Fortson: ibid.). The laryngeal **-h_1* in **-ĭh_1* looks the same as in masculines and feminines, but the element *ĭ* is unclear. As there are very few neuter root nouns (Schindler 1972: 8), it is difficult to reconstruct their original dual form. It is therefore tempting to explain *-ī* in athematic neuters as non-original and taken from the dual of *i*-stems. These have *-ī* < **-ĭ-h_1* (**h_1* does not colour *i*), e.g. Skt. *munī*, *rātrī* of *muni-* m. 'sage', *rātri-* f. 'night'. *ū*-stems are parallel, with *-ū* < **-ŭ-h_1*, e.g. Skt. *tarū*, *dhenū* of *taru-* m. 'tree', *dhenu-* f. 'cow', though the neuter has *-ī*: Ved. *urv-ī́*, of *urú-* 'wide' (Macdonnel 1910: 297).

Thematic masculine nouns add **-h_1* to the thematic vowel **-o-* (Fortson 2020: 126, 128), hence Gr. -ω, e.g. λύκω of λύκος 'wolf', Skt. (Vedic) *-ā*, e.g. *priyā́* of *priyá-* 'dear', OCS *-a*, e.g. *raba* of *rabŭ* 'slave'. Thematic neuter nouns have the same ending in Greek: τέκνω (of τέκνον 'child'). Sanskrit and Old Church Slavonic reflect a different ending, **-oi*, probably from **-o-ī*, with **-ī* that may ultimately have been taken from *i*-stems: Skt. *priyé*, OCS *selě*, of *selo* 'village'. It is difficult to judge whether Gr. -ω in thematic neuters is original (PIE **-o-h_1*) or was taken from thematic masculines having replaced some other, specifically neuter, dual ending; cf. Chantraine 1984: § 22.

ā-stems behave identically to thematic neuters. In Greek they have -ᾱ, e.g. ἡμέρᾱ, Ἀτρείδᾱ, (of ἡμέρᾱ 'day', Ἀτρείδης), which may go back to **-ā-h_1*. In Sanskrit and Old Church Slavonic they reflect *-ī* added to the stem vowel *ā*, i.e. **-ā-ī* > **-ai*: Skt. *dve*, OCS *ženě*, of *žena* 'wife'. An alternative explanation is that -ᾱ in Greek first appeared in masculine *ā*-stems by

analogy with the dual in -ω of masculine *o*-stems and then replaced the original dual ending *-αι (Brugmann 1911: § 197). The latter came to be used as the nom. pl., having replaced the old *-ᾱς (Chantraine 1984: § 33). This explanation presumes that the ending *-*ai* in the feminine nom.-acc. dual is original, though this is not granted.

The ending *-au* (i.e. *-āu*) of masculine nouns in Sanskrit does not fit into this system of *-h_1 combined with the preceding stem vowels.[1] It can be explained as the regular dual ending *-ā* (< *-*o*-h_1) with the dual personal pronoun *$u̯ĕ$- 'we two'[2] used enclitically, i.e. *-*o*-h_1-$u̯e$ > *$ō u̯$.

Remnants of the inflexional expression of duality in Germanic

In historical Germanic languages, the dual of nouns is extinct and is reconstructed only through indirect evidence of several forms, one of which is probably the word for "breast", e.g. Goth. *brusts* τὸ στῆθος, a feminine root noun, attested only in acc. pl. (plurale tantum?): *motareis... sloh in brusts seinos* ἔτυπτεν τὸ στῆθος αὐτοῦ (Luke 18:13), OHG *brust* f. (consonant stem and *i*-stem), OE *brēost* n., OIcel. *brjóst* n., OSw. *bryst* n., Sw. *bröst*; for a full list of cognates see EWAhd II: 399. Gothic and Old High German reflect the PGerm. zero grade, Old English and Icelandic reflect **eu*, see Kroonen 2013: 76, 80. The Old Swedish form is ambiguous and allows for the following explanations. First, it may reflect **brȳst* < **briūst* with *ȳ* shortened before *st* (Kock 1906: 467) < **breust-*; in this case it fully corresponds to Icel. *brjóst* (PGerm. **eu* after *r* gives *jó* in Icelandic and *iū* > *ȳ* in Old Swedish, cf. OSw. *brȳta* 'to break' and Icel. *brjóta* 'id.'). Alternatively, *bryst* could appear through *i*-umlaut in the plural of an athematic feminine noun with a zero-grade root (PScand. **brust-iR*, cf. Goth. *brusts*),[3] then *y* spread onto the whole paradigm; OSw. *ў* is regularly reflected as Sw. *ö*, hence *bröst*. The neuter gender is in this case secondary. In Swedish, there is a number of originally feminine root nouns with *i*-umlaut in the root which in the contemporary language became neuter, e.g. OSw. *stuþ* 'prop; pole', *mūs* 'mouse' (fem. root nouns) and Sw. *stöd, möss*, which are neuter.[4] Finally, OSw. *bryst* may reflect a Proto-Germanic dual form. An idea about the dual of this noun was originally proposed by Fr. Kluge (1882: 510). He reconstructs PGerm. **breustō*, where *-ō* = Vedic *-ā*; this hypothesis was supported by H. Wagner (1956). They assume that PIE **-e* in the dual of athematic masculines and feminines was replaced with **-ō* (from thematic stems) not only in Sanskrit, but also in Proto-Germanic. B. Kahle (1887: 38) claims that Kluge's idea about the dual is untenable because the ending should have been **-e* rather than **-ō*. This objection is not convincing because we can hardly expect that Proto-Germanic should strictly correspond to Proto-Indo-European in the distribution of dual endings, which to a certain extent was reshaped in many IE languages, including Sanskrit.

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[1] In Rigveda, *-ā* and *-au* came to be in complementary distribution which is determined phonetically: *-ā* occurs before consonants, in pausa at the end of a pāda, or within a pāda in coalescence with a following vowel, *-au* occurs only before vowels as *-āv*, which removes a hiatus; the ending *-ā* is much more frequent (Macdonnel 1910: 258).

[2] OCS *vě* 'we two', Lith. *vèdu* 'id.' < *$u̯e$-d$u̯ō$ (Pokorny 1959: 1114).

[3] This means that the zero grade of the root of this word possibly could exist not only in Gothic and West Germanic, but also in Scandinavian; cf. Schwarz 1951: 131.

[4] Such root nouns with roots terminating in *n* and *s* assimilated the plural ending, e.g. OSw. *mūs* 'mouse', pl. *myss* < **mȳss* < **mȳs-R* < **mūs-iR* (Noreen 1904: §§ 433, 238.5). Such plural forms as *myss* were perceived as having a zero ending; since the zero ending in the plural is typical of neuter nouns in Scandinavian languages, root nouns with an assimilation in the plural could become neuter. Sw. *möss* (< OSw. *myss*) occurs as a neuter form in the singular, but is less common than the non-neuter *mus* (SAOB: M 1625). Sw. *stöd* is only neuter in the contemporary language. For more examples see Wessén 1965: 101.

The dual ending *-ō in Proto-Germanic may be evidenced by OE *duru* 'door' (as an object with **two** sides) and *nosu* 'nose', feminine *u*-stems, which were probably dual forms with *-ō in Proto-Germanic (Kluge 1882: 506ff.; Griepentrog 1995). As the dual ending *-ō coincided with the neuter nom.-acc. pl. *-ō (PIE *-ā), the noun "door" together with "breast" became neuter, cf. Goth. *daur* n., Icel. *brjóst* n. The dual ending *-ī in Proto-Germanic cannot be excluded either; Hultman (1894: § 9.13) explains OSw. *bryst* as an originally neuter *i*-stem with the dual *-ī*, i.e. **brust-ī*. Though it cannot be proved that it used to be a neuter *i*-stem, the root vowel *y* can really be due to the *i*-umlaut caused by **ī*.[5] In favour of the ending *-ī which was used alongside *-ō speaks the fact that "door" became an *i*-stem in Old High German, *turi* f. (Braune, Reiffenstein 2004: § 220). On the PGerm. level, the ending *-ī was probably more convenient than *-ō because it excluded the homonymy with *-ō (< PIE *-ā) in the plural of neuter nouns.

The morphological relationship between Goth. *brusts* f. pl. and Icel. *brjóst* n., OE *brēost* n. looks identical to OIcel. *dyrr* f. pl. 'door' (also n. pl., Noreen 1923: § 416, anm. 4) and Goth. *daur* n. (Wagner 1956: 178), which is an argument in favour of the originally dual form of **breust-*.

As for the phonetic relationship between the stems **breust-* and **brust-*, it looks parallel to Ved. *dvā́raḥ* (**dhu̯ór-*, nom. pl. with stress on the root) and acc. pl. *duráḥ* (**dhur-́* with stress on the ending), see Wagner 1956: 178. PGerm. **breust-* can therefore be reconstructed as an originally proterokinetic root noun with ablaut in the root, i.e. **bréust-* in the nominative (> Icel. *brjóst* etc.) and **brust-́* in oblique cases (> Goth. *brusts*); cf. Ringe 2006: 198.

Difficulties in the reconstruction of the Proto-Germanic paradigm of this noun are also due to the unclear element *t*, which in all likelihood did not originally belong to the root. PGerm. **breust-*/**brust-* is regarded to be a derivative of PIE **bhreus-* 'schellen; sprießen', cf. Rus. *брюхо* 'belly' (IEW 170; Orel 2003: 56, 59; Kroonen 2013: 76). O. Trubachev compares PGerm. **breust-* with Polish dial. *bžusc* 'calf (of the leg)' (PSlav. **br'ustъ*), Upper Sorbian *bristej* f., gen. *-stwje* 'id.', *bristwja* f. 'id.', *bristw(j)o* f. 'id.', Pol. dial. *brzustwa* 'id.' (**br'ustъvъ*), Upper Sorbian *brišćo* n. 'id.', Pol. dial. *bžusce* 'id.' (**br'ustьje*), Czech *bříštec* m. 'finger pad', Pol. dial. *brześć* 'id.' (**br'ustъcь*; ЭССЯ 3: 34–35). The zero-grade form **brust-* is compared with Serb. *бр̑ст* m. 'young shoots', Ukr. *брост* m. 'bud' (**brъstъ*), Bulg. dial. *бръс'* f. 'tender shoots used to feed goats and sheep in winter', Rus. dial. *бростъ* f. 'unfolded buds of bushes' (**brъstъ*; ЭССЯ 3: 57–58), though it is also possible that these forms are related to **brъsati*, **brъsnǫti* (e.g. Church-Sl. *brъsnǫti* 'to shave'), with the development 'something picked, plucked' > 'buds, shoots, green leaves' (ЭССЯ 3: 58).

Alternatively, **breust-*/*brust-* may be compared with the word for "heart", which is also a proterokinetic noun, PIE **k'érd* nom., **k'rd-ós* gen. (PGerm. **hertōn-* n.). Morphological and semantic affinity of these words could be the reason for the analogical appearance of *t* < **d* in PGerm. **breus-*.

Examples of non-inflexional expression of duality in Germanic dialects

Instead of the inflexional expression of duality, Germanic dialects have developed alternative ways to express it. For example, in Swedish dialects of Estonia a contamination with the numeral "two" and a reduplication of the root took place in nouns that designate paired organs. The noun for "temple" (part of the head) is known in the following forms in these dialects: *tinniŋ* in the dialect of the island of Runö (Vendell 1882–1887: 141); *finiŋg* in the dialect of the island of Ormsö (Tiberg Ob.; *f* < *tv-*, cf. *fō* 'two' in this dialect); *twining* or *tviniŋg* in the village

[5] There could, however, be an alternative cause of *i*-umlaut in this form, namely the plural ending **-iR*.

of Vippal (Rußwurm 1855: 323; Freudenthal, Vendell 1886: 243); *tviniŋg* or *tvinniŋ* in the dialect of the islands of Rågöarna (Freudenthal, Vendell 1886: 243; Tiberg Ob.); *tfiniŋg* or *tvinniŋ* in the dialect of village of Gammalsvenskby (Freudenthal, Vendell: 231; Tiberg Ob.).

The form *tinniŋ* recorded in the dialect of Runö directly corresponds to Sw. *tinning* (OSw. *thynning, thinning*),[6] while the forms with *tv-* and *tf-* are due to a contamination with *tfō, tvō* 'two' (Hellquist 1922: 975).[7] I have also recorded *tfinniŋ* during my fieldwork in the village of Gammalsvenskby. In the dialect of the island of Dagö this noun was transformed into *filiŋg* (*f* < *tv-*), thus becoming homonymous with the word for "twin", cf. Sw. *tvilling* (Tiberg Ob.).

A contamination with "two" is also found in the present-day dialect of Gammalsvenskby in *tfinn* 'fin' (of fishes), which occurs alongside *finn* (cf. MLG *vinne* f. 'id.' and OSw. *fina* 'id.'). A similar influence of the numeral "two" is believed to have caused *d-* instead of the phonetically regular *dh-* in Skt. *dvā́r-* 'door' (Mayrhofer 1992: 765).

As for reduplication, I suppose that it took place in the word for "gill" (of fish; Sw. *gäl*) in the dialect of Gammalsvenskby. I have recorded *gäigöḷ*, pl. *gäigḷar*, m. (*ḷ* is a retroflex flap). The same form is found in previous descriptions: *gäigäḷ*, pl. *gäigḷar*, m. (Freudenthal, Vendell 1886: 75); *gäigöḷ* m. (Karlgren 1964: 65); *gäigəḷ* or *gäigäḷ* (Tiberg Ob.). Other Swedish dialects of Estonia have forms that directly correspond to Sw. *gäl*: cf. *gäil* in the dialects of Dagö, Rågöarna, Vippal (Freudenthal, Vendell 1886: 64), *gail* in the dialects of Nuckö and Ormsö (Danell 1905–1934: 151). A. Karlgren (ibid.) suggested that *gäigöḷ* was borrowed from MLG *gegel* n. and m. 'palate; gum' (Schiller & Lübben 2: 5), but in this case it is strange that this borrowing was recorded only in Gammalsvenskby. However, it cannot be excluded that a contamination with MLG *gegel* took place, which was triggered by the reduplicative shape of this form. It should be noted that *gäigḷar* resembles the reduplication in PIE **k^{w}e-k^{w}l-o-* 'wheel', where it may express the iterativity of turning (Fortson 2010: 130). However, both contamination with "two" and reduplication are by no means regular in Swedish dialects of Estonia and are only confined to separate forms.

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[6] This noun is originally a compound, cf. OIcel. *þunn-vangi* m. 'temple', lit. "thin cheek". OSw. *y* in *thynning* cannot be due to *i*-umlaut (because *i* in the unstressed syllable reflects **a* here, see Noreen 1904: § 62.3); it probably goes back to OSw. *þynder*, a doublet of *þunder* 'thin', with *y* from the comparative degree (ibid.: § 468). As for *a* > *i* in the second element of the compound, cf. Sw. *köping* 'market town' < **kaup-angra-* "trade meadow" (Olson 1916: 259). The vowel *i* instead of *y* in *thinning* is due to folk etymology, namely the association with *tinne* 'pinnacle'; an attempt to explain the change *y* > *i* by phonetic reasons was made by Kock (1906: 444, § 525).

[7] Another explanation of *tf-, tv-* in this word in Swedish dialects of Estonia is that it is due to a metathesis of *v* in **þunn-vang-* (Danell 1905–1934: 171); this is improbable. It should be noted that forms with *tw-* are also attested in Old Swedish, e.g. *twinningen* acc. sg. with a suffixed article *-en* (Söderwall II: 757).

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А. Е. Маньков. Праиндоевропейский им.-вин. падеж двойственного числа существительных и двойственное число существительных в германских языках

В статье рассматриваются индоевропейские окончания дв. ч. существительных, затем остатки двойственного числа существительных в германских языках и, наконец, нефлективные способы выражения двойственности в германских диалектах. Особое внимание уделяется обозначению груди: прагерм. **breust-*, **brust-*, которое, возможно, имело

окончание дв. ч. в прагерманском. Как предполагается, др.-исл. *brjóst* n., др.-англ. *brēost* n. отражают прагерм. **breust-ō* (< пие. **-ō*, им.-вин. дв. ч. тематических существительных). Вследствие омонимии с им.-вин. п. мн. ч. среднего рода, которое также имело окончание **-ō*, данная форма была переосмыслена как мн. ч. среднего рода и стала склоняться как тематическое существительное (аналогом является гот. *daur* ‘дверь’). Гот. *brusts* отражает прагерм. **brust-iz*, форму атематического мн. ч. (аналогичную др.-исл. *dyrr*). Др.-шв. *bryst* n. может отражать прагерм. **breust-ō* (и дв., и мн. ч.), **brust-ī* (дв. ч.), **brust-iz* (мн.). Мы предполагаем, что прагерманское обозначение груди являлось протерокинетическим существительным с аблаутом в корне, **breust-*/**brust-*, где *-t-* < *-d-* могло появиться по аналогии с «сердцем», которое также являлось протерокинетическим существительным с аблаутом. Поскольку выражение двойственности на уровне словоизменения исчезло в германских языках, существительные, обозначающие парные органы (напр., виски, плавники, жабры), иногда развивают альтернативные способы её выражения, а именно контаминацию с числительным «два» и редупликацию. Эти явления рассмотрены на материале шведских диалектов Эстонии.

Ключевые слова: двойственное число в индоевропейских языках; именительный и винительный падеж двойственного числа; праиндоевропейская морфология; прагерманская морфология.