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English "herd" and Polish "trzoda" : how the two words developed from one proto-indo-european etymon

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ENGLISH *HERD* AND POLISH *TRZODA*: HOW THE TWO WORDS DEVELOPED FROM ONE PROTO-INDO-EUROPEAN ETYMON

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1. Introduction

The present paper attempts to explain the phonological difference between the English (henceforth E) word *herd* /hɜ:d/ and the Polish (P) word *trzoda* /tʃɔda/. The two words go back to one Proto-Indo-European (PIE) stem: **(s)kerdh-eh₂* meaning ‘mass, troop, herd, series’. The root is also reconstructed with the palatal velar plosive, as **kerdh-* [cf. Pokorny 1948–1969; 579, Watkins 2000: 41], but Polański, Boryś and Sławski [Sławski 1976: 151] consider this form to be hardly likely because the only evidence it is based on comes from Sanskrit (Skt) *śárdha-* ‘strength, power, crowd’, and Skt *śárdhas-* ‘troop, host’, whose comparison with Balto-Slavic and Germanic cognates is fraught with difficulties of both a semantic and a phonological nature. Polish scholars, as well as Derksen [2008: 82], follow Mayrhofer [KEWA III 309–310, and EWAia II: 619–620, respectively] in specifying that the connection with the Skt forms mentioned above is dubious. According to Lubotsky [1998: 77–78], Mayrhofer rejects the connection, assuming that the original meaning of the Skt root *śardh-* is ‘to be strong, to show strength’, which is then incompatible with the meaning of the IE family ‘Reihenfolge, Wechsel’.

Lubotsky [1998: 77–78], however, convincingly argues that

in reality, there is hardly any evidence for the original meaning ‘force, power’. The verbal root *śardh-* means ‘to boast, intimidate (before the fight)’ (the ptc. *śárdhant-* often refers to an impudent enemy).

He also points out (ibidem) that “*śardha-* m. and *śardhas-* n. mean ‘host, troop’, often ‘a host of Maruts’”. Even though these facts presented by Lubotsky

disprove Mayrhofer's semantic arguments (and demonstrate that the connection between our pair of cognates P *trzoda* / E *herd* and the Skt forms mentioned above is justified), there are phonological reasons why we should reconstruct the PIE root without the palatal velar. Lubotsky [2001] argues that it is still possible to explain the development of the initial Sanskrit consonant from the unpalatalised PIE **sk* by

the following chain of events (taking √*sardh-* as an example): PIE **skerdh-* > **sčardh-* (palatalisation) > PIr. **sčardh-* (assimilation of the initial cluster) > **č^hardh-* > **čardh-* (Grassmann's Law) > *sardh-*" (idem, p. 24).

The arguments go beyond the scope of the present article but have been clearly presented by Lubotsky (ibidem), who finishes his paper with the conclusion that "there is no ground for reconstructing PIE **sk*: all facts can be explained from the reflexes of **sk*" [idem, p. 25]. We will therefore adopt the following shape of the common PIE stem, which can serve as the point of departure towards the modern cognates P *trzoda* and E *herd*: **(s)kerdh-eh₂*. Occasionally, to make the comparison more transparent, we will also use the form of the root without the s-mobile: **kerdh*, as in Mann [1984/87: 489].

The next section presents one more argument from Slavic in favour of the reconstruction with the plain voiceless velar but, first, the analysis below attempts to cover the sound changes responsible for the differences in the shapes of the modern cognates.

2. The consonants

The *prima facie* correspondence of the initial consonants – P *t* v. E *h* does not seem to justify etymological relatedness. Regularly, it is Slavic *k* or *s* which corresponds to Germanic *h*, as in the following pairs of cognates:

- (1) Slavic *k* corresponds to OE *h* from PIE **k*
- a) P *klaśc*, *kladę*, OCS *klasti* 'put', 1sg. *kladę* < PSI_D **klasti* < PIE_D **k^(w)leh₂-*
E *lade* < OE *hladan*, Go. **hlaban* < PGmc_W **hlaðan* < PIE_W **kleh₂-*
 - b) P *ktoda*, Ru. *kolóda* < PSI_D **kóloda* 'block, log' < PIE_D **kold-eh₂*
E *holt* < OE *holt*, ON *holt* < PGmc_W **hultam* < PIE_W **kld-*
 - c) P *kopyto*, Ru *kopýto* < PSI_B **kopyto* (probably from PSI_B **kopati* 'dig') < PIE_D **(s)kop-*
E *hoof*, OE *hōf*, ON *hōfr* < PGmc_W **hōfaz* < PIE_W **kop-*
 - d) P *kuć*, *kować* (arch.), OCS *kovati* 'forge' < PSI_D **kovàti* 'forge' < PIE_D **kouh₂-*
E *hew*, OE *hēawan*, ON *hōggva*, PGmc_W **hawwan* < PIE_W **kau-*
 - e) P *kurzyć*, OCS *kuritъ se* 'smokes, 3sg.' < PSI_D **kūriti* < PIE_D **kerH-*
E *hearth* < OE *heorþ*, Go. **hauri* < PGmc_W **herþō* < PIE_W **ker-tā*
 - f) P *krag*, OCS *krōgъ* < PSI_D **krōgъ* < PIE_D **krongh₂-o*
E *ring*, OE *hring*, ON *hringr* < PGmc_W **hringaz* < PIE_W **(s)kre-n-g^h-*
 - g) P *krew*, OCS *kry* < PSI_D **krý* < PIE_D **kruh₂-s*, **kreuh₂*
E *raw* < OE *hreaw hreow hræw*, Go *hrár* < PGmc_W **hrawaz* < PIE_W **krowH-o-*

- (2) Slavic *s* corresponds to OE *h* from PIE **k*
- a) P *serce*, OCS *srъdьce* < PSI_D **sĕrdьce* < PIE_D **krd*
E *heart* < OE *heorte*, Go *hairtō* < PGmc_W **hertōn-* < PIE_W **kerd-en*
 - b) P *osiem*, OCS *osmь* < PSI_D **osmь* < PIE_D **h₃ekth₃-*
E *eight* < OE *eahta*, Go *ahtau* < PGmc_W **ahīō* < PIE_W **h₃ektiō(u)*
 - c) P *słyszec*, *śluszać* (arch.), *śluchać*, OCS *slyšati*, *slušati*, *sluxaty* < PSI_D **sl̥yšati*,
**sl̥ušati*, **sl̥uxati* < PIE_D **k̥lous-*
E *listen* < OE *hlysnan* < PGmc_W **hlusinōn* < PIE_W **k̥lu-*,
 - d) P *sarna*, RuCS *srъna* ‘roe’ < PSI_D **sr̥na* < PIE_D **krh₂-neh₂*
E *horn*, OE *horn*, ON *horn*, Go *haur̥n* < PGmc_W **hurnaz* < PIE_W **kr̥-no-*

The Polish-English cognates listed above have been supported by at least one Slavic and one Germanic cognate, preferably Old Church Slavonic (OCS) and Gothic (Go), the languages with the earliest extensive attestations in Slavic and Germanic respectively. If the forms in these languages were unavailable, there are Russian (Ru) and Old Norse (ON) cognates provided. Both branches also contain the reconstructed PIE roots from which the cognates derive. The subscripts indicate the source from which the reconstructions have been taken: _D stands for [Derkson 2008], _W for [Watkins 2011] and _B for [Boryś 2005]. The differences between the PIE reconstructions in each pair have the following reasons: firstly, ablaut – the Slavic etymon occasionally derives from a different grade than the Germanic cognate; secondly, different conventions, e.g. **k* and **k̥* for the same sound; thirdly, different convictions on how the PIE form should be reconstructed.

Examples under (1) can be interpreted in the following way: PIE **k* and **k̥* regularly come down as P *k* and P *s* respectively, but in the dialect(s) which later developed into Proto-Germanic (PGmc), PIE **k* and **k̥* merged in **k*. When PGmc descended from PIE as a separate language, PIE **k* became PGmc **h*. This sound change belongs to the First Germanic Consonant Shift (or Grimm’s Law). Alternatively, the spirantisation may have preceded the merger (as implied by [Ringe 2006: 94]). The Old English (OE) forms which have been attached above demonstrate the initial *h*, which tended to be dropped in Middle English when it appeared in initial consonant clusters (cf. E *lade*, *ring*, *raw*, *listen* < OE *hladan*, *hring*, *hreaw*, *hlystan*).

Although there is no *k* in P *trzoda* /t-ʃɔda/, it is still possible to account for the surprising consonant correspondence once we consider the initial cluster *trz* as one entity, which is usually pronounced in Polish as a sequence of a dental voiceless plosive followed by a voiceless post-alveolar fricative /t-ʃ/. Occasionally, it is possible to hear the native speakers of Polish produce the affricate /tʃ/ followed by /ʃ/, which has even found its way into the Dictionary of Polish Pronunciation [Karaś and Madejowa 1977: 453]. Such pronunciation, as it appears, has etymological justification as the Dictionary of Old Polish (OP) [Nitsch, Klemensiewicz and Urbańczyk 1984: 207] as well as Boryś [2000: 650] provide the following spellings attested in the 15th century: OP *czrzoda*, *czroda*. These forms indicate that a change occurred in Polish, which can be represented as follows: OP *czrz* /tʃ-ʃ/ developed into P *trz* /t-ʃ/. The evidence for the earlier initial <cz> might also be found in other Slavic languages. Slovakian (Slk) for example has <čr> which regularly corresponds to P *trz* /t-ʃ/:

- (3) OP *czrz* /tʃ-/ developed into P *trz* /t-ʃ/
 a) Slk *črenový* (*zub*) ‘molar’, P (*ząb*) *trzonowy* ‘molar’
 b) Slk *čremcha* ‘bird cherry’, P *trzemcha* ‘bird cherry’, OE *hramsa* > E *ramson*
 c) Slk *črieda* ‘herd’, OP *czrzoda* > P *trzoda* ‘herd’, OE *heord* > E *herd*

In the Polish language, there is also a loan word from Ukrainian, viz. *czereda*, which preserves the affricate from the period before the sound change described under (3). This borrowing makes it easier to spot the etymological relatedness of E *herd* and P *trzoda* because it preserves the earlier /r/ and the vowel /e/ unaffected by the Lekhitic soundshift.

In order to understand the differentiation of the common root from PIE to Modern Polish and English, we should observe a missing link between the two sound changes described above and summarised below: (1) PIE **k* developed into PGmc **h*, and (2) OP *czrz* /tʃ-/ became P *trz* /t-ʃ/. If we assume the shape of the PIE root, as in Mann [1984/87: 489]: **kerdh*, then the gap in our account, responsible for the change of PIE **k* > Proto-Slavic (PSI) **č*, must have been the First Slavic Palatalisation of Velars:

- (4) PIE **k* > PSI **č* before front vowels

The First Palatalisation, which of course preceded the change under (3), caused the velars **k*, **g*, **x* to be palatalised to **č* /tʃ/, **ž* /ʒ/, **š* /ʃ/ (represented in Polish by <cz> <ż> <sz>) before a front vowel. The front vowel, according to Townsend and Janda [1996: 77], should be understood as “Early Proto-Slavic (EPSI) long or short *e* or *i*, or these vowels combined in diphthongs; in Late Common Slavic (LCS) terms *e/ě/b/i/ę*. Velar plus long *ē* (LCS *ě*) gave hushing plus *a*, instead of *ě*; e.g. **krikētei* > *kričati* ‘shout’”. Examples include:

- (4A)
 a) EPSI **kerdá* > LCS **čerda* ‘herd, line’
 b) EPSI **kimst-* > LCS **čestъ* ‘frequent’
 c) EPSI **milkētei* > LCS **mьlčati* ‘be silent’
 d) EPSI **plākjām* > LCS **plačō* ‘weep 1sg’
 e) Pre-SI **rōk-ika* > OCS *rōč-ika* ‘little hand, handle’

The effect of the sound change can also be noticed in Polish alternations, in which the first word in each line exhibits the unchanged velar plosive and the following word(s) demonstrate(s) the result of the First Slavic Palatalisation of Velars because the velar used to be followed by a front vowel, as illustrated by the forms in brackets:

- (4B)
 a) P *ręka* ‘hand’, P *rączka*, *ręczny* ‘manual’ (LCS **rōka* – **rōčьnъjъ*)
 b) P *piekę* ‘I bake’, P *pieczesz* ‘you bake’ (LCS **pekō* – **pečēši*)
 c) P *oko* ‘eye’, P *oczy* ‘eyes’
 d) P *krzyk* ‘scream’, P *krzyczysz* ‘you scream’
 e) P *plakać* ‘to cry’, P *placzesz* ‘you cry’

The comparison of cognates across the Slavic languages demonstrates that the sound change must have occurred between early Proto-Slavic and late Proto-Slavic. In Baltic cognates, we observe the unpalatalised congener:

Lith. (*s*)*kerdžius* ‘herdsman, shepherd’, OCS *črěda* ‘order, herd’

The First Slavic Palatalisation of Velars can also be an argument in favour of PIE **kerd^h*, that is to say, the reconstruction without the palatal velar. The argument is that the First Slavic Palatalisation of Velars needs a velar consonant as an input. If the PIE root had contained the palatal voiceless plosive, we would expect to find *s* in Slavic reflexes, as illustrated by the examples under (2) because PIE **k* > PSI **s*, and, consequently, we would no longer have any velar consonant and there would be no input for the later development of PSI **č* and subsequently P *trz*. For these reasons, the reconstruction: PIE **(s)kerd^h* is better.

Before we look at the trill, there is one more sound change, which affected the obstruents. It occurred both in Slavic and in Germanic (in Germanic, it is subsumed under Grimm’s Law) and eventually led to deaspiration of the dental aspirated voiced plosive. More examples of Polish-English cognates showing the same correspondence as in P *trzoda* and E *herd* are listed below. Sanskrit preserves the original voiced aspirated (or possibly the breathy-voiced) stops:

- (5) P *d*, E *d* < PIE **d^h*
- P *rudy*, E *red*, (Skt *rudhīrás*.) PIE_W **h₁roud^h*-
 - P *miód*, E *mead*, Skt *mádhu*, PIE_W **med^hu-s*
 - P *widowa*, E *widow* Skt. *vidhāvā-*, PIE_W **wid^h-ewā*

The next correspondence includes the liquid /r/, which, if we look at the Modern Standard Polish and British RP, actually survives only orthographically, because in English we have the long vowel followed by the alveolar stop: *herd* /hɜːd/, whereas in Polish the liquid present in the spelling, forms part of the digraph *rz* and is pronounced as the voiceless post-alveolar fricative: *trzoda* /t.ʃɔda/. In terms of the sound changes responsible for this difference, it is enough to move back only several centuries to hear the the trill both in earlier stages of English and Polish. The evidence is still present in numerous dialects, varieties and closely related languages. For example, the Standard American English, as well as other rhotic dialects of English still retain /r/ (or rhotacised ɜ˞) before consonants and in word-final positions:

- (6) Loss of preconsonantal *r* in non-rhotic dialects (EMnE *r* > AmE *r*, RP *ø*):
- teacher* BrE /tiːtʃə/ AmE /tiːtʃər/
 - dark* BrE /dɑːk/ AmE /dɑːrk/
 - herd* BrE /hɜːd/ AmE /hɜːrd/, /hɜːd/
 - beaver* BrE /biːvə/ AmE /biːvər/

In Polish, the spirantisation of *r* is generally assumed to have covered the following stages:

- (7) OP *r^j* > *r^z* > P *rz* /ʒ/ or /ʃ/

The comparison of Old Church Slavonic with Polish shows the effect of the sound change described above. Czech (Cz) seems to retain the intermediate stage in this development:

(7A)

- a) OCS *brěgvъ*, Cz *břeh*, P *brzeg* ‘bank’
- b) OCS *drěvo*, Cz *dřevo*, P *drzewo* ‘tree, wood’
- c) OCS *vrěteno*, Cz *vřeteno*, P *wrzeciono* ‘spindle’

In the earliest-known example of Polish prose, *Kazania Świętokrzyskie* (“Sermons of the Holy Cross”), dating from the end of the 13th or the beginning of the 14th century, we can find the spelling with *r* instead of *rz*, for example:

(7B)

- a) *rekø* > *rzeką* ‘river, instr.’
- b) *preto* > *przeto* ‘therefore’
- c) *prez* > *przez* ‘through’
- d) *rech* > *rzecz* ‘thing’
- e) *grehy* > *grzechy* ‘sins’

In the first Polish book, *Psalterz floriański* from the late 14th century, we can find *rz* widely attested and in 1396, as well as in 1418, we find the oldest examples of the confusion of <*rz*> with <*ż*>, the two spelling entities which for the last few centuries have been indistinguishable in standard Polish pronunciation (for details, see [Kuraszkiewicz 1972: 94]).

Finally, a word of explanation is in order with regard to the initial (*s*) present in the reconstruction: PIE **(s)kerd^h-eh₂*. This sound is called ‘*s* mobile’, or in English ‘*s* movable’. Edgerton [1958: 445] describes this phenomenon along the following lines: “the same root appears sometimes with initial *s* plus consonant, sometimes with the same consonant but without the *s*”. We can find more Polish-English cognates with *s* mobile, as illustrated below:

(8)

- a) P *śmierć*, E *murder, mortal* (from Old French)
- b) P *mały*, E *small*
- c) P *stóg, toga* (from Latin), E *thach*
- d) P *śmierć*, (u)*mrzeć*, (z)*marł*, (po)*mór*

The examples above show that we can distinguish several configurations: (a) we sometimes have the same root in both languages, but Polish retains ‘*s* mobile’, whereas English omits the sound, as in the first example, (b) the reverse situation is illustrated by P *mały*, E *small*, (c) ‘*s* mobile’ can also be attached in one word and dropped in another word of the same language; this situation is sometimes the result of borrowing, as in (c), or in the native lexicon, as in (d). In Polish, we can also notice the assimilation of the initial *s* in terms of palatality. According to Edgerton [1958: 445],

there is no regularity; all Indo-European languages seem to be unpredictable in this respect. [...] Often the two forms appear in the same language, as in Skt. pas-: spas- ‘see’. In other cases one form appears in one Indo-European language, or in several, the other in other languages.

Considering the justification for the *s*-mobile in PIE $^{*}(s)kerd^h-eh_2$, there is also some evidence in Polish, which comes from P *strzoda*. According to Boryś [2000: 650], this is the OP form used besides *czrzoda* and *czroda*.

3. The vowels

We shall first deal with the stem vowel, which was traditionally reconstructed as $*\bar{a}$, and gave its name to the inflectional class. After the almost universal acceptance of the Laryngeal Theory, the PIE $*\bar{a}$ was replaced by PIE $*eh_2$, in which combination the second laryngeal (h_2) coloured (and often lengthened) a neighbouring $*e$ to $*a$, which can be seen among others in Skt \bar{a} , Avestan \bar{a} , OCS *a*, Armenian *a*, Greek \bar{a} , Latin \bar{a} . The trace of the laryngeal is preserved in Hittite *a(h)*. When we compare Polish and English cognates, we can observe that the PIE stem vowel is often retained as P *a* and frequently marks feminine nouns, as in P *trzoda* and in examples (a-d) below. The same development can also be seen word-internally, as in (e-f). In English, the stem vowel can no longer be found:

- (9) PIE $eh_2 > P a$
- a) PIE $^{*}(s)kerd^h-eh_2 > P trzoda, E herd$
 - b) PIE $^{*}b^hard^h-eh_2 > P broda, E beard$
 - c) PIE $^{*}leh_2p-eh_2 > P lapa, E glove$
 - d) PIE $^{*}d^hous-i-eh_2 > P dusza, E deer$
 - e) PIE $^{*}meh_2t(\bar{e}r) > P mat(ka), E mother$
 - f) PIE $^{*}b^hreh_2t\bar{e}r > P brat, E brother$

The stem vowel had a different development in Germanic. According to Ringe [2008: 269)], “ \bar{o} -stems developed from PIE eh_2 -stems”. Except for the trimoric (over-long) vowels, this development is represented by Ringe [2008: 73] as follows:

- (10) PIE eh_2 -stem nom. sg. $*-eh_2$ (cf. Skt $-\bar{a}$, Lith. $-\grave{a}$) $>$ PGmc $*-\bar{o}$ (cf. Gothic $-a$, Old Norse \emptyset with u-umlaut, OE $-u \sim \emptyset$);

When discussing particular examples, Ringe [2006: 72] also includes an intermediate stage with $*\bar{a}$, as in: PIE $^{*}peh_2-$ ‘to protect’ (cf. Hittite imperative 2sg *pahsi*) $>$ $*p\bar{a}- >$ $*f\bar{o}-$ in PGmc $^{*}f\bar{o}drq$ ‘sheath’ (cf. Go *fodr*, OE *fōdor*)

The sound changes discussed above as well as the attested forms in principal older Germanic languages: Gothic *hairda*, Old Norse *hjørð*, OE *heord*, Old Saxon *herda* ‘sequence, shift’, Old High German *herta* (German *Herde*), allow us to reconstruct PGmc $*herd-\bar{o}$. According to Orel [2003: 170], the Proto-Germanic etymon should be reconstructed as $*xer\bar{d}\bar{o}$.

A further sound change is apocope. As a general rule, PGmc stem vowel $*\bar{o}$ either apocopated before the Old English period or survived as OE $-u$, but the results were different if there was a trimoric $*\bar{o}$, a nasalised $*\bar{o}$, or when it was followed by word-final $*z$, for details see [Ringe 2006: 68–81, especially p. 73].

Moving on to the root vowel, we shall first discuss the reversed position of the Polish vowel in comparison to the English cognate. The sound change

responsible is: the metathesis of tort. In the literature on the diachronic phonology of Proto-Slavic, the so-called tort-formula traditionally refers to a type of syllable in which *t* stands for any consonant, *o* for either *e* or *o*, and *r* for both *r* and *l*. In this particular instance, we deal with the change of PSI **er* > *re* (demonstrated with OCS and P). Examples include:

(11A)

- a) PSI **bĕrgb*, OCS *brĕgb*, P *brzeg* ‘bank’
- b) PSI **dĕrvo*, OCS *drĕvo*, P *drzewo* ‘tree, wood’
- c) PSI **vĕrsb*, P *wrzos* ‘heather’
- d) PSI **vertenò*, OCS *vrĕteno*, P *wrzeciono* ‘spindle’
- e) PSI **čerdà*, OCS *črĕda*, P *trzoda* ‘herd’
- f) PSI **serdà*, OCS *srĕda*, P *środa* ‘middle, Wednesday’

It is also possible to find many examples of Polish-English cognates (or old loan words), in which the metathesis of tort is responsible for the phonological differentiation of the modern shapes. Examples include:

(11B)

- a) P *złoto*, E *gold*
- b) P *kłoda*, E *holt*
- c) P *władać*, E *wield*
- d) P *mleko*, E *milk*
- e) P *brzoza*, E *birch*
- f) P *gród*, E *gird*
- g) P *brzeg*, E *berg*
- h) P *broda*, E *beard*
- i) P *trzoda*, E *herd*

The examples above, apart from the metathesis of tort, show also that Polish often exhibits *o* instead of *e*. This difference can be seen not only under (11B), but also when we compare certain Polish words with their cognates in OCS, as in (11A d-f). The change responsible for the vowel *o* in Polish is the Lekhitic soundshift or sometimes merely as the Polish soundshift [Carlton 1991: 252]. We will only present a fragment of the vowel shift, which accounts for the presence of the vowel *o* in Polish:

(12) *e* > *o* before *t, d, s, z, n, r, l* (> *l*).

The forms with the unaffected vowel are to be found in various alternations in Modern Polish which contain palatalised congeners <ć, dź, ś, ź, ń, rz>:

(12A)

- a) *gniecie* ‘he kneads’ – *gniotę* ‘I knead’
- b) *wiedzie* ‘he leads’ – *wiodę* ‘I lead’
- c) *niesie* ‘he carries’ – *niosę* ‘I carry’
- d) *imienia* ‘name gen.sg.’ – *imiona* ‘name nom.pl.’
- e) *żenić* ‘marry’ – *żona* ‘wife’
- f) *nasienie* ‘seed’ – *nasiona* ‘seeds’
- g) *zmoczeni* ‘soaked pl.’ – *zmoczony* ‘soaked masc. sg.’

- h) *bierze* ‘s/he takes’ – *biore* ‘I take’
 i) *na czele* ‘forehead loc. sg.’ – *czolo* ‘forehead nom. sg.’

Before the Lekhitic soundshift, all the words above (both on the right and on the left) displayed the vowel *e*, which remained intact before palatalised consonants, but became retracted to *o* before *t, d, s, z, n, r, l*.

Moving on to vocalic changes in English, in Old English the vowel *e* underwent breaking before *r* followed by another consonant (hence OE *heord*) but in late OE, as a result of monophthongisation, the diphthong *eo* became *e* again and surfaces in RP either as /ɜ:/ (or sometimes as /ɑ:/):

- (13)
 a) OE *eorþe* > *earth* RP /ɜ:θ/, AmE /ɜ:rθ/
 b) OE *weorc* > *work* RP /wɜ:k/, AmE /wɜ:rk/
 c) OE *weorþ* > *worth* RP /wɜ:θ/, AmE /wɜ:rθ/
 d) OE *beorcan* > *bark* RP /bɑ:k/, AmE /bɑ:rk/
 e) OE *deorc* > *dark* RP /dɑ:k/, AmE /dɑ:rk/

4. Conclusion

The sound changes discussed above suggest that the common PIE stem, which developed into P *trzoda* and E *herd*, must have been $*(s)kerd^h-eh_2$. If the PIE root contained the palatal voiceless plosive, we would expect to find *s* in Slavic reflexes, as illustrated under (2), at least in the forms without the *s*-mobile. Moreover, the plain velar plosive justifies the First Slavic Velar Palatalisation, which did not operate if the input was PSI $*s < PIE *k'$. The table below summarises the sound changes responsible for the similarities and differences between P *trzoda* and E *herd*. In general, the order of the processes is chronological. The *s* mobile has been omitted:

Sound Change	From PIE $*kerd^h-eh_2 >$ Polish <i>trzoda</i>	From PIE $*kerd^h-eh_2 >$ English <i>herd</i>
1. PIE $*eh_2 > *ā$	$*kerd^h-ā$	$*kerd^h-ā$
2. PIE $*k > PGmc *h$		
3. PIE $*d^h > PGmc$ and PSI $*d$	$*kerd-ā$	PGmc $*herd-ō$
4. PIE $*ā > PGmc *ō$		
5. Apocope		$*herd$
6. The First Slavic Palatalisation of Velars PIE $*k > PSI *č$	$*čerd-a$	
7. The metathesis of tort	$*čreda$	
8. The Lekhitic soundshift $e > o$	OP <i>czroda</i>	
9. The Old English breaking of <i>e</i>		OE $*heord$
Monophthongisation		$*herd$
OP $r^j > r^z > P r z /ɜ/$	OP <i>czrzoda</i>	
OP <i>czrz</i> > P <i>trz</i>	<i>trzoda</i> /t-ʃɔda/	
Loss of preconsonantal <i>r</i> in non-rhotic dialects, vowel lengthening		BrE /hɜ:d/, AmE /hɜ:rd/, /hɜ:d/

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Summary

English *herd* and Polish *trzoda*: How the Two Words Developed from One Proto-Indo-European Etymon

The paper concentrates on the historical comparison of English *herd* and Polish *trzoda* from the perspective of the hypothesis of common origin. As Polish and English are descendants of a common ancestor, the Proto-Indo-European language, it is expected that the two words, different from one another as they may seem today, go back to one

and the same common proto-word. Consequently, the pair of cognates should exhibit the sound correspondences which result from sound changes. The main aim of the paper is to explain the relatedness and differentiations of the modern reflexes of the original Proto-Indo-European word and to account for their different phonological developments in both languages with a view to understanding the connection between the contemporary cognates. This aim is realised by means of searching for sound changes that explain the discrepancy in the phonological shapes of modern cognates and collecting other pairs of cognates that demonstrate the effect of these sound changes. As the result of the historical and comparative analysis, it is argued that some of the reconstructions are more likely than others and, in conclusion, the most probable development of the two cognates is outlined in the chronological order.