A chapter from the history of labial harmony in Hungarian: A curious case of alternation and variability

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ABSTRACT

This paper looks at the alternations introduced by the Old Hungarian regressive labialization of front vowels through the example of a lexical set, the derivational family based on the stem *dics*- 'glory, praise'. This alternation was highly variable, but in a patterned way. All the data found in the Old Hungarian codices have been investigated with the help of the online Old Hungarian Corpus, and the distribution of the relevant forms has been mapped, along with a discussion of a highly interesting exceptional form recurring in several of the source texts.

KEYWORDS

Old Hungarian, labial harmony, rounding, regressive spreading, variation

1. INTRODUCTION

Modern Hungarian shows two kinds of vowel harmony patterns: backness harmony and rounding (or labial) harmony. These have been described and analysed in a number of works over the



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past decades (for a survey of the phenomena and the literature and for an analysis Siptár & Törkenczy 2007, 63–74). Data representing both types of harmony are given in (1).

(1) front/back harmony: [u:t-bpn] 'road-INESS', [ka:r-bpn] 'damage-INESS' vs. [si:n-ben] 'colour-INESS', [kød-ben] 'fog-INESS', [fyjt-ben] 'smoke-INESS' rounding harmony: [si:n-etek-hez] 'colour-2PL-ALLAT' vs. [fyjt-øtøk-høz] 'smoke-2PL-ALLAT' (vs. [ka:r-otok-hoz] 'damage-2PL-ALLAT')

Diachronically, backness harmony is the older of the two patterns, going back on comparative evidence most probably as far as Proto-Uralic (Aikio 2022; Suomi 1983). Labial harmony, by contrast, seems to have emerged only in the Old Hungarian period (10th – early 16th centuries AD). How labial harmony appeared in the language is a question treated elsewhere in greater detail (Cser, Oszkó & Várnai 2023b and to appear; for a related case study see Cser, Oszkó & Várnai 2023a); here we focus on related phenomena involving the spreading of labiality that preceded the appearance of progressive labial harmony as found in Modern Hungarian.

In the course of the later Pre-Old Hungarian and the Old Hungarian periods several sound changes led to an increase in the number of front rounded vowels, of which only [y] had originally been part of the vowel system; the new vowels that emerged were $[\emptyset \ \emptyset: \ y:]$.¹ Of these, the long vowels very frequently appeared in final syllables, resulting from the contraction of vowel+glide sequences, e.g. * $[fe\chi] > [fe\chi] > [fie]$ 'head' or $[mene\chi] > (*)[mene\chi] > [menø:] 'go' PARTCPL. What is seen in Middle and Modern Hungarian as progressive root-controlled labial harmony was historically preceded by the regressive spreading of labiality onto short front vowels from front rounded vowels. This regressive spreading was highly variable and subject to morphological levelling (for details as well as recent literature again see Cser, Oszkó & Várnai to appear), and was further complicated by the fact that the short final vowels that originally triggered the spreading were subsequently lost before the appearance of substantial written attestations of the language.$

Long final vowels triggering the regressive spreading did remain, but there are too few lexical items with both convincing etymologies and ample attestation to allow us to map the process in greater detail. This issue was treated in Berrár (1961), with a critical survey of the literature up to that point as well as the list of words that could possibly be examples of regressive spreading of labiality from final long front rounded vowels. The putative candidates are (in Modern Hungarian form) *ünő* 'heifer', *ürü* 'castrated ram', *tüdő* 'lung(s)', *süllő* 'zander', *süldő* 'young animal', *küllő* 'spoke (of wheel)', *Küküllő* (name of a river), *hüllő* 'reptile', *gyűrű* 'ring', *gyűszű* 'thimble', *külső* 'outer', *sűrű* 'thick', *minő* 'of what kind', *midőn* 'when', *ízű* 'of ... taste', *dicső* 'glorious', *idő* 'time', *hírű* 'famed', *hitű* 'of ... faith', *cipő* 'shoe' (Berrár 1961, 32). These words are attested either in the modern dialects or in earlier written sources with a rounded vowel in the penultimate syllable; for many that variant is the current standard form. However, for the period in question, i.e. Old Hungarian, when the regressive labial spreading may have taken place in these words, only two of them are attested in any appreciable numbers; some of them sporadically, some of them not at all. The two words are *idő* 'time' and *dicső* 'glorious' and their derivatives. The reason why they are so amply attested in Old Hungarian is obviously related to their meanings. Nearly all remaining texts

¹The modern spellings for the front rounded vowels are ö [ø], ő [ø:], ü [y], ű [y:].



from the period are religious in nature: Bible translations and periphrases, theological and spiritual writings. Besides being an everyday concept, time (both in the sense of absolute, linear time and the time appropriate for something) is also a central notion in the Biblical and Christian understanding of history and man's fate; glory is a central attribute of God, and glorification and praise are central elements of man's relation to God.

Berrár (1961) investigated in detail the forms of $id\delta$ in many of the surviving Old Hungarian codices. She found that in some of them, primarily those that represent the Transylvanian dialect, a rounded vowel appeared in the first syllable of the stem when the stem-final vowel itself was rounded; and an unrounded vowel appeared when the stem-final vowel itself was unrounded. The rounding of the stem-final vowel resulted from systematic sound changes (see above) that had different outcomes in word-final vs. word-internal position, see (2).

*[idey] > *[ideu] > [idø:] 'time' (*idő*) vs.
 *[ideye] > [ideje] 'time' POSS3SG (*ideje*), i.e. 'his/her/its time, the time of ...'

Of the two forms, only the first shows a rounded first vowel, i.e. $\ddot{u}d\ddot{o}$, in the relevant textual sources.² What this means is that a systematic alternation exists within the paradigm of this lexical item in both vowels, and the two alternations are interrelated. Berrár's (1961, 34) data taken from the Vienna Codex (one showing a highly consistent pattern) include those in (3), with spelling modernized here for the sake of exposition.

(3) üdő idék plur üdőt ACC ideig TERM üdőben INESS ideje POSS3SG... üdőnek DAT...

Berrár (1961, 37) also reports that Erzsébet E. Abaffy (p.c.) drew her attention to a similarlooking alternation apparently displayed by the derivational family of the absolute stem *dics*-'glory, praise'. Forms with alternating labiality such as *dücső* [dytʃø:] 'glorious' vs. *dicsér* [ditʃe:r] 'praise' could be found both in Middle Hungarian texts and in more recently attested dialects, but the evidence was anecdotal. To our knowledge no systematic study has ever been conducted on the alternation displayed by this lexical family (including *dicső* 'glorious', *dicsőség* 'glory', *dicsőít* 'glorify', *dicsőül* 'be glorified', *dicsér* 'praise', *dicsekedik* 'boast') and no research dedicated to it has been published. We now make an attempt to fill this gap by systematically surveying all the forms in the Old Hungarian codices based on this absolute stem to see whether such a pattern indeed existed and how exactly it worked. The results are interesting because they differ from those obtained for *idő* in significant ways. By doing this research and publishing its results we pay tribute to the late Erzsébet E. Abaffy (1928–2023), a towering figure of Hungarian historical linguistics for many decades; furthermore, we honour the late László Kálmán

²In fact, it has been surmised that the original vowel in the first syllable may have been labial rather than non-labial, see e.g. Róna-Tas & Berta (2011, 437). In the present context this means that the stem-alternation described by Berrár (1961) came into being in the opposite direction (i.e. unrounding before an unrounded vowel rather than rounding before a rounded vowel), but the outcome is the same. It is also possible that the labiality of the first vowel was subject to dialectal variation either in the donor language, West Old Turkic, or in (Pre-)Old Hungarian, or both.



(1957-2021), who always insisted on making claims only if they could be verified on a sufficiently strong empirical basis.

In what follows we first describe the morphological structure of the lexical family (section 2), then the way the data were collected (section 3), and the patterns they reveal (section 4). We devote separate discussion to an exceptional form (section 5) before the conclusion (section 6).

2. THE MORPHOLOGICAL STRUCTURE OF THE DICS- LEXICAL SET

The origin of the absolute stem *dics*- is unknown.³ At the same time, the lexical items based on it all show derivational endings that are well attested and appear to have well-defined functions and morphosyntactic properties. The adjective dicső 'glorious' has the ending of present participles (back-harmonizing -ó/-ő), and the words dicsőség 'glory', dicsőül 'be glorified' and dicsőít 'glorify' are clearly based on it. The noun *dicsőség* has a productive affix that forms nouns from adjectives (back-harmonizing -ság/-ség); the verbs dicsőül and dicsőít end in productive affixes that form intransitive (back-harmonizing $-ul/-\ddot{u}l$) and transitive verbs (-*it*), respectively. The verb *dicsér* 'praise' also ends in a verb-forming affix with high lexical frequency (-Vr showing a variety of harmonizing vowels), whereas *dicsekedik* 'boast' shows a productive reflexive affixcomplex (back- and round-harmonizing -kod/-ked/-köd).⁴ The latter two verbs are not based on the adjective but on the absolute stem except for marginal Old Hungarian formations such as *dicsőlködik* found in the Jókai Codex⁵ where the reflexive affix-complex appears to be attached to the verb dicső(ü)l. The noun dicsőret 'praise', found three times in the Weszprémi Codex and once in the Teleki Codex, ends in a noun-forming affix (back-harmonizing -at/-et), but is based on an r-suffixed verb which in turn is apparently based on the adjective *dicső* rather than the absolute stem. Alternatively it may represent a case of blending influenced by the labial vowel of the adjective and the forms based on it. The more usual form of this noun is *dicséret* (even in the Weszprémy Codex and in the Teleki Codex), with the -et suffix added to the verb dicsér.

3. DATA COLLECTION

We collected all word forms beginning with (Old Hungarian spellings of) *dics-* or *dücs-* from the electronic versions of the Old Hungarian codices, which are all included in the Old Hungarian Corpus (henceforth OHC, http://omagyarkorpusz.nytud.hu/en-intro.html, see Simon 2014). Since the majority of the codices are not normalized we needed to make searches for all written variants of the absolute stem, listed in (4).



³See Benkő (1993–1995) s.v. *dicső*. This dictionary is also accessible online in an updated version (uesz.nytud.hu), but in that form it only works in Hungarian at present.

⁴The suffix *-ik* is the inflectional ending of the 3sG in the class of verbs to which *dicsekedik* belongs. The reflexive affixcomplex was not yet fully round-harmonizing in all its Old Hungarian attestations, but this is immaterial to the presentation that follows.

⁵E.g. gÿczewlkewgÿek subj3sG (Jókai Codex, 128).

(4) Old Hungarian spelling variants of the absolute stem *dics-/dücs-* as represented in the OHC

(a) dic dicz dich dích dić díč díčh dič dých dýc dýcz dýćz dych dých dých dycz dýcz dých dýč decz gycz gýcz

(b) dvch dvč dwch dwcz dứch dứch dứcz dứcz divc dọc dọć

The variants in (4a) clearly show a non-labial vowel, those in (4b) a labial vowel. The last two spellings in (4b) suggest a lowered vowel (i.e. [døtJ] rather than [dytJ]), as does *decz* in (4a) (i.e. [detJ] rather than [ditJ]), though this spelling is extremely rare, with three attestations altogether in a single codex in the entire corpus.⁶ The last two spellings in (4a) suggest a palatalized initial stop: *g* would be a usual spelling for [J] but not for [d]. In the electronic corpus we also needed to do separate searches for capitalized forms as well as for forms separated at line breaks (coded as "di-@@ch" etc.). In the remainder of the paper we shall continue to represent forms in a modernized spelling, since rendering the highly varied Old Hungarian spellings would only add clutter to the exposition, while the focus is solely on the contrast between rounded vs. unrounded front vowels. Old Hungarian written forms, as culled from the OHC, are given where we deemed it necessary to give precise documentation.

Altogether we found 5,716 data for forms based on the absolute stem in question. We checked several forms in the facsimile editions of the codices on an individual basis if we found them suspect for any reason, but we needed to discard only a handful as instances of mistaken data entry. The majority of the data (4,604) occurred in codices in which the labial variant was not found at all, i.e. in which we encountered no forms written with v, w, o or any of their diacriticized forms. 1,112 data were found in codices that contained both labial and non-labial variants, i.e. forms based both on stems written as in (4a) and on stems written as in (4b). The latter set of codices, i.e. of those containing at least one labial form, includes eight codices altogether, viz. the Debrecen Codex, the Érsekújvár Codex, the Gömöry Codex, the Booklet on the Dignity of Apostles, the Lázár Codex, the Székelyudvarhely Codex, the Teleki Codex and the Thewrewk Codex. It is notable that this set does not contain several codices that show either consistent or partial labialization in the forms of idő (the Vienna Codex and the Vitkovics Codex with consistent, the Apor Codex, the Döbrentei Codex and the Munich Codex with partial labialization according to Berrár 1961, 35). The overlap between the two sets consists in the Érsekújvár Codex, the Székelyudvarhely Codex and the Teleki Codex, all the three with partial labialization in *idő*. This is a point to which we shall return below. In what follows we look in detail at what these 1,112 word forms show; we will not be concerned with the data found in the codices with no labialization at all.

4. THE DATA PATTERNS

In a summary tabulation, the forms found in the eight – at least partially – labializing codices altogether show the distribution given in Table 1. The two rows of the table distinguish between the vowel variants of the absolute stem: in the upper row the stem is of the $d\ddot{u}cs$ - type, with a rounded vowel, in the lower row it is of the *dics*- type, with an unrounded vowel. The two

⁶Deczeretrol, deczeeretes, deczereteketh (Érsekújvár Codex, 88va, 123rb, 127ra, respectively).



 Table 1. The overall distribution of dics-/dücs- forms in the eight codices (Debrecen Codex; Érsekújvár Codex; Gömöry Codex; Booklet on the Dignity of Apostles; Lázár Codex; Székelyudvarhely Codex; Teleki Codex; Thewrewk Codex)

Stem \setminus following syllable	Rounded	Unrounded
Rounded	187	19
Unrounded	419	487

columns distinguish between the type of the vowel of the immediately following syllable independently of the overall length and morphological composition of the whole word form. Thus in the left column belong forms such as *dücső* (top left cell) or *dicső* (bottom left cell) 'glorious', with a rounded second vowel; in the right column belong forms such as *dücseśg* (top right cell) 'glory', *dicsér* (bottom right cell) 'praise', with an unrounded second vowel.

Even at first approximation the numbers in Table 1 show that (i) the stem has an unrounded vowel in the majority of forms even if the second vowel is rounded (69%), but (ii) a rounded stem vowel is nearly always followed by a rounded vowel in the second syllable (90%). We will discuss below the smallest and most unexpected set of data, when *dücs*- is followed by an unrounded vowel in an inverse harmonic fashion, but not before we look at the codices individually. Tables 2–9 show the data tabulated from the codices in decreasing order of the ratio of rounded stem vowels (i.e. *dücs*- vs. *dics*-) before rounded vowels in the second syllable.

Table 2. The distribution of dics-/dücs- forms in the Booklet on the Dignity of Apostles

Stem \setminus following syllable	Rounded	Unrounded
Rounded	27	0
Unrounded	0	14

Table	3.	The	distribution	of	dics-/dücs-	forms	in	the	Gömöry	Codex
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Stem \ following syllable	Rounded	Unrounded
Rounded	31	2
Unrounded	17	41

Table 4. The distribution of dica	-/dücs- forms in the	Székelyudvarhely	Codex
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Stem \ following syllable	Rounded	Unrounded
Rounded	9	0
Unrounded	9	24



Stem \setminus following syllable	Rounded	Unrounded
Rounded	79	15
Unrounded	116	188

Table 5. The distribution of dics-/dücs- forms in the Érsekújvár Codex

Table 6. The distribution of dics-/dücs- forms in the Teleki Codex

Stem \setminus following syllable	Rounded	Unrounded
Rounded	18	0
Unrounded	74	71

Table 7. The distribution of dics-/dücs- forms in the Debrecen Codex

Stem \setminus following syllable	Rounded	Unrounded
Rounded	12	0
Unrounded	92	97

Table 8. The distribution of dics-/dücs- forms in the Lázár Codex

Stem \setminus following syllable	Rounded	Unrounded
Rounded	1	0
Unrounded	50	18

Table 9. The distribution of dics-/dücs- forms in the Thewrewk Codex

Stem \setminus following syllable	Rounded	Unrounded
Rounded	0	2
Unrounded	63	34

The only text that shows a perfect assimilatory pattern is the brief Booklet on the Dignity of Apostles; here we do not find a single form in which the labiality of the vowels does not match. In the Gömöry Codex the majority of the forms shows the same harmonic pattern, with only 17 representing the *dicső*-type with an unrounded stem vowel before a rounded vowel in the following syllable, and two forms representing the inverse pattern. In the Székelyudvarhely Codex the forms with a rounded vowel in the second syllable show a rounded or an unrounded stem vowel in equal numbers, but these numbers are fairly low altogether. It is in the Érsekújvár Codex that we have the highest number of relevant forms overall by far. In this text



when the vowel in the second syllable is rounded, there is some tendency for the stem vowel to undergo assimilation, but this only results in 40.5% rounded stem vowels; interestingly we also have 15 inverse forms. In both the Teleki Codex and the Debrecen Codex rounded stem vowels are found before rounded second syllable vowels but are a clear minority. In the last two texts, the Lázár Codex and the Thewrewk Codex, there is only one and two forms in each, respectively, with a rounded stem vowel altogether; in the former this is in a harmonizing form, in the latter they are inverse forms.

We thus see a graded pattern of variation in this single lexical family, but the variation, to the extent that it exists at all, points consistently in one direction: a rounded vowel in the second syllable may be preceded either by a rounded stem vowel or an unrounded stem vowel; but rounded stem vowels are almost exclusively found before a rounded vowel. As argued in Berrár (1961) for *idő* 'time', and in Losonczi (1915–1920) for short vowels, patterns like this show quite clearly the effect of the original regressive spreading of labiality among front vowels,⁷ which then came to be replaced by the progressive spreading pattern more narrowly referred to as rounding harmony or labial harmony in the phonological literature (Cser, Oszkó & Várnai 2023b and to appear).

5. THE EXCEPTION

There is one word within the lexical family which shows an inverse pattern: dicsőség 'glory'. In 19 instances altogether this appears as $d\ddot{u}cses\acute{e}g$, with a rounded stem vowel followed by an unrounded vowel plus the nominalizing suffix *-ség*. Since the spelling in the Old Hungarian period does not normally distinguish short and long vowels, it is, in theory, possible that the form is $d\ddot{u}cs\acute{e}s\acute{e}g$ with a long second vowel. There are thus two possible analyses for this form.

If the second vowel was indeed long, it would most likely represent a delabialized form of the participial ending - σ , where the delabialization could possibly be attributed to the long unrounded vowel of the following suffix. In this case, *dücséség*, or indeed *dicséség* would be analogous to marginally attested forms such as *béség* 'plenty' from *b* σ 'wide, plentiful' or *héség* 'heat' from *h* σ 'hot'.⁸ The problem is that such a pattern is almost totally unattested for words where there are two or more syllables before the *-ség* suffix: we hardly ever find a vowel written *e* where one could plausibly expect a rounded long vowel.⁹ A notable example is found in the Debrecen Codex (292), where within a single sentence one finds the word form *gyönyörűségek* 'pleasures' written as *gonoresegek* and *gonorosegek*, with the vowel before *-ség* apparently varying in labiality. Yet another interesting form is *ÿgÿenleseghe* (Érsekújvár Codex, 69) for *egyenlősége* 'equality POSS3SG', in which the suffix *-ség* is without doubt preceded by the participle ending that would otherwise be a rounded vowel. It is difficult to make sense of the variation seen in the form written as *kunésege* (Guary Codex, 125/13) for what would now be *könnyűsége* 'lightness POSS3SG' – here again the stem shows extensive variability in Old Hungarian and it is not at all clear whether

⁹We have checked all the 9,198 forms containing the sequences *eseg, eseg, efeg, efeeg, esseg, esseg, effeg, effeeg* in the OHC. It is possible but highly unlikely that more than a handful of relevant forms remained undetected.



⁷Though for $id\delta$ this may have been more complicated, possibly with an original labial vowel in the first syllable, or possible dialectal variation, see above.

⁸hefegek (Cornides Codex, 71r), hefegtil, befege, befegektil (Teleki Codex, 72, 72, 196, resp.), beeseget (Lobkovicz Codex, 150); this appears to be an exhaustive list.



Figure 1. Labialization in *idő* vs. *dics*- in the Old Hungarian codices (note that all other codices would go into the none/none slot, not filled here)

the vowel before *-ség* etymologically derives from a rounded vowel. The only form that would present a closer parallel to a long-vowelled *dücséség*, and is attested in substantial numbers, is *erősség* ('strength', from *erős* 'strong'), not infrequently written with unrounded vowels throughout.¹⁰

If, however, the vowel before *-ség* in this word was short rather than long, the form *dücseség* fell into a well-populated class of forms where the stem (in late Old Hungarian at least) was a monosyllable, and could be a noun, an adjective or even a verb, such as *bölcsesség* 'wisdom', *szüzesség* 'virginity',¹¹ *vereség* 'defeat', *nyereség* 'gain', *eleség* 'food'; and formally very similar words could be based on disyllabic stems, e.g. *békesség* 'peace', *epeség* 'sadness'. Many such forms were certainly lexicalized already in Old Hungarian, e.g. *feleség* 'wife', etymologically based on *fél* 'half'. Note also the word *gyűleség* 'hatred' (e.g. *gÿwleseeg*), often found in the codices, which varies with *gyűlöség* (e.g. *gÿwloseegh*; Érsekújvár Codex, 95vb) and *gyűlölség* (rarely, e.g. *gololseg*; Tihany Codex, 123v, with *golosegh* in the very next sentence), but whose morphology is unclear.¹²

The upshot is that we cannot say with certainty if the forms with an unrounded vowel before *-ség* were *dücseség* or *dücséség*. What we can say, however, is that they represent a stage in the variable lexicalization process at least in the language variety that is represented by the Érsekújvár Codex, possibly also by the Gömöry Codex. It is variable because the labiality of the second vowel does not always spread to the stem vowel; but it shows lexicalization because the rounded stem vowel is no longer strictly dependent on a following rounded vowel.

6. CONCLUSION AND REMAINING ISSUES

We have shown that Erzsébet E. Abaffy's intuition reported in Berrár (1961, 37) was correct: the lexical family built on the absolute stem *dics*- indeed shows alternations induced by the

¹⁰E.g. eresseeg (Kulcsár Codex, 72r, 87v; Érdy Codex, 273b); cf. also the occasional keffegh, i.e. község 'community' with the same suffix and an etymological rounded vowel in the stem, in the Lányi Codex (139, 331).

¹¹Although the modern form of *bölcsesség* and *szüzesség* suggest disyllabic relative stems (**bölcses,* **szüzes*), this is historically inaccurate, the stems are simply the words *bölcs* 'wise' and *szűz* 'virgin'.

¹²It is interesting to note that of these variants only the apparently rarest, *gyűlölség*, has survived into Modern Hungarian.

regressive spreading of labiality from a rounded vowel following the stem. Its behaviour is thus similar to that of the forms built on *idő* 'time', but also significantly different in terms of grammatical status: in *idő*, the alternation was intra-paradigmatic, i.e. it appeared within inflection (as well as appearing across derivation); in the *dics*- lexical family, it seems to have appeared only across derivationally related words. Another difference concerns the distribution of the variant forms across the codices: as was indicated earlier in the paper, the variation the two sets of words or word forms show is not coextensive in terms of attestation. The Érsekújvár Codex, the Székelyudvarhely Codex and the Teleki Codex show partial labialization both in *idő* and the *dics*- family; the Vienna Codex and the Vitkovics Codex show consistent labialization in *idő* but none in dics-; the Apor Codex, the Döbrentei Codex and the Munich Codex show partial labialization in *idő* but none in *dics*-; the Gömöry Codex shows dominant labialization in *dics*but none in *idő*; the Debrecen Codex shows partial labialization in *dics*- but none in *idő*; the Lázár Codex and the Thewrewk Codex show marginal labialization in *dics*- but again none in *idő* (see Figure 1). The Booklet on the Dignity of Apostles shows consistent labialization in *dics*- but since the only forms of *idő* it contains are two occurrences of *idején*, it is impossible to tell if the language variety of its author/scribe included üdő or idő. The different distributions may, of course, also result from etymological differences in that idő may have been borrowed with a rounded rather than with an unrounded vowel at least in some dialects of Pre-Old Hungarian (see above).

It is also evident that since several of the codices were written by several hands each (with overlaps between different codices), a full investigation of the variety represented by these texts should involve an investigation into the individual hands. It remains for future research to establish how exactly the variety within the codices corresponds to the hands. It also remains for future research to trace the later variation in the words belonging to the *dics*-family; Middle Hungarian data in which rounded vowels are followed by unrounded ones¹³ point to an interesting interplay between lexicalization with labial vowels and the harmony patterns appearing in affixes, still involving a great deal of variation.

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¹³E.g. důczôkedem (dücsökedem 'I boast') Gáspár Heltai's Bible translation of 1562, 2nd letter to the Corinthians 16, but důczekôdem (dücseködem 'I boast') 15 verses later.



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