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TONES IN DANISH DIALECTS COMPARED WITH LOW GERMAN AND FRANCONIAN TONES*

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The article deals with tonal differences in Danish, northern Low German, and Franconian dialects, which appeared after the apocope. Dissyllabic words and forms become monosyllabic, but they continue to differ due to differences in accents: CVC — CVCV > CVC¹ — CVC², as in /hu.'s/ n. sg. *hus* 'house' — /hu.sə/ n. pl. *huse* 'houses' > /hu.s¹/ — /hu.s²/ in Southern Jutlandic, /hu.s/ n.sg. nom/acc. *Haus* 'house' — /hu.sə/ *Hause* 'house' dat. sg. > /hu.s¹/ — /hu.s²/ in northern Low German dialects and /haus/ n. sg. nom./acc. *Haus* 'house' — /hausə/ dat. sg. *Hause* 'house' > /haus¹/ — /haus²/ in Franconian Arzbach dialect. The appearance of such tonal differences is associated with a sharp increase in monosyllabic words. The development in the Danish apocopated dialects has much in common with the development in northern Low German and Franconian dialects. It concerns not only the appearance of tones due to the apocope and the same lexical and morphological distribution of the accents in related words and forms (see above), but even the spread of the accent of apocope to original monosyllabic words with a special phonemic basis (spontaneous accentuation), the long phonetic duration of which was realized by the speakers as an accent of the apocope. Tonal differences of root morphemes, along with the coincidence of the root with the syllable and with the increase of the difference between syllable-initial and syllable-final consonants, turn out to be one of the most important means of segmentation of the root morpheme in a text. The question is also raised about the possible contact nature of the apocope and of the appearance of the tonal differences.

Keywords: Danish dialects, northern Low German dialects, Franconian dialects, prosodics, apocope, tones.

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In three papers published in Scandinavian Philology [Kuzmenko, 2017, 2018; Kuzmenko, 2019] I have focused on two changes in the Germanic languages that increase their similarity with morphosyllabic languages of Southeast Asia, namely the tendency for the root to coincide with the syllable and to increase the difference between the syllable-initial and syllable-final elements. In this paper I deal with the third trend in the history of the Germanic languages: the appearance of monosyllabic tones. The main focus will be on monosyllabic tones in Danish dialects, which will be compared with tones in the northern Low German and Franconian dialects, where the main arena of contrasting tones is also monosyllabic words.

The main source of the accent opposition in monosyllabic words in Danish, northern Low German, and Franconian dialects is the schwa apocope (disyllabic words and forms become monosyllabic, but continue to differ due to differences in accents: CVC — CVCV > CVC¹ — CVC² as in /hu.'s/ n. sg. *hus* 'house' — /hu.sə/ n. pl. *huse* 'houses' > /hu.s¹/ — /hu.s²/ in Southern Jutlandic), /hu.s/ n.sg. nom/acc. *Haus* 'house' — /hu.sə/ *Hause* 'house' dat. sg. > /hu.s¹/ — /hu.s²/ in northern Low German dialects and /haus/ n. sg. nom./acc. *Haus* 'house' — /hausə/ dat. sg. *Hause* 'house' > /haus¹/ — /haus²/ in Franconian Arzbach dialect. The functional load of accentual oppositions is very large, since the final schwa was an indicator of many word-forming and inflectional categories, including case and number of nouns, number and definite form of adjectives, infinitive of verbs, etc. These accents, which differ from each other by a complex of phonetic features (first of all by pitch, duration and intensity) and have various names,¹ are as a rule called now accent 1 and accent 2 according to the Swedish and Norwegian tradition.

1. STØD AS A MARKER OF SYLLABLE CUT IN STANDARD DANISH

Before we begin to compare the prosodic systems of the above mentioned Germanic languages we have to pay attention to the difference between two types of prosodic features, which I call segmental prosodics

¹ Accent 1 is called in German *Stoßton*, *Schärfung*, *Korreption*, *Acut*, *Kürzung-sakzent*, in Dutch *valtoon*, *stoottoon*, *verscherping*, *giertoon*, in English *aprupt tone* or *pushing tone*. Accent 2 is called in German *Schleifton*, *Schwebelaut*, *Trägheitsaccent*, *Zirkumflex*, *Gravis*, *Extension*, in Dutch *sleeptoon*, *zweeftoon*, *boogtoon*, *traagheidsaccent* in English *dragging tone* and *circumflex*. In the Danish dialectological tradition the terms accent 1 and accent 2 were used from the beginning of the 20th century.

and suprasegmental prosodics [Kuzmenko, 1991]. Segmental prosodics refer to the relation between the components of the syllable, first of all the relation of the vowels and postvocalic consonants, in particular to the types of syllable cut and syllable division. Supra-segmental prosodics study tones or syllable accents that are superimposed on the stressed syllable. Traditionally, the stød in Standard Danish is considered to be a suprasegmental accent [Basbøll, 2005, s. 82–83]. However, it seems to me more convenient to interpret the stød as an indicator of segmental prosodics, such as syllable cut.

The segmental prosodics of the West Germanic standard languages and of the majority of the territorial vernaculars are characterized by the correlation of syllable cut (Germ. *Silbenschnitt* or *Anschlussart*), with the opposition between a checked cut when the postvocalic consonants are not separated from the preceding vowel by the syllable boundary and a free cut when the postvocalic consonants are separated from the preceding vowel by the syllable boundary. The vowel quantity depends hereby on the type of syllable cut. By the checked cut the vowels are short, by the free cut they are long [Trubetzkoy, 1939].

The Danish correlation of syllable cut differs, however from that of the West Germanic languages. It is not binomial, but four-membered. Here, not only checked (as in /kilə/ *kilde* ‘source’) and free cut (as in /ki:lə/ *kile* ‘drive’) are contrasted, but also super-checked (as in /kil’-Λ/ *kilder* ‘tickles’) and super-free (as in /ki’lΛ/ *kiler* ‘drives’) [Kuz’menko, 2018]. This four-membered nature is provided by the Danish stød, which in its full form is a glottal stop but often is realized as a laryngeal compression of the vocal cords. In every form the stød designate a clear syllable border in dissyllabic words.

The distribution of stød in the Standard Danish has some constraints. Stød is possible only on long vowels or short vowels + sonorants. The functional load of the opposition stød — no stød in monosyllabic words is however very low and the words like *far* ‘father’ without stød are rare. The main area of contrast of the words with and without stød in Danish concerns dissyllabic words, cf. Dan. *læser* /læ’sv / ‘read’ pres., *skriver* /skriu’v/ ‘write’ pres. with stød and *læser* /læ.sv/ ‘reader’, *skriver* /skri.vv/ ‘scribe’ without stød.

The correlation of syllable cut proposes the existence of polysyllabic, first of all dissyllabic, words in which the difference between the types of syllable cut is clear due to syllable division. In the Danish dialects

without apocope and in Standard Danish, dissyllabic words with an unstressed second syllable are very frequent [Frøkjær-Jensen, 1966, s. 27]. According to my calculation, the percentage of bisyllabic words in a Standard Danish text can vary, from 30 % to 40 %. Such words include words with the suffix /ə/ that indicates the plural form of nouns and adjectives, definite (weak) form of adjectives, or infinitive of verbs. The suffix /v/ (er) can indicate present tense of the verbs and plural forms of some nouns. The suffixes /ən/ and /eð/ can be definite articles and indicators of past participles. Since bisyllabic words are the main arena of contrast of four types of syllable cut, the dynamic components of the stød (glottalisation) here are stronger than a tonal one. However, the tonal component of the Standard Danish stød, which consists of a sudden increase of the tone with the following sharp drop, is also important for the phonetic characteristics of the stød [Fischer-Jørgensen, 1989]. Krasnova, describing the contrast stød-no stød in the Standard Danish, argues that in this contrast “the frequency of the main tone is of the greatest importance”² [Krasnova, 1985, s. 77]. These tonal characteristics, which in the standard Danish and in the dialects without the apocope play a subordinate role, obtained a new function in the dialects with the predominance of monosyllabic words. The tonal characteristics become here the main phonetic correlates of tones. In this way the indicators of the syllable cut become monosyllabic tones.

2. TONE AND STØD AS POSITIONAL AND FACULTATIVE VARIANTS IN THE DANISH DIALECTS WITH THE APOCOPE

In those Danish dialects where the apocope took place (first of all in South and West Denmark), the number of dissyllabic words has dropped radically. The monosyllabic words have become the main arena of the accent oppositions. The function of stød in the dialects without the apocope and in the Standard Danish in dissyllabic words is to provide the type of the syllable cut and syllable division. In the dialects with the apocope the stød (or what's left of it) is an indicator of a monosyllabic toneme. P. Andersen perfectly understood the different function of stød in the Standard Danish and in dialects with apocope: “The difference between original monosyllabic words and original dissyllabic (apoco-

² Here and further my translation into English of cited Danish, German and Russian publications.

pated) words is preserved due to stød or quantity <...> and this means that the quantity, stød, and tone in Jutlandic dialects have a different phonological function than in the island dialects. A stød in the island dialects is a signal of a particular syllable structure (V:C, VCC), but in the Jutlandic dialects the stød manifests relevant tonemes or accentemes (or maybe phonemes!)” [Andersen, 1954, s. 85].

In a text in the dialect of Stauning (West Jutland) — [Sandvad, 1931, s. 87–88], that underwent apocope and the suffixed article is prepositive, only 10 % of dissyllabic words remained. The same text in the Standard Danish contains 40 % of dissyllabic words. 80 % of words in a text in this dialect is monosyllabic. 20 % of the polysyllabic words in this text are 1) dissyllabic compounds of the type /lanj.væj/ *landevej* ‘country road’, 2) words with a stød between the root and the suffix (super-closed syllable cut /lɛqʰər/ pres. *lægger* ‘lay’, 3) words with a closed cut /halər/ *halerne* ‘the tails’, /sædər/ *sætter* ‘set’. Almost in every dissyllabic word the syllable and morpheme coincide. Only in one word it is possible to assume the lack of coincidence of syllabic and morphological boundaries: /hu. sænj/ (*husenden*) ‘household’. In the same text in standard Danish I have found 50 % of monosyllabic words.

In North Jutland and on Fyn, we can find a transitional stage in the development of tones. The mainly tonal accent 1 in monosyllabic words as in [bi.l]³ *bil* ‘car’ and mainly dynamic characteristics and glottalization in dissyllabic words with the superfree cut as in [bi'lən] *bilen* ‘the car’ turn to be positional variants. The existence of a rising-falling movement of tone (see /'bi.l/ *bil* ‘car’ with accent 1), which corresponds to a strong stød in the Standard Danish (see /bi'l/ *bil*), is opposed here to the smooth tone of the accent 2 in original dissyllabic words, e.g. /'bi.l/ *bil* ‘car’ vs /'bi.l / *bile* ‘to drive a car’ [Molbæk Hansen, 1978, s. 16–17]. In monosyllabic words the main phonetic correlate of the opposition tonem 1 — tonem 2 is difference in pitch (F0) [Molbæk Hansen, 1978; Nielsen, 1968].

The tonal characteristics of monosyllabic words, which differ from the dynamic characteristics of dissyllabic words, are also found in the dialects of Fynen, in which the suffixed articles are preserved. In these dialects monosyllabic words with a bimoraic basis can differ by two different tones: rising — falling, which corresponds to the dynamic stød

³ I have tried to preserve the transcription of the source here and in other cases.

in the Standard Danish and smooth or smooth-falling (original words without *strød*) — [Andersen, 1958, s. 34]. Dynamic *stød* in dissyllabic words and rising accent in monosyllabic words in Eastern Fynen turns to be prosodic variants, cf. [ˈbij] *by* ‘bee’- [biːʔn] *bien* def. ‘the bee’ [Ejskjær, 1990, s. 55]. In the Standard Danish and on Sjælland in both cases we have a dynamic *stød* /biː/ — /biːn/. In West Fyn dialects, a rising tone is possible on diphthongs and glides, cf. [ˈvij] *vid* ‘wit’), and a dynamic *stød* on the monophthongs (cf. [viː] *vig* ‘bay’ [Pedersen, 1978, s. 78]. We can find on Fyn not only positional alternations of *stød* and tone but even facultative alternations as in [blæiː ~ ˈblæi] *bleg* ‘pale’ [Andersen, 1954, s. 26; 1958, s. 52, 72]. P. Andersen, who left the most detailed description of the dialect of Fyn, considers a *stød* and accent 1 to be positional variants of the same accent. “Some types of monosyllabic words assume an accent 1, and others a *stød*” [Andersen, 1958, s. 61].

However, in some Fynish dialects, the *stød* and the rising tone are different tonemes. A unique system of tones has developed in the dialects of North Fyn, where duration, *stød*, rising and falling (or low) tones form a four-membered system on a diphthong : /ˈbei/ *bi* ‘bee’, /beːi/ *beg* ‘pitch’, /ˈbei/ *bide* ‘to wait’), /be.i/ *bege* ‘to pitch’ [Andersen, 1958, s. 194–297]. Different phonemic sequences, different number of syllables and a different types of syllable cut in the Standard Danish *bi* /biː/, *beg* /baj/, *bide* /biːðə/, *bege* /bajə/ reflecting a more archaic stage, correspond to different tonemes in the North Fun.

3. SPONTANEOUS ACCENTUATION ON FYN

The contrast of accents on Fyn is characteristic not only for native monosyllabic words and native dissyllabic words, but also for native monosyllabic words with different quality of the basis. Using the terminology of accents in Franconian dialects (see below), where the term combinatorial accentuation designates the accent of the apocope and spontaneous accentuation designates the accentuation which depends on the quality of the phonemic basis, we can see that accent 1 in the part of dialects on Fyn is characteristic of monosyllabic words with a high vowel and /o/. Accent 2 (accent of the apocope) occurs mainly in words with non-high vowels or in combination with narrow vowels, but before a dropped voiced consonant (cf. [ˈnø.] *nød* ‘nut’, [ˈha.b] *hop* ‘jump’, [ˈføl] *føl*, /ˈnå.l/ *nål* ‘needle’ or [ˈbi] *bid* ‘bit’ [Andersen, 1958].

A peculiar, reversal, distribution of the stød/rising accent as lack of stød/falling accent can be observed in some East Fyn vernaculars. Here the rising tone, which in other dialects is characteristic of the original monosyllabic words, occurs in the original dissyllabic words with the apocope, whereas the falling tone, which is characteristic of the other dialects on Fynen for the original dissyllabic words that have undergone the apocope has a rising accents (cf. ['gris] *grise* 'pigs', ['smud] *smutte* 'to leave', ['bjeb] *bjæbe* 'to bark', ['hid] *hitte* 'to find', ['damp] *dampe* 'to steam'. Such a reversal usage of different tones with the accent 1 in apocopated words and accent 2 in original monosyllabic words resembles the situation in Franconian dialects (as in Cologne), with the rule A where accent 1 is used in apocopated words and accent 2 in original monosyllabic words unlike the reversal distribution of the accents in the Franconian area with the rule B as in Arzbach (see below).

4. TONES IN THE DANISH DIALECTS WITH APOCOPE AND WITHOUT THE STØD

In the dialects of southern Jutland, in which the number of monosyllabic words increased drastically and the suffixed article have been replaced by a free-standing prepositive article the presence of the stød is no longer noted at all, even in a few dissyllabic words. The Danish dialectologists argue that the difference between the two tones in South Jutland is mainly melodic [Andersen, 1897; Bjerrum, 1948; Andersen, 1965; Ejsskjær, 1990].

M. Bjerrum described phonetic characteristics of the two contrasting accents in the dialects of Sundeved and Als [Bjerrum, 1948; cf. Andersen, 1965, s. 96], which include differences in F0, duration and number of dynamic peaks. The opposition of the two accents has both a lexical and grammatical function (cf. / 'mɔ.n/ *moden* 'ripe' — / 'mɔ.n/ *måne* 'moon', / 'sei/ *sej* 'tough' — / 'sei/ *sige* 'to say', / 'damb/ *damp* 'steam' — / 'damb/ *dampe* 'to steam', / 'ly.s/ *lys* 'light' — / 'ly.s/ *lyse* 'to shine' [Bjerrum, 1948]. The functional load of the opposition of two pitch accents in Sønderjylland is very high. The percentage of monosyllabic words in text in this dialect accedes 85 %. The bisyllabic words consist either of two roots or of root + suffix with a coinciding syllable and morpheme boundary. Tonal accents is also characteristic of the dialects of the insles Ærø and Langeland: the accent 1 is rising-

falling, accent 2 falling-rising [Kroman, 1947]. P. Andersen conducted instrumental investigation and established that the difference between the two accents consists in the place of the tonal peak. Both accents can have the same rising — falling contour, but Accent 1 reaches its peak much earlier than accent 2 [Andersen, 1965, s. 99]. The two tones in South Jutland, on Als, Ærø and Langeland are joined by the dialect of the island of Rømø in West Slesvig [Nielsen, 1959]. One more dialect where the *stød* has been replaced by tonal characteristics is the dialect of South Fyn. Rasmus Rask (1787–1832), a native of Fyn, argued that “the denotation of tones plays a very important role in the dialect, since both word formation and inflection are often associated only with a change in tone”, citing the following minimal pairs as *dāv* (*dag*) — *dāv* (*dage* pl.) ‘day — days’ (pl.), *grô* (*grå*) — *grô* (*gråe*) ‘gray’ — ‘to gray’; *blêi* (*bleg*) — *blêi* (*blege*) ‘pale’ — ‘to pale’ [cf. Rask, 1938, s. 75, 78]. The later followers of Rask describing the realization of the *stød* on Fyn pointed out that “the rising-falling movement of the tone that is characteristic of the manifestation of the *stød* on Fyn” [Andersen, 1958, s. 34]. The *stød* on Fyn is weak and is realized as a slight inhibition or a weak wave in the middle of the vowel. “For many residents of south-eastern Fynen, this movement of the tone is characteristic of the implementation of the *stød*” [Andersen, 1958, s. 34]. On South Fyn there is no *stød*, which has lost its dynamic features and glottalization and in every position turned into a pitch accent.

Traditionally the lack of *stød* and the tonal opposition of the accent 1 and accent 2 in Danish dialects is considered to be an archaic feature, corresponding to two accents in Swedish and in two Norwegian Standards [cf. Sørensen, 2020, s. 21]. However the comparison of the development in Jutland; on Samsø and on Fyn as well as the development of tones in Low German and Franconian indicates that the development of tones in South Jutland as well as in the other Danish dialects is a new development depending on the apocope.

5. ACCENTS 1 AND 2 IN NORTHERN LOW GERMAN

One of the first who described in detail two types of accent in Low German dialects was Otto Bremer, who was a native of Stralsund [Bremer, 1927]. The most important feature, in Bremer’s opinion, is not the difference in pitch, but the difference in duration [Bremer, 1927,

s. 1–3]. The major role of duration and the existence of phonologically overlong vowels (opposition short — long — overlong) in the Northern Low German dialects were proposed by many authors [cf. Ternes, 1980, s. 380]: cf. /vit/ (short vowel, Standard German *weiß* ‘white’) — /vi:t/ (long vowel, *weit* ‘wide’) — /vi:t/ overlong vowel *Weide* ‘willow’. Although Bremer considered duration to be the main feature of the accent of the apocope, he also noted the importance of tonal differences. He explained the development of this accent as a transfer of duration and tone from the descending unstressed ə to the next portable long vowel or short vowel + sonorant [Bremer, 1927, s. 3]. This idea was supported by a known German phonetician Otto von Essen: “It is a well-known and physiologically justified fact that the movement of a tone, where it means something to understand what is said, is held quite consistently, even when the original carrier of the corresponding tone has long disappeared” [Essen, 1958, s. 112]. The relevance of two tones is recognized by many authors [see e.g. Prehn, 2012; Höder, 2020].

Thus, in the northern Low German dialect, a new opposition of monosyllabic words has developed instead of the difference in the number of syllables (CVC — CVCV > CVC¹ — CVC²). Phonetically this opposition was realized as the difference in pitch, duration and intensity. But in the later time the instrumental investigations show that the main feature differentiating the two patterns CVC¹ — CVC² is pitch [Prehn, 2012]. The main reason for the appearance of tones in the Low German dialects is traditionally considered to be the apocope [Kohler, 2001, s. 338].

The etymological distribution of the accents in Low German depends not only on the apocope but even on the original quality of the postvocalic plosives, cf. *ast* in /meot/ *Mut* ‘mood’ — /mêot/ *Mode* ‘fashion’, /frait/ *freat* ‘pleases’ — /frâit/ *Freude* ‘joy’, /foit/ *Füße* ‘feet’ — /môit/ *müde* ‘tired’ in the Altenwerder dialect [Höder, 2010, s. 16–17]. The appearance of accent 2 in native monosyllabic words with voiced consonants can be explained as follows. The phonetic longer duration of vowels before voiced consonants than before voiceless ones (a general phonetic pattern) during the period of the apocope, was reinterpreted as a sign of apocope in the original monosyllabic words with the voiced plosives.

6. THE OPPOSITION ACCENT 1 — ACCENT 2 IN THE FRANCONIAN DIALECTS WITH THE RULE B

The northern Low German dialects in which the accent of the apocope is accent 2 are joined by some Franconian dialects in which the accent of the apocope is also accent 2 (Northern Limburg dialects, dialect of Arzbach and some other Low Franconian dialects). In German dialectological tradition these dialects are treated as dialects with the rule B unlike the central Franconian dialects with the accent 1 in apocopated words, which are treated as the dialects with the rule A. The difference between the Low German dialects and the Franconian dialects with the rule B is that the Franconian dialects have the accent 2 not only in apocopated words but even in original monosyllabic words with a special vowel quality. Traditionally the accentuation that depends on the rise of the vowels is called spontaneous, unlike the accentuation that depends on the apocope, which is called combinatory. In the dialect of Arzbach (Hessen-Passau) [Bach, 1921] with the rule B, the accent of the apocope is accent 2, the same accent is used the words with the spontaneous accentuation in original monosyllabic words with originally broad and medium vowels (e.g. /~šōf/ (<skāf) *Schaf* ‘sheep’; /~fūs/ (<fōs) *Fuß* ‘foot’; /~nouð/ (<nōð) *Not* ‘need’). The spontaneous accentuation indicates that this rule appeared after the monophthongisation of diphthongs, cf. /~ō. x/ (ōga), /~štē. n/ (stēn, stēne), /~hō. p/ (hōp)) and before the umlaut and rising of the non + high vowels (cf. /~dū.n/ (dōn), /~grÿ.n/ (grōni) [Bach, 1921].

As in northern Low German we can also observe here the dependence of the accents on the quality of the consonants (voiced vs voiceless). Before the original voiceless consonants in disyllabic words there is a accent 1. Before the original sonorous and voiced consonants there is accent 2 (cf. (/grei‘fə/ (<grīfen) *greifen* ‘seize’, but /reiwə/ (<rīben) *reiben* ‘rub’) — [Katsnelson, 1966, s. 256]. The grammatical function of the two accents is also great, since accent 2 has taken over the function of the fallen-out /ə/. According to rule B, /ə/ was the sign of many grammatical categories, including case and number, cf. /háus/ (*Haus* nom, acc) — /~haus/ (*Hause* dat.) in Arzbach.

One more example of spontaneous accentuation with the accent 2 (rule B) provides the dialect of Kleve (Kleef). Original monosyllabic words with the non-high vowels have accent 2 (cf. /~rō.t/

Rat (< OS *rād*). The words with original narrow vowels have accent 1 (/gliˈk/ (OS < *giliko*) *gleich* 'equal' [Katsnelson, 1966, s. 256]. In addition to the dependence of the accentuation on the degree of vowel rise, this dialect also shows the dependence of the accentuation (acc 1-acc. 2) on the quality of the consonants (voiceless or voiced). Dissyllabic words have here accent 1 before the voiceless consonants, cf. /biˈtə/ (< *bīten*) *beißen* 'to bite', and accent 2 before the voiced ones, /~dri.və/ (< *driven*) *treiben* 'to drive' /~bli.və/ [Katsnelson, 1966, s. 256].

One more dialect with the rule B was described by Peetz [Peetz, 2006]. It is the dialect of Beuren (Hochland) in Rheinland Pfalz (not far from Trier), cf. /¹mæ: t/ (< *mag(e)t*), *Magd* 'maid' — /²mæ: t/ (< *Made*), *Made* 'maggot'. As an accent of the apocope is regularly used the accent 2 (cf. /²zon/ *Sonne* 'sun', /²a:n/ *Auge* 'eye' /²jon/ *Junge* 'boy').

Taking into account the importance of the phonetic difference in duration of broad and narrow vowels and in vowels before voiceless and voiced consonants in the formation of accent differences, which was pointed out by Bach [Bach, 1921, s. 182–284], I suggested that at the time of the apocope, when the extension of the phonemic basis became the leading feature of the accent of the apocope, the longer phonetic duration of broad vowels (a general phonetic pattern) and the longer duration of vowels before voiced consonants than before voiceless ones (also a general phonetic pattern) began to be perceived as signs of accent 2 [Kuzmenko, 1991, s. 246–247]. In this reconstruction, the original state is shown not by the Central Franconian dialects with rule A, but by the Low Franconian dialects with the rule B, in which the accent of the apocope turns out to be accent 2.

7. ACCENTS 1 AND 2 IN THE FRANCONIAN DIALECTS WITH THE RULE A

In a large group of the Central Franconian dialects (from Cologne to Mayen) we observe a reversal distribution of the accent of the apocope. Here not the accent 2 as in Danish, Low German and some Low Franconian dialects, but the accent 1 appears to be the accent of the apocope and of the spontaneous sphere. Schmidt gives the following minimal pairs to demonstrate the relevance of accent differences in the Mayen dialect (rule A): /ʃa:²/ *schal* 'tasteless' — /ʃa:¹/ *Schal* 'schawl' — /ʃal.²/ *Schall* 'sound' — /ʃal¹/ *Schale* 'shell' [Schmidt, 1986, S. 64–68, 109,

278, 119–123]. To this lexical opposition of the accents we can add morphological opposition, cf. /ʃa:²/ *schal* (adj. undef. sg.) vs /ʃa:¹/ *schale* (the same adj. def. pl.) or /ʃa:¹/ *Schals* g. nom. and acc. vs /ʃa:²/ *Schale* (dat. sg. or nom. pl.) The accentual contrast in the dialects with the rule A is the same as in the dialects with the rule B. It has both lexical and morphological function, but the distribution of the accents is reversal. Where dialects with rule B have accent 2, dialects with rule A have accent 1, and vice versa.

Frings describes accent 1 in such dialects, which he called “Schärfung” (sharpening) as a dynamic accent that shortens the vowel and the following consonant. Syllables with the *Schärfung* are characterized by a shorter duration, a sharp drop of intensity and of a sharper change in pitch [Frings, 1916, s. 6–7]. Frings explained the shortening (*Schärfung*) of vowels and accent 1 in apocopated words as follows: Since the phonetic duration of a vowel is inversely proportional to the number of syllables in a word, the vowel of the first syllable in a dissyllabic word is shorter than the vowel in a monosyllabic word. During the apocope the root vowel in Central Franconian dialects was not lengthened as in the Franconian dialects with the rule B (with the accent 2 in apocoped words), as well as in the northern Low German and many Danish dialects, but it preserved its shorter quantity (retention) and, accordingly, the accent 1 in the words with the apocope) [Frings, 1913; 1916]. This hypothesis assumes that there was no sequential development apocope > compensatory lengthening and accent 2 in all dialects with apocope (Danish, Low German, Franconian dialects) with the later development of the accent 2 to accent 1 only in the Central Franconian dialects, but a bifurcated development: During the apocope the Central Franconian dialects developed accent 1 in apocopated words, but Danish, Low German and the other Franconian dialects with the rule B developed accent 2 in the apocopated words. However, if compensatory lengthening is often found in languages, the shortening of the root vowel as a result of retention is unknown to me. Moreover, metatony (a change of accent) is characteristic of many languages. All this indicates that a sequential change of accents seems more likely to me: First, apocope and the appearance of accent 2 in all areas, and then metatony accent 2 > accent 1 only in the Central Franconian dialects. However, the reasons for such a metatony in these dialects remain unknown.

Although the primacy of the dynamic component in the opposition accent 1 (Schärfung) — accent 2 (no Schärfung, extension in the Franconian area with the rule B was claimed by Frings [Frings, 1916, s. 6–7; cf. Katsnelson, 1966, s. 218], numerous modern studies, including experiments on perception, confirm the dominant position of the tonal component. In modern literature, the primacy of the melodic component (F0) is almost unanimously recognized [cf. Peters, 2006], who argues the two accents in Cologne is characterized “by a number of phonetic parameters of which F0 is primary” [Peters, 2006, s. 132]. Hermans rejects the assumption, that the phonological difference in accent 1 and accent 2 must be explained in terms of tones [Hermans, 2013]. He interprets Franconian tones in terms of foot structure. However even he recognizes a tonal realization of this opposition on a surface level.

8. CONCLUDING REMARKS

The history of the stød in Danish and of the tonal accents in Danish, Low German and Franconian shows us how phonetic features is changing to solve a new task⁴. Being the feature of the syllable cut (cf. superclose and superfree cut) the Danish stød has developed dynamic features and glottalisation, which were suitable to indicate the syllable cut. In the dialects with the apocope and with the increased number of monosyllabic words the stød loses its dynamic features and glottalisation and turns into a real phonetic tone. Accordingly, what is traditionally called a stød in the Danish dialects with apocope changes phonetically, reducing the dynamic characteristics, but strengthening the differences in F0. The appearance of monosyllabic tones is undoubtedly associated with apocope, and with the transformation of two-syllable words into monosyllables. However, the apocope became the trigger for the appearance of the accent of the apocope in original monosyllabic words, the quality of the phonetic basis of which united them with the accent of the apocope (words with original broad vowels or with voiced post-vocalic consonants). This development is most clearly observed in the Franconian areas with rule B, but we also find the spread of such a

⁴ Cf. the idea of Mel'nikov about the language as a self-adjusting system, which can change itself to solve a new task [Mel'nikov, 1967].

connection between the accent and the quality of the vocalic basis in the Danish dialects of Fyn. We observe the same development in the Franconian dialects with the rule A, with the difference that for these dialects I assume a subsequent metatony. The northern Low German dialects do not show a connection between the quality of the vowel and the appearance of the apocope accent in the original monosyllabic words, but the combination of a vowel with a voiced consonant turns out to be decisive when the apocope accent appears in them.

The choice and distribution of monosyllabic tones is the third component of the Germanic dominant, which serve the same purpose as the two others, namely to increase the better segmentation of the root morpheme in a text. For this goal the root morpheme coincides with the syllable, the qualitative difference between the syllable-initial and syllable-final elements of the syllable become greater and monosyllabic tones, which are connected with the development of monosyllabism provides one more feature of suprasegmental prosodics which enable to differentiate monosyllabic morphemes in a text.

Obviously, the more monosyllabic words, the greater the probability of the appearance of tones. This is exactly the development we see in Danish and German dialects with the apocope. It is difficult to say how much the apocope and, accordingly, the appearance of tones is associated with language contact in the Low German-South Danish contact zone, as I thought earlier [Kusmenko, 1996]. It is also possible to try to link the Franconian apocope with the Low German influence, but this question is almost completely unexplored. A natural question arises why there are no monosyllabic tones in English, in the most apocopated language. Perhaps the huge (more than 60 %) number of French borrowings prevented English from monosyllabism. And perhaps the redundancy of a language is so large that it does not allow you to unambiguously determine the direction of changes.

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**ТОНЫ В ДАТСКИХ ДИАЛЕКТАХ В СРАВНЕНИИ
С НИЖНЕНЕМЕЦКИМИ И ФРАНКОНСКИМИ ТОНАМИ***

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В статье рассматриваются тональные различия в датских, северных нижненемецких и франконских диалектах, появившиеся после апокопы. Исконные противопоставления двусложных и односложных слов представлены в этих диалектах как тональные противопоставления. Двусложные слова становятся односложными, но продолжают различаться благодаря различию акцентов: CVC — CVCV > CVC¹ — CVC², ср. /hu.s/ n. sg. *hus* ‘дом’ — /hu.sə/ n. pl. *Huse* ‘дома’ > /hu.s¹/ — /hu.s²/ в южной Ютландии, /hu.s/ n.sg. nom/acc. *Haus* ‘дом’ — /hu.sə/ *Hause* ‘дому’ dat. sg. > /hu.s¹/ — /hu.s²/ в северных нижненемецких диалектах и /haus/ n. sg. nom/acc. *Haus* ‘дом’ — /hausə/ dat. sg. *Hause* ‘дому’ > /haus¹/ — /haus²/ во франконском диалекте Арцбаха. Появление таких тональных различий связывается с резким увеличением количества односложных слов. Изменения в датских диалектах с апокопой имеют много общего с изменениями в северных нижненемецких и франконских диалектах. Это относится не только к появлению тонов в результате апокопы и к сходной лексической и грамматической дистрибуции акцентов в родственных словах и формах (см. выше), но и к распространению акцента апокопы на исконные односложные слова с особым фонетическим базисом (спонтанная акцентуация), фонетическая длительность которого была воспринята говорящими как акцент апокопы. Тональные различия корневых морфем наряду с совпадением корня со слогом и с увеличением различия между слогаочальными и слогаоконечными согласными оказываются одним из важных средств сегментации корневой слогаоморфемы в тексте. Ставится вопрос и о возможной контактной природе апокопы и появления тональных различий.

Ключевые слова: датские, северные нижненемецкие и франконские диалекты, просодика, апокопа, тоны.

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