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Melodic accent in Estonian and Lithuanian folk songs

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Background in music psychology. Musical accent may be defined as an increased prominence ascribed to a sound event. Of the various types of accent proposed by music theorists, one of the most contentious has been the so-called 'melodic accent'. Huron and Royal (1996) have tested eight conceptions of melodic accent of three samples of music: Western folk music and art music, Gregorian chant. The results for all three studies were consistent with a perceptual model of melodic accent developed by Thomassen (1982). Although the correlation with Thomassen's model of melodic accent was significant, the effect magnitude was relatively small and emerged most clearly in unaccompanied isochronous solo passages.

Background in ethnomusicology. Estonian folk songs called *regilaul* are ancient unaccompanied isochronous monophonic folk songs that differ from Western folk song tradition. Unaccompanied isochronous folk songs are also found in Lithuanian tradition, although they do not comprise homogeneous stylistic layer like Estonian *regilaul*. Some Estonian and Lithuanian tunes are varied in the course of singing, in terms of melodic contours. It is proved in the earlier work (Särg 2006) that melodic accent in interaction with lexical stress has an effect on shaping melody contour in *regilaul*. On purpose, singers synchronize melodic accents to lexical stresses both in metrically regular (ordinary) verses and in metrically varied (*broken*) verses. But still is the question why some melodies are not varied in the case of metrical variation.

Aims. First, we aim to test the effect of Thomassen's model of melodic accent in Estonian contemporary melodies, composed in *regilaul* style and in Lithuanian unaccompanied isochronous folk songs. The second question is why there are several melodies in old *regilaul* tradition as well as in Lithuanian vocal tradition that usually remain invariable.

Main contribution. The interaction of melodic accents and lexical stresses is tested in two hypotheses: 1) lexical stresses are synchronized with melodic accents both in basic form of melody and in melody variations, caused by metrical variations in verse; 2) traditionally invariable melodies have a specific sort of melody contour where lexical stresses coincide with melodic accents both in ordinary verses and in metrically varied verses.

Firstly, melodic accents are computed for 10 contemporary melody contours, composed in *regilaul* style, 16 contours from different places in Lithuania, and compared to earlier results on South-Estonian melodies. For both Estonian and Lithuanian songs, the prominent melodic accents fall on lexically stressed syllables, both in ordinary verses and metrically varied verses. Secondly, interrelationship between the shape of melody contour and melodic variability was analyzed. Both in Estonian and Lithuanian traditional singing melodic variability in the case of metrical variations depends on the shape of melody contour (on its direction and placement of melodic accents), but in contemporary Estonian *regilaul* variation takes place in every metrically varied verse.

Implications. Singing in traditional ethnic styles is quite popular today – among the bearers of ethnic traditions themselves as well as in the variety of new forms of the World Music. The traditional singing presumes a good knowledge of the specific musical language, often hard to grasp by people who have got Western musical education. To sing old folk music in traditional way is impossible without knowing the rules of melody variation. The present study can help to grasp the rules. A comprehensive account of notion and manifestations of melodic contour in traditional music is not accessible based on ethnomusicological means only. It also requires expertise from the sciences (music psychology, statistics). On the other hand, music psychology can gain verification from ethnomusicological phenomena.

Musical accent may be defined as an increased prominence, noticeability or salience ascribed to a given event. For the purposes of this work we define some musical accents discussed below: *melodic accent, lexical stress accent*, and *metric accent*. Of the various types of accents proposed by music theorists, one of the most contentious

has been the so-called 'melodic accent'. David Huron and Matthew Royal (1996) have tested eight main conception of melodic accent on three contrasting samples of music: Western folk music, isochronous passages of Western art music and ametric passages of Gregorian chant. They presumed that there can be the synchronization of phenomenal accent with metric position, and examined the coincidence of proposed melodic accents with points in the metric hierarchy. The results of all three studies were most consistent with a perceptual model of melodic accent developed by Joseph Thomassen (1982). In general, the model assigns more stress to contour pivot tones. Although the correlation with Thomassen's model of melodic accent was significant, the effect magnitude was relatively small and emerged most clearly in unaccompanied isochronous solo passages. As Estonian old folk song regilaul is unaccompanied isochronous monophonic folk song style, melodic accent can have influence on melodic movement there.

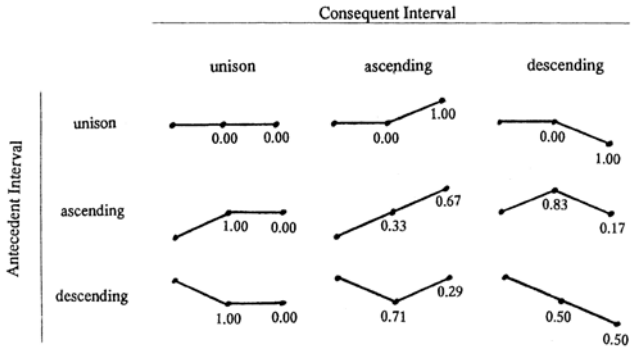

Figure 1. The figure, published by Huron & Royal (1996: 494), schematically represents the basic accent configuration in Thomassen's model of melodic accent. This algorithm uses a moving window containing three pitches. Accent values pertain to the second and third notes of the three-note contours.

Estonian *regilaul* has no equivalent in Lithuanian songlore. Nonetheless, there are quite a few isochronous song melodies or quite prolonged isochronous patterns (two bars and more) in semi-isochronous melodies. So it is possible to investigate influence of melodic accent in these isochronous patterns.

Thomassen's experiments revealed that in principle every change of frequency level between two successive tones can be interpreted as accentuation of the terminal tone of the change. He transformed the results into the formula of accent strengths $A_i=P_i(C_{i-1},C_i) \times P_i(C_i,C_{i+1})$, where i, i+1 etc. are successive tones, C_{i-1},C_i the frequency level changes, P_i the relative probability for tone i to be perceived as an accent.[i]

Lexical stress accent refers to musical coinciding with word stresses that give to musical tone some more prominence. To facilitate reading, the shorter term *lexical stress* is used below. *Metric accent* is usually a complex phenomenon of different constituents, falling regularly on the same time stop to emphasize it (e.g., Lerdahl & Jackendoff 1996: 17, 18; Benjamin 1984: 358, 359). Time stops that usually get metric accents are called metrically strong positions. We aim to test the effect of Thomassen's model of melodic accent in Estonian *regilaul,* in new contemporary melodies, composed in *regilaul* style and in similar Lithuanian unaccompanied isochronous folk songs.

The interaction of melodic accents and lexical stresses is tested in two hypotheses: 1) lexical stresses are synchronized with melodic accents both in basic form of melody and in melody variations, caused by metrical variations; 2) traditionally invariable melodies have a specific sort of melody contour where lexical stresses coincide with melodic accents both in ordinary verses and in metrically varied verses.

Estonian folk song *regilaul*

General characteristics

By its musical and metric characteristics, Estonian song *regilaul* can be considered a Non-Western folk song (or at least as atypical Western folk song). One of its main distinctive features is that lexical stresses are not always synchronized to metric accents.

Regilaul is Estonian old folk song style, belonging to the ancient Balto-Finnic *runo* song (Finnish *runo* 'poem' < 'singer, seer') tradition. Runo song is defined by its poetic structure as a folk song, where the main features are parallelism, alliterative rhymes, specific metre and certain traditional subjects and formulas (see: Leino 1994: 57–58). Presumably, runo song tradition has emerged 2–2,5 000 years ago and it was carried on by

oral tradition up to the 19th century, in some outlying districts up to now. The traditional way of singing was a continuous process with turns for a leader and the chorus. (Figure 2).

The native term for Estonian local runo song tradition is *regilaul* (Low German or High German *re(i)g, rei(e)* 'song, round dance' + Estonian *laul* 'song'). Subtle differences between Estonian *regilaul* and Finnish-Karelian *runo* song are mainly due to the fact that Estonian language has undergone more changes than Finnish or Karelian during the past millennium. (About *regilaul*: Lippus 1995; Ross & Lehiste 2001; Särg 2005a).

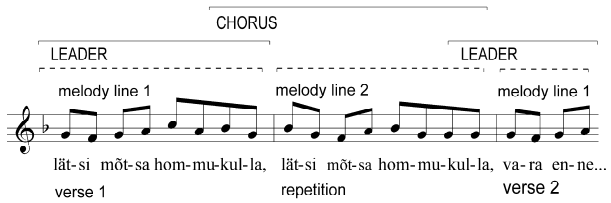

Figure 2. The basic structure of Estonian folk song regilaul: A verse is sung by the leader and repeated by chorus, usually joining on last syllables of the verse. The figure represents the two-line melody, corresponding to a verse and its repetition.

The main structural constituents of *regilaul* song are a verse and a melodic phrase called 'melody line', corresponding to a verse. Usually the whole melody consists only of one (or two different) melody line(s), which is (are) continuously repeated in the song. (Figure 2).

Metric structure of *regilaul* song

Estonian folk song studies have proved that the temporal structure of *regilaul* is influenced by the prosodic structure of Estonian language. A basic unit of Estonian temporal structure is prosodic foot, having metric foot as its equivalent in *regilaul*. (Leino 1994; Ross & Lehiste 2001). It is supposed that the prosodic structure of Estonian language has also influenced the melodic structure of *regilaul*. We also presume that there does exist the correspondence between metric foot, lexical-stress-group (~word or syllable-group) and melodic-accent-group (~melodic foot) in song lines.

There is basically one-to-one correspondence between syllables of the verse and notes of the melody in a song line. There is basically 8 syllable positions in every verse and 8 tones in melody line. The 'ideal' metre of *regilaul* is trochaic tetrametre with some special rules, connected with Estonian quantity relations. The peculiarity of Estonian language is that quantity is not necessarily the constituent of lexical stress. In Estonian a syllable, carrying lexical stress, can be shorter than it's subsequent syllable.

Metre of *regilaul* counts both with lexical stress and syllable length, so can lexically stressed short syllable be placed on metrically weak position. Metrical variations with no synchronization of metric accents and lexical stresses are very characteristic for traditional *regilaul* singing.

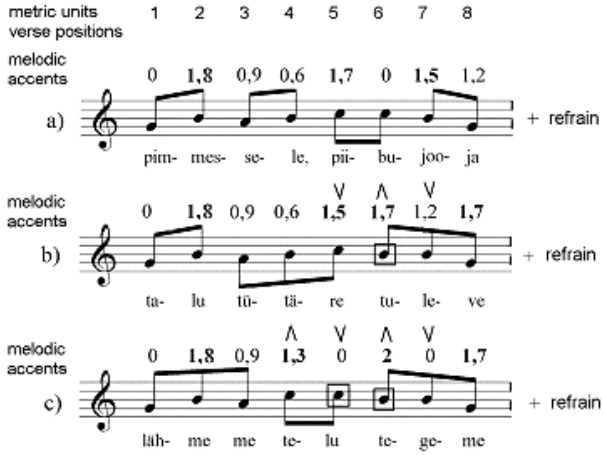

Figure 3. Melody variations in broken verses of the *regilaul* song change the value of melodic accents. Changes in melody notes are surrounded; arrows indicate important changes in melodic accents. The beams in the figure are connected according to word (~syllable group) stresses. a) Ordinary verse sung to the main form of melody. b) Melody variation in broken verse, structure 2+3+3. c) Melody variation in broken verse, structure 3+2+3.

On the bases of metric structure of verse, song lines are divided in two types. 1) Song lines, basing on metrically regular, unambiguously trochaic verses, called *ordinary verses*. Ordinary verses have both lexical stress and metric stress on metrically strong positions. On the base of ordinary verses has developed the basic form of melody, i.e., the most frequent variant of melody that serves as invariant for recreation (Figure 3 a). 2) Song lines, basing on metrically varied *broken verses*. The term *broken verse* indicates a verse where the

metric regularity is achieved only by the use of syllable length – placing short lexically stressed syllables on metrically weak positions and long (and half-long) lexically unstressed syllables on strong positions. In those cases lexically stressed short syllable, deprived of metric stress, 'loses' some prominence. The term *broken verse* originally refers to word, that is a bit destroyed because of it is divided between two neighboring metric feet, e.g., *tü/täre* ('daughters') is divided between two metric feet in Figure 3 b. Melody variation are often used to sing broken verses (Figure 3 b, c).

The traditional singing of broken verses is a challenge for folk singers, because they have to maintain a balance between lexical stress and metrical stress. Often folk singers vary melodies in such cases. Analyzing the folk song recordings we can discover regularities the folk singers use to suit song lyrics to the melody.

Melodic accent and lexical stress in *regilaul* song

In the earlier work 27 typical *regilaul* melody contours from Karksi parish, South-Estonian district, were analyzed (Särg 2006).[ii] In that study was proved that more prominent melodic accents occur in positions, which coincide with lexical stresses. This regularity occurred both in ordinary verses and broken verses, often sung to melody variations. Of course, results from one South-Estonian parish do not represent all possibilities in *regilaul* tradition, but they persuade us that the Thomassen's model for computing melodic accents works quite well on old Estonian folk song.

In Estonian language lexical stress on the word's initial syllable is of central importance as a carrier of phonological information, e.g., it indicates word boundaries. Right impression of word prosody and intelligibility was important in *regilaul*, because the text was usually the primary aspect, and the music followed mainly the build-up of the lyrics. Singers vary melodies to synchronize lexical stresses with melodic accents, to give word's initial syllable more prominence.

Also contemporary folk singers vary the melody contour in metrically varied verses, i.e., in *broken verse*s of self-composed semi-*regilaul*.

Methodology

For the sake of analyze, study material was transcribed and structured by melody lines. From researcher's viewpoint, every recorded song verse can be treated as an experiment, the realization of a mental 'model' of a song line, witnessing how the singer perceives and adjusts verse structure and melodic structure. To find relationships between melodic accents, metrical positions and lexical stresses, the value of melodic accents was computed in every melody line for all verse positions, using Thomassen's model. Then values of melodic accents were compared for metrically strong and metrically weak positions, and also for lexically stressed and lexically unstressed positions.

There are notes for 8 verse positions – 4 metrically strong and 4 metrically weak positions – in every melody line. According to Thomassen's theory, melodic context determining the value of melodic accent is sufficiently developed since the third melody note from beginning. Hence, the values of melodic accents could be quite reliably computed for the last 6 positions, while it is somewhat questionably for the 2 initial positions. The values of melodic accents for the 2 initial positions are computed, considering that the last melody notes (or refrain notes) as the beginning of a new line. *Regilaul* singing is running continuously; the end of a melody line is followed by a new beginning, or there is a small respite or some short refrain word(s) after every repetition of melody.

The main types of broken lines verses have structures 2+3+3, 3+2+3 and 3+3+2. Numbers indicate the figure of syllables in a word or stress-group: 3 stands for a 3-syllable word (or group of shorter words), etc. There is found enough material only for structures 2+3+3, 3+2+3, as 3+3+2 is quite rare.
The same methodology is applied to the study of the Lithuanian (semi)isochronous songs, too. Only because the isochronous segments are of various lengths, and meters are also

various, the metric feet are not considered in the sense it is done with Estonian tunes. Simply enough, the correspondence between the lexical stress and melodic accent is discussed.

Synchronization of lexical stress with melodic accent

Hypothesis 1

There are some young singers in contemporary secondary folklore movement who compose new melodies for traditional folk song lyrics. We studied the group *Laudaukse kääksutajad* who compose and sing melodies in *regilaul* style. This music is called 'traditional music' by its authors. It is of specific interest to know, if contemporary singers intuitively use traditional regularities to synchronize melodic accent with lexical stresses in composing and varying semi-*regilaul* songs.

The study material from the CD *Ühtelaulmine* (2003) by *Laudaukse kääksutajad* includes 9 songs (from 17) with self-made melodies which lyrics and structure allow them to compare to *regilaul* melodies. Song lyrics that has used for new melodies, includes 5 lyrical *regilaul* songs (3 traditional and 1 self-made) and 3 incantations, which form is compatible to *regilaul*. As the most of songs have two-line melodies, there are together 16 melody lines to analyze.

All Lithuanian samples used in the study represent unbroken singing tradition. They were taken from five CD releases (Četkauskaitė, 1998, Nakienė & Žarskienė, 2003, 2004, 2005a, b). The selection of the songs was carried out according to two principles: a) the isochronous segments should be as long as possible, b) the songs should be 'ordinary', i.e., not of specific genres or singing styles implying some special musical features (peculiar intonations, etc.).

Thus 16 songs – four from every basic ethnographic Lithuanian region (Aukštaitija, Žemaitija, Dzūkija, Suvalkija) – were selected.

Two questions regarding the role of melodic accent in shaping melody contours, in Estonian songs, were asked. 1) Do lexical stresses located on metrically strong positions in ordinary verses coincide with melodic accents? 2) Do lexical stresses located on metrically different (both on strong and weak) positions in *broken verses* still coincide with melodic accents? These two questions were not differentiated in Lithuanian case.

The Estonian results were compared to the earlier work where typical melody contours from one South-Estonian district were analyzed (Särg 2006).

Results 1

Figures 4-6 present the average values of melodic accent for all verse positions in different types of verses. We can conclude that lexical stresses and melodic accents are synchronized both in the main forms of melodies and in melody variations while singing.

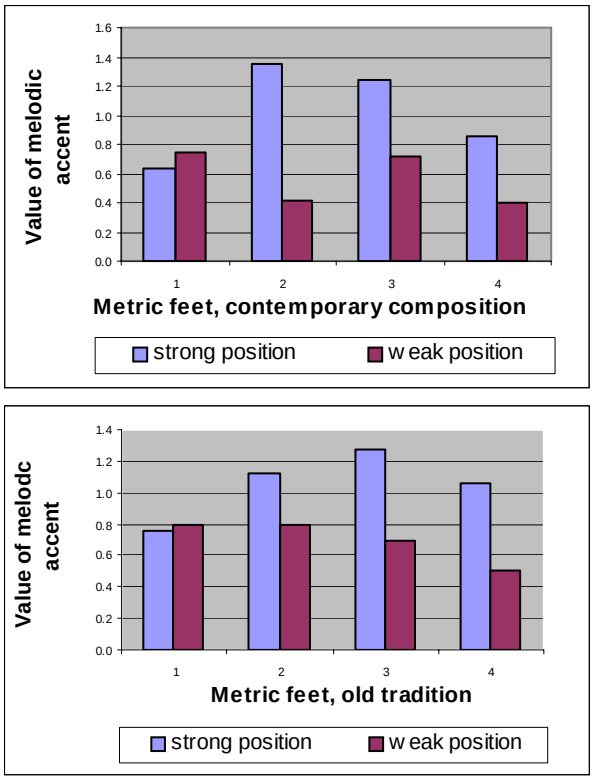

Figure 4. The average values of melodic accents computed for basic form of melodies. Top: in contemporary composed *regilaul* song. Bottom: In traditional South-Estonian *regilaul* song. In the three-metric feet, higher melodic accents occur on strong metric positions that coincide with lexical stresses in ordinary verses.

Figure 4 demonstrates that the average values of melodic accents for metrically strong positions are higher than for weak positions; apart from 2 initial positions in ordinary verses.[iii]

Thus we can conclude that basic melodic structure of *regilaul* melody is influenced by the prosodic structure of Estonian language both in traditional melodies and in contemporary compositions in *regilaul*-style, because higher melodic accents occur on strong metric positions that coincide with lexical stresses in ordinary verses.

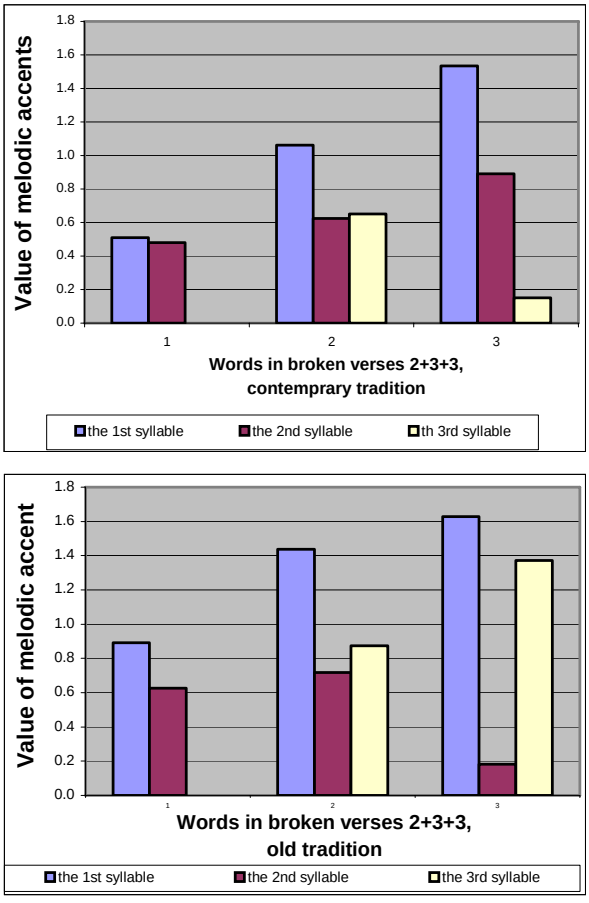

Figure 5. The average values of melodic accents computed for broken verses with structure 2+3+3. Top: in contemporary composed *regilaul* song. Bottom: in traditional South-Estonian *regilaul* song. In all the three words (syllable-groups), melodic accents on lexically stressed syllables are higher than on lexically unstressed syllables. In traditional singing the ratio between verse final syllables is reversed.

Figures 5 and 6 demonstrate that lexical stresses located on metrically different (strong or weak) positions in *broken verses* still coincide with melodic accents. In all the tri-syllabic words (syllable-groups), except the first group 3+2+3 in contemporary tradition, melodic accents on lexically stressed syllables are higher than on lexically unstressed syllables. But in old and contemporary tradition there are conversely sung the second and the third syllable of the tri-syllabic words. In old melody structures the third syllable is melodically stronger than in contemporary tradition. This difference can reflect the change in conception of singing tri-syllabic words. It is difficult to say, does this difference reflect a real change in Estonian language, i.e., is the accentuation of the third syllable weakened.

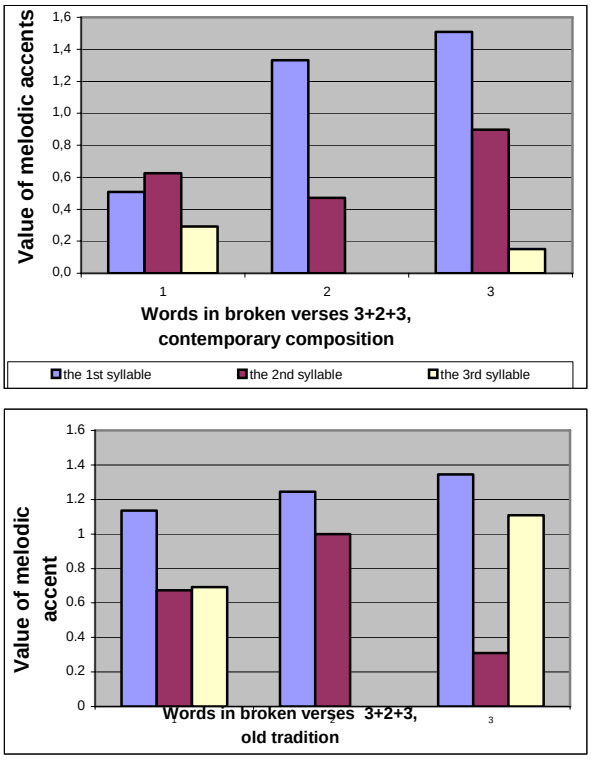

Figure 6. The average values of melodic accents computed for broken verses with structure 3+2+3. Top: in contemporary composed *regilaul* song. Bottom: in traditional South-Estonian *regilaul* song. In all words (syllable-groups), except the first group in 3+2+3, melodic accents on lexically stressed syllables are higher than on lexically unstressed syllables. In traditional singing the ratio between verse final syllables is reversed.

Now about the Lithuanian results. It can also be concluded that melody line is influenced by the prosodic structure of Lithuanian language (Figure 7). However, the influence is not strong compared to the Estonian case.

Figure 7. The average values of melodic accents computed for Lithuanian melodies, for lexically strong and weak positions. A, Ž, D, S: ethnographical regions of Aukštaitija, Žemaitija, Dzūkija, Suvalkija.

Probably there are some differences in significance of melodic accent between different ethnographic regions, although this cannot be stated definitely because of the small samples studied here. Anyway, generally the conclusion about the influence of melodic accent can be formulated with a sufficient confidence: for the obtained values of the Thomassen's accent strengths and for the total number of songs analyzed (16), confidence that melodic accent is larger for lexically accented notes (on average) equals 0.988.

Variable and invariable melodies

Hypothesis 2

There do exist variable and invariable melodies in *regilaul* tradition from the viewpoint of broken verses. *Broken verses*, having no synchronization between lexical stress and metrical stress serve as a precondition for melody variations. Although such kind melody variation is a very characteristic of *regilaul* tradition, there are several melodies that traditionally remain invariable.

Similar phenomena can be observed in Lithuanian songlore: There are melodies that tend to remain invariable whereas other melodies are characteristic of more or less abundant melostrophic variants.

We presume that variability depends on the placement of prominent melodic accents in the main form of melody. Probably melody variations are caused by contradiction emerging between melodically accentuated metric stresses and lexical stresses in broken lines. As metrical stress is implicated in very structure of *regilaul* and cannot be removed, singer tries to move melodic accent. If the variability really depends on the placement of melodic accents, melodic variability, consequently, depends on the main form of melody. It is supposed that invariable melodies have a specific sort of melody contour where lexical stresses coincide with melodic accents in both cases: in ordinary verses and in *broken verses*. To test this hypothesis, the values of melodic accents are compared in variable and invariable melodies. The materials from Karksi parish, South-Estonia, have been recorded in 1960–1975 by the team of Estonian Literary Museum, The Estonian Folklore Archives[iv], with the main purpose to preserve Estonian old folk songs. In oral tradition, every act of singing is also recreation of the song according to mental 'model'. Recordings made in 1960–1970s are from the last singers who belonged to oral *regilaul* singing tradition in this region, and they were able vary melody line while singing. The material consisted of 24 typical melody contours used in local tradition.

The analysis will concentrate on broken verses in order to explain in which cases melody variations really happen. As all recorded verses did not offer equally good material for this kind of study, the analysis was carried out on the most frequent case that can generate a melody variation. That is a tri-syllabic word at the verse final positions (units 6–8), very frequent in verses with structure 2+3+3 and 3+2+3. According to *regilaul* metre, in such structures lexically stressed syllable on the 6th position does not coincide with metrical stress, falling on adjacent 5th and 7th positions. Now melody variation is supposed to occur in 6-8 positions if the basic form of melody is not suitable for singing a tri-syllabic word.

The values of melodic accents according to Thomassen's model were computed for 3-note melody passages, corresponding to tri-syllabic words at the end of broken verse in old tradition (Särg 2005b: 190–198) and in contemporary compositions.

Results 2

The results for old singing tradition (Table 1) prove the hypothesis that occurrence of melody variations depends on the main form of melody: on its direction and the value of melodic accents.

melody type	the number of metric unit			variation	contour
	6	7	8		
1R(2)-1	1,2	1,1	0,7	var	1-5-4
1R(2)-2	0	0	1,8	not	0-0-4
2(2)-1	0	1,7	0,6	var	2-1-2
2(2)-2	0	2	0	var	1-0-0
3R, 3(2)-1	0,7	1,2	0,6	var	1-0-2
3(2)-2	0,7	1,5	0	var	1-0-0
4.2(2)-1	1	0	0	not	0-0-0
4.2(2)-2	0,5	0	0	not	0-0-0
4.3A(2)-1	1	1,5	0	var	1-0-0
4.3A(2)-2	0,7	1,5	0	var	1-0-0
4.3B-1	0,9	1,1	0,7	not	1-2-0
4.3B-2	1	0	0	not	0-0-0
4R	1	1,2	1,1	not	1-0-2
5(2)-1, 5R	0,6	1	1,5	not	0-1-2
5(2)-2	0	0	0	not	0-0-0
6R	0	2	0	not	0-2-2
7.1(2)-1	0,9	1,1	0,9	not	2-3-1
7.1(2)-2	1,2	0	0	not	0-0-0
7.2(2)-1	0,9	1,1	0,9	not	1-2-0
7.2(2)-2	1,2	0	0	not	0-0-0
10R(2)-1	0,7	1,5	0	var	1-0-0
10R(2) -2	0,7	1,2	1,1	var	1-0-2
11R(2)-1	0	1,5	1,2	var	5-3-0
11R(2)-2	0	1,5	1,2	var	5-3-0

Table 1. The values of melodic accents in typical melody contours classified and indicated with numbers as 'melody type' from Karksi parish, South-Estonia. The values of melodic accents are computed for the melody passages, corresponding to a trisyllabic word at the end of the verse, i.e., for the 6.–8. metric units in the main form of melody. Melodic accent was computed according to Thomassen's perceptual (1982) model. 'Variation' (values 'var' or 'not') refers, whether the main form of melody is varied in *broken lines* in the course of singing or not. 'Contour' indicates the generalized melody contour, numbers correspond to melody steps, starting from the basic tone.

First, variation takes place only in descending passages, i.e., if the 3-note passage, corresponding to tri-syllabic word in the main form of melody, begins with descending movement (cmp Figure 3). Conversely, singers do not vary melody when 3-note passage, corresponding to a word, starts with ascending movement (cmp Figure 2).

Second, only those main forms of melody that have weak melodic accent on the 6th position (i.e., on the 1st syllable of the three-syllabic word) and strong melodic accent on the 7th position (the 2nd syllable), are varied while singing (cmp Figure 3). In contrary, those main forms of melodies that have strong melodic accent on the 6th position (the 1st syllable) and weak melodic accent on the 7th position (the 2nd syllable), remain not varied and accepted by singers also in broken verses.

The results for contemporary composed *regilaul* melodies (Table 2) demonstrate that melody variations are used in all *broken lines*. Melody variation does not depend neither on the direction of melody passages nor values of melodic accents, as was the case in old tradition.

Those results, different from old *regilaul*-tradition, can interpreted in different ways. We can suppose that for contemporary singers a word, beginning on metrically weak position in *broken line*, sounds always very unusual, as they have used to contemporary song styles that synchronize lexical stress and metric stress. Likely contemporary singers know, but in fact do not perceive ancient metric opposition, basing on long and short syllables in *regilaul*. Therefore melody variations are always used in *broken lines* to give more prominence to the initial syllable, carrying main lexical stress but deprived metrical stress. We can also suppose that contemporary singers do not reflect too much on opposition between different kinds of accents, but uses melody variation as a very characteristic feature of *regilaul* style, to make their performance more ancient, diverse and attractive for listeners. Of course, results got from one South-Estonian parish do not represent all possibilities in *regilaul* tradition.

melody Nr.	the number of metric unit			variation	contour
	6	7	8		
2.1	0.7	1	1.5	var	2-1-0
2.2	0.7	1	1.2	var	6-5-4
4.1	0.2	0	0	var	0-0-0
4.2	1.2	0	0	var	0-0-0
7.1	0.7	1.5	0	var	2-0-0
7.2	1.2	0	0	var	0-0-0
13.1	1.2	0	0	var	0-0-0
13.2	1.5	0	0	var	0-0-0
15.1	0	2	0	var	1-0-0
15.2	0	2	0	var	0-1-1

Table 2. The values of melodic accents in contemporary compositions in *regilaul* style, indicated with numbers of songs on the CD (*Laudaukse kääksutajad* 2003). See Table 1 for notes.

For the evaluation of the melodic variability in Lithuanian examples, mean differences in *A*s (Thomassen's accent strengths) between lexically strong and weak notes were calculated, for each song. The results can be generalized as follows: Invariable melodies show value of 0.10 (difference in *A*s, on average) whereas variable melodies are characteristic of considerably lesser value, 0.02. It means that alternation of lexical stresses from melostrophe to melostrophe has little impact on melody (i.e., the melody remains invariable), unless the melody contour presupposes weak contrasts between melodic accent strengths.

Conclusions

Basic melodic structure of *regilaul* melody is influenced by the prosodic structure of Estonian language both in traditional melodies and in contemporary compositions in *regilaul*-style, because higher melodic accents coincide with lexical stresses.

Melody variations are caused by metrical variations that deprive lexically stressed syllable metrical stress. Singers change the placement of melodic accents by the mean of melodic variation to add prominence to lexically stressed syllable.

In traditional way of singing, melody variations in *broken lines* depend on the contour of the basic form of melody. Variation takes place, if contradiction between lexically stressed syllable and metrically stressed positions seems too vast for singers. In 3-note melody passages, corresponding to a tri-syllabic word at the end of the melody line, variation takes place on the assumption of following. Firstly, melody is varied only in descending passages, i.e., if the 3-note passage, corresponding to tri-syllabic word in the main form of melody, begins with descending movement. Secondly, melody is varied only in those main forms of melody that have relatively weak melodic accent on the 1st syllable of the tri-syllabic word and strong melodic accent on the 2nd syllable.

In contemporary composed *regilaul* melodies variations are used in all *broken lines*. Melody variation does not depend neither on the direction of melody passages nor values of melodic accents, as was the case in old tradition.

Melodic accent is larger for lexically accented notes (on average) in Lithuanian songs as well. Alternation of lexical stresses from melostrophe to melostrophe can result in variability of the melody. The weaker contrasts between melodic accent strengths are, the bigger chance the melody will change.

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[i] In the present study, modified formula $A_i=P_i(C_{i-1},C_i)$ + $P_i(C_i,C_{i+1})$ is used for the Estonian part and the original Thomassen's formula $A_i=P_i(C_{i-1},C_i)$ x $P_i(C_i,C_{i+1})$ is used for the Lithuanian part.

[ii] As Karksi parish is situated in the Western part of South-Estonia, its local dialect and *regilaul* tradition are considered to be intermediate cases between 'pure' South-Estonian (located in Eastern areas) and North-Estonian traditions.

[iii] Two initial positions have quite equal melodic accents. The different nature of two initial positions could have several reasons. The first reason was mentioned above: the melodic context is not sufficiently shaped out. The second – it could be that the melodic context in the beginning of a song line is exceptional compared to the rest, because usually there is a rise in melody movement. The third – two first positions are also exceptional from the aspect of lyrics, because at the verse beginnings have several metric freedoms not allowed to in other metric feet (the rules determining the syllable length are not valid; there can be more than two syllables).

[iv] The Archives were named The Department of Folklore at that time.