Rytis AMBRAZEVIČIUS

Time Performance Rules in Dzūkai Solo Singing*

Laiko domeno atlikimo dėsniai dzūkų soliniame dainavime

Lithuanian Academy of Music and Theatre, Gedimino Ave. 42, 01110 Vilnius, Lithuania
Email: rytisamb@gmail.com

Abstract
At the beginning of the paper, the general features of "live" music performance, its differences from mechanically accurate performance, and techniques for examining those differences and setting out the performance rules are discussed. The focus is on the time performance rules, that is, systematic differences in durations from the nominal ones presented in notations. It is further explored how these rules (duple rhythm rules inégales, "duration contrast," "double duration," as well as triple rhythm rules, and the rules "phrase arch" and "final ritardando") manifest themselves in traditional Dzūkai (a Lithuanian music dialect) solo singing. The similarities and differences of this manifestation in comparison with the results of previous studies of other music styles are discussed.
Keywords: performance rules, tempo curves**,** Lithuanian traditional singing, Dzūkai.

Anotacija
Straipsnio pradžioje aptariami bendrieji gyvo muzikos atlikimo bruožai, jo skirtumai nuo mechaniškai tikslaus atlikimo; tų skirtumų tyrimo metodai ir jais nustatomi atlikimo dėsniai (arba taisyklės). Daugiausiai dėmesio skiriama laiko domeno atlikimo dėsniams, t. y. sistemingiems trukmių skirtumams nuo nominaliųjų, fiksuojamų notacijose. Toliau nagrinėjama, kaip šie dėsniai (dvidalio ritmo *inégales*, „trukmės kontrasto", „dvigubos trukmės" dėsniai, taip pat tridalio ritmo dėsniai, „frazės arkos" ir „pabaigos ritardando" dėsniai) pasireiškia tradiciniame dzūkų soliniame dainavime. Aptariami šios raiškos panašumai ir skirtumai lyginant su ankstesnių kitų muzikos stilių tyrimų rezultatais.
Reikšminiai žodžiai: atlikimo dėsniai, tempo kreivės, tradicinis lietuvių dainavimas, dzūkai.

Live music performance differs from its image in score with various inaccuracies. In other words, just inaccuracies and irregularities make music alive and real. For example, even if you try to perform the rhythm precisely mechanically, the result will still have "errors"—primarily due to the JND (just noticeable difference) of duration (i.e., because small differences in duration are not perceived).[1] Also, when trying to accurately intone all pitches or singing all syllables equally loudly, the result can differ significantly from the desired goal.

These are chaotic irregularities, so-called performance noise. But much more interesting are the systematic irregularities caused by the musical context and emotions; they are even desirable. Without them, music would sound unnatural. In the domain of time, this is called expressive timing (cf. Todd 1985; Clarke 1989; Repp 1998; Ohriner 2019) and is also referred to as microtiming or microrhythm (but, correctly, the latter two concepts also include the aforementioned performance noise). We should also take into account the domains of pitch, loudness, and timbre; they are all more or less characterized by those systematic irregularities. Such irregularities are expressed in so-called performance rules. These rules objectify the regular deviations from the exact (mechanical, monotonous, ideally intoned) prototype characteristic of live music performance with specific tendencies, formulas, and algorithms. For time performance rules, these formulas can be presented in a refined and precise way or in simpler way to indicate a prolongation or shortening of durations; then symbols L (long), S (short), and I (intermediate) are used.

The rules can be disclosed in two ways. First, an "exact" version of the musical material is provided, and listeners are asked to adjust it to sound natural (this is possible with modern computer tools). Or: many versions of the musical material are provided and listeners are asked to choose the one that sounds most natural. Second, existing performance recordings are analyzed and measured, and characteristic systematic deviations are determined from them. Computational models of music performance and performance rule sets are designed by various authors (cf. Todd 1992; Widmer 1995; Arcos, de Mantaras, and Serra 1998; Mazzola 2002; Widmer and Goebl 2004). Probably the most

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comprehensive set of the rules was provided by a group of Swedish scientists (Friberg, Bresin, and Sundberg 2006).

Perhaps the most suitable object for study of the rules[2] (and therefore the most common) is piano music, especially Romantic piano music and, in particular, in terms of rhythm. This is due to the sound of this instrument, measurement techniques, and style features. Piano sound attacks are short, so it is not difficult to measure sound durations from sound recordings accurately enough. In addition, such measurements can be automated by connecting a sensor system to the keyboard or (even simpler) by using a synthesizer keyboard. The expressiveness inherent in the Romantic piano performance presupposes sufficiently large deviation values, and the performance rules are clearly articulated.

In general, the time performance rules are best studied (compared to the rules in other domains). However, in the case of instruments with longer sound attacks, as well as voice, these rules are more difficult to investigate. It is necessary to measure the moments of the attacks manually and to capture the "beats" of the attacks by sight, approximately. This work is time consuming. Moreover, in vocal performance, an additional factor that modifies durations appears. It's phonetics: the same rhythm pattern can be performed a little differently with different lyrics.

It should be noted that it is not the real durations (time intervals from the beginning to the end of the sounds) that are measured, but the rhythmic durations that determine the perception of the rhythm—the time intervals between the perceived attacks of sounds (IOIs—Inter-Onset-Intervals). The results of these measurements are graphically represented by so-called tempo curves, which represent the durations of sounds from the beginning to the end of a melody, noting their difference from the averaged, mechanically precise durations (see the examples in Fig. 6 further in this paper).[3] In other words, if the durations of the sounds were "accurate," ideally matching the notation, the points denoting them would be on the zero line. Deviations from that line indicate rhythm unevenness.[4]

The study of performance rules in written and oral cultures differs fundamentally in one aspect. In written culture, the nominal values of sound durations and pitches are known; they are fixed in the score. The notation is prescriptive. However, when examples of oral culture are transcribed, those nominal values are, strictly speaking, only guessed. That notation is descriptive; emic/etic issues can appear. Therefore, we have to rely on those examples for which we do not doubt our "guesses" presented in the scores.

There is not much research on expressive timing[5] and performance rules in general in traditional music. We can mention the research of Norwegian folk songs (Ledang 1967), studies of rhythm in Swedish folk instrumental music (Bengtsson, Gabrielsson, and Thorsén 1969), entrainment (general and specific matters; Clayton, Sager, and Will 2005), timing in Kazakh dombra performances (Wright 2005), Aksak rhythm in Transylvanian fiddle music (Bonini Baraldi, Bigand, and Pozzo 2015), and several chapters about expressive timing in Danielsen 2010. The author of the current paper conducted some pilot studies on pitch and time performance rules in Lithuanian traditional music (Ambrazevičius and Wiśniewska 2008; Ambrazevičius 2018; 2019; also several references in Lithuanian). The current paper presents results of an extensive study on the time performance rules in traditional singing in one of the ethnographic regions of Lithuania, Dzūkija (southeastern Lithuania). The Dzūkai singing style is characterized by an abundance of monophony (uncommon in other regions) and a large number of individual singers.

Sample

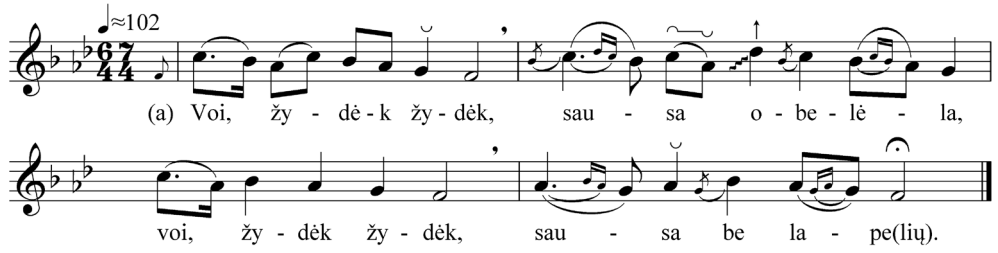
For the acoustic analysis, sound recordings of ten songs were selected (see the transcriptions in Fig. 1 and information on recordings in the appendix). The recordings were made in the last three decades of the twentieth century. All ten singers (seven females and three males) were typical, renowned performers of the Dzūkai singing style, known as the "song kings and queens." Thus, the reliability and suitability of the recordings for acoustic analysis and statistical generalization cannot be questioned. The genres of the songs are diverse, but ametric drawn-out songs (such as certain rye harvesting songs) are avoided because they do not fall within the scope of the performance rules in question.

Duple rhythm patterns

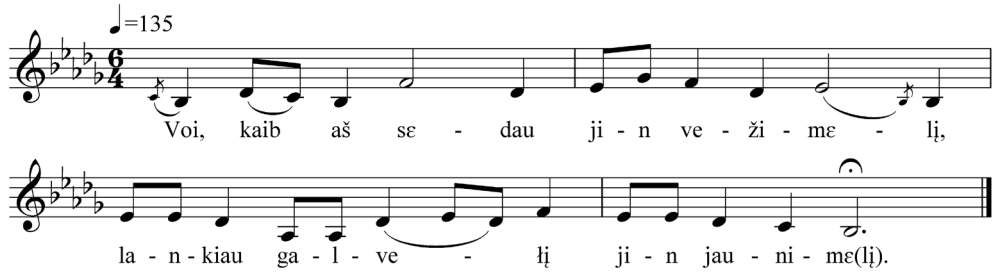
In the classification by Swedish researchers, the division of a rhythmic unit into two parts is defined by three rules, "duration contrast," "double duration," and "inégales" (Friberg, Bresin, and Sundberg 2006: 148). "Duration contrast" means "shortening relatively short notes and lengthening relatively long notes" and "double duration" means "decreasing duration ratio for two notes with a nominal value of 2:1" (ibid.).

Inégales. Here we will start from the "inégales" rule, which means "introducing long-short patterns for equal note values (swing)." In other words, the first tone in a pair of two tones is slightly lengthened, the second is shortened,[6] although both are denoted by the same rhythmic values.[7] This pattern is "commonly found in a variety of musical styles including Baroque (Hefling 1993), folk, as well as jazz music" (Friberg, Bresin, and Sundberg 2006: 150).[8]

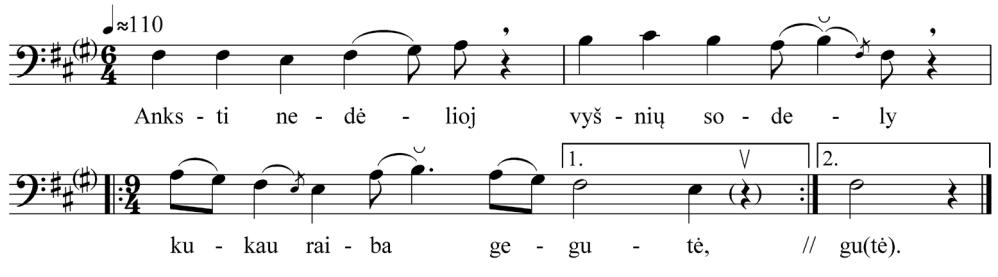
BB


♩≈102
(a) Voi, žy - dė - k žy - dėk, sau - sa o - be - lė - la,
voi, žy - dėk žy - dėk, sau - sa be la - pe(lių).

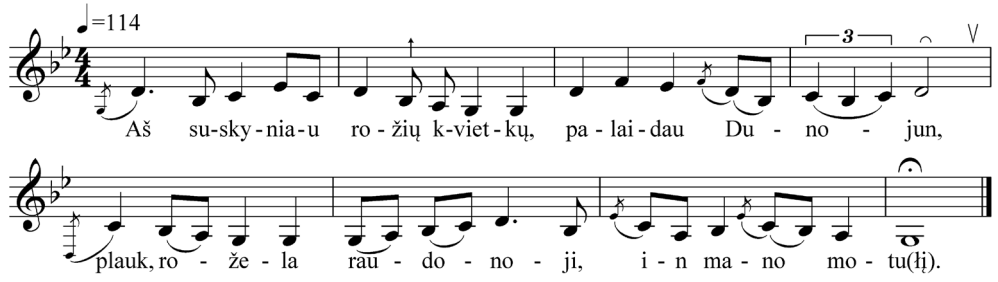
BK


♩=135
Voi, kaib aš sɛ - dau ji - n ve - ži - mɛ - lį,
la - n - kiau ga - l - ve - lį ji - n jau - ni - mɛ(lį).

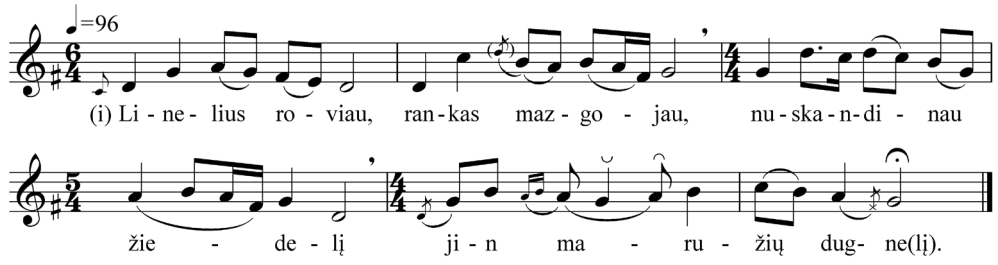
JJ


♩≈110
Anks - ti ne - dė - lioj vyš - nių so - de - ly
1.
2.
ku - kau rai - ba ge - gu - tė, // gu(tė).

MN


♩=114
3
Aš su-sky-nia-u ro - žių k-viet-kų, pa - lai - dau Du - no - jun,
plauk, ro - že - la rau - do - no - ji, i - n ma - no mo - tu(lį).

MŠ


♩=96
(i) Li - ne - lius ro - viau, ran - kas maz - go - jau, nu - ska - n - di - nau
žie - de - lį ji - n ma - ru - žių dug- ne(lį).

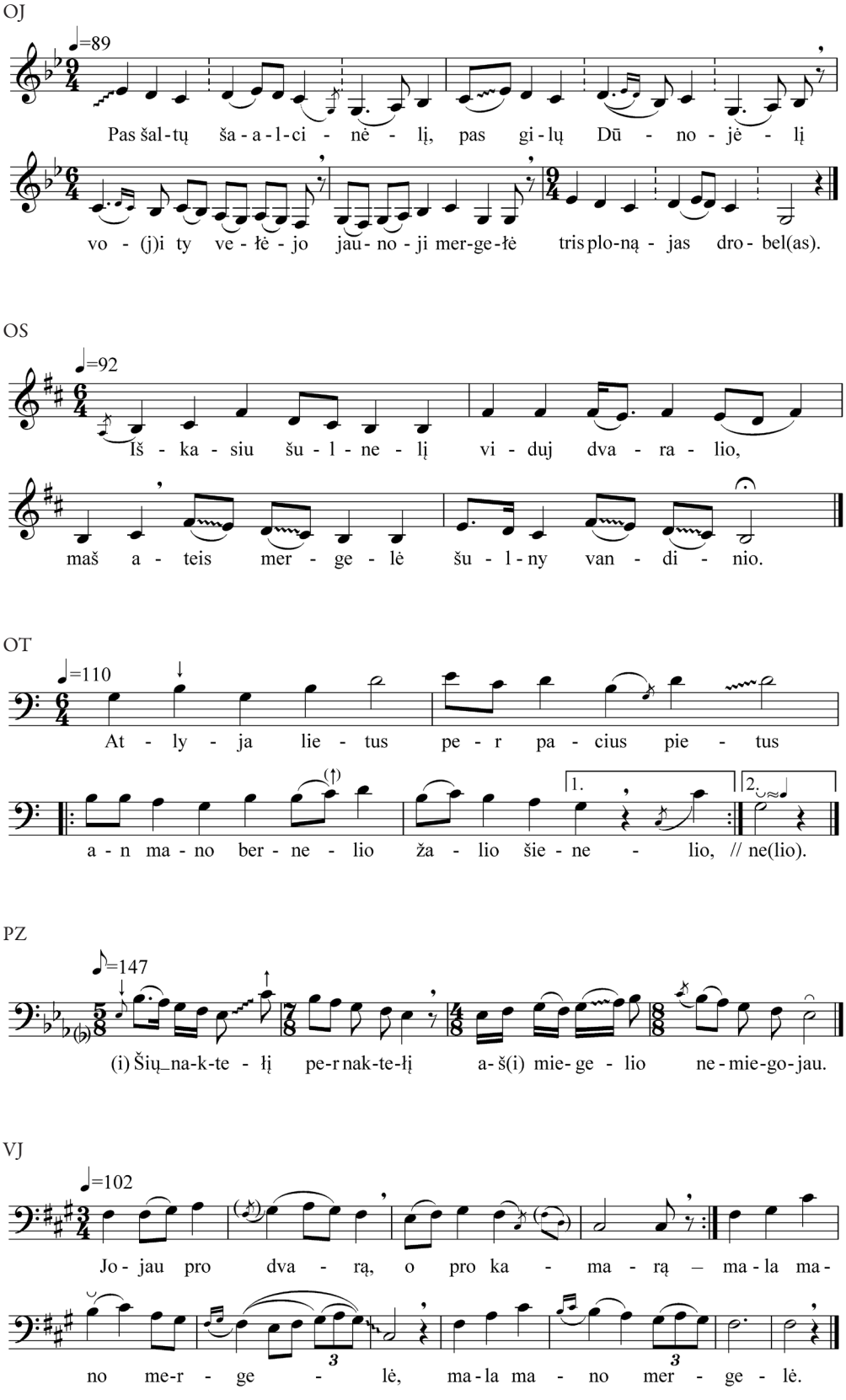


Figure 1. Transcriptions of the first melostrophes of the examined song recordings.

In our previous studies (Ambrazevičius 2018; 2019), we also found that a slight version of the pattern LS is characteristic of three Lithuanian musical dialects, Aukštaičiai, Žemaičiai, and Suvalkiečiai. Medians and interquartiles (in parentheses) of T1/T2 (ratio of the first and second durations in the pair) for the examined samples of the dialects are, respectively, 1.09 (0.96–1.21), 1.01 (0.88–1.12), and 1.06 (0.98–1.17). However, in the case of Dzūkai, these numbers are as follows: 0.77 (0.69–0.92). So here we are faced with the phenomenon of "inverted swing" (SL) or, in terms of Friberg and colleagues, with negative k (coefficient for the intensity of rule) values.

Here we must emphasize that the samples examined in these studies covered short durations, up to approximately 480 ms, usually presented in sixteenth or eighth notes. In the current paper, we also look at ratios of longer durations (typically presented in quarter notes). The first melostrophes of all ten examples were considered. Fig. 2 shows the pooled results (112 occurrences in total).

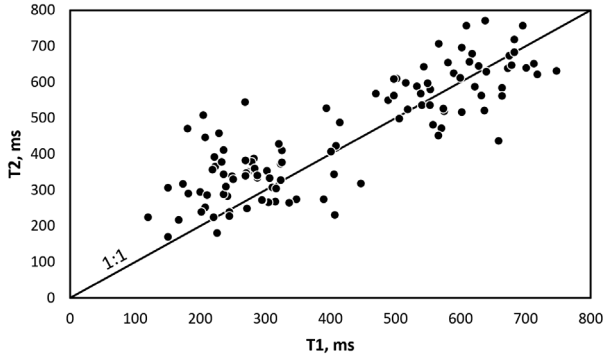


Figure 2. Actual durations of paired sounds nominally presented in equal rhythmic values. The oblique line marks the exact proportion 1:1.

The dots above the line 1:1 correspond to instances of a longer second sound and the dots below the line correspond to instances of a longer first sound. We can distinguish two cases. For short durations (up to roughly 400 ms), instances of "inverted swing" (pattern SL) prevail. For long durations (longer than roughly 400 ms), the prevalence of "inverted swing" is not so pronounced.

The results for short durations show basically the same trends as in our previous studies performed with other data. Thus, we can conclude that, for short durations in Dzūkai vocal performance, the pattern SL is valid. For the long durations, is the question of which formula is better to choose—SL or IL. These rules work as certain markers (idiosyncrasies) of the regional singing dialect.

Duration contrast. The "duration contrast" rule applied to the duration ratio 3:1 (such as dotted eighth note/sixteenth note or dotted quarter note/eighth note) means higher actual contrast, for example, 3.5:1, 4:1, or the like.[9] The patterns 3:1 were found in four examples of the examined Dzūkai singing (BB, MN, OJ, and PZ); occurrences in all melostrophes were considered. Figure 3 shows the results (see the black dots). It can be seen that the range of actual duration ratios is very wide, almost from 1:1 to 5:1. Values greater than 3:1 are consistent with the previous findings discussed and the performance rule formulated. However, the case of the "reverse rule" is more interesting—when the contrast is weakened and the duration ratio reaches almost 1:1. Perhaps this results from a certain performance limit: durations shorter than roughly 150 ms are probably limited by physiological possibilities of singing and/or the perception/performance of "real" (i.e., structural, non-ornamental) sounds. The argument for a nominal ratio of 3:1 (rather than, for example, 2:1) in transcriptions is as follows: if in other sections of the performance the quarter note is systematically split into two notes (eighths) of roughly equal duration (see examples BB and PZ in Fig. 1), a sequential division by two (four, eight) is psychologically easier, making it more likely in LS patterns as well. The case of performance PZ is noteworthy: the first quarter note of the first melostrophe (see Fig. 1; syllable *šių*—two notes summed up) takes 1185 ms, then the singer gradually accelerates the tempo and the corresponding quarter note of the last (16th) melostrophe takes only 449 ms. Since the duration has a lower boundary, the contrast of the durations naturally decreases.

The possibility of the "inverted" rule and the lower boundary of duration were also discussed by the Swedish researchers; the lower boundary at about 100 ms was estimated for jazz performances (Friberg, Bresin, and Sundberg 2006: 150). The researchers attribute the decrease in duration contrast to the area of emotions: "increasing duration contrast appears to have the perceptual effect of increasing the 'energy' of the performance, while decreasing the contrast creates the opposite smoothing, 'calm' effect. Performers used duration contrast in such a way when expressing different emotions" (Gabrielsson and Juslin 1996, cf. Bresin and Friberg 2000). However, in the examples of Dzūkai singing discussed here, the influence of emotion is hardly discernible. The physiological and psychological causes mentioned are most likely.

Double duration. The "double duration" rule works the opposite of the "duration contrast" rule; the 2:1 contrast is reduced. The conflict between these rules "is solved by not allowing Duration contrast to trigger when Double duration can be applied" (Friberg, Bresin, and Sundberg 2006: 150).

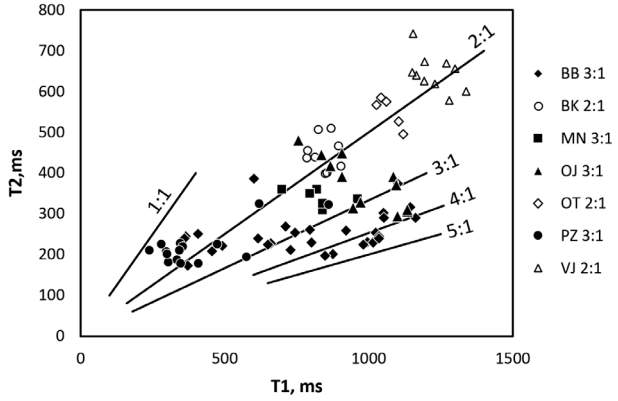


Figure 3. Actual durations of paired sounds nominally presented in ratios of rhythmic values 2:1 and 3:1. The oblique lines mark the exact proportions.

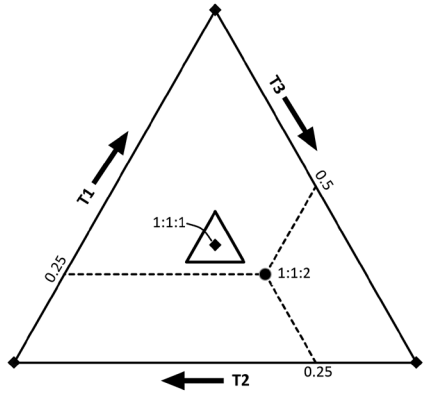


Figure 4. "Rhythm space" scheme. The composition of one example (1:1:2) is shown. The inner triangle indicates the area shown in Fig. 5 (1.5:1:1, 1:1.5:1, 1:1:1.5).

Slight manifestation of the rule is also noticeable in the analyzed examples of Dzūkai singing (Fig. 3; white dots); the median of the actual ratios is 1.85. The contrast range for the "double duration" rule is much narrower than for the "duration contrast" rule.

Triple rhythm patterns

In the classification of Swedish researchers, triple rhythm patterns are not discussed. The "classical" studies on the interpretation of the rhythm pattern 1:1:1 are the studies by Ingmar Bengtsson and colleagues on the rhythm of Viennese waltzes (Bengtsson, Gabrielsson, and Thorsén 1969; Bengtsson 1974; Bengtsson and Gabrielsson 1983). The studies showed "short-long-intermediate" (SLI) pattern of the three beats in the bar. In other cases, various interpretations of the three-part meter are possible (Gabrielsson, Bengtsson, and Gabrielsson 1983).

When studying the performance of nominal rhythm values 1:1:1 (i.e., four sound attacks), it is convenient to use the model proposed by Henkjan Honing, so-called "rhythm space" or "chronotopological map" (Honing 2013: 372–373). Durations are normalized so that there is unit duration between the first and fourth events. In other words, the sum of the three durations is 1. For example, if all durations are equal (1:1:1), normalization gives 0.33:0.33:0.33. The ratio 2:1:1 gives 0.5:0.25:0.25, 2:2:1 gives 0.4:0.4:0.2, and so on. Such and various other combinations (rhythmic patterns) can be represented in the "rhythmic space" of an equilateral triangle (Fig. 4).

The triple rhythm patterns were found in five song examples under investigation. The patterns in all melostrophes of the songs were examined. Fig. 5 shows the results. The examples are not pooled since their individual differences are significant. Namely, the example OT shows an almost ideal correspondence of the average duration ratio to 1:1:1. We can conclude that Ona Tūbinienė sings very evenly, with sound durations varying far less than one and a half times their nominal value. The cases of BK and JJ are different, slight tendencies to lengthen the final sounds are noticeable. To generalize, Dzūkai singers perform the pattern 1:1:1 in various ways, but there is a weaker or stronger tendency to prolong the last sound, that is, to apply the formula SSL (or even ISL). Thus, the pattern differs from the one found in Viennese waltz and could serve as a marker of the regional singing style.

Phrase arch and final ritardando

The discussed classification contains two more rules related to the sphere of time, "phrase arch" and "final ritardando." "Phrase arch" means "creating arch-like tempo and sound level changes over phrases" and "final ritardando" means "applying a ritardando in the end of the piece." Here we consider only time phenomena, so we'll leave the sound level for the next study. The time performance rules are visualized by the tempo curves; they take a shape of "U" or "V," meaning that the durations shorten towards the middle of the phrase, further lengthening to the end of the phrase. In other words, the tempo accelerates towards the middle of the phrase, further slowing down to the end of the phrase.

This section is short, as it only needs to confirm that these rules do not appear in traditional Dzūkai singing (or Lithuanian singing in general). See two examples of the tempo curves in Fig. 6.

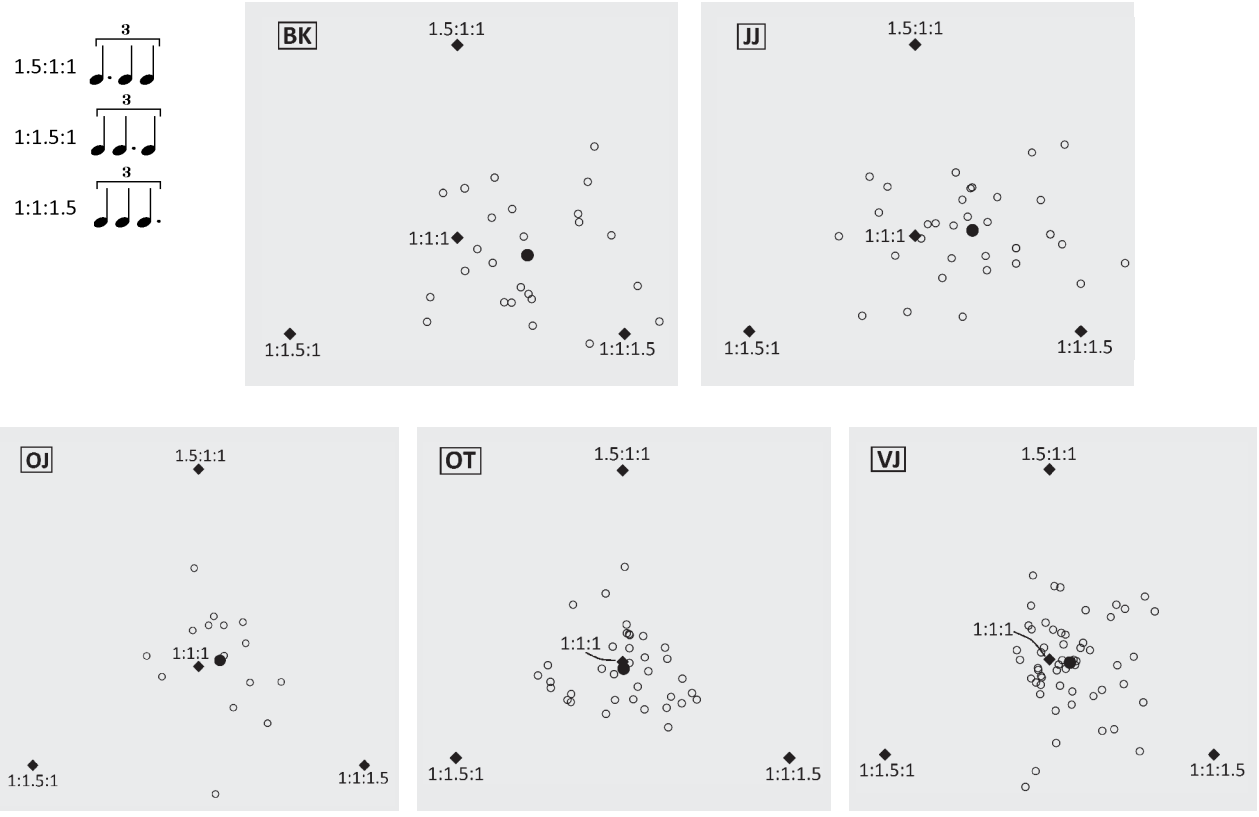


Figure 5. "Rhythm spaces" for different performances. The large black round dots indicate mean values.

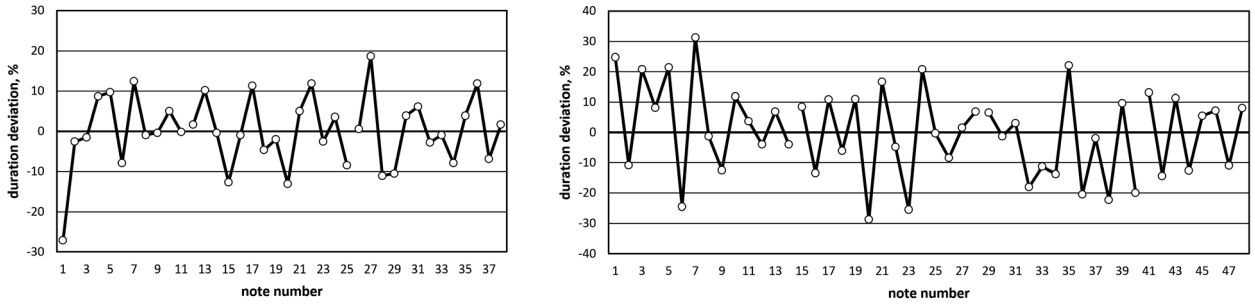


Figure 6. Tempo curves. Top: OT, bottom: VJ. Phrases separated by gaps.

In both cases, the adjacent durations fluctuate quite sharply, but on larger time scales no pronounced change in local tempo is seen (in the case of VJ, we can only state some acceleration of the tempo in the beginning of the melody). In terms of phrase arch and final ritardando, other eight examples are analogous—these performance rules do not manifest. Based on our experience, we can tentatively state that these performance rules do not appear in other dialects of Lithuanian traditional singing either; the final ritardando rule manifests itself in newer styles of singing, such as romance-type songs. But the phrase arch rule probably doesn't work even in this case.

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The ascertained regularities of Dzūkai solo singing create preconditions for creating a "map" of style; they manifest themselves as markers of regional style (idiosyncrasies). Compared to the performance rules identified on the basis of academic music performance research, we can draw conclusions about the universal and local expressions of the rules. The proposed methods can be applied to the study of the stylistics of other dialects of traditional singing.

Endnotes

1 Different authors provide quite different estimates of the duration JND, from 5–10 (Woodrow 1951) to 1–3 (Michon 1964; Povel 1981) percent. This means that the inequality of durations begins to be realized if those durations differ by 1–10%. The relative diversity of these numbers is explained by different experimental conditions.

2 This refers in particular to the second method mentioned above, that is, analysis of performance recordings.

3 See a detailed explanation of how such curves are designed in Clarke 2004: 81–84.

4 The tempo curves show deviations of durations, not of tempo. Strictly speaking, the tempo curves should be the opposite of the "duration curves" in question: the longer the duration (higher values), the slower the tempo (lower values).

5 By the way, the use of the term of expressive timing in the study of traditional music performance deserves a separate discussion. For example, in Lithuanian traditional singing, distinct external expression and emotionality manifest themselves only in certain cases. Therefore, we avoid using this term.

6 In his previous paper (1991: 59), Anders Friberg estimated that the "duration of the tones appearing in metrically stressed positions may be lengthened by 22 percent of their duration, and the following tone is shortened by the same amount."

7 The authors add that "in this case, other notational praxes have been used such as using patterns of a dotted eighth note followed by a sixteenth note" (Friberg, Bresin, and Sundberg 2006: 158).

8 The research of inégales by Swedish authors in Swedish folk instrumental music is noteworthy. For example, rhythmic values of 4/4 meter are interpreted as follows: the ratio of the first and second parts in bar is LS, and they are also split according to the LS formula (the first quarter is longer than the second; the third quarter is longer than the fourth). However, a finer division into eighths is the inverse, that is, SL (cf. Bengtsson, Gabrielsson, and Thorsén 1969). Richard Franklin Rose shows (1989) that, in the case of jazz ballads and swing, the 4/4 meter quarters are interpreted according to the SLSL formula and the eighths according to the LS, thus in contrast to the examples of Swedish folk instrumental music.

9 This rule has been quite extensively studied. See more detailed estimates in certain cases (cf. Friberg 1991: 60; Gabrielson and Juslin 1996; Friberg and Sundström 2002). A typical "classical" example of the manifestation of this rule can be detected in the examples of the performance of one sonata (Mozart's Piano Sonata in A Major, K.331) discussed by Alf Gabrielsson (1987); here the nominal patterns 3:1 (dotted eighth note/sixteenth note) are systematically performed with more contrast.

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Appendix. Sound recordings examined

BB: *Voi žydėk žydėk* ("Oh Bloom, Bloom"; wedding song). Bronė Bogušienė, Dulgininkai, Lazdijai Dst.; Četkauskaitė 1986: N38; 1995: N29.

BK: *Voi kaib aš sɛdau in vežimɛlį* ("Oh, When I Was Climbing onto the Cart"; wedding song). Bronė Kašalynienė, Viečiūnai, Druskininkai municipality; Četkauskaitė 2007: N62.

JJ: *Anksti nedėlioj* ("On Early Sunday Morning, In the Cherry Orchard"; wedding song). Jonas Jakubauskas, Žagariai, Seinai county.; Ambrazevičius 1999: N19.

MN: *Aš suskyniau rožių kvietkų* ("I Picked a Bouquet of Roses"; family song). Marė Navickienė, Mitriškės, Varėna Dst.; Četkauskaitė 1995: N34.

MŠ: *Linelius roviau* ("I Was Pulling Flax"; flax pulling song). Marija Ševerenkienė, Linksmoji, Lazdijai Dst.; Četkauskaitė 2007: N25.

OJ: *Pas šaltų šalcinėlį* ("At a Cold Spring"; grinding, washing, and linen bleaching song). Ona Jauneikienė, Masališkės, Varėna Dst.; Četkauskaitė 1995: N19.

OS: *Iškasiu šulnelį* ("I'll Dig a Well"; Shrovetide song). Ona Sorakienė, Mečionys, Lazdijai Dst.; Zakarienė 2007: N6.

OT: *Atlyja lietus* ("Rain Is Coming"; haymaking song). Ona Tūbinienė, Kalviai, Trakai Dst.; Četkauskaitė 2007: N11.

PZ: *Šių naktelį, per naktelį* ("Tonight, Overnight"; wedding song). Petras Zalanskas, Mardasavas, Varėna Dst.; folk music archives at Lithuanian Academy of Music and Theatre.

VJ: *Jojau pro dvarą* ("I Was Riding across the Farm"; grinding song). Vincas Jurčikonis, Babrai, Lazdijai Dst.; Četkauskaitė 1995: N18; 2007: N26.

Santrauka

Muzikinio konteksto ir emocijų sąlygoti sistemingi muzikinio atlikimo netaisyklingumai (gyvo muzikos atlikimo skirtumai nuo mechaniškai tikslaus) išreiškiami vadinamaisiais atlikimo dėsniais (ar taisyklėmis, angl. *performance rules*). Laiko domeno atlikimo dėsniai yra geriausiai ištirti (palyginti su dinamikos, aukščio ir kt.). Juos tiriant naudojamos „tempo kreivės", kurios vaizduoja atlikimo garsų sekos trukmių nuokrypius nuo mechaniškai tikslių. Trukmių matavimus nesunku atlikti, kai garsų atakos yra trumpos ir aiškios. Tačiau instrumentų, kurių garso atakos yra ilgesnės, taip pat balso atveju, šiuos dėsnius tirti sunkiau. Tyrimų apie atlikimo dėsnius tradicinėje muzikoje nėra daug. Šiame straipsnyje pateikiami tokių dėsnių dzūkų dainavimo tradicijoje tyrimo rezultatai.

Akustinei analizei pasirinkti dešimties dainų garso įrašai. Visi dešimt dainininkų buvo tipiški žinomi dzūkų tradicinio dainavimo stiliaus atstovai. Nagrinėjama, kaip atlikimo dėsniai (pasiremiant jų nomenklatūra straipsnyje Friberg, Bresin, and Sundberg 2006) pasireiškia šiuose solinio dainavimo pavyzdžiuose.

Pirmiausia tiriami dvidalio ritmo atlikimo dėsniai – *inégales*, „trukmės kontrasto" (angl. *duration contrast*) ir

„dvigubos trukmės“ (angl. *double duration*) dėsniai. *Inégales* dėsnis aprašo, kaip interpretuojamas dviejų vienodų ritminių verčių darinys. Nustatyta, kad trumpoms dzūkų dainavimo garsų poroms galioja modelis SL (angl. *Short-Long*, t. y. tarsi nežymiai „sinkopuojama“). (Kitų lietuvių tradicinio dainavimo dialektų atveju yra atvirkščiai.) Intonuojant ilgesnes trukmes ši tendencija ne tokia ryški.

„Trukmės kontrasto“ dėsnis teigia, kad (pirmos) didesnės ir (antros) mažesnės ritminių verčių darinys iš tikrųjų atliekamas kontrastingiau. Pavyzdžiui, aštuntinės su tašku – šešioliktinės realių trukmių santykis didesnis negu 3:1. Nustatyta, kad šio dėsnio raiška dzūkų dainose labai plati – aptariamasis santykis gali būti nuo apytiksliai 1,5:1 iki 5:1, t. y. pastebimos ir atvirkštinės tendencijos.

„Dvigubos trukmės“ dėsnis teigia, kad ritminių verčių 2:1 (pavyzdžiui, ketvirtinė – aštuntinė) darinys atliekamas iš tikrųjų ne taip kontrastingai – realių trukmių santykis mažesnis negu 2:1. Šis dėsnis priešingas „trukmės kontrasto“ dėsniui. Pagal minėto švedų mokslininkų tyrimo rezultatus, kai reiškiasi „dvigubos trukmės“ dėsnis, „trukmės kontrasto“ dėsnis „išjungiamas“. Silpna „dvigubos trukmės“ dėsnio tendencija pastebėta ir tirtuose dzūkų dainavimo pavyzdžiuose.

Tridalio ritmo dėsniai nagrinėti pasiremiant „chronotopologinio žemėlapio“ metodu (Honing 2013: 372–373). Dzūkų dainininkai darinį 1:1:1 atlieka įvairiai, tačiau juntama silpnesnė ar stipresnė tendencija pratęsti paskutinį garsą, t. y. pritaikyti formulę SSL (ar ISL – angl. *Intermediate-Short-Long*). Beje, tai skiriasi nuo Vienos valso ritmo interpretavimo (SLI).

Aptariamoje klasifikacijoje (Friberg, Bresin, and Sundberg 2006) yra dar du dėsniai, susiję su laiko sfera – „frazės arka“ (angl. *phrase arch*) ir „pabaigos ritardando“ (angl. *final ritardando*), jie būdingi akademinės muzikos atlikimui (pirmiausia vakarietiškos klasikos ir romantizmo muzikai). „Frazės arka“ apibrėžiama taip: „sukurti arkos tipo tempo ir garso lygio pokyčius frazėje“. „Pabaigos ritardando“: „ritardando pritaikymas kūrinio pabaigoje“. Šie dėsniai neaptikti tradiciniame dzūkų dainavime. Remdamiesi savo patirtimi galime preliminariai teigti, kad šie atlikimo dėsniai nebūdingi ir kitiems lietuvių tradicinio dainavimo dialektams.

Nustatyti dzūkų solinio dainavimo dėsningumai sudaro prielaidas kurti stiliaus „žemėlapį“; jie reiškiasi kaip regioninio stiliaus žymenys, idiosinkrazijos. Lyginant su atlikimo dėsniais, nustatytais pasiremiant akademinės muzikos atlikimo tyrimais, galima įžvelgti universalią ir lokalią dėsnių raišką. Siūlomus metodus galima pritaikyti tiriant ir kitų tradicinio dainavimo dialektų stilistiką.

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