

---

# Phonotactic Properties of Turkish Folk Music Phonetic Notation System/TFMPNS: Urfa Region Sample

**Gonca Demir**

Istanbul Technical University Turkish Music State Conservatory, Vocal Performance Department, Istanbul, Turkey

**Email address:**

[gnc.dmr@windowslive.com](mailto:gnc.dmr@windowslive.com)

**To cite this article:**

Gonca Demir. Phonotactic Properties of Turkish Folk Music Phonetic Notation System/TFMPNS: Urfa Region Sample. *Humanities and Social Sciences*. Vol. 3, No. 4, 2015, pp. 125-132. doi: 10.11648/j.hss.20150304.11

---

**Abstract:** Turkish folk music has a privileged place in music types due to regional dialect varieties. The future of Turkish folk music depends on protection of its attitude originating from dialect differences and its resistance against change. Turkish folk music regional dialect properties are transcribed by Turkish Linguistic Institution Transcription Signs/TLITS depending on linguistic laws in axis of phonetics, morphology and parole existence. On the other hand, depending on musicological laws, regional dialect properties of Turkish folk music which is a verbal/artistic performance type structured in axis of linguistic approaches in ethnomusicology-performance/display theory are also transcribed by Turkish Linguistic Institution Transcription Signs/TLITS. It is determined and approved by linguistic/musicology source and authorities that this reality which is also present in other world languages can be transferred to notation and vocalized again and again in accordance with its original through International Phonetic Alphabet/IPA existence and usability of which have been registered by local and universal standards through the notification that will be submitted. In order to initiate an application parallel to applications in national/international platforms a suggestion was made under the scope of ITU SBE TMP Post Graduation Program thesis, it will be developed under the scope of ITU SBE MJT Doctorate Program thesis, therefore Turkish Folk Music Phonetic Notation System/TFMPNS based on Turkish Linguistic Institution Transcription Signs/TLITS and International Phonetic Alphabet/IPA sounds in axis of linguistics/morphology measures together with local/universal attachments will be introduced; the conveying and adaptation processes of phonotactic properties (defined as a field of science examining the voices that may and may not be placed respectively in a language, phonology/voice combination/voice coalescence rules) to Turkish Folk Music Phonetic Notation System/TFMPNS will be realized. Gele Gele Geldim Bir Kara Dasa folk music text which is one of the 128 melodious poetical literature examples transcribed by Urfa/Kerkük/Tallâfer Dialects Turkish Linguistic Institution Transcription Signs/UKTD TLITS and musics recorded live in music assemblies between years 1967-1987 and phonograph records were selected as sample material (together with voice record compiled from a source person who is expert in the regional music and universal correlations) that will be examined by phonotactic theory/analysis method according to scientific compilation rules. Besides, detailed emphasize will be made on Turkish Folk Music Phonetic Notation System of Phonotactic Awareness Skill Development Processes/TFMPNS PASDP-Turkish Folk Music Phonetic Notation System of Phonotactic Therapy Applications/TFMPNS PTA-Turkish Folk Music Phonetic Notation System of Phonotactic Probability Calculator Database/TFMPNS PPCD.

**Keywords:** Phonetic, Phonotactic, Turkish Folk Music

---

## 1. Turkish Folk Music Phonetic Notation System Phonotactical Awareness Skills Development Processes/TFMPNS PASDP

Phonotactic features of Urfa Turkish folk music, keeping their existence in the axis of sound information criteria in performance and theoretical infrastructure of local language

properties: ĩ, ũ, ũ and ô (narrow, semi-narrow o), ê (close e) and î (long i) sounds which are the narrow, flat, half-round and closed shapes of i, u, ü sounds close to e were determined in addition to a, e, ı, i, o, ö, u, ü sounds located in Turkish in Turkey. In terms of continuity neither short nor the long vowels (except the words ‘aşık and yâr) are in the normal length. Vowels belong to the words which are entered to the language from Arabic and Persian are often normalized: such as ħammām>ħemam “hamam” etc. With long i resulting from the

reduction or adjustment of sound, long i in the taken words located in the poems written in divan poetry form retain their lengths during the usage. In Turkish all vowels except ı sound have normal lengths. This property of Turkish effects the taken words too. In Urfa's dialects just like in all East Anatolian dialects, long vowels from the taken words are shortened systematically and turned to the normal length vowels. For example maḥmūr>maḥmur "sleepy, silly" etc. As a result of the transformation of second singular person suffix n into y in Urfa dialect and sometimes completely removing even this y sound, it is seen that i sound at the end of a word is voiced in a long tone: For instance ettin>ettiy>ettī "ettin" etc. o, ö vowels in Urfa dialect are located only on the first syllable in accordance with the Turkish general rule. It is seen that -yor, continuous time suffix which is never be used in Urfa dialect, started to be used in both form by breaking the general rule: like gidiyor, gidiy "gidiyor" etc. In addition to the sounds b, c, ç, d, f, g, h, j, k, l, m, n, p, r, s, ş, t, v, y, z in Turkey Turkish written language, ğ, ħ, ħ, k, ' (ayın) and ' (hemze) sounds were determined. There is no j sound in Urfa dialect. Just like in Old Anatolian Turkish, this sound is only seen in the taken words. Only the word vicdan>vijdan formed as a result of the change c>j in local folk music compilation is detected. Depending on the general sound rules of Turkish, c, ğ, l, m, v sounds are located among the sounds which are not found in the beginning of the words and b, c, d, g, ğ at the end of a word or syllables. On the contrary to the general sound rules of Turkish, b, d, ğ sounds are seen in the foreign words like kebāb>kebab "kebab", etc. c and ğ are seen at the end of both Turkish words like hem dağ>dağ "yara" etc. and taken words like ḥarāc>herac "haraç" etc. Sound ğ has been used at the end of a word and syllables in old Turkish and it is a

sound found today in some Turkish dialect except Western Turkish. This situation is not a rule which has finalized and used widely in Urfa dialect. In the taken words which is ended with toned consonants, it is seen that these sounds are untuned, for example maḥsūd>maḥsut "maksat" etc. In the sound lyrics belong to Urfa region, ñ "nazal n" nasal consonant ve j sound are not found but ñ sound transform into ng, g, n, v, y sounds: as in yeñi>yēngī "yeni" etc.

It is reported that Phonotactical features existing in the axis of shape information in theoretical and practical background of local dialect properties of Urfa Turkish folk music: sound changes: vowel changes (thinning of thick vowels-thickening of thin vowels-rounding of flat vowels-flattening of round vowels-narrowing of wide vowels-widening of narrow vowels-transformation of narrow/round vowels into semi narrow/round vowels), consonant changes (toning/un-toning/continuing/discontinuing/some changes among continuous consonants/other changes), sound events (affinity/consonant formation/dropping/twinning/formation/falling/merging/bumping/narrowing of middle syllable/changing location/syllable fall/shortenings in the names), harmony (vowel harmony/consonant harmony-vowel/consonant harmony).

Phonotactical features existing in the axis of shape information in theoretical and practical background of local dialect properties of Urfa Turkish folk music: Arabic-Persian translations, metaphorical meanings, shape and usage types of local words located in 128 song text belong to Urfa region, even though they are removed from Turkey Turkish written language, they are used in Urfa dialect widely are given under the title index and dictionary, respectively [1] (refer with: Table 1).

**Table 1.** Turkish Folk Music Phonetic Notation System Phonotactical Awareness Skills Development Processes/TFMPNS PASDP developed in the axis of local/universal structural/generative/transformation linguistic theories, linguistic/written science/rhetorical/phonological approaches in ethnomusicology, phonetic/phonetic-morphological info/syntactic-sound assets/the lexical criteria.

Gele gele geldik bir kara taşa/jele jele jeldic bir kara taşa Gele gele geldim bir kara daşa/Gele gele geldüm bir kara daşa Region: Urfa Taken From: Mukim Tahir Compiled & Noted: Muzaffer Sarisozen Reader: Tenekeci Mahmut Guzelgoz TRT TFM Repertoire Sequence Number: 701			
Standard Turkey Turkish/STT	International Phonetic Alphabet/IPA	Turkish Language Institution Transcription Signs/TLITS	International Phonetic Alphabet/IPA
<i>Gele gele geldik bir kara taşa</i>	jele jele jeldic bir kara taşa	Gele gele geldim bir kara daşa	Gele gele geldüm bir kara daşa
<i>Yazılanlar gelir sağ olan başa aman efendim</i>	jaʒulaŋlar jeler sa: olan başa aman efendim	Yazılanlar gelir sağ olan başa aman efendim	jaʒulanlar gelür sağ olan başa aman efendüm
<i>Bizi hasret koyar kavim kardaşa</i>	bizj hasret kojor kavim kardaşa	Bizj hesret koydu kavim kardaşa	Büzütü hesret kojdu kavum kardaşa
<i>Bir ayrılık bir yoksulluk bir ölüm aman efendim</i>	bir ajruʈuk bir joksuʈuk bir ölym aman efendim	Bir ayrılığ bir yoğsulluğ bir ölüm aman efendim	Bir ajruʈuʈ bir joğsuʈuʈ bir əljim aman efendüm
<i>Nice sultanları tahttan indirir</i>	niðe sultanları tahttan indirir	Nice Süleymanları tahttan endirir	Niðe şelejmanları tahttan endürür
<i>Nicesinin gül benzini soldurur aman efendim</i>	niðesinin jyl benzini soldurur aman efendim	Nicesinin gül benzini soldurur aman efendim	Niðesünüm gyl benzini soldurur aman efendüm
<i>Niceleri dönmez yola gönderir</i>	niðeleri dönmez jola jönderir	Nicesini dönmez ele gönderir	Niðesünür dänmez ele gänderür
<i>Bir ayrılık bir yoksulluk bir ölüm aman efendim</i>	bir ajruʈuk bir joksuʈuk bir ölym aman efendim	Bir ayrılığ bir yoğsulluğ bir ölüm aman efendim	Bir ajruʈuʈ bir joğsuʈuʈ bir əljim aman efendüm
Note 1. Transcription systems in Anatolia dialect researches: transcribed with Standard Turkey Turkish/STT in the axis of standard	Note 2. IPA Turca: IPA provisions and sound description [4] of the letters in Turkish alphabet in Rule-Based Turkish Phonetic	Note 3. Linguistic approaches in ethnomusicology [8]: phonetic writing usage in data recording in musicology: necessity of dialect	Note 4. International Phonetic Alphabet/IPA usage in dialect researches of Turkish language: written dialect texts in Turkey by

writing/transcription/variation method [2].	Converter Program/RBTCP [3]. Turkey Turkish Pronunciation Dictionary/TTPD phonology ABC's: transcribed with International Phonetic Alphabet/IPA [6] by the IPA correspondences of vowel and consonants [5].	documentation in linguistic and musicological axis: Urfa/Kerkuk/Tallafer Dialects Turkish Language Institution Transcription Signs/UKTD TLITS in the axis of phonetic notation method [7] of local dialect features of Turkish folk music: transcribed with vowels-consonants-distinctive signs [1].	using IPA (TDK-IPA) provisions of transcription signs are transcribed with Standard Turkey Turkish/STT-Turkish Language Institution Transcription Signs/TLITS-International Phonetic Alphabet/IPA.
---	---	--	--

## 2. Turkish Folk Music Phonetic Notation System Phonetic Therapy Applications/TFMPNS PTA

In order to eliminate possible generative/cognitive/educational/doctrinal errors/limitations/biases [9] based on articulation/acoustical-perceptual-cognitive factors/trends in Turkish Folk Music Phonetic Notation System Phonotactical Therapy Applications/TFMPNS PTA performed together with local/universal correlation in the axis of Turkish Folk Music Phonetic Notation System Phonotactical Awareness Skills Development Processes/TFMPNS PASDP with the phonetic therapy method [10] in the level of listening/narrative/transmissions, it is required to complete the construction and development processes of alphabet/sound/dictionary/product database.

Turkish Folk Music Phonetic Notation System Alphabet Database/TFMPNS AD: transcription system of Turkish Language Institution/TLI dialect researches [11], transcript in dialect studies [12], vowel and consonant changes of Anatolia dialects [42], Urfa/Kerkuk/Tallafer Dialects Turkish Language Institution Transcript Signs/UKTD TLITS [1], IPA provisions of the words in Turkish alphabets and TDK-IPA provisions of voice descriptions-transcription signs [4], phonology ABCs of Turkey Turkish Pronunciation Dictionary/TTPD: IPA provisions of vowels and consonants

[6], extra-IPA symbols for irregular speaking [14], IPA number table [15], IPA unicode character codes [16], IPA X-SAMPA equivalency table [17].

Turkish Folk Music Phonetic Notation System Sound Database/TFMPNS SD: International Phonetic Alphabet/IPA sound records [18], International Phonetic Alphabet/IPA Turkish vowel/consonants tables sound records [18], Turkish Language Institution Turkish Audio Dictionary/TLI TAD [19], 128 pieces of Turkish folk music texts sound records transcribed with the Urfa/Kerkuk/Tallafer Dialects Turkish Language Institution Transcript Signs/UKTD TLITS [20].

Turkish Folk Music Phonetic Notation System Dictionary Database/TFMPNS DD: Turkish Language Institution Current Turkish Dictionary/TLI CTD [21], Turkish Language Institution Turkish Audio Dictionary/TLI TAD [19], Turkish Language Institution Big Turkish Dictionary/TLI BTM [22], Turkish Language Institution Search Dictionary/TLI SD [23], Turkish Language Institution Turkey Turkish Dialects Dictionary/TLI TTDD [24], Turkish Language Institution Folk Dialects Compilation Dictionary in Turkey/TLI CDFDT, Turkey Turkish Pronunciation Dictionary/TTPD [5], Urfa/Kerkuk/Tallafer Dialects Index and Dictionary/UKTD ID [1].

Turkish Folk Music Phonetic Notation System Works Database/TFMPNS WD; 128 pieces of Turkish folk music texts transcribed with the Urfa/Kerkuk/Tallafer Dialects Turkish Language Institution Transcription Signs/UKTD TLITS [1], IPA Turca: Rule-Based Turkish Phonetic Converter Program/RBTCP [3] (refer with: Fig. 1, Table 2).

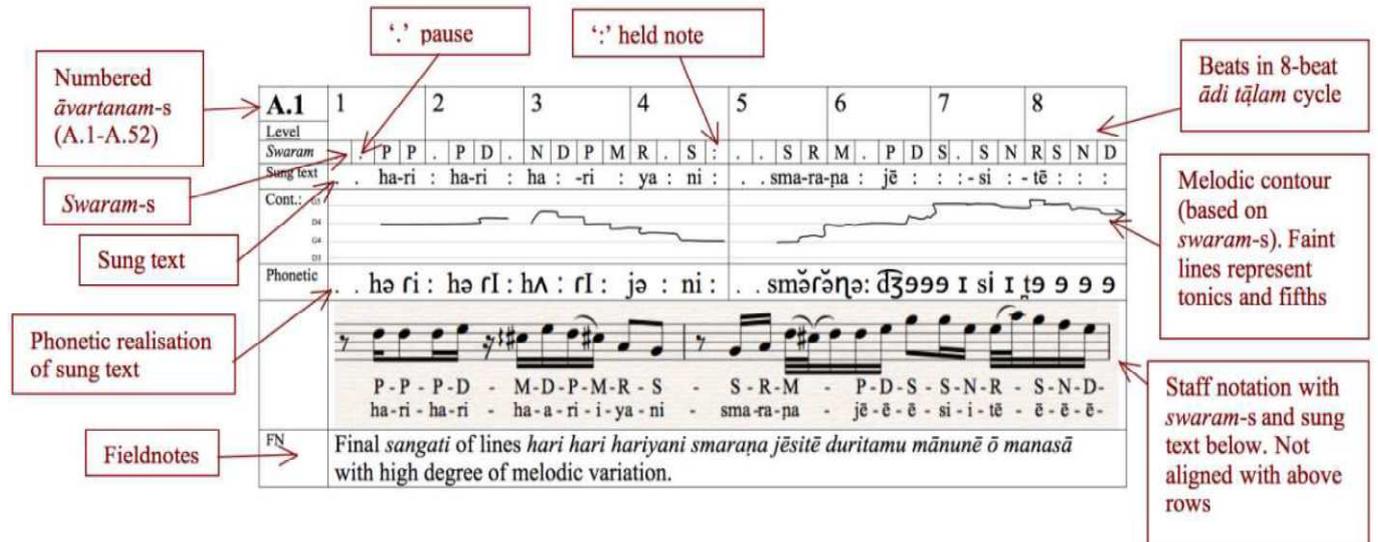


Fig. 1. Musicolinguistic artistry of niraval in Carnatic vocal music: musicolinguistic graph/chart/diagram samples [30].

**Table 2.** Turkish Folk Music Phonetic Notation Systems Phonotactical Therapy Applications/TFMPNS PTA performed in the axis of the Turkish Folk Music Phonetic Notation System Phonotactical Awareness Skills Development Processes/TFMPNS PASDP: musicolinguistic artistry graph/chart/diagram samples.

Gele gele geldik bir kara taşa/jele jele jeldic bir kara taşa Gele gele geldim bir kara daşa/Gele gele geldüm bir kara daşa Region: Urfa Taken From: Mukim Tahir Compiled & Noted: Muzaffer Sarısozen Reader: Tenekeci Mahmut Guzelgoz TRT TFM Repertoire Sequence Number: 701			
Standard Turkey Turkish/STT	International Phonetic Alphabet/IPA	Turkish Language Institution Transcription Signs/TLITS	International Phonetic Alphabet/IPA
<i>Gele gele geldik bir kara taşa</i>	jele jele jeldic bir kara taşa	Gele gele geldim bir kara daşa	Gele gele geldüm bir kara daşa
Note 1. Sound information criteria existing in the theory and application background of I. line of Turkish folk music text: Standard Turkey Turkish/STT>International Phonetic Alphabet/IPA [a] wide, flat, soft palate (predorsal)>[ɑ] wide, flat, back palate (post dorsal)-[e] wide, flat, pre-tongue (closed)>[ɛ] wide, flat, pre-tongue (open)-[i] narrow, flat, odile (open)>[I]/[i] narrow, flat, pre-tongue (closed)-[b]>[b] voice, explosive, double-lip-[d]>[d] voice explosive, tongue tip is out-[k] voiceless, explosive, back palate>[c] chimes, front palate, explosive-[g] tone, front palate-mid-tongue, explosive>[ʃ] voice, explosive tongue-back palate (front)-[l]>[l] tone, gum, lateral fluent-[m]>[m] tone, double lip, nasal initial-[r] voice, multi-matrix, tongue tip-gum>[r] voice, single matrix, tongue tip-gum [ʏ] voiceless, fricative-[ʃ]>[ʃ] voiceless, fricative, tongue-soft palate-[t]>[t] voiceless, explosive, tip end is out. Urfa/Kerkuk/Tallafer Dialects Turkish Language Institution Transcript Signs/UKTD TLITS>International Phonetic Alphabet/IPA: [i] short unaccented, a vowel between i/ê>[ü] very short ı-[k] a back palate consonant thicker, explosive and made further back than normal k constructing syllables with thin or thick vowels>[k] voiceless, rear palate, explosive.			
<i>CVCV CVCV CVCCVC CVC CVCV CVCV</i>	<i>CVCV CVCV CVCCVC CVC CVCV CVCV</i>	<i>CVCV CVCV CVCCVC CVC CVCV CVCV</i>	<i>CVCV CVCV CVCCVC CVC CVCV CVCV</i>
Note 2. Form information criteria existing in theoretical and practical background in I. line of the Turkish folk music text: V/C analysis [26]: V=vowel (vowel letter), C=consonant (consonant letter). When V/C analyzing method is applied to all lines of the folk music text, differences in the axis of sound/syllable/word/sentence orders may arise. <i>Gele gele (ge.le ge.le) gel.dik bir ka.ra ta.şa</i> <i>jele jele (je.le je.le) jel.dic bir ka.ra ta.şa</i> Gele gele (ge.le ge.le) gel.dim bir ka.ra da.şa     Gele gele (Ge.le ge.le) gel.düm bir ka.ra da.şa			
Note 3. Syntactic criteria of sound/syllable/word/sentence existing in theoretical and practical background of the I. line of the Turkish folk music text: prosodic phonotactical analysis [27]: (.) = represents the syllabic segmentation points. When prosodic phonotactical analysis method is applied to all lines of the folk music text, differences may arise in the acoustic/syllabic/word/sentential partitioning/impact points axis in terms of linguistic/rhythmic-music scientific/melodic prosody overlap rules.			
Turkish Language Institution Dictionary Database/TLI DD	Turkey Turkish Pronunciation Dictionary/TTPD	Urfa/Kerkuk/Tallafer Dialects Index and Dictionary/UKTD ID	Turkish Folk Music Phonetic Notation System Dictionary Database/TFMPNS DD
gele: gele (TLI TAD)-gele (TLI BTDD)-gelsin (TLI CDFDT/TTDD)-gel, hele gel, haydi gel (TLI SD). geldik: geldi-k (TLI BTDD). bir: bir (TLI STS)-bir (TLI CTD)-ber/bi (TLI TTDD)-bir (TLI SD). kara: kara (CTD)-kara (TLI TTDD)-kara (TLI SD). daşa: taş (TLI CTD)-taş (TLI TTDD)-daş (TLI SD).	je'le: gele > je'le je'ldic: gel > je'l-dic 'biy: bir > 'biy ka'ra: kara > ka'ra 'taşa: taş-a > 'ta-a	gele: to come, reaching a place, to arrive. geldim: to come, reaching a place, to arrive bir: name of the number, the title of uncertainty. kara: black, dark, bad, distressed, mourning. daşa: stone.	gele/je'le/gele geldik/je'ldic/geldim bir/bir/bir kara/ka'ra/kara daşa/taşa/daşa
Note 4. Word existence criteria existing in the theoretical and practical background of I. line of the Turkish folk music text: Turkish Language Institution Current Turkish Dictionary/TLI CTD [21], Turkish Language Institution Turkish Audio Dictionary/TLI TAD [19], Turkish Language Institution Big Turkish Dictionary/TLI BTDD [22], Turkish Language Institution Scanning Dictionary/TLI SD [23], Turkish Language Institution Turkey Turkish Dialect Dictionary/TLI TTDD [24], Turkish Language Institution Compilation Dictionary Folk Dialects in Turkey/TLI CDFDT [25], Urfa/Kerkuk/Tallafer Dialects Index and Dictionary/UKTD ID [1], Turkey Turkish Pronunciation Dictionary/TTPD [5], Turkish Folk Music Phonetic Notation System Dictionary Database/TFMPNS DD.			

### 3. Turkish Folk Music Phonetic Notation System Phonotactical Probability Calculator Database/TFMPNS PPCD

Developing the skills like phonotactical possibilities, limitations, usages, tips, performance, memory, knowledge etc. [28] existing in the level of the utilities of phonemic/cognitive/motor approaches-phonological/shape informational/sound existential structured together with

local/universal additions in the local/universal phonology/phonetic rules axis, by providing the organic transitivity among the music-linguistic properties structured in the language science approaches in ethnomusicology in musicological plane with phonotactical properties [29] structured in phonotactical theory axis in linguistic plane, creating music-linguistic graph/chart/diagram samples [30], in order to determine the phonetic/phonemic/allophonic transcription differences with the range of linguistic/literary-musicological/practical [31], it is necessary



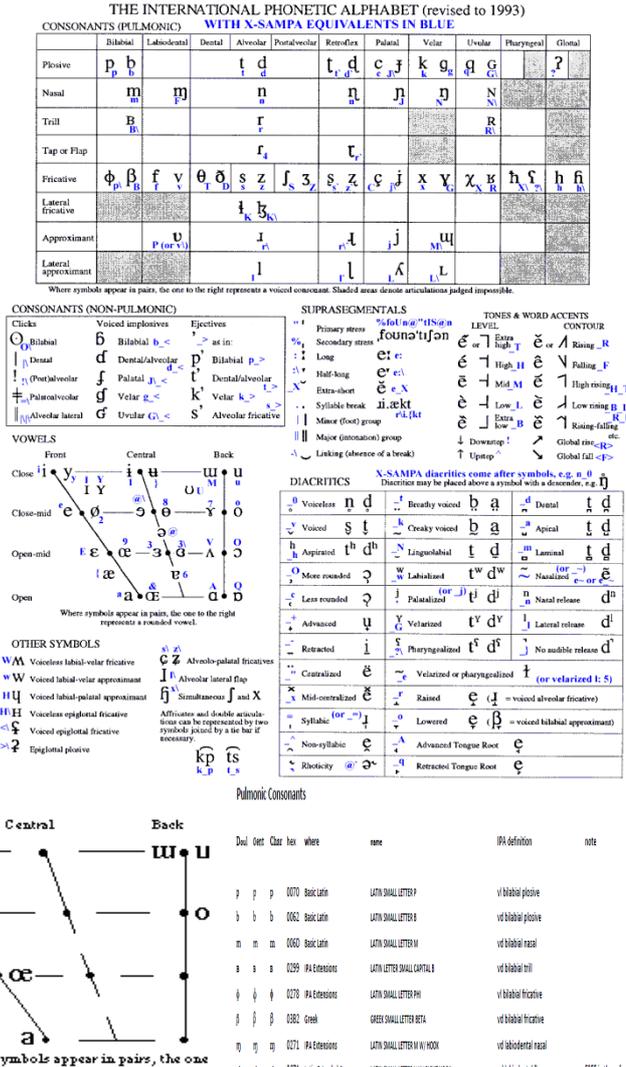
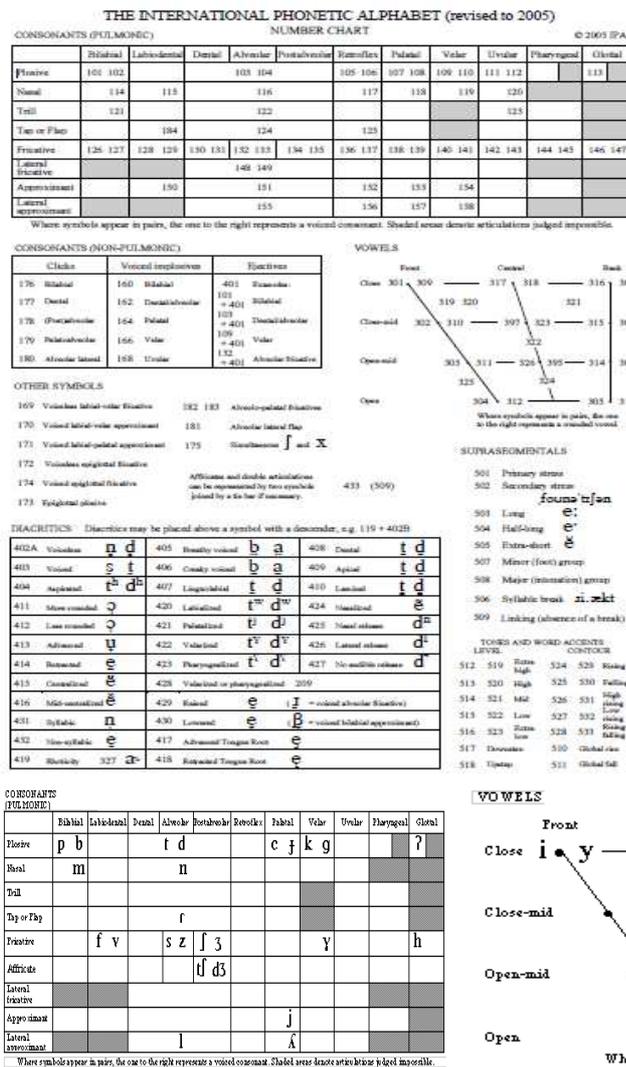


Fig. 2. Turkish Folk Music Phonetic Notation System Phonotactical Probability Calculator Database/TFMPNS PPCD graph/chart/diagram samples structured with the local/universal correlations in the axis of local/universal phonology/phonetic rules.

### 4. Summary

Language which involves a vocal expression in styles changing from society to society with semantic content and which is also a human experience is a communication area as well. Vocal expression which denotes people's skill of communication through vocal indicator is articulated as distinctive and sequential voice units which exist in every language in specific quantity and with their attributions whose reciprocal correlations vary from a language to another. Phonetic awareness which includes rules determining paradigmatic/syntagmatic relations of speaking sounds in a language and analyzes speaking sounds in the sense of functions in communication was defined as gaining awareness to speaking sounds, being aware of sounds and having the skill of manipulating sounds. It was emphasized by dialectologists in linguistic axis that language which was accepted to be a cultural value including aesthetical content and indicators of basic characteristics of societies rather than being a product simply involves various dialects, this content subsists in every

language and thereby in the music of each language together with traditional relations, correct pronunciation of these different speeches can be achieved through usage and articulation of International Phonetic Alphabet/IPA sounds which contribute to the development of melodic memory with its evocative effect; and it was emphasized by musicologists in musicological axis that how far usage of International Phonetic Alphabet/IPA within vocal music would direct practical behaviours and performances of musicians directly in the process of adaptation, reasons of level/detailedness of perceptibility/intelligibility of International Phonetic Alphabet/IPA symbols by musicolog.

International Phonetic Alphabet/IPA is a type of standard alphabet which is composed of signs and symbols in order to put sound values in every language uniformly, prevent conflicts of various transcription systems by enabling correct pronunciation of languages and develop specific symbol for each sound. In the transfer and adaptation processes of Turkish Folk Music Phonetic Notation System/TFMPNS to

educational/doctrinal practices which was structured on the axis of International Phonetic Alphabet/IPA sounds whose existence and disponibility was registered on various fields by international standards, development of linguistic awareness skills (requirement of healthy vocal chord/technical ergonomics/correct sound production/behavior modifications/articulation/articulatory features of vowels/consonants/development of melodic memory/personal performance dialectic/notation and implementing on repertory etc.) must be analyzed with traditional relations in linguistic and musicological axis.

In order to transcript pathological speech properties which is not linguistic like phonological features of speck sounds/notation system (supra-segmental features/piece sound units like sound quality/level/height/emphasis/tonal/timbral variation ratios etc.) to define personal sound properties/differences/preferences/emotional variations developed depending on the phonetic characteristics based on individual source, to express alphabetical symbol usage and speech concept in terms of sound arrays, to show the acoustic patterns in speck analysis and to discuss the problems arising from the relationship between the note system and physical speech event depending on each other with regard to fractional meaning, it is necessary to perform formation/development processes of Turkish Folk Music Phonetic Notation System Phonotactical Probability Calculator Database/TFMPNS PPCD with the transfer/adaptation processes of Turkish Folk Music Phonetic Notation System Phonotactical Therapy Applications/TFMPNS PTA into education/doctrinal practices in the axis of Turkish Folk Music Phonetic Notation System Phonotactical Awareness Skills Development Processes/TFMPNS PASDP and Turkish Folk Music Phonetic Notation System Phonotactical Features/TFMPNS PF by configuring Turkish Folk Music Phonetic Notation System/TFMPNS phoneme/phoneme inventory/phonetic/allophonic notation system.

## References

- [1] Mehmet Avni Ozbek, Language and expression properties of Urfa songs, Istanbul University Social Sciences Institute of Turkish Language and Literature Department New Turkish Science Branch, (published PhD thesis), Istanbul/Turkey, pp. iii-338. 2010.
- [2] Nurettin Demir, On variations in Turkish, Ankara University Language and History-Geography Department, Turcology Journal, vol. 17(2), pp. 93-106, 2010.
- [3] Yücel Bicil and Gonca Demir, IPA Turca: Rule-based phonetic converter program/KTTTFDP, TUBITAK National Electronics and Cryptology Research Institute of Multi-Media Technology Research and Development Laboratory, Gebze/Istanbul, 2012.
- [4] Cetin Pekacar and Figen Guner-Dilek, International phonetic alphabet and dialect researches in Turkey, dialect research of Turkey Turkish workshop (25-30 march 2008 Sanliurfa), Ataturk Culture, Language and History Institute TLI Publications, vol. 989, Ankara, pp. 575-589, 2009.
- [5] Iclal Ergenç, Speaking language and Turkish usage dictionary, Multilingual Foreign Language Publications Baskı Printing, Istanbul, pp. 1-496, 2002.
- [6] IPA, Handbook of the international phonetic association: a guide to the use of the international phonetic alphabet, Cambridge University Press, Cambridge, 1999.
- [7] Gonca Demir, Phonetic notation of local dialect features of Turkish folk music formed in language-music relationship axis, Istanbul Technical University Social Sciences Institute of Turkish Music Program, (published master's thesis, adviser: Assoc. Prof. Erol Parlak), Istanbul/Turkey, pp. v-294, 2011.
- [8] Ruth Stone, Theory for ethnomusicology, Pearson Press, New Jersey, pp. 51-53, 2008.
- [9] Lisa Davidson, Phonotactics and articulatory coordination interact in phonology: Evidence from nonnative production, Cognitive Science, vol. 30, pp. 837-862, 2006.
- [10] L. Velleman Shelley, Phonotactic therapy, Seminars in Speech and Language, vol. 23(1), pp. 43-55, 2002.
- [11] Ahmet Bican Ercilasun, Transcription signals that will be used for dialect researches, dialect research information fest, Ataturk Culture, Language and History Institute TLI Publications: vol. 697, Ankara, pp. 43-48, 1999.
- [12] Mukim Sagir, Transcription in dialect studies, dialect research information fest, Ataturk Culture, Language and History Institute TLI Publications: vol. 697, Ankara, pp. 126-138, 1999.
- [13] IPA, International phonetic association/IPA available from <<http://www.langsci.ucl.ac.uk/ipa/ipachart.html>> (access date: 14.11.2013).
- [14] IPA, International phonetic alphabet/IPA chart 2008, available from <<http://www.langsci.ucl.ac.uk/ipa/extIPAChart2008.pdf>> (access date: 14.11.2013).
- [15] IPA, International phonetic alphabet/IPA number chart 2005, available from <[http://www.langsci.ucl.ac.uk/ipa/IPA\\_Number\\_chart\\_\(C\)2005.pdf](http://www.langsci.ucl.ac.uk/ipa/IPA_Number_chart_(C)2005.pdf)> (access date: 14.11.2013).
- [16] IPA, International phonetic alphabet/IPA unicode characters codes, available from <<http://www.langsci.ucl.ac.uk/ipa/phonsymbol.pdf>> (access date: 14.11.2013).
- [17] IPA, International phonetic alphabet/IPA X-SAMPA, available from <<http://www.kreativekorp.com/miscpages/ipa/ipa-x.html>> (access date: 14.11.2013).
- [18] IPA, International phonetic alphabet/IPA sounds records, available from <<http://www.langsci.ucl.ac.uk/ipa/sounds.html>> (access date: 14.11.2013).
- [19] TLI, Turkish language institution Turkish audio dictionary/TLI TAD available from <[http://www.tdk.gov.tr/index.php?option=com\\_seslisozluk&view=seslisozluk](http://www.tdk.gov.tr/index.php?option=com_seslisozluk&view=seslisozluk)> (access date: 14.11.2013).
- [20] HEC, Higher education committee local thesis center, available from <<https://tez.yok.gov.tr/UlusalTezMerkezi/>> Tez No: 263098 (access date: 14.11.2013).
- [21] TLI, Turkish language institution current Turkish dictionary/TLI CTD, available from <[http://www.tdk.gov.tr/index.php?option=com\\_gts&view=gts](http://www.tdk.gov.tr/index.php?option=com_gts&view=gts)> (access date: 14.11.2013).

- [22] TLI, Turkish language institution big Turkish dictionary/TLI BTD, available from <[http://www.tdk.gov.tr/index.php?option=com\\_bts&view=bts](http://www.tdk.gov.tr/index.php?option=com_bts&view=bts)> (access date: 14.11.2013). available from <<http://www.linguistics.ucla.edu/people/hayes/BLICK/>> pp. 1-11, 2012. (access date: 14.11.2013).
- [23] TLI, Turkish language institution scanning dictionary/TLI SD, available from <[http://www.tdk.gov.tr/index.php?option=com\\_tarama&view=tarama](http://www.tdk.gov.tr/index.php?option=com_tarama&view=tarama)> (access date: 14.11.2013).
- [24] TLI, Turkish language institution Turkey Turkish dialect dictionary/TLI TTDD, available from <[http://www.tdk.gov.tr/index.php?option=com\\_ttas&view=ttas](http://www.tdk.gov.tr/index.php?option=com_ttas&view=ttas)> (access date: 14.11.2013).
- [25] TLI, Turkish language institution dictionary database/TLI DD, available from <<http://www.tdk.gov.tr/>> (access date: 14.11.2013).
- [26] Kyle Gorman, Generative phonotactics, the University of Pennsylvania Linguistic Department, (published doctor of philosophy thesis), Pennsylvania, pp. 39-64, 2013.
- [27] Tim D. Sherer, Prosodic phonotactics, The Graduate School of the University of Massachusetts Amherst Department of Linguistics, (published doctor of philosophy thesis), Amherst, pp. 1-65, 1994.
- [28] Bruce Hayes and James White, Phonological naturalness and phonotactic learning, available from <<http://www.linguistics.ucla.edu/people/hayes/PhonologicalNaturalness/>> pp. 1-32, 2012. (access date: 14.11.2013).
- [29] Bruce Hayes and Colin Wilson, A maximum entropy model of phonotactics and phonotactic learning, available from <[http://cogsci.jhu.edu/people/files/\\_pubs-Wilson/HayesWilsonMaximumEntropyPhonotactics.pdf](http://cogsci.jhu.edu/people/files/_pubs-Wilson/HayesWilsonMaximumEntropyPhonotactics.pdf)> pp. 1-67, 2007. (access date: 14.11.2013).
- [30] Mahesh Radhakrishnan, Musicolinguistic artistry of niraval in carnatic vocal music, Australian National University/ANU Research Repository Proceedings of the 42nd Australian Linguistic Society Conference, pp. 422-463, 2011.
- [31] Michael S. Vitevitch and Paul A. Luce, Web-based interface to calculate phonotactic probability for words and nonwords in English, Behavior Research Methods, Instruments & Computers, vol. 36(3), pp. 481-487, 2004.
- [32] Bruce Hayes, BLICK: A phonotactic probability calculator, available from <<http://www.linguistics.ucla.edu/people/hayes/BLICK/>> pp. 1-11, 2012. (access date: 14.11.2013).
- [33] Kenny L. Vaden, H. R. Halpin, and G. S. Hickok, IphOD: Irvine phonotactic online dictionary, version 2.0. [data file], available from <<http://www.iphod.com>> (access date: 14.11.2013).
- [34] UCLA, Phonetic lab archive: Language database, available from <<http://archive.phonetics.ucla.edu>> 2009. (access date: 14.11.2013).
- [35] Frank Capodiecici, Bruce Hayes, and Colin Wilson, UCLA: Manual: phonotactic learning program, available from <<http://www.linguistics.ucla.edu/people/hayes/Phonotactics/Manual.pdf>> pp. 1-17, 2009. (access date: 14.11.2013).
- [36] Michael Vitevitch, PPC: Phonotactic probability calculator, available from <<http://www.people.ku.edu/~mvitevitch/PhonoProbHome.html>> pp. 481-487, 2004. (access date: 14.11.2013).
- [37] Katarzyna Dziubalska-Kolaczyk, NP extension: B&B phonotactics, Poznań Studies in Contemporary Linguistics, vol. 45(1), pp. 55-71, 2009.
- [38] ANU, World phonotactics database, Australian National University Press, available from <<http://phonotactics.anu.edu.au/index.php>>, 2013. (access date: 14.11.2013).
- [39] Merry A. Beckman, Benjamin Munson, and Jan Edwards, Methodological issues in the analysis of phonotactic probability effects in nonwords, ICPhS XVII, Hong Kong, pp. 300-303, 2011.
- [40] IPA, International Phonetic Alphabet/IPA chart 2005, available from <[http://www.langsci.ucl.ac.uk/ipa/IPA\\_chart\\_\(C\)2005.pdf](http://www.langsci.ucl.ac.uk/ipa/IPA_chart_(C)2005.pdf)> (access date: 14.11.2013).
- [41] IPA, International Phonetic Alphabet/IPA fonts, available from <<http://www.langsci.ucl.ac.uk/ipa/ipafonts.html>> (access date: 14.11.2013).
- [42] Ahmet Caferoglu, Vowels and consonant changes of Anatolian dialects. Turkish language studies yearbook-belleten offprint from 1963-1964, Turkish Historical Society Printing House, Ankara, pp. 1-33, 1964-1965.