Intonational means of expressing finality in Tuvan folklore narration

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The presented study is a continuation of the authors' previous work on Tuvan intonation, which was concerned with prosodic markers as means of structuring a folklore text. The purpose of this article is to examine the manifestation of intonational universals associated with the expression of completeness in Tuvan narrative utterances, which has not previously been subjected to a dedicated analysis employing corpus and statistical methods. The theoretical and methodological basis of the study is formed by the principles that have been established in Russian linguistics, including identifying language-level oppositions between intonational units and a multi-aspect analysis of the utterance as a syntactic unit.

The material of the study consists of four audio recordings of Tuvan folklore texts, which were segmented into utterances and annotated using Praat. The resulting corpus was examined in order to identify prosodic characteristics that can be considered significant in terms of expressing completeness of an utterance, with the analysis taking into account both the syntactic structure of the utterances in question and their role in the formation of the folklore text.

Several intonation patterns typical of Tuvan folklore texts have been identified and associated with specific communicative functions. This allowed us to demonstrate the opposition of final and non-final, as well as clause-internal and clause-final constituents of the utterances in terms of their intonation. As a result, it is shown that the completeness of an utterance is usually expressed by falling tone and intensity, although there are several examples of a level or rising tone at the end of an utterance. This implies the necessity of a further development of the thought expressed by the utterance. The results are consistent with the authors' previous studies of the Siberian Turkic languages and support the universality of falling tone marking the completeness of an utterance.

Keywords: Tuvan language; intonation; finality; intonational universal; folklore

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РОДНОЙ ЯЗЫК

Статья

Интонационные средства выражения завершенности в тувинском фольклорном повествовании

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   Представленное исследование является продолжением предыдущей работы авторов, посвященной интонации тувинских фольклорных текстов, результатом которой стал анализ комплекса интонационных средств, выступающих в роли маркеров значимых разделов текста. Целью данной статьи является изучение проявления в тувинском языке интонационных универсалий, связанных с выражением законченности повествовательных высказываний. Новизну проделанного исследования составляет то, что способы маркирования завершённости высказывания не становились ранее предметом отдельного исследования, проводимого с применением корпусных и статистических методов. Теоретической и методологической базой исследования являются устоявшиеся в российском языкознании принципы выделения единиц интонации, основанные на методе выявления оппозиций и многоаспектном анализе высказывания как синтаксической единицы.

   В качестве основного материала исследования используются аудиозаписи четырёх фольклорных текстов на тувинском языке, которые были разделены на высказывания и проаннотированы с помощью программного обеспечения Praat. Полученный таким образом корпус был проанализирован с целью выявления просодических характеристик, которые могут рассматриваться как значимые с точки зрения выражения законченности высказывания. При анализе учитывались как синтаксическая структура рассматриваемых высказываний, так и их роль в формировании фольклорного текста.

   В результате исследования был выделен ряд интонационных конструкций, реализующихся в текстах, каждая из которых ассоциирована с определенными коммуникативными функциями. Это позволило продемонстрировать использование интонации для противопоставления финальных и нефинальных компонентов высказываний. Результаты анализа показали, что завершенность высказывания обычно выражается нисходящим движением тона и падением интенсивности, однако имеются несколько примеров ровного или восходящего тона в конце высказывания в контекстах, в которых требуется подчеркнуть необходимость дальнейшего продолжения выраженной высказыванием мысли. Полученные выводы согласуются с предыдущими исследованиями интонации тюркских языков Сибири и подтверждают универсальность употребления нисходящего тона для обозначения завершенности высказывания.

   Ключевые слова: *тувинский язык; интонация; завершенность; интонационная универсалия; фольклор*

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Introduction

The problem of linguistic universals is not a new one but is still rather disputable. The list of cultural universals was first proposed by G. P. Murdock in 1959 and included language, folklore, mythology, rituals, and music universals as well (Murdock, 1959). His ideas were further developed by many researchers, including C. Lévi-Strauss (Lévi-Strauss, 1966), D. E. Brown (Brown, 1991), and others. A special list of linguistic universals was put forward at a conference in New York in 1961, in the proceedings and *Memorandum Concerning Language Universals* published by J. H. Greenberg et al. in 1963 (Greenberg, 1963b). This work seems to have become the turning point in studying linguistic universals at all language levels, as despite earlier publications on this problem (see, e.g.: Buht, Aginsky, 1948), it is since the time of this conference that linguists all over the world have started investigating the phenomenon of language universals.

We shall concentrate our attention only on intonational universals. R. Jakobson (Jakobson, 1962) was one of the first to introduce binary oppositions in a language structure and to use them extensively in phonetic studies. B. A. Uspenskiy, in his *Structural Typology of Languages* (Uspenskiy, 1965: 186–222), summarized the previous results of other linguists (Troubetzkoy, 1949; Greenberg, 1962, 1963a; Jackobson, 1962; Ferguson, 1963; Hockett, 1963; etc.) and presented an extensive list of linguistic universals, including 139 phonico-phonological units and 65 grammatical ones. As for intonational universals, only one seems to have been taken into account: the distinction between a general question and a statement by a certain intonation pattern at the end of an utterance (Uspenskiy, 1965: 209).

Since that time, a number of phoneticians have been engaged in deriving intonational universals based on different parameters. An interested reader can find this information elsewhere (Pike, 1945; Cohen, Collier, t' Hart, 1982; Cooper, Sorensen, 1981; Cruttenden, 1981; Lieberman, 1967; Liberman, Pierrehumbert, 1984; Lindau, 1986; and many others). D. R. Ladd (Ladd, 2001) tried to systematize them and distinguished the following instances:

> "(1) pitch tends to decline from the beginning of an IP[1] to the end, a tendency known as declination… (2) the beginning of an IP may be marked by a local sharp rise in pitch or 'reset'… (3) in IPs that are utterance-final and/or in statements, there may be a local drop in pitch at the end of the IP in addition to any overall declination spanning the IP as a whole… (4) in IPs that are in questions and/or are not utterance-final, declination may be moderated, suspended or even reversed, i.e. the overall trend may be less steeply declining, level, or even slightly rising… (5) in addition to exhibiting reduced declination, non-final and interrogative IPs may also have a local rise in pitch at the end, or at least have no local drop…" (ibid.: 1381).

These observations prove to be true for many languages where a low pitch signals finality and completeness, whereas a high pitch implies a further continuation or response of an addressee.

Several attempts have been made to explain this postulate. For example, D. L. Bolinger (Bolinger, 1964, 1978) followed by A. Cruttenden (Cruttenden, 1981) accounted for this phenomenon by "a universal, prelinguistic 'meaning' of high and low pitch, part of a universal code for signalling states of the organism", in which "high pitch signals interest, tension, incompleteness, etc., while low pitch signals resolution, completeness, and rest" (Ladd, 2001: 1382).

Likewise, J. J. Ohala has suggested the existence of a universal cross-species pitch code referred to as the *frequency code,* wherein "high frequencies signal the vocalizer's apparent smallness, and, by extension, his nonthreatening, submissive, or subordinate attitude" while "low-frequency vocalizations signal apparent largeness and thus threat, dominance, self-confidence" (Ohala, 1983: 15). It is for this reason that "high, and particularly high-ending utterances seem to sound dependent, appealing, questioning, etc., while conversely, low and low-ending utterances seem to sound authoritative, powerful, and assertive" (Gussenhoven, Chen, 2000: 92). J. J. Ohala's theory was further developed by C. Gussenhoven (Gussenhoven, Gösta, 1999; Gussenhoven, 2002; 2004) who supplemented the *frequency code* with the so-called *effort code,* implying that "greater effort creates more elaborate, more explicit realisations… In the context of pitch variation, greater effort corresponds with wider excursions, and as a result, a higher peak will sound more emphatic than a lower peak" (Gussenhoven, Chen, 2000: 92). A. Chen confirmed the ideas of C. Gussenhoven in her dissertation *Universal and Language-specific Perception of Paralinguistic Intonational Meaning*[2].

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[1] An intonational phrase.

[2] Chen A. *Universal and language-specific perception of paralinguistic intonational meaning*: Diss. … Ph.D. Radboud University Nijmegen. Utrecht: LOT, 2005.

Russian linguists T. M. Nikolaeva (Nikolaeva, 1977, 1984), N. V. Cheremisina (Cheremisina, 1982), M. K. Rumyantsev (Rumyantsev, 1997), A. V. Bel'skiy (Bel'skiy, 1956), V. I. Petryankina[1], S. S. Khromov (Khromov, 2013), and others tried to build a system of intonational universals, and generally their findings coincide with those of their foreign colleagues. To the best of our knowledge, there is still no complete and exhaustive list of intonational universals.

The purpose of the article is to discuss to what extent intonational universals, specifically (3) and (4) as described by D. R. Ladd, apply to the Tuvan language.

The Tuvans are the native inhabitants of the Republic of Tuva and the southern part of the Krasnoyarsk Krai, Russian Federation. Several Tuvan ethnic groups also live in Mongolia and in the Xinjiang Uygur Autonomous Region of China (Bavuu-Syuryun, 2010: 58). They speak Tuvan, a Turkic language previously referred to as Uriankhai, Soyot, and Tanu-Tuvan, which 98% of the Tuvans living on the territory of Tuva consider their mother tongue (ibid.). According to the All-Russian Population Census of 2020, 303 thousand Tuvans live in the Russian Federation, of whom 249 thousand people (82.35%) speak Tuvan, including 248 thousand people who report using Tuvan in everyday life. Tuvans in the Russian Federation are predominantly bilingual, as 281 thousand (93%) of Tuvans also speak Russian (Oorzhak et al., 2024: 65–66). The number of Tuvan speakers outside the Russian Federation is estimated to be around 10,000 in Mongolia, and around 5,000 in China (Simchit, 2017).

While there are different approaches to classifying the Turkic languages, we accept the view of A. M. Shcherbak who considered Tuvan to belong to the Siberian group of the Turkic family of the Altai macrofamily of languages (Shcherbak, 1994: 39). A more detailed classification proposed by L. Johanson relates it to the northeastern (or Siberian) branch of the Turkic languages, specifically its southern sub-branch consisting of Sayan Turkic, i.e. Tuvan, Tofan, Soyot, Dukhan, Tuhan, etc., and non-Sayan Turkic, i. e. Khakas, Shor, North Altay, Chulym, etc. (Johanson, 1998: 83). The Tuvan language is traditionally divided into four dialects: Central, Western, North-Eastern (Todzhinsky) and South-Eastern.

Materials and methods

The material for analysis consisted of audio recordings of Tuvan folklore narrations published in the *Monuments of Folklore of the Peoples of Siberia and the Far East* series, volume 28 entitled *Myths, Legends, Historical Stories of Tuvans*[2]. The texts were chosen on the criterion that the narrators were native speakers of Tuvan. The metadata of four texts under consideration is presented in *Table 1*[3].

Table 1. The metadata of the texts chosen for analysis
Таблица 1. Метаданные текстов, выбранных для анализа

Title	Title translation	Genre	Narrator[4]	Occupation of the narrator	Duration, min
Chadyrlyg diireng̃	Diireng̃ in the hut	myth	B.D.S., male, b. 1917	professional storyteller (*toolchu*) and shaman	3.41
Khemchik	Khemchik	legend	S.N.K., female, b. 1938	teacher of the Tuvan language	3.38
Baĭ-Taĭga dugaĭynda chugaa	The story of Baĭ-Taĭga	legend	K.M.S., male, b. 1931	Buddhist temple abbot	4.55
Aran-Chula dugaĭynda chugaa	The story of Aran-Chula	legend	V.Sh.S., male, b. 1946	stone carver	9.38

[1] Petryankina V. I. Functional and semantic analysis of intonation: Theoretical and experimental phonetic research : Diss. … Doctor of Philology, Moscow, 1990. (In Russ.).
[2] *Myths, legends, historical stories of Tuvans* / comp. by N. A. Alekseev, D. S. Kuular, Z. B. Samdan and Zh. M. Yusha. Novosibirsk, Nauka, 2010. 372 p. (Monuments of folklore of the peoples of Siberia and the Far East, vol. 28). (In Russ. and Tuvan).
[3] The data analyzed in this article was initially transcribed as part of the project of the Institute of Philology of the Siberian Branch of the Russian Academy of Sciences "Cultural Universals of Verbal Traditions of the Peoples of Siberia and the Far East: Folklore, Literature, Language" supported by a grant from the Government of the Russian Federation for the promotion of research conducted under the guidance of leading scientists, contract No 075-15-2019-1884.
[4] The names of the narrators were abbreviated due to ethical considerations.

The audio files were converted from WMA into WAV and then segmented into utterances (154 units in total) with Audacity[1]. For further analysis, segment boundaries and pauses were marked manually in Praat[2]. Two levels of segmentation were implemented: word and syllable. The analysis was carried out mainly at the syllabic level, by comparing the values of pitch and intensity of neighboring syllables. In this article, only declarative utterances are considered.

Our approach to analyzing intonation mainly stems from the traditions of Russian intonology, which are in turn heavily influenced by those of the Prague Linguistic Circle. Thus, the first principle of our study is opposition, which is based on the idea of phonological oppositions developed by N. S. Troubetzkoy (Troubetzkoy, 1949) and R. Jakobson (Jakobson, 1962). By contrasting similar utterances with different meanings, one can identify the intonation oppositions that are relevant for the specific language under consideration. In Russian linguistics, this method was used by E. A. Bryzgunova to construct the system of intonation patterns (*intonatsionnye konstruktsii*), sets of prosodic characteristics that are associated with specific functions (Bryzgunova, 1971, 1973). Therefore, the second principle is functionalism, as oppositions are used to differentiate utterances on the basis of their functions. A comprehensive list of the functions of intonation was suggested by F. Daneš (Daneš, 1960) and further developed by Russian linguists T. M. Nikolaeva (Nikolaeva, 1977) and N. D. Svetozarova (Svetozarova, 1982).

Though the functions of intonation are various, all of them can be described in terms of distinguishing constituent parts of the text (its segments) and ascribing them meaning and interrelations. In this way, the study of intonation is primarily concerned with its syntactic functions, particularly those in the field of communicative syntax which deals with the organization of the structure of utterances, as opposed to sentences[3]. One of the main goals of communicative syntax is studying the division of utterances into two parts: theme (topic) and rheme (focus, comment) which are often expressed with the means of intonation.

Based on this framework, any study of intonation should first and foremost be aimed at examining correlations between prosodic and syntactic phenomena. Due to this, our research also includes a thorough analysis of the syntactic structure of the utterances under consideration. As the focus of this study is the intonation marking of the utterance endings, it is important to be able to compare them to the endings of other constituents. Bearing this in mind, we have additionally segmented the utterances into clauses and examined the internal structure of the clauses and the communicative roles of their components: core arguments, periphery and especially the predicates that form the nucleus of a clause (Van Valin, LaPolla, 1997; Fernandez-Vest, Van Valin, 2016).

Preliminary data on the Tuvan intonation

Intonation is traditionally considered as a constituent part of the articulatory-acoustic base (AAB), a term proposed by V. M. Nadelyaev to describe a dynamic stereotype that is developed at an early stage of an ethnic group's existence and provides means of expression in verbal communication. Changing with the course of an ethnos's development, AAB preserves its constituent (dominant) features provided that the ethnic community continues to settle compactly (Nadelyayev, 1980: 5–6; 1986). The AAB of Tuvan was experimentally described on the segmental sublevel (Bicheldey, 1989ab, 2001; Dambyra, 2005; Kechil-ool, 2006; Urtegeshev et al., 2021), but the suprasegmental one remained completely undescribed.

The intonation and accentuation of Tuvan is briefly discussed in a monograph by Sh. Ch. Sat[4] through general remarks based on auditory perception. The Tuvan declarative sentence is characterized by the linguist as having almost level or rising-falling general movement of tone without sharp rises and falls of F_0[5]. He gives the following schematic representation (*Fig. 1*):

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[1] https://audacityteam.org/

[2] Boersma P. and Weenink D. (2021) Praat: Doing phonetics by computer: [Computer program]. Version 6.1.54. Available at: http://praat.org/ (accessed 09.10.2021).

[3] In our work, we distinguish the terms *sentence* and *utterance*. A sentence is understood as an abstract grammatical unit, while an utterance is a unit of both written and oral speech, serving as a realization of a sentence in a specific context of communication. As the defining characteristic of an utterance is conveying a complete thought, it can be, depending on the speaker's intentions, expressed both by one word (e.g. *Great!*) and by a whole passage of text.

[4] Sat Sh. Ch. *Amgy tyva literaturlug dyl. Sintaksis [Modern Tuvan literary language. Syntax].* Kyzyl, Tyvanyng nom ündürer cheri [Tuvan Book Publishing House], 1983. (In Tuvan).

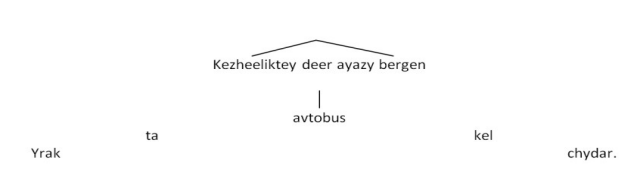[5] F_0 — fundamental frequency, the physical characteristic associated with what we perceive as pitch.

Fig. 1. Tone movement in Tuvan utterances Kezheeliktey deer ayazy bergen 'By the evening, the sky cleared'
and Yrakta avtobus kel chydar 'Far away a bus is coming' as described by Sh. Ch. Sat
Рис. 1. Изменение тона в тувинском высказывании «Кежээликтей дээр аязы берген»
'К вечеру небо прояснилось' и «Ыракта автобус кел чыдар» 'Вдалеке едет автобус' по описанию Ш. Ч. Сата

According to Sh. Ch. Sat, a word can be stressed to emphasize its function within an utterance. Such words are characterized by a high tone. Therefore, the intonation contour of an utterance changes depending on the position of its logical stress[1]. Our interpretation of this fact is that the logical stress is a means of marking rheme. In order to verify this data on the material of minimal pairs of utterances, we have conducted a small experimental study by recording a native speaker of Tuvan pronouncing different utterances with the same meaning but different stress that were used as examples by Sh. Ch. Sat.

(2) *Bis Kyzyldan keldivis*.[2]

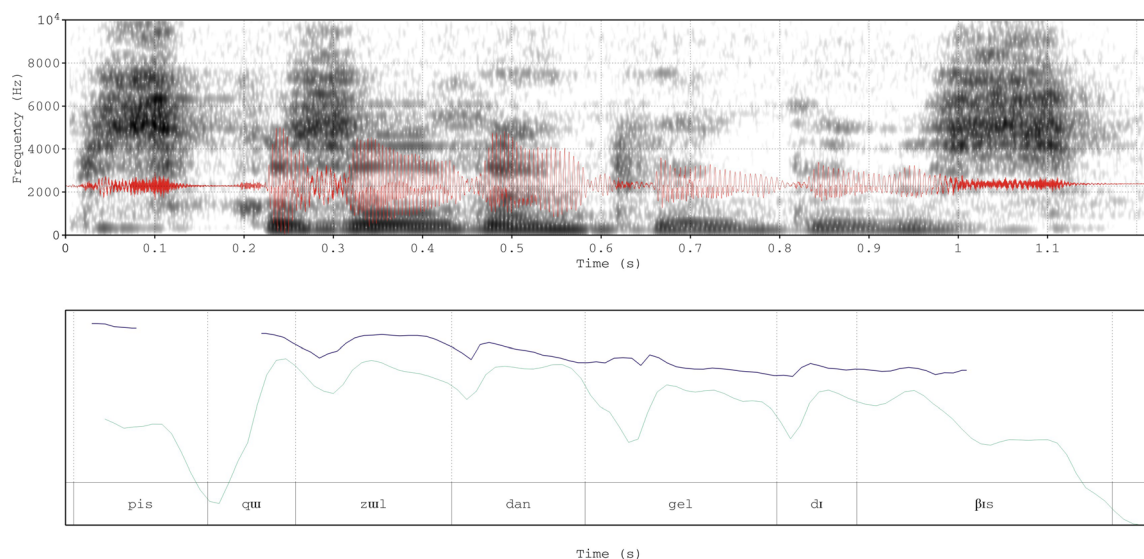| bis	Kyzyl=dan	kel=di=vis
we	Kyzyl=ABL	come=PAST.FIN=1PL

'We came from Kyzyl.'

Fig. 2a. Intonogram of the Tuvan utterance Bis Kyzyldan keldivis 'We came from Kyzyl' (neutral)[3]
Рис. 2а. Интонация тувинского высказывания «Бис Кызылдан келдивис» 'Мы приехали из Кызыла' (нейтральное)

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[1] The term *logical stress (logicheskoe udarenie)* is traditionally used in Russian linguistics to denote prosodic events correlating with emphasis on specific parts of utterance. See: Sat Sh. Ch. Op. cit. Pp. 28–31.

[2] The structure and semantics of Tuvan utterances are represented in this article by interlinear glosses, with the following abbreviations and symbols used: = – morpheme separation; 1 – 1st person subject ('I', 'we'); 2 – 2nd person subject (singular and plural 'you'); 3 – 3rd person subject ('he', 'she', 'it', 'they'); ABL – ablative; ACC – accusative; CV – converb on =*p*; CV2 – converb on =*a*; CV3 – converb on =*gash*; DAT – dative; GEN – genitive; INFIX – infix; INSTR – instrumental; LAT – lative; LOC – locative; NEG.PrP – negative participle on =*bas*; PAST.FIN – finite past form on =*dy*; PERF – perfective; PL – plural; POSS – possessive marker; PP – past participle on =*gan*; PrP – present participle on =*ar*; PRTCL – particle; QUOT – quotation marker; RECIP – reciprocal; SG – singular.

[3] All the intonogramms used in this article are obtained by the authors via Praat software.

In *Fig. 2a*, the intonation is neutral; this is a statement that informs the hearer that the group of people including the speaker came from Kyzyl. Here one can see almost level descending F_0 contour: it starts with a maximum of 16.6 st[1] and gradually reaches 9 st at the very end. The intensity contour is rather interesting, as it is rather low at the first pronoun *bis*, while on *Kyzyldan*, there are three equal peaks, and *keldivis* also has three peaks but with a smaller amplitude. Though the affix =*dan* is aurally perceived as stressed, the intonogram does not show its prominence.
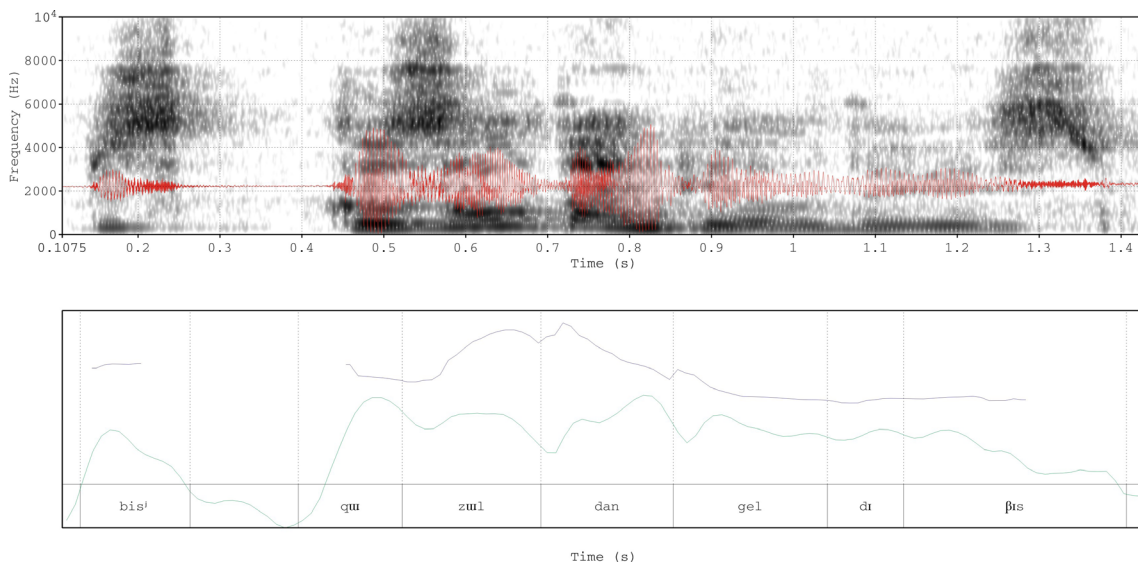

Fig. 2b. Intonogram of the Tuvan utterance Bis KYZYLDAN keldivis 'We came from KYZYL'
Рис. 2b. Интонограмма тувинского высказывания «Бис КЫЗЫЛДАН келдивис» 'Мы приехали из КЫЗЫЛА'

In *Fig. 2b*, the word *Kyzyldan* is stressed, and there is also a pause before it. F_0 is level from the beginning; then it rises on the syllable -*zyl*-, and on the affix =*dan* it starts to decline. Judging by the intensity curve, one can see that it reaches its maximum on the first and the last syllables of *Kyzyldan*.
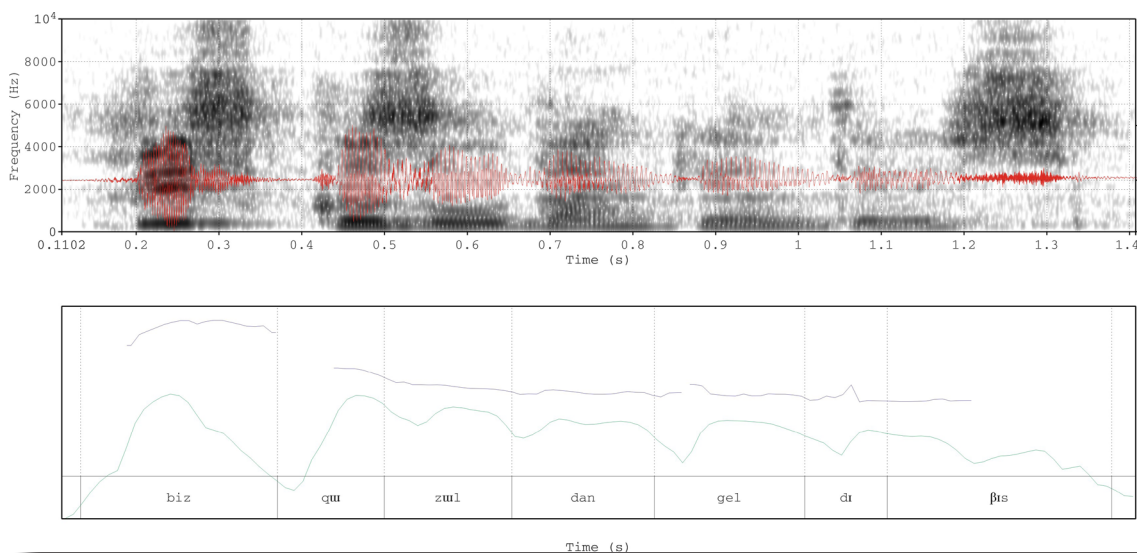

Fig. 2c. Intonogram of the Tuvan utterance BIS Kyzyldan keldivis 'WE came from Kyzyl'
Рис. 2c. Интонограмма тувинского высказывания «БИС Кызылдан келдивис» 'МЫ приехали из Кызыла'

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[1] *st* — semitones.

In *Fig. 2c*, the first word *bis* 'we' is emphasized and marked with a high tone (22 st), the second word starts lower than the first one (from 15 st), and F_0 is declining up to the end of the sentence (8 st). Intensity is also high on the pronoun *bis*, but it also has the same level as at the first syllable of *Kyzyldan* 'from Kyzyl'. All the other intensity peaks are lower.
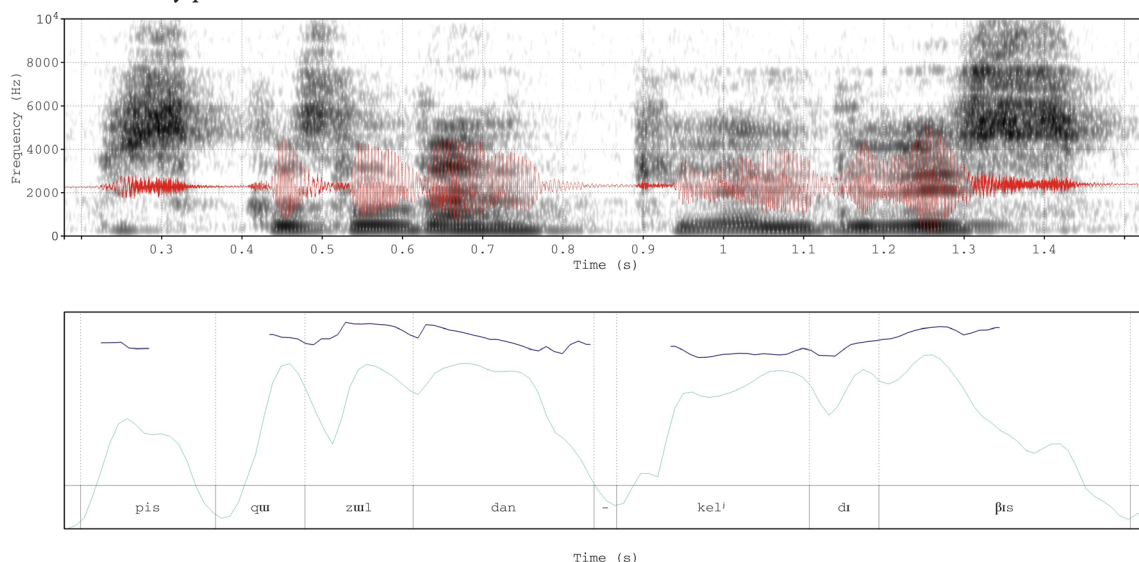

Fig. 2d. Intonogram of the Tuvan utterance Bis Kyzyldan KELDIVIS 'We CAME from Kyzyl'
Рис. 2d. Интонограмма тувинского высказывания «Бис Кызылдан КЕЛДИВИС»
'Мы ПРИЕХАЛИ из Кызыла'

The utterance (*Fig. 2d*) starts rather low (from 13 st) and then has an almost level tone until the last syllable *keldivis* where it rises to 15 st. There are several peaks of intensity, but the highest one is also on the syllable *=vis*. Thus, the rhematic role of the predicate is expressed by a rise both in tone and intensity.

The results obtained coincide with Sh. Ch. Sat's statement[1] that a word with a logical stress is intonationally marked. This is schematically represented in *Fig. 3* given by the researcher.
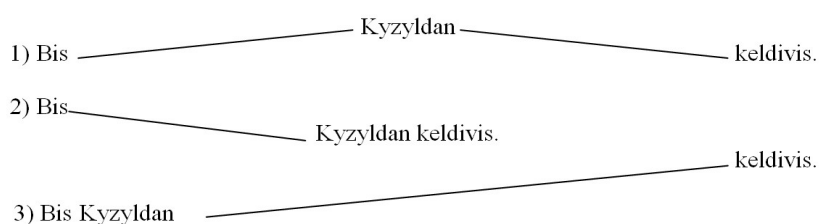

Fig. 3. Opposition of tone movements in utterances with the same meaning
Рис. 3. Противопоставление движения тона в высказываниях с одинаковым значением

Thus, the data of the experiment suggest that rhematic components are usually marked by high tone and intensity. This supports Sh. Ch. Sat's observation.

Another monograph fundamental for Tuvan linguistics (Iskhakov, Palmbakh, 1961), although covering both grammar and phonetics of Tuvan, makes no mention of its prosodic characteristics. Recently there have appeared a number of articles that deal with intonation of different types of utterances in the Turkic languages of Sothern Siberia (including Tuvan) published by T. R. Ryzhikova et al. Some of them are concerned

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[1] Sat Sh. Ch. Op. cit. P. 31.

with the problem of intonation in modal questions (also known as general or yes/no questions). The authors did not manage to establish any definite correlation between intonation pattern and modal interrogativity in Tuvan, as the F_0 can either rise, remain level, or even fall on the special interrogative particle *be* (Ryzhikova, Dobrinina, Plotnikov, 2020), unlike the Altai language, in which analogous particle *ba* is obligatory marked with rising F_0 (Ryzhikova et al., 2020), or Khakas, in which similar utterances are characterised by falling F_0 movement in their final part (Ryzhikova, Plotnikov, Shamrin, 2021). Another study conducted by a group of researchers led by T. R. Ryzhikova is concerned with the role that intonation plays in forming the structure of a coherent Tuvan narrative text, with its results indicating that intonation is used to emphasise lexical means of marking the progression of the text (Ryzhikova et al., 2021).

Intonation patterns of the Tuvan language

In continuation of the long-lasting tradition in Russian intonation studies, exemplified by E. A. Bryzgunova (Bryzgunova, 1973), we analyze intonation in terms of intonation patterns (IPts). Here IPt is defined as a complex of prosodic characteristics that can be used in a specific language in order to distinguish communicative roles of the components of utterances. In this study, we are mainly paying attention to the boundary changes in tone and intensity of the IPts, rather than the overall movement, as it seems to be dependent on the length of a constituent and the position of its lexical stresses. As a result, almost every word is accompanied by noticeable tone and intensity movements. In order to examine only those conditions, under which these movements can be considered meaningful, we are analyzing the boundary intonation of the meaningful segments of utterances that are most often accompanied by a pause.

According to our data, it is possible to distinguish two conditions under which different IPts can be used in Tuvan: 1) at the end of a clause, and 2) on separate constituents, which can be either clause-internal or clause-external. These cases are differentiated by the functions performed by the IPts.

The intonation of clause-internal constituents correlates with their individual functions within a clause. Such constituents may be realized in one of two ways:

  1) by being integrated into an IPt of the clause ending, marking them as a part of its rheme;

  2) by using a separate realization of an IPt.

A group of clause-internal constituents often realized as a separate IPt usually appears to be noun phrases (NPs) performing the roles of subject, object or adverbial modifier. Two intonation patterns of NPs are found to exist in Tuvan (*Table 2*). The main distinction between these IPts seems to be their predictability, with IPt-1 suggesting the importance of the NP for understanding the utterance.

Table 2. Intonation patterns 1 and 2 (prosodic properties and functions)
Таблица 2. Интонационные конструкции 1 и 2 (просодические характеристики и функции)

Intonation pattern	Last syllable movement		Constituent function
	Tone	Intensity	
IPt-1	rising	rising	contrastive theme
IPt-2	rising	falling	non-contrastive theme

Presented below are some examples of IPt-1 and IPt-2.

(4) *Oon bëër Baĭ-Taĭganyn͡g ëëzi kherëëzhen kizhi dep chüveni chon ynchaandyr* [*bilip, chugaalazhy bergen yndyg*].

oon bëër	Baĭ-Taĭga=nyn͡g	ëë=zi	kherëëzhen	kizhi
since that time	Baĭ-Taĭga=GEN	host=POSS.3SG	woman	person
dep	chüve=ni	chon	ynchaandyr	bil=ip
QUOT	thing=ACC	people	thus	know=CV
chugaala=zh=y	ber=gen	yndyg		
tell=RECIP=CV2	give=PP	such		

'Since then, [people have learned that] the owner of Baĭ-Taĭga is a woman.'
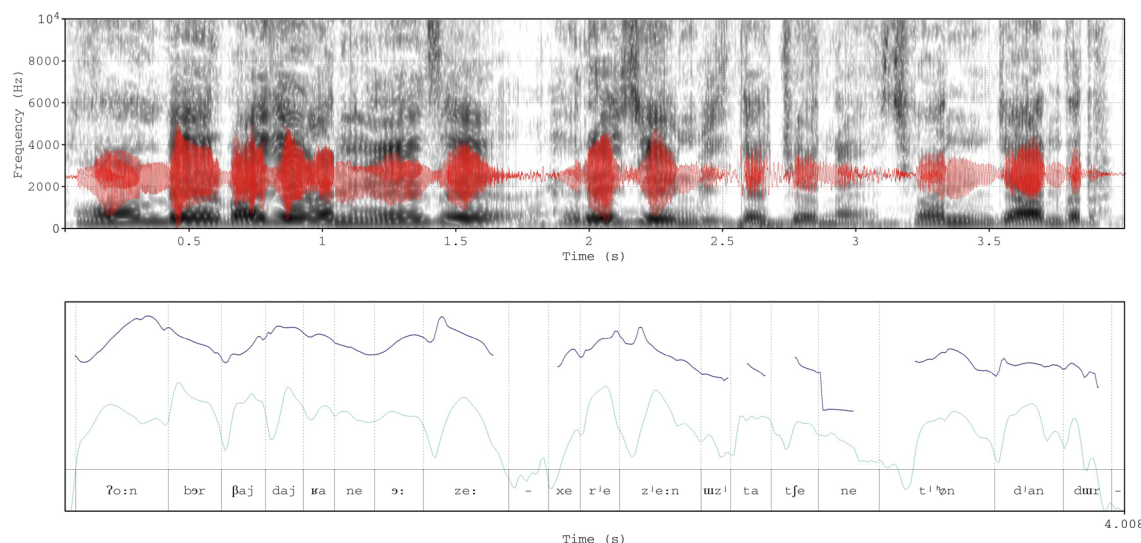
Fig. 4. Intonogram including a realization of IPt-1 on the NP Baĭ-Taĭganyn͡g ëëzi 'the owner of Baĭ-Taĭga'[1]
Рис. 4. Пример интонограммы с реализацией ИК-1 на именной фразе «Бай-Тайганың ээзи» 'Хозяйка Бай-Тайги'

In *Fig. 4*, the thematic NP *Baĭ-Taĭganyn͡g ëëzi* 'the owner of Baĭ-Taĭga' is a typical example of IPt-1. Though the first part of the NP has a rising-falling tone and intensity movement with both peaks located on the second syllable, the overall contour of the NP is determined by a sudden rise in tone and intensity to the last syllable. It is also separated by a pause that marks the boundary between the theme and rheme of the utterance.

(6) *Silernin͡g am chylgyn͡garda Aran-Chula mal bar-dyr.*

siler=nin͡g	am	chylgy=n͡gar=da	Aran-Chula	mal	bar-dyr
you=GEN	now	herd of horses=POSS.2PL=LOC	Aran-Chula	cattle	be-PRTCL

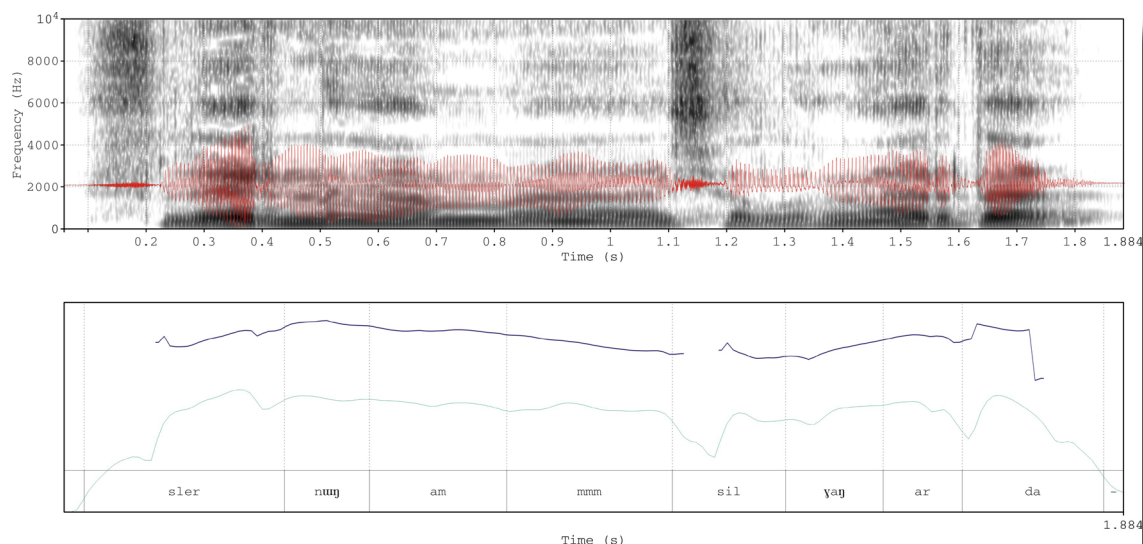'Now in your herd there is a horse Aran-Chula, it turns out.'

Fig. 5. Intonogram including a realization of IPt-1 on the NP Silernin͡g am chylgyn͡garda 'Now in your herd'
Рис. 5. Пример интонограммы с реализацией ИК-1 на именной фразе «Силерниң ам чылгыңарда» 'Сейчас в твоем табуне'

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[1] Here and further on the figures are made by the authors of the article.

Another example of IPt-1 is *Fig. 5*. The overall contour is quite similar to the previous one. The utterance starts with the possessive pronoun *silerning* 'your' with a rising tone, then it falls on the adverb *am* 'now' and the pause filler *mmm*. On *chylgyngarda*, the tone rises again, with local maximums of tone and intensity on up the last syllable, once again before a pause.

(6) *Ol üede Moolda VIII (ses) dugaar Bogda-kegëën törüttüngen*.

ol	üe=de	Mool=da	ses	dugaar	Bogda-kegëën	törüttün=gen
that	time=LOC	Mongolia=LOC	eight	number	Bogd Gegen	be born=PP

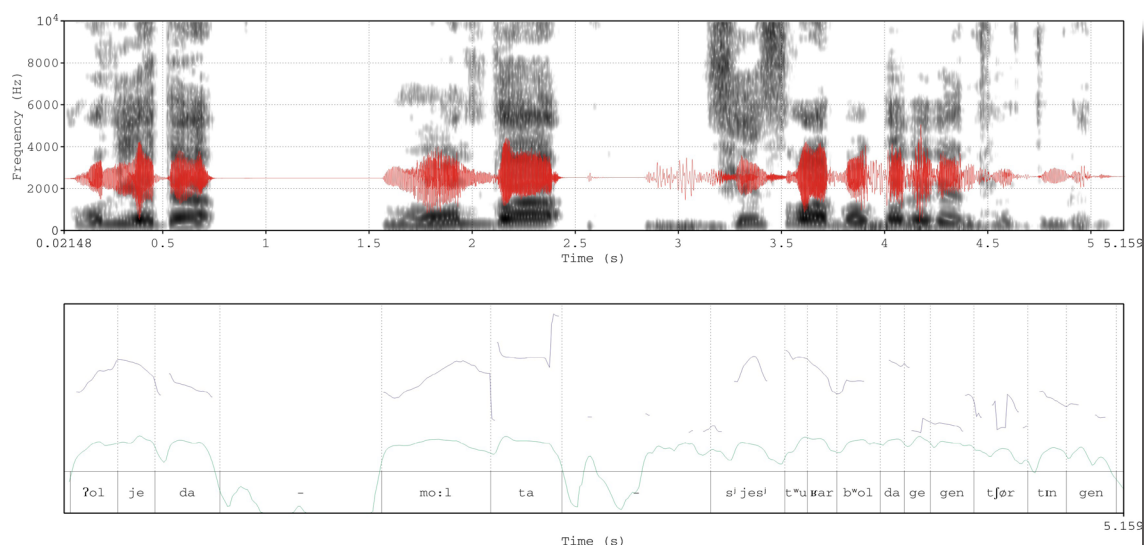'At that time, in Mongolia Bogd Gegen VIII was born.'

Fig. 6. Intonogram including a realization of IPt-1 on the word Moolda 'in Mongolia'
Рис. 6. Пример интонограммы с реализацией ИК-1 на слове «Моолда» 'в Монголии'

In *Fig. 6*, there are two adverbial modifiers that can be contrasted on the basis of their functions. The utterance starts with the adverbial modifier *ol üeda* 'at that time', which is not marked by IPt-1, as it does not convey any information and serves as a marker of the narration's beginning. Its intonation is typical for such constructions: the F_0 contour is rising-falling, the intensity peak is on the second syllable. The adverbial NP *Moolda* 'in Mongolia', on the other hand, is the contrastive theme of the utterance, conveying important information about the location of the action (*in Mongolia, not in Tuva*). Its intonation contour adheres to IPt-1, with both pitch and intensity rising.

(7) *Khemchik ooldaryn kandyg arga-bile kamgalap aar dep dop-doraan bodap kaapkash: <...>*.

Khemchik	ool=dar=y=n	kandyg	arga-bile	kamgala=p
Khemchik	son=PL=POSS.3=ACC	which	way-INSTR	save=CV
aar	dep	dop-doraan	boda=p	kaap=kash
take.PrP	QUOT	PRTCL-immediately	think=CV	put.PERF=CV

'Khemchik immediately came up with a plan to save her children:<...>.'

In *Fig. 7*, there are also two types of NPs. The utterance starts with the subject expressed by the name of the character Khemchik. It is marked by IPt-1, as the character is contrasted to another actor who is mentioned in a preceding utterance as wanting to eat the sons of Khemchik. Thus, the tone contour is rising, with intensity peak and change in tone on the last syllable. Then the object *ooldaryn* 'her sons' follows, which also has a rising tone, but the intensity is falling, as typical for IPt-2.
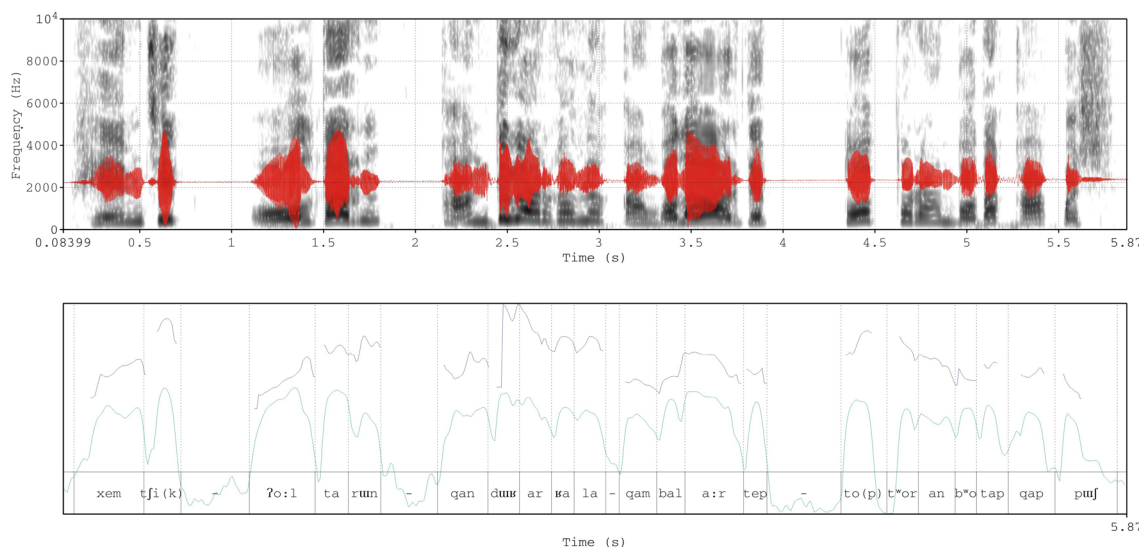
Fig. 7. Intonogram including a realization of IPt-2 on the word ooldaryn *'her sons'*
Рис. 7. Пример интонограммы с реализацией ИК-2 на слове «оолдарын» 'ее сыновей'

Discourse markers prove to be one more type of utterance components that are often realized as a separate IPt. Such markers can include the words *ynchangash* 'therefore', *ynchaarga* 'then', *ooñ söölünde* 'thereafter', *oon bёёr* 'since then' and comprise a specific IPt which resembles IPt-1 (*Table 3*). The intonation and functions of these markers have been examined in a separate article (Ryzhikova et al., 2021).

Table 3. Intonation pattern 1* (prosodic properties and functions)
Таблица 3. Интонационная конструкция 1* (просодические характеристики и функции)

Intonation pattern	Last syllable movement		Constituent function
	Tone	Intensity	
IPt-1*	even or slightly rising	even or slightly rising	discourse marker

IPt-1* seems to be a special functional variant of IPt-1 with a lower level of tone and intensity rise. Considered further is a realization of IPt-1*.

(8) *Ynchangash Khemchiktiñ iйis ooldary – Dashtyg-Khöl, Kara-Khöl.*

ynchangash	Khemchik=tiñ	iйis ool=dar=y	Dashtyg-Khöl	Kara-Khöl
therefore	Khemchik=GEN	twins=PL=POSS.3	Dashtyg-Khöl	Kara-Khöl

'Therefore, Khemchik has twin sons – Dashtyg-Khöl, Kara-Khöl.'

The *Fig. 8* starts with the discourse marker *ynchangash* 'therefore', characterized by a rising tone, and though it begins at the same level as *Khemchik* in *Fig. 7*, the F_0 rise is not as high (18 st vs 26 st). The intensity is also a bit lower, but not falling.

Thus, the IPt-1 is most often used at the very beginning of an utterance, has a rising tone and intensity contour and can be used to highlight either contrastive theme NPs (with a higher tone) or discourse markers (with a lower tone).

Having examined the intonation of the main types of separate constituents, we will turn to the intonation of clause-final constituents and demonstrate the opposition of IPts marking the ending of an utterance to those found across different non-utterance-final clauses. In accordance with the Tuvan sentence word order, the clause ending usually coincides with its predicate. Therefore, the final intonation of a clause may perform a number of functions:
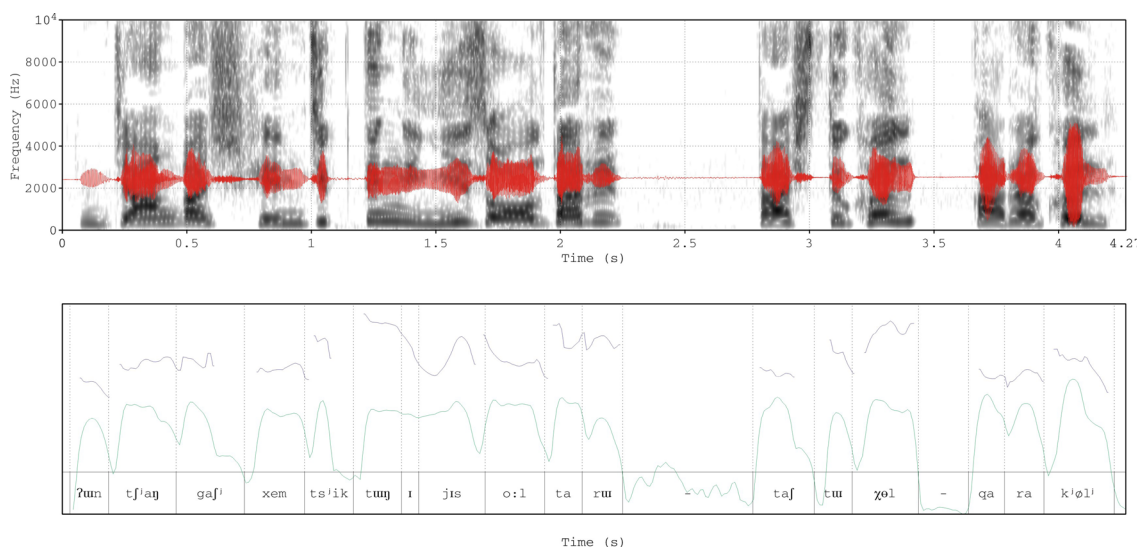
Fig. 8. Intonogram including a realization of IPt-1 on discourse marker ynchangash 'therefore'*
Рис. 8. Пример интонограммы с реализацией ИК-1 на метатекстовом маркере «ынчангаш» 'поэтому'*

1) delimitative function, which a) indicates the position of the clause within the utterance, marking it as complete or incomplete; b) distinguishes the clause as a separate part of the structure of the utterance;

2) significative function, indicating a) the role of the clause in the communicative structure of the utterance; b) the role of the predicate within the clause.

These functions allow distinguishing five IPts (*Table 4*). Here, the completeness signifies that the clause is the final one in the utterance; the rhematic clause means that it either functions as a rheme to a thematic clause or includes the main rheme of the utterance.

Table 4. Intonation patterns of clauses (prosodic properties and functions)
Таблица 4. Интонационные конструкции в синтагмах (просодические характеристики и функции)

Intonation pattern	Last syllable movement		Constituent function		
	Tone	Intensity	Completeness	Rhematic clause	Emphasized predicate
IPt-3	slightly falling	rising at the last syllable	-	+	-
IPt-4	falling	falling	+	+	-
IPt-4*	slightly falling	slightly falling	-	-	-
IPt-5	rising and falling on the last syllable	rising	+	+	+
IPt-5*	slightly rising and falling on the last syllable	rising	-	+	+

Several examples of Tuvan predicative clauses will be discussed below.

(9) [*Ögden üner hamaan chok*], *aaldar arazynche bezin barbas kadaĭy chadyrda chedip kelgen* [*a"sh-chemni kylgan bolup-tur evespe*].

aal=dar	ara=zy=n=che	bezin	bar=bas
aal=PL	between=POSS.3SG=INFIX=LAT	even	go=NEG.PrP
kadaĭ=y	chadyr=da	ched=ip	kel=gen
wife=POSS.3SG	hut=LOC	reach=CV	come=PP

'His wife, [who did not come out of the yurt, and] did not go to the aals[1], came to the hut, [cooking food, it turns out].'
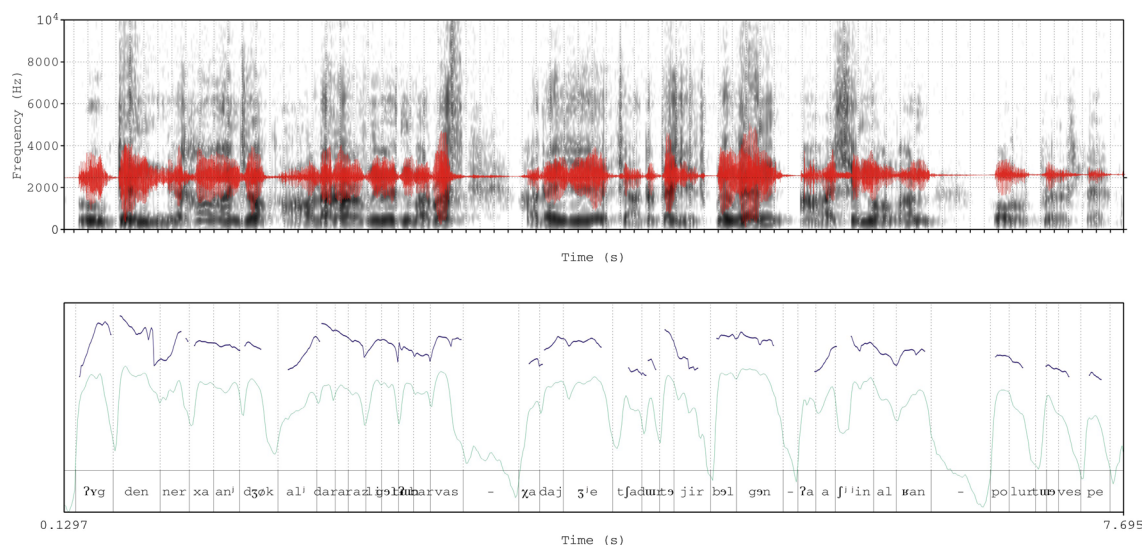
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[1] *aal* – aal, village; tabor; manor; yard.

Fig. 9. Intonogram including realizations of IPt-3 on the predicate chedip kelgen 'came'
and IPt-4 on the auxiliary part of the predicate bolup-tur evespe
Рис. 9. Пример интонограммы с реализацией ИК-3 на предикате «чедип келген» 'пришел'
и ИК-4 на вспомогательном глаголе предиката «болуп-тур эвеспе»

One of the main oppositions of this system is demonstrated in *Fig 9*. The last clause of the utterance (*a″sh-chemni kylgan bolup-tur evespe* 'cooking food, it turns out') is marked with IPt-4, as it has both falling tone and intensity. However, in the functionally identical non-final clause *kadaǐy chadyrda chedip* 'his wife came to the hut', IPt-3 is used: while the tone is falling as well, the intensity remains high. Thus, the opposition of IPt-3 and IPt-4 can be used to convey the completeness of an utterance. Note that in both cases there are maximums of tone and intensity on the main part of the predicates (*chedip kelgen* and *a″sh-chemni kylgan*) that mark them as the rhemes. This is consistent with the data discussed in 3.1.

(10) *Ooldary shoru dorugup özüp orda*, [*Amyrga-Kara-Moos kelgesh, ooldarny chiir deǐ bergen*].

ool=dar=y	shoru	dorug=up	öz=üp	or=da
son=PL=ACC	enough	become strong=CV	grow=CV	sit=LOC

'[When] the sons grew up a little [Amyrga-Kara-Moos came, he wanted to eat her sons].'
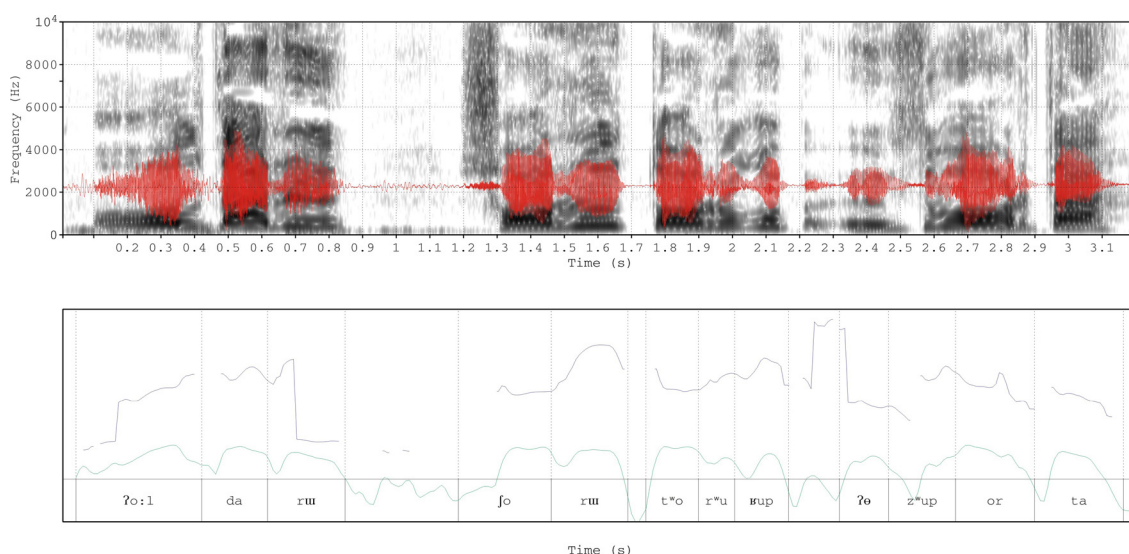

Fig. 10. Intonogram including a realization of IPt-4 on the verb özüp orda 'grew up'*
Рис. 10. Пример интонограммы с реализацией ИК-4 на глаголе «өзүп орда» 'выросли'*

On the other hand, IPt-4 can be contrasted with its modified version (IPt-4*). It is seen in *Fig. 10*, where the clause is describing an event (children growing up) serving as a background for another event (the arrival of Amyrga-Kara-Moos). At the end of the background clause, both the tone and intensity are falling, but not to the level typical for IPt-4, which serves as a mark of both its non-utterance-final position and subordinate role.

(11) [*Baĭ-Taĭga ol iĭi ooldu hülëëp algash, ulashtyr Amyrga-Kara-Mooska berbes dëësh*] *ooldarny iĭi holdap tutkash, chige songgu chükche oktapkan.*

ool=dar=ny	iĭi	holda=p	tut=kash	chige
boy=PL=ACC	two	hold hands=CV	keep=CV	straight

songgu	chük=che	okta=p=kan
northern	side=LAT	throw=PERF=PP

'[Baĭ-Taĭga immediately accepted those two boys, so as not to give them to Amyrga-Kara-Moos], took the boys by the hands, and threw them to the north side.'
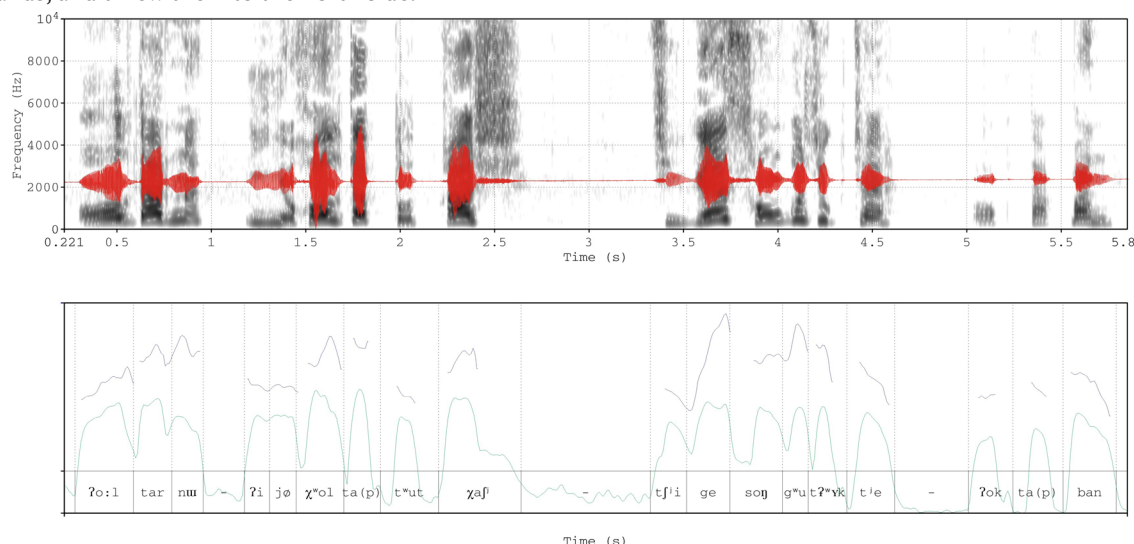

Fig. 11. Intonogram including realizations of IPt-5 on the verbs holdap tutkash 'holding hands' and oktapkan 'threw'
Рис. 11. Пример интонограммы с реализацией ИК-5 на глаголах «холдап туткаш» 'взяла за руки' и «октапкан» 'бросила'

In *Fig. 11*, the last two clauses have similar structure and intonation. Both are characterized by the intensity and tone suddenly rising on the last syllable. These are properties of IPt-5, which is used to emphasize the predicate and to express a kind of incompleteness related to the expectation of a continuation (in this case – the necessity to explain what happened to the children next). There is, however, a slight difference, as in the first clause the tone is high (IPt-5*), while in the second clause the tone is overall lower (IPt-5), which expresses its finality. In both cases, the fact of the action happening is the information most central to the utterance, so the predicates are a part of the rheme, which is conveyed by the local tone and intensity maximum, as has been shown in 3.1.

The same opposition is also found in the second half of *Fig. 8*. The proper names *Dashtyg-Khöl* and *Kara-Khöl* are pronounced with IPt-5* and IPt-5 accordingly, IPt-5 marking the end of the utterance by a lower tone and both serving as rhemes of the utterance.

IPt-5* is also seen in *Fig. 9*, where its emphatic nature is most evident. It is used in the clause *aaldar arazynche bezin barbas* '[who] did not even go to the aals', where this emphasis is expressed not only by means of intonation, but also by the limitative particle *bezin* 'even'.

Among the IPts considered, IPt-5 is the most interesting one. It forms a remarkable contrast to the IPt-4 generally used to mark the end of an utterance. The usage of IPt-5 at the end of utterances of the texts is somewhat contradictory to the idea of intonation generally falling within an utterance. However, the communicative functions it serves show that it is an exception caused by specific conditions and not a violation of the general rule.

Summarized in *Table 5* are all IPts distinguished in the Tuvan folklore texts.

Table 5. Intonation patterns found in the Tuvan folklore texts (prosodic properties and functions)
Таблица 5. Интонационные конструкции, зафиксированные в тувинских фольклорных текстах (просодические характеристики и свойства)

Intonation pattern	Last syllable movement		Function
	Tone	Intensity	
IPt-1	rising	rising	contrastive theme NPs
IPt-1*	even or slightly rising	even or slightly rising	discourse markers
IPt-2	rising	falling	non-contrastive theme NPs
IPt-3	slightly falling	rising at the last syllable	non-final clause ending
IPt-4	falling	falling	final clause ending
IPt-4*	slightly falling	slightly falling	non-final auxiliary clause ending
IPt-5	rising and falling on the last syllable	rising	final clause ending with emphasised predicates
IPt-5*	slightly rising and falling on the last syllable	rising	non-final clause ending with emphasised predicates

Therefore, the IPts identified in the texts demonstrate that the intonation of a Tuvan utterance is primarily dependent on its syntactical and communicative structure, with many IPts used to distinguish the communicative functions of its constituents. However, the usage of most IPts appears to be limited to certain types of constituents, which can be contrasted with much more flexible IPts found, for example, in Russian.

Universality of a falling tone at the utterance end

The falling tone at the end of an utterance was stated above to be an intonational universal. It has also been discussed earlier that the final and complete declination at the very end of an utterance denotes the completeness of a thought and that utterances of such types do not imply any response or continuation. The universality of declination as a marker of completeness will be considered further.

Tuvan sentences can end with a predicate expressed either by a verb or by a predicative construction with dependent words (usually set expressions or personal pronouns that are a part of the predicate). The main tone movements have been found to occur on the verbal constituents.

Our research results witness that not all the utterances in Tuvan narration end with a falling pitch. In some cases, the tone contour is level or even rising, which may seem to contradict the universality of global declination. The further analysis of the texts showed that in some cases the reason for this might be the utterance incompleteness. The structure of Tuvan sentences is rather complicated, and the Tuvan speech is abundant with different clauses and excessive introductory words. The compilers of the volume of Tuvan myths under consideration emphasize that, in the course of their work, they had to divide such complex sentences into several simpler ones[1]. Now, the textual level makes it possible to notice the logical borders of the utterances characterized by the completeness of a thought or an idea.

In order to demonstrate this, we shall examine a consequence of utterances from one of the texts.

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[1] *Myths, legends, historical stories of Tuvans* / comp. by N. A. Alekseev, D. S. Kuular, Z. B. Samdan and Zh. M. Yusha. Novosibirsk, Nauka, 2010. (Monuments of folklore of the peoples of Siberia and the Far East, vol. 28). (In Russ. and Tuvan).

(12) [*Ashtaan-suksaan anḡchy chadyrynga araĭ dep kalgyp chedip kelgeshtiṅ köörge*], *chadyrynyṅ dashtynda ulug ot bolza odag bolza hyp turgan.*

chadyr=y=nyṅ	dasht=y=n=da		ulug	ot	bolza	odag	bolza
hut=POSS.3SG=GEN	outside=POSS.3SG=INFIX=LOC		big	fire	PRTCL	fire	PRTCL
hy=p	tur=gan						
burn=CV	stand=PP						

'[The hunter, suffering from hunger and thirst, with difficulty reached his hut and saw that] near his hut a large fire was burning.'
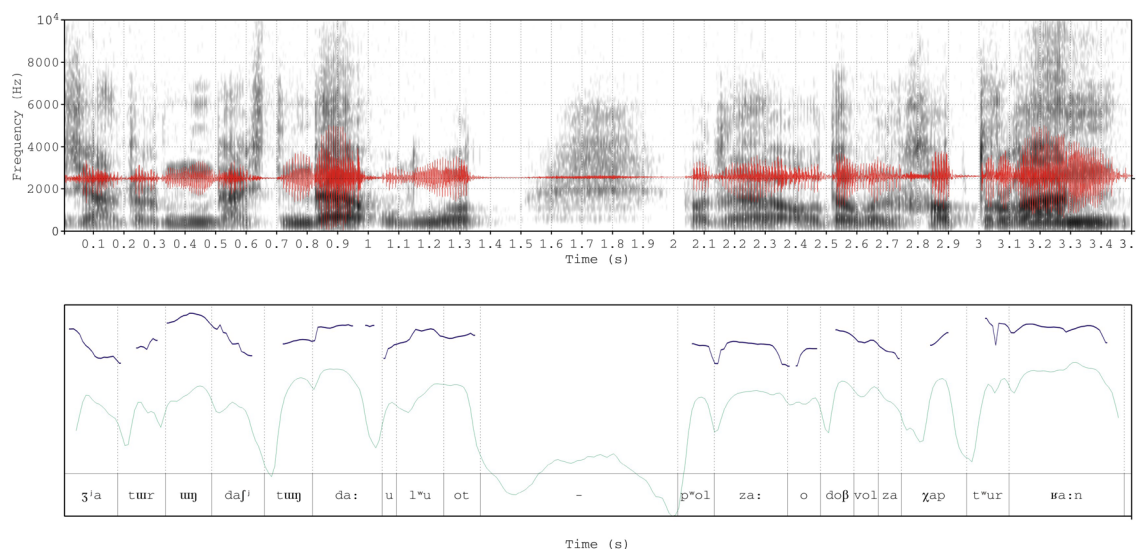

Fig. 12. Intonogram of a Tuvan utterance without prosodic markers of completeness
Рис. 12. Интонограмма тувинского высказывания без просодических показателей завершенности

At the end of *Fig. 12*, the tone contour is level, while intensity suddenly rises on the last syllable, which is typical for IPt-3. Moreover, the last syllable of *turgan* (past participle from *tur*= 'to stand') is rather prolonged. This not only implies further continuation, but also shows that this phrase does not constitute a complete utterance. This might be the case of an artificial separation of a long utterance into two written sentences by the compilers of the book.

(13) *Chadyrynyṅ ishtinden ysh burunḡaĭnyp turar, oon kylgan a″sh-chemniṅ chydy dëërge ashtaan kizhiniṅ özü ettinip turar myndyg boop-tur.*

chadyr=y=nyṅ		ish=ti=n=den		ysh
hut=POSS.3SG=GEN		inside=POSS.3SG=INFIX=ABL		smoke
burunḡaĭn=yp	tur=ar	oon	kyl=gan	a″sh-chem=niṅ
swirl=CV	stand=PrP	then	do=PP	food=GEN
chyd=y	dëërge	ashtaan	kizhi=niṅ	öz=ü
smell=POSS.3SG	PRTCL	starve.PP	person=GEN	aorta=POSS.3
ettin=ip	tur=ar	myndyg	boop-tur	
recover=CV	stand=PrP	such	be.CV-PRTCL	

'Smoke swirls from the hut, and the smell of cooking food makes the hungry hunter's stomach clench.'
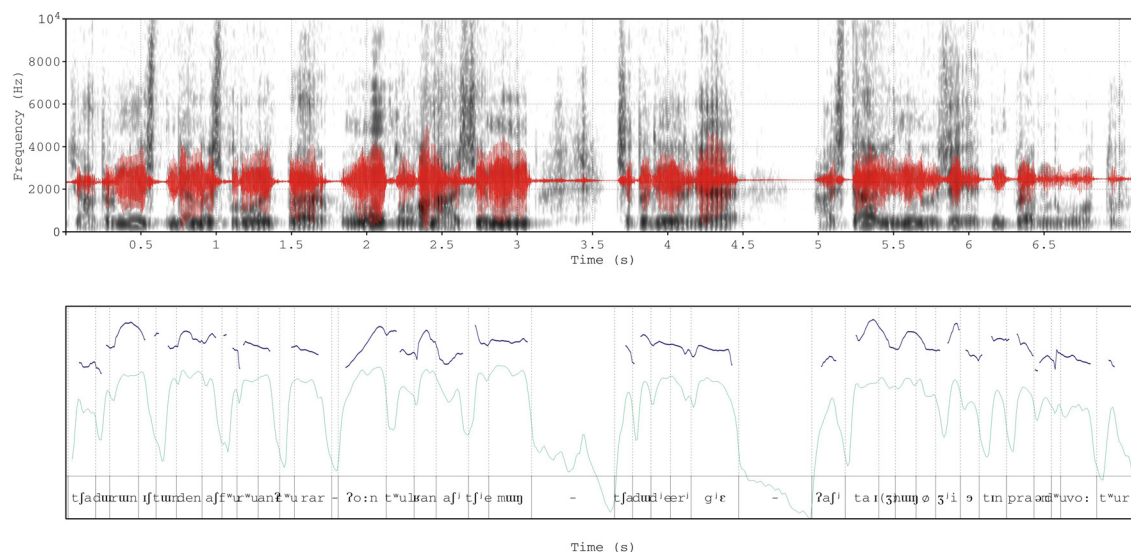
Fig. 13. Intonogram of a complete Tuvan utterance
Рис. 13. Интонограмма завершенного тувинского высказывания

In the next part of the text (*Fig. 13*), the description of the situation continues, with new details being added. This time, both tone and intensity of the last clause are declining to the lowest point in the utterance, and there is no prolongation of the last syllable. Thus, it is a typical realization of IPt-4, marking the completeness of the utterance.

(14) "*Konchug-la eki bolgan-dyr, chanğgys kizhёё ёsh bolur ёsh-öör chedip kelgen-dir*" – *dёёsh, anğchy amyrap-chelep, ulug odag chanynga haldyp kёёrge, chüve-daa közülbes*.

konchug-la	eki	bol=gan-dyr	chanğgys	kizhёё
very-PRTCL	god	be=PP-PRTCL	one	person.DAT

ёsh	bol=ur	ёsh-öör	ched=ip	kel=gen-dir	dёёsh	anğchy
friend	be=PrP	friends	reach=CV	come=PP-PRTCL	say.CV3	hunter

amyra=p-chele=p	ulug	odag	chan=y=n=ga
be happy=CV-do smth=CV	big	fire	near=POSS.3SG=INFIX=DAT

hald=yp	kёёr=ge	chüve-daa	közül=bes
ride=CV	come.PrP=DAT	thing-PRTCL	show up=NEG.PrP

'"It is very good, [when] a lonely person has friends-comrades,"– having said, the hunter was happy, ran up to the big fire, [but] there wasn't anything.'

The next utterance (*Fig. 14*) starts with a direct speech followed by the verb *de=* 'to say' in the form *dёёsh* 'having said', which is not marked intonationally, as it continues the pitch contour of the clause and is not separated by pauses. On the other hand, the next clause *anğchy amyrap-chelep* 'the hunter was happy', which is characterized by a falling-rising F_0, is separated by a pause accompanied by the speaker's inhaling for a further continuation of the utterance. The last part is a separate clause, with its predicate being marked by a falling-rising tone and a rise in intensity (IPt-5). In this case, IPt-5 clearly implies a further continuation, as the utterance deals with an unrealized expectation that needs to be explained. The verb *közülbes* 'did not see' has the negation affix =*bes* that also occurred in *Fig. 9* and happens to be emphasized by pitch and intensity in both cases.

Despite being an exception to the general rule, utterances ending with IPt-5 are found in all the texts. Their percentage varies from text to text, with most of the occurrences in *Chadyrlyg diihenğ* (three examples) and *Khemchik* (four examples) and only one in *Baĭ-Taĭga dugaĭynda chugaa*. Nevertheless, they constitute about 10% of all the complete declarative utterances in the texts.
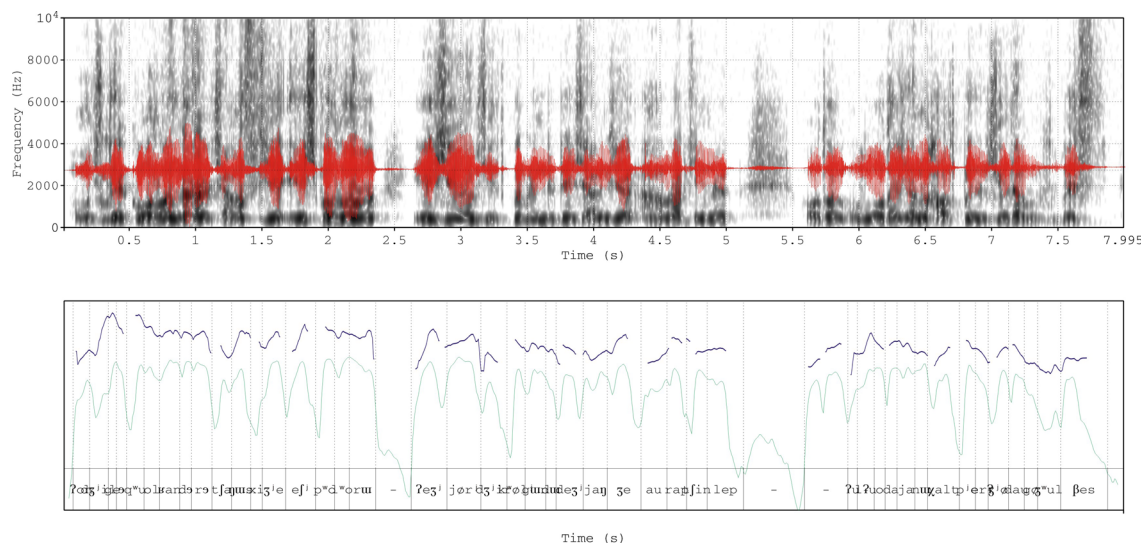
Fig. 14. Intonogram of a Tuvan utterance with an implication of continuation
Рис. 14. Интонограмма тувинского высказывания с ожиданием продолжения

IPt-3 as a marker of the incompleteness of an utterance is also found in all the texts, but with a different distribution: it is used only sporadically in *Chadyrlyg diiheng̃* and *Khemchik* and is quite frequent in *Baĭ-Taĭga dugaĭynda chugaa* and *Aran-Chuladugaĭynda chugaa* (more than 10% of complete and incomplete utterances). This seems to correlate with the structural properties of the texts: while the former two are straightforward and simple narratives, the latter ones are longer and more complex stories with longer sentences. Those factors could have affected the speakers' narrative strategies, while also prompting the compilers of *Myths, legends, Historical Stories of Tuvans* to divide the sentences into smaller ones.

Thus, the intonational analysis of the texts under consideration confirms the idea that the universal falling tone in the end of an utterance indicates the completeness of the thought conveyed by it. When F_0 movement at the end of an utterance (or clause) is rising (IPt-5), level, or even slightly falling (IPt-4*), but the intensity remains rather high (IPt-3), further development of a thought being expressed is implied (whether in the form of another clause or another utterance). However, if both tone and intensity are falling (IPt-4), with the latter being lower than in the previous parts of the utterance, this means that the development of the thought has been completed.

Our findings are in good agreement with the work of T. E. Yanko (Yanko, 2008) on the intonation of the coherent Russian text. The Russian language is a well-known example of the so-called *free word order* languages (Van Valin, 1999: 521). The word order of a Russian utterance may vary a lot, but in most cases, it depends on its communicative structure. For example, the basic word order in utterances with an object is SPrO, which is usually used to stress the object, while the OPrS variant is used to emphasize the subject (Adamec, 1966)[1]. A word stress in Russian is both qualitative (the spectral vowel characteristics) and quantitative (the length of a vowel)[2]. It does not have a strict place in a word and can move within a wordform with affixation. These factors distinguish Russian from the Turkic languages, in which the word order tends to be rigid, and the existence of lexical stress is still rather disputable. Despite the presence of such systemic differences, the means of expressing incompleteness in Russian are quite similar. T. E. Yanko emphasizes that an accent on a verb marks the incompleteness of a text, i.e. the rising F_0 on a verb is not local but rather discursive: it is intended to make a text an integral unity. If a verb performs both local (rhematic) and discursive functions, both accents (falling and rising) are registered on it, thus forming a falling-rising pattern (Yanko, 2008: 136–137). In Tuvan, a good example of the correlation between incompleteness, a rising tone and a high intensity is the intonation of enumeration, as seen in *Fig. 8*.

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[1] Kovtunova I. I. *The modern Russian language. Word order and actual division of sentences*: A textbook. Moscow, URSS, 2002. (In Russ.). Pp. 170–172.

[2] Knyazev S. S. and Pozharitskaya S. K. *The modern Russian literary language: Phonetics, orthoepy, graphics, orthography*: A textbook for HEIs. Moscow, Akademicheskii Proekt; Gaudeamus, 2011. Pp. 160–161. (In Russ.).

Conclusion

The problem of intonational universals is widely discussed, but without any decisive conclusions, which can be attributed to the fact that the intonation of many languages remains undescribed. The data on the intonation of Tuvan obtained in our study helps to include one more language into this discourse.

As there have been almost no preceding publications on this topic, excluding general observations of the usage of a high tone to indicate the emphasized parts of an utterance, which we have verified in an experiment, identifying universal characteristics of the Tuvan intonation has required its systematic analysis. As a material for such analysis, four Tuvan folklore texts were chosen. These texts proved to be a valuable material for examining variations in terms of types of utterances. Several intonational oppositions were examined, including oppositions of clause-internal and clause-final constituents. These oppositions manifest themselves in the form of intonation patterns (IPts), sets of intonational characteristics associated with specific communicative functions. IPt-4, which is characterized by a falling tone and intensity, marks final clauses of completed utterances, while other IPts with a rise in tone or intensity are used to express various kinds of non-finality. An evenly rising tone is generally found in non-clause-final constituents (IPt-1, IPt-1*, IPt-2), while non-utterance-final clauses, although usually following the falling tone pattern typical for all clauses, are differentiated by the fact that the tone fall is less pronounced and the intensity can be rising (IPt-3, IPt-4*, IPt-5*). A notable exception is IPt-5, characterized by a rise in tone, which is used in utterance-final clauses to mark the predicate as the rheme (focus) of the utterance, while also implying the need for further continuation of the narration.

Our findings are in general agreement with the studies of other scholars and our studies on other Turkic languages of Siberia, and support the idea of the universality of a falling tone marking the end of an utterance.

Acknowledgments

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