

The sound of radio speech:
a comparative analysis of prosody in Swedish and Russian radio programs

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Abstract

Prosody plays an important role in human communication processes. Moreover, the results of researches in intonation are actively used in various fields, e.g. the development of speech production and speech recognition technologies, sound recording software creation, teaching first language to the hearing impaired, speech reconstruction after brain damaging conditions, teaching a foreign language, etc.

The research primarily examines phrase-level intonation patterns occurring in radio speech in Swedish and Russian. Within the study, radio represents the context. Radio programs were chosen as a source of data, since the recordings can provide high sound quality, and radio journalists are taught to speak clearly and actively use intonation patterns. The research comprises beginning parts of six programs in each language. Moreover, the programs were grouped into “serious” and “entertaining”.

The research is conducted within the post-structural methodology of the research prism combined with the theoretical views of Jakobson. The research is conducted on auditory and instrumental level, and includes the elements of literature review. The auditory level was conducted by the researcher herself, for the instrumental level sound analysis software Praat© was exploited. The key method within the study is visualization. On the auditory level visualization includes textual representation in written form, including a specially developed sign system. On the instrumental level visualization comprises software-created spectrograms and their textual description.

The results show some correlations between the topic of the radio program and the prosodic pattern used. In particular, the more emotional speech attributed to the “entertaining” programs exploits a wider pitch change range than the speech of the “serious” programs. However, the results are ambiguous and the issue deserves further studies including a bigger data sampling.

Key words: Radio speech, intonation, prosody, Swedish, Russian.

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1. Introduction

The Master's thesis study is named *The sound of radio speech* and the topic of the research is prosodic patterns used in radio speech and radio talk in Russian and Swedish. The focus of the study is on the intonation patterns used while some the other prosodic elements, such as stress, are commented on as well. To begin with an example of earlier radio studies and an explanation of the topic choice, in his book *Radio in the digital age* Dubber (2013, 1) states that the majority of radio scholars are either working or have worked in radio, therefore their experience creates the first impetus for their academic interest in radio studies. This is also true for the research, since besides being an active and involved radio listener from early childhood, I have been working for the National television and radio company of Belarus, Radio Belarus channel, in 2013-2014 as a freelance editor, journalist, translator and partially sound editor for 5 different programs. This makes my interest towards radio studies personal and was one of the reasons for me to choose the topic. I should admit that reading the earlier works in the field of radio studies, I could not help comparing the results with my own experience and knowledge of radio.

So, a study of intonation should begin with an explanation of what is understood under the notion. Within the thesis study intonation is defined as “the ensemble of pitch variations in the course of an utterance” (Hart et al. 1990 cited in Ode 1980, 10). The prosodic patterns within the radio shows will be studied in the close correlation with the programs' topics, and some attention will be paid to the radio channels that have broadcast the shows. The topics are separated into “serious” and “entertaining” and some information have been gathered about the contented broadcast by the radio channels, target audience, their social self-positioning. All the facts are presented in the thesis paper in the section on data description.

The thesis is organized in the following way. First, the history of radio in short is presented combined with the examples of the earlier radio studies and examples of the media being socially important. Then, in the methodological chapter the methodological approaches and methods exploited in the study are discussed. Thirdly, the data is described followed by the two-stage analysis process (auditory and instrumental) depict. The analysis chapters includes data study results and corresponding earlier studies. Finally, the conclusion and the summary are introduced. In the end in Appendix 1 a reader can get a full account of the texts under analysis with a translation into English, performed by the author of the thesis. The main interest points within the study of prosody are pitch movements, stress positioning, pauses, and speech rate. Auditory analysis in the research is mostly derived at the stresses and pauses, while in the flow

of instrumental analysis the pitch level and movements and speech rate would be covered in a more accurate way. The thesis study has taken two academic years, the data covers around 15 minutes of sounding text in two languages (described at the beginning of the chapter on auditory analysis) voiced by 7 journalists working for 5 different radio channels (all introduced in the chapter on auditory analysis before the data description), and over 40 references in English, Russian and Swedish (carefully listed in the *References*).

Since both Russian and Swedish are non-tonal languages (the tone/intonation does not change the meaning of the word, as e.g., in Chinese) (Abe 1980, 8), it may seem that radio journalists are free to choose the intonation contours in their speech. Nevertheless, the study demonstrates the occurrence of patterns according to the topic of speech, as well as the language spoken. Interestingly, Vijver et al. declare that intonation contours would change should a language be used by a non-native speaker (Vijver, Kügler & Fery 2009, 4). To my mind, this creates the potential problematic of the further studies in the field, especially within the present-day migration processes in the EU.

The choice of a language pair for analysis in this thesis study might not seem a self-evident one. I have made the decision of comparing the phrase-level intonation patterns of the two languages I know well enough to have a clear understanding of the radio texts sounding. Russian is my second (learned) native language, since I consider myself a bilingual. And I have started learning Swedish as my third foreign language during my Bachelor years, followed by working with it for altogether 7 years now. Also, I have worked as translator with the language pair, which leads to observing similarities and differences in the languages. This, combined with my study-long academic interest to the non-verbal communication and radio working experience, finalized in the research objective of the present thesis study.

The goal of the study is to provide an account on the modern language prosodic patterns in radio speech. The results can have a number of implementations for the further research within social sciences and humanities. For instance, the research might be utilized in enhancing the mutual understanding between the representatives of Swedish and Russian-speaking communities due to the knowledge of the non-verbal patterns, stimulating further interest to radio studies in the framework of cultural studies, providing results applicable for speech recognition and reproduction software design, the hearing impaired teaching, and foreign languages/second language teaching. Moreover, knowledge of intonation patterns has been confirmed important for the field of re-learning speech to the adults recovering after brain damaging conditions

(Bruce 1998, 200). Further, here and after under *cultural studies* should be understood a scientific approach covering the perception and research on different issues (in the present study – radio speech) via the prism of culture in the broad sense of the human-created world.

Furthermore, Beutler (2017, 67) notes that for the people living in countries other than their homeland radio in their own language together with other media produced in their home country, becomes an important source of connection with the home land. It is also about the freedom of choices, whether to listen to the foreign channels or to hear the news in your mother tongue, while the content and the journalistic approaches would definitely differ (Beutler 2017, 67). The freedom is, of course, at a great extent provided by the Internet nowadays. Thus, another possible outcome of the study is a search for an answer to the question if radio can be used as a source of teaching young immigrants their native language, so how accurate and “live” sounds radio speech. Furthermore, this remark makes the study again personal since I admit using online radio and television as the media of connection to Belarus during my studies in Finland.

2. The earlier radio studies

The chapter gives a general overview of radio as media and its development. The facts presented, to my mind, have influenced the history of world radio. The chapter is not aimed at describing the history of Swedish or Russian radio in particular. I would like to underline that the focus of the study is speech and prosody as its significant mode. While radio plays a part of context, yet the context is proved to be inseparable within the framework of cultural studies. Therefore, I present the facts describing various aspects of radio, not only radio speech which is directly connected to the present thesis study. So, the thesis paper begins with the description of earlier radio studies.

2.1. The earlier studies, a general overview

The most general view on radio looks the following way. To begin with, radio is an old, but definitely not dying away media (Biewen & Dilworth 2010, 3). One of the reasons for radio's sustainability is distance broadcasting, easiness to use and a little of low-priced equipment needed, all those leading to the wide spreading of radio (Snider 2005, 12). Also, radio can provide information without occupying the hands and eyes of the receiver (Åbrink 1998, 21). In the introduction to *Experimental sound and radio* Weiss (2001, 2) claims for the multi-modal approach to the radio by saying "there is no single entity that constitutes "radio", rather there exists a multitude of radios". A pirate radio, a local radio, a national radio, a commercial radio, a free radio, all of those create a different reality, have their own rules of functioning, traditions, audience, topics, etc. (Weiss 2001, 2). Thus, radio should be studied not within the mode of sound only, but the social background and the content of radio shows have a heavy influence in the radio studies, leading to the researches consisting of several layers/modes. The idea is supported by Åbrink (1998, 76) and his discussion on radio as a number of multi-layered intertexts. An interesting approach to radio studies is represented in the book *Reality radio: telling true stories in sound*, where radio is perceived as a form of art produced by people loving it and based on the cooperation between the journalists and audience (Biewen& Dilworth 2010). Among those and many other approaches to radio studies, I have chosen radio as the surround and background, as a form of context within which the prosody exists.

The same as any other media radio has changed and developed throughout its history, both in terms of production process and in its social sense. While in the beginning a radio set was a symbol of wealthy people's dining room derived from the high technology for army servants, by the end of the 20th century it has transferred into a wide-spread utensil (Åbrink 1998, 19).

Therefore in the study radio is perceived as a part of and a form of representation of the everyday life of a large number of people, with a possible influence of the radio djs' prosodic patterns onto the way we speak.

Radio appears as a multi-modal media, which is in the process of *becoming*. The multi-modal approach in radio studies means that though traditional radio is audial-only, researches on the topic would usually cover simultaneously two or more layers, e.g. text and sound (meanings and the way radio speech is pronounced, this research), audience and devices (who listens and via what (Dubber 2013)), text and social background (what is said and who is given the word to (Soep & Chavez 2010)), etc. Radio is considered becoming in a sense that the media is changing and developing.

Interestingly, the studies on radio appeared almost as early as the radio itself, starting with the audience's studies with a marketing interest. E.g. the first listeners' opinion polls were conducted already in the 1930s. However, until the 1990s the materials and researchers mostly comprised the U.S. radio and the results of the studies therefore do not completely correspond with the situation on the Swedish radio (Åbrink 1998, 31) or Russian radio. Nevertheless, the study does not comprise the impact of the programs on viewers or viewers' reactions though the information on the target audience of the radio channels will be provided to create the context for the prosodic patterns use. Furthermore, in the digital era radio stations have a wider range of possibilities of audience feedback; e.g. I monthly get e-mail from a radio station I regularly listen to with a link for a poll where the music for the next month can be chosen. The other possibilities include posts and comments in social media, SMS and phone calls, etc. (Beutler 2017, 67).

The geographical specification in radio is one more interesting point, which should be also included in the context; though it is not a part of the study, still local radios have both an important social role and can serve as data for the study of local dialects/accents, which I perceive as a possible issue for further radio studies. Nevertheless, prosodic dialect variations are not included in the module of the thesis research. So, Kirkpatrick (2010) discusses US 1930-1940s radio local radio situation. Besides the growing role of the local radio, the advertisement started its path in the media. While in the beginning local radios were occupied by semiprofessionals or amateurs talking about "homely" local news, the national channels employed professionals with the aggressive world-wide important information. However, in the late 1930s local radio workers begin to professionalize (Kirkpatrick 2010).

Nevertheless, in Sweden the local radio was first introduced only in 1977 and the first private local radios stepped onto the market in 1993. Before that radio had been a state monopoly with a constant threat from the “pirate” stations (Åbrink 1998, 19). Thus, all the data in Swedish represents the same broadcaster Sveriges Radio though two different channels P1 and P3, with Sveriges Radio being the biggest, the most important and allegedly the most qualitative radio in the country. Also, I believe that Sveriges Radio can present the more or less demonstrative patterns of the prosodic patterns in Swedish, being “the main” radio in the country, having the biggest number of employees and at some point serving as an example for smaller stations.

It should be mentioned here that radio is considered having always been and will be at some point governmentally and centrally controlled, since the smaller/local radio stations have to obey a number of laws on the speech decency, state secrets, as well as sound quality characteristics imposed by the state. Nevertheless, a trend to the de-regulation of radio is believed to appear in the digital era. The de-centralization of radio is heavily relied on the technologies, the development of which also leads to de-professionalization of radio due to the easy access to recording, mixing and editing software to amateurs (Dubber 2013, 151). This causes several difficulties to radio studies; e.g. I had to attentively analyze the web-pages of each radio station to make sure that the channel has a vast audience and is significant on the market, and thus, representative and is not produced by a group of amateur beginners, which would ruin the validity of the study and misinterpret the research questions. In this thesis study de-centralization is represented by the Russian-language radio stations, Nashe Radio and Radio Svoboda. Both stations are privately-owned and the described above analysis of the content has been made before the programs were included in the research data to ensure the professionalism of the journalists. Also, here I would like to remind that from its creation until 1991 Russian, or actually Soviet, radio was completely governmentally owned and strictly controlled.

2.2. The views on radio and power

Radio comprises the power what to listen to and when to stop (Suisman 2010, 5). I would add that in the today’s world of Internet-radio this has become even more crucial since we do not follow the listening schedule so strict and can go back to the programs almost any time. Furthermore, LaBelle (2001, 167) includes the discussion on noise in a research of the notions of power, control and chaos. The talk on power and radio continues Rasmussen (2010, 189), underlining that radio also limits our choices, since we have to listen to advertisements, news and a number of songs, besides our favorite music/shows. So, listening is scheduled and thus

dependent (Snider 2005, 13). Again, due to the modern technologies the data for the study was downloaded at a time convenient for the researcher, and the programs were not analyzed during the live broadcast, but later, when they were posted on the channel's web-page. Nevertheless, I believe that the accuracy of the study is not influenced by the analysis of the recorded instead of the live shows; in the flow of analysis no special attention is paid to the situation, the focus is on the radio texts and the prosodic patterns occurring in those.

2.3. The social functions of radio

To begin with, according to Stamm (2010, 231), radio and printed media acted in 1920-1940s America independently and filled different niches. News by radio was delivered quicker than by newspapers and believed to be for "passive" and "lazy" customers, the non-reading population. Furthermore, at some point newspaper corporations began to buy the radio channels to monopolize the news market. Another important issue discussed in the article is the panic caused by the War of Worlds' famous reading. Then a part from the book describing the Earth's invasion by the aliens was read in a form of radio play without a proper announcement of the performance; listeners were frightened by the "attack" and started leaving their houses, stocking on food and arms, etc. Therefore, the community understood the luring power of radio (Stamm 2010). Thus, from the early ages radio was not only a source of news, but a topical issue in social and scientific discussions. Also, the media has been involved in constant changes ever since it has appeared on the market.

One of the most significant social functions of radio named by a number of researchers is being an instrument of literally giving the voice to women, teenagers, ethnic minority representatives, political opposition, etc. (Soep & Chavez 2010, Ehrick 2010, 70), or giving the voice and openly sharing the viewpoints with the broad audience (Biewen & Dilworth 2010, 14). Ehrick (2010, 75) also claims one of the big problems for women to be recognized as radio journalists was the technical difficulty with high voice recognition, since the earlier microphones would not perceive and give the possibility to record high voices (and we assume that in the vast majority a female voice is higher than one of a male). However, with years the professionalization of journalists came, as well as improvements in the recording equipment (Ehrick 2010, 75). Nevertheless, in the Nordic countries until the late 20th century the absolute majority of radio journalists were men (Åbrink 1998, 167). Besides that, all programs in Swedish within this research are performed by female journalists. Here it should be mentioned that among the data for the study both male and female voices are presented, and no specific attention is attributed to

the speaker's gender though some small details can be mentioned. The earlier difficulties with the equal access to the profession of a radio journalist make the study an important brick in the path of ensuring that all kind of people could be and will be given an opportunity to speak for their views on the radio, both in terms of technology and social rights.

One of the major researches on radio as a way to give a voice to young people was conducted by Soep & Chavez (2010). In the book, the authors discuss a number of radio's features and a wide range of topics connected with the radio texts production. To give one example, they write about the importance of time in the radio work, which makes it important to talk in "strong" voice. It is important to give young journalists a place to work, a proper education, and in general to attract young people to radio (Soep & Chavez 2010, 19). Here it is worth mentioning that Åbrink (1998, 304) considers people of a relatively young age (20-40) the main audience of radio.

Continuing the topic of radio's political influence, Pfau & Hochfelder (2010) and Vaillant (2010) name radio an important part of propaganda during the World War II. Furthermore, Vaillant (2010) talks about the importance of radio as a source of news and counter-propaganda in the occupied France. Moreover, radio performed the voice of French Resistance. Before the WWII in the 1930s in France radio played a role of the voice of the government, delivering to the people knowledge, country's powerful image, national ideas (Pfau & Hochfelder 2010, Vaillant 2010). Further, Goodman (2010, 15) names two types of listening, close listening (with full attention) and distracted listening. One of the main fears of distracted listening in the 20th century is that the person would be sensible to propaganda and thus become an indecent citizen (Goodman 2010). Furthermore, radio debates represent one more implication of power on the radio, being a political tool, and involving the exchange of views and thoughts (Snider 2005).

Another view on radio's functions in the society is provided by Blake (2010) who discusses radio as a source of order controlling via CB (citizen band radio, a short-distance radio communication system often used by drivers to inform each other of the potential dangers in the 1970s) radio, as well as a way to join in the community for those living in lonely areas in the 1970s the state of Los Angeles. The same loneliness reduction results discuss Stamm (2010) in his study for 1920-1940s. A listener can always imagine that the studio is next door. Furthermore, radio can become an electronic heath gathering the family around (Åbrink 1998, 20) as it happens in my parents' house during the morning weather forecasts especially in winter, or an invisible companion to people living along. This clarifies my personal interest and connection to the research.

2.4. The overview of a structure of a radio show

Moreover, the book *Drop that knowledge: Youth radio stories* (Soep & Chavez 2010) comprises the structure of a radio show. A show begins with an intro, and the final words summing up the program are called back announce. Other important parts are actualities (acts) which are interviews recorded outside of the show and included in the program's text. If we have an online recording from the same journalist being out of the studio, we name it a track. Both acts and tracks are usually followed by a commentary from the host. Soep and Chavez (2010, 15) recommend that the commentary should be no more than 2 minutes.

Åbrink (1998, 170) names two more parts of a radio show, (radio) signature and jingle, both are short music tracks, often with a few words in a form of slogan/catchy phrase included. Jingles and signatures remind the listeners what program and station are on the air, and signalize the beginning, end or shift to a new part of the show, thus creating "borders". The idea of a jingle creating the borders in the radio text is partially represented in my analysis, where I separate parts of the radio texts according to jingles, as well as the context of the speech.

The above described structures of a radio show are not a fixed pattern and may have variations according to the number of hosts and guests in the studio, the possibility of feedback from the audience and so on. In the structure description of the shows studied I will mostly use Soep and Chavez' (2010) ideas. Within the study, the introduction of each program (sometimes together with a beginning part of the main text) is analyzed. I will also have an example of actuality, which will be mentioned but not studied, since it is in English, and jingles are certainly an inseparable part of any radio show; however, here they will be mentioned as a part of context but not analyzed being a specific pre-recorded textual form and thus not bearing the prosodic patterns of "live" speech flow, which are the main interest of the research.

According to Soep and Chavez (2010, 20), regardless the radio station, the topic of the show and the like, each radio program goes through four stages: preproduction, production, postproduction and distribution. The stages are obligatory though they may differ in their technological realization according to the technological possibilities of the station, the audience, etc. Within the study has been analyzed the final form of text, which is a result of the four stages. Another valuable point in the book is that radio is always about choices, e.g. does one want to reach same-minded audience or try to convince an opposing party? I believe the idea to be true for both

young and “grown-up” journalists (Soep & Chavez 2010, 14). E.g. Snider (2005, 14) underlines, that a program is targeted for a specific audience, and while in a series of programs the format is preserved together with the change of topics, the topics should be chosen so that to sustain the audience’s interest and develop the show’s success. This idea mostly comprises the content; nevertheless, it is included in the subchapter since the choice of the target audience might influence the format and partially the structure of a show.

2.5. The audial mode within radio studies

Being auditory-only media, radio is based on sound, which can be attributed to noise. Noise has become a significant part of a big city life, especially after in 1934 Muzak was created, argues Suisman (2010, 6) in the introduction to his book. What we listen to has become a part of our image. The time for listening for pleasure without any distraction is reducing and thus a growing number of lectures on how to listen effectively have appeared. Furthermore, listening via the headphones was considered an exclusion from the society (Suisman 2010, 6).

Also, the voice is never fully separated from body though body is not physically present near each listener (Weiss 2001, 4). Radio’s being auditory-only media is both challenging and has positive features for the journalists and radio researchers (Biewen & Dilworth 2010, 6). A voice is a representation of a body (Militus 2001, 59). Moreover, we should remember that a recording of the voice is always a representation itself, it is changed while recorded. Weiss believes that radio is understudied in terms of both art and communication (Weiss 2001, 6). Åbrink (1998, 29) underlines that radio has been studied for mostly the content sounding and a number of important studies were held with the patterns of cultural studies. He also underlines a vaster use of the qualitative approach within radio studies. To sustain the non-separation of body and voice, in the course of analysis some information about the radio show hosts will be provided in order to create an additional background for the prosodic patterns used.

Since we build our image of the radio host on what we hear, the appearances are unimportant and the nonverbal mode of communication is limited to and voice qualities, omitting gestures, mimics, proxemics, etc. Thus even the programs with spontaneous speech involved have rules and limitations that are targeted at representing via the audial mode (sound) everything happening in the studio to provide listeners the fullest account and to deliver the messages in the fullest form, meaning that each program involves a thorough organization and preparation

(Snider 2005, 59). This makes the studies of prosody valuable as an inseparable part of radio speech and one of the main modes of transporting messages in the context of radio.

Nevertheless, radio contains of both sound and non-sounding surroundings. Listening always depends on the context, as sound does not exist “just as it is” (Farabet 2001, 55). Whitehead (2001, 89) also discusses the importance of background in radio listening, stating that the talk is always “inside” the situation. Sound is named a powerful tool in general, with radio workers being aware about the power of both sound and silence (Farabet 2001, 56).

One of the primary questions in the radio studies is the level of “artificial” in the speech. Though it is not included in the research questions for the study, the “native” sound is a part of interest to the research, since in the discussion about the data results the radio speech is as well analyzed from the point of its artificiality, at least from the point of view of the researcher in the position of a listener within the auditory analysis. As for the earlier studies on the “artificial” in radio speech, different results were obtained. To give one opinion, Migone (2001, 42) names the goal of a radio speech as a delivery of information, and everything on the radio works for the goal. Thus journalists are taught to speak in a specific way, so the speech patterns are learned and artificial, and a radio speech is a narrative targeted at establishing connections with the audience. However, Mortley (2001, 162) states that in radio plays the voices must sound real. In addition, intonation has a proved correlation with proxemics, since speech patterns would differ whenever we speak to someone at the distance (Abe 1980, 2), which might have a representation in the radio shows studied, since there is no audience physically present in the studio and thus the listeners are “far away”. While Åbrink (1998, 160) considers radio speech to the highly institutionalized, structured and full of clichés. Frizzell & Mandeville (2001, 85) summon the discussion, “with radio, what you hear is what you see”, meaning that sound is one and only mode within the media and thus serves to express all the ideas. Here it should be mentioned that in the audial “beauty” of a language the dominating issues are the duration of sounds and the speed of speech. Also, one of the principal abilities in speech perception is the possibility to combine separate sounds into words (Keller 2001, 24).

Within the study, the position is that on the one hand, well-trained professionals should sound quite close to the general patterns occurring in Swedish/Russian languages; on the other hand, the possibility of artificialness is remembered about and omitted in the flow of analysis, but included as a part of the context. All these mean that the results should be recognized valid only

for the studies on prosody in the framework of radio studies, not for the general linguistic/phonology.

Speaking about sounding and auditory reaching, I would like to list some advice to a better perception of radio speech in debates (Snider 2005), which is applicable to any radio genre, to my mind. The speakers should keep voices within normal range limits not to sound strange to the audience, though make vocal emphasizing to the main points with the help of the rate, high voice, etc. which is a learned technique. According to the author's research, both loudness and silence provide emphasis for the speech, the former implies emotions in the message, the latter gives intimacy. High voice pitch reveals anxiety and emotions, while low sounds relaxed and calm. The quicker rate of the speech is, the less important sounds information (Snider 2005, 92). Furthermore, a mild voice of a radio host gives the effect of intimacy, closeness and helps to "sell" the radio station and the persona (Åbrink 1998, 215).

Thus, the process of becoming within radio includes also the audience, the information they are provided and their reactions. Since the primary interest of the present study is prosodic patterns in radio speech, it is the delivery process that is taken into account mostly, and not the audience reaction and perception; nevertheless, I find all modes of radio worth mentioning in the chapter for the sake of preserving the study multimodal and multidimensional. The reason for a research in prosody is the non-verbal being a powerful source of information delivery, and therefore, social influence, which is proved to be high. Since radio is an audial-only media, prosody becomes the main non-verbal mode.

2.6. The modern history: digitalization and personification

The earlier studies on radio have a great impact on the current radio studies by providing a significant theoretical and empirical background. However, in the focus of this research are the programs released in 2016-2017 and thus the modern state of radio and radio studies. Interestingly, Beutler (2017, 69) notices that the major changes have occurred in the radio studies in the past ten years, meaning 2007-2017. Whether we take the "modern" period of radio existence as that narrow or include a few more years, now I will provide a short account on the transformations and their impact on the thesis study.

Beginning from the second part of the 20th century the personification in media, including radio, can be observed. The journalists started to speak about more personal topics, like the health of

their own bodies or relationships (Åbrink 1998, 225). In the study, e.g. one of the shows begins with the host complaining about a cold she has got through. Thus, nowadays listeners are pushed to follow not only a channel, but a particular persona. Also, radio journalists are perceived as the people having knowledge on several issues, e.g. sport, fashion, economics, who can advise to the audience (ibid., 261). Moreover, in the 21st century radio personas “leave” the radio space by becoming active online. This increases their influence and at the same time expands the confines of their personal lives; e.g. a post in Twitter. Is it a message of a person or a representation of the point of view of the radio station? Is it a part of working activities or a leisure past time? (Beutler 2017, 58). Connecting the idea with the data analyzed in the thesis study, a quick search online provides the information that all the show hosts have a page in either Facebook or Instagram or both. Thus, should I be interested and should it have any use in the flow of study, some additional information (e.g. photos from the studio) is easily accessible.

Definitely one of the current trends of radio evolution is the growing impact of the Internet radio (Snider 2005, 77). There is even a kind of debate both in the academic community and in the radio working circles, if Internet radio should be considered a new form of the media or as a new media, actually. E.g. while Dubber (2013, 139) names it a separate media, a non-radio, Beutler (2017, 23) states it be a variation of the “analogue” radio. Beutler (2017, 58) even goes as far as to state the creation of combined media. The author ensures that the web-forms (pages in social nets, Youtube channels) and the traditional radio do not substitute but supplement one another, since they provide different modes of information; e.g. one does not get a full broadcast on Facebook, but can comment on a show while and after listening (Beutler 2017, 59).

Nevertheless, by a number of researchers “analogue” radio is believed to be of significant importance to older generations only (Snider 2005, 12). Almost every radio channel nowadays has a web-page (a “frontage” (Åbrink 1998, 133)) where the listeners can not only listen to the shows online, but also read some information about the station and current news, see the pictures of the disc jockeys, as well as download several earlier released programs. Thus, the level of a radio station’s power over the listening schedule diminishes and audience can actively form the content and choose the time and place of listening. The tendency can be also observed in the thesis study, since the data analyzed has been withdrawn from the official Internet-pages of the radio channels, that allow download earlier broadcast programs for free and without other legal/technical limitations.

The developing of the Internet makes radio even more portable than before. Fewer people buy the traditional sets, but instead listen to the radio via tablets and smartphones (Beutler 2017, 63), and the actual radio sets would have additional functions, e.g. recording, or a small screen where the name of the station, the program and song played would appear during listening (Dubber 2013, 105). The transition of the radio sets also leads to their easier accessibility. Thus, radio listening becomes more personalized since there can be several sets (in a variety of forms) within one and the same household (Beutler 2017, 62); this entails a higher influence of the radio personas discussed above. Therefore, it is no more a talk of the radio journalist from-one-to-many, but a kind of “private” “friendly” conversation one-by-one, which, to my mind, increases the influence of studies of prosody and their practical representations. It is always easier to convince a “friend” to follow the advice on music, than speak to a big audience and make them follow your ideas.

Moreover, the digitalization stimulates the appearance of amateur radios (Dubber 2013, 102), thus a dj can be a not only a person one “knows” from listening, but e.g. a neighbor whom you actually know and who uploads his one-show “channel” twice a week online. Furthermore, the separation between professional journalists and active audience diminishes, since every person with a smartphone can record a message and send it to be broadcast. Digitalization also increases the attempts of channel owners to reduce the costs by shortening a number of journalists, as their working process has allegedly become easier; this leads to one journalist often conducting several programs or even working for two or more radio stations (Dubber 2013, 59). All those, to my mind, make the studies of radio in terms of interpersonal and social relationship more important, thus radio studies from this perspective become included in cultural studies, and though the thesis research exploits radio as a background only, it still proves the necessity of the cultural studies lens within radio studies.

Besides the change in the forms of “radio sets”, changes can as well be observed within the radio studies themselves, e.g. in terms of the academic interest. While the present study discusses radio speech in the perspective of the prosodic patterns used (i.e. how people speak), the *Radio Journal: International Studies in Broadcast & Audio Media* issues for the years 2015-2017 (*The radio journal... 2015-2017*) show the focus of research on such topics as community radio (where people speak and whom they represent), the role of radio in society (why people speak), and the changes caused by the digital era (via what people speak about and how we listen to).

Moreover, Dubber (2013, 22) notices that the changes in radio never occur in a revolution style, they follow slow evolution-type transformation patterns. This can explain the simultaneous existence of “analogue”/traditional radio with the Internet-radio and the sustainable popularity of car radio sets. Also, the slow changes help to sustain radio journalists’ succession with the old masters easily learning the new digital techniques and simultaneously being able to teach the younger colleagues the “secrets” of other modes of the profession, e.g. how to conduct a successful interview.

To wrap it up, the most significant change of the digital era in the radio is definitely the increasing quality of sound in all forms of radio (Beulter 2017). The good quality of easy-available radio samples will be demonstrated by the data analyzed in the research, moreover, the quality of sound allows to examine speech with the same methods of live pronounced, and not consider the possible margin of error due to recording.

One more note should be made within the discussion of earlier radio studies in order to provide some explanations for the terminology occurring later in the text. Interestingly, there is a possible definition of radio genres according to the seriousness of speech, which is exploited in this research. Radio (disc) jockey *talk* is used for the “light” shows while radio *speech* is named for the serious shows. Originally, radio talk was used for the shows where music was played mixed with the djs’ comments and remarks (Åbrink 1998, 68). The terms would be used in the comparison part of the analysis to avoid possible confusion. In the wide breadth of the text of the study, the term *speech* is used for both types of sounding texts in both languages.

To sum it up, this was a brief overview of the most prominent issues in radio studies, to my mind, and their representation in the different aspects of the thesis research. The explanations of the importance of radio studies and the possibilities for further research were provided. In short, radio seems both socially important and going through an academically interesting changing period, and thus is worth studying.

3. Methodology, the methods used in phonological research, analysis as process

3.1. The research questions

Generally, the choice of the research objectives was based on the possibility of the methodological approaches to provide fruitful answers to the research questions of the study. Hence, the research questions of the thesis study are the following.

Are there phrase-level prosodic patterns in the Russian professional radio speech?

Are there phrase-level prosodic patterns in the Swedish professional radio speech?

Do the patterns differ according to the program type and topic?

Are there any similarities, differences, and correlations between Russian and Swedish professional radio prosodic patterns?

Thus, the main research objective of the study is whether phrase-level prosody in professional speech in Swedish and Russian can help to understand the topic of the speech and has a connection to it.

3.2. A short summary of the methodological approaches

This research is a qualitative analysis of prosodic patterns in radio speech in Swedish and Russian conducted under the methodology of research prisms/crystals (Ode 1998, Richardson & St. Pierre 2000). The research is multimodal. On the one hand, the main interest for the researcher is the inner- and cross-language comparison of prosodic patterns while radio represents a context only. However, there are a number of layers (modes) within prosody studying. I will come back to this issue and describe it in more detail later in the writing.

The overall methodological position within the research is established by the post-structuralistic methodological views (in order to sustain the field of cultural studies), but the analysis of the prosodic patterns is conducted by the conceptualisation and categorisation of these phenomena (for the purposes of the analysis), used in structural linguistics. The representatives of post-structuralism are Saukko (2003) and Richardson (2000), who approach the research data as a number of fluid realities which can be influenced by the research process. The structural linguistics approach of Jakobson (1975, 1987) presumes that language is a multi-layered monolith.

3.3. The research crystal/prism methodology

The post-structuralistic views in the research are informed by the methodological ideas of Richardson (2000) and Saukko (2003). Though the approaches of the authors are very close, I would like to give a broader overview of both of them. First of all, the methodology used in the research is based on the ideas of a combined methodological approach named *research crystal/crystallization* methodology expressed in the article *Writing: A Method of Inquiry* by Laurel Richardson and Elizabeth Adams St. Pierre (Richardson & St. Pierre 2000). The article is primarily dedicated to the rules and tricks of effective writing. Nevertheless, it contains powerful methodological ideas (Richardson & St. Pierre 2000). The idea to exploit this methodology originated from Norman K. Denzin's (2009, 2010) comparing of Saukko's and Richardson's ideas on methodologies combining both qualitative and quantitative researching methods, that is expressed in a number of articles. The author comments on the approaches and underlines their benefits over the ideas of the narrow-view triangulation (Denzin 2009, 423, Denzin 2010, 152). Moreover, Saukko (2003, 25) cites Richardson's ideas, pointing out the interconnection and the closeness of the views: "Richardson [...] has suggested that, instead of talking about triangulation, we should begin to talk about combining different ways of doing and writing research in terms of 'crystallization'. Crystals, Richardson points out, are prisms. Therefore, crystals not only 'reflect externalities' but 'refract them within themselves' [...]". Hence, in the research I am basically utilizing not one but two very close to each other methodologies.

To begin with, Paula Saukko's (2003) methodology is a classical one for the field of cultural studies. Having read the chapter *Combining Methodologies in Cultural Studies* I found the research prisms methodology as the most fulfilling the methods and goals of my future Master's thesis research on the prosody in radio speech according to the abovementioned research questions posed in the study. In the book, the author talks about the narrowness of the view of triangulation methodology and offers a number of new methodologies (prisms, material-semiotic perspective, methodological dialogues) with a broader perspective. The main Saukko's (2003, 23) critiques for the triangulation methodological approach is the narrow view, expressed in the ideas of a "fixed" unchanging reality, the reality under analysis being single (instead of multiple realities), positioning of the researcher outside of the study and approach to a researcher as a neutral unprejudiced figure, searching for the only possible unbiased truth.

Saukko (2003, 25) names the methodology chosen for the present study *research prisms* and describes its validity as a mixture of dialogic and contextual validities. The idea is based on the conveying an ontologically fluid socially constructed reality (the epistemology of the approach) through the research. This means that the ideas pass to a qualitative research within a number interconnected changing realities. The metaphor Saukko (2003, 25) uses for her methodology is “prism refracting vision”. The methodology infers that the data (radio speech and prosody) can be researched as a number of realities. The realities are changeable, equal in their social importance and can be connected within one research. The research is also expected to have a reality-changing moment that is here represented by a possible finding of a new prosodic pattern in the radio speech.

Richardson’s ideas of crystallization methodology (Richardson & St. Pierre 2000) are taken as a key point in my research’s methodology, and are close to the ones expressed by Saukko (2003). First of all, Richardson (2000, 963) criticizes the once-popular ideas of triangulation by establishing a number of arguments which support a wider multimodal approach to a research process versus the triangulation’s approach to one fixed reality instead of the many fluid with the obligation of providing the only possible “true” and valid result by using a number of combined methods (both qualitative and quantitative). Thus, crystallization sustains the tradition of multimodality that is one important thing in cultural studies.

Here it should be mentioned that Richardson and St. Pierre (2000) underline the interconnection of research as a process and writing. The authors present writing as a significant and integral part of the process, comment on the writing as learning new things, writing as exploring and analyzing. Moreover, Richardson underlines the necessity of the aesthetic component in the written scientific text, so that it would serve as an inspiration for the future writings, stimulate the readers to follow the path of the research or learn more on the topic discussed. The authors actually name their approach a *qualitative writing*, which I perceive as a play on words; on the one hand, the final paper should be of high quality and thus, on the other, contribute to the qualitative research (Richardson & St. Pierre 2000). Undoubtedly, the approach is quite specific for academic writing.

Moreover, Richardson (2000, 964) enumerates four criteria for a perfect academic writing. Definitely, those cannot be attributed to her methodological approach; however, I consider them worth mentioning, and shortly discuss to provide a better understanding about the view of the writer on the purposes of academic writing and at some point on the academic work in general.

So the first criterion is a *substantive contribution*, which can be divided into two sub-positions; the piece is expected to contribute to science by providing some new information, and the research is expected to be well-performed and “credible” (close to the contextual validity approach (Saukko 2003, 21)). The next criterion is *aesthetic merit* that includes a proper language and style choice, a good text structure. A text, states Richardson (2000, 964), should be interesting to read and inspiration-provoking. The following factor is *reflexivity* that implies a decent amount of author’s presence in the study leading to a clear understanding of the point of view by the reader. The last but not the least point is *impact*, meaning a stimulation effect of the text on the reader, a new motivation and inspiration for the academic work and creation that a text should provide to the readers.

She also speaks about the fluidity of the realities and the possible change of the reality by the researcher. The reality studied may change together with the research going like a growing crystal (Richardson & St. Pierre 2000, 963). Furthermore, Richardson (2000, 965) names the point of view of a researcher a significant issue in the studies, meaning that the position influences the data coverage as well as the results obtained. I believe this methodology to be very practical since it relieves the stress of the researcher to know everything, and makes the results in general less biased since we accept them as a reproduction from a point of view. To make it more precise, I admit and fully recognize that the results of my research are “true” only to the radio programs (not to any kind of speech in Swedish or Russian) and only to the radio programs I studied. There is no absolute validity for the type of research, rather a number of validities, and the data is only several of the radio realities and is influenced by the researcher’s point of view. To give one small example, I have chosen one of my favourite radio stations for the analysis just for the sake of pleasure of re-listening to it. Thus, I at some point reject the possibility of other radio stations to be part of the research. If we take a biased view here, the rejected radio stations can be considered as “not interesting” or “not valuable” a scientific studying, which is, of course, not a real state of things.

Here it should be also mentioned that there can be no “right”, “wrong” and “ideal” intonation. The goal of the research is to find what kinds of intonations are used, they can be grouped into patterns and what are the patterns’ correlations within one language in different topics of speech and in the cross-language comparison. The study is not targeted at stating a pattern being a normative one for the others.

Generally, the question of validity and reliability is a crucial one for a research. In the research, we follow Saukko's (2003, 17) idea on the validity being the quality of a research to follow several rules and be "truthful" based on its reliability, which means that any researcher could perform the same study with the same data and obtain the same results. Furthermore, validity is not single but multiply (hence *validities*) according to the methodological approaches utilized by the researcher.

Qualitative researches are here much more "researcher-friendly" since they provide a possibility to make a research more individual as well as relieve the pressure of making the researcher "know everything". Also, there is a number of possible study results representation, which include textual form, tables, charts and even pictures. In the research, I will provide the results in both textual and graphical form. The graphical form includes the written down texts of radio talks and speeches, marked by the signs of stressed words, pauses, pitch rises and falls; the software-produced graphs are constructed mainly with pitch contours and pauses. The textual representation provides the description of the graphical representations combined with a comparative analysis of those and the researcher's comments. Interestingly, in her book Saukko (2003, 15) implies that the primary research approach in cultural studies is qualitative, not quantitative.

So, the methodological view combines the approaches of dialogical and contextual validities. Interestingly, the two approaches grouped with deconstructive validity are named by Saukko (2003, 19) as *alternative validities*, while the older ideas (e.g. triangulation) are introduced under the name of *classical*. The former evaluates a research in terms of truthfulness, self-reflexivity and polyvocality. Truthfulness involves the contact with the people studied and a possibility of feedback for them. Self-reflexivity within the methodological approach means the self-awareness of the researcher of the cultural and social "baggage" s/he carries and the control of not "bringing" it into the process of study. The notion of polyvocality reminds the researcher that the realities under analyses are many and the intercourse between them should be given attention.

Discussing the application of dialogical validity to the thesis research, I would admit that the contact with the people whose voices are analyzed is not included in the study. However, on the auditory level on the analysis I act as both researcher and radio listener and keep a record of personal reflections on the radio texts. The research is self-reflective and I am working on keeping it unbiased. Here the danger is represented by several culturally-imposed stereotypes on Swedish and Russian cultures performed in the languages. According to my observations, e.g.

Belorussian people tend to believe that Swedish people talk in a slow way and Russians sound arrogant. The stereotypes are analyzed during the research process. Polyvocality basically follows the traditions of multimodal and multidimensional approach which is a significant part of the research, as well as any research in the field of cultural studies according to the academic traditions.

The other type of validity (contextual) takes into account social context and historical awareness. The sensitivity to social context captures a careful research on the history and development of the data studied and abandoning a narrow one-side view of a hectic research. Last but not the least, awareness of historicity entails a critical evaluation of the history within the social processes inside the study. Before naming something a *fact*, we should analyze a statement together with its complexity, and our political views and historical knowledge are always involved (Saukko 2003, 21). The application of contextual validity to the research is represented by a comprehensive research on the history of radio in different countries, its role in the societies, and previous studies on the topic. Saukko (2003, 26) states that the combination of the methodologies should be used in research on a language within the framework of cultural studies.

Both Richardson (Richardson & St. Pierre 2000) and Saukko (2003) discuss that a researcher is positioned “inside” the reality studied, which is reflected in my analysis on the first level. By listening to the radio I metaphorically “move” to a new space (e.g. Åbrink (1998, 92) names radio a place of meeting). Another common idea is that the research influences and changes the reality studied, and can even create a new one. Those two aspects (being a part of and making changes to the reality studied) are seen as interconnected (Richardson & St. Pierre 2000, Saukko 2003). One good idea here is that the view, to my mind, asserts the necessity to study radio. As any media, radio perception is heavily influenced by the time and place of perceiving, in the case listening.

3.4. The methodological approach of Jakobson

Though the methodology of research prisms, or crystal, is associated with post-structuralism view, here it should be mentioned that the primary interest of the research is mostly attributed to the ideas of structural linguistics expressed by Jakobson (1975, 1987). This means that the goal of the study is to discover and represent the way the prosodic patterns are organized (i.e. their structure), not their influence on the listener. Definitely, Jakobson is not the only representative

of the structuralism, but his ideas were chosen for the study as his genuine interest was structural linguistic, which is close to the study topic; and as his works are considered classic and a canon in the field, which can be referred to as common knowledge.

Jakobson (1975) believes that a language is not a monolith, but joined structure, consisting of interconnected and inter-influencing parts; the main target of linguistics is to study those parts both each separately and in the interaction. Furthermore, a great attention should be derived to a speech act in order to understand what kind of parts it consists of and how these parts are presented and organized. The author states that the segments should be studied including their in-variations (Jakobson & Waugh 1987, 235). He generally thinks a language to be a sign (semiotic) system (Jakobson 1975).

Jakobson (1975) states that any speech act has a goal, those goals are different and the same goal can be expressed by different structures. He also writes that we build a phrase by the means of selection of elements and their combination. The former means choosing a word to be used among synonyms, while the latter is primarily close to the notion of syntactic and represent the order of the parts within a phrase. Another, to my mind, important idea in Jakobson's (1975) writing is the significance of the time of the text creation in the study, since the period can also be a part of context. Thus, for the research radio texts created in 2016-2017 have been chosen, and we attribute the language used to the modern period of the Swedish and Russian languages, which is shown in lexis, partially the choice of grammar, etc. Moreover, speech style is perceived as context, too (Jakobson & Waugh 1987, 236).

The ideas on structures in a language directly correspond to my research. The prosody was studied in a close interconnection with an utterance's structure and main idea; also, some remarks were made about the possible emotions represented. The possible use of the same utterance in a different speech situation and vice versa was closely examined. Utterances' structure were analyzed in such detail as pitch height, speech speed, stressed and unstressed syllables, pauses, pitch rises and falls. The topic of the text, the style of speech ("light" or "serious") and radio itself served as context. Here it should be mentioned that in the analysis description I used Åbrink's (1998, 68) definitions of radio sounding text, translated from Swedish to English by the author of the chapter. In the data analysis radio speech (*radio tal*) was used for "serious" radio programs, while the text of the "light" ones was referred to as radio talk (*radioprät* in the original). For the purposes of this text, *speech* refers to both "light" and "serious" programs.

The following key parts of a conversation are specified: an addresser, an addressee, a context, a code, a contact. All of those, separately and jointly, perform a number of speech functions (Jakobson 1975). A proper description of speech functions is omitted here since they are not a part of the research. However, I would like to make a few comments on the elements of conversation. Undoubtedly, radio speech has some specific features as conversation. While the addresser is obvious and present in the radio space (radio journalist/show host), the addressee, represented by audience, is usually seen as potential, target, etc.

Further, the contact here is radio as a channel and medium and in my research it is the archive of the Internet radio stations. For the purposes of the research, the texts' being recorded programs and preserved over some time are not considered significant. Furthermore, no special attention is drawn at radio listened via the Internet on a laptop, instead of the traditional radio set. However, I mention it here for the sake of the reliability and validity of the study.

The code is represented by the Swedish and Russian languages. It is obvious that the radio programs' maker target those to an audience understanding the languages, to make one small example of code's importance. Furthermore, within each show specific words and personal names can be used which are familiar to the people with specific interests (e.g. names of food products for vegans in the cooking show) or people living in a specific country/culture, that are targeted at as the primary audience (e.g. a shortened name of a ministry in a "serious" show, names of officials without the title).

The context was mostly explained above. One more significant notice is that Jakobson's (1975) idea of synchronism is presented in the study by choosing for the research only the data recorded in 2016 – 2017. Thus, the journalists speak a language that is modern to the researcher, the events discussed are understandable and known, and the culture specific details are familiar to the researcher.

One more note on the context is that the thesis paper is ended with an appendix containing the translations of all the radio speeches and talks from Swedish/Russian into English in order to provide the reader a better understanding about the topic of the radio shows under analysis in general and each phrase in particular. Thus, a reader will have an opportunity to do a clear correspondence between the topic of an utterance and the prosodic patterns used. The translations were conducted by the thesis author after the texts in the original were written down and proof-read.

3.5. The earlier studies of Russian and Swedish prosody

Before proceeding to the actual description of the methods used in the research, one more significant issue should be discussed. The methods named have not been previously proved valid in a research on the topic, since as far as I could find out there seems to be no previous research covering a comparative analysis of prosodic patterns in Swedish and Russian professional radio speech.

In the field of Swedish phonetics studies were retrieved both studies on Swedish phonetics and phonology, and studies on the radio speech in Swedish. In the studies native speakers of different kinds were used to create the sounding texts, both prepared and spontaneous speeches were analyzed; some attention was drawn to the studies of dialect phonology, also in terms of prosody (e.g. Abe 1980, Hadding & Naucler 1980, Gårdning 1998, Bruce 1998, Åbrink 1998). Researches in Swedish radio speech phonetics, including prosodic patterns are also included in the materials of the study (Åbrink 1998). In addition, in his book Bruce (1998, 91) affirms that a well-prepared speech of a professional speaker (even one read from a paper) sounds very close in terms of prosodic patterns to a spontaneous speech. Some of the authors mentioned in their works comparisons of Swedish and Russian prosodic patterns which is useful for the study, thus the works will be quoted throughout the thesis paper.

Speaking of the Russian prosody studies, the works quoted in the paper present the researches in Russian intonation in the prepared speech with the one performed by Ode (1989) being the canon in the field. Unfortunately, no previous studies on the prosodic patterns within Russian radio speech studies have been acquired by the researcher during the work on the thesis paper. The majority of the openly available studies on Russian prosody are represented by the studies on teaching the intonation in adult pedagogy for non-native speakers, teaching intonation for aurally impaired children, and speech restoration after brain damage (e.g. strokes) studies. The search for the previous studies on Russian radio prosody materials was conducted also in the National Library of the Republic of Belarus, which is the biggest collection of books in the country with Russian being an official language.

The analysis is conducted on two levels, auditory and instrumental, thus the analysis itself is conducted by a combined method (here Bruce's (1998, 59) ideas on phonetics analysis are used). It is worth mentioning that in the book cited Bruce (1998) a significant number of times

compares the phonetic structure of the Swedish language with the structure of Russian. The author does not pose that as a research question, however, the book can be used as a beginner-level manual for the research on the phonetic similarities between the two languages.

Subsequently, after the analyses within one language on each level, a cross-language comparison was performed. The prosodic patterns were compared within the texts of the same type mostly. Before that, within each language the radio texts of the two different style programs were contrasted according to the prosodic pattern observed (“serious” versus “light” shows). The instrumental analysis was conducted via Praat © free-available software, which has been also used in earlier comparative studies of Swedish prosodic patterns (Ambrazaitis 2008).

Here it should be mentioned that in the course of the research and throughout the research’s written representation there is no strict order of which language and what text is first for the analysis. The languages can be listed as Russian and Swedish or Swedish and Russian and the radio shows’ genres can be recalled as “serious” and “light”/“entertaining” or “light” and “serious”, which implies no difference in the order of analyses conducted, the importance of the data for the study or any other academic or personal differences.

3.6. The methods used in the research

The first method to be mentioned here is *visualization*. It was widely exploited in the studies in phonetics and phonology, e. the works of Ode (1989), Vijver, Kügler & Fery (2009), Bruce (1998). The method can be used for both auditory and instrumental analysis; the latter is represented in my research (Praat© creating sound reflecting diagrams showed and discussed in), while the former involves drawing of the graphs by the researcher him/herself. The method is mostly used for quantitative studies.

Another method to be used for the analysis is *observation*, here represented by a close listening of the researcher to the shows under analysis (more information is provided in the analysis process description). The method was used e.g. by Hadding & Naucler (1980) in a study of south Swedish prosodic patterns and combined with instrumental pitch contour analysis. To be more precise, Hadding & Naucler (1980) conducted a group observation. Within the present study listening was performed several times. First, the shows were listened to in order to create a number of texts representing the sounding speech. The texts are written in Latin/Cyrillic alphabet (correspondingly the Swedish texts in Latin, the Russian ones in Cyrillic), not in the transcription

signs. Afterwards, during the re-listening, the texts have been hand-marked according to the phonetical peculiarities observed. The method is mostly a quantitative one.

Furthermore, *comparison* can be outlined as a separate method for the research. Its application for the study is described in the analysis process discussion and the method is related to both qualitative and quantitative researches. The method has been widely used in earlier studies.

On the auditory level, the texts have been listened to by the researcher several times to provide the written forms of the radio talks and speeches. Afterwards the proof-reading of those has been performed in order to check that the texts are written according to the spelling and grammatical rules of the Swedish/Russian language correspondingly. Also the preservation of the texts' semantics and pragmatics were checked. Then the radio shows have been re-listened and the written texts have been marked by the researcher according to the phonetical elements presented. Here the researcher estimated the texts as a trained listener. The method used was also described by Bergmann (2009, 389) in a study of dialect and regional prosodic variations under the name of *formal description*.

One more method for phonological analysis, which has been decided unfitting for the study, is *normalization*. The method does not provide the answers to the abovementioned research questions; nevertheless, I consider it worth mentioning. The method involves separating an utterance into same-length parts in order to reduce to length difference as a possible hinder to analysis' validity. The method was used in combination with the method of *plotting pitch curves*, which involves the study of normalized parts under the artificial sustaining of the same pitch levels, in a study on the variability in the intonation contours (Jassem & Kudela-Dobrogowska 1980).

Generally, the methods used for the analysis are ones traditionally exploited in phonetics and phonology studies in the period of the 1980s - 2000s, not for a radio research. Here the logic is that the primary issue of my academic interest is prosody in the radio speech, not radio as a part of reality or social instrument. The methods used in the research were mostly applied in the studies of Swedish and/or Russian language (e.g. Abe 1980, Hadding & Naucler 1980, Ode 1989). Some ideas from the researchers on English and German are also used, e.g Bergmann (2009) on "hat pattern" in German with a significant number of parallels between German and other languages including the ones under the analysis.

To name a few most important works for the study, I follow the patterns used by Abe (1980) (a study of intonation in different languages, including Russian and Swedish), Hadding & Naucner (1980) (the south dialect of Swedish), Ode (1989) (the Russian intonation perception), Svetozarova (1998) and Gårdning (1998) (the studies of Russian and Swedish intonations correspondingly). Those findings and the correlations of those to the results of the research are presented in the chapters on the data analysis.

The methods utilized in radio studies are not validated for the research (since radio serves as context and the study is targeted at prosodic pattern, i.e. speech/linguistic) and will not be discussed here. Nevertheless, I would like to mention that throughout the history of radio and media studies radio has been studied in terms of the types and topics of radio programs (e.g. Kirkpatrick 2010, Weiss 2001), radio as a source of information and propaganda (Pfau & Hochfelder 2010, Vaillant 2010), radio as a pedagogical tool (e.g. Soep & Chavez 2010), radio from the feminist prospective (e.g. Ehrick 2010, Soep & Chavez 2010), radio as a (de)socializing instrument (e.g. Biewen & Dilworth 2010) and much more. In radio studies both listening to the radio, interviews with radio workers and opinion polls of radio listeners have been used. Radio listening diaries were also named by several researchers (e.g. Soep & Chavez 2010).

Radio “surroundings” are included in the research as a significant part of context. As it has been mentioned earlier, radio in the study serves as a part of context, not as a primary data. For each program, a description of the radio channel or station is provided (the country of origin, the main topics of interest, the target audience), as well as a brief summary of the program’s plot and several comments on the speaker (gender, professional experience). All speakers are professional journalists and both male and female speakers are included in the study. The possible dialectical differences in the prosodic patterns are neglected for the purpose of the study.

To sum it up, the thesis research exploits a combination of research prism/crystal methodology with the structuralism views of Jakobson, and a number of renown methods used for phonetic and phonological analysis, which is conducted at two levels, auditory and instrumental. The premier interest of the study is prosodic patterns used in the Swedish and Russian languages, while radio serves as a part of context.

4. Auditory analysis description

Before proceeding to the auditory analysis description and discussion, I would like to quote David Crystal (1980, 57), who reminds his readers, that an intonation pattern can have various meanings and several explanations, which do not depend on the type of intonation pattern used only, but also on the context and the verbal meanings of the connected speech; thus, the researchers in phonology and communication should not pose too much importance on this non-verbal mode without analyzing it within the multimodal discourse of the sounding speech. So, different prosodic patterns can be used for a representation of the same feeling. I find important to mention the idea, while the study is dedicated to the use of prosodic patterns within the multimodal framework of radio speech, and while the radio programs are grouped into “light” and “serious”, it is subconsciously expected the same patterns to appear within similar speech situation.

4.1. Data description

The data for the thesis was collected via Internet in May – June 2017 and is available for free and non-restricted download on the official pages of the radio stations. The programs are available to no-cost download and use on terms of mentioning the name of the broadcasting company and other copyright information. All programs were released in 2016-2017, and thus are representative to the modern way of speaking. The data consists of 6 radio programs in Russian and 6 in Swedish, 12 altogether. Three programs in each language belong to the “serious” category, the other three programs are “light” entertaining shows; further in the chapter a few explanations on the separation will be provided. Some of the programs are a part of on-going broadcast (Klotet, Människor och tro, Ekonomicheskaya sreda, Peterburg Svobody), others are now existing in the radio channels’ archive (LosVegas, Interesnoe Kino), and one program has been renamed and a bit changed the format (Segodnya v Amerike). From all programs, the introductory part is analyzed which comprises up to two first minutes of a show, more precise sounding times given below in the text.

The speech is one-voice, one-language. One-voice monologue speech was chosen for the analysis in order to avoid the possible complications, which might occur for a research of dialogue and thus enlarge the time of thesis writing. The complications include e.g. a spontaneous simultaneous speaking of several voices, which makes it difficult to analyze the prosodic patterns of the “main” voice, especially on the auditory analysis level. Another possible

complication is that in dialogue prosody is used not only to express speaker's ideas, but also to show turn-taking in dialog, impetus to speak or as part of the feedback (Bruce 1998, 15, Crystal 1980, 60), which again influences the perception and causes ambiguity in the interpretation of the prosodic patterns. Moreover, two hosts in the same studio would constantly change the rate of speech within the dialogue (Åbrink 1998, 311), thus also causing possible misinterpretations to the prosodic patterns. Both male and female journalists' voices are presented. All show hosts are professional journalists with either journalistic or humanistic education and working in the radio for several years.

The programs were attributed to "light" or "serious" ones according to the choice of vocabulary and grammar by the authors, the topics discussed and the programs format (e.g. "light" talking about popular culture and entertainment versus "serious" news and economic discussion). One example of the radio talk vocabulary is the use of English words instead of Swedish by Therese Svensson in LosVegas (e.g. *white pizza, double brunch burger*), which is presumed to make the talk sound youthful and informal (Åbrink 1998, 307). Thus, it should be underlined that the differentiation is not that far academic and is built on researcher's perception; the attributing of a show to the "light"/"entertaining" or "serious" ones is conventional and created especially for the research. That is why the categorizations are always mentioned in the text with the quotation marks.

For the Russian language "serious" programs have been chosen three programs from the Radio Svoboda channel, which is a part of the international non-profit media corporation Radio Free Europe/Radio Liberty. The radio station tells on its official web-page that it works for promotion of democratic values, enhancing cooperation between media to provide listeners uncensored local and international news coverage, as well as works on the strengthening on journalism professionalism in Russia. The station is private-owned. The programs chosen are Peterburg Svobody, Segodnya v Amerike and Economicheskaya Sreda. The first show discusses the legal process of the de-licensing of St. Petersburg European University. The host is Viktor Rezunkov. Segodnya v Amerike covers the formation of Trump's cabinet. The host is Yuri Zhigalkin. The last of the shows named speaks on the current situation with the Russian ruble voiced by Sergei Seninskij. The shows were released in 2016 and 2017.

All Swedish-language programs are released by Sveriges Radio. The radio station claims to be independent both financially and in opinions from any external forces, and name itself truthful and unprejudiced. All "serious" programs were produced by P1 channel. The channel names

itself "den talade kanalen" (the talking channel) with some music involved. According to the information on its web-page, the channel tells listeners about culture, society and science, offers the latest news, as well as programs on life style and entertaining shows, also in theatrical form.

For the Swedish-language "serious" programs were chosen two units of Människor och tro show. The programs' main topic is correlation between religion and politics. The host is Alexandra Sandels. One program covers the religious questions in the French poll, the other speaks about the Iranian poll. One more show analyzed here is ecology show Klotet, hosted by Marie-Louise Kristola. The program comments on China as the EU's new climate partner. All programs were released in 2017.

The Russian language "light" shows were downloaded from Nashe radio, a private-owned radio station. The main focus of the station is music, mainly Russian rock genre. The shows are three units of Interesnoe kino, hosted by Aleksander Bon. The shows discuss three famous Russian and Soviet films production and creation stories. The programs were released in 2016 and dedicated to the year of Russian cinema.

The Swedish entertaining programs materials are taken from the show LosVegas (Sveriges Radio) that talks about vegan and vegetarian cooking. Three sets of recipes are voiced by Therese Svensson. The shows were released in 2017. The shows were broadcast by P3 channel, that names itself aimed at young listeners, providing the audience youth-important topics and news, music (up to 65% of the air time) and humor.

It should be mentioned that all the stations have nation-wide coverage, and are generally targeted at any Russian or Swedish citizen, who might be interested in the topic discussed, or a foreigner speaking the language. However, the following categories of target audiences of the stations can be specified. Radio Svoboda covers young and middle-age Russian audience, having no trust in the government-owned media and would like an alternative viewpoint. P1 is aimed at middle-class middle-age Swedish citizens with an active life position in politics, climate changes, economics, etc. For Nashe radio, it is a 12-year-old and older Russian with an interest to Russian rock music. P3 targets 20-34-year-old Swedes with an interest to modern trends in society and music. The information relies on the reports and materials provided on the radio channels' web-pages and on my personal impression from listening to the broadcasts of the stations.

The total amount of sound analyzed comprises 15.50 minutes, of which 4.17 minutes are of Swedish “serious” programs and 4.14 of Russian “serious” programs, thus making it 8.31 minute of serious programs. The “light” shows analyzed cover 3.49 minutes of text in Russian and 3.30 minutes in Swedish, making it 7.19 minutes altogether.

4.2. Auditory analysis: process description

The analysis was preceded by the preparation activities, including the formulation of the abovementioned research questions, the construction of the future data parameters and the data sampling. No additional training was imposed on the researcher for the sake of the research. The experience is based on the previous studies of Russian, Belorussian, English, German and Swedish phonetics (listed in the chronological order) in the course of Bachelor studies.

According to the discussed above structure of two-level data analysis within the study, the programs were first researched via auditory analysis, followed by instrumental analysis which is to be described later. Dural auditory analysis first the text was written down after the speaking voice, then the programs were listened to several times in small parts and in full by the researcher and marked in the places of pauses, stressed words, lowering and heightening of the pitch. The amount of text under analysis was chosen according to texts’ sematic and pragmatics, as well as show’s structure. The texts cover the introduction part and sometimes some main part of a show and do not exceed 2 minutes.

Within the analysis description, the following symbols are involved to mark phonetical peculiarities. The symbolic system was developed specially for the study and has not been derived from earlier research.

| - pause

* - stressed syllable

\ - pitch lowering

/ - pitch raise (both raise and lowering are marked on the stressed syllable)

Within the study, a pause is the only signifier of the end of a phrase (Bruce 1998, 149) for both languages. Other possible signifiers (e.g. grammar, pitch changes) are paid no attention to.

The results of the auditory analysis appear in the following way. First the observations are presented, then the descriptive examples are provided from the texts analyzed. To begin with, the “serious” programs are discussed, first the ones in Russian, followed by the “serious” shows in Swedish and then a short summary on the similarities and differences of the prosodic patterns within the type of program in the two languages is presented. Then the same description is provided for the “light” shows in the two languages, the order of languages is the same. Moreover, the inner-language results of pattern analysis are provided, i.e. the use of prosodic patterns in one language in the different topics of speech. All kinds of possible comparisons are introduced in the intermediate results, and the majority of results and summaries are topped with earlier studies on the languages’ prosody, either supportive or confronting. Instead of the full names of the programs, their numbers in the Appendix 1 are given in the brackets after the quotes.

4.3. “Serious” shows analysis

So, the “serious” Russian language shows contain mostly long (which means five and more words; or a minimum of eight syllables in the examples below) phonological phrases, boarded by short pauses, e.g.

За восемь дней до вступления Дональда Трампа в должность президента Соединенных Штатов когда казалось российская тема будет спокойно догорать или тлеть на фоне более актуальных для США сюжетов| она внезапно преподнесла громкие сюрпризы| Прежде всего к удивлению некоторых наблюдателей выяснилось что на ключевых постах в американском правительстве| госсекретаря министра обороны директора ЦРУ могут оказаться люди крайне критично относящиеся к Кремлю| (#2)

В течении две тысячи шестнадцатого года| цена нефти от которой в первую очередь зависит курс российского рубля| выросла более чем вдвое| На этом фоне рубль подорожал к доллару на двадцать семь процентов| (#3)

The lowering of the pitch is observed by the ends of the phrases. The stressed words are not only ones semantically and grammatically important, e.g.

*Окажутся *ли на ключевых пос*тах в администрации Трам*на люди критично наст*роенные по отно*шению к Крем\лю| (#2)*

**Эти и дру*гие вопросы мы обсуждаем с быв*шим высокопоставленным сотрудником Пента*гона *вице-прези*дентом Лексингтонского института в Виргинии Дэни*элом Гу*рэ амери*канским публицистом *бывшим корреспондентом газеты Fi*nancial *Times в Моск*ве *Дэвидом *Саттером про*фессором универси*тета Сетон-Холл в Нью-
*Джерси Мак*симом Мату\севичем/ (#2)*

In addition, there exists an opinion, that listener would not always easily refer a stressed word to the words of greater importance, furthermore, half-stressed words can be detached, which implies further difficulty to listener's perception (Bruce 1998, 93).

Further, after the actual introduction (greeting and naming of the show and its topic) the acceleration of speech speed can be observed. The speeding is observed in all the three examples studied. In the first (according to the texts' placement in the Appendix 1) program the speeding can be heard starting from the words "Европейский университет в Санкт-Петербурге как и Высшая школа экономики в Москве один из", in the second show the speech speed increases after the second jingle (from "За восемь дней до вступления Дональда Трампа" and on), in the last of the programs the speech rate rises after the naming of the show's topic, i.e. from the words "Так на рынках часто называют позитивные или наоборот негативные факторы" and on. In the three programs phrases are perceived as mainly even, without the significant changes in the pitch contour, i.e. the same voice level is exploited within the entire piece analyzed in every show. Proper names are pronounced in a very distinct way (the names of the guests, institutions, politicians discussed); however, this does not correspond to the names of the journalists, in all the cases it is almost impossible to comprehend the show host's name from the first attempt.

As for the Swedish "serious" programs, the evenness of phrases is also followed. Here the distinction between the actual introduction and the rest of the text is articulate. Though the patterns completely oppose the prosodic patterns observed in the Russian serious programs. The actual introduction involves a higher speech speed, "swallowing" of unstressed sounds, more emotional speaking, while the following text sounds calmer, more even and distinct. In the texts analyzed the actual introduction in the first text ends with an act (Soep & Chavez 2010, 15) in English and the "main body" of the program begins with the words "Från tilltron till präster till algoritmer"; in the second program the actual introduction ends with the words "författaren till en ny roman om Hilma gäster till Människor och tro" with the same rate changes simultaneously.

The Klotet show, however, pictures a somewhat different speech pattern with actual introduction being pronounced in a calm and distinct way with the main text pronounced at a quicker rate and more emotionally. Here the actual introduction ends with the words “mänskliga rättigheter och demokrati”, and after the following jingle the speech speeds up. Nevertheless, all the three examples provide a vivid difference in terms of the prosodic patterns between the actual introduction and the main body of the text, which supports the conferred above results of the analysis of the shows in Russian and make it possible to state the existence of this type of separation.

All in all the texts are pronounced in a higher speed than for the Russian shows discussed above, the show hosts sounds vivid and lively. Phrases tend to end with pitch heightening, e.g.

Frankrike går till /val/ Om polarisering i valdebatten och islam som val/fråga/ homonationalism om inbillade motsättningar och oheliga a/llianser/ Homo /Deus/ ny bok av Yuval Harari om /människans \framtid/(#1)

Försåtligt manipula/tivt/ kritik fran Förbundet Humanisterna mot svenska kyrkans undervisningsfilm om tro och veten/skap/ Religiöst styra eller demokratiska /val/ Iran väljer ny presi/dent/ (#2)

Pauses are generally few, and the dominating long phrases (in the example below only one phrase out of eight consists of less than nine syllables) seem to be pronounced in one breath, e.g.

Vi har många gäster med oss i studion idag/ för att diskutera Kina och EU:s nya klimat/partnerskap/ och senare i programmet blir det förstås också lyssnarfrågor och lite andra miljönyheter fran /veckan/ Men först om vår nya klimat/partner/ Ki\na/ Ja EU:s och Kinas ledare var på gott humör när de för ett par veckor sedan i Bryssel deklarerade att de gemensamt ska ta tä/ten/ för att bekämpa de globala klimatfö/rändringarna/ och det gjord de alltså dagen efter att USA offentligt berättat att de drar sig ur Parisav/talet/ (#3)

Furthermore, the Swedish “serious” programs mostly exploit even pitch patterns, without significant pitch level changes within a program.

To provide some intermediate results, within the shows studied in the two languages “serious” speech sounds even and level though the Swedish journalists are perceived as slightly more emotional than the Russian. One of the reasons for that, to my mind is the great impact of the in-word stress towards the phrases’ intonation contour in Swedish observed by Gårdning (1998, 125) in the earlier studies, while the pattern does not exist in Russian and other Slavic languages. The voice pitch is kept even for both languages, with the female journalists (Swedish) sounding higher, than male journalists (Russian), which collaborates with the earlier studies e.g. by Abe (1980, 17) in English and partially Russian and Swedish, and Bruce (1998) in the Swedish language, with Bruce (1998, 63) stating the average women’s voice pitch to be around 200 Hz and male correspondingly around 100 Hz, which is twice lower. Since the representation of pitch contours in a textual form is highly complicated, further account the evenness of speech as well as general voice levels in the speech for both languages is provided in the chapter on the instrumental analysis with both machine-acquired accurate numbers of voice levels (which are of course non-achievable at the auditory analysis level) and visual representations of pitch contours (spectrograms), supported by a textual description. The same is true for the following “light” programs’ analysis.

4.4. “Light” programs analysis

To start with, the Russian “light” programs again show the speech speeding after the actual introduction (the most general information about the film presented). In the first show the “main body” of the text starts with the words “Фильм «Легенда номер семнадцать» основан на реальных событиях”, thus immediately after the actual introduction. In the second program, besides the most important information about the film, the host prosodically includes in the actual introduction a short story about the film creation idea provision by Vysotsky (actor, stars in the film as the detective Zheglov), thus underlining the importance of the actor to the project; here the actual introduction ends with the words “Так как я вам сыграю Жеглова его не сыграет никто” followed by a recording from the film. In the third show the actual introduction again comprises only the general information about the production of the film and ends up with the words “и Вторым Творческим Объединением”. It should be mentioned here that the program type is the only of the four, where the name of the station, the program itself, and the show host appears nowhere in the text. While the name of the show and the radio channel is given in the jingle, though not voiced by the dj, Aleksander Bon does not introduce himself or greet the audience, shortening the intro only to the information about the film, thus the programs’ structure does not support a scheme offered by Åbrink (1998, 180), who states the intro is

expected to contain the name of the station/channel and the frequency, the name of the dj and the program, and the date.

The ends of the phrases tend to show pitch download. The stressed words do not always correspond to the grammatical construction and pragmatics of the phrases, like verbs are mainly unstressed, e.g.

*Ле*генда *номер сем\надцать| Рос*сийский художественный фильм две *тысячи три*надцатого \года| режис*сёра Нико*лая \Лебедева| Авторы сценария Николай Кули\ков| Михаил Мес\тецкий| и Николай \ Лебедев| Компо*зитор Эдуард Ар\темьев| (#1)*

*Но в про*екте Высоцкий был дейст*вительно заинтересован как ни\кто| Без *его у*частия в *фильме| *не было бы *многих де\талей| Именно *он приделал фотографию *Вари| любимой девушки Шарапова| на *дверь где должен был сп*рятаться Ша\рапов| (#2)*

The phrases are mostly long (four or five and more words, or from seven syllables and more), separated by small (allegedly physiologic) and long pauses. The pauses do not correspond with pragmatics and syntactic. Many phrases are pronounced in one breath as in the two types of radio texts discussed earlier in the analysis, e.g.

Семья легендарного хоккеиста принимала активное участие в съёмках картины| Желяя добиться биографической точности| на съёмках присутствовала сестра Харламова| Татьяна Борисовна| Ей кстати досталась эпизодическая роль| (#1)

Но в проекте Высоцкий был действительно заинтересован как никто| Без его участия в фильме| не было бы многих деталей| (#2)

In the Russian “light” shows no pitch change is observed, the phrases sound even, thus the talk is comprehended as learned/artificial. Nevertheless, the speaker sounds energetic, which is one of the reasons, besides the choice of vocabulary, grammar and topic, for the programs to be attributed to “light” ones. To make a short comparison with the other type of programs in Russian, the abovementioned in the Russian “serious” shows pattern is observed in terms of the defining of the actual introduction: after the actual introduction the speech speed increases. Other corresponding features are the length of phonetic phrases and the fall in the phrases’ end. I

suggest that the falling intonation contours perform different functions, corresponding to the earlier studies of the English language; in the “serious” programs it mostly implies assessment, a stating of fact, then in the “light” shows it is used to provide new, unknown earlier information (Rando 1980, 255). The vast exploitation of falling-end intonation contours in Russian corresponds with the earlier results of Russian prepared/read professional speech studies (Volskaya & Skrelin 2008, 251)

Last but not the least important in the thesis study comes Swedish “light” show set. So, the fourth type of radio programs under analysis proved to have several specific features. So, the patterns observed in the Swedish “entertaining” programs include the ends of phrases showing a heightening pitch, e.g.

Förkylningsmat för mig är mat som är superbombad och bara fullproppad med /nyttigheter/ Vi ska till exempel laga en förkylningsguaca/mole/ Sen ska vi göra en kryddig morotsoppa med kokos lime ingefära och kori/ander/ (#1)

Jag är grön /kock/ men förutom det är jag ju journalist och jag älskar ju att skriva om /mat/ Jag har gått kockutbildning men jag har droppat /ut/ (#3)

Also, the pauses are more distinct compared with the Russian “light” shows. Pauses in general appear more often than in both Swedish “serious” and Russian “light” programs, e.g.

Det här receptet är vegetariskt/ men du kan göra det vegan/ om du skippar nyss nämnda ägg/ och använder mjölkfri ost/ För glutenfritt/ kör med glutenfritt bröd/ eller ät med sallad/ (#2)

Jag heter Theresse Svensson/ och jag är grön kock/ Idag/ kör vi brunch/ (#2)

Compared with the Russian “entertaining” shows, e.g.

Когда Гайдай уже утвердил на роль Носика/ ему на глаза попало фото Александра Демьяненко/ Взглянув на его фотографию/ режиссер к удивлению обнаружил/ внешнее сходство с собой/ и принял решение/ что играть Шурика будет/ именно он/ Кстати/ на момент выхода фильма/ Александру Демьяненко было/ двадцать восемь лет/ а он сыграл совсем юного студента/ (#3)

And the Swedish “serious” shows, e.g.

Ja på söndag den 23. April är det dags den första omgången i det Franska presidentvalet och det kan bli en riktig valrytare/ Det är mycket som står på spel i Europas tredje största ekonomi/ Frankrikes nästa president/ kommer också få stort inflytande i EU inte minst på hur flyktingskrisen ska lösas/ (#1)

Here it should be repeated that the length of a phonetic phrase is measured by the number of syllables between the two pauses, not the amount of words. A phrase, as it has been mentioned above, is a part of speech boarded by two pauses. Therefore, we can have the following results on the texts analyzed in terms of phrases length. In the “light” Swedish show example above the biggest amount of syllables is twelve and the shortest phrase consists of four syllables in the first example and a maximum of seven syllables with the minimum of two syllables in the other piece of text. However, in the Russian “light” show text example the longest phrase comprises eighteen syllables and the shortest is two syllables, nevertheless, of the twelve phrases here five consist of less than ten syllables, while in the examples from the Swedish “light” show only one phrase includes more than ten syllables. As for the “serious” show in Swedish, the example provides the phrases with a maximum of thirty-eight syllables and a minimum of eight, which makes it the longest phrases of the three types of text discussed. Though the overall representativeness of the examples may be questionable, still they introduce the situation quite well. Moreover, the results do not correspond with the earlier studies of the Swedish language stating that in the language the rhythmical organization of a phrase tends to form a set of an uneven number of syllables (Bruce 1998, 91), since of the fifteen phrases in Swedish in the examples presented within this sub-section, only five include an odd number of syllables (7, 7, 5, 3, 25), while the dominating rest consists of an even number of syllables. Nevertheless, the results deserve a separate further research.

In the “light” programs’ texts the speaker stresses words by a higher pitch, which can also be a personal feature or a representation of the journalist’s gender. The rhythm of the phrases is uneven, especially compared with Russian. It is difficult to understand, if the speech speed changes. The speaker uses a combination of louder and quite speech which creates an effect of approaching to and stepping away from the microphone, as well as makes the speech sound more emotional and lively. Interestingly, the Swedish “light” shows are the only group of the studied data that do not provide the abovementioned difference between the actual introduction and the main text, since no speech speed, voice pitch or intonation contour changes are observed. In the

third program a slight speed increase can be noticed starting with the words “Idag ska vi laga tre olika pizzor”, however, it seems insufficient making a pattern of its own due to the small difference observed.

In conclusion, the “light” programs in both languages are perceived as more emotionally sounding than the “serious” programs though the emotional intensity is achieved by different sources. Furthermore, the results for the “light” shows in both languages support the earlier studies on radio talk in Swedish, stating stress on the grammatically unimportant words to be a characteristic feature for radio talk, providing higher emotionality (Åbrink 1998, 320).

Thus, the common features in the two types of programs in Swedish are a quite quick speech rate, compared with the shows in Russian, and a tendency towards a rising contour at the end of the phrases. The ending rise, according to earlier studies, marks an expectation of listener’s feedback, while fall at the end of a phrase would sound not interested in answer/discussion (Hadding & Naucler 1980, 132), and therefore inappropriate for a radio show as ruining the connection between the journalist and the listeners though this is not supported by the results I have acquired in the analysis of the shows in Russian. Nevertheless, while the “serious” programs in Swedish exploit an even pitch paradigm, as well as a same-level loudness, the “light” shows sound more emotional due to the changes in both dimensions throughout the programs, which has been discussed above. Also, the results confront the earlier studies stating that in Swedish only the significant words are stressed in phrases, i.e. verbs, subject group and numerals are expected to be almost always stressed (Bruce 1998, 125). In addition, the results support the idea that intra-speaker variations of intonation are less vivid than the inter-speaker (Jassem & Kudela-Dobrogowska 1980, 147), by the examples of the “serious” shows where the “change” of the journalist provides significant alterations in the patterns.

4.5. Results

So, an emotional sounding is provided by the “light” programs in both languages, with the ones in Russian giving the impression of a more reserved speech. The liveliness is reached by different means, discussed above. Moreover, the talk is perceived by the listener as having a quicker rate than the speech, and therefore the “light” programs sound more emotional than the “serious” shows. Though earlier studies affirm the absence of difference between a life speech and a professional reading/delivering a well-prepared speech (Bruce 1998, 91), the examples

above clearly confront this idea, since the shows are undoubtedly perceived as learned/prepared speech.

To sum it up, several common features as well as differences can be observed in the prosodic patterns for both types of programs in the two languages. In both languages on the level of auditory analysis in the “serious” programs we can mention the presence of two parts of introduction in radio texts. First comes the actual introduction, which is about 2-4 phrases and basically contains a greeting, the name of the show and the show host (sometimes a sound editor also) and the topic (s) of the show. Some of the elements may be omitted. Then the main part of the intro follows where the topic is described in more details in several phrases, guests if present are named. The two parts are differentiated on the auditory level of analysis in evenness, speech rate and pitch contours; a further interrogation into speech evenness within the data studied is conducted on the level of instrumental analysis with the clear visual representations of the speech levels in the form of spectrograms. Nevertheless, the same correspondence was not observed in the “light” shows. For both types of topics, the programs in Swedish tend to sound more emotional with the text pronounced at a quicker rate than the shows in Russian. Furthermore, in both types of programs the Russian-speaking show hosts exploit falling-end intonation contours more often than their Swedish colleagues, who tend to use the rise-ending intonation patterns. The results support the ones earlier acquired by Vijver et al., who state that the topic and type of the speech would be among the reasons causing the prosodic variations (Vijver, Kügler, & Fery 2009, 1), as well as the earlier research by Bruce (1998, 14) with the same results on the correlation of the prosody used and the topic and context of speech. Interestingly, Bruce (1998, 102) and Abe (1980, 7) independently state that in Russian the prominence of intonation is so high as to transfer a declarative into an interrogative without the grammar changes involved, which is possible though highly uncommon in the Swedish language; nevertheless, the pattern has no appearance in the texts studied though the results were also supported by a research by a Russian-native scientist (Svetozarova 1998, 265).

Here a significant remark is to be made within the conclusion of the auditory analysis, since pauses and their placement is an important issue in the discussion. Earlier studies show that pause can both grammar- and semantic-related, and physiological since speech is closely connected to breath (Bruce 1998, 149), which makes their explaining more difficult for a researcher. Thus, I would like to name pauses causes and placement a possible topic for the further studies within the field of prosody.

One more observation should be pointed out in the framework of the auditory analysis' summary. Though in-word stress positioning is not in the focus of the study, the impact of the stress on the phrase level stress in Swedish has already been mentioned above (Bruce 1980, 27), so I find it useful to comment on the mode regarding the results of the master's thesis study. One of the major differences between the Swedish and Russian "serious" speech is the unclear pronunciation by the Russian journalists of their own names while the rest of the personal names both in Swedish and Russian are pronounced very accurate. In the examples we can observe the non-stressed vowel reduction according to Bruce' (1980, 97) research of the Russian language, which causes the listeners (including the researcher within the present study) difficulty in perceiving the name correctly. Nevertheless, since the in-word stress is not a major issue for the research, I will stop on that thought.

All the above named results were provided on the level of auditory analysis with no machinery involved and are heavily dependent on the researcher's perception. The quality of sound is considered high and not influencing the results reliability. The results show both the existence of several prosodic patterns in radio speech, and the similarities and differences between those both within one language in case of different program type comparison, and in the two different languages within one type of program. Inner-language prosodic patterns occur to comprise more similarities than within the inter-language comparison. However, the results deserve further research which is opened to the contributions from the following researchers on master's and following levels.

5. Instrumental analysis description

5.1. Instrumental analysis: process description

Following the two-level structure of the data analysis within this thesis study, the second level of analysis is instrumental. It was conducted via Praat© software 64-bit edition. The software is freely available for online download. The software has been chosen for the study as the most corresponding with the needs of the research, since it can provide both the desired visual representation of the data studied and the information on the data in the textual form (e.g. loudness, pitch height). As long as the instrumental analysis is exploiting the same data as in the first level (auditory) analysis, the preparation activities for this part included the choice of sound analyzing software. Furthermore, several consultations were conducted with the information technology specialists from the University of Tampere in order to be able to obtain and present all the necessary information from the data research in the desired form.

During instrumental analysis, the radio texts were uploaded in the software and the spectrograms were created. Before that the shows were converted to mono-sound via SoundForge Pro©, the freely available trial version of the 11th edition was used. The conversion to mono-sound was conducted in order to produce more distinct spectrograms with clearer waves compared with those originating from stereo sound. After the spectrograms were created, they were adjusted to the pitch level within the utterance, so that all the sound scale would fit between a pitch variation range. Then, the utterances were typed underneath each spectrogram, with the syllables placed according to their pronunciation. The explanation of syllables' separation is given further.

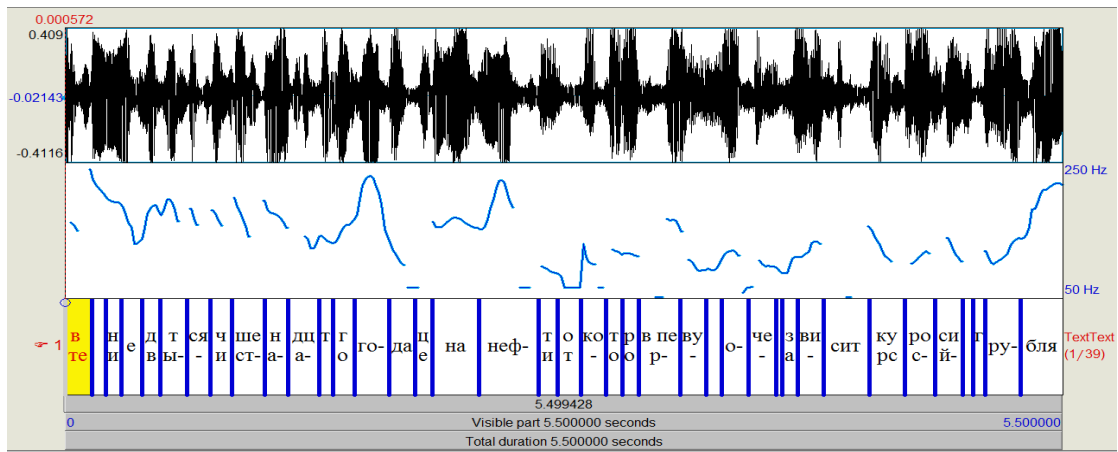
In the chapter the same parts of the texts as discussed in the previous chapter are presented, to make the comparison more obvious for the reader. Here it is worth reminding that I am analyzing the introductory and sometimes the main parts of two types of radio programs, the parts covering up to 2 minutes each. The research results are also presented in the same order as in the description of the auditory level of the analysis. First are discussed the “serious” shows in Russian, followed by the “serious” shows in Swedish. Secondly, the “light” shows are analyzed, with the same order for the languages sustained. Also, all kinds of inner- and inter-language comparisons are provided. Each part of the analysis contains a spectrogram and its textual description, combined with the earlier studies. Thus, the results are presented in both graphical and textual form. The names of the radio shows still appear in the form of numbers, according to their placement in the Appendix.

The spectrograms have three boxes each. The upper box presents the amplitude, and from it we can see the pitch level variations within the phrase. The middle box shows the pitch graph, thus giving the information on the height of the dj's voice and the changes in it. The lower box provides the verbal form of the utterances pronounced. The utterances are separated into syllables, which are placed beneath a corresponding part of the amplitude and the pitch wave. If a word consists of several syllables, each non-final syllable is ended up with a hyphen. The words are mostly separated into syllables not according to the phonetical and grammatical rules of Russian and Swedish, but in line with the way the speaker separates the sounds. In the examples from the Swedish programs some syllables are written in brackets, meaning that those syllables are utmostly reduced due to very quick speaking and thus cannot be separated on the spectrogram. The amount of syllables is visible in the line Text next to the lowest box.

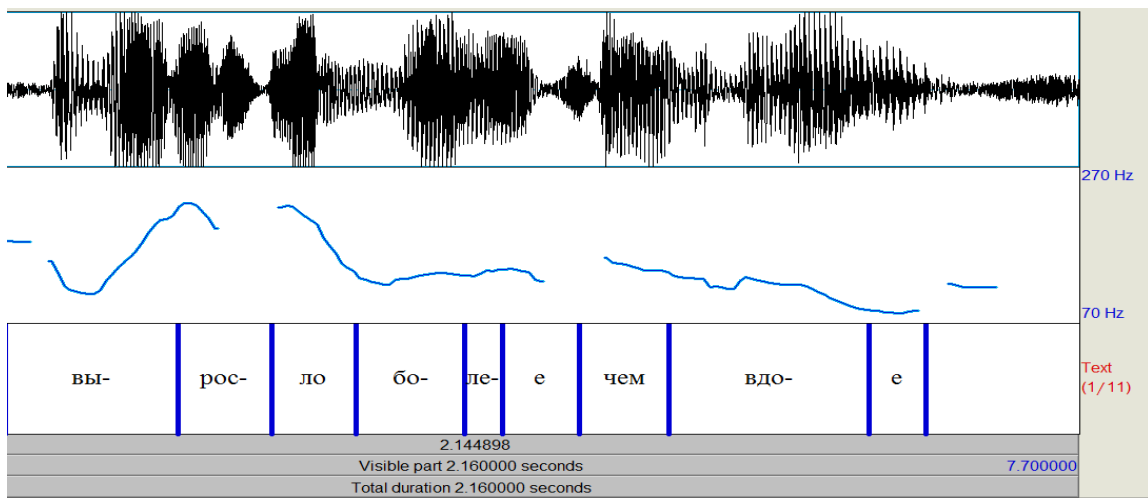
The utterances are written in the Cyrillic/Latin alphabet, not in the phonetic sign systems. Underneath each spectrogram, the utterances are presented in the textual way for the better understanding. The time of speaking for each utterance is shown in Total Duration. Longer phrases were separated into utterances according to their meaning and pauses made (Bruce 1998, 149), in order to produce a more distinct spectrogram. For each type of program in each language were chosen two phrases (separated in two or three utterances) to illustrate the analysis process. It should be also mentioned here that the main considerations for the instrumental analysis are speech speed, pitch height, and pitch changes within phrase level though some other phonetic peculiarities might be discussed as well.

5.2. "Serious" programs analysis

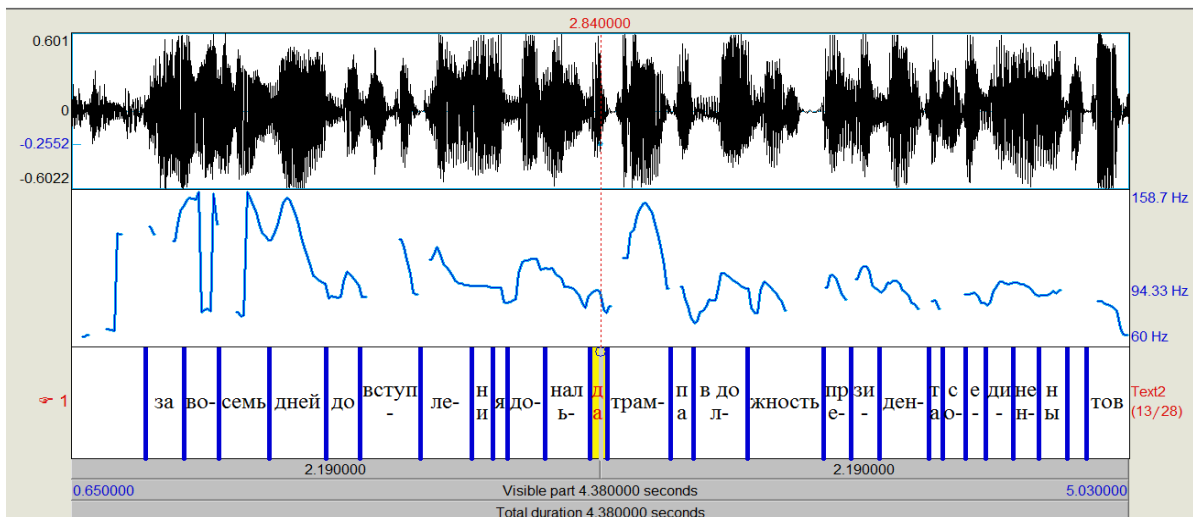
The pitch variations in the Russian "serious" programs have a relatively narrow range, e.g. from 50 to 250 Hz in the first phrase and from 50 to 158.7 Hz in the second phrase. Thus, the speech sounds more serious and less emotional, which corresponds to the type of radio programs. The parameter also corresponds to the assumed voice level of a male journalist of 100 Hz (Bruce 1998, 63). The ends of the phrases show mainly a falling pitch contour, which has been earlier in the text named typical for Russian speakers. The speech rate is quite high, e.g. 6.08 syllables per second in the first phrase example, and 5.98 syllables per second in the other phrase.



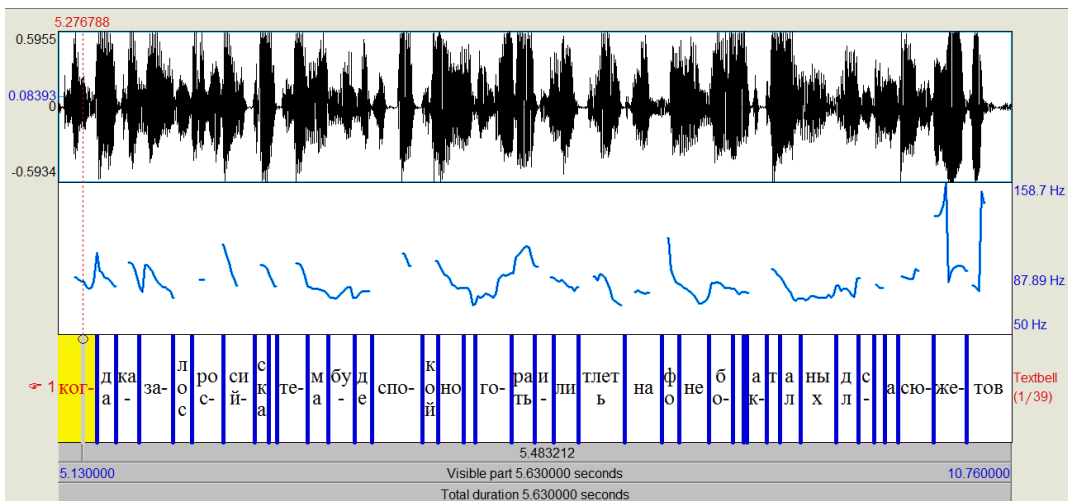
В течение две тысячи тринадцатого года цена нефти, от которой, в первую очередь, зависит курс российского рубля (#3)



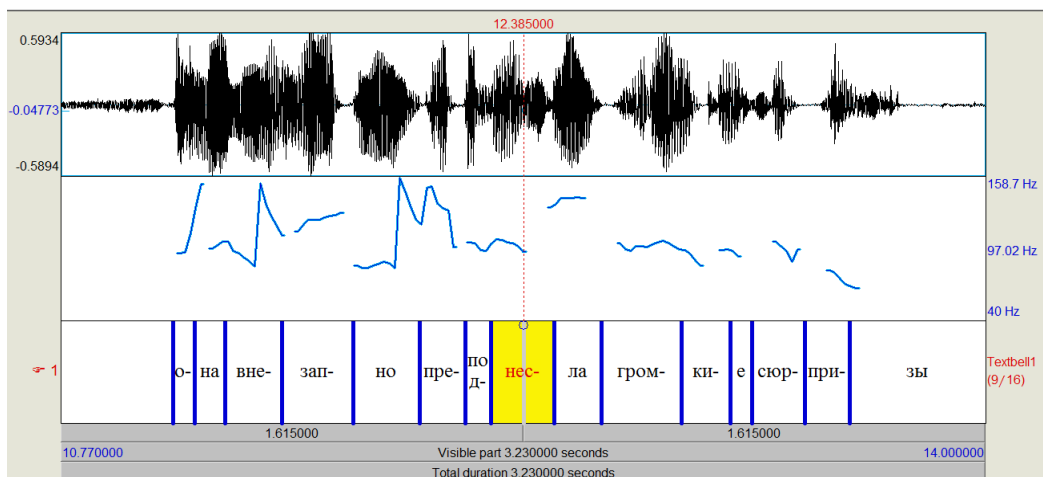
выросла более, чем вдвое.(#3)



За восемь дней до вступления Дональда Трампа в должность президента Соединенных Штатов,(#2)

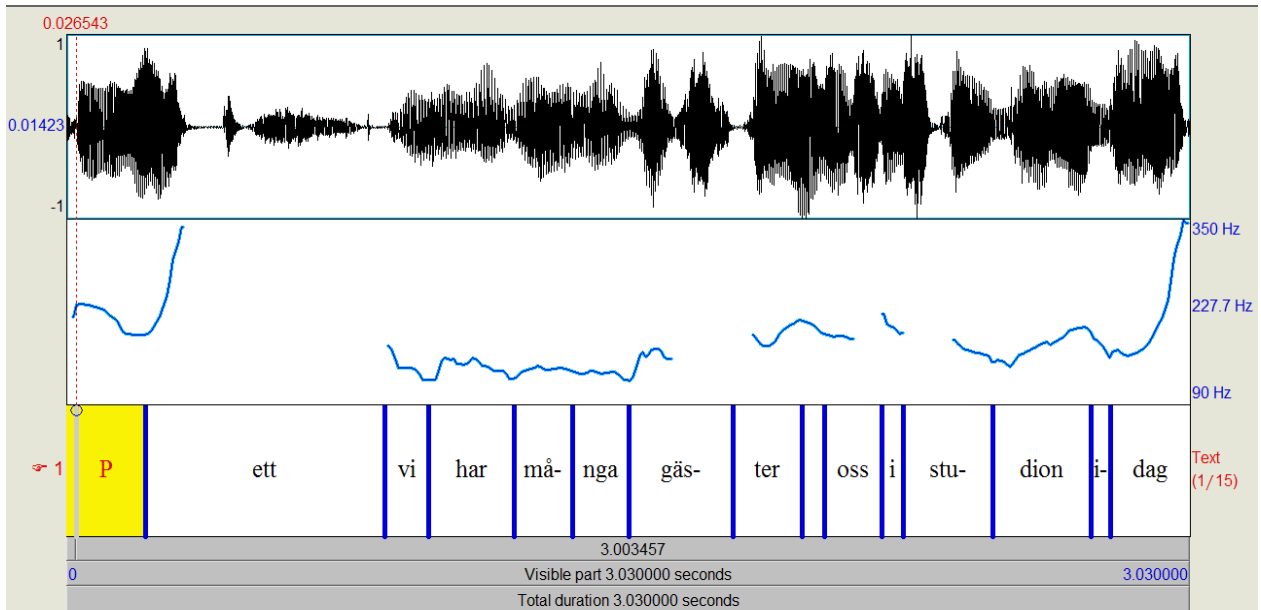


когда, казалось, российская тема будет спокойно догорать или тлеть на фоне более актуальных для США сюжетов, (#2)

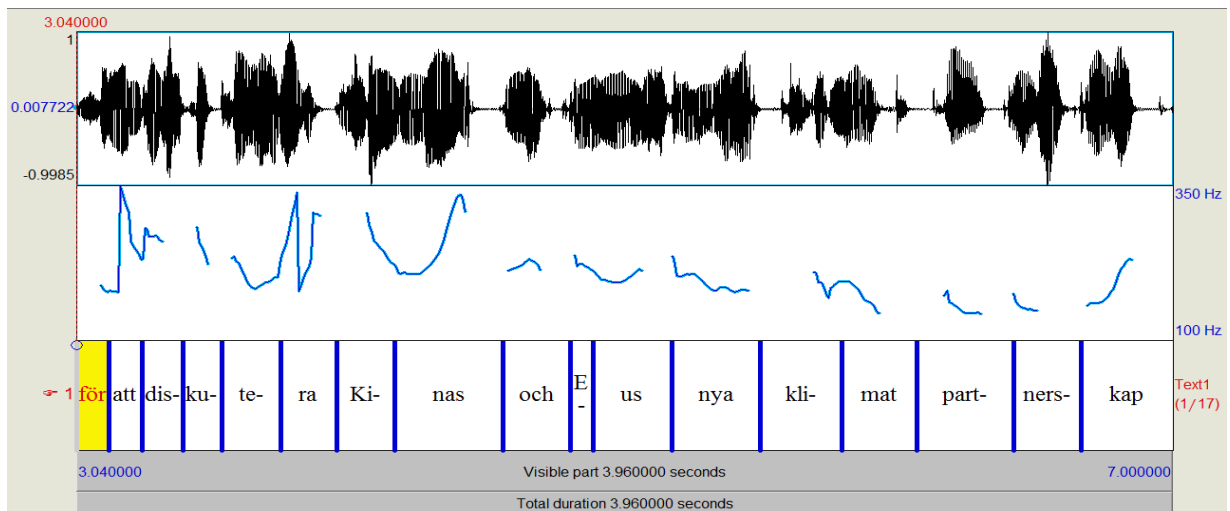


она внезапно преподнесла громкие сюрпризы. (#2)

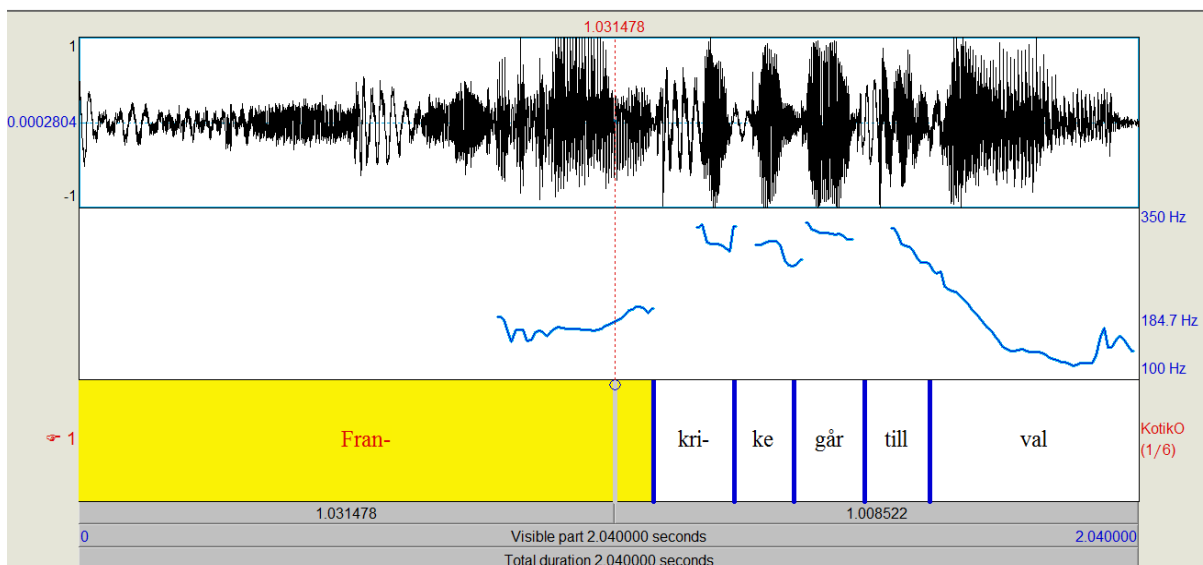
Meanwhile, “serious” programs in Swedish, performed by female djs, sound in a higher pitch range than the Russian “serious” programs, e.g. from 90 to 350 Hz and from 100 to 350 Hz in the second example. This corresponds to the earlier studies of pitch range connected to the sex of the speaker (Bruce 1998, 63). The phrases exploit rising intonation contours, which contrasts the Russian “serious” programs. The speech rate is slower than the rate of speech in the Russian shows, e.g. 4.57 syllables per second in the first phrase and 4.18 syllables per second in the second phrase example.



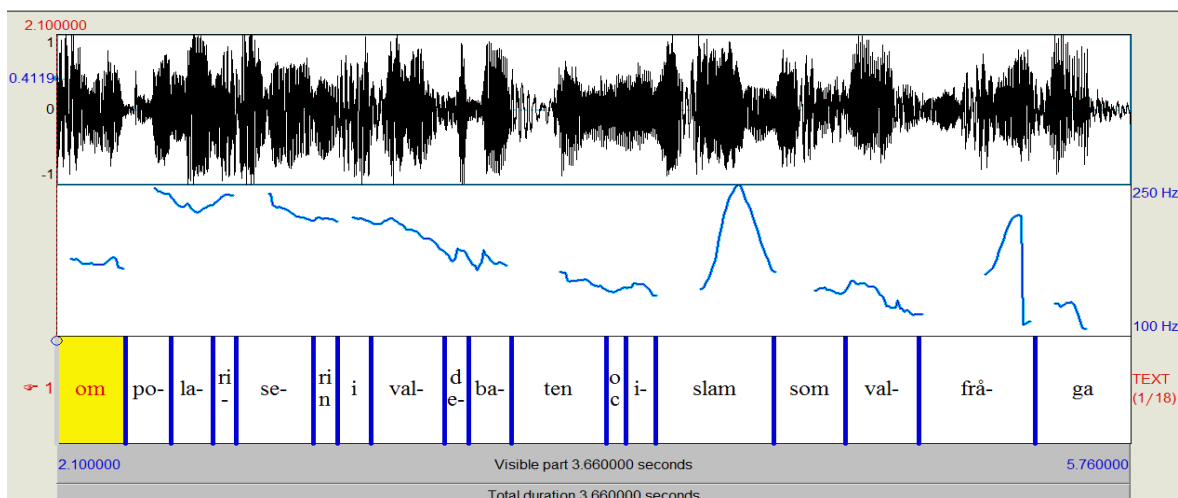
P1, Vi har många gäster med oss i studion idag (#3)



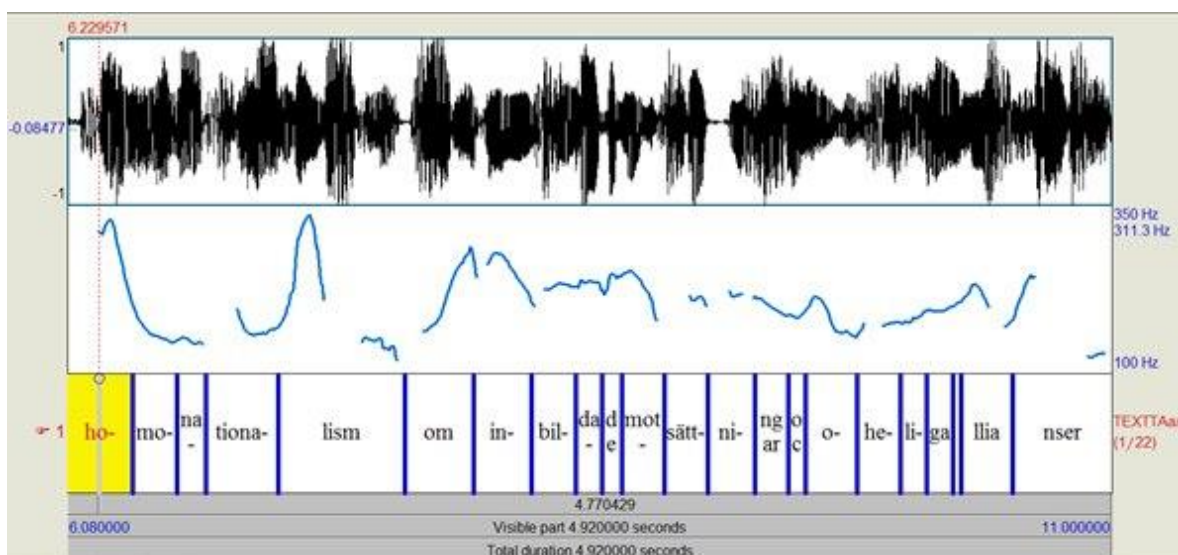
för att diskutera Kina och EU:s nya klimatpartnerskap. (#3)



Frankrike går till val. (#1)



Om polarisering i valdebatten och islam som valfråga, (#1)



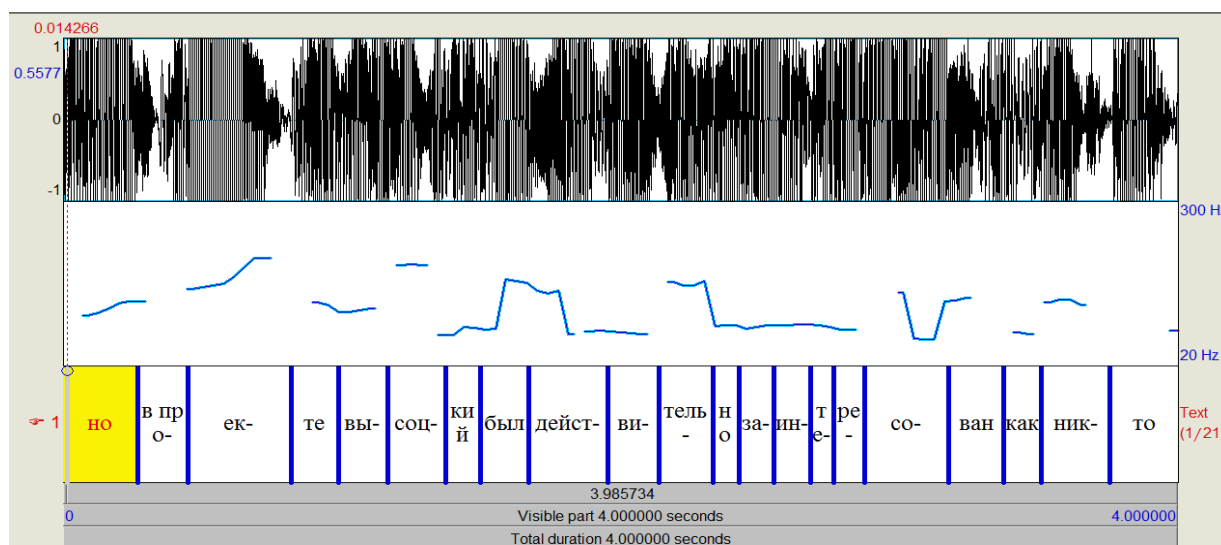
Homonationalism, om inbillade motsättningar och oheliga allianser... (#1)

Thus, in both languages for the “serious” programs journalists exploit quite narrow pitch variation range, which could be one of the instruments of speech sounding more “serious” and “important”.

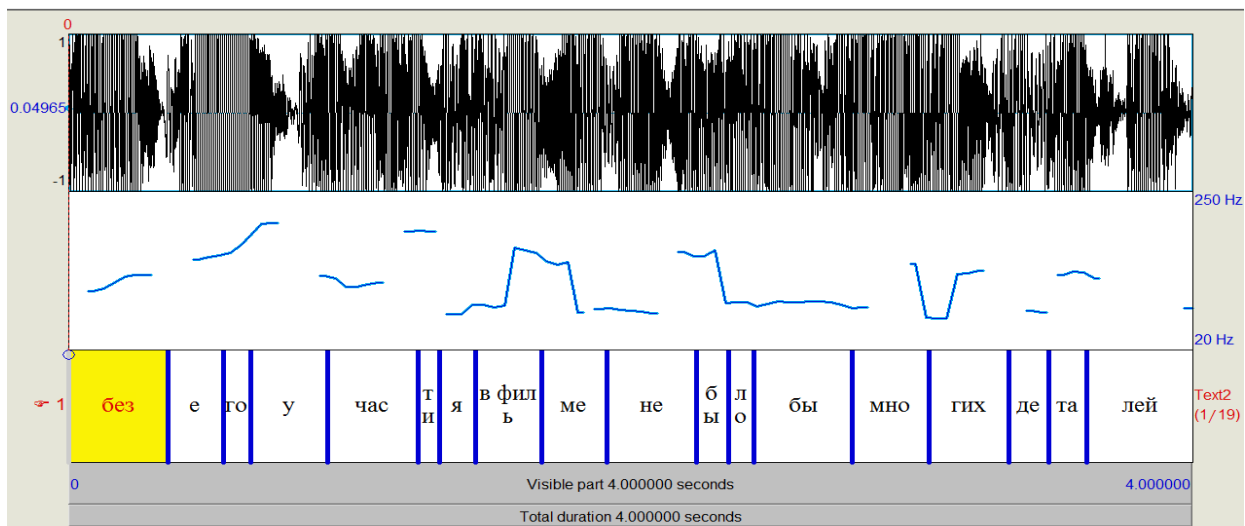
5.3. “Light” shows analysis

Since the Russian “light” shows are performed by the male voice, for them was chosen the pitch paradigm of 20-300 Hz, with the biggest part of utterances lying in between 80 and 200 Hz. This corresponds to the abovementioned ideas of a male voice being quite low. The speech is quite quick, in the first example 5.25 syllables per second, 4 syllables per second in the second

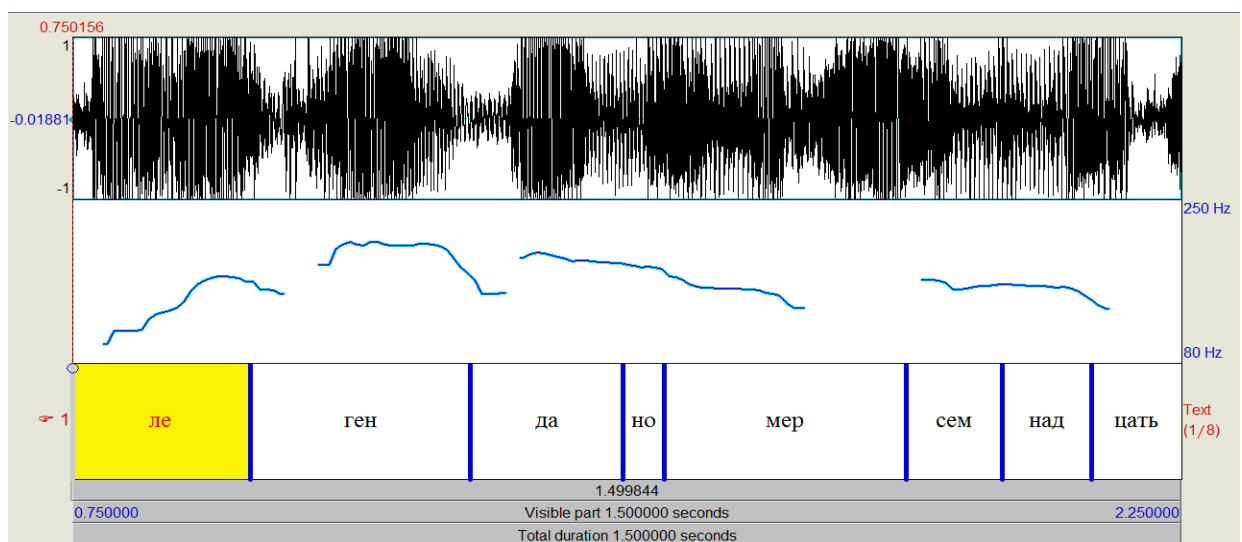
example, 5.3 syllables per second in the third example and 6 syllables per second in the last one. The results support the earlier studies on radio talk (Åbrink 1998, 68), as well as the earlier results of the present study, both stating that “light” programs would be characterized by quick speech temp. The first two examples are derived from the “main body” of radio text while the other two come from the intro. Thus, it can be assumed that the intro part has a quicker speech rate than the main part, which corresponds to the earlier results obtained on the auditory level of this analysis; however, this idea deserves further studies. Further, the tendency to the pitch downfall can be observed towards the end of the phrase, which supports the earlier results of the present study. Interestingly, the results show no particular difference in both speech rate and pitch level changes within the two types of programs in Russian. Therefore, we can presume that radio talk in Russian sound more “light” and emotional due to other reasons, such as the topic of the program or the word choice. So, via the instrumental analysis no direct correspondence can be observed between the type of program and the phrase-level prosodic patterns used in Russian language. Nevertheless, this issue deserves further studying. It should be also mentioned that in this case the phrases can be clearly separated into pronounced sentences (both according to the grammatical structures of sentence in Russian and to the clearly heard pauses), thus I find it possible to comment on each example separately.



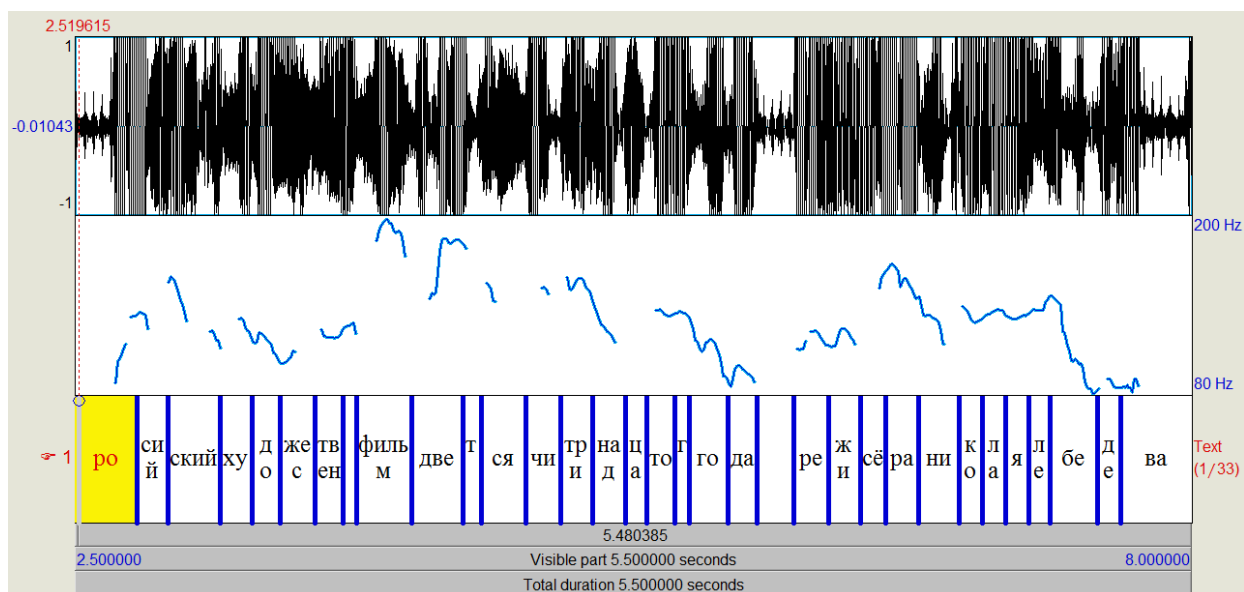
Но в проекте Высоцкий был действительно заинтересован, как никто. (#2)



Без его участия в фильме не было бы многих деталей. (#2)

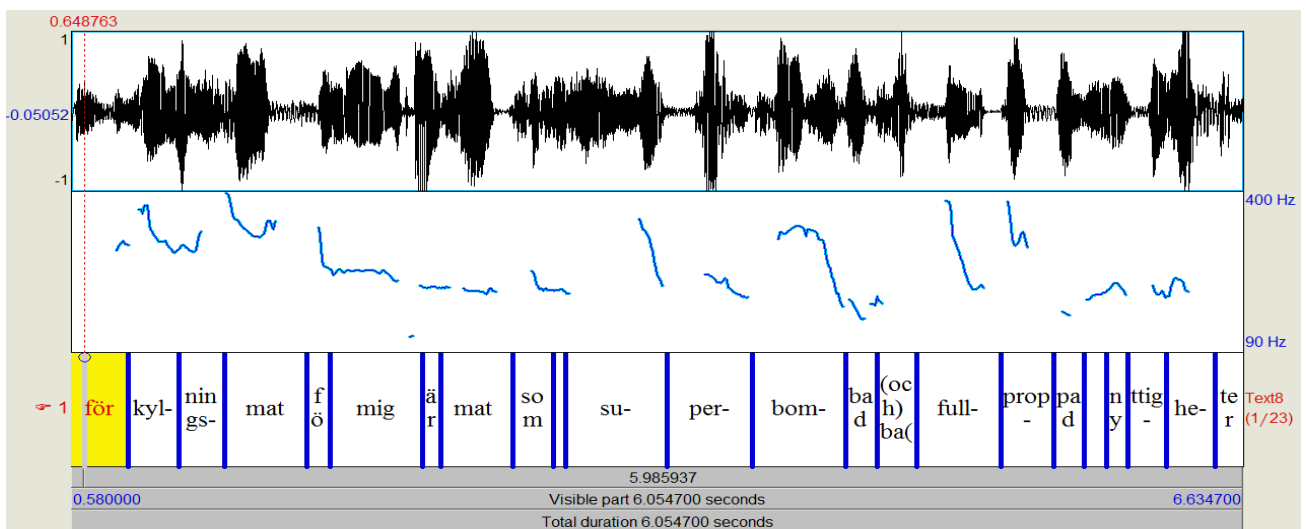


"Легенда номер семнадцать". (#1)

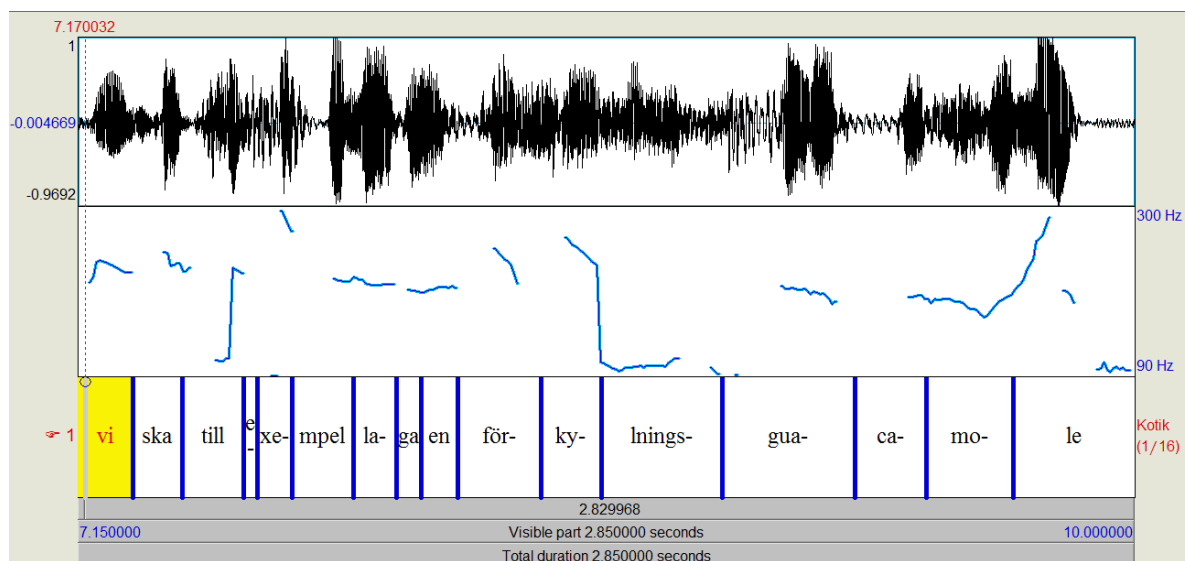


Российский художественный фильм две тысячи тринадцатого года режиссёра Николая Лебедева. (#1)

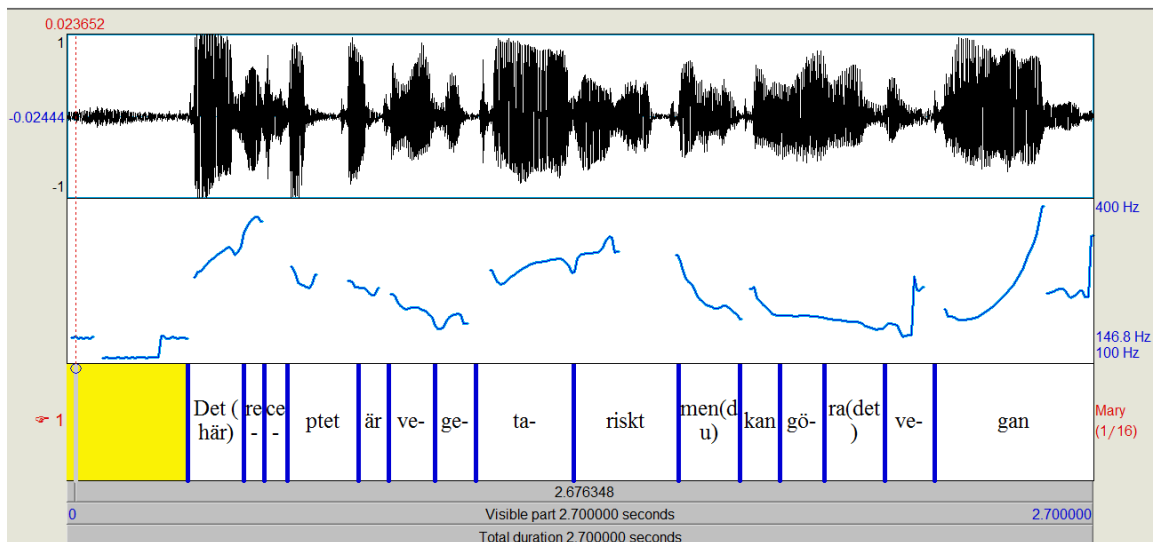
As for the “light” shows in Swedish, they exploit a wider pitch variation range, e.g. from 90 to 400 in the first example and from 70 to 400 Hz in the second utterance. Thus, the pitch variation range within Swedish “light” shows is wider than for the Russian “entertaining” shows. The pitch rising contour can be observed in both examples. The speech rate in the utterances presented is around four syllables per second, thus, it is at the same level with the “light” shows in Russian. Therefore, the differences observed on the instrumental analysis within the type of program between the two languages are the phrase-level intonation contour and the range of pitch changes.



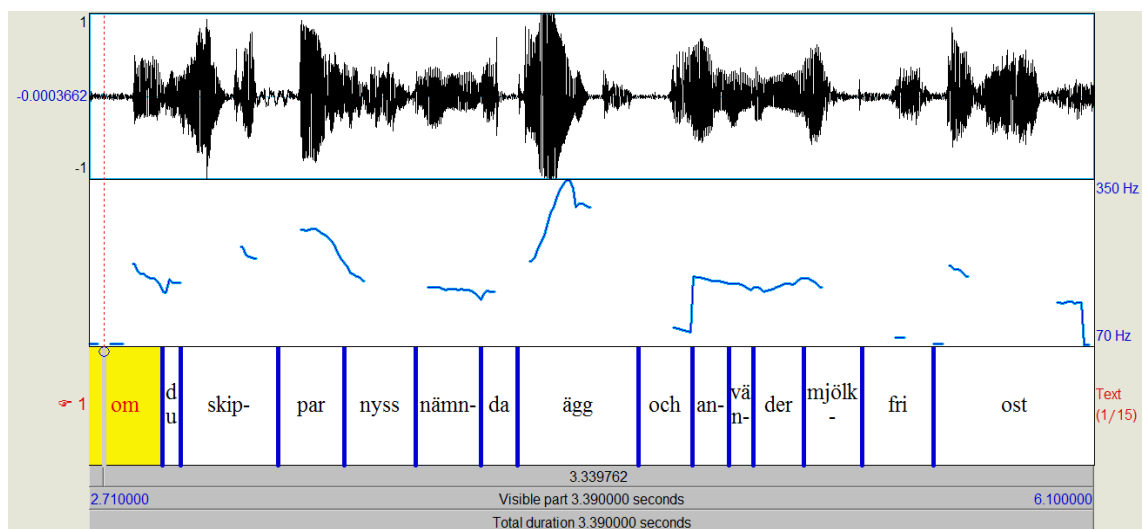
Förkylningsmat för mig är mat som är superbombad och bara fullproppad med nyttigheter. (#1)



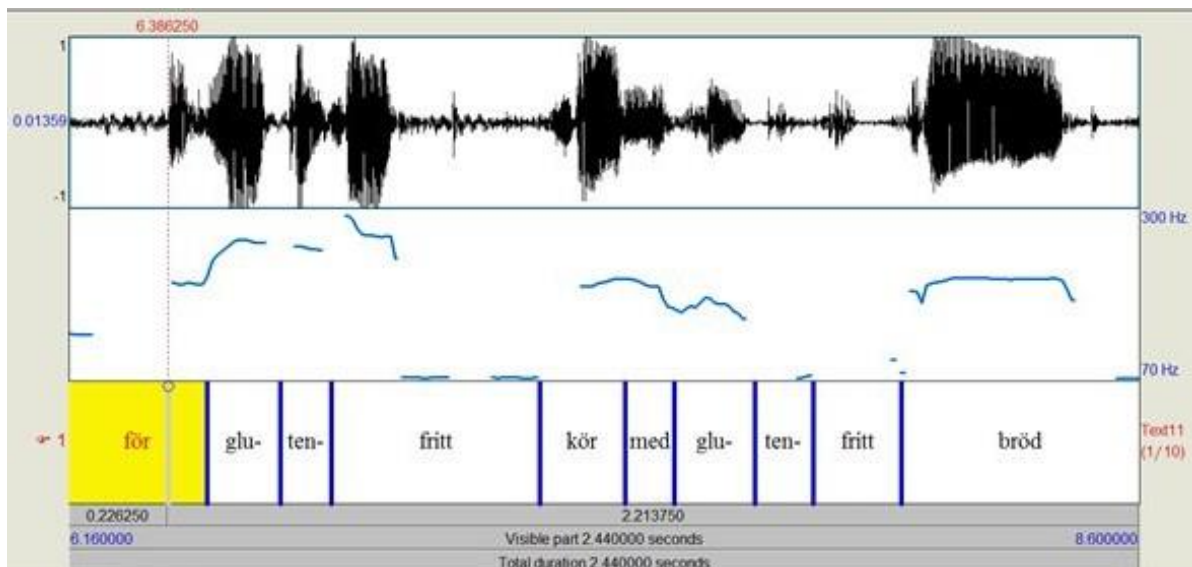
Vi ska till exempel laga en förkylningsguacamole. (#1)



Det här receptet är vegetariskt men du kan göra det vegan, (#2)



om du skippar nyss nämnda ägg och använder mjölkfri ost. (#2)



För glutenfritt, kör med glutenfritt bröd... (#2)

Compared with the "serious" programs in Swedish, the "light" programs in Swedish demonstrate wider changes in the intonation contour, which make them sound more energetic and emotional. The speech rate is kept the same and the phrases tend to end with a rise in both types of programs. Also, the phrases within the Swedish "light" programs are the longest of the four groups of programs studied, which causes some difficulty in separating them into utterances. Definitely, this is not the point of the research, but the idea might be useful in terms of further studies of phrase-level prosodic patterns in Swedish. It has been also discussed in the chapter about the auditory analysis level earlier.

5.4. Results

To sum it up, the following results were obtained on the instrumental level of analysis within the study. The speech rate does not change significantly regardless the type of the program or the language. For both types of programs, the speech in Russian is about one syllable per second quicker than in Swedish. To my mind, this difference cannot be regarded significant within the study. The "light" programs show a wider pitch change variation than the "serious" ones, thus sounding more emotional, which corresponds to the earlier studies of pitch changes in the emotional speech (Snider 2005, 92). The programs in Swedish use a wider pitch range than the ones in Russian for both types of radio shows. A male speaker voice is lower than a female speaker's which corresponds to the earlier studies (Abe 1980, 17, Bruce 1998, 63) and earlier results of this research (auditory analysis).

The phrase-level intonation contours seem to be more connected to the language of speaking than to the type of program, since the Swedish journalists tend to use the rise-end patterns, while the Russian DJs would exploit the falling contours. However, to my mind, the issue deserves further studying, including a bigger amount of sound samples. Also, the results do not show bigger differences in the inter- than in the intra-speaker variations in the intonation contours, suggested by earlier studies (Jassem & Kudela-Dobrogowska 1980, 147). The tendency of the rising contour exploitation in Swedish may be defined as an invitation to an expected response from a listener (Hadding & Naucner 1980, 129), either direct (a phone call) or indirect (thinking about the topic, discussing it with family). However, falling contours sound assertive or can underline new information provided (Rando 1980, 255), which will be one possible explanation of its wide use in both types of programs in Russian.

Thus, as a result of the instrumental analysis in the present study the phrase-level prosodic patterns can be described as not having a direct connection to the topic of speech and type of radio program. However, the pitch range variations seem to have the connection with the topic of speech and type of radio program.

6. Conclusion and Discussion

The two levels of analysis (auditory and instrumental) within the present study have provided both corresponding to one another and contradicting results. To my mind, the further discussed contradictions in the results can be explained by the differences in the aural-based personal perception of the sound peculiarities and the results provided by the non-personalized software. Also, within the possible further studies of the topic, a bigger range of data should be sampled and analyzed to minimize the margin of error, e.g. including both male and female speakers for each language. The quality of sound is considered high, since they are derived from the official web-pages of national-size radio channels, which use high-quality sound recording machinery. Also, high-quality earphones were used during the listening thought the analysis. Moreover, for the instrumental level the sound files were converted from stereo to mono sound in to provide clear spectrograms. All this has been conducted to minimize the margin of error within the study.

Both level of analysis state, that “light” programs in both languages sound more emotional than “serious” ones. The instrumental analysis explains the liveliness of radio talk analyzed by broad pitch variation range exploitation, which is supported by earlier studies on the connection of emotional speech and pitch variations (Snider 2005, 92). Meanwhile, on the auditory level the “lightness” of speech is connected with the number of stressed words, the speech speed and the presence of rising contours (partially supported by the earlier studies by Åbrink (1998, 320)). Thus, within the two levels of analysis “light” programs are confirmed to sound different from the “serious” shows in terms of prosody; however, both levels of analysis each name different instruments of making the speech sound emotional. Continuing the talk about pitch variations, the results of instrumental analysis here support the findings of the auditory analysis. Speech in both types of programs is considered quite even, while the “light” shows are less even, which correspond to the pitch variation range findings.

Though at the auditory analysis level the results obtained state a quicker speech rate for “light” programs than for the “serious” programs, the results do not correspond with the ones obtained on the instrumental level. Furthermore, the instrumental analysis does not support the statement that the Swedish journalists speak quicker than the Russian ones either. According to the instrumental analysis results, no significant difference between the speech rate in the two languages and in the two types of programs was mentioned. Thus, no direct correspondence in the speech rate and the topic of speech can be confirmed. To my mind, the question deserves further studying on a bigger amount of data samples.

On both levels on analysis a wide exploitation of rising contours for Swedish and falling contour for Russian for both types of programs has been demonstrated. Thus, in Swedish phrase-level intonation patterns the rising-end contour is dominating, while in Russian intonation the phrase-level contours mostly include a falling end. This corresponds to the earlier studies of Russian and Swedish language, e.g. Volskaya & Skrelin (2008, 251).

Some interesting results were obtained on the auditory level in terms of in-phrase stress positioning in both languages. Nevertheless, since the corresponding issues were not studied on the instrumental level, I will keep the information in the auditory analysis summary subchapter and will not discuss it here. The same can be applied to the findings of the phrases' length and occurring of pauses, as well as several findings about the rhythm of the phrases. However, to my mind, all the findings should be reaffirmed on a bigger amount of data during further studies.

So far, the research states that there are several differences in the prosody used according to the type of radio program. The differences are established for both languages and on the two levels of analysis. However, a clear correspondence of phrase-level prosodic patterns with the topic of speech has not been confirmed, since the results of the two levels of analysis do not completely support one another. The only obvious connection between the type of program and the phrase-level intonation used is the pitch change range, which has been observed on the two levels of analysis. Obviously, the word choice has a direct correspondence to the type of program. However, it is not a part of this research. To my mind, the topic deserves further studies since the results are rather ambiguous.

First and foremost, I see the importance of further research on the topic from the position of prosodic variations within various dialects and non-native language use. This seems significant regarding the vast migration processes in the EU. Here should be included a research of the same kind of data with a bigger number of samples, a comparison of the different types of prosodic patterns in prepared and spontaneous speech, the measurements of the intonation contour variations within several dialects of one language. The results of this research and further studies on the topic may find their implementations in academic works as a ground for prosody and radio speech research. Also, the research of intonation has been confirmed effective as part of studies of speech teaching for different kinds of situations (deaf children, foreign language, and brain damaging conditions), described in earlier studies (e.g. Bruce, 1998, 200). Prosody research findings are used in manipulations with speech production and sound recording studies,

which have become an inseparable part of information and communication technologies nowadays. All those ideas make the findings of this research applicable for the further studies and implementing in various fields.

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The data analyzed

In Swedish. "Serious" programs.

P1 (Sveriges Radio). 2017. Människor och tro [Online]. Available at:

<http://sverigesradio.se/manniskorochtro>

P1 (Sveriges Radio). 2017. Klotet [Online]. Available at: <http://sverigesradio.se/vetklotet>

"Light" shows.

P3 (Sveriges Radio). 2017. Los Vegas [Online]. Available at: <http://sverigesradio.se/losvegos>

In Russian. "Serious" programs.

Радио Свобода. 2017. Сегодня в Америке [Online]. Available at: <https://www.svoboda.org/z>

Радио Свобода. 2017. Экономическая среда [Online]. Available at: <https://www.svoboda.org/z>

Радио Свобода. 2016. Петербург свободы [Online]. Available at: <https://www.svoboda.org/z>

"Light" shows.

Наше Радио. 2016. Интересное кино [Online]. Available at: <http://www.nashe.ru/programs/kino/>

Appendix 1

NB! Punctuation marks (including paragraphs' separations) are placed according to grammar rules and common sense and might not correspond to those in the scenarios. In the brackets some extra translations and explanations are provided, which will be used once, thus the text in brackets is not a part of the actual radio text. First the originals of the texts are presented, then the translations.

In Swedish. "Serious" programs. Människor och tro.

1. Människor och tro. Vilken roll spelar religion och identitet i franska valet?

Jingle - Det här är P1 Sveriges Radio.

Frankrike går till val. Om polarisering i valdebatten och islam som valfråga, homonationalism, om inbillade motsättningar och oheliga allianser, Homo Deus ny bok av Yuval Harari om människans framtid.

(act in English)

Från tilltron till präster till algoritmer. Och så om att vara nära anhöring till någon med funktionsnedsättning eller diagnos.

Jingle

Ja på söndag den 23. April är det dags den första omgången i det Franska presidentvalet och det kan bli en riktig valryssare. Det är mycket som står på spel i Europas tredje största ekonomi. Frankrikes nästa president kommer också få stort inflytande i EU inte minst på hur flyktingkrisen ska lösas. De senaste två år har Frankrike drabbats av flera blodiga islamistiska terrorattentat som krävt av hundratals liv och säkerhet och invandring så här har blivit viktiga valfrågor.

2. En teokrati med demokratiska inslag. Iran väljer president.

Jingle - Det här är P1 Sveriges Radio.

Försåtligt manipulativt, kritik från Förbundet Humanisterna mot svenska kyrkans undervisningsfilm om tro och vetenskap. Religiöst styra eller demokratiska val? Iran väljer ny president. Osäkerhet bland förskolans pedagoger, vad är tradition och vad är religion och vem var hon Hilma af Klint. Konstnären som arbetade på uppdrag från andevärlden författaren till en ny roman om Hilma gästar till Människor och tro.

Som börjar i tro och vetande debaten i fredags premiär visades en undervisningsfilm med titeln "Gud och Big Bang" på vetenskapfestivalen i Göteborg. Filmen har tillkommit på initiativ av svenska kyrkan i Göteborg, där Per Starke är stiftsdirektor och även ansvarig utgivare för filmen. Per Starke, Den här filmen ska ju kunna användas i religionsundervisningen på gymnasiet. Varför ska svenska kyrkan producera undervisningsmaterial?

3. Klotet.

Kina blir EU:s klimatpartner

Kina och EU ska bli nya klimatkompisar.

(an act in English)

När USA kliver av världens klimatarbete, kliver Kina in. Men är Kina en bra partner, blir det mer brun eller grön energi i världen när Kina expanderar och hur blir med mänskliga rättigheter och demokrati?

Jingle

Välkomna till vetenskapsradions miljöprogram Klotet i Sveriges radios P1. Vi har många gäster med oss i studion idag för att diskutera Kina och EU:s nya klimatpartnerskap och senare i programmet blir det förstås också lyssnarfrågor och lite andra miljönyheter från veckan. Men först om vår nya klimatpartner Kina. Ja EU:s och Kinas ledare var på gott humör när de för ett par veckor sedan i Bryssel deklarerade att de gemensamt ska ta täten för att bekämpa de globala klimatförändringarna och det gjorde de alltså dagen efter att USA offentligt berättat att de drar sig ur Parisavtalet. Kina som under tjugohundra talet har genomgått en rekordsnabb ekonomisk utveckling med hjälp av stål, betong och kol, en utveckling som lett till stora inhemska miljöproblem och även gjort Kina till världens idag största utsläppare av koldioxid, Kina som också blivit världens största producent av grön energiteknik, solpaneler, vindkraftverk och nu kommer el-bilarna.

”Light” programs. LosVegos.

1. Jingle - P3 Sveriges radio.

Det här är Los Vegas och förkylningsavsnittet.

Jag heter Therese Svensson, din gröna kock och matkamrat. Förkylningsmat för mig är mat som är superbombad och bara fullproppad med nyttigheter. Vi ska till exempel laga en förkylningsguacamole. Sen ska vi göra en kryddig morotssoppa med kokos, lime, ingefära och koriander. Och som avslutning ska vi göra skitgoda blåbärspannakakor på bovetemjöl med mynta och apelsin.

Nu ska vi faktiskt börja med att göra en förkylningsguacamole och den här älskar jag att göra. Den är god och krämig för halsen med liksom du vet så här len avocado, jättegott, det älskar man. Avocado är dessutom väldigt, väldigt nyttigt och innehåller bra fetter, så det är ju bra. Och så ska vi proppa den full med hälsoförhöjande godsaker, som antiinflammatorisk lök och vitlök, endorfinhöjande chili, stärkande olivolja och c-vitaminrik persilja. Och vissa kanske skulle kalla den för en "superfoodboostad guaca-bowl", men eftersom jag har lite värdighet kvar i kroppen så får den titeln stå i skamvrån.

Jingle

2. Jag heter Therese Svensson och jag är grön kock.

Jingle – P3 Sveriges radio.

Idag kör vi brunch. Och det vi ska göra idag är supergoda rätten "Huevos Rancheros", i med rubbet bara, i med tomater, i med vitlök, i med bönor. Sen ska vi göra en double brunch burger. Jag brukar säga att man ska försöka punda in så mycket smak som möjligt i allting med svamp, ägg och avocado. Bara punda in det! Sen ska vi göra en superdubbelmacka för alla brunchpolarna som du gör i en enda limpa. Jag bara trycker in det här mellan skivorna. Så det är världens smartaste grej. Nu kör vi!

Jingle

Another voice - Vad ska vi göra nu Therese?

Nu ska vi göra den jättegoda "double brunch burger". Och varför jag kallar det "brunch" är att så fort man slänger in ett ägg i nåt så kallas det ju för "brunch". Så vi ska liksom ha rejält god saftig tillagad portobello, liksom som dubbelburgarna så ska vi ha ett ägg, och så ska vi ha avocado, och så ska vi göra en dijonmajonnäs, och så ska vi äta det i briochebröd. Så det blir en jättegod hamburgare. Det här receptet är vegetariskt men du kan göra det vegan, om du skippar nyss nämnda ägg och använder mjölkfri ost. För glutenfritt, kör med glutenfritt bröd eller ät med sallad. Då blir det också lite LCHF-aktigt.

3. Ah, ah, pizza är så gott!

Jingle – P3 Sveriges radio!

Mm, det är så gott. Bara jag tänker på ordet "pizza", blir jag ju helt till mig. Jag heter Therese Svensson och det här är Los Vegas.

Jag är grön kock, men förutom det är jag ju journalist, och jag älskar ju att skriva om mat. Jag har gått kockutbildning men jag har droppat ut och sen har jag bara lagat mat tills att du har hört den här rösten idag. Idag ska vi laga tre olika pizzor som har en egen twist. Vi ska laga en "white pizza", jag ska fuskröka osten. Vi ska laga en helt glutenfri kolhydratfri blomkålpizza och med det menar jag inte att det är en degbotten och sen då lägger vi på trötta blomkålsknyten som kommer lukta prutt. Och vi ska laga en vegansk stekpannepizza som tar typ trettio sekunder. Om du kan höra mig ta fram anteckningsblocket, nu kör vi.

Jingle

In Russian. "Serious" programs. Peterburg Svobody.

1. Говорит радио «Свобода». У микрофона Виктор Резунков. В эфире программа «Петербург Свободы».

Jingle

Всю минувшую неделю пристальное внимание общественности не только Петербурга, но и Москвы и других городов было привлечено к Европейскому

университету, действие лицензии которого было приостановлено Рособранзором седьмого декабря.

Европейский университет в Санкт-Петербурге, как и Высшая школа экономики в Москве, один из двух негосударственных высших учебных заведений в стране. С года учреждения, с тысяча девятьсот девяносто четвертого, этот вуз приобрел репутацию одного из самых динамичных и современных образовательных учреждений страны. Его диплом признается ведущими зарубежными университетами. Европейский университет в Санкт-Петербурге включен в рейтинг Лондонской экономической школы «Сто лучших европейских центров политических наук».

Нынешняя проверка университета чиновниками Рособранзора началась еще летом и закончилась тринадцатого декабря, правда, еще не совсем закончилась, не окончательно.

Арбитражный суд Москвы приостановил решение Рособранзора о приостановке действия лицензии Европейского университета в Санкт-Петербурге. Но надолго ли? Вопрос будет решаться одиннадцатого января. А мы попытаемся сегодня разобраться, кто и что стоит за атакой на Европейский университет, носит ли она политический характер или это свидетельство кризиса контрольно-надзорной деятельности органов власти в России. Мы связались по скайпу с ректором Европейского университета в Санкт-Петербурге Олегом Хархординым и профессором этого университета Владимиром Гельманом.

1. Segodnya v Amerike

Jingle

В этом выпуске программы «Сегодня в Америке. Антикремлевский кабинет Трампа».

Окажутся ли на ключевых постах в администрации Трампа люди, критично настроенные по отношению к Кремлю? Обнародовала ли CNN фальшивку, потенциально созданную в Москве? Чем чреваты обвинения Дональда Трампа в адрес американской разведки? Может ли Владимир Путин стать препятствием для улучшения отношений между Вашингтоном и Москвой?

Эти и другие вопросы мы обсуждаем с бывшим высокопоставленным сотрудником Пентагона вице-президентом Лексингтонского института в Виргинии Дэниэлом Гурэ, американским публицистом, бывшим корреспондентом газеты Financial Times в Москве Дэвидом Саттером, профессором университета Сетон-Холл в Нью-Джерси Максимом Матусевичем. Передачу из Нью-Йоркской студии радио «Свобода» ведет Юрий Жигалкин.

Jingle

За восемь дней до вступления Дональда Трампа в должность президента Соединенных Штатов, когда, казалось, российская тема будет спокойно догорать или тлеть на фоне более актуальных для США сюжетов, она внезапно преподнесла громкие сюрпризы. Прежде всего, к удивлению некоторых наблюдателей, выяснилось, что на ключевых постах в американском правительстве – госсекретаря, министра обороны, директора ЦРУ – могут оказаться люди, крайне критично относящиеся к Кремлю.

3. Ekonomicheskaya sreda.

Экономическая среда. Еженедельная программа Радио «Свобода», с вами продюсер Наталья Аркадьева и ведущий Сергей Сенинский.

Jingle

В этом выпуске. Рубль две тысячи семнадцать, российская валюта в окружении белых и черных лебедей. Так на рынках часто называют позитивные или, наоборот, негативные факторы, которые могут возникнуть или нет, но которые способны оказать мощное влияние на цены тех или иных товаров или финансовых инструментов. В течении две тысячи шестнадцатого года цена нефти, от которой в первую очередь зависит курс российского рубля, выросла более, чем вдвое. На этом фоне рубль подорожал к доллару на двадцать семь процентов. На две тысячи семнадцатый год рынки пока в целом ожидают дальнейшего повышения цен на нефть, хотя и сомнений в том, что соглашения стран-экспортеров нефти о временном сокращении добычи будут выполняться ими полностью, остается предостаточно. С другой стороны, ожидаемый рост процентных ставок в Соединенных Штатах неминуемо вдет к дальнейшему укреплению доллара по отношению к другим валютам, а есть еще и собственные внутрироссийские факторы курса образования рубля. Обо всем этом мы и поговорим сегодня с российскими экспертами.

Jingle

“Light” programs. Interesnoe kino.

1. Jingle - Интересное кино на Нашем радио.

«Легенда номер семнадцать». Российский художественный фильм две тысячи тринадцатого года режиссёра Николая Лебедева. Авторы сценария Николай Куликов, Михаил Местецкий и Николай Лебедев. Композитор Эдуард Артемьев. Фильм снят кинокомпанией «Три Т».

Фильм «Легенда номер семнадцать» основан на реальных событиях и рассказывает о восхождении к славе советского хоккеиста Валерия Харламова и о первом матче суперсерии «СССР-Канада» тысяча девятьсот семьдесят второго года. Семья легендарного хоккеиста принимала активное участие в съемках картины. Желая добиться

биографической точности, на съемках присутствовала сестра Харламова Татьяна Борисовна. Ей, кстати, досталась эпизодическая роль. А сын Валерия Александр сыграл игрока Чебаркульской команды «Звезда», в которую в начале карьеры попадает главный герой.

(an episode from the film played)

2. Jingle – Интересное кино на Нашем радио.

«Место встречи изменить нельзя». Советский пятисерийный телефильм режиссёра Станислава Говорухина по роману братьев Вайнеров «Эра милосердия», композитор Евгений Геворгян. Фильм снят на Одесской киностудии в тысяча девятьсот семьдесят восьмом году.

Именно Высоцкий подсказал братьям Вайнерам идею создания сценария фильма. Прочитав одни из первых экземпляров только что вышедшего романа «Эра милосердия», он явился в дом писателей со словами: «Я пришел за столбить Жеглова. Так, как я вам сыграю Жеглова, его не сыграет никто».

(an episode from the film played)

Но в проекте Высоцкий был действительно заинтересован как никто. Без его участия в фильме не было бы многих деталей. Именно он приделал фотографию Вари, любимой девушки Шарапова, на дверь, где должен был спрятаться Шарапов. Васе Векшину он надел на шею белое морское офицерское кашне. В то время в таком наряде щеголяли подростки, подчеркивая принадлежность к фронтовикам. На руке у Векшина появилась накладка «Лёля» - самое модное имя тех лет. А Станиславу Садальскому он помог создать образ карманника Кирпича.

(an episode from the film played)

3. Jingle – Интересное кино на Нашем радио.

«Операция «Ы» и другие приключения Шурика». Советский комедийный художественный фильм, снятый в тысяча девятьсот шестьдесят пятом году режиссером Леонидом Гайдаем. Авторы сценария Яков Костюковский, Морис Слободской и Леонид Гайдай. Композитор Александр Зацепин. Фильм снят кинокомпанией «Мосфильм» и «Вторым Творческим Объединением».

На роль студента, добродушного ботаника в очках Шурика, претендовали около сотни кандидатов, среди которых были, например, Валерий Носик, Александр Збруев и Андрей Миронов. Когда Гайдай уже утвердил на роль Носика, ему на глаза попалось фото Александра Демьяненко. Взглянул на его фотографию, режиссер к удивлению обнаружил внешнее сходство с собой и принял решение, что играть Шурика будет именно он. Кстати, на момент выхода фильма Александру Демьяненко было двадцать восемь лет, а он сыграл

совсем юного студента. Еще от природы актер был брюнетом, волосы ему нещадно выбеливали, что было весьма болезненной процедурой, ведь краски в те времена отличались агрессивностью по воздействию.

(an episode from the film played)

Translation. “Serious” programs in Swedish

1. Människor och tro (People and faith). What role do religion and identity play in French votes? (the show’s title, does not appear in the sounding text, but visible on the web-page)

Jingle - This is P1 Sveriges Radio (Swedish radio).

Frances goes to the poles. About polarizing and Islam as a question of choice, homo nationalism and in-built contradictions, unholy alliances, Homo Deus a new book by Yuval Harari about the future of the mankind.

From believe to priests to algorithms. And thus about being closely related to someone with a disability or a diagnosis.

So, today on Sunday the 23rd of April is the first row of French presidential votes and it can be real fight. A lot is at stake in Europe’s third biggest economy. The next president of France will also have a great influence both in the EU and in the possible solution of the refuge crisis. The two latest years France has suffered over a number of bloody terror acts, which have taken hundreds of lives and the questions of safety and immigrants have thus become important questions of the vote.

2. A theocracy with a democratic element – Iran chooses a new president (the show’s title, does not appear in the sounding text, but visible on the web-page).

Jinlge - This is P1 Sveriges Radio.

Cunning and manipulative – Förbundet Humanisterna (Humanist Society) criticizes the church of Sweden for an educational film about faith and science. Religious lead or democratic voting, Iran chooses a new president. Uncertainty among preschool pedagogues, what is tradition and what is religion. And who was she, Hilma af Klint, an artist that worked on behalf of the spiritual world. A writer of a new roman about Hilma is a guest of People and faith.

We start with the belief and knowledge debate. On the Friday premier night, an educational film with the title God and Big Bang was shown on Gothenburg science festival. The film was produce on the initiative of the church of Sweden in Gothenburg, and here Per Starke is the head bishop as well as the executive producer for the film. Per Starke says, they will be able to use the film as a part of religious education curriculum in gymnasiums. Why would the church of Sweden produce education materials?

3. Klotet (The Globe). China becomes the EU's new climate partner (show's title, does not appear in the sounding text, but visible on the web-page).

China and the EU will become new climate comrades.

When the USA steps out of the world's climate work, China steps in. But is China a good partner, becomes the energy mostly brown or green when China expands, and what will be with democracy and people's rights?

Welcome to Klotet, science and ecology radio program on Sveriges Radio P1. We have many guests with us today in the studio to discuss China and the EU new climate partnership, and later in the program will have some listeners' questions and some other nature news from the week. But first about our new climate partner China. So, the EU and China leaders were in a good mood when two weeks ago in Brussels it was declared that they would together take steps to conquer the global climate changes. And they did all this just a few days after the USA officially announced they step out of the Paris treaty. China during the 2000s has gone through a record quick economic development with the help of steel, concrete and coal, a development that led to a big nature problem and even has made China one of the world's major producers of carbon dioxide. China has also become the world's biggest producer of green energy technique, sun panels, windmills, and now the el-cars are on their way.

"Light" programs in Swedish

1. Jingle - P3, Sveriges Radio.

This is LosVegas and anti-cold program. My name is Therese Svensson, I am your green chef and food friend. Anti-cold food for me is the food that is super bombed and stuffed with utility. E.g. we will cook an anti-cold guacamole. Then we will make a spicy carrot soup with coconut, lime, ginger and coriander. And in the end, we will make crazy tasty blueberry pancakes from buckwheat flour with mint and orange.

Now we will actually start making the anti-cold guacamole, the thing I love to make! It is good and mild for the throat, with its, you know, this soft avocado, so tasty everybody loves it. Besides, avocado is very, very useful, it contains good fats, so it is very good. So, we will stuff it full with healing things, like anti-inflation onion and garlic, endorphin elevating chili, strengthening olive oil and rich in C-vitamin parsley. And we could probably call it "superfoodboostad guaca-bowl", but because I have little strength left in my body, may this title be in disgrace!

2. My name is Therese Svensson and I am a green chef.

Jingle - P3, Sveriges Radio.

Today cook we brunch. And the thing we will cook today is the superb tasty dish "Huevos Rancheros". And here comes all together! With tomatoes, and garlic, and beans inside.

Then we will make a double brunch burger. I keep on saying that one should try squeezing in as much taste as possible in everything, with mushrooms, eggs and avocado. Just squeeze it in! Then we will make a superb double sandwich from all brunch bread rests from one loaf. I just press those in it, in between the pieces, and it turns into the tastiest thing in the world. Now let's cook!

(a voice from outside) What do we make now Therese?

Now we will make a super tasty "double brunch burger". And why I call this brunch is that as soon as one breaks an egg in something, we call it brunch. So we will have really tasty juicy cooked Portobello, then the double burgers, and we will have an egg and avocado, and we will make Dijon mayonnaise, and we will eat all those in a brioche bun. Thus it will be a very tasty hamburger. This recipe is vegetarian but you can make it vegan, should you skip the named eggs and use a milk-free cheese. For a gluten-free version cook it with gluten-free bread or it with salad leaves. Then it will also become a bit more LCHF.

3. Ah, ah pizza is so tasty!

Jingle - P3, Sveriges Radio.

Mm, this is so tasty! Just thinking of the word pizza makes a big thing for me! My name is Therese Svensson and this is LosVegos.

I am a green chef but beside that I am a journalist, and I love to write about food. I have been getting a cooking education but I dropped out and then I've been cooking food up till the moment you've heard my voice today. Today we will make three different pizzas, each of them has a twist. We will make a white pizza, I will smoke cheese. We will make completely gluten-free carbohydrate-free cauliflower pizza, and here I don't mean the dough covered with stewed pieces of cauliflower smelling of fart. And we will cook a vegan frying pan pizza which takes around 30 seconds. If you can hear me, take out your note blocks, let's cook.

"Serious" programs in Russian

1. Radio Svoboda, Viktor Rezunkov in the studio. It is Peterburg Svobody (St. Petersburg of Freedom) project on the waves.

The entire last week a deliberate attention of the society of both St. Petersburg and Moscow and other places was paid to the European University which license was raterally stopped by Federal Service of Supervision in the Sphere of Education and Science on 7th December.

There are two higher educational non-governmental institutions in the country, which are the European University in Saint Petersburg and the Higher School of Economy in Moscow. Since its establishment in 1994, the university has got a reputation of one of the most dynamic and modern educational institutions in the country. The diploma is accepted by the leading

foreign universities. European university in Saint Petersburg is included in the list of the hundred best European centres of political science by the London school of economics.

The latest inspection of the university by the officials from the Federal Service of Supervision in the Sphere of Education and Science has begun already in summer and was mostly finished on the 13th of December. Moscow city commercial court has ceased the decision of the Federal Service of Supervision in the Sphere of Education and Science on the license interruption of the European university in Saint Petersburg. For how long, that is the question which will be being solved on the 11th of January. Today we will try to understand who and what stands behind the attack onto the European university. Does it have a political nature or is it a sign of the crisis of the control and surveillance activities of the officials in Russia? We contacted via Skype the university's principal Oleg Harhordin and professor Vladimir Gelman.

2. In today's program "Segodnya v Amerike (Today in America). Anti-Kremlin Trump cabinet".

Shall Kremlin-critical people appear on the key positions in Trump administration? Has CNN published a fake allegedly created in Moscow? What are the possible consequences of Trump's accusations against the US intelligence? Can Vladimir Putin become a hindrance in the relationship improvement between Washington and Moscow?

Those are some of the questions we are discussing with an ex-high ranking Pentagon official and vice-president of the Lexington institute of Virginia Daniel Goure, a US columnist and ex-correspondent of the Financial Times in Moscow David Satter, and a professor from Seton Hall University in New Jersey Maxim Matusевич. The program host is Jury Zhigalkin, Radio Svoboda, New York studio.

Eight days before Trumps inauguration to the president of the US when the Russian topic seemed to make no big flame on the contrast to the acute news for the USA, a big surprise came in. First of all, it turned out to the amazement of some observers that on the key position in American government, e.g. the Secretary of State, the Minister of Defense, the head of the CIS, might appear Kremlin-critical people.

3. It is Economicheskaya sreda (Economy Wednesday), a weekly show by radio Svoboda (Freedom). In the studio producer Natalia Arkadjeva and host Sergej Seninsky.

In today's program, we are discussing rouble-2017. The Russian currency is surrounded by white and black swans, that is a market name for the positive or, on the contrary, negative factor which might or might not appear but that are able to have a powerful impact on the prices of some goods and financial instruments. During 2016 oil price, which has a first-level influence in the Russian rouble rate, has grown up twice. Thus the rouble went up 27% to the dollar. For 2017 markets are currently expecting a further growth of oil prices though there is a number of

doubts that oil exporting countries will keep at full the agreement on the raterality reduction of oil extraction. On the other hand, the expected interest rate hike in the US inevitably leads toward the strengthening of the dollar to other currencies. Moreover, there are others, internal factors of the rouble rate formation. All abovementioned we are discussing today with Russian experts.

“Light” shows in Russian

1. Jingle - An interesting film on Nashe radio (Our radio).

The Legend number 17 is a Russian fiction film directed by Nikolai Lebedev and released in 2017. The scriptwriters are Nikolai Kulikov, Mihail Mesteckij and Nikolai Lebedev. The music was written by Eduard Artemjev. The film was made by a cinema company “Tri Te”.

The film *Legend #17* is based on the real-life events and tells the viewers about the star career of a Soviet ice hockey player Varerij Harlamov, and about the first hockey game of the super series USSR vs Canada of the 1972. The family of the ice hockey legendary player have taken an active part in the filming. In order to achieve a biographical precision Harlamov’s sister Tatiana was attending the filming. She also got a part in an episode. While Valerij’s son Aleksander plays the part of an ice hockey play from the Chebarkul’ team Zvezda (Star) where the main hero gets a place at the beginning of his career.

2. Jingle - An interesting film on Nashe radio.

The Meeting place cannot be changed is a Soviet five-episode television series directed by Stanislav Govorukhin and based on the novel *The Age of Mercy* by the Vayner brothers. The music was written by Yevgeni Gevorgyan. The film was produced on Odessa Film Studio in 1978.

It was Vladimir Vysotsky who gave the Vayners the screenplay’s idea. Having read one of the first books of the recently released novel he showed up in the writers’ home saying, I have come to claim the part of Zheglov. The way I will play Zheglov, nobody will.

(an episode from the film played).

However, Vysotsky was the most interested person in the project. Hadn’t he taking part, many details would have not appeared in the film. It was he who had put a photo of Sharapov’s girlfriend Varya onto the door behind which Sharapov was going to hide. He wrapped Vasya Vekshin’s neck in a navy officer white muffler, which was the teenage-style sign of a war veteran at the time. Vekshin’s hand got a decoration in a blue tattoo with the most popular name of the time Lyolya. And Stanislav Sadal’sky got help in the creation of the character of hustler Kirpitch (Brick).

3. Jingle - An interesting film on Nashe radio.

Operation Y and Shurik's other adventures is a Soviet comedy film, made by Leonid Gajdaj in 1965. The script was written by Yakov Kostyukovsky, Moris Slobodskoy and Leonid Gajadaj, the music was composed by Aleksander Zatsepin. The movie was filmed by Mosfilm Film Company and the Second artistic unit.

The main hero is a kind nerdy four-eye student Shurik. Around a hundred applicants had been cast for the part, including e.g. Valeri Nosik, Alexander Zbruev and Andrej Mironov. When Gajdaj had already confirmed Nosik for the part, a photo of Aleksander Demjanenko caught his eye. Surprisingly, in the photo the director found a physical resemblance with himself and made his decision for Shurik to be acted by the man. Besides, by the release of the film Alexander Demjanenko had already turned 28 while he played a very young student. Moreover, the natural dark-haired actor was exposed to a merciless hair whitening, which was a painful process with the aggressive dyes of the time.