SUMMARIES

1. ORAL SPEECH AND ITS PHONETIC DESCRIPTION. SPEECH TECHNOLOGIES


The main results of the initial stage of the terminological research “Automatic Processing of Speech and Speech Technologies” in the framework of compiling bilingual electronic thesaurus on computer linguistics, launched in 2010, are discussed. The aim of this project, uniting the researchers from Novosibirsk, Saint-Petersburg and Moscow, is to provide a systematic description of the computer linguistics terminology and adjacent areas. The thesaurus will include numerous Russian terms that are in traditional thesaurus relations, their English equivalents and definitions in two languages. Finally, the thesaurus will be available as an electronic information resource with two interfaces — one intended for the user and the other containing the programming data.

Key words: phonetics, automated processing of vocal speech, speech technologies, terminology, lexicon, glossary, thesaurus, information resource.

1.2. Cecilia Odé. “Segmental Phonetics Also Has Its Charms”.

The status of the Tundra Yukagir (TY) vowel phoneme /ö/ is discussed. After a short overview of the TY vowel system, as it is described so far by various authors, a production experiment is discussed that was set up in order to study the problem of how to define the phoneme /ö/ in the TY vowel system. The main results of the fieldwork among TY speakers are summarized. It is reported that TY speakers pronounce /ö/ too often as Yakut /ö/, a close-mid front vowel. Since most TY speakers master Yakut rather well, it can be a matter of interference between the two languages.

Key words: phoneme, vocal system, variants of pronunciation, experiment, Tundra Yukagir vowel phoneme /ö/.


Multiple deviations from prescriptive variants concerning acoustic realizations of word forms and prosodic features of utterances have been discovered while transcribing spontaneous speech samples. There is a need in new approaches to speech studies and functional modeling of speech perception.

Key words: spontaneous speech, phonetics, speech perception.

1.4. Bogdanova N.V., Palshina D.A. Reduced Forms in Russian Speech: Different Patterns of Language Evolution.

An analysis of reduced forms in Russian speech which are treated as a result of an evolutionary process, which occurred in different ways, is provided. A diachronic analysis of those forms, which have already become part of the language, makes it possible to chart different patterns of reduction in modern Russian. The functional analysis of reduced forms is based on two big corpora of the Russian language (National and Speech) and is sustained by quantitative data.
Keywords: oral speech, short form, evolutionary pattern, Speech Corpus, lexicographical description.

1.5. Glotova O.N., Evgrafova K.V., Evdokimova V.V. Perception of Singing Vowels by the Speakers of Russian.

The perception of sung vowels in order to get insight on the issue of singing intelligibility is studied. The sung Russian vowels /i/, /a/, /u/ were presented to informants in order to find out the way they are identified and the recognition pattern of each vowel to define. The acoustic analysis of the material is also provided. The results of the experiment are discussed.

Key words: phonetics, singing vowels, acoustics of the singing voice, intelligibility of singing vowels, singing formants.

1.6. Yagunova E.V. An Analysis of Perceptual Confusions among Russian Consonants Taken from Continuous Spoken Speech.

This paper reports the experiments where participants were presented with two kinds of stimuli, i.e., isolated CV-type syllables extracted from a spoken text and the same syllables embedded in Ludmila Petrushevskaya’s meaningless “tale”. The results organized in confusions matrices served to verify the hypothesis according to which the local phonetic context dramatically influences the recognizability of consonants.

Key words: spoken text, speech perception, consonants, sound confusions matrices.

1.7. Shastina G.N. Non-Native Speech Perception: Results and Perspectives.

The chapter reviews the studies of non-native speech perception carried out during the last 50 years. Major approaches to the problem of non-native word perception, especially in connected speech, are under discussion, with the main purpose being the construction of non-native speech perception model.

Key words: phonetic interference, perception, connected speech, linguistic features of the word, phonetic features of the word, levels of perception, detailed phonetic information.

II. SUPRASEGMENTAL CHARACTERISTICS OF LANGUAGE, SPEECH, AND DISCOURSE

2.1. Nikolaeva T.M. Intonation Stream and its Functional “Neighbours”.

The multilevel system of intonation, its specific functional means, the basic features of the accentuation and their relation with other levels of language structure are discussed. The main concepts of intonology are compared with the axioms of discourse semantics.

Key words: intonation, intonology, intoneme, accent prominence, phraseology, semiotics.

2.2. Skrelin P.F. Prosodic Data Processing for the Research Aims.

The paper deals with the problems of prosodic data processing aimed at determining the sentence intonation model. Special attention is given to automatic processing errors, which result from a newly discovered mismatch between acoustical and perceptual characteristics of Russian intonation.

Key words: intonation, speech prosody, natural language processing.
2.3. Volskaya N.B. Once Rise-Fall, Two Rise-Fall...

One of the aims of the paper is to draw attention to the all-important role of intra- and inter-language prosodic interference. As far as Russian intonation is concerned, some features characterizing rising-falling intonation contours, namely, right-shifting of the nuclear pitch accent peak, may be attributed to the younger generation of Russian speakers. The consequence is their misinterpretation by speakers of the older generation: neutral messages are perceived as expressing attitudes not necessarily pleasant to the hearer. Rising-falling intonation contours in standard spoken Russian have always been considered as a specific feature of Russian, but in some northern English dialects rising-falling intonation is used in neutral discourse. At the same time, in southern RP English, it is associated with an attitudinal/emotional overtone. This case of the intra-language inter-dialectal interference remains to be studied both from phonetic and functional points of view. As far as L2 intonation is concerned, a Russian learner of English may not have difficulty trying to produce the target language rising-falling intonation pattern, but he is sure to have difficulty receptively, when attempting to analyze the meaning of a given intonation contour. On the other hand, native English speakers may also fail to interpret the Russian message correctly.

Key words: intonation, intra- and inter-language prosodic interference.


The aim of this paper is to justify the differentiation of emotive intonation and emotional prosody. Emotional prosody is physiological in nature and belongs to language universals. Emotive intonation forms a language subsystem with specific intonation patterns that are not identical in different languages. The differentiation of emotional prosody and emotive intonation is possible based on a theory that includes the principles of classification of emotions and the principles of experimental phonetic research.

Key words: emotive intonation, emotional prosody, emotions classification, general emotional state, emotive meaning, complex emotions, different emotionality of people, zone character of emotions/emotion expressing, emotive utterances, variability of emotions prosodic correlates.

2.5. Guseva S.I. Phonetic Analysis Methods for Different Types of Discourse.

The paper deals with the general and phonetic aspects of discourse analysis and suggests the ways to study different types of discourse based on the anthropocentric and interdisciplinary approaches. Experimental data on rhyme hierarchy analysis in German conversational, political and religious types of discourse are provided. The article proposes an approach to the study of phonetic discourse structure based on the method of spontaneous and quasi-spontaneous speech analysis developed by the author.

Key words: discourse, discourse analysis, spontaneous speech, discourse informative structure, phonetic properties, rhyme hierarchy.


The paper summarizes recent research concerning the dependence of spectral features of vowels on prosodic prominence in British political discourse. After introductory comments on political discourse characteristics and experimental data organisation, the article focuses on the main correlates of prosodic prominence and discusses its relationship
with vocalic acoustic features. The data obtained in the research show the dependence of spectral change in vowels on prosodic structure of speech. Prominence results in increased acoustic power and more extreme spectral features in vowels.

**Key words:** political discourse, prosodic prominence, pitch, intensity, length, spectral features of vowels.

2.7. Ignatkina L.V. Accentual Doublets in Russian Word Stress.

The paper deals with the accentual doublets — words which allow two acceptable variants of word stress. 79 word pairs taken from 5 editions of the “Russian Spelling Dictionary for Schoolchildren” (spanning the period 1952-2002) have been analyzed. In 58.4% of words only one variant remains, 23.6% allow two variants, and in 18% new accentual doublets appeared. The analysis of recordings of 20 students who were asked to read the list of words and mark stresses in them, revealed that only 12 out the 79 accentual doublets remain: оКкраснА, знАхаркА, испОднИзу, дебаркАдЕр, оЕлИчий, чАрдАш, каменноУгОльный, твОрОг, сЫгрОвка, сИдмЯ, базИлИка, рожЕнИца. The word «роженица» has one more variant of pronunciation which was not recommended by the dictionary, namely, with the stress on the first syllable. The results of the study show that pronunciation dictionaries need to take empirical findings into account.

**Key words:** accentuation, accent variants, spelling dictionary, codification, experiment.

III. PHONETIC ASPECTS OF MULTILINGUALISM AND BILINGUALISM


The work of the Fryske Akademy (Frisian Academy) and the Mercator European Research Centre on Multilingualism and Language Learning is devoted to the study of minority languages in Europe. The primary involvement of the Fryske Akademy lies in the domain of history, literature and culture related to the West-Frisian language. This report describes the present day position of the Frisian language as one of the minority and regional languages of Europe. Since 1992, the author of this paper has had the privilege to work together with colleagues in Russia and contribute to the safeguarding of Russia’s heritage, in particular data on minority languages. In this work Lija Vasiljevna Bondarko has played a central role, which we remember with great admiration.

**Key words:** multiligualism, minority languages, language policy, Frisian language.

3.2. Lubimova N.A. Stratification of Phonological Oppositions Under the Conditions of Interlanguage Interference.

The stratification of phonological oppositions is a universal feature in the formation of both primary and secondary phonological systems. Its specific traits are revealed under the influence of interlanguage phonetic interference. During the acquisition of another language it predetermines the phonemic composition and structure of the individual’s speech system, i.e., the intermediate system, where the paradigmatics and distinctive features are determined by the typological similarity/dissimilarity of the languages in contact and by the proficiency level in the studied language.

**Key words:** interference, phonetic base, stratification of the phonological oppositions, intermediate system.

The paper shares the results of a phonetic study of the Russian speech of bilinguals and trilinguals with different combinations of languages (Russian-English, Russian-German-English, and Russian-Tatar-English) who had been living in eight different states of the USA for a considerable time period by the time their speech was recorded. The article discusses the most prevalent back transfer cases of English phonetic features to Russian speech caused by reverse language interference. According to the study results, back transfer is characteristic of the speech of the informants in all three participating groups. Special attention is paid to the prosodic modifications in the Russian speech of bilinguals/trilinguals, as the most prevalent and having an impact on communication. The experimental phonetic study was started thanks to the support of Lidiya Vassilyevna Bondarko.

Key words: bilingualism, trilingualism, reverse interference, back transfer, phonetic features, prosody.

3.4. Shamina Y.A. To the problem of Objectivity in Subjective Evaluation of some National and Regional Accents of the English Language.

The paper deals with the problem of whether native English speakers with no linguistic training are actually able to recognize various English accents and if they can associate these accents with certain social attributes of the speakers with any degree of accuracy. The results of a sociolinguistic survey are discussed in which both the speakers and the respondents were representatives of different national and regional varieties of English. The findings reported in the article point to the principle of objectivity both of sociolinguistic reactions to phonetic properties of speech by speakers of English and of subjective evaluation as an approach in sociolinguistic research.

Key words: English, regional dialects, national varieties, phonetic features, sociolinguistics.

3.5. Ullakonoja R., Tergujeff E., Dufva H. The Role of Phonetics in Foreign Language Teaching.

The present study reports the findings of a survey study, which aimed at exploring the role of phonetics in foreign language teaching in Finnish schools. The data were collected through an on-line questionnaire, that was filled out by 220 university students. The results reveal that phonetic training is not frequently used in foreign language classrooms, but there are great differences among languages. Russian stands out as a language, where the role of phonetics in teaching oral skills is prominent.

Key words: phonetic training, foreign language learning.

3.6. Pavlova A.V., Svetozarova N.D. Russian and German Paronyms in Psycholinguistic and Comparative Aspects.

Words are considered paronyms when their phonemic representations are similar but not identical. Such words may cause confusion in reception or production of speech. In the narrow sense, the term “paronymy” refers to cognate near-homophones such as “affect/effect”, but in the wider sense, it covers any confusable words which look alike. The identification of paronyms is rather subjective, but at the same time, the fact that they are
used interchangeably in speech indicates that they are psycholinguistically real. This paper describes the factors that contribute to the creation of paronyms in different languages and contains some ideas regarding future psycholinguistic research of this phenomenon.

**Key words**: paronyms, paronymy, psycholinguistics.

3.7. **Scherbakova L.P. Comparative Description of Russian and Finnish Word stress.**

Functions of word stress and acoustic correlates of stressed syllable prominence in Finnish and Russian words are analyzed. The interference of the native (Finnish) accent system with the second (Russian) language is experimentally supported.

**Key words**: word stress in Finnish and Russian, functions of word stress, acoustic correlates.

3.8. **Yanushevskaya I., Chasaide A.N., Gobl C. Native Language Influence on the Perception of Phonation Cues to Affect.**

This paper presents the general results of a cross-language study of perception of affect based on phonation cues. A perception test using a range of synthesized voice quality stimuli was administered to four groups of subjects, speakers of Hiberno-English, Russian, Spanish and Japanese. The study aims to clarify how variations in voice quality (in synthesized stimuli) can evoke different affective colouring for subjects from different language and cultural backgrounds. By incorporating major $f_0$ differences in the stimuli, this study furthermore addresses some aspects of the role of $f_0$ in affect cueing. The results support both universal and language/culture-specific trends in voice to affect association.

**Key words**: voice quality, affect, perception, cross-language variation.

IV. LANGUAGE SYSTEM AND ITS LEVELS

4.1. **Zubkova L.G. Principle of Sign and Integrity of the Language System.**

The main types of word signs have been studied in genetically and typologically different languages using the analysis of various dictionary and text-based data. These types of word signs involved semiotic word classes including basic parts of speech (nouns and verbs/predicates), derivational macro-paradigms (non-derived words and derivatives motivated to different degrees), and lexico-semantic categories (polysemy, synonymy, and antonymy). The study focused on the surface form of the above-listed classes of words — their morphological structure (derivational, inflectional, and morphemic), syllabic, suprasegmental, and segmental organization, and their interaction. Results indicate that the principle of the sign that manifests itself as a connection between the signifier and the signified, and in particular, the grammatical motivation of the signifier in its connection with the signified, is built into the categorical-hierarchical organization not only at the level of meaning, but also at the level of form, the latter being influenced by the former, and also in the interrelations between the two levels. The reality of the principle of the sign is thus associated with the real integrity of the linguistic system.

**Key words**: linguistic system, levels, principle of the sign, integrity, signifier, signified.
4.2. Kasevich V.B. **Reflections on Meaning, Phonology and Morphonology.**  
In this paper, some basic issues of linguistic semantics are analysed, first of all, the intentional approach to meaning. It is argued that no message can be treated as such, unless there can be identified an author whose intention is to modify the knowledge base of the addressee with this message. Special attention is given to so called intonemes. It is maintained that intonational constructions, also referred to as intonemes, have no meaning of their own — they contribute, instead, to the overall phonological structure of their syntactic constructions. At the same time, specific intonemes normally display a tendency to be associated with certain syntactic constructions, which is best interpreted as morphonological functions of the intonemes.  
**Key words:** meaning, phonology, morphonology, morphonological functions, intonemes.

4.3. Lublinskaya V.V. **One Model of Speech Perception by a Human Listener.**  
The book by Bondarko and collaborators “The model of speech perception by a human listener” published in 1968 is discussed in this paper. The book describes the model of the processes involved in speech perception, which was created based on research in the areas of psychology, physiology, experimental phonetics, and computer science. The ideas about the proposed model structure were original and novel at that time. Some of them are relevant at present as well. Moreover, the model is a good historical example of interdisciplinary collaboration aiming to solve a multifaceted problem of speech behavior.  
**Key words:** speech, signal, perception, analysis, model, automatic recognition, auditory description, phonetic interpretation.

4.4. Popov M.B. **From the History of Russian Phonological Schools: The Issue of the Morphonological Criterion in Phonology.**  
The course of developing the morphonological (morphophonemic) criterion in solving phonological problems relating to the phonemic inventory of a language is charted. From this standpoint, a critical analysis of the main claims of the Prague, Moscow, and Leningrad (Shcherba’s) phonological schools is provided, the commonalities and differences in the treatment to the phoneme are discussed, and the ideas of the outstanding representatives of these schools (N.S. Trubetskoy, L.V. Shcherba, A.A. Reformatsky, M.V. Panov, L.R. Zinder, and L.V. Bondarko) are reviewed.  
**Key words:** phoneme, morpheme, phonology, Moscow phonological school? Shcherba phonological school, syntagmatic and paradigmatic phoneme.

4.5. Gor K. **Phonetics, Phonology, and Morphology in Nonnative Lexical Access: Bondarko’s Legacy.**  
The reviewed studies develop the ideas of Liya V. Bondarko about the role of phonological makeup of words and morphemes, and probabilistic mechanisms operating in language users based on statistical properties of speech, and extend them to the case of second language (L2) lexical access. They use the psycholinguistic method of an auditory lexical decision task with priming to explore such factors as lexical frequency and second language proficiency in L2 lexical access. The chapter focuses on the fuzziness of phonological representations of words in L2 mental lexicon and the role of complex allomorphy in decomposition of morphologically complex words.  
**Key words:** phonology, phonetics, morphology, second language acquisition, lexical access, priming.

On the basis of the writing theory, and the works by L.R.Zinder and L.V.Bondarko, the problem of interrelation of sound and written systems is addressed, with emphasis on the historical background of this process, and the significance of orthographic principles for defining phonemic-graphemic correlations. The phenomena of Pronunciation Spelling and Spelling Pronunciation in the English language are considered. Specific traits of registering the words with diacritics in LPD by J.Wells are analysed.

**Key words:** writing, alphabet, graphics, orthography, pronunciation, phonemic principle, morphological principle, spellings with diacritics.

4.7. Menshikova Y.V. A description of the morphological structure of personal pronouns based on their phonetic form.

The article describes the forms of personal pronouns in Russian. Using personal pronouns as an example, the author demonstrates the relationship between phonological, morphological and semantic levels of language. L.V. Bondarko wrote that the phonemic structure of a particular word-form is often dependent on its morphemic structure. The phonemic analysis of personal pronouns in Russian language supports this idea.

**Key words:** phonetics, phonology, morpheme, morphology, pronoun, affix, root.