SPEECH PROFILES AS COGNITIVE PHENOMENA

Dimitar Popov

Abstract: Speech activity represents a conglomeration of specific features of the person which manifest themselves in the flow of speech through our anthropophonic features, pronunciation habits, and the way we think and speak. The speech profiles are presented as verbal, paraverbal and extraverbal components which are studied in the field of applied sociophonetics. The article discusses iconic representations of speech as online performance in the sphere of standard, substandard and nonstandard in contemporary Bulgarian pronunciation, signaled by a combination of different prosodic features manifested in specific aural images.

Key words: applied sociophonetics, speech profiles, prosody, speaking styles, Bulgarian pronunciation, iconicity

Introduction

Speaker profiling is the use of deductive reasoning to reach logical conclusions about a person based on his or her speech and language patterns as epiphenomena of cognition.

The investigation of the notion speech profile is mainly connected to the idea of the speech portraits („rechevye portrety“ in Russian = “phonetic profiles”) presented by the Russian researcher M. V. Panov in the 60s of XXth century when he analyzed the pronunciation of certain persons and characterized the literary norm diachronically, creating a sequence of phonetic profiles (images) of certain writers, scholars and political leaders [cp. Panov, 1990]. In such research works some scholars recommend that in the course of speaker’s speech analysis is necessary “to be pointed out (to be emphasized) the illuminated diagnostic spots”, which are ranked symptomatic for his personality [cp. Nikolaeva, 1991: 73].

The speech activity of the speaker is described as a combination of specific properties of the individual which occur obvious in the speech flow through the peculiarities of anthropophonics, pronunciation habits, the specificity of thinking and speech manner. “The speech profile” of the speaker comprises verbal, paraverbal and extraverbal components. Verbal components refer to the speech code used in the process of communication (native/non-native language, bilingualism, dialect, jargon, slang, vernacular language and others). Each individual is specific in that s/he possesses certain stable in use features (preferred and typically used) which represent phonetic and semantic dominants of its verbal repertoire:
the use of analogous variants of the phonemes in equal positions, tendency to place stress on certain syllabus in the word or in words of the same type, the use of analogous variants of intonation constructions in the same positions and others. Verbal speech features present the possibility for identification of such components of the “speech profile” as, for example, speaker’s social background; social group; marital status; parents (including their mother language/dialect, background, social status); economic status (incomes, lifestyle), factors linked to the freedom of personality (unconvicted / under suspended sentence / under house arrest); level of language and professional competence; level of development of their intellectual potential. Extraverbal features in principle go with such aspects as, for example, anthropometric (the structure of speech system, its size and capacity), physiological (sex, age, norm/pathology) and audiological data (hearing status); presence of chronic/odd illnesses; neuropsychological (temperament type, emotion-will regulation) and intellectual (specificity of thinking, cognitive and cognitive stages) data; presence/absence of musical, artistic data; voice specificity (trained, choral, tobacco smoker’s and other). These problems are also related to biometrical examinations and more precisely, to those of legal and applied phonetics [see Potapova & Potapov, 2006; Potapova & Komalova, 2011]. Speech profiling is an unique investigation in characterizing and standardizing of personality on the basis of its specific way of speaking and expressing.

Speech belongs to the groups of organic signs and as a pure audial temporal signal it characterizes with its irregular “granule-like” structure due to the realization of its discrete units in time through means of prosody.

Out of the three categorical autonomic speech signs – iconic signs, signs-indexes and signs-symbols, presented in Ch. S. Peirce’s semiotics, the focus of the present paper are the iconic representations of speech in its real regime of performance (on-line performance) in the area of standard, substandard and non-standard of modern Bulgarian pronunciation practice signaled by combining of different prosodic elements and generalized in specific auditory images. These phonetic speech gestalts have a clearly expressed iconic character as via its respective prosodic soundings signal a similarity between the auditory image, on the one hand and the expressed emotion – on the other; the age, social and regional background of the speaker, his/her sex identity, manner of speaking (speaking style) and other. In that respect the semblance of something with something else or the iconic relation between signans and signatum on the basis of similarity of a certain speech feature is illustrated accordingly by means of its prosody.

The exact place of speech prosody in between the other iconic signs could be illustrated in the scheme below (Scheme 1):
Prosody in this article is discussed as a grammatically independent autonomic signalizing system and is interpreted as a generalized notion of those suprasegmental aspects of speech which derive from the simultaneous interaction of acoustic parameters: Pitch ($F_0$), Intensity and Timing in the boundaries of a syllable and in bigger unities. Prosody also couples with auditory phenomena such as intonation, that is, realization of tone pitch in the speech course in time, by means of loudness, prolongation and pauses, as well as the related more complex phenomena such as speech tempo and rhythm.

Prosody as a basic notion in suprasegmental phonology is presented as a continuum of versatile functions and effects, which performance is realized both by non-linguistic means (extralinguistic features such as voice quality) and paralinguistic components (for example, phonetic means of expressing emotions or other cases of interpersonal communication such as aggression, the process of comforting someone; reconciliation, mockery, the degree of conversation commitment and others), through personal linguistic means (such as features of stress characteristics or accentual salience in the intonation phrase, the respective tone specificities and others). Such constantly varying states or relations of the speaker have on iconic character and are expressed directly in his/her speech repertoire via successive variation of the acoustic parameters, for example the change of the speech tempo, of its loudness and the voice quality. In that respect some scholars argue that prosodic phenomena (no matter whether they rank basic or attitudinal), which are regularly controlled by discourse performance structures, can and must be viewed as crucial basic linguistic phenomena, that is, it is necessary for them to be analyzed by means of formal linguistic tools.
Pronunciation practices in modern Bulgarian testify for an extremely rich variability which is typically performed in different discourse types by the help of diverse segmental and suprasegmental means. Verbal sound realizations of these performances add to the creation of a gallery of speech profiles (icons) which comprise elements of different styles of pronunciation in the sphere of standard, substandard and nonstandard.

The research paper focuses mainly on inherent and attitudinal means of prosody in their capacity as phonostylistic markers, signalizing expressive connotations of diverse discourse practices which differentiate the speech repertoires of the speaker with respect to his/her social and regional background, sex identity and age. The collection of such phono-stylistic parameters refers to the relation of certain auditory images to standard, sub-standard (diatopically or diastratically), non-standard and their intermediate formations.

The hierarchical model of trichotomy standard – substandard – nonstandard provides good opportunities for differentiating the speech variations on horizontal and vertical axis.

The multi-level model of Bulgarian speech can be illustrated graphically in the following way (Scheme 2):
1. Variability of Bulgarian pronunciation

Bulgarian speech in real regime of its pronunciation and articulation is typically performed in the process of communicative interaction under the form of different stylistic registers, which forms the speech behavior of language bearers.

In phonology research works the presence of social-stylistic allophones has been mentioned more than once. In that respect N. S. Trubetskoy states that facultative allophones (following N. S. Trubetskoy’s terminology – variants) divide into stylistically essential and stylistically non-essential. The group of stylistically essential allophones comprises physiognomic allophones which could define the social speech styles [Trubetskoy, 1960: 54]. Allophones are divided further into three types: 1) basic (typical); 2) secondary (combinatory and positional) and 3) free (stylistic).

Free variants (segmental and suprasegmental) are discussed with view of the social norm which is defined by the process of interaction conditions and is realized through speech whereas the basic and secondary variants are discussed with respect to the objective norm which refers to the speech/language system [Popov, 1992].

The style of pronunciation (speaking style) reflects the realization of regularities in the functioning processes of phonetic means in different forms and types of oral speech, that is in different discourse types (for example, in stage performances in a theatre, politicians’ oral speeches, dialogues in talk shows, preacher’s sermons, spontaneous interaction among close friends, whispering in informal and formal situations, recitative in advertising discourse and others). The establishment of that term comes as a result of interdisciplinary coordination in speech research which derives from the interaction among stylistics, phonetics, sociolinguistics, acoustics and others [Popov, 2004].

The phonetic peculiarities of the speaking style are determined both on the basis of segments and on the basis of suprasegmental speech units. The clear and distinct articulation of sounds, their elision and epenthesis, the additional labialization, nasalization and others determine extensively the phonetic content of one or another speaking style. As it has already been stated above, the most important issue in the process of the speaking style determination is the use of free variants which unlike the basic and secondary (combinatory and positional) are not related to position. In that respect on segment level the vowel reduction could be stronger or weaker. The stronger kind of reduction is viewed as a mark of colloquial language (in the presence of phonetic dialect forms), whereas the weaker kind of reduction is viewed as a mark of more refined, more precise articulation (for example, the speaking style of formal speeches).

The intonation formation of speech (through its components – melody, pauses, intensity, tempo) is extremely needed in prosodic differentiation of one or another speaking style. Prosody is needed in order to differentiate the various types of discourse with respect to the social peculiarities of articulation,
with respect to regional and foreign accent, sex orientation and professional determination of the speaker. M. M. Bahtin adds to this that intonation is a social “par excellence” [Voloshinov, 2000: 80].

In Bulgarian linguistics it is broadly supported that the speaking style has to be discussed as an inseparable unity of segmental and suprasegmental units combined in a specific manner. Regarding phonetic organization of the segmental as well as the suprasegmental units, we could speak in general of two basic pronunciation styles – **marked** and **unmarked** [Tilkov, 1974].

With respect to the purposes of the utterances and circumstances of speech performance, the speaking styles in turn offer different substyle varieties.

**Markedness** and **unmarkedness** are interpreted in this paper as standartized and non-standartized of phonetic means, exact or inexact pronunciation, articulation, close or distant to orthoepic norms. Figure 1 and Figure 2 present the illustration of auditory images of carefree articulation (non-standard) and strict (literary) articulation (standard) of the phrase *Ne me pipay, be!* /Don’t touch me, hey! / in the speech of one and the same speaker (teenager).

*Figure 1:* Carefree articulation of the phrase *Ne me pipay, be!* (non-standard):
Observing the specters of the two articulation types on the basis of subjective auditory perception we could immediately notice their segment differenters (for example, the consonant gemination, elongation and others in non-strict pronunciation), as well as their prosodic discrepancies (in melody, pause and number of intonation groups, pronunciation speed, tense/loose phonation and others).

2. Speaking styles in Bulgarian speech

The distribution of speaking styles in Bulgarian speech in the spheres of standard, substandard and non-standard can be illustrated by the following scheme (Scheme 3):

2. 1. Marked speaking style

The marked style with respect to its realization is characterized with standardization of the phonetic components of the phrase and intensive tension in the organs of speech, the latter determining the optimal articulation of speech sounds. This is the pronunciation standard of contemporary Bulgarian. On the segmental level the unstressed vowels are slightly reduced as there is no omission of consonants, etc. On the other hand, the requirements for orthoepic norms are preserved strictly. The
marked style is used mainly in the monologue form of speech communication. Depending on the content of language message and the demanding effect of its impact the marked style could sound formal or quieter and business-like, that is, to split into two speaking sub-styles – formal and neutral.

![Scheme 3. Bulgarian Speaking styles](image)

2. 1. 1. **Formal pronunciation sub-style** is used in announcing important events. Intonation plays a significant role for its phonetic formation in that it intentionally highlights its components – tempo, melody, pauses and overall intensity. This sub-style is characterized by the following peculiarities:

a) Phrase splitting with a great number of intonation units;

b) Profusion of melodic contours of incompleteness underlying rising melody which reminds of pathetic speech;

c) A great number of pauses which in most cases are elongated both at the boundaries of the intonation units and at the end of the utterance;

d) Slow speech tempo, creating the impression of certain monotony;

e) Distinct saliation of logical stresses with tone emphasis which is used by the speaker almost in any phrase;

f) Overall loudness of the pronunciation of the whole utterance, that is, enhanced intensity.

2. 1. 2. **Neutral pronunciation sub-style** is used by radio and TV moderators, speakers at meetings, teachers, on whole, by all those who in one or another way are part of the process of mass communication. Neutral style does not refer to neutral attitude towards the subject of the oral performance. The definition “neutral” is given from phonetic realization point of view.
Neutral style is defined as a sub-style mainly of the standardization of phonetic components, that is, this processing is one of its characteristic features which makes it part of the area of standard. At the same time, however, in comparison with formal sub-style it is neutral just because it lacks underlying and purposefully meant effects of intonation components. Generally, it could be defined in the following way:

a) Lack of elongated pauses;
b) Moderate tempo of pronunciation (neither slow, nor fast);
c) Moderate intensity of pronunciation;
d) Combined use of rising, level and falling melody counter.

The pronunciation of each separate word overlaps with its written marking. There is no elision, ellipsis or overlapping of single sounds and syllables which, with respect to orthoepic norm, are not recommended. Neutrality of intonation soundings sometimes implies the impression of speech monotony (lack of intonation undulation).

2.2. Unmarked pronunciation style

Unmarked style, also named incomplete, vernacular-colloquial, spontaneous is the articulation performance of everyday speech – in the sphere of daily interactions and work activities, in family life, at parties among friends and, etc. It is called unmarked because of the lack of standardization of phonetic components. That is why it is determined as the pronunciation performance of sub-standard and non-standard, realized in different types of discourse. The typical form of its performance is via dialogue patterns (through utterance sequences), in which the speakers don’t make special efforts to utter clearly the segment units. Each utterance is specific with its shortness and simplified syntactic constructions.

With respect to pronunciation the unmarked style is characterized with a lack of distinct articulation of sounds, merging of individual sounds in one and mostly – omissions of sounds in the word (for example tva instead of tova, timeschie instead of timeschie, matryalna baza instead of materialna baza, id’ot instead of idiot, vishi voenni instead of visshi voenni, tkâv instead of takâv, utiâmsi instead of otivam si, shhoditili instead of shte hodite li and others), in general, what we call carefree articulation. Intonation characteristics of the unmarked style are highly diverse and are difficult to analyze and define because of the great number of speech situations and diversity of utterance purposes. In general they can be defined in the following manner:

a) Weak expression of phrase splitting into separate intonation units;
b) Presence of hesitation pauses;
c) Fewer pauses and shortened timespan of the real (linguistic) pauses in comparison with the number and timespan of those typical of marked style;
d) Irregular speech tempo – either retarded or hastened according to the setting and aim of the utterance;

e) Irregular intensity in the articulation of separate utterances;

f) Comparatively shorter intervals between the melody contours of the separate intonation units.

3. Iconicity in regional speech types

The regional phonetic features of the native dialect often co-exist with the literary pronunciation. Based on the dialects there are two main regional pronunciation practices: Eastern-Bulgarian and Western-Bulgarian pronunciation. The dialect regional variety of pronunciation practices forms the sphere of substandard.

The extreme manifestation of palatalization of consonants before e and i (cf. the difference between the extremely soft pronunciation and the literary pronunciation in Figure 3a and Figure 3b and the reduction in the Eastern pronunciation type which are often ridiculed, e.g. d’et’itu instead of deteto, mumich’antsată instead of momichentsata, Nij sm’i ut’ däl’eku, shtot’ guvor’im tāj m’eku). In the Western-Bulgarian pronunciation type the hard pronunciation of some grammatical forms is considered incorrect and a feature of unmarked pronunciation style (some verb inflections and the definite article, e.g. govoră, spă, mislă instead of govoră, spă, mislă; uchitelă, pisatelă; zetă instead of uchitelă, pisatelă, zetă).

The frequent use of the hard bilabial ’L’ = [ʃ] in the region of Pernik, which is a characteristic phonostylistic feature of the Western-Bulgarian pronunciation type on the segmental level is often ridiculed among the other Bulgarian native speakers, and is considered pretentious, e.g. [ʃeʃo ʃeʃma], [n ma jəboо kőpeʃ]. The mockery of this pronunciation which creates a strong phono-stylistic effect is present in the cantillation of the song Skakalets (Grasshopper) by the popular Bulgarian band Hypodil. Such a deliberate parody is observed in the speech of one radio moderator in Figure 4.

This phenomenon has even turned into a phonostylistic ‘fad’ in colloquial speech when the speaker tries to create a strong comical effect in the way he or she utters the words. Pronunciation practices which use the parody effect of the speech mask should belong to sphere of nonstandard.

The exotic stylistics of the Eastern-Bulgarian regional pronunciation type can be illustrated with the speech of a child from the advertisement discourse of a TV media from the town of Shumen, in which a lot of the abovementioned features of the local dialect are clearly visible in Figure 5. This is a natural dialectal pronunciation, which means that it should belong to the sphere of substandard. The auditory image of the utterance is given in Figure 5.
**Figure 3a.** Soft Eastern-Bulgarian pronunciation type of the phrase *Dobăr d’en* (Good morning)

**Figure 3b.** Literary pronunciation of the phrase *Dobăr den*
Figure 4. Pronunciation of the hard bilabial “L” in the word SKAKALETS (grasshopper)

Figure 5. Eastern Bulgarian phonostylistic variant of the phrase Mnogo iskam da porasna i da ucha v Shumenskiya universitet (I really want to grow up and study in Shumen University - child’s voice)
A very rare stylistic characteristic is present in the archaic regional pronunciation (with a specific quantity of the vowels) of a hundred-year-old woman from the Village of Golitsa (Varna region), who speaks the old Erketch dialect. The unique melodic features of this exotic speech practice is illustrated by the auditory image of its intonation characteristics in Figure 6.

An interesting stylistic effect on Bulgarian recipients is created by the unusual pronunciation manner of people who were born and live permanently abroad but speak Bulgarian at home, and whose speech is strongly influenced by the regional articulation basis.

The use of sounds which are foreign to the Bulgarian phonemic system in the production of Bulgarian speech can be defined as manifestation of xenophonia (from the English xenophones - a term coined by R. Eklund and A. Lindstrom). The speech of today's Banat Bulgarians (Vinga village) is influenced phonetically by the Romanian phonetics. Its pronunciation aspects seem unusual in comparison with Bulgarian literary pronunciation and are perceived as signs of a foreign accent, which in turn, has a particular stylistic effect on the recipients. An illustration of the typical soft pronunciation of $L^\prime$ [ ] as a sign of specific foreign accent in pronunciation is given in Figure 7.

**Figure 6:** Regional pronunciation from Golitsa village (Erketch dialect) of the phrase Stamnilo li se beshe. (Was it dark)
Figure 7. Auditory image of the phrase Mi, nali kolezhkata beshe mlada, (Well, the colleague was young, wasn't she?) uttered with a foreign (Romanian) accent.

The illustrated pronunciation practice should be considered part of the phenomena of nonstandard due to the strong influence of the foreign articulatory base.

4. Iconicity in group pronunciation types

The speech behavior of a person is formed under the influence of a complex combination of a number of inherent to the situation social-demographic circumstances. According to M. Videnov the speaker is a multifaceted and unique phenomenon and his or her uniqueness stems above all from the vast variety of social contacts, individual habits and preferences, which are verbalized by means of a variety of sociolinguistic speech markers, related to the speaker's origin, place of living, age, education and occupation, as well as gender, ethnic or religious characteristics, etc. Some of these markers have stylistic functions, i.e. they are sought for and expected [see Videnov, 1998].

Group pronunciation types form a whole gallery of different sociolect speech practices, determined by the speaker's belonging to a certain group defined by the criteria of gender identity, age, social status, occupation, etc.

The present study does not claim to be exhaustive in creating a complete picture of group pronunciation phenomena. It presents only single typical characteristic samples of speech which reveal the corporate belonging of the speaker to a particular group. The boundaries of the separate groups are
open and fuzzy (shifting and merging together), which means that a certain speaker can be considered belonging to different groups depending on the presence of the corresponding sociolinguistic markers in his or her speech. As for defining gender identity on the basis of a speaker's voice, it is necessary to mention that the main frequency of the voice (pitch, \( F_0 \)) is not a defining factor in differentiating between male and female voices despite the principle visual realisation of female voices in the upper part of the spectrum and male voices - in the lower spectral frequencies. Thus, for example, although the voice of the American singer Cher, as well as the voice of the singer from the recent past Amanda Lear are lower than the voices of a lot of men, they are still perceived as female voices.

A number of rock singers (male) sing their songs in falsetto and their voices are perceived as female, and in some cases it is difficult for some listeners to identify the voice of the singer. The same is valid for the spinto tenors in opera singing. In this respect it is interesting from a phonostylistic point of view to study the speech repertoire of speakers with transsexual identity, who are male in origin but function in society with their female identity which typifies their speech behavior. In their professional activities in the public space they function in different roles - radio presenters, actors, moderators, singers, etc. Studies of their voices make it possible to define the sexolect of the speaker [see Popov, 2007, 2009].

The pronunciation practices of these speakers are often perceived as provocative and scandalous, since they not only disregard the standard, but also deliberately violate it. For this reason they belong to the sphere of nonstandard, as they have in their repertoire lots of resources of non-canonical phonetics.

A. Iconicity in the discourse of transvestites

This group of speakers tries to underline their feminine manner of speaking, using for this purpose speaking in falsetto. Falsetto functions as a marked register which is realised in a shift to the upper part of the frequency range. Such a speech manner is perceived by the recipient as feminine articulation with its characteristic high register, in which at some points there are shifts towards the parameters of the inborn lower range of the normal unpretentious speech. Falsetto intonation in this case is deliberately sought by the speaker and it is achieved through lifting the larynx (including the Adam's apple) which contains the vocal cords, upwards and thus shortening the vocal tract (forward shifted articulation); through constant change in the modulation of the voice and increasing the main frequency; through increasing the duration in uttering vowels; through slurring articulation, which in turn is perceived as lazy, artistic and slightly negligent, even in some cases pretentious speech, in combination with aspirated phonation and nasal articulation (as an indicator of pretentiousness and even flirting in one's speech) (cf. Figure 8 and Figure 9).
Figure 8. Marked high register with falsetto phonation in the speech of a transvestite (radio-presenter in an entertainment show).

Figure 9. Speech of a transvestite: Tova toy sâm az (FCT+PDH) This him is me (imitation of feminine speech).
B. Iconicity in the discourse of youth slang (macho-speaking type)

The so-called macho-speaking type is observed in male speech, as well as in the speech of some teenagers who already see themselves as males (during the period of puberty), and in their speech try to conceal the mutation of their voices, demonstrating masculinity with hoarseness in their voice. A characteristic feature of this type of speech is the use of vibration as a characteristic type of register which is achieved through a shift to the lower boundary of the frequency range. Perceptively this pronunciation is characterised by low timbre marked with vibration. It is dominated by lax pronunciation with emphatic stretching of vowels when expressing strong emotions, skipping consonants, fast delivery of speech and merging the components of the phrase in one aspiration group. These phonostylistic features are characteristic of the specific dominant speech with a distinctive feeling of superiority (or scorn) in the speaker's speech, vainglory and condescending attitude towards the other participants in the communication (see Figure 10). In some cases the scornful attitude is explicitly shown by means of lax nasal articulation (the so-called nasal speech), and the considerably high tonal range of the utterance (see Figure 11).

![Figure 10](image-url.png)

**Figure 10.** Tonal emphasis in low tonal range, marked by vibration in the phrase *KaKÁ-ÁVto i da e vashiya bi-iznes* (VBR). (Whatever your business is)
Figure 11. Macho speech type with nasal articulation of the phrase *Mno-o yako* (VBR) (So-o cool) (with vibration).

The discourse of youth slang is a distinct prosodic phenomenon which utterances are frequently pronounced in high speed, extremely negligent pronunciation and monotonous elongated even intonation contour placed in high-pitched tone diapason (cp. Figure 12). At first sight this makes the impression of prosody expressionlessness due to lack of undulation in the performance of melody and due to the lack of clearly distinct pauses which could define each separate fragment. This impression, however, is compensated through the use of phonetic means such as *tense* voice + *shriek* in the voice, which help the formation of the phono-stylistic halo of sly guy/dodger speech (emphatic *nonstandard*).
Figure 12. Smart ass negligent pronunciation of the phrase Nea-a se pla-ashish ko-opele-e!
(Don't get scared mate) (marked high register, slurred lax pronunciation).

The discussed pronunciation types do not represent and exhaust the variety of the characteristic stylistic-register voicing in discourse. The described uses serve as an illustration of the idea of the possible variations of voice stylistics in different discourse types. In the whole picture of man verbal behavior they have their specific place alongside other language means - linguistic and paralinguistic and thus represent the rich variety in the gallery of speech profiles of today's Bulgarian in the sphere of standard, substandard and nonstandard.

Bibliography:


**Information about author**

**Dimitar Popov** – Laboratory of Applied Linguistics, Faculty of Humanities, Konstantin Preslavsky University of Shumen, Bulgaria

**Major Fields of Scientific Research:** Cognitive Linguistics, Corpus Linguistics, Forensic Linguistics, Experimental Phonetics

**e-mail:** labling@shu-bg.net