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DIFFICULTIES IN ARTICULATION OF SOME CONSONANT SOUNDS

/ On the material of the English and Georgian languages /

ABSTRACT

Representatives of small nations today than ever before are "doomed" to multilingualism. Thus, comparative studies can largely simplify foreign language learners' task to overcome the difficulties, they may face in L₂, L₃, L_x language acquisition process

The present paper deals with the comparative analysis of the difficulties in articulation of some consonant sounds in English on the one hand and a typologically different language, such as Georgian on the other. The Georgian language is an agglutinative language. Therefore, it is characterized by the root flexion which also reveals the peculiarities of its phonemic system.

The study of sounds- despite their simple structure – is accompanied by special difficulties in the foreign language teaching. According to psychology and physiology, interferences of pronunciation in the given field, in terms of foreign "accent", are the most difficult to eliminate.

Finally, in the paper, a special attention is drawn to a discussion how to conduct a didactic analysis of sound contrasts.

KEY WORDS: multilingualism, agglutinative, phonemic, accent, sound contrasts

Introduction

Non-native pronunciations of English result from a common [linguistic](#) phenomenon in which [non-native users of any language](#) tend to carry [intonation](#), [phonological](#) processes and [pronunciation](#) rules from their [mother tongue](#) into their English speech. They may also create "innovative" pronunciations for English sounds not found in the speaker's first language (Paradis et al, 2001).

Phonetics is one of the most advantageous spheres for a contrastive study, which is conditioned by various reasons. First of all, this area is easily observable and it has been studied in details by different language levels through various modern methods since Structuralism. Secondly, the process of comparison of the material turns out to be the most easily indicative and thus, it appears to be much more clear; Third, in the foreign language teaching process, the study of sounds is always accompanied with special difficulties despite their simple structure and transparency (Thompson, 1991). "Correct" pronunciation is one of the fundamental components in foreign language acquisition while "wrong" pronunciation, because of its frequency, is the most eye-catching language phenomenon. According to teaching psychology and physiology, interferences in this field, existing in the form of foreign "accent" are the most difficult to eradicate and many teachers very often complain to face this difficulty to overcome (Swan 2001).

The age at which speakers begin to immerse themselves into a language (such as English) is linked to the degree in which native speakers are able to detect a non-native accent; the exact nature of the link is disputed amongst scholars and may be affected by "[neurological plasticity](#), [cognitive development](#), motivation, [psychosocial states](#), formal instruction, language learning aptitude", and the usage of their first (L1) and second (L2) languages (Munro and Mann, (2005).

English is unusual in that speakers rarely produce an audible release between [consonant clusters](#) and often overlap constriction times. Speaking English with a timing pattern that is dramatically different may lead to speech that is difficult to understand (Zsiga, 2003:400–401, 423).

More transparently, differing phonological distinctions between a speaker's first language and English create a tendency to neutralize such distinctions in English ,(Jeffers, Robert J.; Lehiste, Ilse, 1979) and differences in the inventory or distribution of sounds may cause substitutions of native sounds in the place of difficult English sounds and/or simple deletion (Goldstein and et al, 2005). This is more common when the distinction is subtle between English sounds or between a sound of English and of a speaker's primary language. While there is no evidence to suggest that a simple absence of a sound or sequence in one language's phonological inventory makes it difficult to learn, (MacDonald, 1989) and several theoretical models have presumed that non-native speech perceptions reflect both the abstract phonological properties and phonetic details of the native language (Hallé, and et al 1999). Such

characteristics may be transmitted to the children of bilinguals, who will then exhibit a number of the same characteristics even if they are monolingual (MacDonald, 1989).

Basic Provisions

During the target analysis of L₁ and L₂, we are to review those sound qualities that are different. The sounds that are similar in both languages or are equally pronounced at the present stage of our discussion are less interesting. But in the comparison practice this does not mean at all that it may not turn out in the process of underlying analysis, as determination of the contrast is possible only after preliminary comparison, during which the systems of both languages will juxtapose completely with each other and these systemic differences, i.e. compliance and similarities will become clear. The sound similarity, sometimes, creates more complexity to a language learner because beyond this similarity the language learner does not notice the difference in the articulation of this sound and on the basis of similarity he/she applies to the transfer, which is manifested in the form of the negative transfer.

Two principles should be taken into consideration: 2) The Place of Articulation and 1) The Manner of Articulation

Articulation described by the Place of articulation

- *Glottal articulation* - articulation by the glottis. We use this for one consonant in English. This is /h/ in the initial position in *house* or *hope*.
- *Velar articulation* - we pronounce this consonant with the back of the tongue against the velum. We use it for initial hard /g/ (as in *golf*) and for final /ŋ/ (as in *gong*).
- *Palatal articulation* - we do this with the front of the tongue on the hard palate. We use it for /dʒ/ (as in *jam*) and for /ʃ/ (as in *sheep* or *sugar*).
- *Alveolar articulation* - we do this with the tongue blade on the alveolar ridge. We use it for /t/ (as in *teeth*), /d/ (as in *dodo*) /z/ (as in *zebra*) /n/ (as in *no*) and /l/ (as in *light*).

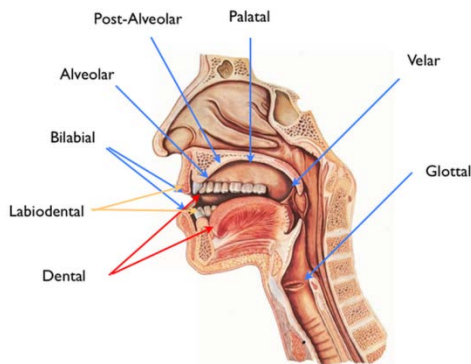
- *Dental articulation* - we do this with the tip of the tongue on the back of the upper front teeth. We use it for /θ/ (as in *think*) and /ð/ (as in *that*). This is one form of articulation that we can observe and feel ourselves doing.
- *Labio-dental articulation* - we do this with the lower lip and upper front teeth. We use it for /v/ (as in *vampire*).
- *Labial articulation* - we do this with the lips for /b/ (as in *boat*) and /m/ (as in *most*). Where we use two lips (as in English) this is bilabial articulation.

Articulation described by manner

This scheme gives us a different arrangement into *stop(or plosive) consonants, affricates, fricatives, nasal consonants, laterals* and *approximants*.

- *Stop consonants* (so-called because the airflow is stopped) or *plosive consonants* (because it is subsequently released, causing an outrush of air and a burst of sound) are:
 - *Bilabial voiced* /b/ (as in *boat*) and *voiceless* /p/ (as in *post*)
 - *Alveolar voiced* /d/ (as in *dad*) and *voiceless* /t/ (as in *tap*)
 - *Velar voiced* /g/ (as in *golf*) and *voiceless* /k/ (as in *cow*)
- *Affricates* are a kind of stop consonant, where the expelled air causes friction rather than plosion. They are palatal /tʃ/ (as in *cheat*) and palatal /dʒ/ (as in *jam*)
- *Fricatives* come from restricting, but not completely stopping, the airflow. The air passes through a narrow space and the sound arises from the friction this produces. They come in voiced and unvoiced pairs:
 - *Labio-dental voiced* /v/ (as in *vole*) and *unvoiced* /f/ (as in *foal*)
 - *Dental voiced* /ð/ (as in *those*) and *unvoiced* /θ/ (as in *thick*)
 - *Alveolar voiced* /z/ (as in *zest*) and *unvoiced* /s/ (as in *sent*)
 - *Palatal voiced* /ʒ/ (as in the middle of *leisure*) and *unvoiced* /ʃ/ (as at the end of *trash*)

- *Nasal consonants* involve closing the articulators but lowering the uvula, which normally closes off the route to the nose, through which the air escapes. There are three nasal consonants in English:
 - *Bilabial* /m/ (as in *mine*)
 - *Alveolar* /n/ (as in *nine*)
 - *Velar* /ŋ/ (as at the end of *gong*)
- *Lateral consonants* allow the air to escape at the sides of the tongue. In English there is only one such sound, which is *alveolar* /l/ (as at the start of *lamp*)
- *Approximants* do not impede the flow of air. They are all voiced but are counted as consonants chiefly because of how they function in syllables. They are:
 - *Bilabial* /w/ (as in *water*)
 - *Alveolar* /r/ (as in *road*)
 - *Palatal* /j/ (as in *yet*)



Before starting the analysis of the difficulties and the differences according to the above mentioned two parameters of some English and Georgian consonant phonemes, let us see how these systems look like on the tables below:

Manner	Voiceless or Voiced	Bilabial	Labiodent	Interdentia	Alveolar	Alveopala	Palatal	Velar	Glottal
Stops	Voiceless	p			t			k	
	Voiced	b			d			g	
Affricates	Voiceless					tʃ			
	Voiced			θ		dʒ			
Fricatives	Voiceless		f	θ	s	ʃ			h
	Voiced		v		z	ʒ			
Lateral	Voiced				l				
Nasals	Voiced	m			n			ŋ	
Glides	Voiced	w			r		y		

Tab. 1 English Consonants

Artikulationsort	bilabial			dental			lab dnt	alveolar			prealveolar			postalveolar			prevelar			postvelar		pharyngal	laryngal
	sh	sl asp	sl abr	sh	sl asp	sl abr	sh	sh	sti	sth	sl	sl abr	sh	sl	sl abr	sh	sl	sl abr	sh	st	sl. abr	sl	
Plosive	ð	ʒ	ʒ	ʒ	θ	θ										ð	ʒ	ʒ			ʒ		
	b	pʰ	pʰ	d	tʰ	tʰ										g	kʰ	kʰ			qʰ		
Nasale	ə								ɸ														
	m								n														
Frikative							ʒ			ʰ	ʰ	ʒ	ʒ						ʒ	ʰ		ʒ	
							v			z	s	ʒ	ʒ						v	x		h	
Vibranten									ʳ														
									r														
Laterale Aproximanten									ʳ														
									l														
Affrikate										ʒ	ʒ	ʰ	ʰ	ʒ	ʒ								
										dz	tsʰ	tsʰ	dʒ	tʃʰ	tʃʰ								

Tab. 2 Georgian Consonants

It is clearly seen that the phonemes existing in first system (e.g., English) are not observed into the second one. Thus, the Georgian-speaking English language learners often come across the sounds that are less identical to their native language ones:

- a) /T/ and /D/: interdental or post-dental (/T/voiceless , /D/ voiced) in the pronunciation of which the edge of the tongue is between the teeth and there is a gap with the upper teeth;
- b) /tS/ and /dZ/: post-velar affricates, in case of which the back of the tongue touches the back part of the alveoli (teeth-ridge) and it causes the retention of the flow of air. As a result of the plosion of this stunning noise the fricative part of the phoneme is heard.
- c) /w/: semi-vowel in the pronunciation of which the tongues is raised as in case of /u:/ and the lips are slightly open and rounded.

Interdental fricatives [T] and [D] do not exist in the Georgian language. But these sounds are widely used in English. Their substitution by other sounds in borrowings in case of the Georgian language undergoes rather sequentially. Language learners, in the case of wrong pronunciation carry out the substitution by several sounds and we come across the highest degree of interference. For example: in case of voiced fricative [D] Georgian substitution undergoes by word initial [z] or dental [d] and never by an alveolar or post-alveolar [d]. As a result, we get: [zɪs], [zet],[dis], [det], [zi:s], [zous], [dous] - in the words: *this, that, those*.

In case of interdental fricative [T] because of the interference, either a hissing [s] or more often dental [t^h] are used instead. As for the borrowings in Georgian, we have: *thrombus*[TrOmbəs] - *თრომბო*[t^hrombi], *Thomson* - *თომსონი* [t^homsɔni]. As for the Greek borrowings with the < -th- > digraph, which corresponds to English [T], in Georgian is realized as: *Theater* [te'atɔ]-*თეატრო* [t^hEat_rɪ], *Synthese* -*სინთეზი*[sɪnt^hEzɪ], *Thema* -*თემა* [t^hEma], etc. Thus, in Georgian we still do not have clearly defined rules, how to substitute the sounds [T], [D] in English borrowings.

Affricate [t̪] may occur in the word in initial, middle or final positions. In English, graphically it may be realized differently: < -G- >, < -J- > initially, < -g- >, < -ge- >, < -j- >, < -dg- > in the middle, but < -ge- > and relatively rare < -dge- > finally. In the Georgian language this phoneme is presented as post-alveolar [t̪] – [t̪] in the phonemic inventory. It does not create any difficulties to a Georgian language

learner and there is a complete coincidence with the similar Georgian phoneme despite its position in the word: *ჯვკპოტი, ჯენტლმენი, ჯინსი, დაიჯესტი, კოტეჯი, იბიჯი*, etc.

The affricate [tʃ] is characterized by a high frequency in Georgian. It occurs in any position of a word, initially, in the middle and finally: *ჩურჩული* - [tʃʊrtʃʊli] - *a whisper*, *ჩანთა* - [tʃʌntʌ] - *a bag*, *საჩუქარი* - [sʌtʃʊqʌri] - *a gift*, *ანჩლი* - [ʌntʃʌli] - *peevish*, *კანჩი* - [qʌntʃʌi] - *a nut*, *ჩაჩი* - [tʃʌtʃʌi] - *a coif*. In English, similar to Georgian the given sound is employed initially: *chair, chimney, chest, chicken*; in the middle position: *mischief, mischievous, Michigan, bachelor* and in the word final positions: *bench, beach, tranche*.

Much more “complicated” seem the cases which Georgian speaking English language learners may face in the articulation and production of the voiceless phonemes: /p,t,k/. In certain positions they may reveal aspirate and non-aspirate variants. English occlusive /p/ differs from Georgian corresponding /p/ - /pʰ/. The Georgian phoneme is sharper. English labio-dental phoneme /f/ has no Georgian corresponding analogy. Similarly, the English /t/, /k/ phonemes more clearly differ from the Georgian plosive ones: /tʰ/-/tʰ/, /kʰ/-/kʰ/. The English /t/ more corresponds to the Georgian /tʰ/-/tʰ/, though the latter in Georgian sounds more dental. The similar situation is in case of English phoneme /k/, which corresponds more to the Georgian /kʰ/-/kʰ/ phoneme. The Georgian sharp phoneme /tʰ/-/kʰ/ has no analogy in English. Confusion of these sounds may cause errors in Georgian learners as in Georgian these are distinctive phonemes: *კარი-ქარი, კანი-ქანი, ქური-ფური, ტარი-თარი*.

In Georgian /r/-/r/ phoneme is always alveolar vibrant. In the varieties of English this sound is pronounced differently. In British English it is more fronted whereas in American English it is pronounced farther back. Thus, in English either fricative or approximant [R] opposes.

The Phoneme /l/ in English it has two different allophones: dark and clear ones. In other words, English distinguishes two variants of this lateral sonant known as clear [l] and dark [ɫ]: call- [cO:l], bill – [bɪɫ], nail – [neɪɫ]. At the end of a word and in the syllable final positions we have dark[ɫ], as for the clear variant [l], it occurs at the beginning of a word or, initially, before vowels and the sonant /j/: letter [let@], line [lʌin], lace [leɪs], value [v&ljʊ:], million [milʃen], schoolyard [sku:lʃA:d]; dark[ɫ]:tell [teɫ], smell [smeɫ], bill [bɪɫ]. Similarly, in Georgian, there are two variants of /l/, clear and dark, but their

realization is somewhat different. Namely: the clear [l] occurs with front vowels: ლითონი, ეკლესია, ლომონი, ლეზანი whereas the dark [ɫ] appears with back ones: საქართველო, ლოდინი, ლურჯი.

The next pair in our analysis is: /w/ and /v/. English bilabial sound /w/ always is shifted into a vowel: *warm* [wɔ:m], *work* [wɜ:rk]. This sound, together with /j/, represents the group of approximants (Ger. Gleitlaute). Graphemically this phoneme, like many other English sounds, may be represented differently, e.g. in lexemes: *language*, *quarter* etc. Different graphemes in different positions and surroundings serve to represent one and the same phoneme. We can illustrate this with a lot of examples where the phoneme /w/ is realized through <-w-> grapheme. It should also be noted that it may occur either at the beginning or in the middle of the morpheme. Phonotactically the sound /w/ may occur in word initial position. As the grapheme <-w-> after a vowel has no sound value, it may not occur at the end of a word in the form of /w/: *strow* [str@u], *flow* [fləu], *new* [nju:].

Approximant /w/, which is pronounced initially and in the middle positions after a vowel, in German and Georgian is completely substituted by /v/ consonant phoneme, e.g. *Weekend* in German is /vi:kEnt/ instead of /wi;k!End/, *quiz* [kvɪs] instead of [kwɪz]. As for Georgian, here, the realization of borrowings is inconsistent, in the sense that in some cases bilabial [w] is realized by labio-dental [v] while in the others it is represented by two vowel sounds [უი] უიკენდი, though in contrast to it there may be observed: ვებსაიტი, ვორკშოპი/ვორკშოპი. The word: *walkman* in Georgian is represented as უოკმენი, rather rarely, ვოკმენი. The similar situation is in the word middle position: სენდვიჩი, ტვიტერი, ტვისტი, სვინგი, ვისტი, ვისკი, ტვიდი, ვაშინგტონი, though the surname in: *Oscar Wilde*, in Georgian pronunciation is: უაილდი and not ვაილდი.

The velar, nasal /N/, in English, /nN/, not only in borrowings but even in basic word stock may occur within a morpheme too: *finger* ['fɪŋgə]; *fishmonger* [fɪʃ!mVN@]; *mingle* [mɪNl]; *single* [sɪNl].

From the above viewpoint, the situation differs in Georgian where we do not have the phoneme /N/, though the nasal /n/ and voiced plosive velar /g/ may easily co-exist even in word initially position /ng/: *ნგრევა* [ngreva] - (to destroy). Though, truly saying, the presented case is rare for the Georgian language. Mainly, in Georgian, this sound combination is met in the middle of a word and the syllable border lies within this combination: *ბან-გი* [ban-gɪ] - (befuddled, doped); *ჩან-გი* [tʃʰan-gɪ] - (a

musical string instrument); ჩან-გალი[tʰan-galI] – (a fork); ლან-გარი [lan-garI] - (a dish). This combination can also be met in proper names and in Toponymy: მან-გლისი [man-gIIsI], შენგელია [Sen-gElIa]. That is why, in standard Georgian, the similar words like previously mentioned ones are realized in both cases by means of these two phonemes: მანგო [man-go], ტანგო [tan-go], გრინგო [grIn-go], სინგლი [sIn-gII], ბუნგალო [bUn-galo]. Thus, different cases of realization between English and Georgian language learners require additional special efforts.

Conclusion

In conclusion, at the end of the analysis of the consonant phonemes, it can be noted that it seems to be an absolutely essential methodological section for the language learners. No matter how much attention is paid to a learner's language imitative talent, which is also of great importance, we can't deny a competent acquisition of the sounds on the basis of recognition of the phonemes of any language.

Thus contrastive principle enters directly in the teaching process, when the learners are trained regarding the pronunciation of the opposite pairs. "A competent knowledge of a foreign language" together with the other features implies "an unaccented" good pronunciation competence as well. Then the value of a contrastive comparison is evidently obvious. On the basis of the analysed examples the following can be generalized:

1. Difficulty with dental fricatives /θ/ and /ð/. These may be instead fronted [f v], stopped [t̪ d̪] or hissed [ʃ ʒ].
2. Speakers may pronounce word-initial [r] as fricative or approximant [R].
3. Neutralization of coda /m n ŋ/, giving preference to a multitude of nasal vowels (often forming random diphthongs with [ɨ ʉ ɤ], or also randomly losing them, so that *sent* and *saint*, and *song* and *sown*, are homophonous) originating from their deletion. Vowels are also often strongly nasalized when stressed and succeeded by a nasal consonant, even if said consonant starts a full syllable after it.
4. Fluctuation of the levels of aspiration of voiceless stops /p t k/, that might sound like /b, d, g/.

5. Loss of contrast between coronal stops /t d/ and post-alveolar affricates /tʃ dʒ/ due to palatalization of the earlier, before vowels such as /i:/, /ɪ/, /ju:/, and /i/.
6. Post-alveolar affricates /tʃ dʒ/ are easily confused with their fricative counterparts /ʃ ʒ/, often merging *chip* and *ship*, *cheap* and *sheep*, and *pledger* and *pleasure*.
7. Absence of contrast of voice for coda fricatives. *He's*, *hiss* and *his* are easily homophonous. Spelling pronunciations, with all words with historical schwas left in the orthography being pronounced /z/ even when the usual would be /s/, are also possible.
8. Difficulty in the articulation of the sounds that exist in Georgian and have no equivalents in English: /ɔ̃/-/p̃/, /g̃/-/q̃/, /ʃ̃/-/ts̃/, /ʒ̃/-/tʃ̃/.

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