

Linguistics

Divergence of Consonant Phonemes and Didactic Analysis of Contrasts

/On the Material of German, English and Georgian Languages/

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ABSTRACT. The present paper deals with the considerations and ways how to use data on the basis of contrastive analysis of the consonant phonemes of the German, English and Georgian languages in practical sense. Special attention is paid to the difficulties relating to the pronunciation of the sounds in the above-mentioned languages, namely, to their main phonetic, phonemic, allophonic, distributive / combinational divergences, the number of which is greater at multilingual level. In this case, recognition of the sounds of any language makes it possible to competently mastering these sounds, that will definitely prevent us in future from not only unfavorable “accent”, but also from those misunderstandings that may be caused by pronouncing the sounds incorrectly. The usage of modern linguistic sciences, including one of the sub-disciplines of Applied Linguistics – Contrastive Linguistics, greatly simplifies difficulties arising in the process of foreign language teaching. However, it must also be noted that such investigations in Georgia are still rare. The contrastive linguistics does not aim at continuously and systematically drawing the language learner’s attention to the language differences in the teaching process. It is intended to help the teacher in the selection of materials, to explain the essence of the event clearly. On the basis of the given data, the teacher should have such knowledge to suppose, explain, correct and eliminate the errors caused by the native language or other foreign interference. All this eventually will help adult language learners not to have only a disordered accumulation of linguistic data, which will then undergo through systematization during years of efforts and hard work. ©2016 Bull. Georg. Natl. Acad. Sci.

Key words: contrastive, differences, teaching, language learner, phonemes

Within the European linguistic tradition there has always been an interest in contrastive studies, which observes and analyzes the differences between two or more languages in their synchronic setting. The continuing interest was no doubt fostered by the reality of a multilingual Europe [1].

In the present article we show how the results of the study of German, English and Georgian consonant phonemes on the basis of the systemic-contrastive analysis can be taken into account and how to help a language learner to overcome the difficulties caused by the differences in the process of lan-

guage acquisition. Though, it is true that, the representative of contrastive linguistics initially claimed that the differences between the languages increase the difficulties proportionally in the process of a new language acquisition, however, some differences between the linguistic forms do not necessarily mean the incorrect usage of these forms.

Language differences are often so striking to a language learner that, having realized the fact, he/she does not make mistakes for that reason. We try to generalize and illustrate the differences of German, English and Georgian language consonant systems on the basis of contrastive analysis.

Here, we can speak of certain sounds or about the distribution of their universal signs and configurate common linguistic opinions, which contribute to the formation of phonetic universals. But a practical-applied branch of contrastive linguistics analyzes the same facts in a completely different way depending on which one seems to be the source language: English, German or Georgian. The above mentioned differences vary greatly from the viewpoint of didactics [2].

The fact that there are more consonant phonemes in Georgian than in the source language, (in English and German) should be estimated differently. No matter, how much interesting this event might be for phonological or typological research, didactically it is less relevant because a Georgian speaking German or English learner faces no difficulty in the way that he/she is familiar to more phonemes than he/she may need while mastering a new language [3].

The situation is rather different when a Georgian teacher of the German language analyzes these contrasts from the viewpoint of personal didactic aims. The teacher will immediately single out new/unfamiliar phonemes to a language learner together with their corresponding graphemes.

If we unite those difficulties that a language learner may face in the pronunciation of German, English and Georgian sounds, they may be of the following character [4, 5]:

1. Phonetic difficulties
2. Phonemic difficulties
3. Allophonic difficulties
4. distributive/combinational difficulties

In the process of working on the contrasts, we will need the definition of the concept: *interference*. Interference (Ger. Interferenz) is the influence of one language on the other. The result of which is the violation of the language norms in the first language. According to its status, systemic interference is a primary event of speaking or performance level but in the long perspective they may affect the language system or competence and cause linguistic changes on the language level. In this respect we should not forget speech apparatus as well.

Interference is strongly detected either in case of foreign language acquisition or in multilingualism. But when the norm of violation emerges at the time of bilingualism, second language L_2 effects on the mother tongue. In foreign language acquisition process the mother tongue, in its turn, impacts on L_2 . It is particularly equally interesting for (psycho) linguists, as well as for the experts of language didactics. A special attention should be paid to those differences that are caused by parents, social or other factors. On the basis of speech habits, on the sound level, such difficulties and violations especially arise in a foreign language acquisition, as a result “of the earlier language practice ». They include not only sound formation segmental elements like phone and phoneme, but more serious supra-segmental features as well (e.g.: intonation which has an utmost importance for building up the principle types of the sentences). The correlation of these two phonetic characteristics in the end creates an accent [6].

The emergence of the sound interference and its influence can be viewed as the impact of the pictures of the sound effects acquired in the mother tongue on the sounds of the learning language. The mechanism of such an interference may be explained by teaching psychology as a special, fundamental case of transfer for learning. Among the mistakes we can

Table 1. Consonants of the English and German languages in IPA. The consonants that exist only in the English language are underlined. The consonants existing only in the German language are in italics

	bila- bial	labio- dental	den- tal	alve- olar	postal- veolar	pala- tal	velar	uvular	glotal
plosiv	p b			t d			k g		(?)
nasal	m			n			ŋ		
vibrant								<i>R</i>	
frika- tiv		f v	<u>θ ð</u>	s z	ʃ ʒ	ç	x	<i>ʁ ʁ̥</i>	h
afri- cate	<i>pf</i>			<i>ts</i>	<i>tʃ dʒ</i>				
appro- ximant	<u>w</u>			ɹ	j				
lateral- appr.				l	<u>ɭ</u>				

Table 2. Consonants of the Georgian language in IPA [7]

Type of Articul.	Plosive			Affricates			Fricatives		
	voiced	voice less	voice less abr.	voiced	voice less asp.	voice less abr.	voiced	voice less	sonoric
Place of Articul.									
bilabial	b	p'	p^h						m
labiod.									v
dental	d	t'	t^h						
präalv.				dʒ	ts^h	ts'	z	s	r, l, n
postalv.				dʒ	tʃ^h	tʃ'	ʒ	ʃ	
prävel.	g	k'	k^h						
postvel.							ɣ	x	
pharyngeal			q'						
laryngeal								h	

also face those that can be ascribed to pure contrastive linguistic principles and with their help we can explain the contrastive interferential errors.

We present the table of the English and the German consonants, where the unpeculiar English consonants to the German language are underlined and the consonants characteristic of only German language are shown in italics.

Phonetic Errors

According to structural-linguistic viewpoint, sub-phonemic interferences tend to be less hard, as far as they do not mix up the words and to some extent, determine not to fully break the communication, though such events still significantly affect communication practice. Due to such unusual articulation

and pronunciation, the sounds become very difficult to identify. Words with these sounds cannot be immediately identified and the communication process as a whole suffers, or at least it becomes slower [8].

A good example to illustrate this is Georgian, German and English lateral, sonorous sounds. In all three languages /l/ and /r/ are phonemes, in other words, minimal language units having the distinctive function, whereas in the Japanese language, on the phonemic level, the distinction between these two sounds do not exist and both of them are presented as the sub-phonemic variants.

In the varieties of English this sound is pronounced differently. In British English /r/ is described as an apico-postalveolar approximant, represented phonetically as [ɹ]. For most American varieties it

can be characterized as an apico-palatal (or ‘retroflex’) approximant [ɣ] [9]. German phoneme /r/ in the word initial position and at the beginning of a stressed syllable is pronounced in Standard German as voiced uvular trill /ʀ/ which is more similar to Georgian /ღ/-/ყ/ phoneme: Ring [ʀɪŋ], rot [ʀo:t]. But /r/ is often devoiced or pronounced as a fricative: Wort [wort], Durst [durst]. /r/ is reduced in unstressed position and sounds like a schwa /ɐ/ phoneme: hier [hi:ɐ], Uhr [u:ɐ]. In some southern varieties /r/ is realized as /χ/: *treffen* [tʰɛfn], *Preis* [pʰɛɪs]. In contrast to this, in English either fricative or approximant [ɹ] opposes.

In Georgian, dental, sonorous /რ/ -/r/ and uvular /ღ/-/ყ/ are two different phonemes and combine an opposite pair, which cannot be observed in German where [ʀ] and [R] as allophons vary freely and combinationally: რომი [xomi] - რომი [romi], ბარი [baxi] - ბარი [bari], სარი [saxi] - სარი [sari], ლარი [lahi] - ლარი [lari]. Thus, during the acquisition process of this sound in both languages (English and German), all the difficulties should be taken into account, what the practice itself shows evidently.

Phonemic Errors

Phonemic errors are typical interferential mistakes. They emerge in the language acquisition process using incorrectly the correct and required principle of transfer. When already known Georgian, phoneme is used instead of previously unknown German or English phoneme, the transfer tends to be the violative interference of a new system in all three languages: e.g.: substitution of German /f/ by Georgian /pʰ/, or replacement of German /k/ (which is more guttural sound) by Georgian sharp sound /kʰ/, or instead of German /t/ using Georgian sharp /t/. English /k/ is normally substituted by Georgian sharp /k/, though sometimes, by /kʰ/: killer- კილერი [kʰiləri] / კილერი [kʰiləri]. The explanation is that there is no unified rule solving the issue in Georgian [10].

Such errors that beginners (and not only beginners) make, are really serious, as we often deal with

the phonemes in different oppositions. These relevant disorders of sound differences in the communication often hinder understanding, and thus, hamper the new language acquisition process correctly.

The influence of mentioned errors is especially hard when the opposite pairs do not exist in one language, whereas in the other ones (e.g.: German and English) this opposition exists and thus, it becomes completely necessary to eliminate this error in pronunciation. Examples presented below vividly illustrate this problem:

vary-very; worse-verse; wail-veil; wine -vine ;
went-vent; west-vest;

path-pass; fourth-force; sin-thin; sick-thick;
mouse-mouth

The difficulty here appears often in the realization of non-existing sound. Instead of **mouth**, we hear **mouse**, or instead of **thick**, there is **sick**, instead of **wail** – **veil** and so on. Neither contrastive linguistics, nor the error analysis (as a complement of CA) can explain why a language learner chooses a non-existing phoneme in his/her mother tongue. For instance, in case of /g/-/qʰ/, instead of two incorrect varieties ბაკაკი - [bakʰakʰI] or [bakakI] one of them, or why a Georgian language learner in the word: **this** instead of the correct phoneme /ð/ chooses one of the incorrect varieties : [z] or [d].

Allophonic Errors

This type of errors is closer to the phonetic ones and implies the simplification or reduction of some phonemic opposition of the (standard) language system which in its turn emerges in the special positions within the words, but at the same time in social and regional subsystems too. The reason for this may be interlingual (a small functionality of one of the oppositions) or intralingual (e.g. sociolinguistic) factors. But mostly in L₁ and L₂ languages, they do not match each other. These events should be studied according to the special rules of a foreign language acquisition. A good example to this is the devoicing of the sharp, voiced sounds in the word final position. From

the phonemic viewpoint, this means the disappearance of the phonemic opposition of some sharp consonants in some positions (namely: in the word final position), due to which in the other positions, (word initially and word middle) two phonemes coincide each other and appear as one phoneme, e.g.: The pronunciation of the graphemes: /b/, /d/ and /g/ according to Zybez pronunciation norm is as follows:

Boden	und	Diebes	aber	Dieb
[ˈboːdn̩]		[ˈdiːbəs]		[ˈdiːp]
Diele	und	bilder	aber	Bild
[ˈdiːlə]		[ˈbildə]		[bɪlt]
gegen	und	wegen	aber	Weg/weg
[ˈgeːɡən]		[ˈveːɡən]		[ˈweːk]/[ˈvek]

In German /g/ after [ɪ] may be transferred into a fricative, what is so characteristic of the standard pronunciation: *König* [køːnjç] *wenig* [veːnjç] *etwaig* [ɛtvajç], *Belag* [bəlaːk], unlike the second position: *Betrug* [bɛtruːk], *Sog* [zoːk]. No similar change is observed in English and the sharp sounds never undergo any changes [11]:

cab - cap	bed - bet	tag - tack
[kˈb] [kˈp]	[bed] - [bet]	[tˈg] - [tˈk]

Despite all the above mentioned, as for the English voiceless plosives: p, t, k, they do not resemble their Georgian analogies, though in Georgian these sounds are more aspirated and thus, Georgian learners should pay a special attention not to over aspirate the English voiceless plosives:

pay	kept	Kate	team	pen	paper
kite	tame	skipper	peel	peep	Peter
	tint	ten	tamer		

Devoicing of a voiced sound in the word final position is unusual for the Georgian Language and the violation of this rule by a Georgian learner is reflected in the fact that there is no devoicing of the voiced sounds in the pronunciation. That, in its turn, impedes the communication process. In German words pronunciation of the final voiced sound without devoicing is considered to be not only a Georgian accent: **Bild* [bild], **Weg/weg* [weːg] [veg], but

in minimal pairs it may cause a semantic misunderstanding as well: *Rat* - [raːt], *Rad* - [raːt], *Bund* - [bʊnt], *bunt* - [bʊnt].

Intralingual Phonemic Variants of a Target Language

In any source language, there are so called regional allophonic varieties. Thus, before dealing with a contrastive comparison of the two languages, first, it is worth eliminating all intralingual inaccuracies, which form the basis of the errors in the process of a foreign language acquisition.

In Standard Georgian, we have got two allophones of the phoneme /l/: one is so called dark lateral /l̥/, which is pronounced before the back vowels: საქართველო - [sakhartʰvɛlɔ], ლომი [lɔmi], ლუღა [lʰuɬa], and the other open sub-phoneme /l/ before front vowels: ლითონი [litʰoni], ლელიანი [lɛliani]. In Georgian both of the sub-phonemes may occur in one word simultaneously: ლელი [lɛlɔ], ლელია [lɛliɛ], ლილი [lɪli], ლალი [lali]. In West Georgian regional dialects sometimes clear /l/ occurs in all the positions with front and back vowels. The dark lateral /l̥/ is rarely used in Eastern regional ones. The usage of one variety in Standard language creates a defective way of pronunciation.

Although, according to understanding, this does not cause any confusion from its allophonic or phonemic viewpoints, but this issue still should be given a proper attention. In German, there is only one clear variety of /l/. Those, who in Georgian use incorrect variant of [l] in all the positions and in German pronounce only clear [l], will get so called positional transfer [ˈlalula], however, in English, using only clear [l] or dark [l̥] when both exist in the language, may lead to a negative transfer *[smɔl] instead of [smɔl̥], vice versa, *[lɛt] instead of [lɛt]. English distinguishes two variants of this lateral sonant known as clear [l] and dark [l̥]: call- [cɔːl], bill_ [bɪl], nail_ [neɪl]. At the end of a word and in the syllable final positions we have dark [l̥], as for the clear variant [l], it occurs at the beginning of a word or initially also before

vowels and the sonant /j/: letter [letə], line [lain], lace [leis], value [væljʊ:], million [miljən], schoolyard [sku:ljɑ:d]; [t]:tell [teɪ], smell [smel], bill [bɪl].

Phonemic Combinational Difficulties between L_1 and L_2

This task is similar to the above described distributional issues, because variable distribution of these sounds not only for all language systems, but even for one sound system (German is meant) may undergo quite differently. Although the German language is known by its poor vowel and the rich consonant systems, this view is still very competitive in nature, because the English language, for instance, reveals much more consonant combinational opportunities. The same can be said about the Georgian language. Accordingly, any language is characterized by a combination of definite sounds that can not be observed in the comparable language, despite the fact that these sounds may exist in this language. For example, both in German and in Georgian we have separate phonemes: /b/-/b/, /r/-/r/, /d/-/d/, /l/-/l/, /v/-/v/, /n/-/n/, we never come across the following combination: ბრდღვნი, that is typical for Georgian -ბრდღვნი-ობ- [brdʁvnis]. Such sound combinations thereof may be few and far between, and it will require a proper attention to the study of language.

Consequently, we can name sound combinations that will be characteristic of, for example, English or other languages, which are a source language, but not for Georgian, which will appear as a target language.

Conclusion

In conclusion, at the end of the analysis of the consonant phonemes, we can note 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 cannot 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 on the pronunciation of the opposite pairs. "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 obvious.

On the basis of the analyzed examples the following can be generalized:

1. The contrastive analysis, which allows a language learner immediately to look at the structure of the phonemes as reflection, implies some special ability of abstraction and systematization from a learner. This is available only at a certain age. The contrastive analysis is particularly successful for those who have relatively higher level of knowledge or they are of advanced age also for advanced learners.

2. In order, to become the results of the contrastive analysis important and helpful for the beginners too, it really requires a renewal and a consequent implementation into the manuals and the teaching guidelines by didacticians.

ენათმეცნიერება

კონსონანტური ფონემების სხვადასხვაობა და კონტრასტების დიდაქტიკური ანალიზი */გერმანული, ინგლისური და ქართული ენების მასალაზე /*

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თბილისის სახელმწიფო უნივერსიტეტი, ჰუმანიტარულ მეცნიერებათა ფაკულტეტი, თბილისი, საქართველო

(წარმოდგენილია აკადემიის წევრის ა. არაბულის მიერ)

კონტრასტული ლინგვისტიკის საგანგებო ინტერესის საგანს წარმოადგენს განსხვავებები ორ ან რამდენიმე ენას შორის სინქრონულ კონტრასტში. წინამდებარე სტატიაში წარმოადგინეთ, თუ როგორ შეიძლება გერმანული, ინგლისური და ქართული თანხმომიანი ფონემების სისტემურ-კონტრასტული ანალიზის შედეგად წარმოჩენილი განსხვავებები ენის სწავლების პროცესში გაავითვალისწინოთ და საჭიროების შემთხვევაში ამ განსხვავებებით გამოწვეული სირთულეების დაძლევაში დავეხმაროთ ენის შემსწავლელს. კონტრასტული ლინგვისტიკის წარმომადგენლები თავდაპირველად აცხადებდნენ, რომ ენებს შორის განსხვავება პროპორციულად ზრდის სირთულეებს ახალი ენის დაუფლებაში, თუმცა გარკვეულ ენობრივ ფორმებს შორის განსხვავება აუცილებლობით არ გულისხმობს ამ ფორმების არასწორ გამოყენებას. ზშირად ენობრივი ფორმების სხვადასხვაობა იმდენად თვალშისაცემია ენის შემსწავლელისათვის, რომ იგი, გაიაზრებს რა ამ ფაქტს, არ უშვებს შეცდომას მათი მიზეზით. წინამდებარე სტატიაში შევეცადეთ განგვეზოგადებინა გერმანული, ინგლისური და ქართული ენის თანხმომიანთა სისტემების კონტრასტული ანალიზის შედეგად აღწერილი განსხვავებები. მათი გათვალისწინების გზით შესაძლებელია ენის სწავლებისა და შესწავლის პროცესში ამ განსხვავებებით გამოწვეული მოსალოდნელი სირთულეების დაძლევა.

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