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The causes of the schwa phoneme as a fossilized pronunciation problem for Turks

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Abstract

The articulation of the schwa phoneme, symbolized by the [ə] in the IPA system, of the English language, is a serious pronunciation problem for Turkish English teachers, teacher trainees and the students of other fields of study. Because it does not take place in the Turkish vowel inventory, its articulation is managed by Turks in general. It holds a phonemic status in the English vowel inventory, and therefore it changes the grammatical category and the meaning of words, which boil down to mean that it can create breakdowns in communication. Mother tongue interference, vowel reduction, connected speech, lack of professional instruction are some of the causes that lead to the mispronunciation of the schwa phoneme by Turks. The inevitable result is that the schwa phoneme is a fossilized error of articulation for Turks.

The aim of this study is to explore the causes of the constant mispronunciation of the English schwa phoneme by Turkish English teachers, teacher trainees and the students of other fields of study. Another purpose of this study is to show its importance in teacher education.

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Keywords: Schwa phoneme; fossilized error; contrastive analysis; transcription; vowel reduction; mother tongue interference.

1. Introduction

In the pronunciation of a foreign language, accuracy and intelligibility occupy crucial roles for the quality of a non-native speaking teacher because these two features set up the mutual comprehension and understanding between native speakers and non-native speakers by adding to their speeches being natural, normal, and sounding native-like. Accuracy is the ability to produce correct pronunciation of language items like words, phrases, and sentences whereas intelligibility points to the degrees of clarity of utterances to be understood by the listener. Therefore, accuracy and intelligibility pave the way to fluency, which means the skill of speaking at native-speaker rapidity. If this trio, namely accuracy, intelligibility and fluency is faulty, the result is the establishment of fossilized pronunciation errors.

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2. Articulatory Description of Schwa

Schwa is also referred to as the ‘reduced vowel since so often alternates with various ‘full’ vowels” (Schane, 1973:14). Schwa is one of the seven English short vowels in English in the production of which the centre of the tongue is raised between mid-close and mid-open position, and the lips are in a neutral shape, as seen in the following figures 1 and 2:

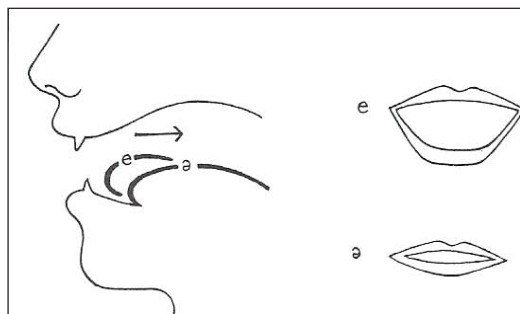


Figure 1: Articulatory Comparison of /e/ and /ə/

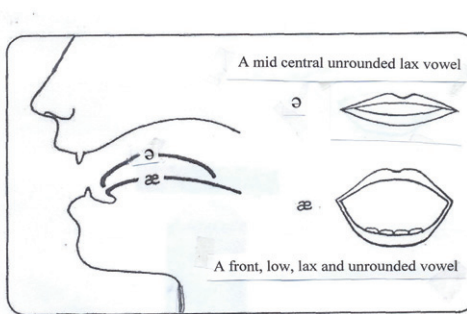


Figure 2: Articulatory Comparison of /æ/ and /ə/

By definition, as it seen in the chart of English vowels, schwa is a mid, central, short vowel. whose pronunciation is made as high, central vowel, which is articulatorily very close to Turkish /i/, which is a high back unrounded short vowel.

Table1. English Vowels

		front (unrounded)	central (unrounded)	back (rounded)	head
high	<i>tense</i>	iy (beat)	ɪ (just, adv.)	uʊ (boot)	
	<i>lax</i>	ɪ (bit)		ʊ (book)	
mid	<i>tense</i>	ey (bait)	ə (machine)	ow (boat)	
	<i>lax</i>	ɛ (bet)		ɔ (bought)	
low		æ (bat)	ʌ (but)	ɑ: (father)	

2.1 The Frequency of the Schwa Phoneme

There are 3 reduced vowels in English: /ə, ɪ, ʊ/, all of which occur in unstressed syllables. “The term schwa, comes from Hebrew, where it means ‘emptiness’ and designates a Hebrew vowel of the same quality” (Skander and Burleigh, 2005:37). The short /ɪ/ and /ʊ/ also often occur in unstressed syllables, but unlike schwa they show up in stressed syllables. As opposed to them, almost all unstressed syllables contain a schwa vowel, which is the most frequently occurring sound in English. The percentage of the reduced vowels is given as follows:

		<u>ə</u>	<u>ɪ</u>	<u>ʊ</u>
%	11	8	1	

(Skander and Burleigh, 2005:37)

Thus, it is apparent almost 11 % of sounds uttered in an English conversation are schwas, standing out from other reduced vowels. Such a frequency count exhibits the important function that schwa fulfils in the structure of

unstressed syllables of English, which is a stress-timed language. So, vowel reduction, by definition, is “Any phonological process in connected speech which makes a vowel shorter, less loud, lower in pitch or more central in quality, or which neutralizes some vowel contrasts in unstressed syllables (Skander and Burleigh, 2005: 163.). The speakers of many languages, including Turkish, find it difficult to pronounce unstressed syllables when they learn English because there is no schwa in their native tongues

2.2 *An Analysis of the Difficulty in Schwa*

2. Method

In the Fall term of 2009, 81 Hacettepe University, Department of English Education first year students, aged 19-20, 15 males and 66, who had no phonetic training before were given 15 vocabulary items, as a pretest, (in each of which one or two occurrences of schwa sound took place) do their phonetic transcriptions. Since they had never been taught applied phonetics before, they all failed in making the transcriptions.

After 3 months of intensive phonetic training by phonetic and phonemic transcription, contrastive analysis, minimal pair techniques on the consonants and vowels of the English language, with little emphasis on schwa, students studied on the English consonant and vowel chart. The dictionary of J. C. Wells called, Dictionary of American English. Longman Pearson (2000) with CD, was used in classroom practices. At the end of the term, a different set of 15 words which were not studied in class were given to them so as to be transcribed in a form of a posttest. Their errors were calculated by the techniques of error hunt approach.

The following calculations indicate the errors of the students:

<u>Words (n=81)</u>	<u>Pretest</u>	<u>Result</u>	<u>Posttest Result (Errata)</u>
schedule		0	27
diplomat		0	17
punctuation		0	63
consonant		0	38
phonetics		0	9
bathed		0	64
confused		0	33
teacher		0	12
cultural		0	15
brainstorming		0	0
grammar		0	42
cause and effect method		0	14
conversation		0	52
equivalent		0	28
evaluate		0	22

2.3 *The Causes of Schwa Phoneme as a Fossilized Pronunciation Problem for Turks*

2.3.1. *Non-native Speaking Teacher Factor*

In order to develop communicative efficiency, it is important to know how sounds are made in the vocal tract. In many ways still the teacher is the model of the target language for the students to aim at. Students need to hear the sounds of the target language so that they both the pronunciation and acquire some of its sounds and sound patterns. Thus, the first cause of such a fossilized pronunciation error happens to be the non-native-speaking teacher himself/herself. According to Thomson (1987:159), “a teacher with a strong Turkish accent a severe setback for his students.”

2.3.2. *Codability in the Native Tongue*

A second cause is related with the fact whether the problem-causing target language sound in question is coded in the language of the learners. In this respect, the schwa sound, which is symbolized by the sign [ə], does not exist in the Turkish vowel inventory. Therefore, the Turkish teachers and students of English language education tend to

articulate the nearest vowel sound which is /ʌ/ a high unrounded back vowel. Such a case is also a clear example mother tongue interference.

2.3.3. Mobility of Stress in English

The mobility of English stress is the prime causer of schwa formation, which affects the degrees of pronunciation and intonation connection professionally via a domino effect. Such suffixes like -ity, -ic, -ical, -al, -ial, (a)tion, and -ous attract the primary stress to the preceding syllable, and the movement of stress in the structure of words back and forth creates vowel reduction that creates the schwa sound. **Also**, the change of primary (or secondary) stress in the structure of the words with more than one syllable during the connected speech, especially in the stress-timed languages, one of which is the English language, the reduction of full vowels to schwa takes place. The following examples indicate how the vowels change while the primary stress moves forward:

phótophraph (n)/
photógrapy (n)
photográphic (adj.)

acádemý
académic
academicían

démocrat (n)
demócracy (n)
democrátic (adj.)

díplomat (n)
diplómacy (n)
diplomátic(adj.)

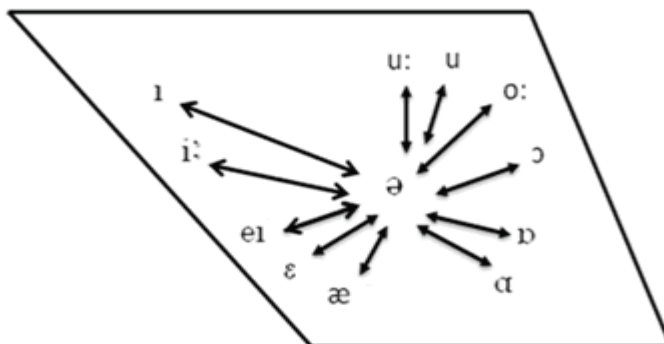
ecónomy (n)
económic (adj.)

pólicy (n)
polítical (adj.)
politicían (n.)

The mobility of stress, moreover, brings forth accented speech to non-native speaking teachers. According to Kenworthy (1991), “if a teacher does have an accent, care should be taken to ensure it is kept within the bonds of understandable English.” It is this case of the mobility of stress that, since it does not take place in Turkish, curtails the audibility of the schwa phoneme by Turks.

2.3.4. Vowel Reduction

Even though such suffixes like **-ity, -ic, -ical, -al, -ial, (a)tion, and -ous** make the placement of stress predictable, the stress pattern of English has got a mobility feature in its *suprasegmental* character. It is clearly seen in the diagram given below, in the above-mentioned prefix and suffix additions into the words almost all of the full English vowels have a natural affinity to get reduced into schwa within a bidirectional phonetic movement.



This is a case of vowel reduction, brought about by the mobility of stress, which is not perceived by the Turkish students and teachers of English. It must be noted that actually in the making of this vowel reduction the mobility of English language stress and addition of prefixes and suffixes, and the stress-timed nature of the English language play a great deal of role, and the perception of schwa by non-native-speaking people is obscured.

2.3.5. Pronunciation Fossilization

The pre-test and post test presented in this research indicate that the articulation of the schwa phoneme ([ə]) of the English language is a solid case of fossilization for Turkish students. Speech which is full of fossilized consonants and vowels lead to faulty accuracy and intelligibility: this not a desired professional efficiency for a professional non-native speaking teacher. Pronunciation fossilizations cumulatively add up to the building of accented pronunciation, which may harm the students and demotivate and alienate them towards the foreign language teaching profession. According to (Finnegan, 1994: 467-468), “fossilization is also a burden that slows down learning.”

3. Conclusion and Recommendations

Since Turkish is syllable-timed language, it does not have a particular vowel distinction in the sense of ‘reduced’ vowels, nor does it have the same kind of vowel reduction process that English does; therefore, it can be deduced that mother interference may be involved in the issue. Let alone Turkish teacher trainee, even the most experienced Turkish English teachers are not aware of problem of pronunciation hardship caused by stress shift. The perception, articulation and transcription of the schwa sound constitute a **psycho-phonetic difficulty** (Demirezen, 2007b) to Turks to whom it has almost no perceptual difference. Apparently, it is a psycho-phonetically oriented pronunciation difficulty for Turks due to their syllable-timed nature of language. “In order for learners to speak English with correct stress and rhythm and to pronounce words so that they can be identified by English listeners, schwa is essential. “Even if you do work on no other sound, some attention will probably need to be devoted to schwa” (Kenworthy, 1990:51). Then, the status of schwa has to be learned properly by the Turkish learners of the English language because it poses an intelligibility problem to them. The teaching and learning of vocabulary items will be endangered if the schwa phoneme of English is not properly internalized by the students.

The wrong articulation of the schwa phoneme is a real fossilized error builder in connected speech where the rhythm, tempo, and melody of target language function as the facilitators. The phonetic and phonemic values of the schwa phoneme must be correctly studied by the students who will take up professional positions and jobs in institutions. Good pronunciation is insurance for teachers, who are responsible to monitor their own progress. That is why it is important to sound like at least near native-like in the target language that they teach.

The faulty articulation of the schwa phoneme by Turks must be rehabilitated. In teacher education, fossilized errors have got no place because it indicates that the communicative competence of the teacher is not mature enough; therefore, s/he may harm the speech abilities of the students. In addition, since fossilized errors, one of which is the schwa phoneme (/ə/), develop accented pronunciation and intonation, they bring in professional damages to the teachers and students in academic education.

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