

**THE /æ/ AND /ʌ/ PHONEMES AS FOSSILIZED PRONUNCIATION ERRORS FOR  
TURKISH ENGLISH LANGUAGE TEACHERS AND STUDENTS: UNDOING THE  
FOSSILIZED PRONUNCIATION ERROR**

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**Abstract**

According to Haycraft, (1984: 90), “Since all humans have almost identical speech organs, there should not be any ‘difficult’ sounds.” This is not a totally true thought because the nonnative speaking students apply the pronunciation rules of their native language, and the result of such a conduct is the establishment of mother-tongue interference which boils down to be an unavoidable intrusion while learning a foreign language. A great majority of pronunciation errors are due to inevitable mother-tongue pronunciation habits, which exhibit certain resistance to the sounds of the target language. The mother-tongue association to the acquisition of some target language phonemes that are called the core sounds. (Demirezen 2007e). The core sounds of the English language, such “consonants like / t ---> θ, d ---> ð, v ---> w / and vowels like / e ---> æ, e ---> ε, æ ----> ε, ə ---> æ, æ ---> ʌ, ɔ ----> ow, ʊ ----> uw /, constitute the prime fossilized mistake continuum for the Turkish teachers, teacher trainees and students in learning and teaching English as a foreign language.” Demirezen, 2007e: 306). This articles aims at analyzing and offering rehabilitative solutions to one of such core sounds, namely / æ ---> ʌ / contrast that harms the pronunciation of Turkish learners of English.

**Özet**

Haycraft, (1984: 90)’a göre, “Tüm insanların hemen hemen benzer konuşma organları olduğu için, sesletilmesi zor olan sesler olmamalıdır.”Bu bütünüyle doğru bir düşünce değildir, çünkü anadili türkçe olmayan öğrenciler, kendi dillerinin sesletim kurallarını, hedef dilin kurallarına uyguluyorlar, böyle bir işlem de anadilden olumsuz işe karışmaları kaçınılmaz duruma getirmektedir. Sesletim hatalarının büyük bir çoğunluğu kaçınılmaz olan, olumsuz sesletim hatası olarak anadilden işe karışmalardan kaynaklanmaktadır. Anadilden gelen ve hedef dilin sesletimini engelleyen bu seslere çekirdek sesler (Demirezen2007) adı verilmektedir. İngilizcenin Türk öğrencilere, öğretmenlerine ve öğretmen yetiştiricilerine en temel kemikleşmiş sesletim hatası oluşturan çekirdek sesbirimler, ünsüzler olarak / t ---> θ, d ---> ð, v ---> w / ve ünlüler olarak / e ---> æ, e ---> ε, æ ----> ε, ə ---> æ, æ ---> ʌ, ɔ ----> ow, ʊ ----> uw / gösterilebilir. Bu makale, / æ ---> ʌ / çekirdek sesbirimlerinin Türklere çıkardığı kemikleşmiş sesletim hatasını çözümlenme ve bu hatayı düzeltme amacı taşımaktadır.

## 1. INTRODUCTION

The English /æ/ phoneme, which is called **ash**, is the commonest problem-causing core sound for all Turkish learners of English; therefore, it requires special treatment. Since it is not coded in modern standard Turkish, almost all of Turkish learners of English apply the Turkish pronunciation rule and articulate it as /e/, which comes up as a fossilized pronunciation error for Turks. In addition, when /æ/ phoneme gets into contrastive positions with the /ʌ/ phoneme in phrases, clause and sentences, comical speech errors come into being in class, ruining the communicative competence of the Turkish speakers of the English language.

### The First Nature of Difficulty of /æ/ for Turks

The nature of this difficulty stems from the fact that the /æ/ phoneme does not exist in Modern Standard Turkish. As it is seen in figure 1, /æ/ phoneme is a **front, low, unrounded, and short vowel**, clearly heard in such words like **back** /bæk/, **bad** /bæd/, **branch** /bræntʃ/, **cat** /kæt/, **hand**/hænd/, **pan** /pæn/, **map**/mæp/, **match**/mætʃ/, **jackass** /dʒækæs/, **flashback** /flæʃbæk/, and **blackjack** /blækʒæk/. /æ/ is a highly frequent phoneme in English language.

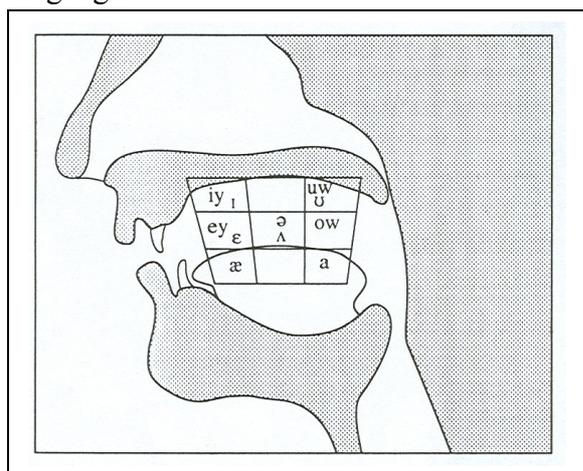
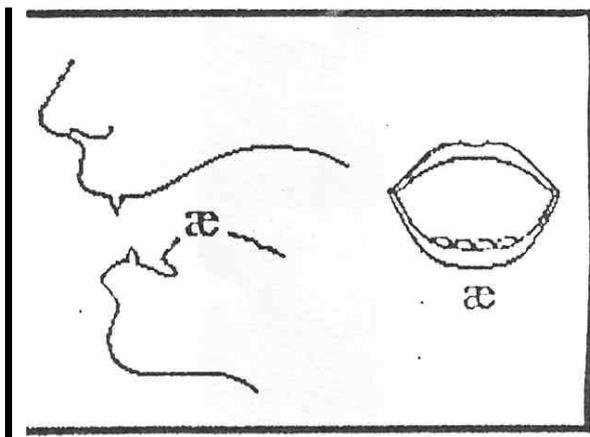


Figure 1: The Mouth Position of the /æ/ phoneme in English

### The Second Nature of Difficulty of /æ/ for Turks

The /æ/ phoneme has a double sound quality, composed of /e/ and /a/ sounds collectively. As it is seen in figure 2, the tongue is in the lowest position, and its articulation comes into being in the front part of the mouth while the air stream coming from the lungs and enters the oral cavity hitting on the blade of the tongue. In the meantime, a composed form of [aaaaaeeee] combination, culminating into the /æ/ form, is clearly audible in the oral cavity.

Figure 2 : The Tongue Position for the Articulation of the /æ/ Phoneme



(Adapted from Baker 1991; Demirezen, 2007b)

### The Articulation of the /ʌ/ Phoneme

No difficulty arises in the production of the /ʌ/ phoneme for Turkish learners of English because it exists as a sound and phoneme in modern standard Turkish. The /ʌ/ phoneme is distinctly heard in such English words like **blood** /blʌd/, **buddy** /bʌdi/, **bust** bʌst/, **buzz** /bʌz/, **buggy** /bʌgi/, **flood** /flʌd/, **gut** gʌt/, **gust** /gʌst/, **gun** /gʌn/, **gone** /gʌn/, **lunch** /lʌntʃ/, **hunt** /hʌnt/, **must** /mʌst/, **nun** /nʌn/, **none** /nʌn/ **shot** /ʃʌt/, **shop** /ʃʌp/, **sun** /sʌn/, **son** /sʌn/, **sum** /sʌm/, **some** /sʌm/ and **up** /ʌp/. In brief, /ʌ/ is a frequent phoneme in the English language.

“It is a fact that students readily pick up new sounds where there is no mother-tongue association” (Haycraft, 1984:92). The only difficulty is the phonetic symbol [ʌ] for the Turkish students who confuse it for [ɑ], [ɑ:], [ə] and [a] sounds. At this juncture the phoneme-letter relationship comes to the stage: the instructors and teacher trainers must be on the alert because the phonetic symbols in transcriptions must be treated carefully since the value of phonetic transcriptions distracts the students from the ordinary letter.

### English and Turkish Similarity in Pronunciation

In the following words, it is seen that the /ʌ/ phoneme can be heard both in Turkish and English.

<u>Turkish</u>	<u>Transcription</u>	<u>English</u>
kat “level”	/kʌt/	cut
saç “hair”	/sʌtʃ/	such
bat- “to sink”	/bʌt/	but
raf “shelf”	/rʌf/	rough
hat “line”(AmE)	/hʌt/	hot
san “fame”	/sʌn/	son; sun
bas-“to print”	/bʌs/	bus

As it is seen in figure 1, the /ʌ/ phoneme, called *caret*, is a *central, mid, unrounded,* and *short vowel*. It has only a simple nature of articulation.

## 2. CONCLUSION

In fact, mother-tongue interference is a psycholinguistic difficulty, carrying deep-seated neurolinguistics significance. The /æ/ and /ʌ/ of English phonemes in the minds of the Turkish learners of English is a case like that. The teaching of /æ/ phoneme to Turks, then, is a special issue, which must be handled correctly right from the zero-beginning level; otherwise, mother-tongue interference is inescapable. The nature of this fault is that /æ/ is uncoded in modern standard Turkish. The Turkish students have a natural affinity to hear it /e/. “If the English sound is not clearly received, the brain of the learner converts it into the closest sound in his own language” (Dalton 1997). This fallible conversion is a neurolinguistic reality, which makes fossilization in the pronunciation of the target language inevitable. That’s why the /æ/ and /ʌ/ confusion takes place in the pronunciation of the Turkish learners of English at all levels.

The audioarticulation model (Demirezen 2007b, 2007e), tried out in this article, is a practical pronunciation fossilization breaker. The minimal pair contrasts, tongue twisters, minimal sentences, sentences with contextual clues are key techniques of the audioarticulation model, illuminating and enlivening the exercises. It welcomes the teaching aids such as pictures of the mouth or lips, charts, and figures, which help in giving the rule to the students. A teaching-hour devoted to the audioarticulation model on one of the problem-causing core sounds of English for Turks will help its rehabilitation.

While drilling the students in groups of two or three, which gives maximum student participation, the instructor or teacher trainer praises the students from time to time if they are cooperative. It must be noted that encouragement is the most beneficial spur to all levels of students in learning foreign languages. Contrary to Fromkin et al (2003), who state that fossilized pronunciation errors are undoable, in the following section, a model called the audioarticulation method will be applied to undo the /æ/ and /ʌ/ confusion, which a serious fossilized articulation problem of Turkish learners of the English language.

### A MODEL LESSON PLAN ON TEACHING THE /æ / and /ʌ/ CONTRAST

#### 1. Motivation-warm up?

**The Teacher Trainer:** Hello students, how are you all today?

**Students:** Thank you sir/mam, we are fine. What about you?

**The TT:** Very well, thank you. Do you know what we will study today?

**Sts:** No, sir, what is it?

**The TT:** It’s about one of your common errors of pronunciation. Are you ready for today’s topic?

**Sts:** Yes, we are.

**The TT:** All right, then. Now, listen to me carefully because I will give you a diagnostic test.

#### 2. The Review of the Previous Problem-causing Sound in Relation to Today’s Topic.

The TT: Dear, students, now I will pronounce some words that include the /æ/ phoneme whose phonetic value we studied in our previous lesson, but we didn't handle the /ʌ/ phoneme yet. (S/he articulates the following words to create a diagnostic test: **hang, stab, dance, ramble, rapture, slang, tang, hash, stub, dunce, rumble, rupture, hung, hush, and tongue**). Put them in the correct column. Here is an example:

	<u>/æ/</u>	<u>/ʌ/</u>
Example:	<b>1. bank</b>	<b>bunk</b>
	2.....	.....
	3.....	.....
	4.....	.....
	5.....	.....
	6.....	.....
	7.....	.....
	8.....	.....

The TT sees that the students are making errors in placing the words in the correct column. S/he decides to introduce the study of the /ʌ/ phoneme as today's topic.

### 3. Introducing the New Topic Clearly

The TT: Okay, folks, as you see, you didn't do well in placing the articulated words in the correct column. That's okay, you will do better after this lessons; the /ʌ/ phoneme surprised you because we didn't study on it. Yes, today's TOPIC is the contrastive analysis and pronunciation of the /æ/ and /ʌ/ phonemes in English language. You already know that /æ/ vowel, which is called **ash**, is a low, front, unrounded and short vowel, which is heard in such words like **apple, map, cap, cat, mad, and mask**. The /ʌ/ vowel phoneme, on the other hand is a mid, central, unrounded, and short vowel, called **caret**, heard in such words like **but, cut, hot (AmE), gun, sun, tongue, and must**. Now, let's concentrate on the articulation of the /ʌ/ phoneme.

### 4. Teaching the New Topic via Related Activities

The TT prepares a corpus from which he develops the forthcoming exercises. S/he gets them repeated and transcribed in class with the students. The transcriptions are all taken from *Cambridge Dictionary of American English*, 2005, *Dictionary of Contemporary English: The Living Dictionary*. 2006, and *Longman Dictionary of American English: New Edition*: 2005.

A: Preparing a CORPUS

1. cab/kæb/                      19. last/læst/(AmE)    37. cap/kæp/                      55. cut/kʌt/

1. bad/bæd/	20. cob/kʌb/	38. adder/ædər/	56. cup/kʌp/
3. mud/mʌd/	21. ram/ræm/	39. cat/kæt/	57. bus/bʌs/
4. ankle/æŋkəl/	22. bud/bʌd/	40. much/mʌtʃ/	58. pun/pʌn/
5. staff/stæf/	23. uncle/ʌŋkəl/	41. rag/ræg/	59. rash/ræʃ/
6. sadden/sædən/	24. pan/pæn/	42. ton/tʌn/	60. brunch/brʌntʃ/
7. bag/bæg/	25. bass/bæs/	43. tan/tæn/	61. spank/spæŋk/
8. sang/sæŋ/	26. mad/mæd/	44. bug/bʌg/	62. stunned/stʌnd/
9. drag/dræg/	27. stuff/stʌf/	45. spunk/spʌŋk/	63. cap/kæp/
10. branch/bræntʃ/	28. drug/drʌg/	46. stand /stænd/	64. hung/hʌŋ/
11. match/mætʃ/	29. uncle/ʌŋkəl/	47. sudden/sʌdən/	65. sunned/sʌnd/
12. lack/læk/	30. udder/ʌdər/	48. hang/hæŋ/	66. run/rʌn/
13. back/bæk/	31. luck/lʌk/	49. sand/sænd/	67. swum/swʌm/
14. campus/kæmpʊs/	32. buck/bʌk/	50. ran/ræn/	68. drank/dræŋk/
15. compass/kʌmpəs/	33. swam/swæm/	51. flush/flʌʃ/	69. lust/lʌst/
16. damp/dæmp/	34. dump/dʌmp/	52. rush/rʌʃ/	70. last/læst/(AmE)
17. fan/fæn/	35. fun/fʌn/	53. flash/flæʃ/	71. truck/trʌk/
18. task/tæsk/(AmE)	36. tusk/tʌsk/	54. rum/rʌm/	72. drunk/drʌŋk/

## B. Specifying the related MINIMAL PAIRS:

There is a positive correlation between the pronunciation activities done in the classroom and the correct pronunciation of the words. The specification of the minimal pairs is the best cognitive technique to study on the contrastive articulation of the problem-causing vowels. The minimal pair practice is strongly recommended by many phoneticians (Baker, 1991, 2002; Baker and Goldstein, 1990; Demirezen, 1986). In forms of microskill activities, the minimal pairs are studied in class through single or group articulations without boring the students.

<u>/æ/ Phoneme</u>	<u>/ʌ/ Phoneme</u>	<u>/æ/ Phoneme</u>	<u>/ʌ/ Phoneme</u>
1. ankle/æŋkəl/	uncle/ʌŋkəl/	13. campus/kæmpʊs/	compass/kʌmpəs/
2. bad/bæd/	bud/bʌd/	14. lack/læk/	luck/lʌk/
3. bag/bæg/	bug/bʌg/	15. last/læst/(AmE)	lust/lʌst/
4. back/bæk/	buck/bʌk/	16. match/mætʃ/	much/mʌtʃ/
5. bass/bæs/	bus/bʌs/	17. mad/mæd/	mud/mʌd/
6. branch/bræntʃ/	brunch/brʌntʃ/	18. pan/pæn/	pun/pʌn/
7. dam/dæm/	dumb/dʌm/	19. ram/ræm/	rum/rʌm/
8. drag/dræg/	drug/drʌg/	20. staff/stæf/	stuff/stʌf/
9. drank/dræŋk/	drunk/drʌŋk/	21. swam/swæm/	swum/swʌm/
10. fan/fæn/	fun/fʌn/	22. task/tæsk/	tusk/tʌsk/
11. hang/hæŋ/	hung/hʌŋ/	23. tan/tæn/	ton/tʌn/
12. cap/kæp/	cup/kʌp/	24. stand /stænd/	stunned/stʌnd/

### C. Producing Tongue Twisters and Phrases

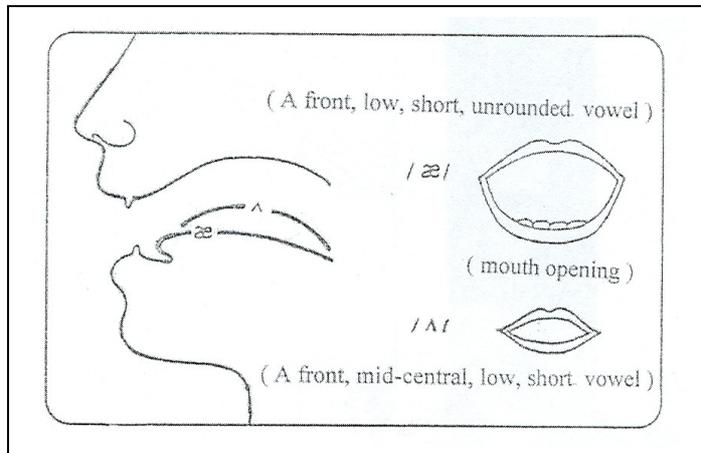
The following tongue twisters are both microlevel and macrolevel articulations, which exhibit the problem-causing sounds in context. The /æ/ and /ʌ/ contrasts are drilled in easily pronounceable tongue twisters, practiced in class in small doses, one by one or in groups by calling on the students. A careful selection of tongue twisters will ease the articulation difficulty of the students.

- |  |   |
|--|---|
| (i)<br>A cap<br>A bad cap<br>A bad cap in a cup<br>A bad cap in a cup on a bud                                 | (vi)<br>A bass<br>A bass in a bus<br>A bass in a bus of a campus<br>A bass in a compass bus of a campus     |
| (ii)<br>A bug<br>A bug in a bag<br>A bug with a buck in a bag<br>A bug with a buck in a bag on my back         | (vii)<br>A luck<br>A lack of luck<br>A sudden lack of luck<br>A saddening sudden lack of luck               |
| (iii)<br>A fan<br>A fan having fun<br>A fan having much fun<br>A fan having much fun in match                  | (viii)<br>The lust<br>The last lust<br>The last lust of a mad<br>The last lust of a mad in mud              |
| (iv)<br>A staff<br>A stuff staff<br>A stuff staff with a compass<br>A stuff staff with a compass on the campus | (ix)<br>A drug<br>A dragging drug<br>A dragging drug of a cob<br>A dragging drug of a cob in a cab          |
| (v)<br>The ram<br>The ram in lust<br>The ram in lust needing some rum<br>The last ram in lust needing some rum | (x)<br>A track<br>A track of a truck<br>A track of a truck in a gust<br>A track of a truck in a gassed gust |

### 5. Give the Rule

Dear students, it is now the RULE TIME. Please lend me your ears. As you see in figure 3, /æ/ and /ʌ/ sounds are two different phonemes. The /æ/, which is called *ash*, is a *front, low, unrounded, and short vowel*, but the /ʌ/, which is called *caret*, is a *central, mid,*

*unrounded*, and *short vowel*. Do not forget that **ash** has a double nature of articulation, produced a bit lower than /ʌ/, the *caret*, in the oral cavity.



The articulation position of the /æ/ and /ʌ/ sounds (Adapted from Baker 1991; Demirezen, 2007b)

## 6. Practice with More Difficult Exercises

The TT helps, prompts, and constructively corrects the pronunciation errors of the students in class.

### A. Minimal Sentences

1. A CAP / CUP is all you need.
2. I could catch that BASS / BUS.
3. That's my CAP / CUP
4. Is your UNCLE / ANCLE hurt?
5. I saw a big BAG / BUG on a tree.
6. Hang the CAP / CUP on the hook (Nilsen and Nilsen, 1973:15)
7. It was one of the elephant's TASK / TUSK (Nilsen and Nilsen, 1973:15).
8. That's just a TRACK / TRUCK.
9. Where is the CAMPUS / COMPASS?
10. I really love your CAP / CUP.
11. Where is the STAFF / STUFF meeting?
12. Is that BRANCH / BRUNCH eatable?

### B. Sentences with Contextual Clues

The combination of the /æ/ and /ʌ/ in the following in the same sentence will facilitate the audition and practice of them in class.

1. Can a RAM drink RUM?
2. That plant has a BAD BUD.
3. She got SUNNED in the SAND.

4. My HAT is in that HUT (Nilsen and Nilsen, 1973:15).
5. The city DUMP is often DAMP (Nilsen and Nilsen, 1973:15).
6. She makes RUGS from old RAGS (Nilsen and Nilsen, 1973:15).
7. A CAT cannot CUT this hat.
8. Never put your CAP in that CUP.
9. Can you TRACK that TRUCK?
10. All you LACK is good LUCK.
11. I didn't like the MATCH very MUCH.
12. The word "PAN" doesn't mean "PUN".
- 13 He got MAD by falling into a deep MUD.
14. The witnesses STAND there STUNNED.
15. He DRANK the whole bottle and got DRUNK soon.

### **C. Problem-sound Concentrated Exercises**

1. The BUG is in that BAG, eating the BAD BUD.
2. I saw your CAP in that CUP which is near the BRANCH where we had a BRUNCH.
3. My UNCLE hurt his ANCLE while a MAD man chased him in a street full of MUD.
4. A FAN, looking for FUN, entered the CAMPUS with a COMPASS in his hand and wanted to eat a BRUNCH under an apple BRANCH.

### **D. Establishing Minimal Pairs:**

**The TT:** Students, by using the following words, set up the minimal pairs; you can look them up in a dictionary if you like:

**Cob, bun, tan, badge, shrank, mam, tab, jangle, ham, battle(AmE.), tag, gassed, crumb, stamp, lamp, cab, shrunk, ban, bottle(AmE.), hum, mum, tub, budge, cram, jungle, tug, lump, stump, gust, ton, and jungle.**

### **7. Make a Summary**

At this stage, as a remedial action, the TT goes back to the rule (stage 5), repeats it creatively, either deductively and inductively with the students. S/he engraves the rule into the memory of them.

### **8. Give Homework(s)**

It is useful to suggest further exercise for homework. The TT gives the following as homework:

1. Each student will bring ten words that are not used in class on /æ/ and / ʌ/ contrast.
2. Each student will prepare 3 tongue twisters on /æ/ and / ʌ/ contrast.
3. Each student will prepare 3 minimal sentences on /æ/ and / ʌ/ contrast.
4. Each student will prepare 3 sentences with contextual clues.
5. Each student will write a dialogue on /æ/ and / ʌ/ contrast. and then memorize it.

**(The lesson ENDS.)**

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