

**Flapping in North American Pronunciation: Case 1  
The Change of /t/ and /d/ into [D] in Pronunciation**

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**Abstract**

The North American English is different from the British English in many pronunciation cases. One of these cases is known as flapping in the articulation of which the /t/ and /d/ phonemes are converted into a flap, whose sign is [D]. This pronunciation case is frequently heard in many TV broadcasts such as CNN, CNN International, and Voice of America. Flapping, triggered by a phonetic process called neutralization, causes a breakdown in communication. Even advanced students can be “confused with it” (Avery and Ehrlich 1992:42). The aim of this paper is to demonstrate the working mechanism of flapping and rehabilitate its pronunciation difficulty by a sample lesson operated by the audio-articulation method.

**Key terms:** flapping, neutralization, allophone, phonetics, phonology

**Özet**

Kuzey American İngilizcesi, Britanya İngilizcesinden sesletim açısından birçok yönden farklıdır. Bu farklılıklardan bir tanesi, tekçarpmalılık olup, /t/ ve /d/ gibi patlamalı sesbirimlerin ünlülerarası bir ortamda birbirlerini aşındırarak [D] imi ile gösterilen bir sese dönüştürmeleridir. Tekçarpmalı patlamalı olan bu ses CNN, CNN International, and Voice of America gibi yayın kanallarının sunduğu haberler ve filmlerde çok duyulmaktadır. Tekçarpmalılaşma, nütürleme adı verilen bir ses süreci ile tetiklenince, konuşulanları anlayamama gibi bir güçlük oluşturmaktadır. İleri derecede İngilizce bilenlerin bile iletişimini bozabilmektedir(Avery and Ehrlich 1992:42). Bu makalenin amacı, nütürleşme tarafından tetiklenen bu ses olayının işleme düzeneğini ortaya çıkarmak ve neden olduğu sesletim güçlüğüne duyseslet yöntemi kullanarak gidermektir.

**Anahtar sözcükler:** tekçarpmalılaşma, nütürleşme, sesteş, sesbilgisi, sesbilimi.

## FLAPPING IN NORTH AMERICAN PRONUNCIATION: CASE 1 THE CHANGE OF /t/ and /d/ INTO [D] IN PRONUNCIATION.

### Introduction

In north American English due to the practices of daily, causal speech, the /t/ phoneme undergoes a phonetic change through a conversion in a specific environment into a fast **d** stop, which causes certain comprehension and communication breakdowns for the Turkish learners of American English. This phonetic change is called flapping, being very frequently heard in American English in many broadcasts, such as CNN, CNN International, and Voice of America. The aim of this paper is to explore the causes and results of flapping in spoken American English and to unearth its degrees of difficulty for the Turkish learners of American English as a second or foreign language. A model lesson plan will also be presented by means of the audio-articulation method to make the flapping as automatic articulation habit for Turkish learners of American English.

### THE PHONETIC BASIS OF FLAPPING

A tap or a flap is a single rapid contact of the tongue tip with the roof of the mouth at the end of which the tongue tip returns to a position of rest, resembling a very brief and quick articulation of a stop, as seen in the change of /t/ to [D] in American English in the medial position in such words as **writer** and **rider**.

Flapping of the /t/ phoneme into [D] is typical case of American English. The /t/ phoneme is a voiceless alveolar stop and gains a new allophone, in form of [D] when it is articulated in between a stressed and an unstressed vowel in daily language. Many speakers of North American English pronounce the word **writing** and **riding** identically as [ɾaɪdɪŋ]. For these speakers the /t/ of the word **writing** and the /d/ of the word **riding** in intervocalic position in between a stressed and unstressed syllable is a fast articulation of /t/, which is “indicated as /D/ “(Avery and Ehrlich 1992:41). This happening, anticipatorily called **flapping**, is actually caused by “**neutralization**” (Wolfram and Johnson 1981: 103, Avery and Ehrlich: 1992: 41-43). It causes a difficulty of comprehension and pronunciation to many beginning, intermediate and even advanced Turkish students who study English as a second language. Thus, flapping of /t/ into [D] becomes a distinguishing mark between British and North American pronunciations, as indicated by the following words. Flapping is just a phonetic change, but may be a phonemic development in certain environments for the foreign language learners with a limited background in North American English.

## PHONETIC REPRESENTATION OF FLAPPING

As it was noted earlier, flapping is just a phonetic development in colloquial North American English. Yet it causes some learning and comprehension problems to many learners; therefore, its difficulty must be clearly explained to the learners. The phonetic representation of flapping can be demonstrated by the following sample words; [D] indicates the flapped feature the North American English /t/ phoneme.

<u>British English</u>		<u>American English</u>
No flapping		Flapping
[partɪ]	party	[pɑɾDɪ]
[letə]	letter	[lɛDəɾ]
[betə]	better	[beDəɾ]
[prɪtɪ]	pretty	[pɾɪDɪ]
[raɪtə]	writer	[raɪDəɾ]
[wɔtə]	water	[wɔDəɾ]

### The Phonetic Rule of Flapping

This rule states that /t/ is converted into /D/ between a stressed and unstressed vowel. Thus, In North American English the /t/ phoneme gains a new allophone which is called a flapped /D/, which is articulated as a fast and short form of /d/, as a voiced alveolar sound. In its articulation the tongue touches the tooth ridge and is very quickly pulled back. In classical phonemic analysis, this case of articulation is called neutralization, developing a homophonous situation in the articulation of such words as *wetting/wedding*, *betting/bedding*, *raiting/raiding*, *bitting/bidding*, *latter/ladder*, *putting/pudding*, *writer-raider*, *debter/deader*, *utter/udder*. Many people feel that the flap, especially when used with words spelled with a t, is the result of lazy or sloppy speech. However, the flapped /t/ ...is a part of standard North American English and not the result of a lazy speech” (Avery and Ehrlich: 1992: 42).

The rule of flapping of /t into [D] in North American English can be formulated as follows:

- (a). /t/ -----> [D] / ˘V -----˘V  
 (b). /d/ -----> [D] / ˘V -----˘V

It must be noted that /t/ is a voiceless alveolar stop, and /d/ is a voiced alveolar stop. The rules (a) and (b) state that /t/ and /d/ are converted into /D/ between a stressed and unstressed vowel. “In other words, when /t/ or /d/ occurs between a stressed and unstressed vowel they both become a flap [ɾ], which is a voiced flap consonant. For many speakers of English, *writer* and *rider* are pronounced identically as [rajrəɾ], yet these speakers know that *writer* has a phonemic /t/ because of write /rajt/, whereas *rider* has a phonemic /d/ because of ride /rajd/.” (Fromkin et al. 2003:314). For the sake of demonstrating this change as a typical case of neutralization, because both of /t/ and /d/ are converted into [ɾ], the flapping process is indicated by the sign [D]. It must be borne in mind that there is no /[ɾ] phoneme in American English, it is just a phone, an allophone demonstrating the phonetic fact that “there is an intricate mapping between phonemic representations of words and phonetic pronunciations.” (Fromkin et al. 2003:314).

### TEACHING FLAPPING IN PRONUNCIATION

In teaching pronunciation, teachers “should not insist on having students pronounce flaps because using a /t/ where native speakers use a flap results in a very little loss in comprehensibility (Avery and Ehrlich 1992:42). But under the pressure of colloquial communicative situation, if no flapping is made, there may be a breakdown of communication. “We remember an advanced student telling us that he could not understand a man who came to his door to read the ‘water meter.’ The students mimicked the pronunciation of the flaps in these words, producing a native-like pronunciation of ‘water meter-! [wɔDəɾ miyDəɾ] .” (Avery and Ehrlich 1992:42). Thus, we can see the significance of teaching our students about the correct articulation of the flap. Obviously, flapping is also necessary to produce native-like articulations in the target language, or to improve pronunciation at least to the near native-like levels.

Is it very necessary to articulate the words with flapping? According to Avery and Ehrlich (1991:43), “students should be given extensive practice in the recognition of flaps. They are very frequent in the spoken language and the ability to recognize words that contain flaps is very important in improving students’ comprehension of natural speech.” That’s why

this article aims to handle the proper articulation of the flapped -t [D] which marks the major difference between British English and North American English.

## **Conclusion**

Flapping of /t/ to [D] is a typical feature of spoken American English. Being a peculiarity of colloquial American English, it causes hardships in understanding of the natural flow of American spoken English (Avery and Ehrlich 1992:41-42) to people who have intermediate or even advanced knowledge of American English, as also indicated in the 5A and 5B exercises in this article. Since flapping is a natural feature of spoken American English, it naturally takes place in the communicative competence of its speakers it is because of this reason that the difficulties of understanding and production on flapping must be handled in field of teacher training.

The flapping rule in North American English is very commonly heard in such TV series like *“Seinfeld, Malcolm in the Middle, According to Jim, Scrubs, X Files, Desperate Housewives, and the like.* In daily language flapping comes up as a natural articulation in a natural speech. By nature and composition, the flapped form of /t/ and /d/ phonemes, indicated as [D], becomes an allophone of these two phonemes. The teaching of flapping is a must in teacher education since the teacher is a prescriptive model of correct, accurate, intelligible, and fluent pronunciation; otherwise, it will handicap the accuracy, intelligibility, fluency, and comprehension competence of the learners of the North American English.

## **APPLICATION OF THE AUDIO-ARTICULATION METHOD IN TEACHING THE FLAPPING OF /t/ TO [D] IN NORTH AMERICAN ENGLISH**

### **1. Motivation-warm up**

**Teacher:** Good morning students? How are you all today?

**Students:** Thank you, sir, we are well, how about you?

**T:** Thanks, I’m well, too.

### **2. Reviewing the previous topic**

**T:** Students, do you remember what did we study in our previous lessons?

**Sts:** We studied the pronunciation of /t/ and /d/ phonemes in American English.

**T:** Good. Now, we will go on the study of /t/ and /d/ phonemes in American English again.

**T:** Students, who is going to pronounce the following words just like CNN, CNN International, or Voice of America TV speakers in daily North American English? The T gets the students to read following vocabulary items, used as a diagnostic test, in class:

<b>party</b>	<b>sitting</b>	<b>artist</b>
<b>pretty</b>	<b>wetting</b>	<b>poverty</b>
<b>butter</b>	<b>dirty</b>	<b>sentimental</b>
<b>cutter</b>	<b>writer</b>	<b>gentleman</b>
<b>center</b>	<b>greetings</b>	<b>Ottoman</b>

(Teacher understands that the students are unaware of the changing of /t/ phoneme into [D] in the pronunciation of the North American English)

### **3. Introduce the new topic**

**T:** Students, you all articulated the above words just like British people. So, today we will work on the North American Pronunciation of the /t/ or /d/ phoneme as [D], which happens to be a voiced allophone.

#### **A. Preparing a Corpus**

(T prepares a corpus that explicitly demonstrates the new articulation form and gets the vocabulary items repeated in class):

city [sɪDɪy]	rioting [ɾaɪəDɪŋ]
duty [dʒʊDɪy]	rated [ɾeɪDəd]
dirty [dɜɾDɪy]	raided [ɾeɪDəd]
party [pɑɾDɪy]	ladder [læDəɾ]
Italy [ɪDəliy]	later [læDəɾ]
kitty [kɪDɪy]	kiddy [kɪDɪy]
worthy [wɜɾðɪy]	riding [ɾaɪDɪŋ]
wordy [wɜɾdɪy]	Peter [pi:Dəɾ]

hardy [hɑrɰdiy]	utter [ʌDəɰ]
heartly [hɑrɰDiy]	udder [ʌDəɰ]
better [bɛDəɰ]	bitting [bɪDɪŋ]
matter [mæDəɰ]	bidding [bɪDɪŋ]
water [wɔDəɰ]	wetting [wɛDɪŋ]
meter [mi: Dəɰ]	wedding [wɛDɪŋ]
motor [mouDəɰ]	rating [reɪDɪŋ]
butter [bʌDəɰ]	writer [ɰɑDəɰ]
center [sɛnDəɰ]	raiding [reɪDɪŋ]
sender [sɛnDəɰ]	rider [raɪDəɰ]
tutor [tju: Dəɰ]	pretty [pɰɪDiy]
suitor [sju: Dəɰ]	betting [bɛDɪŋ]
letter [lɛDəɰ]	bedding [bɛDɪŋ]
hater [heɪDəɰ]	waiter [weɪDəɰ]
beats [bi: D s]	greetings [gɰi: Dɪŋz]
beads [bi: ds]	unheated [ʌnhi: Dəd]
latter [læDəɰ]	unheeded [ʌnhi: Dəd]
bitter [bɪDəɰ]	sentimental [sɛnDəmɛtəl]
writing [ɰaɪDɪŋ]	riding [raɪDɪŋ]
bidder [bɪDəɰ]	intellectual [ɪnDələktʃəwəl]
total [təʊDəl]	painting [peɪnDɪŋ]
putting [pʊ Dɪŋ]	artist [ɑrɰDɪst]
pudding [pʊDɪŋ]	debtor [dɛDəɰ]
deader [dɛDəɰ]	citizen [sɪDəzən]
beauty [bju: Diy]	attitude [æDətʉ: d]
gentleman [dʒɛnDlmən]	Ottoman [aDəmən]

## B. Establishing minimal Pairs

The following minimal pairs indicate the identical articulation of two different words in North American English. The doer of this change is called neutralization and termed as

**flapping** in phonetics and phonology. The teacher gets the students to repeat them without boring them; the related pronunciation games can be played in the lesson (Hancock 1995).

### Flapping

center	[sɛnDəʃ]	sender
kitty	[kɪDɪy]	kiddy
utter	[ʌDəʃ]	udder
bitting	[bɪDɪŋ]	bidding
betting	[bɛDɪŋ]	bedding
wetting	[wɛDɪŋ]	wedding
writer	[ɾaɪDəʃ]	rider
hearty	[hɑɾDɪy]	hardy
worthy	[wɜɾDɪy]	wordy
latter	[læDəʃ]	ladder
rating	[ɾeɪDɪŋ]	raiding
futile	[fjuDəl]	feudal
matter	[mæDəʃ]	madder
unheated	[ʌnhi:Dəd]	unheeded
deader	[dɛDəʃ]	debtor
kitty	[kɪDɪy]	kiddy
leather	[lɛDəʃ]	letter

### C. Practice with the topic of the day

The following phrases can be practiced by the teacher in class in form of single exhortations and group repetitions, without boring the students.

#### a. Using tongue twisters

(i)

A duty

(ii)

A party



A pretty duty  
A pretty duty in a city  
A pretty duty in a beautiful city

A better party  
A better beautiful party  
A better beautiful party in Italy

(iii)

A tutor  
A dirty tutor  
A dirty, bitter tutor  
A dirty, bitter tutor as a suitor

(iv)

A matter  
A bitter matter  
A bitter party matter  
A bitter party matter later

(v)

A suitor  
A suitor's letter  
A suitor's dirty letter  
A suitor's dirty letter to the tutor

(vi)

Peter  
Peter's poverty  
Peter's poverty in the city  
Peter's poverty in the city center

(vii)

Greetings  
Hearty greetings  
Hearty, sentimental greetings  
Hearty, sentimental and gentlemanly greetings

(viii)

An artist  
An artist's identity  
An artist's intellectual identity  
An artist's intellectual identity at the party

(ix)

A letter  
A bitter letter  
A bitter but better letter  
A bitter but better letter of the suitor

(x)

An artist

A sentimental artist

A sentimental and intellectual artist

A sentimental and intellectual artist in painting

## **b. Recognition exercises**

A. A Listening-recognition exercise:

The teacher plays with the students some pronunciation games (Hancock 1995). The exhortations on tongue twisters and minimal pairs promote the threshold of intelligibility in pronunciation. Minimal pair exhortations by the teacher educator and the trainees, being cases of micro-level pronunciation monitoring, are a focus of controlled production of selected pronunciation contrasts in the target language, which encourage the learners' speech awareness and realistic self-monitoring because exhortations on the minimal pairs contrasts help the learners discriminate listening skills for dimensions of pronunciation clarity. Chain drills, substitution drills, repetition drills, inflection drills, replacement drills, restatement drills, completion drills, transposition drills, expansion drills, contraction drills, transformation drills, integration drills, rejoinder drills, restoration drills, question-answer drills, and language games are of great help in this respect. In addition, listen and imitate technique with mirroring, tracking, and echoing (shadowing), developmental approximation drills, and explanation techniques can all be practiced.

T.: Students now let's play a recognition game. I will call on you one by one. Now, I am going to articulate a word, if you hear a **flap** in it, you say "ONE," or if you here a normal /t/ or /d/, you say "TWO."

T: ( Teacher articulates the word) **party** [paɾDiy], Olcay, you answer it.

Olcay: ONE!

T: Correct. Thank you. **Wordy** [wɜɾdiy], İsmail?

İsmail: TWO! Well done, İsmail.

(The games goes on in this manner in accordance with the time.)

B. A listening recognition exercise:

T: Students, now I am going to give you two words. If you hear a flap in the first word say “one,” and if you hear a British articulation in the second word, say “two.” Here is an example:

The teacher: [wɔDəʃ]---[wɔtə]. The correct answer is ONE-TWO.

Let us begin. The teacher: [sɪti] --- [sɪDi]. Ahmet, you give me the answer.

Ahmet: ONE-TWO!

T.: Correct. Very good, Ahmet. [bɛtɪŋ]---[bɛDɪŋ]. Ali, what is your answer?

Ali: TWO-ONE!

T.: That is correct. Thank you, Ali. (Exercises go on in this manner.)

#### 4. GIVE the RULE:

Dear students, may I have your attention please. This is the rule time:

Flapping is an Americanism.

The /t/ is a voiceless alveolar stop.

and

the /d/ is a voiced alveolar stop,

but both of them are articulated as [D], distinctly heard in such words as

center → [sɛnDəʃ] ← sender

utter → [ʌD əʃ] ← udder

bitting → [bɪDɪŋ] ← bidding

betting → [bɛDɪŋ] ← bedding

This conversion is triggered by a phonetic process called neutralization, that neutralizes the pronunciation of /t/ and /d/ phonemes intervocalically into the [D] allophone, which is a voiced alveolar stop. This change distinguishes the British and American pronunciations from each other by the following flapping rule:

(a). /t/ -----> [D] / V̇ -----V̇

(b). /d/ -----> [D] / V̇ -----V̇

Please note that this flapping rule causes miscommunication among the speakers. Pay your attention to this pronunciation change and make it automatic in your own pronunciation.

#### 5. Do further exercises

According to Nilsen and Nilsen (1973), minimal sentences and sentences with contextual clues are useful in class practices.

##### A. Practice with the minimal sentences

1. She likes BETTING / BEDDING.
2. He is WETTING / WEDDING now.
3. BITTING / BIDDING is not nice.
4. Whose KITTY / KIDDY is that?  
(*kitty*: cat ; *kiddy*: child, (Demirezen 1986: 42-43))
5. She managed the climb up the corporate LADDER / LATER.
6. He is keeping the BEATS / BEADS.
7. It is a FUTILE / FUEDAL custom.  
(*futile*: in vain; *feudal*: medieval, Demirezen 1986:42-43)
9. She is a WORTHY / WORDY winner.
10. You should really invite ETTIE / EDDIE.  
(*Ettie*: Esther, *Eddie*: Edward, (Demirezen 1986:42-43).)
11. A WRITER'S / RIDER'S responsibility is important.
12. RATING / RAIDING will take place tomorrow.
13. His favorite hobby is WRITING / RIDING.
14. I gave her a HEARTY / HARDY greeting.
15. What's for PUTTING / PUDDING, Mother?
16. His books are RATED / RAIDED to find creative ideas, (Demirezen 1986:42-43)  
(*rated*: ranked highly, *raided for*: used as a source,
17. His ideas went UNHEATED / UNHEEDED in his life time  
(*rated*: ranked highly, *raided*: used as a source, (Demirezen 1986:42-43)
19. He is an intellectual WRITER / RIDER.
20. He enjoyed a HEARTY / HARDY friendship.  
(Hearty friendship: *cordial* ; hardy friendship: *enduring* (Demirezen 1986:42-43)

## B. Practice with contextual clues

1. This MATTER makes me MADDER.
2. This CENTER rejected the SENDER.
3. Where are you PUTTING the PUDDING?
4. If you are a DEBTOR, you are DEADER.
5. He is not only a WRITER but also a RIDER.
6. A HARDY friendship is not a HEARTY relationship.
7. Bring me the LATTER LADDER later.
8. Do you like to a BETTING while BEDDING?
9. That is a totally FUTILE FUEDAL custom.
10. The UNHEATED subject went UNHEEDED at the meeting.
11. Her tears were WETTING her handkerchief at my WEDDING.

### 6. Make a summary

The teacher repeats the RULE creatively to the students and gives a couple of more examples. S/he also cautions them about the pronunciation difficulty caused by the flapping rule, as given below:

- (a). /t/ -----> [D] / ǁ -----ǁ
- (b). /d/ -----> [D] / ǁ -----ǁ

### 7. Give assignments to the students

The following homework can be assigned to the students.

- (i). Find out ten more words that show flapping not mentioned in the corpus.
- (ii). Establish 5 new minimal pairs that are not given in 3B.
- (iii). Write 3 tongue twisters as given in 3C.
- (iv). Prepare 10 sentences with minimal sentences as in 5A.
- (v). Prepare ten sentences with contextual clues as in 5B.

(The lesson ends here with the ringing of the bell.)

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