

Introduction to Phonetics I

Fall 2012

Instructor: Karen Steffen Chung 史嘉琳 老師

Associate Professor, Department of Foreign Languages and Literatures

National Taiwan University



Unless otherwise noted, the course materials are licensed under [Creative Commons Attribution-NonCommercial-ShareAlike 3.0 Taiwan](https://creativecommons.org/licenses/by-nc-sa/3.0/tw/) (CC BY-NC-SA 3.0)

2. First Peek into the World of Phonetics**I. Outline for today:**

1. Dictation
2. *A Course in Phonetics*: Chapter 1: Articulation and Acoustics
3. Homework

II. Notes**1. Dictation**

a. Test instructions

- Use a sheet of loose leaf paper and write the following information in the **upper right hand corner**: your name in English and Chinese, your student number, “Phonetics”, and the date.
- Use brackets [] for IPA transcriptions.
- Watch out for vowels and listen to final stops.
- Watch the instructor’s mouth.
- Scoring: 5 points for spelling, 5 points for IPA, extra 10 points for bonus sentence.

b. Answers and corrections

What was said

- (1) bat [bæt]
- (2) bid [bɪd]
- (3) but [bʌt]
- (4) beat [bit]
- (5) bet [bet]
- (6) bead [bid]
- (7) bed [bed]
- (8) bud [bʌd]
- (9) bit [bit]
- (10) bad [bæd]

Bonus sentence:

The mother **raced** her children.
[ˌeɪsɪd]

What was heard and why

- (1) bag [bæg]: the final stops were unreleased in this dictation, making it hard to identify the place of articulation of the final stop
- (2) bid [bɪd] heard as: bing [bɪŋ]: the voicing of [d] makes it sound like a nasal
- (6) bee [bi]: stop unreleased → hard to hear the final stop
- (7) bad [bæd]: [ɛ] vs. [æ]– typical Taiwanese vowel error
- (8) bug [bʌg]: the same as for (1)

raised: listener’s perception affected by the context
[ˌeɪrɪzɪd]

***unreleased stop**

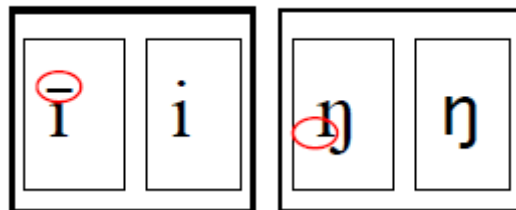
- 不除阻塞音: The compressed air behind the obstruction is not released, but the articulators maintain the gesture for the sound, e.g. for /-t/; the tongue tip remains on the alveolar ridge, with air pressure built up behind the tongue tip.

- Issues in handwriting:

i. i & j: a dot, not a line (a tone mark)

ii. [ŋ]: not [ŋ] but [ŋ]

Do **NOT** use Times New Roman for IPA symbols.




2. A Course in Phonetics: Chapter 1: Articulation and Acoustics (p. 2-4)


a. The word *articulation*: (1) jointed segments; (2) the way we make sounds.

b. Fields that different phoneticians are interested in:

- Learning about all the possible sounds of human speech
e.g. ejectives in Georgian (Republic of Georgia); clicks in some of the languages of southern Africa
- Pathological speech (correcting speech defects)
e.g. people with a cleft palate (唇顎裂) or hearing disability
- Dialect studies (for performance; to fit into a group; coaching, to avoid being made fun of)
***Why do some people want to learn a particular form of a language so as to avoid being made fun of?**
 - People spontaneously have an emotional reaction to strange or different accents, so some people turn to a dialect coach to minimize such reactions.
- Making computers talk more intelligibly or getting computers to recognize speech
e.g. Siri of iPhone (quite good, but still unnatural due to imperfect intonation and timing)

c. Speech production:


- Most speech sounds are the result of movements of the tongue and the lips
 - We humans are able to impart information efficiently:
 - The tongue and lips can make about 25 different gestures to form the sounds of English
 - The tongue is especially active – it's the most flexible, precise, and nimble muscle of the body
 - Look at Figure 1.1 (frames from an X-ray movie) on p. 3
 - Watch an X-ray movie of a short English sentence:
http://www.phon.ox.ac.uk/~jcoleman/try_not.mov 
- Watch for:
- (1) when and where the tongue tip touches the palate
 - (2) the forward and backward movement of the tongue
 - (3) the raising and lowering of the velum, and the lowering and raising of the jaw, or mandible

→ To know more about the vocal tract and the point of articulation, visit the course webpage
<http://homepage.ntu.edu.tw/~karchung/intro%20page%205.htm> 

*About the X-ray movies

- Most of these were filmed in 1950s, when people did not know about the dangers of X-ray filming

→ Many of the people who were filmed to make these movies died of cancer!

→ For more information about X-ray cineradiography, please visit the course webpage
<http://homepage.ntu.edu.tw/~karchung/intro%20page%206.htm> 

ii. The source of energy for nearly all speech sounds = air pushed **out** of our lungs (talking while breathing in is much harder than while breathing out)

3. Homework

a. The Audacity assignment (the “before” snapshot homework, **due September 26**):

<http://homepage.ntu.edu.tw/~karchung/intro%20page3e.htm> 

Do **NOT** have sweets or dairy products, but you can drink water with lemon (with no sugar) before recording.

Mail both the MP3 file and your essay to Ms. Chung at feathermountain@gmail.com

(Details about the essay can be found in the handout for September 10)

b. Read these two articles (one article in two parts) on the Echo Method and 10 Minutes a Day:

http://homepage.ntu.edu.tw/~karchung/pubs/69_hello_et.pdf 

http://homepage.ntu.edu.tw/~karchung/pubs/70_hello_et.pdf 

c. Notes for week 1 **due September 17**. Please write or type on **A4 paper**.

- Style:

Any style of note taking is fine, but the notes should be comprehensible to someone else reading them. This is an opportunity for you to organize and consolidate what you have learned.

- Content:

i. Pay special attention to things mentioned in class that are not in the textbook; also note any questions you have and things you're not sure of.

ii. The pronunciation corrections are also especially important - these should be **organized**, so if the same type of error is corrected more than once, they should be grouped together.

e.g. stressing the wrong syllable, or using a full vowel instead of a schwa, or using the wrong vowel.

d. Read the Webpages up to 7b

Pronunciation corrections: framed syllables are stressed; * = tonic stress

articulation	[ɑːtɪkəˈleɪʃən]	→ [ɑːtɪkjuˈleɪʃən] (vowel)
describing	[dəsˈkraɪbɪŋ]	→ [dəsˈkraɪbɪŋ] (nasal) [bɪŋ] same as Mandarin “冰”
wanting	[ˈwɑːntɪŋ]	→ [ˈwɑːntɪŋ] (nasal)
phoneticians	[fəʊnəˈtɪʃənz]	→ [fəʊnəˈtɪʃənz] (vowel)
	ɪn* t erested	→ * I n [*] terested (stress) [ˈɪntɪrɪstəd] or [ˈɪntɪrɪstəd]
looking	[ˈlʊkɪŋ]	→ [ˈlʊkɪŋ] (nasal)
recognize	[ˈrɛkənaɪz]	→ [ˈrɛkəɡnaɪz] (the [g] was missing)
	pur* p oses	→ * p ur [*] poses
they are talking and...	no pause before <i>and</i>	→ pause before a conjunction
airstream mechanisms	a irstream me* c hanisms	→ * a ir [*] stream mechanisms (compound noun)
mechanism	me* c hanism	→ * m e [*] chanism
speech production	s peech pro* d uction	→ * s peech [*] production (compound noun) Similar: con* v enience store
Doris	[ˈdɔːrɪs]	→ [ˈdɔːrɪs] (the [ɹ] starts from the middle of [ɔ])
tongue	[tʌŋ], [tʌŋ]	→ [tʌŋ] (vowel)
	particu* l ar	→ par* t icular
of	[ɒf]	→ [əv] (vowel and consonant) “[ɒf] is wrong” – wrong relative to SAE e.g. “says” (SAE and SSB – Standard Southern British English) [seɪz]; (BE dialect) [seɪz]
...information, ...	no rise any * s ound	→ rise to signal continuation (continuation rise) * a n [*] y sound (<i>any</i> is often stressed for emphasis)
	res* p iratory	→ * r es [*] piratory
	breathing in instead of out	→ breathing i n instead of o ut (stress the contrasting elements)

*How unstressed syllables are realized:

- Pronounced with a low even pitch (i.e. flat tone).

*Some words that Taiwanese students often confuse:

- ton [tʌŋ] tongue [tʌŋ] tone [tʌŋ]; sore [sɔː] sour [saʊ]

- bottom [ˈbɒtəm] button [ˈbʌtʃən] or [ˈbʌtʃən]

*How to do a continuation rise:

- the **last stressed syllable of an utterance** receives a high pitch, the voice then falls to a low pitch, and then rises slightly, to show that the speaker isn't finished and is about to continue speaking

Copyright Declaration

Page	Work	Licensing	Author / Source
1			National Taiwan University/Karen Steffen Chung 史嘉琳 This work is licensed by Creative Commons Attribution-NonCommercial-ShareAlike 3.0 Taiwan
2			National Taiwan University/Karen Steffen Chung 史嘉琳 This work is licensed by Creative Commons Attribution-NonCommercial-ShareAlike 3.0 Taiwan
2	http://www.phon.ox.ac.uk/~jcoleman/try_not.mov		John Coleman, Ladan Baghai-Ravary, John Pybus, and Sergio Grau (2012) <i>Audio BNC: the audio edition of the Spoken British National Corpus</i> . Phonetics Laboratory, University of Oxford. http://www.phon.ox.ac.uk/AudioBNC The supporting annotation and transcription files are Copyright © 2011 The University of Oxford, and are made publicly available under a Creative Commons Attribution 3.0 Unported License .
3	http://homepage.ntu.edu.tw/~karchung/intro%20page%2005.htm		National Taiwan University/Karen Steffen Chung 史嘉琳 This work is licensed by Creative Commons Attribution-NonCommercial-ShareAlike 3.0 Taiwan
3	http://homepage.ntu.edu.tw/~karchung/intro%20page%2006.htm		National Taiwan University/Karen Steffen Chung 史嘉琳 This work is licensed by Creative Commons Attribution-NonCommercial-ShareAlike 3.0 Taiwan
3	http://homepage.ntu.edu.tw/~karchung/pubs/69_hello_et.pdf		Caves Educational Training Co., Ltd / <i>Hello! E.T.</i> Issue No. 69 http://www.cet-taiwan.com/drcet/type.asp?title_type=Hello%20E.T. This work is licensed by <i>Caves Educational Training Co., Ltd</i> for the use of OCW ONLY. The copyright belongs to the above mentioned creator(s).
3	http://homepage.ntu.edu.tw/~karchung/pubs/70_hello_et.pdf		Caves Educational Training Co., Ltd / <i>Hello! E.T.</i> Issue No. 70 http://www.cet-taiwan.com/drcet/type.asp?title_type=Hello%20E.T. This work is licensed by <i>Caves Educational Training Co., Ltd</i> for the use of OCW ONLY. The copyright belongs to the above mentioned creator(s).
4			National Taiwan University/Karen Steffen Chung 史嘉琳 This work is licensed by Creative Commons Attribution-NonCommercial-ShareAlike 3.0 Taiwan