



Unit 5

Vowels (2) — EXPERIMENTAL

Some differences between English and German vowels and diphthongs

Print version of the
Phonetics with Listening Practice (British)
presentation given on
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5.1

English Phonetics: Unit 5: /ɪŋ ɡlɪf fə 'net ɪks 'ju:n ɪt 'faɪv/

Vowels (2) — EXPERIMENTAL ['vaʊətlz 'tʰu:]

Some differences between English and German vowels and diphthongs [ˈsʌm ˈdɪfjənsəz bæˈtwi:n
'ɪŋɡlɪf_ən ˈdʒɜ:mən ˈvaʊətlz_ən ˈdɪfθɒŋz] [ˈsʌm ˈdɪfjənsɪz bɪˈtwi:n ˈɪŋɡlɪf_ən ˈdʒɜ:mən ˈvaʊətlz_ən
'dɪfθɒŋz]

5.2

1 Goals

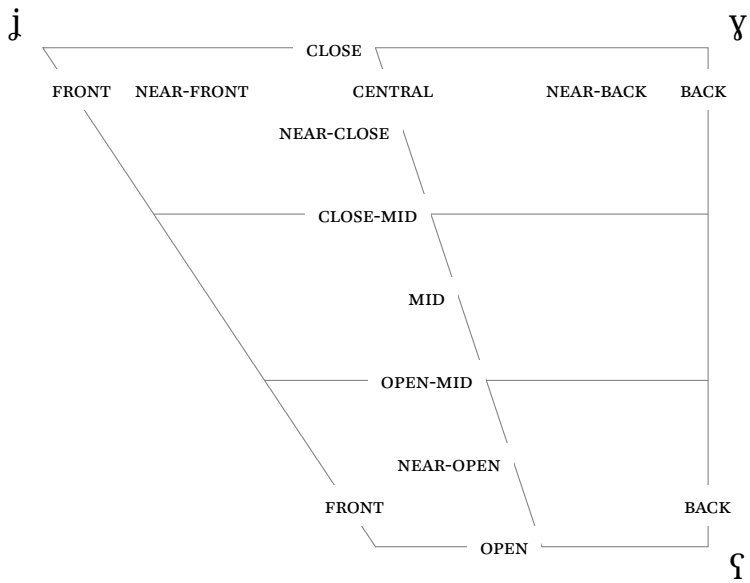
The goals of today's session are:

1. To give an overview of the system of vowel and diphthong phonemes in English, contrasting it with the corresponding system in German (20 mins)
2. To compare and contrast the typical phonetic realizations (phones, allophones) of the vowel and diphthong phonemes of English and German (25 mins)
3. To begin practising some of the English vowels and diphthongs that can be problematic to speakers of various other languages.
4. To begin comparing and contrasting the vowels and diphthongs of some of the main dialects of English (such as RP, General American, Australian English, New Zealand English).

5.3

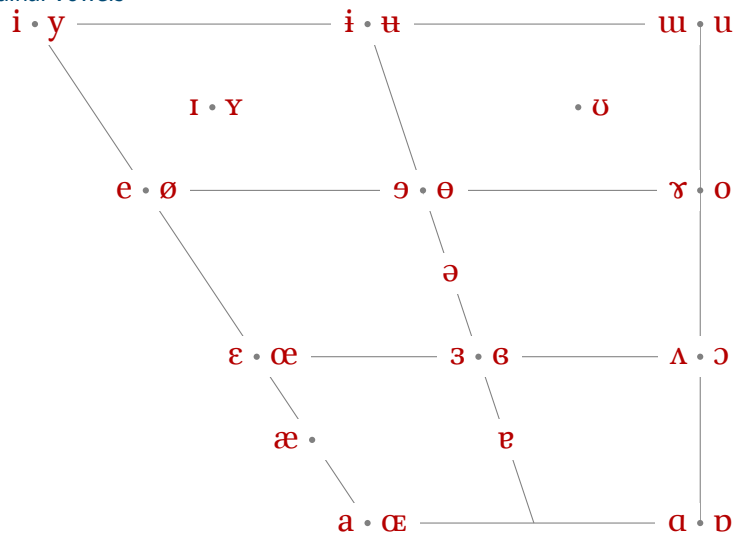
2 Experiment

Vowel Quadrilateral



5.4

Cardinal Vowels



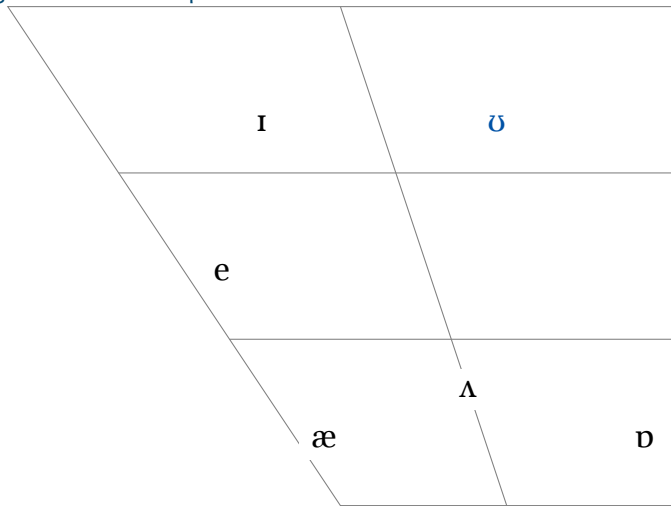
5.5

English short vowels: lexical sets



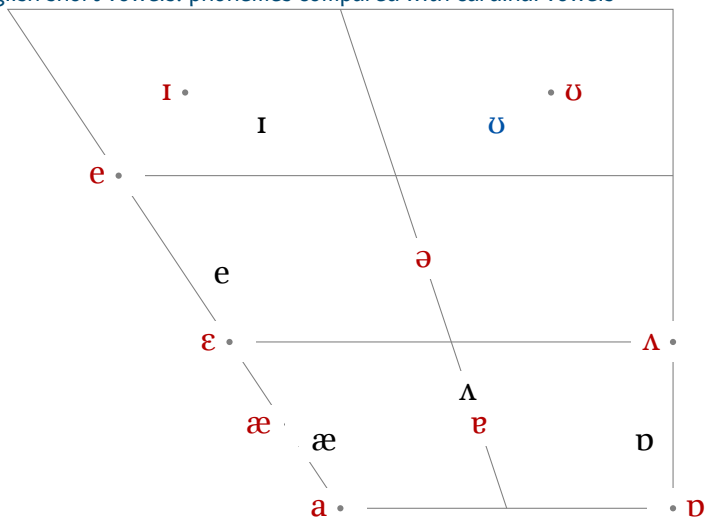
5.6

English short vowels: phonemes



5.7

English short vowels: phonemes compared with cardinal vowels



5.8

English short vowels: examples

pit	pet	pat	pot	putt	put		
/pɪt/	/pet/	/pæt/	/pɒt/	/pʌt/	/pʊt/		
[pʰɪt]	[pʰɛt]	[pʰæt]	[pʰɒt]	[pʰɛt]	[pʰʊt]		
bit	bid	wick	wig	nip	nib	hiss	his
[bɪt]	[brɪd]	[wɪk]	[wɪg]	[nɪp]	[nɪb]	[hɪs]	[hɪz]
set	said	debt	dead	etch	edge	cess	says
[sɛt]	[sɛɪd]	[dɛt]	[dɛɪd]	[ɛtʃ]	[ɛɪdʒ]	[sɛs]	[sɛɪz]
fat	fad	back	bag	batch	badge	slap	slab
[fæt]	[fæɪd]	[bæk]	[bæɡ]	[bætʃ]	[bæɪdʒ]	[slæp]	[slæb]
cop	cob	knot	nod	lock	log	hops	Hobbes
[kʰɒp]	[kʰɒb]	[nɒt]	[nɒd]	[lɒk]	[lɒɡ]	[hɒps]	[hɒbz]
cup	cub	duck	dug	fuss	fuzz	once	ones
[kʰɛp]	[kʰɛb]	[dɛk]	[dɛɡ]	[fɛs]	[fɛz]	[wɒns]	[wɒnz]
put	bush	soot	foot	wool	stood	hood	good
[pʰʊt]	[bʊʃ]	[sɒt]	[fʊt]	[wʊl]	[stʊd]	[hʊd]	[ɡʊd]

5.9

English short vowels: more examples

kit	dress	strap	lot	strut	foot
/kɪt/	/dres/	/stræp/	/lɒt/	/strʌt/	/fɒt/
[k ^h ɪt]	[dɹ̩ɛs]	[str̩æp]	[lɒt]	[str̩ʌt]	[fɒt]

it fits him | big business stinks | Tim hit his shins | /ɪt fɪts hɪm/ /bɪg 'bɪznɪs stɪŋks/ /*tɪm hɪt hɪz ʃɪnz/

let's get set | lead's heavy | chem sex isn't the same as cam sex | /lets get set/ /ledz 'hevi/ /kem seks ɪz.nt ðə sem əz kəm seks/

the black cat tried to catch a rat | the back hatstand is for caps | /ðə blæk kæt traɪd tu kætf ə ræt/ /ðə blæk 'hætstænd ɪz fə kæps/

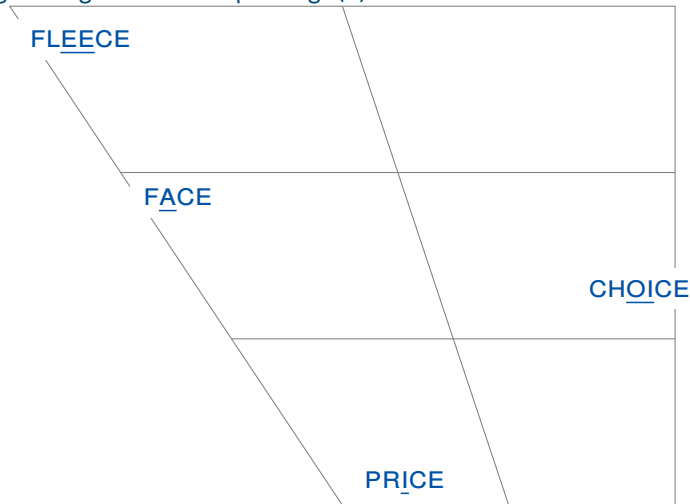
I want to wander in the tropics | Don Johnson is on top | /aɪ wɒnt tu 'wɒndər ɪn ðə 'trɒpɪks/ /*dɒn *dʒɒnsən ɪz ɒn tɒp/

cut up the tough stuff | it's lovely honey and butter | /kʌt ʌp ðə tʌf stʌf/ /ɪts 'lʌvli 'hʌni ən 'bʌtə/

look, full of books | Cook took a look | Cook took Brook's rook | /lʊk | fʊl əv bʊks/ /*kʊk tʊk ə lʊk/ /*kʊk tʊk *brʊks rʊk/

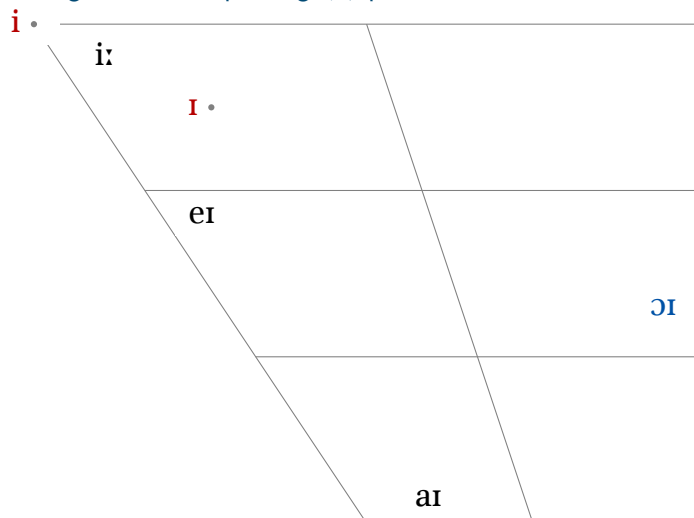
5.10

English long vowels and diphthongs (1): lexical sets



5.11

English long vowels and diphthongs (1): phonemes



5.12

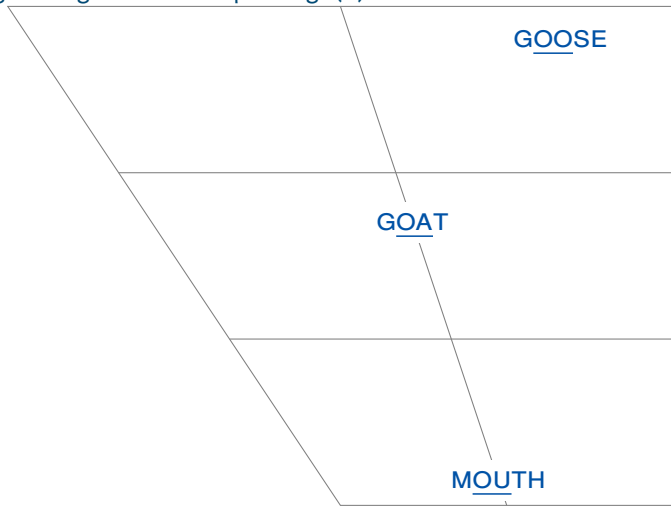
English long vowels and diphthongs (1): examples

fleece	face	price	choice				
/fli:s/	/feɪs/	/praɪs/	/tʃɔɪs/				
[fl̩iːs]	[f̩eɪs]	[p̩raɪs]	[tʃ̩ɔɪs]				
fleece	fleas	heat	heed	belief	believe	cease	seize
[fli:s]	[fli:z]	[hi:t]	[hi:d]	[br.'li:f]	[br.'li:v]	[si:s]	[si:z]
face	phase	pace	pay	wait	wade	fate	fade
[feɪs]	[feɪz]	[pʰeɪs]	[pʰeɪ]	[weɪt]	[weɪd]	[feɪt]	[feɪd]
price	prize	ice	eyes	wright	ride	dice	die
[p̩raɪs]	[p̩raɪz]	[aɪs]	[aɪz]	[ɹˈwaɪt]	[ɹˈwaɪd]	[daɪs]	[daɪ]
choice	Choy's	Joyce	joys	quoit	coy	Boyce	boys
[tʃ̩ɔɪs]	[tʃ̩ɔɪz]	[dʒɔɪs]	[dʒɔɪz]	[kɔɪt]	[kɔɪ]	[bɔɪs]	[bɔɪz]

It's the bee's knees! Peachy keen! Squeaky clean! Lean and mean!
 The rain in Spain stays mainly in the plain. (K)no(w) pain, (k)no(w) gain.
 Try it – you'll like it! "I like Ike!" ("I like Pike!") Mike's on Skype.
 Noisy toys point to boys. (This one's been reported to the gender police.)

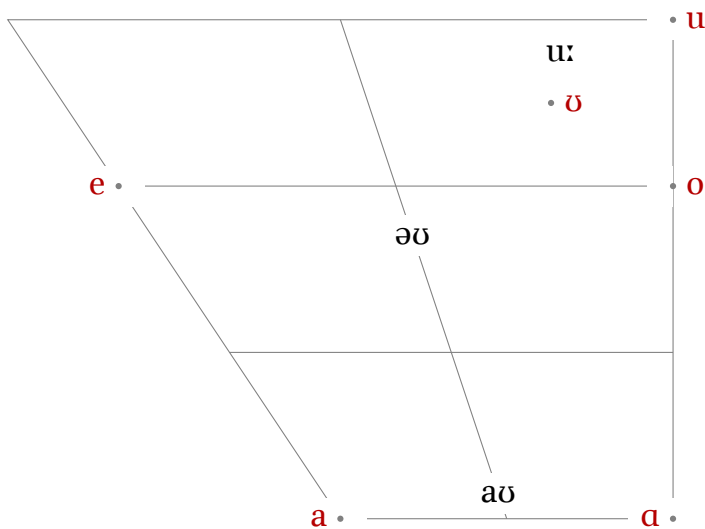
5.13

English long vowels and diphthongs (2): lexical sets



5.14

English long vowels and diphthongs (2): phonemes



5.15

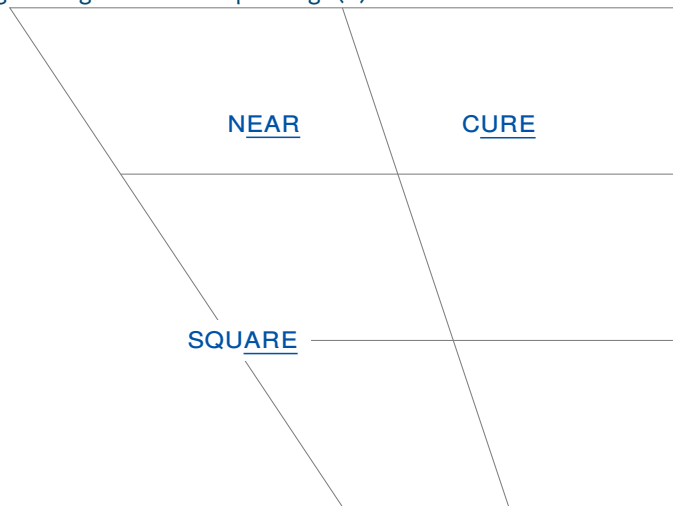
English long vowels and diphthongs (2): examples

goose	goat	mouth			
/gu:s/	/gəot/	/maoθ/			
[gʊːs]	[gəʊt]	[maʊθ]	[mɤʊθ]	[mʌʊθ]	
moot	mood	use (n.)	use (v.)	proof	prove
[mʊːt]	[mʊːd]	[juːs]	[juːz]	[pɹʊːf]	[pɹʊːv]
goat	goad	dose	doze	close (n.)	close (v.)
[gəʊt]	[gəːd]	[dəʊs]	[dəːz]	[kləʊs]	[kləːz]
mouth (n.)	mouth (v.)	house (n.)	house (v.)	bout	bowed
[maʊθ]	[maːθ]	[haʊs]	[haːz]	[baʊt]	[baːd]

Whose shoe's loose? Sue knew. Hugh's tune is due in June.
 I suppose so. It's Flo's go. Oh no, don't go home alone.
 How now, brown cow? Out out, town mouse! Clouds and showers.

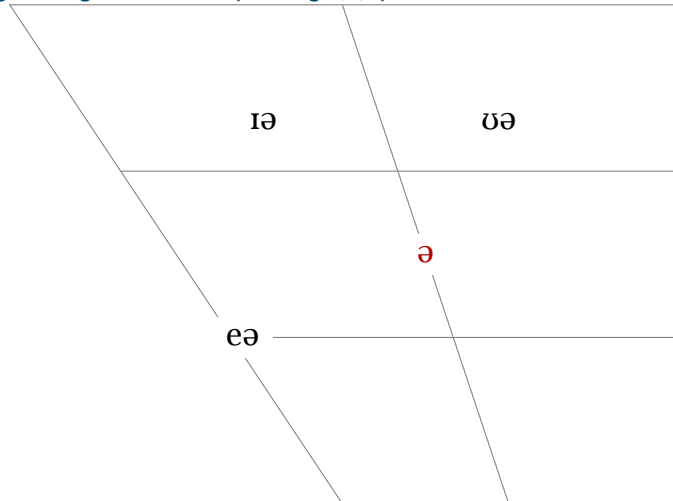
5.16

English long vowels and diphthongs (3): lexical sets



5.17

English long vowels and diphthongs (3): phonemes



5.18

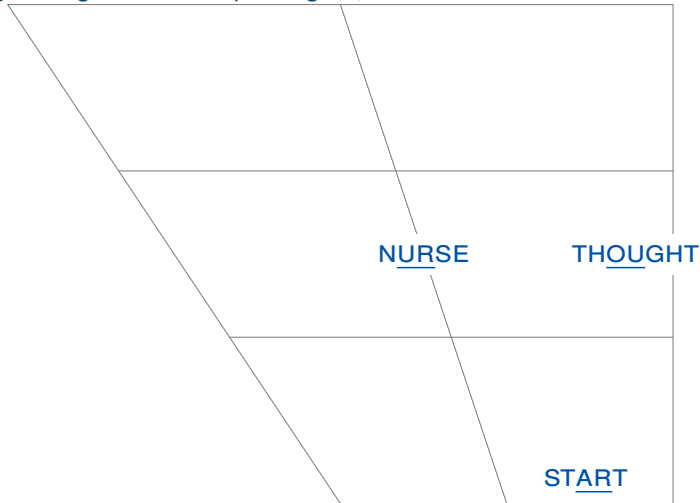
English long vowels and diphthongs (3): examples

near	square	cure				
/nɪə/	/skweə/	/kjʊə/				
[nr̩ə]	[skwɛːə]	[kjʊːə]	[kjɔ:]			
pierce	peers	fierce	fear	weird	beard	
[pʰɪəs]	[pʰɪːəz]	[fɪəs]	[fɪə]	[wɪəd]	[brəd]	
scarce	scares	there	their	they're	mayor	prayer
[skɛəs]	[skɛːəz]	[ðɛːə]	[ðɛːə]	[ðɛːə]	[mɛːə]	[pɹɛːə]
your	you're	sure	pure	poor	Europe	
[jʊːə]	[jʊːə]	[ʃʊːə]	[pjʊːə]	[pʰʊːə]	[ˈjʊːɹ.əp]	

Here and there, we're aware of Peter Pears paring a pair of pears.
 Here they're all ours; there they're all theirs.
 This is your big "But you're Jean Ure, aren't you?" moment!
 Are you sure (/ʃʊː/ <Shaw>)? No, I'm Shakespeare!

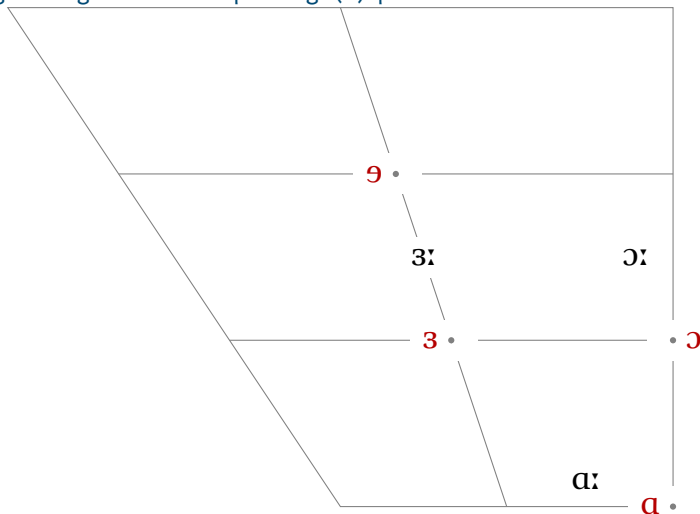
5.19

English long vowels and diphthongs (4): lexical sets



5.20

English long vowels and diphthongs (4): phonemes



5.21

English long vowels and diphthongs (4): examples

start nurse thought
 /stɑ:t/ /nɜ:s/ /θɔ:t/
 [stɑ̃ːt] [nɜ̃ːs] [θɔ̃ːt]

part staff starve cars bar bra
 [pʰɑːt] [stɑːf] [stɑːv] [kɑːz] [bɑː] [br̩ɑː]

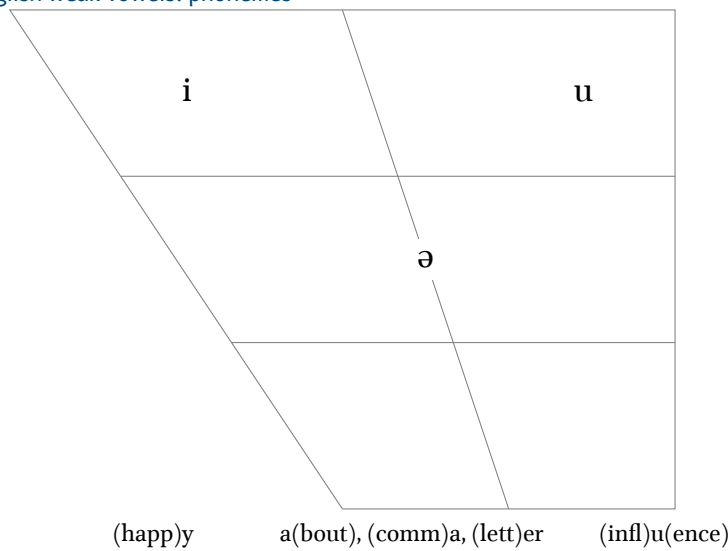
search surge merch merge fir prefer fur
 [sɜːʃ] [sɜːdʒ] [mɜːʃ] [mɜːdʒ] [fɜː] [pɪˈfɜː] [fɜː]

law war court cord course cores sauce saws
 [lɔː] [wɔː] [kɔːt] [kɔːd] [kɔːs] [kɔːz] [sɔːs] [sɔːz]

Ma parks Pa's car | last dance, last chance | a large farmyard
 Percy turned, when he heard the girl's words | birds searched the earth for worms
 you're four boards short | Lord Gordon caught naught | coarse gorse tore your horse

5.22

English weak vowels: phonemes



5.23

Slides from previous iterations of this course

The remaining slides are from previous iterations of this course.

5.24

3 English vowels and diphthongs (schematic)

English vowels and diphthongs (schematic)

- The following slides constitute a tabular list of all English vowels and diphthongs (dialect: Southern British).
- The representation is highly schematic, based on a stylized vowel “square”. But even the standard “vowel quadrilateral” is already quite stylized anyway.
- We’ll do a quick overview, concentrating on noticeable differences between some of the main varieties of English (e.g., “RP”, Southern British, Northern British, General American, Australian), then zero in on key differences between German and English vowels and diphthongs.
- We’ll keep the IPA character picker a mouseclick away:
- <http://westonruter.github.io/ipa-chart/keyboard/>

5.25

Some terms and definitions (1): 'stressed'

- A syllable can be either 'stressed' or 'unstressed', depending on where it occurs within the foot.
- Assuming there is no 'silent beat', the *first* syllable in the foot (the Ictus) is 'stressed', all other syllables within that foot (the Remiss) are 'unstressed'.
- Example: / **Ar**th-ur and / **Ma**y have / **l**eft for / **I**t-a-ly — the beginning of each new foot is shown by a slash; the stressed syllables are printed in boldface type; all other syllables are unstressed.

5.26

Some terms and definitions (2): 'checked' vs. 'unchecked' vowels/Nuclei, 'open' vs. 'closed' syllables

- A syllable consists of an Onset followed by a Rhyme; the Rhyme consists of a Nucleus followed by a Coda.
- The Nucleus may be 'checked' (i.e. its vowel may be cut off abruptly) or 'unchecked' (i.e. its vowel may be allowed to unfold fully).
- In addition, the syllable may be 'open' or 'closed', depending on whether or not the Coda element is realized by a consonant.
- Example: / **Ar**th-ur and / **Ma**y have / **l**eft for / **I**t-a-ly — the Nucleus is 'checked' in **left** and **It**, 'unchecked' in **Arth** and **May** (note that the Onset is empty in **It** and **Arth**); —the syllable is 'open' in **May**, 'closed' in **Arth**, **left** and **It**.
- These factors play a major role in determining what vowels or diphthongs can occur in a syllable...

5.27

Some terms and definitions (3): 'reduced'

- If a syllable is 'unstressed' in English, it can (and typically does) contain a 'reduced' vowel — perhaps shortened in quantity, or simplified in quality, or both.
- shortened in quantity: ⟨u⟩ [u] (not [u:]) in ⟨rubella⟩ [ru'belə] (not [ru:'belə])
- simplified in quality: the vowel (or diphthong) tends to become more like the vowel [ə] — a mid central vowel with almost no features.
- e.g.
[fəʊ'netɪks fɔ:'ɪvə] →
[fə'netɪks fə'ɪvə]

5.28

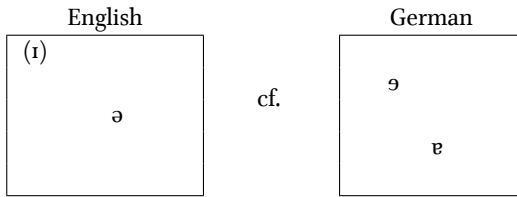
Short vowels in stressed or unstressed closed syllables

English		cf.	German		
ɪ	ʊ		ɪ	ʏ	ʊ
e	ʌ		ɛ	œ	ɔ
æ	ɒ		a		

- All six English sounds are distinctively different, i.e. they are phonemes
- /sɪks/, /seks/, /sæks/, /sɒks/, /sʌks/, /sʊks/ are the six different words ⟨six⟩, ⟨sex⟩, ⟨sax⟩, ⟨socks⟩, ⟨sucks⟩, ⟨sooks⟩.
- We'll draw the exact locations of the phonetic realizations of these phonemes on the proper 'vowel quadrilateral' on the whiteboard; and see your handouts from Eckert and Barry (Unit 4) and the Longman Pronunciation Dictionary (Unit 5).
- The phoneme /ʌ/ varies considerably in its phonetic realization from dialect to dialect. (Why?)
- Which vowel letters can be used to write the phoneme /ʌ/ in English?

5.29

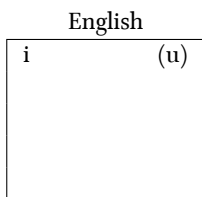
Reduced short vowel(s) in unstressed open or closed syllables



- Australians and Americans tend to use only the “schwa”: ⟨The wicked witch⟩ (‘die böse Hexe’) [ðə 'wɪkəd 'wɪtʃ]
- Speakers of Southern British English would say: [ðə 'wɪkɪd 'wɪtʃ]
- Note that the German “schwa” is different from the English one.
- Compare English ⟨bitter⟩ ['bɪtə], German ⟨bitte⟩ ['bɪtə], German ⟨bitter⟩ ['bɪtə].

5.30

Unchecked vowel(s) in unstressed open syllables (1)



- Some dictionaries give the pronunciation as /'sɪtɪ/
 - This breaks the rule that /ɪ/ (like all other short vowels) can only occur in closed syllables.
 - But it does in fact correspond to the pronunciation used by many upperclass speakers of Southern British English.
- Some highschool English textbooks give the pronunciation as /'sɪtɪ:/
 - This tends to encourage an awkward rhythm in German English-learners.
 - But it does in fact correspond to the pronunciation used in some parts of Britain.

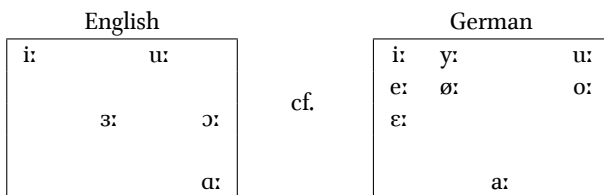
5.31

Unchecked vowel in unstressed open syllables (2)

- The modern trend seems to be; to give the pronunciation as /'sɪtɪ/
 - This final vowel is unchecked, and potentially tense, but nevertheless short
 - Eckert & Barry give an elegant solution by saying that the English phoneme /i:/ has two allophones, [i:] as in ⟨beat⟩ and [ɪ] as in ⟨happy⟩

5.32

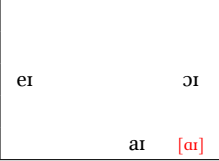
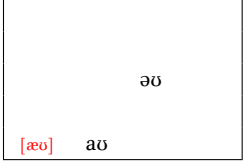
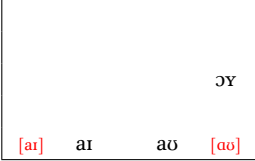
Long vowels



- There are no front rounded vowels in English.
- The long close vowels in English tend to be slightly diphthongized (closing diphthongs):
- The other long vowels in English tend to alternate with centering diphthongs.

5.33

Closing (=‘verengende’) diphthongs

English	English	German
		

- IPA symbols are placed roughly at the starting position of the diphthong, i.e. the position from which the gliding movement begins.
- /əʊ/ was originally /oʊ/
- its original partner /eʊ/ has turned into /ju:/
- with the partner absent, there's no ‘pressure’ on /oʊ/, so it can ‘take up all the space’ — becoming /əʊ/ (or even /eʊ/ !)
- Fun fact: ⟨mew⟩, which for Shakespeare was the noise made by a cat (/mɛʊ/), is now the noise made by a kitten (/mju:/)
- https://en.wikipedia.org/wiki/Great_Vowel_Shift

5.34

Centering diphthongs

ɪə	ʊə
eə	(ɔə)

- In most varieties of English there is no difference between /ʊə/, /ɔə/ and /ɜ:/.
- Some books write /ɛə/, others /eə/.

5.35

Triphthongs?

eɪə	əʊə	ɔɪə
aɪə	aʊə	

- These tend to lose the middle element: /eɪə/ becomes [e(:)ə], etc.
- /aɪə/ and /aʊə/ go one step further, turning into the monophthongs [a:] and [ɑ:]: ⟨tire⟩ /taɪə/ [tʰa:], ⟨tower⟩ /taʊə/ [tʰɑ:]
- Not everyone recognizes the existence of triphthongs; a triphthong may simply be a diphthong followed (in the next syllable) by a schwa.
- But note the difference between disyllabic ⟨prayer⟩ (‘Betender’) /ˈpreɪ.ə/ and monosyllabic ⟨prayer⟩ (‘Gebet’) /preə/

5.36

4 Differences German/English

Differences German/English

- Now let's look in more detail at the differences between the vowels and diphthongs of English and the vowels and diphthongs of German
- Examine the figures on pages 111 and 149 of Eckert and Barry:
http://www.spence.saar.de/courses/phoneticswithlistening/unit05_20211/EckertandBarry/
- Draw several empty vowel quadrilaterals.
- Consult the list of differences on your handout, which is available online at: http://www.spence.saar.de/courses/phoneticswithlistening/unit05_20211/differences/differences.pdf

- Don't be afraid of using diacritic symbols such as [ɔ̃] [ɛ̃] [ĩ], [ï], ...consult your printout of the IPA!
- You might also like to look at the diagrams from the Longman Pronunciation Dictionary: http://www.spence.saar.de/courses/phoneticswithlistening/unit05_20211/LPD/