Version SS 2008

The Phonetics of English Pronunciation - Week 6

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There were two tasks for homework!

- Identification and description of pronunciation problems
- Articulogram of „Index finger“

What problems did you identify?

Sentence 3 & 4:

One of the secretaries had whispered rather loudly to her friend that there were plans being hatched to close the local primary school and bus the children to the neighbouring village. The doors and windows would then be bricked up to discourage vandals, pending a decision on the future use of the building.

What problems did you identify?

How many < th > -related points?

One of the secretaries had whispered rather loudly to her friend that there were plans being hatched to close the local primary school and bus the children to the neighbouring village. The doors and windows would then be bricked up to discourage vandals, pending a decision on the future use of the building.

Potential < th > problems: **11**

The underlined sequences indicate problems which are the result of phonotactics – i.e. sounds occurring together where a problem sound affects the neighbouring sound:

a)alveolar plosives or sonorants becoming dental before „TH“

b)an /s/ or /z/ changing a following weak /ð/ into a non-grooved post-dental fricative.

What problems did you identify?

How many FVC-related points?

One of the secretaries had whispered rather loudly to her friend that there were plans being hatched to close the local primary school and bus the children to the neighbouring village. The doors and windows would then be bricked up to discourage vandals, pending a decision on the future use of the building.

Potential FVC problems: **15**

The underlined sequences indicate the FVC problems which require the lengthening of the preceding *sonorant consonant* rather than the preceding vowel.

What problems did you identify?

How many /l/-related points?

One of the secretaries had whispered rather loudly to her friend that there were plans being hatched to close the local primary school and bus the children to the neighbouring village. The doors and windows would then be bricked up to discourage vandals, pending a decision on the future use of the building.

Potential /l/ problems: **5 (+5 US)**

In this text there are 5 dark(ish) L locations, which do not apply to the British English speakers. They are underlined.

What problems did you identify?

How many R-related points?

One of the secretaries had whispered rather loudly to her friend that there were plans being hatched to close the local primary school and bus the children to the neighbouring village. The doors and windows would then be bricked up to discourage vandals, pending a decision on the future use of the building.

Total potential problems: **9 (+7 US)**

In this text there are 7 postvocalic R locations, which do not apply to the British English speakers. They are underlined.

What problems did you identify?

How many /w/-related points?

One of the secretaries had whispered rather loudly to her friend that there were plans being hatched to close the local primary school and bus the children to the neighbouring village. The doors and windows would then be bricked up to discourage vandals, pending a decision on the future use of the building.

Potential /w/ problems: **5 (+ 2 over-correction danger spots)**

In this text there 5 /w/ locations. The circled /v/ locations are identified because they may lead to "over-correction" [w] pronunciation because of orthography-sound confusion.

What problems did you identify?

How many < ng > dangers?

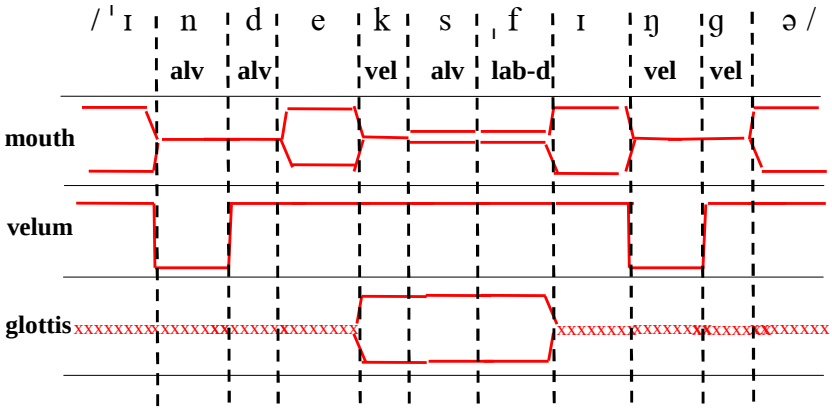
One of the secretaries had whispered rather loudly to her friend that there were plans being hatched to close the local primary school and bus the children to the neighbouring village. The doors and windows would then be bricked up to discourage vandals, pending a decision on the future use of the building.

Potential* < ng > *problems: **0**

All the cases of < ng > are word-final,where there is no difference in the pronunciation of the letter sequence between German and English.

Your second task:

Articulogram of: „***Index finger“***



This schema should help you follow what your articulators are doing during the production of the compund noun "index finger".

May I remind you that the oral (mouth) articulation is a rough indication of the degree of oral opening.

However, we do not differentiate different degrees of vowel opening (all vowels are shown as "open", compared to consonants, irrespective of whether they are close (high), mid-close, mid-open or open (low) vowels).

Also, no PLACE of articulation can be identified in the schema. That is why the place of articulation is added below the phonetic symbol. You can see that the alveolar fricative [s] and the labio-dental fricative [f] look exactly the same in the schema because fricatives require a constriction to produce the friction noise that defines them as a class of speech-sounds.

G_rm_ns’ pr_bl_ms w_th _ngl_sh v_w_ls

- In written language, the consonant letters carry more information than the vowel letters.
- In spoken language, vowels carry much more information than the consonants.

No vowels: No consonants: Both:

Wh–n • th– • s–nl–ght • str–k–s • r– –ndr–ps • –n • th– • – –r

Can you understand the title of this slide? despite the missing vowels?

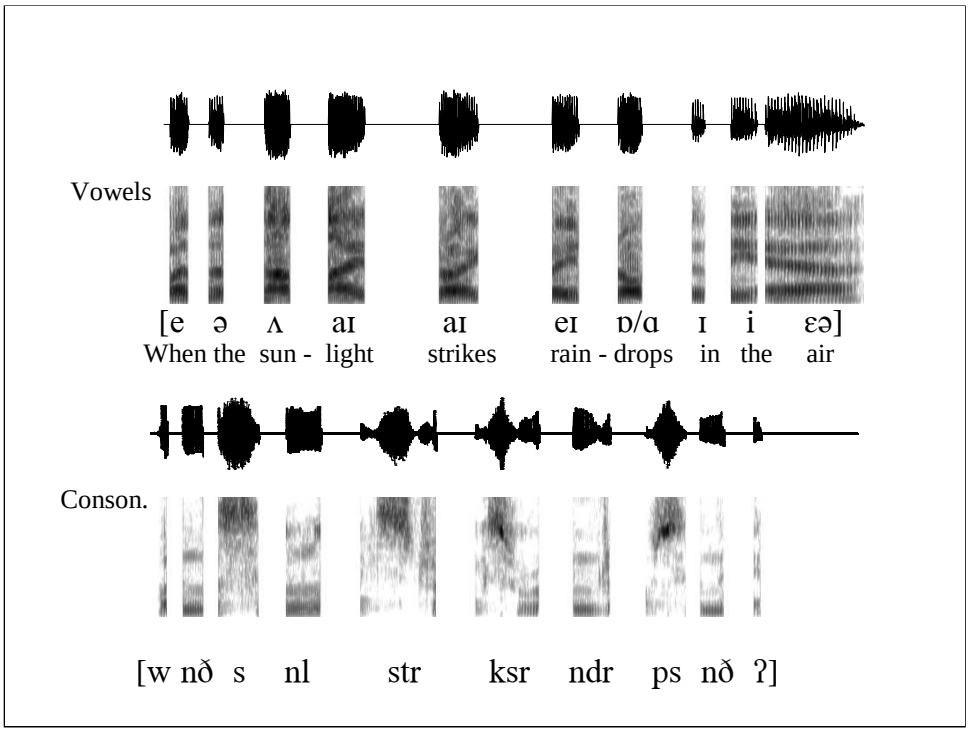
"Germans' problems with english vowels"

Particularly in languages with very varied syllable complexity (and the Germanic languages belong to that type of language), there are often words with many more consonants than vowels (19 consonants vs.9 vowels in the title). Consequently there are many more "consonant letters" than "vowel letters" (of which there are only 5 in English + <y>). For example we find *prob* (3C,1V) – *lems* (3C,1V); (Eng) – *glish* (3C,1V) in the words above.

This relative frequency makes the chances of guessing the identity of the word from the consonant letters much greater than the chances of guessing from the sequence of vowel letters (even if the gaps are marked where the consonants are missing). The fact that several consonant letters are used for one consonant sound, or to help to indicate the quality of the vowel, makes the task even easier!

In contrast, the time spent producing a vowel in SPOKEN language is greater (in general) than the time spent on producing a consonant. And of course, the many "silent consonant letters" in English don't require any time at all! Therefore, the actual measureable duration of "vowels" in the acoustic signal is at least as great as that of the "consonants" in the example sentence we present here (where there are 20 consonants vs. 10 vowels - see next slide).

Also, vowel signals always have a changing spectral quality at the borders to the consonants surrounding them, which lets us hear where they are coming from and where they are going to (i.e. they contain clear consonant information)



In terms of the proportion of the whole sentence there is very little difference between the time spent articulating consonants and the time spent articulating vowels. BUT, the syllabic rhythm of the utterance is carried by the vowels.

We can hear how many syllables there are. In terms of the proportion of the whole sentence there is very little difference between the time spent articulating (the 20) consonants and the time spent articulating (the 10)vowels. BUT, the syllabic rhythm of the utterance is carried by the vowels.

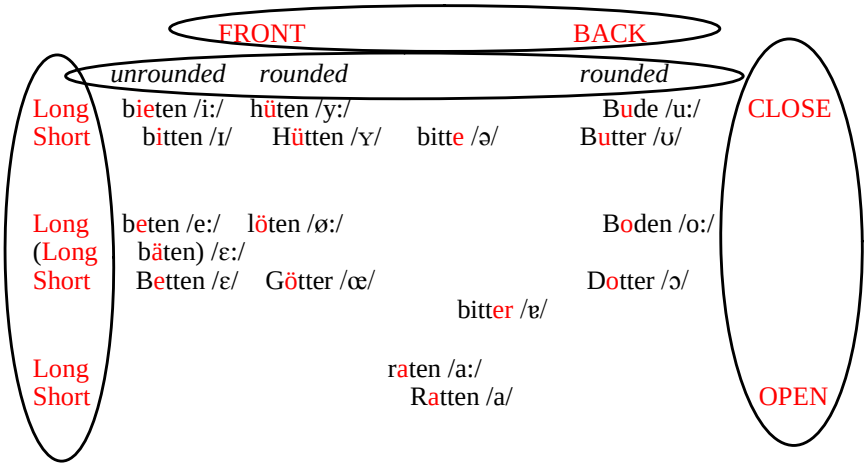
We can hear how many syllables there are.

Also, of course, many dialect differences are carried by differences in vowel quality, so the vowels give us a lot of information about the speaker.

This includes the speaker's "attitude", because, of course, their voice quality, as well as the more obvious "signals" like the intonation melody, are also carried by the sonorant parts of an utterance (and the vowels are the most prominent "sonorant" parts).

Which vowels are problematical?

- We identified the German ***pure*** vowels (*monophthongs*) in our second lecture:

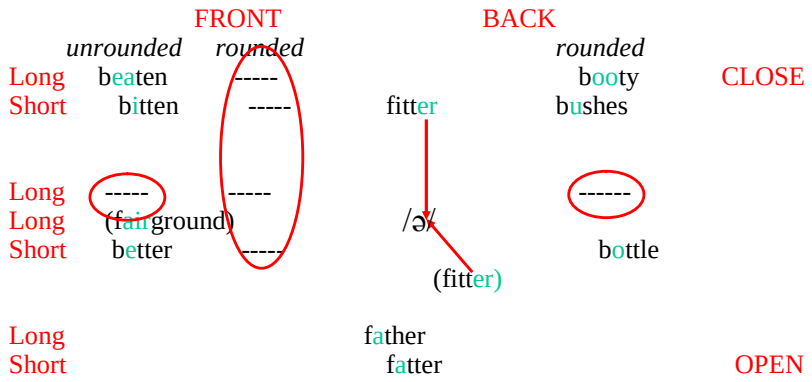


Remember the four descriptive dimensions used to identify vowels:

1. The position of the tongue *dorsum* in the mouth (= back or body of the tongue; NOT the tongue *tip*, which is easier to feel); further *back* or further *forward*. In German, these are called Hinterzungenvokale and Vorderzungenvokale, and the central vowels are the Mittelzungenvokale.. You can best observe the effect of this dimension if you change slowly from a long [u:] (the vowel in *Hut*) to a long [y:] (the vowel in *hüt(en)*).
2. The tongue and jaw height – from close to open.
3. The form of the lips – from <u>rounded</u> in [y:] (as in *fühlen*) to spread in [i:] (as in *vielen*).
4. The length of the vowel – long as in *raten* and short as in *Ratten*.

Which vowels are problematical 2?

- We can fit ***some*** of the English „pure“ vowels (Brit&USA) into the same framework:

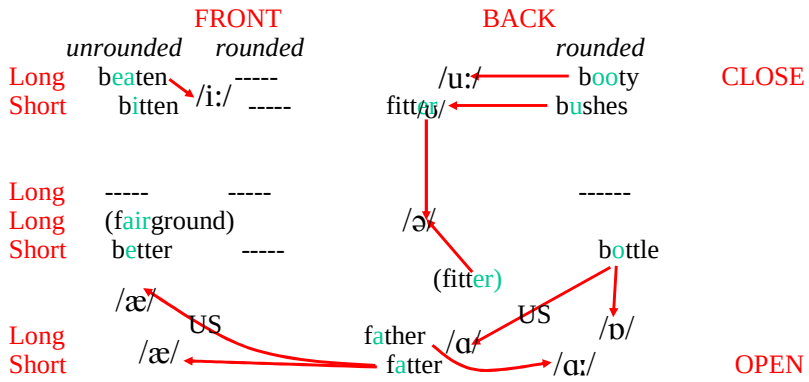


For the German „bieten“ vowel we have	„beaten“
For the German „hüten“ vowel we have	----- (no equivlent)
For the German „Bude“ vowel we have	„booty“
For the German „bitten“ vowel we have	„bitten“
For the German „Hütten“ vowel we have	----- (no equivlent)
For the German schwa vowel in „bitt***e***“ we have	„bitter“ (***not*** US!)
For the German „butter“ vowel we have	„bushes“
For the German „beten“ vowel we have	----- („bait“?)
For the German „löten“ vowel we have	----- (no equivlent)
For the German „Boden“ vowel we have	----- („boat“?)
For the German „bäten“ vowel we have	----- („fair“?)
For the German „Betten“ vowel we have	„better“
For the German „Götter“ vowel we have	----- (no equivlent)
For the weak German „Dotter“ vowel we have	„bottle“ (***not*** US!)
For the German „raten“ vowel we have	„father“
For the German „Ratten“ vowel we have	„fatter“

But the „equivalent“ vowels do not necessarily sound the same (are not *phonetically comparable*)!

Which vowels are problematical 3?

- ***Some*** of the English vowels seem to fit the framework….. but they are NOT identical



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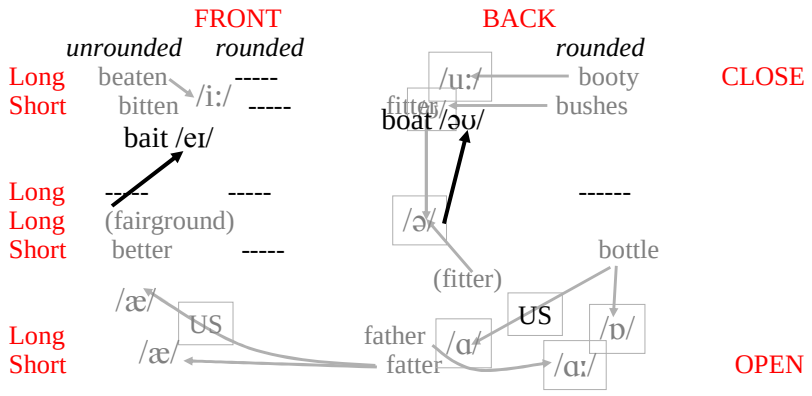
But the „equivalent“ vowels do not necessarily sound the same (are not *phonetically comparable*)!

Which vowels are problematic 3?

- We can fit ***some*** of the English „pure“ vowels (Brit&USA) into the same framework:



For the German „beten“ vowel we don't have an equivalent "pure vowel", but there is a "diphthongal" English vowel which starts close to the German "beten" vowel /e:/ but moves away towards the vowel of "bitten". So it is symbolized by /eɪ/.

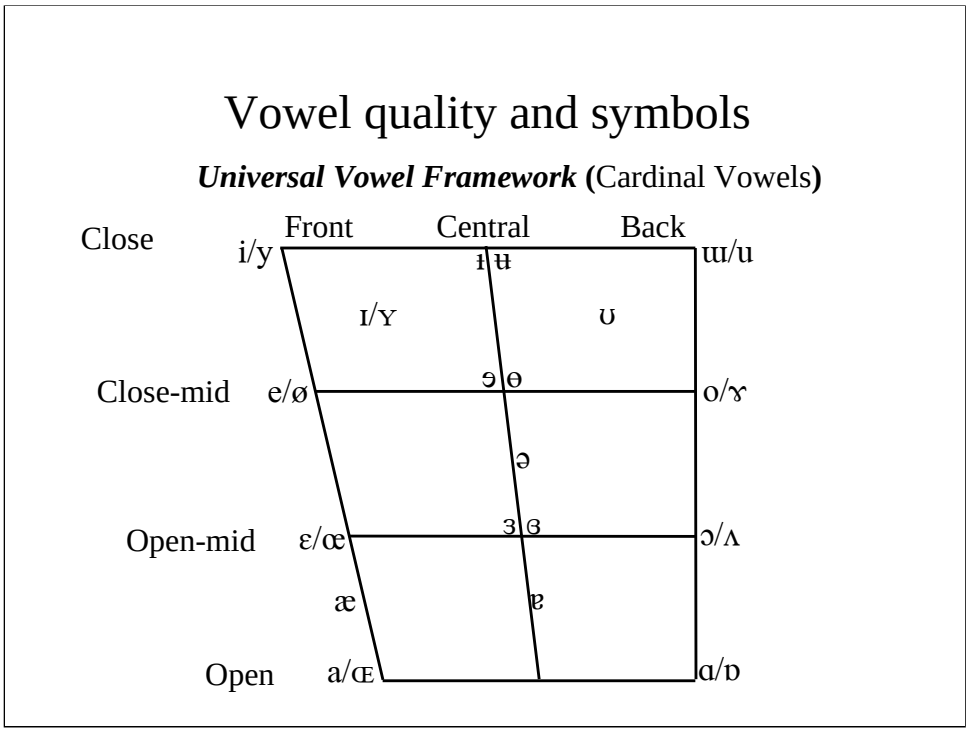
Similarly, for the German „Boden“ vowel we also don't have any equivalent "pure vowel", but there is a "diphthongal" English vowel in "boat" which is used as an equivalent for /o:/ by English learners of German.

That means that it is a new sound for German learners of English. It starts in a central (schwa) position, or a little further back (in some American accents), and moves towards /ʊ/.

There is also a long stressed central vowel /ɜ:/ (as in „*bird*“) with thesame quality as schwa, which is not like any German vowel ….. but which tends to be replaced by German /ø:/ (*H**ö**hle*) or /œɐ/ (*h**ör**t*). This vowel has a postcalic R in US English (and is therefore transcribed as /ɜˑ/ or as /ɜr/.

The British English /ɔ:/ (*caught*) vowel is much higher than German /ɔ/ (*G**o**tt*), but the American /ɔ:/ is very similar in quality (though longer). However, you will probably hear many Americans who pronounce the "*caught*" vowel and the "*bottle*" vowel very similarly, if not identically (as the fronted back [ɑ:])

The short English vowel in words like *bottle, got, shot, body, cough,* etc. is more open and less rounded than the German /ɔ/ (*G**o**tt*) vowel. The US vowel is in fact completely unrounded, and lengthened, and is often (depending on the regional variety) the same as the „***f**a**ther***“ vowel, i.e. the fronted back [ɑ:]).

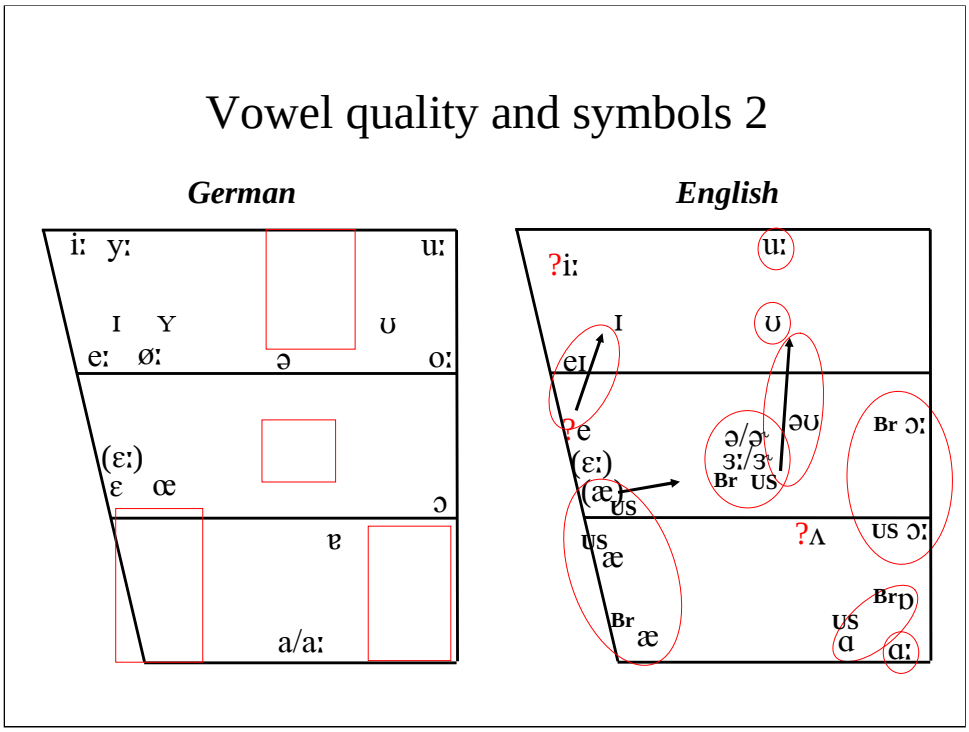


We have been talking about the ***height*** and ***position*** of vowels (and whether they are long or short, rounded or unrounded). Showing words in the respective „positions“ of the vowels, the picture can become rather cluttered.

The (universal) framework for showing the transcription ***symbols for reference vowels*** (often called „**Cardinal Vowels**“) is shown above.
Any linguist wishing to transcribe the vowels of a particular language, is supposed to listen and decide ***which reference vowel is closest to the vowel of the language*** and then choose that symbol as the transcription symbol.

Of course, this means that the vowels of two languages that are slightly (but audibly) different (resulting in a „foreign accent“) ***are likely to be represented by the same symbol*** (see the previous slides where many of the same symbols are used for phonetically different vowels in English and German).
This can be confusing to the (educated) learner, who is accustomed to attaching a great deal of importance to what is written!

So PLEASE REMEMBER. You have to develop an understanding (and auditory memory plus a feel in your mouth) of the English vowels relative to your native (German) vowels. Remember their position in the vowel chart as well as the symbol that is usedfor them.



To summarize what has just been explained:

1. ***The quality of vowels*** in a particular language are only ***approximately the same*** as the qualities defined for the „universal descriptive framework“ (Cardinal Vowels).

2. ***The choice of symbols*** is determined by the proximity of the quality to the Cardinal (reference) Vowel quality.

3. That means that the ***same symbols*** may be used in different languages with ***different vowel qualities***.

This underlines the need to ***listen for and learn the particular quality*** of the vowels, NOT just to learn the symbol that is used to represent it.

Please note the areas of vowel quality that are used in English that are NOT used in German!. We see here that:

English /iː/ is less extreme (more centralized) than the German /iː/;

English /uː/ and /ʊ/ are both articulated much further forward;

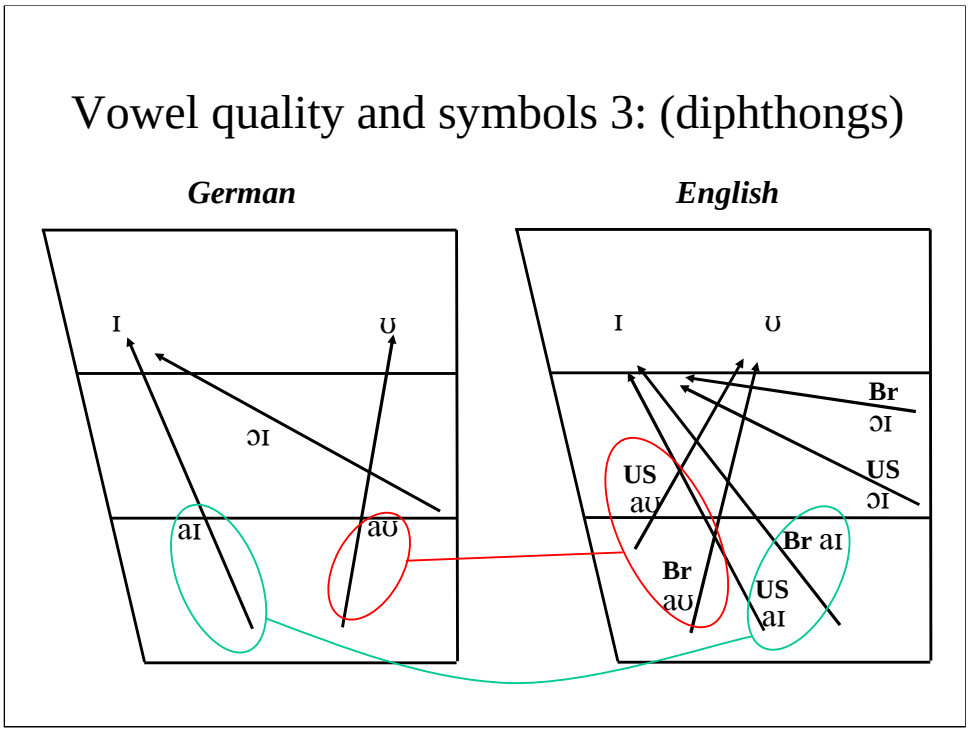
English /æ/ is further forward (and in US English often higher);

English /ɑː/ is further back that German /aː/;

British English /ɒ/ as in "*bottle*" is more open than German /ɔ/ (but the American "*bottle*" has a centralized open [ɑ̟ː] (i.e. a fronted back vowel) which is very similar in quality to the German "*Stadt-Staat*" vowels (and is usually a bit longer than the "*Stadt*" and a bit shorter than the "*Staat*" vowel)

The English schwa (weak or neutral vowel) is more open (lower) than German schwa (as in *bitte*) and more close (higher) than German A-schwa (as in *bitter*).

Of course, the US „schwa“ is often accompanied by a postvocalic /r/, which means that it is R-coloured (transcribed as [ɚ].



The main diphthongs are ***dangerously similar*** in German and English. They are usually represented with the same symbols.

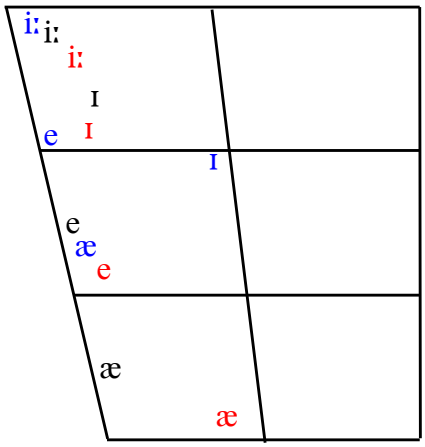
They are called „***falling diphthongs***" because the main weight = time and energy is focussed on the first part; the second part is weaker and less precise.

This is the case for both English and German, but there is also a noticeable difference in the weight of the two parts of the diphthongs in the two languages.
The German diphthongs have slightly less weight on the first part and slightly more weight on the second part. The second part therefore tends to reach a slightly more extreme quality (more [i]-like and more [u]-like).
We see that the ***starting point of the diphthongs*** is noticeably different between German and English (but also between different variants of English!).

Vowel quality variants

beat /iː/
bit /ɪ/
bet /e/
bat /æ/

SBE
NZ & SA
NBE



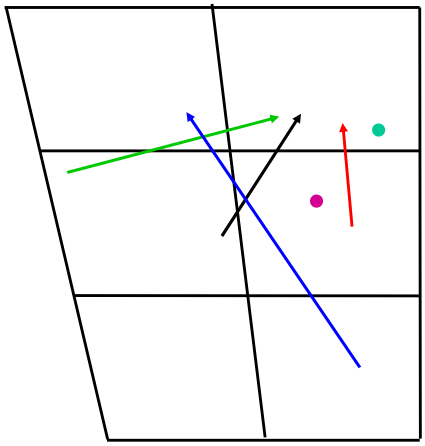
Listening to regional variants of English and seeing their „position“ on the vowel chart makes it very clear that ***knowing the SYMBOL to use for a particular vowel phoneme is not the same as knowing how it sounds***!

The same ***symbols*** are usually used for Standard Southern British English vowels, New Zealand and South African vowels, and for Northern British English vowels (in fact for a great number of regional variants, UNLESS the phonetic differences are being described and explained).

Vowel quality variants 3

"***No hope***" /əʊ/

SBE/US-South
Mid-West
Conserv. RP
NZ & Aus.
Scottish
NBE



The diphthongs also vary a great deal from region to region (although the same transcription symbols are used).

In fact, as we see from this depiction on the vowel chart, there are some ***so-called „diphthong" phonemes*** that are not even diphthongal (see Scottish and Northern British).
It is also very clear that the ***start and end points of the diphthongs can be very different***.

Summary & Conclusions

- Vowels are very prominent signals of the sort of accent you speak
- The symbols used to represent vowels are only a rough indication of the vowel quality to produce.
- ***Nearly all*** English vowels (whether American or British) are ***phonetically different*** from German vowels.
- You need to ***understand*** what the differences are, ***hear*** them, and ***automate their production***!

Read Chap. 5, pp. 105 ff

Complete and hand in the exercise (see exercise sheet)