Version SS 2008

# The Phonetics of English Pronunciation - Week 3

W.Barry
Institut für Phonetik
Universität des Saarlandes
IPUS

## How far have we got, and what did I ask you to do?

1. I suggested that we need to be able to ***describe sounds*** if we are going to be able to deal with differences!

- We looked briefly at ***consonants*** acccording to their ***place*** & ***manner*** of articulation and their ***voicing***.

***And the homework question was***:

- What are the dimensions used for classifying consonants?

*Answer*: No problem (for MOST of you!)

- For <u>*each*</u> dimension, give example ***German*** word pairs with two consonants that are different ONLY because of a switch in that dimension.

Some of you clearly didn't consult the script: It is corrct that we distingish obstruents and sonorants, but they are not the basis for classifying consonants in general.

Some of you started at a finer level than place, manner and voice, giving the different places of articulation (without actually saying that "place" was the dimension they belong to).

## Example word-pairs

*Place*: **m**ein vs **n**ein; Lau**s** vs. Lau**ch**; ki**ck**en vs. ki**pp**en
/x/

***(Why aren't "fad" vs. "Bad" or "Hut" vs. "gut" good examples?)***

*Manner*: **m**ein vs **B**ein; Lau**s** vs. lau**t**; la**ck**en vs. la**ch**en
/x/

***(Why isn't "Saat" vs. "Tat" a good example?)***

*Voicing*: **B**ein vs. **P**ein; **W**ein vs. **f**ein; rei**s**en vs. rei**ß**en
/v/ /z/ /s/

***(Why isn't "Sand" vs. "Hans" a good example?)***

We started with German words to make it clear that there is nothing very special about the descriptive categories we are talking about.

In English, similar word pairs would be:

*Place*: **m**ine vs **n**ine (bilabial vs. alveolar)
ba**ss** (the fish) vs. ba**sh** (alveolar vs. post-alveolar)
li**ck** vs. li**p** (velar vs. bilabial)

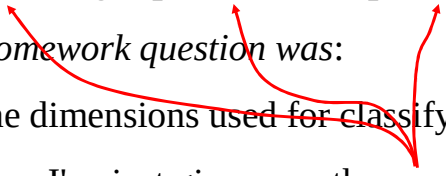
*Manner*: **m**an vs. **b**an (nasal (stop) vs. oral stop or plosive)
li**ce** vs. ligh**t** ((sibilant) fricative vs. plosive (oral stop)
lo**ck** vs. (Scottish) lo**ch** (plosive (oral stop) vs. fricative)

*Voicing*: **b**in vs. **p**in (bilabial voiced vs. bilabial voiceless plosive)
**v**ine vs. **f**ine (voiced vs. voiceless labio-dental fricative)
la**z**ing vs. la**c**ing (voiced vs. voiceless alveolar fricative)

The "bad examples" in the slide change in ***more than one dimension/property***! "Sand" and "Hans" are not comparable words although the /z/ in "Sand" and the /s/ in "Hans" DO only change in their "voicing feature"

## Another area was:

2. ***Vowels***, which are classified according to their tongue ***height***, tongue ***position*** and ***lip shape***….



*… and the homework question was*:

- What are the dimensions used for classifying vowels?

And, of course, I've just given you the answer!

- For *each* dimension, give example German word pairs for two vowels that are different ONLY because of a switch in that dimension

## Example word-pairs

*Tongue position*: B**u**ße vs. b**ü**ße; l**ö**se vs. l**o**se
/uː/ /yː/ /øː/ /oː/

***(Why isn't "Bach" vs. "Buch" a good example?)***

*Tongue height*: s**i**tzen vs. s**e**tzen; s**üh**ne vs. S**öh**ne
/ɪ/ /ɛ/ /yː/ /øː/

***(Why isn't "Hund" vs. "Hand" a good example?)***

*Lip shape*: f**üh**le vs v**ie**le; S**öh**ne vs. s**eh**ne
/yː/ /iː/ /øː/ /eː/

***(Why isn't "Ehe" vs. "Uhr" a good example?)***

There is a fourth dimension, ***length***:
E.g.: **Aa**le vs. **a**lle; **Aa**s vs. **A**s

***(Why isn't "baden" vs. "backen" a good example?)***

Except for the "A" vowels, ***length combines with quality***:
M**ie**te vs. M**i**tte; b**e**ten vs. B**e**tten; H**öh**le vs. H**ö**lle; Sch**o**te vs. Sch**o**tte
/iː/ /ɪ/ /eː/ /ɛ/ /øː/ /œ/ /oː/ /ɔ/

If you look for English words that are distinguished along the same dimensions as the German examples, you see immediately that vowels are less easily equate across the two languages. But the dimensions for describing and categorizing them are basically the same.

*Tongue position*: beat vs. boot is front vs. back
(but ***lip shape co-varies with tongue position***. Front vowels are always unrounded in English (unlike German, which has rounded front vowels) and back vowels are rounded (like German)
The exception to this rule is /ɑː/ ( e.g. in father, palm, etc), which is unrounded. However, the /æ/ - /ɑː/ opposition (Pam vs. palm) is also short vs. long. So ***tongue position alone never distinguishes a word pair in English***.

*Tongue height*: bit vs. bet; look vs lock

*Lip shape*: As stated above, lip shape co-varies with tongue position. so beat vs. boot is both a distinction in tongue position and in lip shape.

## And in English?

- If you look for English words, you immediately see that vowels behave differently. ***But the dimensions for describing and categorizing them are basically the same***:
- *Tongue position*: "beat" vs. "boot" is front vs. back
  (but it is also unrounded vs. rounded:
  ***lip shape co-varies with tongue position***.
  The exception is /ɑː/ ( e.g. in father, palm, etc), which is *back* and *unrounded*. However, the /æ/ - /ɑː/ opposition (Pam vs. palm) is also short vs. long. So ***tongue position alone never distinguishes a word pair in English***.

.To summarize: In English, the back-front dimension (tongue position) does not operate as a distinguishing feature by itself.
It either works together with rounded-unrounded (so that is not very important by itself either) or in the case of /æ/ - /ɑː/ with short vs. long.

## In the script there was the "stress" problem

3. What does English do, in contrast to German, to destress syllables? Give examples.
This appeared to be clear (in theory ☺ ) to most of you.

- Apart from ***shortening*** the syllable and ***reducing the effort*** invested in producing it (which English and German have in common)….

English tends to "***reduce***" the vowel quality to schwa ([ə]).

E.g., *Content* (noun) ['kɒntent] vs. *content* (adj) [kən'tent]
German:*Inhalt*) *zufrieden*

Word pairs that reveal the tendency for vowel reduction to schwa in unstressed position are not very common. But the use of schwa in unstressed syllables IS very common independent of the "vowel letter" that is used in the spelling
E.g.:

p**o**sit**io**n - /pəˈzɪʃən/
canc**e**l - /ˈkænsəl/
import**a**nt - /ɪmˈpɔːtənt/
s**u**spect (verb) - /səsˈpekt/
fac**ia**l - /ˈfeɪʃəl/

(***An exception is <i>, which is often still pronounced /ɪ/ even when unstressed***) :
E.g.

not**i**ce - /ˈnəʊtɪs/

(But Australian and New Zealand English also use schwa (/ə/) here.

But the unstressed /I/ vs. /e/ can be distinctive in British English:

E.g. villages – villagers /ˈvɪlədʒɪz/ vs. /ˈvɪlədʒəz/

## So what about "stress" in compound words?

4. What are the problems with English compounds for German learners of English?

- Many compounds in English follow the same pattern as German compounds (i.e., a strong + weak pattern): ˈ*green*ˌ*house*, the ˈ*White* ˌ*House*, ˈ*summer*ˌ*house*, ˈ*summer*ˌ*time*, ˈ*hay*ˌ*field*, ˈ*hay*ˌ*making* etc.

  But there are certain word classes (e.g., place names) that have a weak + strong pattern: ˌ*Piccadilly* ˈ*Circus*, ˌ*Buckingham* ˈ*Palace*).

Examples of normal strong + weak compunds are:

ˈgreenˌhouse (Treibhaus), the ˈGreen ˌParty
the ˈWhite ˌHouse (das Weiße Haus)
ˈsummerˌtime, ˈsummerˌhouse
ˈhayˌfield, ˈhayˌfever

We shall come back to this problem later in the term.

## And finally, what about intonation?

5. Identify two problems with English intonation for German learners of English?

- a) In German a *rising tone* on accented words is default, while this signals insistance or impatience in English.

  b) A *falling rising tonal accent* can be used in English without continuing, whereas this is not (or very rarely) possible in German; a continuation of the sentence is necessary

Intonation is very difficult to make definite statements about because the use is very dependent on the situation in which the utterance occurs (and the attitude of the person speaking).
The "implicational" meaning of the typical English "falling-rising" contour is completely dependent on an understanding of what is NOT said.
For example, if a person says:

Well ↘I'm not going to ↗help him.

| | |
|---|---|
| It might have the additional meaning | "even if YOU are" |
| or | "even if he offers to pay me" |
| or even | "after he insulted me last week". |

The only thing you can be certain about it is that the speaker has some reasons which he is not talking about (and you as listener may or may not be aware of what the reasons might be)

## Today's programme: *More about Consonants*

- ***We already know*** – we can feel the difference:
  - the place of articulation
  - the manner of articulation
  - whether it is voiced or unvoiced
- Next step: ***Identify*** our consonant systems
  = Systematic inventory of English & German
- BUT – we must also think all the time about ***what our articulators are doing!*** **AWARENESS** ☺

Homework: ***Read*** Eckert &Barry, pp. 36-39
*and* pp. 40-48

The next lap round the problems of pronunciation takes us back to the consonants – ***the sounds we can feel***.

We now know (theoretically) how to describe consonants, so we need to see ***what sounds occur in one of the two languages*** that don‘t occur in the other.

Comparing the sound inventories is an exercise in ***contrastive phonology***. That is purely intellectual, in the first instance. You can **learn** what the differences are ***without really understanding*** the phonetic (articulatory and auditory) phenomena behind the description!

Clearly ***that isn‘t the aim of this course***. So keep listening and observing what your articulators are doing.

## How can we know what's different about consonants?

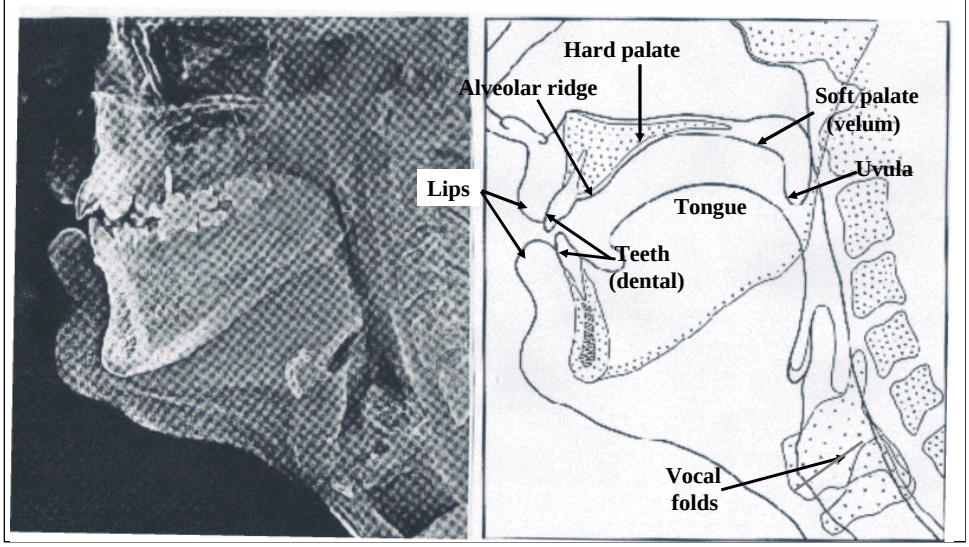
- We'll work through the ***places*** of articulation,
  asking what ***manner*** of articulation exists,
  and whether there is ***voicing*** …
  … in German and English
- That will give us the ***basic information*** to put
  into the two consonant systems:
  We can see which sounds occur in one language but not the other.
- Then we'll ask: ***Is that is the whole picture?***
  Of course it **isn't**:
  There are consonants that ***occur*** in both languages
  but ***behave*** differently

The first step – of ***comparing the inventories*** – is important, but ***that is not all*** we have to look at.

We can then identify the ***problem sounds*** – those that don't occur in our own language. But we need to ask also whether the sounds that ***do*** occur in both actually ***behave the same***.

We can see that they can differ in their ***distribution*** (where the sounds are used) and also in their ***phonetic detail***.

## Places of Articulation




This „***sagittal cross-section***“ of someone‘s head (x-ray on the left, schematic line drawing on the right) is the traditional way of portraying our vocal tract.

You need to learn the ***places of articulation*** that are labeled. The organs of speech are also given in the book.

The ***articulators*** are essentially the bottom lip and the tongue (which can move both independently of, and together with the jaw to get close to (or make contact with) various places of articulation).

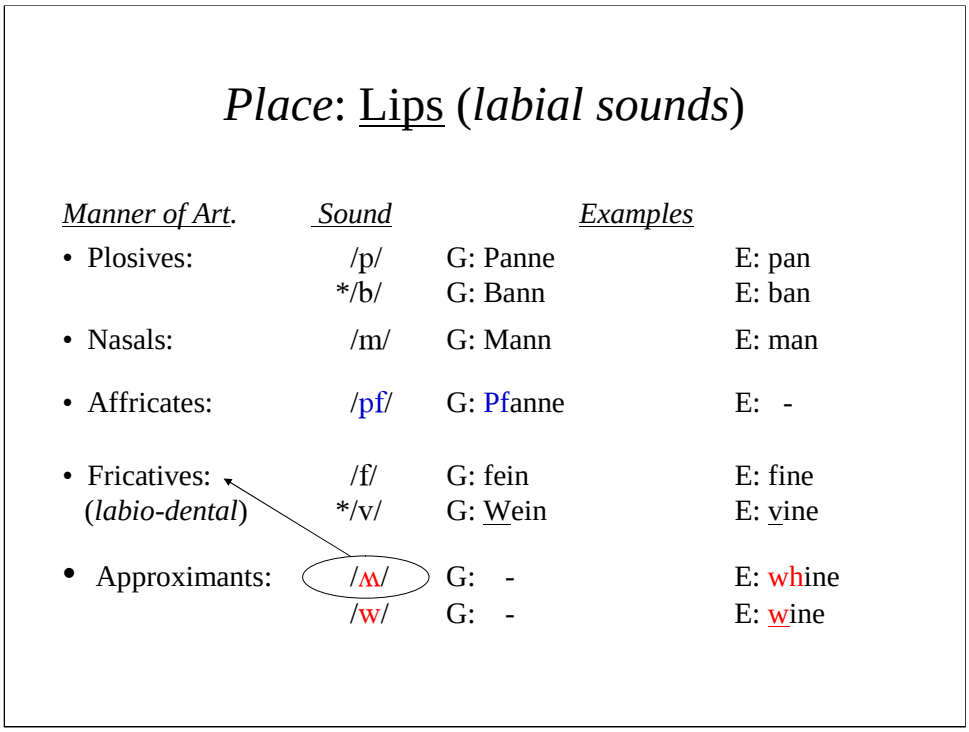
Being two-dimensional, it doesn‘t show anything of the teeth except the incisors, nor does it show much of the complexity of the tongue shape.

The tongue is normally considered to have three or four functionally different regions:

The ***tip and blade*** (sometimes these need to be treated separated), which are only responsible for (front) consonant articulation.

The ***tongue dorsum*** (=back), also called ***tongue body***, which is important for vowel differentiation (and also for back consonants). "Front" and "back" vowels mean that the front and back of the tongue body are implicated.

The ***tongue root***, which is important for pharyngeal consonants and(in some languages) for advanced tongue-root vs. retracted tongue-root vowels.




Taking the most forward place of articulation, the lips, we see that English and German have a couple of differences.

The ***plosives*** (also called „***stops***“, as we know) and the ***fricatives*** are comparable, but German has a labial ***affricate*** (a stop+fricative combination sound) that English doesn‘t have, and English has the ***bilabial approximants*** (now defined as ***"labial-velar approximant"***, because the back of the tongue body is raised as well)that German doesn‘t have. (they used to be called „***glides***“, which I find better than ***approximant*** because the voiceless sound (/ʍ/) – which occurs in Scottish English and some Northern English dialects – is really a fricative (it relies on the sound of the friction for its identity) but occurs in the same contexts and in both cases it is the change of quality, the movement to the next vowel that is the important feature, NOT the velar approximation.

## *Place*: Teeth (*dental sounds*)

| | | | |
|---|---|---|---|
| • Plosives: | ?? | | |
| • Nasals: | ?? | | |
| • Affricates: | ?? | | |
| • Fricatives: | /θ/ | G: - | E: thank |
| | /ð/ | G: - | E: than |
| • Approximants: | ?? | | |

The only sounds articulated against the top incisors are the so-called „inter-dental fricatives“. ***They are probably the best-known of the pronunciation problems***….. But that doesn‘t mean that everybody can pronounce them properly.

First: Please note that there is a ***strong, voiceless*** one (/θ/)and a ***weak*** (often voiced) one (/ð/). The weak one (/ð/) is by far the most common because it occurs initially in so many of the grammatical words (also called function words) like *the, this, these, those, that, there, them*, etc.

but also intervocalically in lexical words like

*mother, father, brother, leather, lather, feather, bathing, soothing*, etc.

The strong, voiceless one (/θ/) seldom occurs in anything but lexical words like *thought, think, thank, theatre, thorny, uncouth, wraith, faith, path, tooth*, etc.

But of course also in *nothing, anything.*

Intervocalically, it only occurs in a small number of monomorphemic words

like *"ether", "lethal" etc.*

When you see a "th" word that you don't know, please check in a dictionary whether it is pronounced /ð/ or /θ/.

## *Place*: Teeth ridge (*alveolar sounds*)

| | | | |
|---|---|---|---|
| • Plosives: | /t/ | G: tut | E: toot |
| | */d/ | G: Daun | E: down |
| • Nasals: | /n/ | G: nun | E: noon |
| • Affricates: | /ts/ | G: Zahn | E: - |
| • Fricatives: | */s/ | G: Bus | E: bus |
| | */z/ | G: lesen | E: lazy |
| • Approximants: | */l/ | G: laut | E: lout |

As you see, the place behind the teeth (the ***alveolar ridge***) is used for a lot of different manners of articulation.

This is due to the mobility and agility of the tongue-tip and -blade, which can be controlled with great precision. It has more sensors than other parts of the tongue.

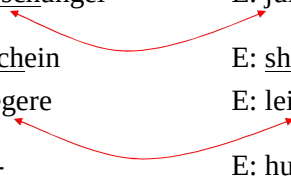
It ***seems*** as if there are no real problems with these sounds, but the asterisks marking /d, s, z/ and /l/ are to remind you that there are ***hidden*** problems!

Also, don‘t forget the differencs in the use of the letter <z> in German and English!

*A final warning*. Pronounce all the words in the right column to yourself and observe (carefully) what you are doing with your tongue tip. Some people pronounce some of the sounds with their tongue tip against their top front teeth. This may make the placement of the tongue for /θ/ and /ð/ a bit more difficult to learn.

## *Place*: ?? (***post*-alveolar sounds**)

| | | | |
|---|---|---|---|
| • Plosives: | ?? | | |
| • Nasals: | ?? | | |
| • Affricates: | /tʃ/ | G: Matsch | E: much |
| | */dʒ/ | G: Dschungel | E: jungle |
| • Fricatives: | /ʃ/ | G: Schein | E: shine |
| | */ʒ/ | G: legere | E: leisure |
| • Approximants: | /ɹ/ | G: - | E: hurry |



Using the tip and blade of the tongue together, and pulling them back a bit from the front part of the alveolar ridge, we have the ***post-alveolar*** sounds.

The ***new sound*** here is the R sound – ***the other well-known problem sound*** in English for Germans (besides /θ/ and /ð/.

There are differences in orthographic representation for the affricates and the fricatives, and I have marked the „voiced“ members of the pairs of sounds with an asterisk to indicate that they cause special problems.

## *Place*: hard palate (*palatal sounds*)

| | | | |
|---|---|---|---|
| • Plosives: | ?? | | |
| • Nasals: | ?? | | |
| • Affricates: | ?? | | |
| • Fricatives: | /ç/ | G: mich<br>?? | E: (*h*uge) |
| • Approximants: | /j/ | G: jung | E: young |

The palatal place of articulation is not used much in either language – even less in English than in German.

There is no serious problem with the /j/ sound.

## *Place*: soft palate (*velar sounds*)

| | | | |
|---|---|---|---|
| • Plosives: | /k/ | G: Katze | E: cat |
| | */ɡ/ | G: Garten | E: garden |
| • Nasals: | */ŋ/ | G: Sänger | E: singer |
| • Affricates: | ?? | | |
| • Fricatives: | /x/ | G: Loch | E: - |
| • Approximants: | ?? | | |

The ***velar*** place of articulation (back of tonguebody = ***back of tongue dorsum*** against the soft palate = ***velum***) is used more in German than English (though Scottish and Irish English also uses the /x/ fricative).

The only problems are those that arise because of the voiced plosive /ɡ/ - hence the asterisk to remind you.

## *Place*: uvula (*uvular sounds*)

| | | | |
|---|---|---|---|
| • Plosives: | ?? | | |
| • Nasals: | ?? | | |
| • Trill | [ʀ] | G: rein | E: - |
| • Fricatives: | [χ] | G: hart | E: - |
| | [ʁ] | G: Ware | E: - |
| • Approximants: | [ʁ̞] | G: Ware | E: - |

English has no ***uvular*** consonants (back of the tongue body against the uvula).

## *Place*: vocal folds (*glottal sounds*)

| | | | |
|---|---|---|---|
| • Plosives: | *[ʔ] | G: [ʔ]immer | E: ?? |
| • Nasals: | - | | |
| • Trill | = ***voicing*** | | |
| • Fricatives: | [h] | G: hart | E: hard |
| | [ɦ] | G: behend | E: behind |
| • Approximants: | - | | |

The vocal folds are what vibrates when we produce voiced sounds.

So, in a way, ***voicing*** is like a „trill“ produced by the vocal folds.

The space between the vocal folds is called the glottis; therefore all sounds produced there are „***glottal***“ sounds.

One of them is not usually considered a consonant because you can‘t actually hear anything: The „***glottal stop***“ is formed just like any other stop sound (like [p], [t], [k]), by making a tight closure to stop the air and then releasing the closure.

In German, the glottal stop is used to start words that begin with a vowel (people talk about a „hard onset“ to the vowel), and it is not considered to be a consonant because it isn‘t reflected in the spelling.

In English, words beginning with a vowel only start with a glottal stop if they are emphasized (otherwise they are ***linked*** to the preceding word – we shall deal with this later in the term). So German learners of English tend to sound too staccato and emphatic!

A glottal consonant that both English and German have is the /h/, which can either be voiceless [h] (at the start of a phrase or following other voiceless sounds) or voiced [ɦ] (when pronounced between vowels). Of course, we don‘t hear the difference normally because the two variants fit their contexts; only if the wrong variant is pronounced can we hear it.

## *English-German consonants*

| | *lab.* | *lab-dent* | *dent.* | *alv.* | *post-alv.* | *pal.* | *vel.* | *uvul.* | *glot.* |
|---|---|---|---|---|---|---|---|---|---|
| *plos:* | p b | | | t d | | | k g | | ʔ |
| *nasal:* | m | | | n | | | ŋ | | |
| *affric:* | pf | | | ts | tʃ dʒ | | | | |
| *fric:* | | f v | θ ð | s z | ʃ ʒ | ç | x | (χ) ʁ | h ɦ |
| *trill:* | | | | (r) | | | | ʀ | |
| *approx* | ʍ w | | | l | ɹ | j | | | |

This table summarizes the differences between the consonant inventories of German and English:

***blue*** for sounds that exist in German but not in English = no problem for German learners of English;

***red*** for sounds that exist in English but not German = ***problem sounds***.

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***You need to know these symbols, and the sounds they stand for.***

So read through slides 8 – 15 again very carefully; Compare the sound symbols with the example words and make a note of the difference between the symbol and the normal orthography (you will see that there is often ***no*** difference, so there is really not very much new to learn).

## *Consonants in syllables!*

***Four*** problem sounds: [ θ, ð, w, ɹ] are very little!

But if sounds you ***know*** can occur in strange places, and then …..
….. they can be even more problematical than the new sounds.

This is the case with ***voiced obstruents*** (plosives and fricatives)
….. they don‘t occur at the end of a word or syllable in German,
***but they do in English***:

G: Räder [ˈʁɛːdɐ] Rad [ʁaːt] vs. E: rider [ˈɹaɪdə] ride [ɹaɪd]
lesen [ˈleːzən] liest [liːst] vs. E: losing [ˈluːzɪŋ] rise [luːz]

So ***Final voiced consonants*** (plosives and fricatives) are a problem for German learners of English

We now find out what was meant by the asterisk marking the „voiced“ obstruent sounds (/b, d, g, v, z, ʒ/)in the earlier slides.

English has voiced obstruent consonants at the end of a syllable or word, German does NOT.

We use the term „***Final Voiced Consonants***“ to identify the problem for German speakers.

## Final voiced consonants *(FVC)*

This problem occurs with ***all voiced obstruents***:

| | |
|---|---|
| /b/ : | robe vs. rope |
| /d/ : | node vs. note |
| /g/ : | league vs. leak |
| /v/ : | leave vs. leaf |
| /ð/ : | bathe vs. bath (/θ/) |
| /z/ : | rise vs. rice |
| /ʒ/ : | liege vs. leash |
| /dʒ/: | ridge vs. rich |

But how do we produce the difference?

We shall deal with it again in more detail next week, but listen to the following pairs!

***cart-card*** ***bend-bent*** ***pined-pint***

***Read E&B IV.1, pp. 40-48 with great diligence!***

The problem is ***not only*** the distributional difference between German and English („Distributional difference“ means – ***voiced and voiceless obstruents syllable- and word-finally in English vs. only voiceless obstruents in that position in German***).

Phonetically, the „voiced“ obstruents ***are often not produced with vibrating vocal folds*** (i.e. there may not be any proper voicing during the consonant).

So the difference must be carried by something else!

If you listen to the example word pairs in this slide, you may be able to identify the difference ***in the sound preceding the /d/ or /t/!*** Listen to the relative length of the sound!

## Consonants in syllables 2

American /t/ and /d/ between vowels!

/t/ : writer, liter, putting, seating,
/d/ : rider, leader, pudding, seeding

The sound is not a real "stop" or "plosive" consonant phonetically!
(it is mostly a "***tap***" or "***flap***", and it is the same for /t/ and for /d/)

So, are the words in the pairs identical?
No! The ***preceding vowel*** is different**!** (***longer before*** /d/)

NB. It is also found in German regional accents – for those who like accents: *Schl. Holst.*: "Meine Mutter mag Butter"

To represent it as a sound we can use what we like!
The „official" IPA symbol for the apical tap is [ɾ] which might make you think of an R sound. You can therefore also use [t̆].

The things we have addressed so far apply to both British and American English.

But the American intervocalic (unstressed) /t/ and /d/ are different from both standard German and British English /t/ and /d/.

Both sounds are produced by ***flapping the tongue tip agains the teeth ridge*** (instead of making a firm closure, as in German and British English).

This makes it a very short sound, and there is no difference between /t/ and /d/ except in the slightly longer vowel preceding the /d/.

There are different ways of transcribing the flapped /t/ and /d/.

- They can be given a diacritic [ ˘ ] to indicate that they are very short: [t̆], [d̆],
- They can be transcribed as an apical (tongue-tip) tap or flap: [ɾ]
- Some teachers in the English Department have adopted the convention of using [ʈ] (which in IPA terms means a [t] produced with the tongue tip turned back slightly (retroflex).

YOU CAN CHOOSE WHAT YOU WANT TO USE, BUT BE CONSISTENT!

Also, when you do the practical course, find out what the teacher expects you to use.

## Consonants in syllables 3

English /l/ can be tricky! There are two qualities

| | |
|---|---|
| ***Clear*** [l]: | light, play, blue, silly, telly ….. |
| ***Dark*** [ɬ]: | tile, seal, tell, call, pull, fold, milk ….. |

We shall go into the details of the articulatory differences between them next week, but listen to these examples:

"***I don't feel too well; I'm feeling a little cold***."

Engl.   

Germ.   

***Read E&B III.1, pp. 10-18 for information about /l/***

Another „problem" consonant that affects learnes of British and American English differently is the /l/.

British English has a „**clear /l/**" before vowels (which is the same as the German /l/) and a „**dark /l/**" in the coda of a syllable (either word finally or preceding another consonant).

The dark /l/ does not exist in standard German (though it does exist in some regional varieties, like in Schmelz in the Saarland, or like Köln German, or „Ruhrpott" and (some of) „Sauerland" German.

Listen to the two speakers and decide whether the woman or the man is German!