Version SS 2008

# The Phonetics of English Pronunciation - Week 4

W.Barry
Institut für Phonetik
Universität des Saarlandes
IPUS

## Are German and English consonants ***very*** different?

- What are the problem consonants? (*Short recapitulation*)
- What is the phonetic nature of the problems?
- What can we do about them?

- Homework: ***Read*** Eckert &Barry, pp. 49-68
  pp. 69-75
  and pp. 87-95

PLUS: Answer the questions on the homework sheet
and hand in by Friday morning 10.00

In case you are looking for the question sheet at the end of the slides, you will not find them.

I am handing out the homework sheets to the students attending the lecture.

## What are the problem consonants?

- We have identified ***four*** **new** sounds: [ θ, ð, w, ɹ]
  (clearly different from any German consonants)
- We identified the problem of "final-voiced consonants"
  (Remember: *cart – card* & *bend - bent*
  ***These are not new sounds***,
  but ***they have a different distribution;***
  i.e. ***they occur in different positions in words***)
- Remember also the "American flapped /t/ and /d/", which you need to be aware of if you are aiming to speak American English. *We'll come back to this later in the lecture.*

The discussion so far shows that there are not many ***completely*** new English sounds for Germans to learn.

However, the ***distribution*** of similar sounds causes problems.

The class of ***voiced obstruents*** (i.e. stops, affricates and fricatives) is a problem of this kind.

**In German they do not occur word- (and syllable-) finally**.

## What are the problem consonants?

- The problem of /l/ was mentioned in the script, but we need to consider it further.
- This sound is also ***not <u>completely</u> new*** …..
  – but it **IS** a new articulation ***in certain contexts*** …..
  though ***not for all German speakers***)

***Let's look at "L" in more detail….***

The /l/ sound is only articulatorily equivalent ***in certain contexts***.

The so-called ***clear /l/*** is the usual German "L"and English has a clear "L" too: So that is the same for German and English, but …..

# The "L" sound

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

***Clear*** [l]: light, play, blue, silly, telly (pre- & intervocalic)
***Dark*** [ɫ]: tile, seal, tell, call, pull, fold, milk (in the syllable coda)

(Standard) German only has the Clear /l/ ….
though there are dark /l/ variants in some regions.

*Let's listen to last week's demo again*:

"***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/***

British English has a „**clear /l/**" before vowels (this is the "L" that 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!

## What IS a dark /l/?

- Articulatory definition of any English (or German) "L":
  ***Alveolar lateral approximant***

I.e., the tip of the tongue touches the alveolar ridge,
and the sides of the tongue are drawn in,
so that the air can escape at the sides (laterally)

- The difference between clear & dark is the ***tongue body*** position:
  ***Front*** part high for "clear" (like /l/ together with [e]): [l]
  ***Back*** part high for "dark" (like /l/ together with [ʊ]): [ɫ]

***Note***: In American (and Australian) English, the /l/ is “dark” even in the British English “clear” /l/ position.

- If you want to sound like a New York gangster, the /l/ is pronounced “dark” all the time: [ˈɫiːv ɪm əˈɫoʊn]

The dark /l/ is produced by making the contact with the the tip of the tongue and trying to pronounce a vowel [ɔː] (as in caught) at the same time.

By contrast the clear /l/ (a German /l/ and the English pre-vocalic and intervocalic /l/ is an /l/ with an accompanying [e] vowel.

Let's return to the problem consonants?

- [ θ, ð]
- [w, ɹ]

## <th> /θ, ð/

- Description: ***Inter-dental or post-dental fricatives***!
  (= create friction with your tongue on your top front teeth!)
- Theoretically …. and even practically no problem ….
  … to start with! (*Read pp. 87-95*)
- Just give yourself a few everyday expressions to practise:

***That's a bit thick***! *not …* ***Zat's a bit sick!***

***Thank you, you're very thoughtful***. *not …*
***Sank you, you're very soughtful.***

***A penny for your thoughts.*** *not …* ***A penny for your soughts.***

This is probably one of the few English sounds that you were told about at school.

Whether you put your tongue tip between your teeth or against the back of your top incisors is unimportant.

Often, people with small front teeth place the tip between their teeth; while those with nice big front teeth can differentiate between their place of articulation for /s, z, t, d/ (alveolar sounds) and /θ, ð/ (dental sounds) by bringing the tip close to the back of the teeth.

***Advanced Note***:

For those of you you are beginning to get a feel for articulatory events as you produce sounds, you may be interested to know that a lot of people produce more of a dental ***affricate*** than a continuant ***fricative***. I.e., they actually produce a closure at the beginning and quickly release it into a dental fricative.

## The effect of <th> on other consonants

- *Fact*: Both ***dental*** and ***alveolar*** sounds use the ***tongue tip***
- *Fact*: We ***economise*** on our articulatory effort wherever possible
- *Fact*: Most alveolar consonants (/t, d, n, l/) don‘t sound very different if you make them dental. (But /s, z/ DO!)

***So, make your alveolars dental before / θ, ð / !***
(then you don‘t have to move your tongue)

In words***:*** ***month,*** [mʌn̪θ] ***health,*** [hel̪θ] ***width,*** [wɪt̪θ]

Across word boundaries***:*** ***in this, on that, all the rest,*** [ɪn̪ ðɪs], [ɒn̪ ðæt], [ɔːɬ̪ ðə rest]

Here we see that a problem sound is not an isolated problem affecting that sound and nothing else.

The place of articulation of the preceding consonant is adjusted ***if it uses the same articulator as the <th>*** (i.e. the tongue tip).

This shows that our plans for producing an utterance are not a „sound-for-sound“ plan, but rather a plan of larger units (sounds in syllables, syllables in words, words in phrases). Here we see that the plan is made to make the transition from alveolar stops and sonorants to dental fricatives as smooth as possible.

***Test yourself***, to see whether you automatically produce a ***dental*** /t, d, n, l/ before <th>. If you don‘t, then it would be good for you to keep on repeating the words and word sequences given in the slide until you produce them automatically with dental clusters.

## What about <th> after /s/ and /z/

- Unlike plosives and nasals, /s/ and /z/ ***cannot become dental*** before the dental fricatives ("***place" is distinctive***)
- So what happens in fluent speech?
  (there's not much time to adjust!)
- Most ***/ð/ words*** are function words and unstressed…..
  …..***the, them, their, though***, etc.
  …. so they are shorter and weaker than stressed words,
  and they are very often produced as [z]. Redundancy makes it unimportant: "***What's the matter***?", "***Pass the salt please.***"
  [ˈwɒts‿zə ˈmætə] [ˈpɑːs‿zə ˈsɔːlt ˌpliːz]

But ***/θ/ words*** after /s/ and /z/ is less easy, because /θ/ words are semantically more important and often accentuated:
…. ***thick, thin, thought, thanks***, etc…. So /s/ and /z/ are often ***tongue-blade*** fricatives (***leaving the tip free*** for /θ/)

Theoretically, the only difference between /θ, ð/ and /s, z/ is the place of articulation, but we can already think about the lack of complete accuracy that is possible in running speech, ***if the context supports the correct interpretation***.

This the case with many /ð/ words because they belong to the group of grammatical (or function) words. They are very predictable in the context and are therefore pronounced weakly. So a slip from /ð/ to a slightly fronted /z/ is quite normal in fluent speech.

The /θ/ words are usually semantically more important, so the [θ] pronunciation is more important.

To allow this to be done smoothly after /s/ or /z/, the alveolar fricatives are articulated with the tongue blade rather than the extreme tip of the tongue. This allows the tip to be lifted smoothly towards the back of the teeth for [θ].

## <w> /w/: What a worry!

- Description: ***Labial-velar glide***.
  … it‘s really an ***/u/ vowel used as a consonant!*** *Read: 69-75*
- *Say*: ***uuuuater, uuuuuish, uuuuuet, uuuueather***!
- But one big problem is the orthography!
  (We can‘t escape from our education ☺ **German <w> = /v/**
- Another problem is /w/ in consonant clusters (**/tw/, /kw/**)
  ….the first consonant ***has to have rounded lips too!***
  ***e.g. twenty twins; quite queer; queen’s question***
- And when you have practised and practised …… the danger is……you over-correct:

***vich is werry vorrying***!

There are ***two special things*** to learn from the /w/:

***The first one*** is that the division between consonants and vowels is not as rigid as you might have thought.

The only thing that makes /w/ a consonant and not an /u/ is ***where it is used***, namely next to vowels. So it doesn‘t carry the syllable, it isn‘t the „nucleus“ of the syllable; it accompanies the nucleus.

***The second*** thing is its effect on other consonants (remember the case of <th>).

If you don‘t round your lips for the /t/ in „twin“ or the /k/ in „queen“,
it will sound wrong – even if you don‘t produce a /v/ afterwards!

This is more difficult than you might think. The /t/ at the beginning of a word in German is only "rounded" of a rounded VOWEL follows.
You will have to consciously practise producing a rounded [$t^w$] and [$k^w$] together with the following /w/.

## <r> /r/ - [ɹ]

- Definition: ***Post-alveolar approximant***
(= blade of tongue pulled back and raised towards front of palate)
- A "tapped" or "flapped" tongue-tip /r/ is often heard in Scotland and Ireland, particularly between vowels: "***very***"

  but the flapped /r/ is the „normal" sort of R after <th> ([θ]):
  "***three***", "***through***", "***thrash***", "***throw***", "***thrift***"
- The /r/ only occurs ***before*** a vowel and ***between*** vowels in ***British*** English. In ***American*** it also occurs ***after*** vowels.

  BE***: fought = fort*** /fɔːt/; AE: ***fought*** /fɔːt/ ≠ ***fort*** /fɔɹt/
  BE***: sought = sort*** /sɔːt/; AE: ***sought*** /sɔːt/ ≠ ***sort*** /sɔɹt/
  Also: BE***: cart*** /kɑːt/; AE: ***cart*** /kɑɹt/
  BE***: dirt*** /dɜːt/; AE: ***dirt*** /dɜɹt/ **or** /dɜˠːt/

The /r/ is a very ***varied*** sound (though there are a lot more variants of R in German than there are in English!! – so have pity on people learning German).

In most parts of the world where English is spoken as a native language, the R is produced at the front of the mouth as a post-alveolar sound (in contrast to the standard German R, which is produced at the back – a uvular sound).

The standard American and British R is a very „***vowel-like***" sound; the tongue doesn't obstruct the airflow. It sounds „funny" as a vowel because the tongue tip is turned up. That is why Americans are immediately recognisable when they say words like "***hard***", "***sort***" etc., with a ***postvocalic R*** (The R affects the vowel before it, so that, really, we don't pronounce vowel + R; the ***whole syllable*** nucleus is R-coloured).

Although <u>*some*</u> British English dialects pronounce the R after vowels, Standard Southern British English does not pronounce a postvocalic R.

The „flapped" /r/ is an optional variant (as it is in Germany – think of the northern Saarland (Ministerpräsident Müller!) and Bavaria or Schleswig Holstein). But in standad British and American English it is nearly always produced after voiceless (strong) <th> because the tongue-tip automatically flaps against the alveolar ridge on its way to the normal /r/ position.

## Practising your Rs

- If you have problems articulating the [ɹ] …**DON'T PANIC!**
  Start with [ɑ::: ɹ ɹ ɑ:::].
  Pronounce a long [ɑ:::::] and slowly ***move your tongue tip up and back …. then down again*** to its [ɑ] position
- ***Don't rush it***. Listen to the effect the tongue raising has on the quality of the sound …..
  …. until you can hear ***you are producing two syllables***.
- Then *practise* your /r/ in words:
  a) intervocalically (***hurry, ferry, lorry, barrier, sorry***)
  b) word initially (***right, rock, rat, rub***)
  c) after /p/ and /b/: (***price***, ***bright***, ***pray***, ***break***, ***prove***)

If you have difficulty with /r/ you should practise it first just as „mouth gymnastics". Some people are lucky and can imitate new sounds without thinking about what they are doing. Others need to consciously form the new sound. They then have to re-enact the „babbling" phase for this sound; they have to relate what they are doing with their articulators to the „sound pattern" that is being produced.

Afterwards practise it in positions where the sounds around it do not interfere – that means: ***word-initially, between vowels, and together with /p/ and /b/*** (because they are produced with the lips and don't influence the tongue).

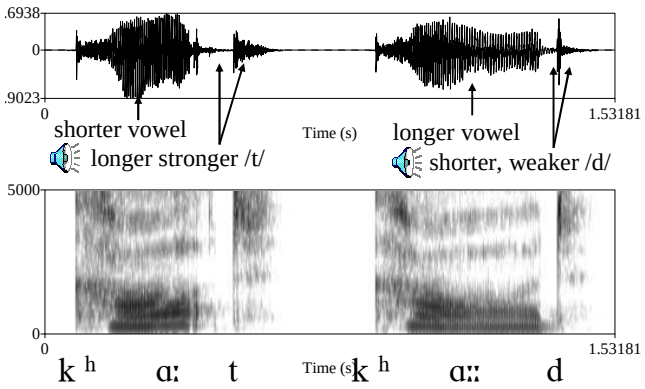
The degree to which the tongue is retracted varies a lot (from region to region) and the „strength" of the R-sound varies correspondingly. American R is usually „stronger" than British English R

It has been found that this results either from a slightly „retroflex" (bent back) tongue shape or by an alternative „bunched" tongue raised towards the palate.

If you are an American-English speaker, you might like to experiment making your /r/ weaker and stronger, either by bending the tip and blade back a bit more or a bit less, or by bunching it up more or less.

# Final-voiced consonants

- We know that German has no FVCs – so ***what must we do differently*** for ***cart*** and ***card***, ***bend*** and ***bent***?




*Terminology*:
longer, stronger = "***fortis***"
shorter, weaker = "***lenis***"

The demonstration will, I hope, convince you that the vowel before a „voiced" consonant is longer andthe consonant is shorter and weaker (I prefer the term „***lenis***" or „***weak***" to „voiced" because the voicing is not as important as the duration differences).

But in „bent" and „bend" you will presumably also have heard the difference in length. However, it is not the vowel that is longer before /d/ but the nasal consonant: „bend" has a longer /n/ than „bent".

The same is found in „pined" vs. pint", „mound" vs. „mount" and also words with /l/: „cold" has a longer /l/ than /colt".

## <ng> /ŋ/

- Definition: ***Velar nasal***
- Appears to be absolutely no problem…..
  English has ***singer***, ***long***, German has ***Sänger***, ***lang***
- But unfortunately, intervocalically ….
  English has ***finger*** /ˈfɪŋgə/, German has ***Finger*** /ˈfɪŋɐ/
- *The basic rule*: (Read VII.1.3, ***pp. 236-8***)
  If the word is ***mono***morphemic, the <ng> is pronounced [ŋg]
  (e.g., ***anger***, ***linger***) but (***bang***) ***banger*** is /ˈbæŋə/

But the basic rule is broken with comparatives and superlatives!
***long*** /lɒŋ/, ***longer*** /ˈlɒŋgə/, ***longest*** /ˈlɒŋgɪst/

/ŋg/ /ŋ/

The difference between "***finger***" and "***sing+er***" follows the basic rule
compare also:

| | |
|---|---|
| ***tango*** | ***hang+ing*** |
| ***kangaroo*** | ***belong+ing*** |
| ***linger*** | ***wing+er*** |
| ***languish*** | ***bang+ing*** |

and the comparative/superlative rule (for a "normal" exception is confirmed
in words like:

| /ŋ/ | /ŋg/ | /ŋg/ |
|---|---|---|
| ***long*** | ***longer*** | ***longest*** |
| ***strong*** | ***stronger*** | ***strongest*** |

But there are always "irregular" exceptions:

/ŋ/

hangar (Flugzeugschuppen)

# American flapped <t> and <d>

- Non-word-final /t/ and /d/ are not really a problem!
  (except for the dental [t̪] before /θ/ and /ð/)
- But ….
  American words like ***writer***, ***letter***, ***tighter***,
  ***rider***, ***wider***, ***louder***,
  have a "flapped" /t/ or /d/ (phonetically [ɾ] or [d̆])

I suggest [d̆] or [t̆]: e.g.[ˈraɪt̆ə˞], [ˈlɛt̆ə˞], [ˈtaɪt̆ə˞],
[ˈraɪd̆ə˞], [ˈwaɪd̆ə˞], [ˈlaʊd̆ə˞],

- *The basic rule*: If the word has the ***first syllable stressed*** and the ***second syllable unstressed***.

  But the rule also applies across word boundaries:
  He ***got a***way [hi ˈgɑt̆ əˈweɪ]; ***Put i***t down [ˈpʊt̆ ɪt ˈdaʊn].

## American flapped <t> and <d> (2)

The sound is not a “stop“ or “plosive“ consonant phonetically!
(it is 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/)

***Note***. It is also found in German regional accents – for those who like accents: *Schl. Holst*.: “Meine Mutter mag Butter; mein Vater auch“

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. Therefore my suggestion: [t̆].

***Note 2***. Between /n/ and schwa(/ə/), the <t> is not pronounced ….
"*winter, enter, center, hunter, counter, gentle,* "
Just like Saarland German!! ("*komm' runner*!")
Historically speaking, ***they have been elided***
(have disappeared completely.

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]
- The English Department has adopted the convention of using [ʈ] (which in IPA terms means a [t] produced with the tongue tip turned back slightly (retroflex)

# Summary

- The English consonant system causes:
- some "***new sound***" problems
- some "***distribution***" problems
- In both cases we need to look at them in terms of how they fit into ***the sounds around them***
- Sounds are not produced in isolation; the ***smallest*** unit of pronunciation is the ***syllable***……

….. and most of our utterances are syllables fitted together for ***words*** and ***phrases***.