Unit 3

Consonants (1)

Approaching consonants via anatomy and articulatory phonetics

Slides for the session of Phonetics with Listening Practice (British) held on

26 / 27 brumaire de l'année CCXXX de la République

(16 / 17 November 2021)



Consonants (1)

Looking ahead

How we make sounds

(Pulmonic) Consonants: dimensions of articulation

You can make any consonant you want

Which English consonants do *you* find difficult?

'Light' (or 'clear') vs. 'dark' / I / — one sound or two?

We are mammals and have mammalian reflexes

Robert Spence LangSciTech Saarland University English Phonetics: Unit 3: ['ɪŋ.qlɪʃ fə.'net.ɪks 'juːn.ɪt' 'θɾiː]

Consonants (1)
['khpnts.(ə)n(.)ən(t)s 'wʌn]

Approaching consonants via anatomy and articulatory phonetics [ə.'pəəʊtʃ.ɪŋ 'kʰɒnt̄s.(ə)n(.)ən(t)s ˌva(ɪ)(.)əɹ _ə.'næt.əm.i _ n _ a:.'tʰɪk.jʊl.ətɹ.i fə.'net.ɪks]

Robert Spence ['ɹɒb.ət 'spens] based on material by William Barry and Ingmar Steiner ['beist_pn mə.'thiə.i.(.)əł bai 'wil.jəm 'bæ.i.jən_'ıŋ.mɑ:ɹ 'stain.ɔ-]

26 / 27 brumaire de l'année CCXXX de la République [vɛ̃t.si bʁy.mɛːʁ / vɛ̃t.sɛt bʁy.mɛːʁ də la.ne dø.sɑ̃.tʁɑ̃t də la ʁe.py.blik] (16 / 17 November 2021) [ˈsɪks.ti:n̥ t̄ θ _ əv / ˈsev.n̞.ti:ṇ t̄ θ _ əv nə(v).ˈvem.bə ˈtwent.i ˈtwent.i ˈwʌn]



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How we make sounds

(Pulmonic) Consonants: dimensions of articulation

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 Over this five-week block we shall be looking at consonants and vowels in more detail.



Consonants (1)

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- We shall begin with consonants, approaching them (this week) via anatomy and articulatory phonetics, and concentrating on English consonants that foreign learners often find 'difficult'.



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- We shall then proceed to look at vowels in more detail, taking a constrastive view of the vowel systems of English and German.



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- We shall then proceed to look at vowels in more detail, taking a constrastive view of the vowel systems of English and German.
- Finally, we shall return to consonants, doing a contrastive study of the consonant systems of English and German.



Consonants (1)

Looking ahead

How we make sounds

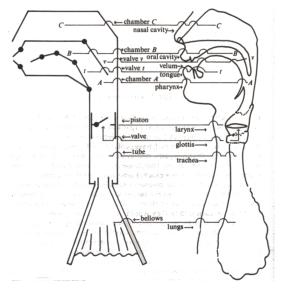
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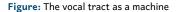
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Which English consonants do you find difficult?

'Light' (or 'clear') vs. 'dark'

The human vocal tract (after Catford)





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We are mammals and have mammalian reflexes

Check out: Glossika Phonics

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 - MANNER of articulation (the "vertical") dimension



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 - MANNER of articulation (the "vertical") dimension
 - plosive, nasal, trill, tap or flap, fricative, lateral fricative, approximant, lateral approximant (make sure you understand what each of these terms means; note Eckert and Barry's way of classifying these into "obstruents" and "sonorants" [E&B: 36-39]; and don't forget to add affricate = plosive+fricative)

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(Pulmonic) Consonants:

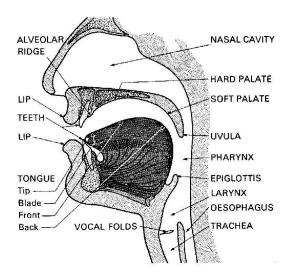
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THE INTERNATIONAL PHONETIC ALPHABET (revised to 2005)

CONSONANTS (PULMONIC)

© 2005 IPA

	Bila	abial	Labio	dental	Den	tal	Alve	olar	Posta	lveolar	Retr	oflex	Pala	ata1	Ve	lar	Uvi	ılar	Phary	ngeal	Glo	ttal
Plosive	p	b					t	d			t	d	С	Ŧ	k	g	q	G			?	
Nasal		m		nj				n				η		Jì		1]		N				
Trill		В						r										R				
Tap or Flap				V				ſ				r										
Fricative	ф	β	f	V	θ	ð	s	Z	ſ	3	ş	Z _l	ç	j	X	γ	χ	R	ħ	ſ	h	ſì
Lateral fricative							4	łz														
Approximant				υ				I				-L		j		щ						
Lateral approximant								1				l		Λ		L						

Where symbols appear in pairs, the one to the right represents a voiced consonant. Shaded areas denote articulations judged impossible.

• Can you make the following sounds?



Consonants (1)

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How we make sounds

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We are mammals and have mammalian reflexes

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- Can you make the following sounds?
 - a voiceless velar fricative

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- Consonants (1)

Looking ahead

How we make sounds

(Pulmonic) Consonants: dimensions of articulation

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We are mammals and have mammalian reflexes

- Can you make the following sounds?
 - a voiceless velar fricative
 - a voiceless uvular fricative



Consonants (1)

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- Can you make the following sounds?
 - a voiceless velar fricative
 - a voiceless uvular fricative
 - a voiceless uvular plosive



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- Can you make the following sounds?
 - a voiceless velar fricative
 - a voiceless uvular fricative
 - a voiceless uvular plosive
 - a voiced velar nasal



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 - a voiceless uvular fricative
 - a voiceless uvular plosive
 - a voiced velar nasal
 - a voiced bilabial fricative



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 - a voiceless uvular fricative
 - a voiceless uvular plosive
 - a voiced velar nasal
 - a voiced bilabial fricative
 - a voiced palatal approximant



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 - a voiceless uvular fricative
 - a voiceless uvular plosive
 - a voiced velar nasal
 - a voiced bilabial fricative
 - a voiced palatal approximant
 - a voiced labiodental approximant



Consonants (1)

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We are mammals and have mammalian reflexes

 Use voicing as well as place and manner of articulation to describe the consonant sounds indicated by the framed graphemes or by the framed IPA symbols:



Consonants (1)

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- [In m email a v o:l wimin lei p t in o:l w o:z]



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 - [In meməli əv o:l wimin lei p t in o:l wo:z]
- Read Eckert and Barry pp 36–39 on manner of articulation and on the voiceless/voiced opposition



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 - •
 - [In memen ac v] : l w In al p t in a: l w] : •
- Read Eckert and Barry pp 36–39 on manner of articulation and on the voiceless/voiced opposition
- We'll follow Eckert and Barry in talking about fortis consonants (stronger, like [p]) and lenis consonants (weaker, like [b])

Which English consonants do you find difficult?

p b			t d		tſ		k g	
	f v	θ ð		s z	t∫ dʒ	∫ 3		h
m			n l			r	ŋ	
w			•			•	j	

pit			to				cod	
bit			do				god	
					\mathbf{chin}			
					gin			
	fin	thin		sin		shin		hit
	van	the		Z 00		vision		
man			not				sing	
			lay			ray		
wet							yet	



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'Light' (or 'clear') vs. 'dark' / I / — one sound or two?

Language	Initial	(e.g.)	Final	(e.g.)	What happens if
					you get it wrong?
Dutch	dark	lekker	dark	wel	you sound foreign
German	light	liegen	light	Milch	you sound foreign
English	light	leaf	dark	milk	you sound foreign
Russian	<i>or</i> light	лук Zwiebel') люк ('Luk(e)')	dark <i>or</i> light	угол ('Ecke') уголь ('Kohle')	you risk being totally and utterly misunderstood

N.B.: The Russian 'light' / 1 / is in fact 'palatalized'. (Wikipedia is your friend.)



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What is this baby hominid doing?







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We are mammals and have

• One of the first things a mammal does ...



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- One of the first things a mammal does ...
- ... after trying out its lungs ...



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- ... is ...



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- One of the first things a mammal does ...
- ... after trying out its lungs ...
- ... is ...
- ... to suck!



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/1/— one sound or two?

We are mammals and have

- One of the first things a mammal does ...
- ... after trying out its lungs ...
- ... is ...
- ... to suck!
- (If it doesn't, it dies.)



Consonants (1)

Looking ahead

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 of the tongue is up, and the back of the tongue is down

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- What is 'both / u / and / i / '?