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Phonology

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***Sound inventories:
similarities and differences
across languages***



obrigado!

thank you!

teşekkür ederiz!

d'akujem vám!

❖ What are the **main differences/similarities** between the **sound inventory of Portuguese** and the **sound inventories** of each of the following languages?

- English
- Turkish
- Slovak

❖ What about the **main challenges** faced by...

... a **Portuguese speaker** when **learning English, Turkish or Slovak**?

... a(n) **English/Turkish/Slovak speaker** **learning Portuguese**?

The sounds of Portuguese: consonants

How
articulation is
(MoA)

Where
articulation is
(PoA)

	Bilabial	Labiodental	Dental	Alveolar	Palatal	Velar	Uvular
Plosive	p b		t d			k g	
Nasal	m			n	ɲ		
Trill							ʀ
Tap/Flap				ɾ			
Fricative	β	f v	ð	s z	ʃ ʒ	ɣ	
Lateral				l	ʎ		

24 consonants

The sounds of American English: consonants

	Bilabial	Labiodental	Dental	Alveolar	Post-alveolar	Palatal	Velar	Uvular	Glottal
Plosive	p b		t d				k g		
Affricate					tʃ dʒ				
Nasal	m			n		ɲ	ŋ		
Trill								ʀ	
Tap/Flap				ɾ					
Fricative	β	f v	θ ð	s z	ʃ ʒ ←		ɣ		h
Approximant				ɹ		j	w		
Lateral				l		ʎ			

24 consonants, but some of them are different from the Portuguese ones in terms of PoA and MoA.

The sounds of American English: consonants

	Bilabial	Labiodental	Dental	Alveolar	Post-alveolar	Palatal	Velar	Uvular	Glottal
Plosive	p b		t d				k g		
Affricate					tʃ dʒ				
Nasal	m			n		ɲ	ŋ		
Trill								ʀ	
Tap/Flap				ɾ					
Fricative	β	f v	θ ð	s z	ʃ ʒ ←	ç	ɣ		h
Approximant				ɹ		j	w		
Lateral				l		ʎ			

Major differences

PoA

- post-alveolar and glottal sounds
- no uvular sounds

MoA

- affricate and approximant sounds
- no trill, no tap/flap

Challenges for a Portuguese speaker learning English (L2)

Challenges for an English speaker learning Portuguese (L2)

The sounds of American English: consonants

Peter Ladefoged, Handbook of the IPA

	Bilabial	Labiodental	Dental	Alveolar	Post- alveolar	Palatal	Velar	Glottal
Plosive	p b		t d				k g	
Affricate					tʃ dʒ			
Nasal	m			n			ŋ	
Fricative		f v	θ ð	s z	ʃ ʒ			h
Approximant				ɹ		j	w	
Lateral				l				

24 consonants, but some of them are different from the Portuguese ones in terms of PoA and MoA.

The sounds of Turkish: consonants

	Bilabial	Labiodental	Dental	Alveolar	Post-alveolar	Palatal	Velar	Uvular	Glottal
Plosive and Affricate	p b		t d		tʃ dʒ	c ɟ	k g		
Nasal	m		n ←			ɲ			
Trill								ʀ	
Tap/Flap				ɾ					
Fricative	β	f v	θ s z ←		ʃ ʒ ←		ɣ		h
Approximant						j			
Lateral			ɫ		→l	ʎ			

24 consonants, but most of them are different from the Portuguese ones in terms of PoA and MoA.

The sounds of Turkish: consonants

	Bilabial	Labiodental	Dental	Alveolar	Post-alveolar	Palatal	Velar	Uvular	Glottal
Plosive and Affricate	p b		t d		tʃ dʒ	c ɟ	k g		
Nasal	m		n ←			ɲ			
Trill								ʀ	
Tap/Flap				ɾ					
Fricative	β	f v	θ s z ←		ʃ ʒ ←		ɣ		h
Approximant						j			
Lateral			ɫ		→ l	ʎ			

Major differences

PoA

- post-alveolar and glottal sounds
- no uvular sounds

MoA

- affricate and approximant sounds
- no trill

Challenges for a Portuguese speaker learning Turkish (L2)

Challenges for a Turkish speaker learning Portuguese (L2)

The sounds of Turkish: consonants

Karl Zimmer & Orhan Orgun, Handbook of the IPA

	Bilabial	Labiodental	Dental	Alveolar	Post- alveolar	Palatal	Velar	Glottal
Plosive and Affricate	p b		t d		tʃ dʒ	c ɟ	k g	
Nasal	m		n					
Tap/Flap				r				
Fricative		f v	s z		ʃ ʒ		ɣ	h
Approximant						j		
Lateral			ɬ		ɭ			

24 consonants, but some of them are different from the Portuguese ones in terms of PoA and MoA.

The sounds of Slovak: consonants

	Bilabial	Labiodental	Dental	Alveolar	Post-alveolar	Palatal	Velar	Uvular	Glottal
Plosive	p b		→ t d			c ɟ	k g		
Nasal	m			n		ɲ			
Trill				r r:				ʀ	
Tap/Flap				ɾ					
Fricative	β	f v	θ	s z	ʃ ʒ ←		ɣ x		h
Affricate				ts dz	tʃ dʒ				
Approximant						j			
Lateral				l l:		ʎ			

29 consonants, but most of them are different from the Portuguese ones in terms of PoA and MoA.

The sounds of Slovak: consonants

	Bilabial	Labiodental	Dental	Alveolar	Post-alveolar	Palatal	Velar	Uvular	Glottal
Plosive	p b			→ t d		c ɟ	k g		
Nasal	m			n		ɲ			
Trill				r r̄				ʀ	
Tap/Flap				ɾ					
Fricative	β	f v	θ	s z	ʃ ʒ ←	ç x			h
Affricate				ts dz	tʃ dʒ				
Approximant						j			
Lateral				l l̄		ʎ			

Major differences

PoA

- post-alveolar and glottal sounds
- no uvular sounds

MoA

- affricate and approximant sounds
- no tap/flap

Challenges for a Portuguese speaker learning Slovak (L2)

Challenges for a Slovak speaker learning Portuguese (L2)

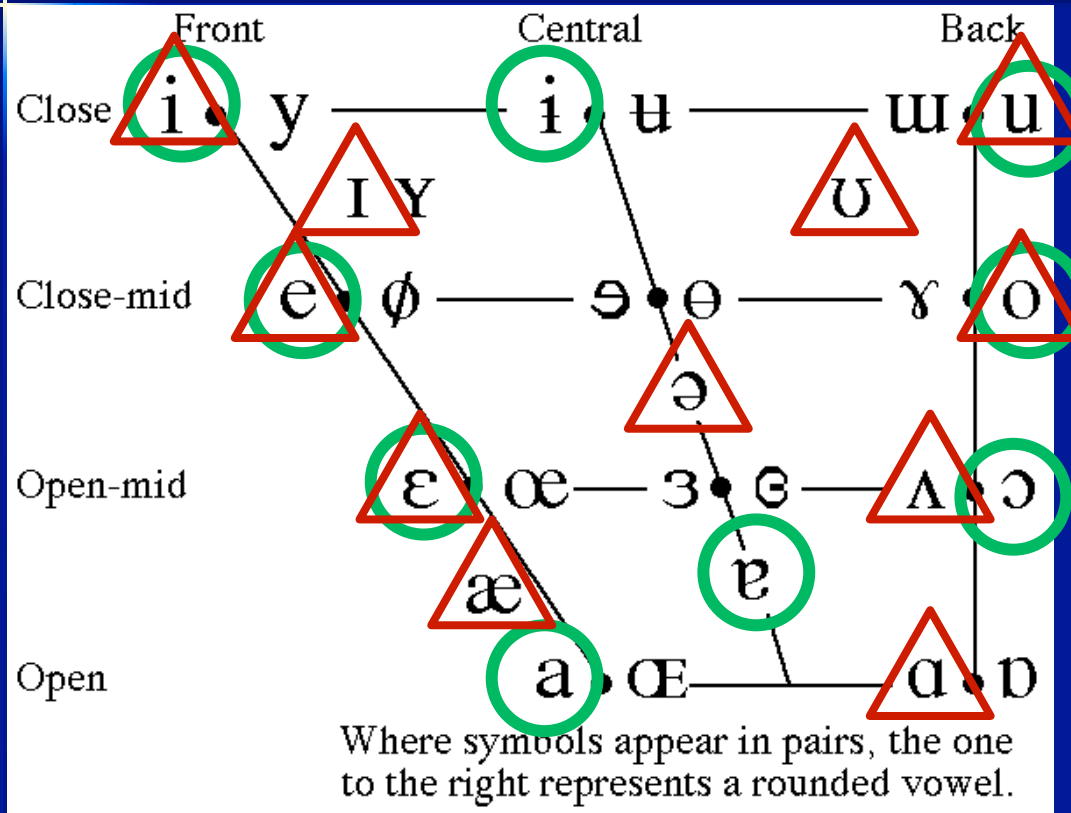
The sounds of Slovak: consonants

A. Hanulikova & S. Hamann (2010)

	Bilabial	Labiodental	Dental	Alveolar	Post-alveolar	Palatal	Velar	Glottal
Plosive	p b			t d		c ɟ	k g	
Nasal	m			n		ɲ		
Trill				r r:				
Fricative		f v		s z	ʃ ʒ		x	ɦ
Affricate				ts dz	tʃ dʒ			
Approximant						j		
Lateral				l l:		ʎ		

29 consonants, but most of them are different from the Portuguese ones in terms of PoA and MoA.

(Oral) vowels: Portuguese vs. English



Challenges

- more vowels in English than in Portuguese

5 common vowels

i e ε u o

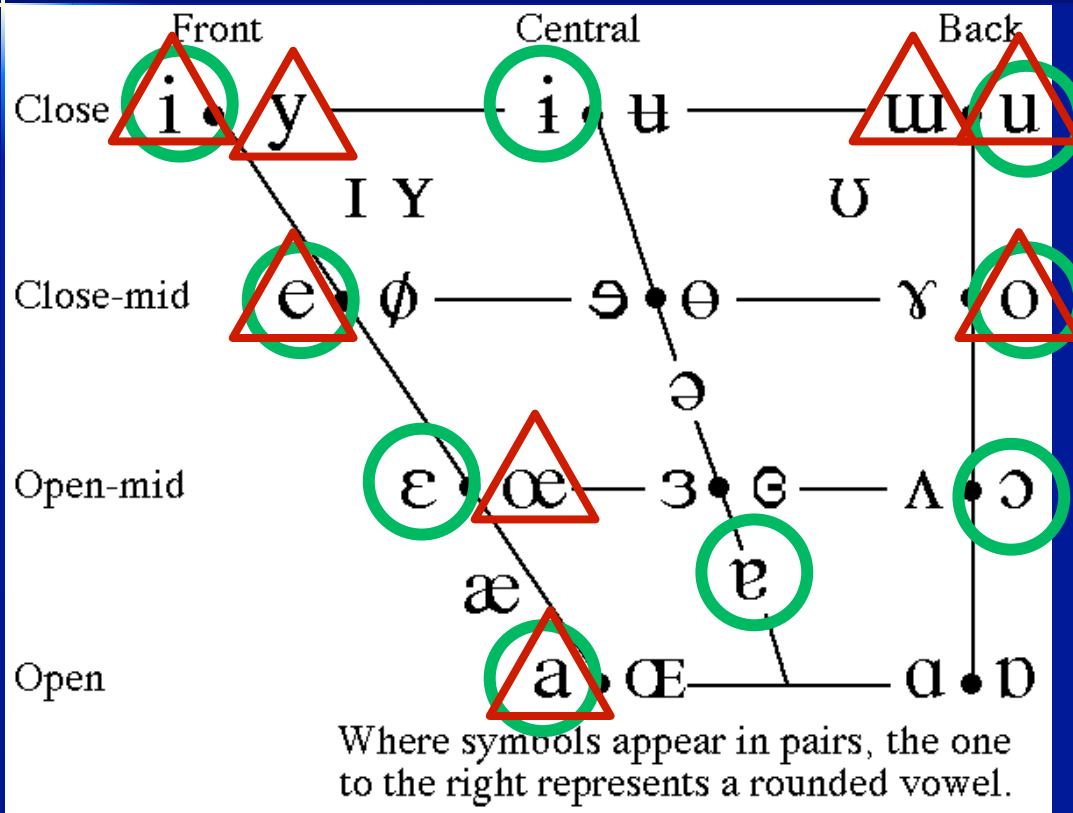
6 difficult vowels for Portuguese speakers

ɪ æ ə ʊ ʌ ɑ

4 difficult vowels for English speakers

a i ɐ ɔ

(Oral) vowels: Portuguese vs. Turkish



Challenges

- no central vowels in Turkish

5 common vowels

i e a u o

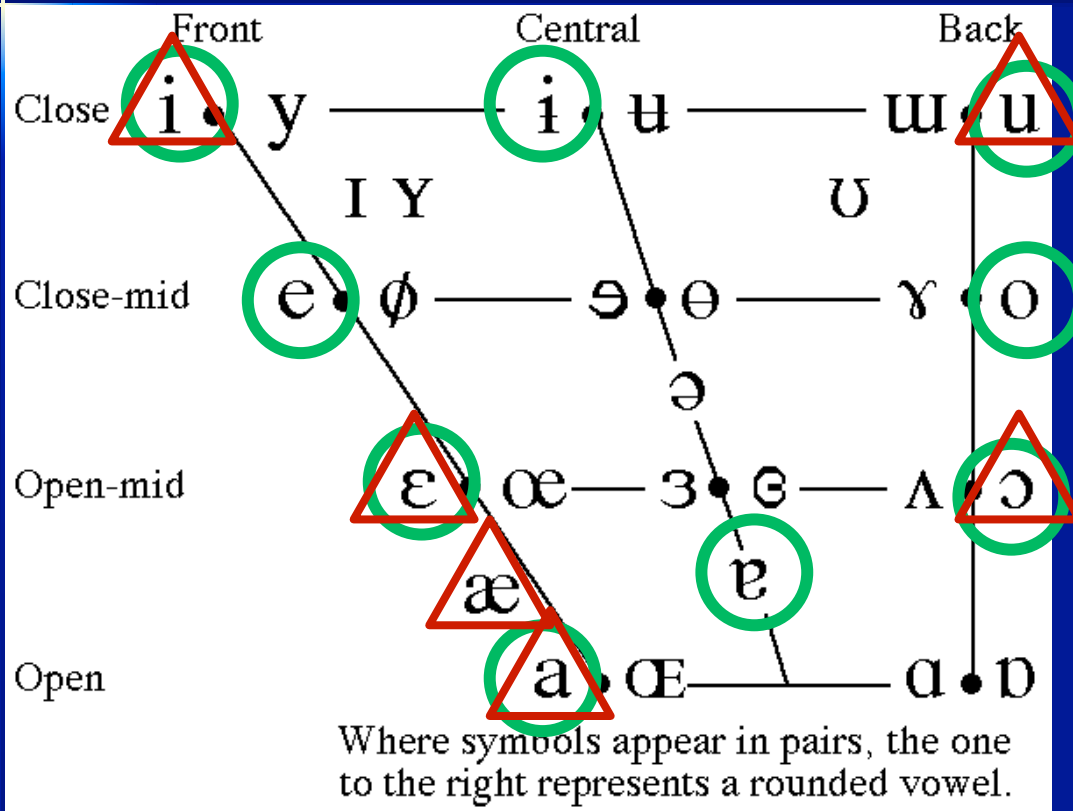
3 difficult vowels for Portuguese speakers

y œ ʌ

4 difficult vowels for Turkish speakers

ɛ ɶ ɶ ɑ

(Oral) vowels: Portuguese vs. Slovak



Challenges

- no central vowels in Slovak

5 common vowels

i ɛ a u ɔ

6 difficult vowels for Portuguese speakers

5 long vowels + æ

4 difficult vowels for Slovak speakers

e i ɐ o

To read more about...

❖ IPA for Slovak:

Hanulikova, A., & Hamann, S. (2010). Illustrations of Slovak IPA. *Journal of the International Phonetic Association*, 40(3), 373-378. doi:10.1017/S0025100310000162.

http://pubman.mpdl.mpg.de/pubman/item/escidoc:354968:12/component/escidoc:551556/Hanulikova_Slovak_2010.pdf

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Muito obrigada!
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