

BBN–ANG–242 Phonology

4. Vowel categories and R-influence; /ʌ/ vs. /ɔ/ vs. /ɑ:/

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Vowel categories and R-influence

Categorization of SSBE vowels

on a phonetic basis

Monophthongs		Diphthongs
Short	Long	
ɪ	ɪ:	ɪj
ɛ	ɛ:	ɛj
a	ɑ:	aʷ
ʌ		ɑj
ə	ə:	əʷ
ɔ	o:	oj
ʈ	(ʈ:)	ʈʷ

Vowels and their distribution

A basis for phonological categorization

		__C	__#	__V
CHECKED	ɪ ɛ ʌ ɔ ʊ	✓	✗	✗
R	ə ɑː ɛː ɔː ɪː ɛː	✓	✓	✗
FREE	ɪj ʊw ɛj əw ɑj ʌw ɔj	✓	✓	✓

Checked vowels and their pre-R counterparts

not before R		before R	
at	a t	a <u>r</u> t	a: t
pot	p o t	po <u>r</u> t	p o: t
fist	f i s t	fi <u>r</u> st	f ə: s t
bet	b e t	Be <u>r</u> t	b ə: t
bun	b u n	bu <u>r</u> n	b ə: n
put	p u t	pu <u>r</u> r	p ə:

Checked vowels and their pre-R counterparts

not before R	before R
a	a:
ɔ	o:
ɪ	e:
ɛ	
ʌ	
ɥ	

Checked vowels and their pre-R counterparts

The development of the pre-R counterparts of short vowels

short V	pre-R broadening	loss of /r/ + compensatory lengthening*
a r	a r	a:
ɔ r	o r	o:
i r	ɛ r	ɛ:
ɛ r		
ʌ r		
ʊ r		

* See the slides of the previous lesson (lesson 3) too.

Checked vowels and their pre-R counterparts

The development of the pre-R counterparts of short vowels

first NURSE merger

ɪr	ɚ	e:
ɛr		
ʌr		
ʊr		

Checked vowels and their pre-R counterparts

cat	/a/	car, card	/ɑ:/	carrot, marry	/a/
bet	/ɛ/	her, Bert	/ə:/	America, very	/ɛ/
fist	/ɪ/	fir, first	/ɐ:/	mirror, miracle	/ɪ/
pot	/ɔ/	for, port	/o:/	sorry, borrow	/ɔ/
fun	/ʌ/	fur, burn	/ə:/	hurry, current	/ʌ/
put	/ʊ/	purr, purse	/ɐ:/	courier	/ʊ/

Carrot phenomenon:

broadening does not apply if the stressed checked vowel is followed by an *r* which is followed by a pronounced vowel within the word.

Checked vowels and their pre-R counterparts

Further examples – transcription practice

hand, chat

spot, doctor

help, effect

ink, fit

hunt, fun

bush, pull

hard, chart

sport, boroder

term, refere

girl, firr

hurt, furr

Checked vowels and their pre-R counterparts

Further examples – transcription practice

hand /hánd/, chat /tʃát/

spot /spót/, doctor /dóktə/

help /hélp/, effect /ɪfékʔ/

ink /ínk/, fit /fít/

hunt /hánt/, fun /fán/

bush /búʃ/, pull /púl/

hard /há:d/, chart /tʃá:t/

sport /spó:t/, border /bó:də/

term /té:m/, refer /rɪfé:/

girl /gé:l/, fir /fé:/

hurt /hé:t/, fur /fé:/

Free vowels and their pre-R counterparts

not before R		before R		
bee	bɪj	beer	(bɪj.ə)	bɪ:
queue	kjɥw	cure	(kjɥw.ə)	kjo:
so	səw	sore	—	so:
pay	pɛj	pair	—	pɛ:
tie	taj	tyre	taj.ə	(ta:)
how	haw	hour	aw.ə	(a:)
coy	koj	coir	koj.ə	(ko:)

Free vowels and their pre-R counterparts

not before R	before R	
ɪj	(ɪj.ə)	ɪː
ʊw	(ʊw.ə)	ʊː
əw	—	
ɛj	—	ɛː
ɑj	ɑj.ə	(ɑː)
aw	aw.ə	
oj	oj.ə	(oː)

Free vowels and their pre-R counterparts

The development of the pre-R counterparts of diphthongs

diphthong	breaking	R-dropping	the loss of /j/ (diphthong formation)	smoothing*
ɪjɹ	ɪjər	ɪjə	ɪə	ɪː

* See the slides of the previous lesson (lesson 3) too.

Free vowels and their pre-R counterparts

Further examples – transcription practice

fee – fearu

weed – weirdu

freely – clearuly

two – touru

unity – securuity

duty – duruing

Free vowels and their pre-R counterparts

Further examples – transcription practice

fee /fíj/ – fear_u /fí:/ (/fíjə/)

weed /wíjd/ – weird_u /wí:d/ (/wíjəd/)

freely /fríjlɪj/ – clear_u /klí:lɪj/ (/klíjəlɪj/)

two /túw/ – tour_u /tó:/ (/túwə/)

unity /júwnɪtɪj/ – securuity /sækjó:rɪtɪj/ (/sækjúw(ə)rɪtɪj/)

duty /djúwtɪj/ – duruing /djó:rɪŋ/ (/djúw(ə)rɪŋ/)

Free vowels and their pre-R counterparts

Further examples – transcription practice

stay – stairɪ

Canadian – Hungarɪan

lady – Marɪy

explode – explorɪd

mode – morɪe

Estonian – historɪan

Free vowels and their pre-R counterparts

Further examples – transcription practice

stay /stéj/ – stair /sté:/

Canadian /kənédɪjən/ – Hungarian /hÁŋgé:rijən/

lady /léjdɪj/ – Mary /mé:rij/

explode /ɪkspléwd/ – explored /ɪkspló:d/

mode /méwd/ – more /mó:/

Estonian /ɛstéwnɪjən/ – historian /hɪstó:rijən/

Free vowels and their pre-R counterparts

Further examples – transcription practice

hi – hire

wise – wires

tide – tired

out – our

south – sour

loudly – hourly

Free vowels and their pre-R counterparts

Further examples – transcription practice

hi /háj/ – hire /hájə/ (/há:/)

wise /wájz/ – wires /wájəz/ (/wá:z/)

tide /tájd/ – tired /tájəd/ (/tá:d/)

out /áwt/ – our /áwə/ (/á:/)

south /sáwθ/ – sour /sáwə/ (/sá:/)

loudly /láwdlɪj/ – hourly /áwəlɪj/ (/á:lɪj/)

Vowels and their distribution

A basis for phonological categorization

		__C	__#	__V
CHECKED	ɪ ɛ ʌ ɔ ʊ	✓	✗	✗
R	ə ɑː ɛː ɔː ɪː ɛː	✓	✓	✗
FREE	ɪj ʊw ɛj əw ɑj ʌw ɔj	✓	✓	✓

Vowels and their distribution

A basis for phonological categorization

			__C	__CC	__#	__V	__'
CHECKED		ɪ ɛ ʌ ɔ ʊ	✓	✓	✗	✗	✓
R	BROAD	ɑ: ə: o:	✓	✓	✓	✗	✓
	SCHWA	ə	✓	✓	✓	✗	✗
	SMOOTH	ɪ: ɛ:	✓	✗	✓	✗	✓
FREE		ɪj ʊw ɛj əw ɑj ʌw oj	✓	✓	✓	✓	✓

Vowels and their distribution

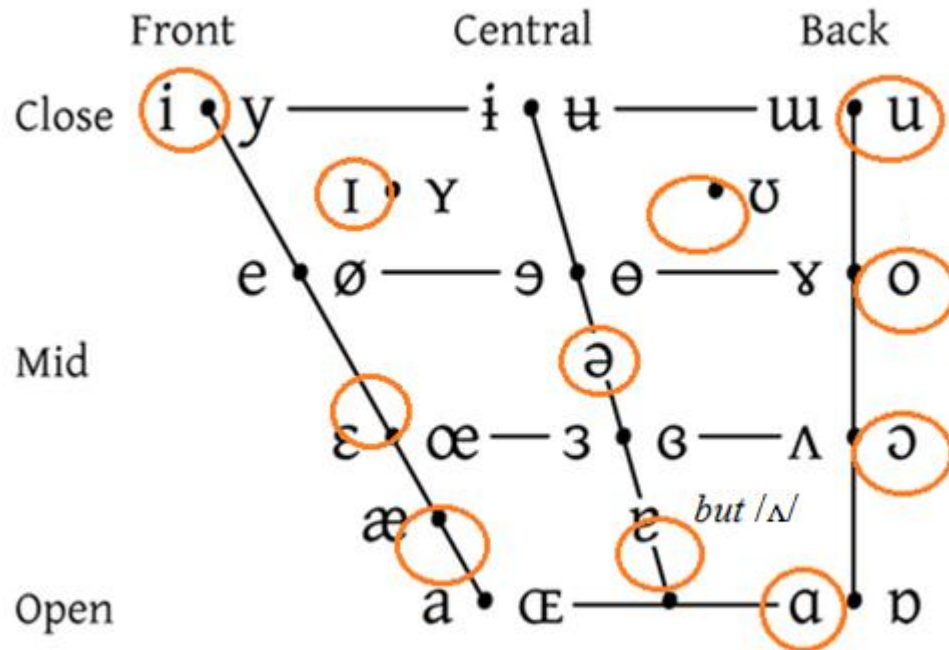
A basis for phonological categorization

			__C	__CC	__#	__V	__'
CHECKED		ɪ ɛ ʌ ɔ ʉ	✓	✓	✗	✗	✓
R	BROAD	ɑ: ə: ɔ:	✓	✓	✓	✗	✓
	SCHWA	ə	✓	✓	✓	✗	✗
	SMOOTH	ɪ: ɛ:	✓	✗	✓	✗	✓
FREE		ɪj ʉw ɛj əw ɔj ɔw ɔj	✓	✓	✓	✓	✓

Vowel contrasts

/ʌ/ vs. /ɔ/ vs. /ɑ:/

VOWELS



Vowels at right & left of bullets are rounded & unrounded.
 SSBE monophthongs in the IPA vowel space

/ʌ/ vs. /ɔ/

Spelling	Pronounced as	
	/ʌ/	/ɔ/
a		wa <u>tc</u> h, wh <u>a</u> t, qu <u>a</u> lity <i>(after /w/)</i>
o	l <u>o</u> ve, c <u>o</u> me, am <u>o</u> ng, col <u>o</u> ur <i>(50 words)</i>	dog, bot <u>o</u> m, <u>o</u> pera, s <u>o</u> ck <i>(regular)</i>
u	<u>u</u> p, fu <u>u</u> ny, cu <u>u</u> t, hu <u>u</u> rry, pu <u>u</u> blic <i>(regular)</i>	
ou	do <u>u</u> ble, cou <u>u</u> try <i>(12 words)</i>	
oo	blo <u>o</u> d, flu <u>o</u> d <i>(2 words)</i>	

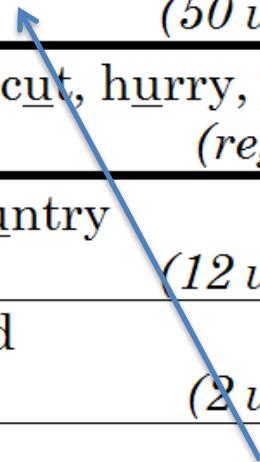
/ʌ/ vs. /ɔ/

Spelling	Pronounced as	
	/ʌ/	/ɔ/
a		watch, what, quality <i>(after /w/)</i>
o	love, come, among, colour <i>(50 words)</i>	dog, bottom, opera, sock <i>(regular)</i>
u	up, funny, cut, hurry, public <i>(regular)</i>	
ou	double, country <i>(12 words)</i>	
oo	blood, flood <i>(2 words)</i>	

want words

/ʌ/ vs. /ɔ/

Spelling	Pronounced as	
	/ʌ/	/ɔ/
a		wa <u>tc</u> h, wa <u>tc</u> h, qua <u>l</u> ity <i>(after /w/)</i>
o	lo <u>v</u> e, co <u>m</u> e, am <u>o</u> ng, co <u>l</u> our <i>(50 words)</i>	do <u>g</u> , bo <u>tt</u> om, o <u>pe</u> ra, so <u>ck</u> <i>(regular)</i>
u	u <u>p</u> , fu <u>n</u> ny, cu <u>t</u> , hu <u>rr</u> y, pu <u>b</u> lic <i>(regular)</i>	
ou	do <u>u</u> ble, co <u>u</u> ntry <i>(12 words)</i>	
oo	blo <u>o</u> d, flo <u>o</u> d <i>(2 words)</i>	



love words

/ʌ/ vs. /ɔ/

love words

Before <i>m</i>	Before <i>n</i>	Before <i>v</i>	Bef. other cons.	
com <u>e</u> (becom <u>e</u>)	o <u>n</u> e (o <u>n</u> ce)	M <u>o</u> nday	lo <u>v</u> e	oth <u>e</u> r
com <u>o</u> fort (-able)	no <u>n</u> e	L <u>o</u> ndon	do <u>v</u> e	broth <u>e</u> r
com <u>o</u> pany	do <u>n</u> e	ho <u>n</u> ey	glo <u>v</u> e	moth <u>e</u> r
(accom <u>o</u> pany)	so <u>n</u>	mo <u>n</u> ey	ab <u>o</u> ve	noth <u>o</u> ing
accom <u>o</u> plish	to <u>n</u>	(mo <u>n</u> etary)	co <u>v</u> er (re-, dis-)	
com <u>o</u> pass	w <u>o</u> n	fron <u>t</u> (con-)	co <u>v</u> ert	do <u>z</u> en
stom <u>o</u> ch	w <u>o</u> nder	fron <u>t</u> ier	co <u>v</u> et	col <u>o</u> ur
so <u>m</u> e	mo <u>n</u> k	o <u>n</u> ion	co <u>v</u> enant	
som <u>o</u> ersault	mo <u>n</u> key	sp <u>o</u> nge	o <u>v</u> en	w <u>o</u> rry
So <u>m</u> erset	co <u>n</u> stable	mo <u>n</u> grel	sh <u>o</u> ve	bo <u>r</u> ough
	co <u>n</u> jure	am <u>o</u> ng	sh <u>o</u> vel	th <u>o</u> rough
	"b <u>ü</u> vészkedik"	to <u>n</u> gue	go <u>v</u> ern (-ment)	
	mo <u>n</u> th		slo <u>v</u> enly	

... vs. /ɑ:/

	CUBE	GenAm
LOT	ɔ	ɑ
PALM	ɑ:	

START

e.g. *car, hard, pharmacy, heart*

PALM

e.g. *calm, bra, father*

BATH

e.g. *ask, dance, staff*

Terms to check

- **checked vowels**
- **free vowels**
- **R-vowels**
 - **broad vowels**
 - **pre-R broadening**
 - **first NURSE merger**
 - **R-dropping**
 - **compensatory lengthening**
 - **smooth vowels**
 - **pre-R breaking**
 - **R-dropping**
 - **smoothing**
 - **schwa**

Recommended reading

- **Vowel categories and R**
(<http://seas3.elte.hu/phono/notes/141-R.html>)