BBN–ANG–141 Foundations of phonology
10. Phonotactic constraints

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outline

introduction

phonotactic constraints
- word edges
- sonorants
- vowel+consonant
- some consonant+vowel restrictions

language change

loanwords

sample exam questions

element combinations

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IMPOSSIBLE		

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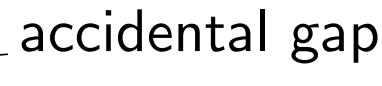
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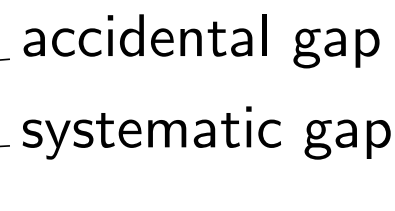
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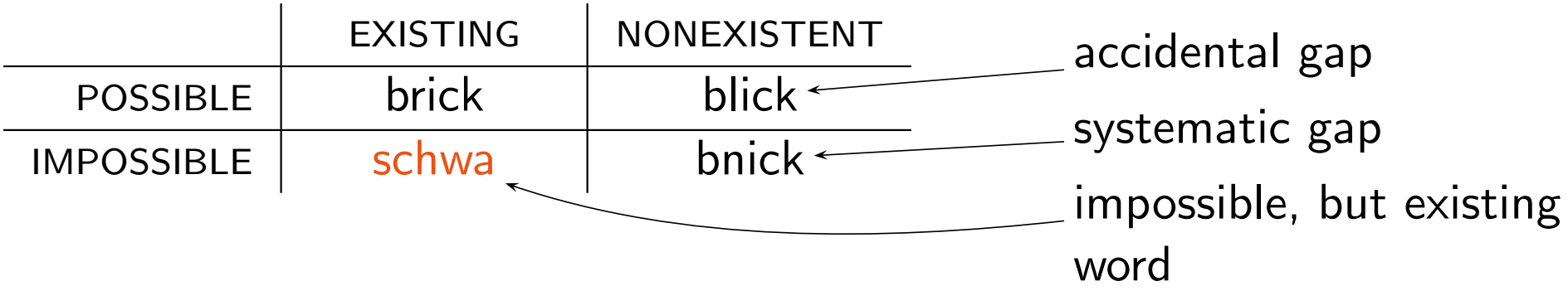
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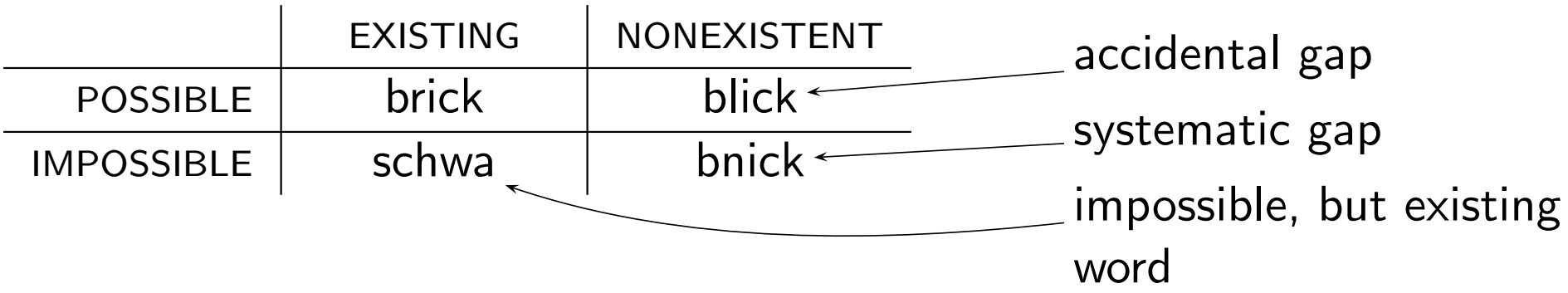
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- many words not filtered out by phonotactic constraints still do not exist (ACCIDENTAL GAPS)
- some words are filtered out (because they contain a rare string), still they do exist
- actually, *blick* is an existing, but rare word

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  - between two consonants, C⇔C
  - sometimes between a vowel and the following consonant, V⇔C
  - rarely between a consonant and the following vowel, C⇔V
- usually only adjacent (=neighbouring) segments are affected

the beginning of the word

vowels

short u, long uː, and uw are very rare (*umlaut; Uhrsprache; oodles, ooze*)
but this does not seem to be systematic

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consonants

/ŋ/ does not occur

#CC type 1: SC

S = sibilants: s z ʃ (ʒ tʃ dʒ)

sp spot		
st stop		
stʃ stew		
sk Scot		
sm smock		
sn snot		
sl slot		
	ʃr shred	
sw swat		

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sk Scot		
(sf sphere)		
sm smock	(ʃm schmooze)	
sn snot	(ʃn schnapps)	
sl slot	(ʃl schlep)	(zl zloty)
(sr Srinagar)	**ʃr shred**	
sw swat	(ʃw schwa)	(zw Zwingli)
(sj suit)		(zj Zeus)

(marginal clusters in parentheses)

#CC type 2: TR

T = nonsibilant obstruents; R = nonnasal sonorants: r l w (not j)

pl plank	**pr prank**	
bl black	**br brack**	
fl flank	**fr frank**	
	tr train	**tw twain**
	dr drill	**dw dwell**
	θr thrack	**θw thwack**
kl clack	**kr crack**	**kw quack**
gl glad	**gr grad**	

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bl black	**br brack**	(bw bwana)
fl flank	**fr frank**	(fw phwoar)
(vl vlog)	(vr vroom)	(vw Vuitton)
	tr train	**tw twain**
	dr drill	**dw dwell**
	θr thrack	**θw thwack**
kl clack	**kr crack**	**kw quack**
gl glad	**gr grad**	(gw guacamole)

#CC type 3: Cj

	OLD	NEW
LABIAL		
pure	pjoː	
beauty	bjʉwtɪj	
few	fjʉw	
view	vjʉw	
mute	mjʉwt	
DENTAL		
Thule	θjʉwl	θʉwl
ALVEOLAR		
suit	sjʉwt	sʉwt
Zeus	zjʉws	zʉws
Luke	ljʉwk	lʉwk
new	njʉw	nʉw

	OLD	NEW
ALVEOLAR		
tube	tjʉwb	tʃʉwb
dune	djʉwn	dʒʉwn
PALATAL		
rule	rʉwl	
chew	tʃʉw	
juice	dʒʉws	
chute	ʃʉwt	
jupe	ʒʉwp	
VELAR		
cute	kjʉwt	
gue	gjʉw	
huge	hjʉwdʒ	

#CCC: sTR & sCj

spl split	**spr spring**		**spj spew**
	str strap	*stw	**stj/stʃ stew**
(skl sclerosis)	**skr scratch**	**skw squad**	**skj skew**
*sfl	(sfr sphragistic)		*sfj
			(smj smew)
			*snj
			(slj sluice)

the end of the word

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- h does not occur

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- in nonrhotic accents r does not occur

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  - if these words are CVC, they do

CC# type 1: NT

LABIAL	DENTAL	ALVEOLAR	PALATAL	VELAR
mp hemp		**nt bent**	**ntʃ bench**	**ŋk bank**
(mb corymb)		**nd bend**	**ndʒ sponge**	(ŋg langue)
mf nymph	**nθ month**	**ns pence**	(nʃ avalanche)	
*mv	*nð	**nz bronze**	(nʒ mélange)	

CC# type 2: lC

LABIAL	DENTAL	ALVEOLAR	PALATAL	VELAR
lp help		**lt belt**	**ltʃ belch**	**lk bulk**
(lb bulb)		**ld held**	**ldʒ bulge**	(lg Glenelg)
lf shelf	**lθ filth**	**ls else**	(lʃ Welsh)	
lv twelve	*lð	(lz Charles)	*lʒ	
lm film		(ln kiln)		*lŋ

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CCC#

mpt prompt	mps glimpse	(lpt sculpt)
ŋkt instinct	ŋks lynx	(lkt mulct)

nonnasal sonorants

	_V	_#	_C
h	*hen* hen, *inhale* inhejl	—	—
r	*run* rən, *Henry* henrij	—	—
l	*let* let, *goblet* goblət	*tell* tel	*help* help
j	*yet* jet, *onion* ənjən	*hay* hej	*voice* vojs
w	*wet* wet, *equal* ijkwəl	*how* haw	*house* haws

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- l is being replaced by w when not before a V (in this novel variety l also only occurs before a V)
- if we analyse vowel + glide sequences as diphthongs then j and w also only occur before a V

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- some long vowels (the broad ones: aː oː əː) may occur before two consonants (eg *task* taːsk, *auction* oːkʃən, *excerpt* eksəːpt), others (the smooth ones: iː eː uː) may not

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- Cw can generally not be followed by uw uː u, cf *two* tuw (the w drops, but it is present in *twain, twelve, twenty, twice, between,* etc), but swu is okay

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  - became f in *tough*, *enough*, *laughter*

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- as original compounds become monomorphemic, phonotactic constraints apply to them, eg *cupboard* *pb kəbəd, *Christmas* *stm krisməs (cf *chipboard* tʃipboːd and *postman* pəwstmən, which are not (yet?) monomorphemic)

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  - E *#kn, but *knesset* may be /kn-, kən-/, E *#ʃm, but *schmalz* is /ʃm-/ (yielding "impossible" but existing words)

sample exam questions

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2. /writ/
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