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A Contrastive Study of English and Manipuri Consonant Clusters

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Abstract

Every language has its own phonotactic constraints. Phonotactics comes from the ancient Greek *phone* which means voice, sound and *taktikos* means having to do with arranging. Phonotactics is a branch of phonology that deals with restrictions in a language on the permissible combinations of phonemes. Phonotactics defines permissible syllable structure, consonants clusters and vowel sequences by means of phonotactical constraints. Phonotactic constraints are language specific. For example, in Japanese, consonant clusters like /st/ do not occur. Likewise, the sounds/kn/ and /gn/ are not permitted at the beginning of a word in Modern English but are in German and Dutch, and were permitted in Old Middle English.

English and Manipuri too have their own phonotactic constraints. The difference in them will create a problem in learning the language vice-versa. The difference will hinder the desired level of pronunciation. Therefore it is a must to study the area of differences and thus identifying the difficulties and hence trying to find out the possible remedies. In this paper, a contrastive study of the consonant clusters in English and Manipuri is done.

The paper is divided into three sections. The first section deals with introduction and the detailed study of English consonant clusters. The second section deals with the Manipuri consonant clusters. The third chapter is the conclusion in which the contrastive study of the consonant clusters of the English and Manipuri are done. In this section the main finds are laid down.

Key words: phonotactics constraints, consonant cluster, initial consonant cluster, final consonant cluster.

Introduction

Consonant clusters are the combination of two consonants within a syllable (intrasyllabic) or in other word it is understood as the utterance of two consonant sounds at a time, for example .pr. in the word pride. Consonant clusters are different from the consonant sequence. Consonant sequence is the combination of two consonant sounds which happened beyond the syllable (intersyllabic), for example 'p+p' in the Manipuri word 'təp.pə' meaning 'slow'.

1.1. Consonant Clusters Found in English

The phonotactics possibilities of English consonants in various position of a word are shown below:

Initial	Medial	Final
CC CCC	CC CCC CCCC	CC CCC CCCC

Table 1. English Connsonant Clusters.

1.1.1. Initial Clusters

Two member Clusters: English phonotactics permits fifty initial two member clusters in word positions. They are:

p	+	l	r	j								
t	+		r	j	w							
k	+	l	r	j	w							
b	+	l	r	j								
d	+		r	j	w							
g	+	l	r	j	w							
m	+			j	w							
n	+			j								
l	+			j								
f	+	l	r	j								
v	+	l	r	j								

ɵ	+		r	j	w							
s	+	l	r	j	w	p	t	k	m	n	f	v
ʃ	+	l	r		w				m	n		
h	+			j								

Clusters	Words	clusters	words	clusters	words
Pl	Play	gr	grow	sr	Sri-lanka
Pr	Pray	gj	gules	sj	suit
Pj	Pure	gw	gwen	sw	sweep
Tr	Try	mj	mule	sp	spoon
Tj	Tune	mw	muesh	st	sty
Tw	Twice	nj	new	sk	sky
Kl	Clean	lj	lure	sm	small
Kr	Cry	fl	float	sn	snail
Kj	Cure	fr	free	sf	sphinx
Kw	Quick	fj	few	sv	svelte
Bl	Black	vl	vladamir	ʃl	schlesinger
Br	Brown	vr	vroom	ʃr	shrimp
Bj	Beauty	vj	view	ʃw	schweppes
Dr	Dry	θr	through	ʃn	schnapps
Dj	Dual	θj	thew	ʃm	schmaltz
Dw	Dwarf	θw	thwack	hj	huge
gl	Glade	sl	slow		

1.1.2. Three-Member Clusters

English permits ten three consonant clusters in the initial position of a word. They are shown in the following tables:

S	+	P	+		l	r	j	
S	+	T	+			r	j	
S	+	K	+		l	r	j	w

S			+	m			j	

Clusters	words	clusters	Words
Spl	split	skl	sclerosis
Spr	spring	skr	scream
Spj	spurious	skj	skew
Str	strike	skw	squire
Stj	steward	smj	smew

1.2. Final Clusters

1.2.1. Two-member Clusters

English permits fifty nine consonant clusters in the final position of a word. They are shown in the following tables:

p			t										θ	s	
t													θ	s	
k			t											s	
b						d									z
d															z
g						d									z
tʃ															
dʒ						d									
m		p				d					f		θ		z
n			t			d	tʃ	dʒ					θ	s	z
ŋ				k		d									z
l		p	t	k	b	d	tʃ	dʒ	m	n	f	v	θ	s	z
f			t										θ	s	
v						d								s	z
θ														s	
ð						d									z

s		p	t	k											
z						d									
ʃ			t												
ʒ						d									

clusters	Words	clusters	words	clusters	Words
Pt	apt	md	harmed	lp	Gulp
Pθ	depth	mf	triumph	lt	Melt
Ps	lapse	mθ	warmth	lk	Bulk
Tθ	eighth	mz	comes	lb	Alb
Ts	prints	nt	grant	ld	Old
Kt	Tract	nd	hand	ltʃ	Mulch
Ks	Tax	ntʃ	bench	ldʒ	Bulge
Bd	Robbed	ndʒ	range	lm	Realm
Bz	Cubs	nθ	tenth	ln	Kiln
Dz	Adds	ns	tense	lf	Golf
Gd	Bagged	nz	bronze	lv	Salve
Gz	Rags	ŋk	sink	lθ	Wealth
tʃt	Matched	ŋd	banged	ls	False
dʒd	Judged	ŋz	sings	lz	Calls
Mp	Tramp	θt	worthed	ʃl	Welsh
Ft	Laughed	θs	wealths	st	Test
Fθ	Fifth	ðd	bathed	sk	Risk
Fs	Coughs	ðz	bathes	zd	Raised
Vd	Lived	sp	clasp	ʃt	Wished
Vz	Loves	ʒd	camouflaged		

1.2.2. Three-member Clusters

English permits forty nine three member clusters in the word final position. They are shown in the following tables:

P														s			t

T														s			
K														s			t
D														s			t
M		p															t
N							tʃ							s			t
ŋ				k										s			t
L		p		k			tʃ							s			t
S		p		k													t
N								dʒ							z		
L								dʒ	m			v					d
P			t										θ				s
T													θ				s
K			t														
M		p									f						s
N			t										θ				s
ŋ				k													s
L				k							f		θ				s
F													θ				s
S				k													s
N						d											z
L					b	d			m	n		v					z
K														s			θ
N																	θ
ŋ				k													θ
L											f						θ

Clusters	Words	clusters	words	clusters	Words
pst	Lapsed	lddʒ	bulged	fts	Lifts
tst	Keatsed	lmd	overwhelmed	fθs	Fifths
kst	Pretext	lvd	shelved	sps	Wasps
dst	Midst	pts	interrupts	sts	Lists
mpt	Tempt	pθs	depths	sks	Asks
nst	Against	tθs	eights	ndz	Winds
ntʃt	Wrenched	kts	protects	lbz	Bulbs
ŋst	Angst	mps	jumps	ldz	Holds
ŋkt	Instinct	mfs	triumphs	lmz	Helms
lst	Whilst	nts	prints	lnz	Kilns
lpt	Gulped	nθs	ninths	lvz	Shelves
lkt	Mulct	ŋks	sinks	ksθ	Sixth
ltʃt	Filched	lps	gulps	ntθ	Ninth
spt	Clasped	lts	cults	ŋkθ	Length
skt	Risked	lks	sulks	lfθ	Twelfth
ndʒd	Arranged	lfs	gulfs		
nzd	Bronzed	lθs	filths		

1.2.3. Four-member clusters: English permits eight four member consonant clusters in the word final position.

K				s	t		s
K				s		θ	s
M	p				t		s
N					t	θ	s
L			k		t		s
L	p				t		s
L		f				θ	s
M	p			s			s

Clusters	words	clusters	Words
mpts	prompts	lfθs	Twelfts
mpst	glimpsed	ksts	texts
lkts	mulets	ksθs	sixths
lpts	sculpts	ntθs	thousandths

From the above tables, we came to know that final CCCC clusters occurs only as a result of the suffixation to the CCC final stems of a past tense morpheme (: {t}) or a plural 3rd person singular morpheme (: {s}). The analysis of the table came to the following results:

i. /ŋ/ does not occur at the initial position
ii. The remaining 22 consonants occur before all vowels.
iii. /h, r, j, w/ does not occur at final position
iv. Only /l/ can occur before non-syllabic phonemes /m, n/

2. Manipuri Consonant Clusters

The consonant clusters found in Manipuri in the various word positions are shown in the following table:

Initial	Medial	Final
CC	CC	CC (loan words only)

2.1. Initial Two-member Clusters

Manipuri permits sixteen two member consonant clusters in word initial position.

P	L	r		
T		r		
K	l		w	j
k^h			w	

p^h	l	r		
D		r		
G	l		w	
S		r	w	
B	l	r		

Clusters	Words	clusters	Words
Pl	plet ‘plate’	gl	glas ‘glass’
Pr	pran ‘soul’	gw	gway ‘name of a river
Kl	klas ‘class’	sr	sro-sro ‘noises’
Kw	kwak ‘crow	sw	swayda ‘here’
Kj	kyamgei ‘name of a place	bl	blu ‘blue’
p^hl	p^hlek ‘flag’	br	Britis ‘british
p^hr	P^hri ‘free’	kh	khwang ‘waist’
Dr	drəm ‘drum	tr	tren ‘train’

2.2. Final Clusters

Manipuri permits four final two member clusters only in loan words.

k		s
n		s
ŋ	k	
l	k	

ks	politiks ‘politics’
ns	brans ‘branch’
ŋk	beŋk ‘bank’
lk	silk ‘silk’

From the above tables the following observations can be made:

i. The first member of the two member cluster in the word initial position is one of the eight phonemes/p, t, k, k^h, b, d, g, s/

ii. The second member of the two member clusters in the word initial position is one of the three phonemes /l, r, w/

iii. The phoneme /l/ is the second member of the initial two member clusters in loan words only.

iv. Like most of the Tibeto-Burman languages, Manipuri has two member final clusters in loan words only.

3. Comparison of the Manipuri-English Consonant Clusters

	l	r	j	w	p	t	k	m	N	f	v
p	EM	EM	E								
t		EM	E	E							
k	E	E	EM	EM							
p^h	M	M									
k^h				M							
b	EM	EM	E								
d		EM	E	EM							
g	EM	E	E	EM							
m			E	E							
n			E								
l			E								
f		E	E	E							
v		E	E	E							
θ		E	E	E							
s		EM	E	EM	E	E	E	E	E	E	E
ʃ		E	E					E	E		
h			E								

For the comparison of English –Manipuri initial clusters, we can classify the following clusters:

1. **Clusters with /r/**

English		Manipuri	
/pr/	pride	/pr/	pran ‘soul’
/tr/	try	/phr/	phri ‘free’
/kr/	crack	/tr/	tren ‘train’
/br/	bread	/br/	britis ‘british’
/dr/	draw	/dr/	‘drəm’
/gr/	grow	/sr/	sro-sro ‘noises’
/fr/	fry		
/ θr/	thread		
/sr/	shrew		

2. **Cluster with /l/**

English	Manipuri

/pl/	play	/pl/	plet ‘plate’
/kl/	clean	/kl/	klas ‘class’
/bl/	black	/bl/	blu ‘blue’
/fl/	float	/gl/	glas ‘glass’
/gl/	glass	/phl/	phlek ‘flag’
/sl/	slow		

3. Clusters with /w/

	English	Manipuri
/tw/	twenty	/sw/ swaidə ‘here’
/kw/	quick	/gw/ gway ‘name of a river’
/dw/	dwell	
/gw/	gwen	
/θw/	thwart	
/sw/	swell	
/hw/	when	

4. Clusters with /j/

	English	Manipuri
/pj/	pure	/kj/ kyamgei ‘name of a place/
/kj/	cure	
/bj/	beauty	
/gj/	gules	
/fj/	few	
/vj/	view	
/mj/	music	
/nj/	new	

/tj/	tune
/dj/	due
/sj/	sue
/hj/	hue
/lj/	lure

From the above comparisons, the following observations can be made:

i. Similar or partially similar consonant between the two language are /pl-, pr-, pj-, br-, bj-, kl-, kr-, kj-, kl-, gl-, gr-, gj-, sr-/
ii. Consonant clusters which is found only in manipuri is /b^{h}r-/
iii. Consonant clusters which are exclusive to English are /tw-, dj-, dw-, fl-, tj-, ʃr-, lj-, gw-, mj-, nj-,fj-, vj-, sp-, sm-, sn-, sf-/
iv. Initial three two and three member consonant clusters with /s/ as the first member is exclusive to English. Therefore, Manipuri speaker tend to add /i/ before pronouncing these clusters. For example,

English word	Manipuri Speaker
School	/iskul/
Spoon	/ispun/
Street	/istrit/

v. In the initial two member clusters with /w/ and /j/ as the second member, Manipuri speaker tend to add /u/ and /i/ respectively between the consonant. For example,

English words	Manipuri Speaker
Twice	tuwais
Beauty	biyuti
Dwarf	duwap
Cure	kiyor
Twelfth	tuwep

v. Since Manipuri language does not have final clusters except for the two member final clusters in loan words, all the English final clusters will pose a learning problem.

Conclusion

Clusters that are absent in Manipuri should be given focus. The articulation of the clusters should be taught to them. Manipuri speaker tends to add /i/ before the clusters with /s/ as the first member initial clusters. They should be taught not to add /i/ before this cluster.

Manipuri language does not have final clusters except four two member final clusters -ks, -ns, -ŋk, -lk which is found only in loan words. The Manipuri speaker tends to simplify the final clusters by dropping the second and third element or member of the final clusters. For example,

English	Manipuri
prompts /prompts/	/prom/
jump /dʒʌmp/	/ɟəm/

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