

# NOTES

## On the *r* > *h* shift in Phnom Penh Khmer\*

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### 1. Introduction

Before my first visit to Cambodia in 1991, I collected some useful vocabulary from Khmer-English dictionaries to help in my work in Cambodia. The pronunciation of these words was mostly given according to the standard written language, but I soon discovered that many of them are pronounced differently in Phnom Penh, creating problems for non-native listeners.

The Phnom Penh dialect is used daily by natives of Phnom Penh, be they educated or not, rich or poor, civil servants or ordinary citizens. My data on it was collected during 1991-1993 from various people. The most help has come from Ms. Phoumy Ouch, who was born and has lived in Phnom Penh since 1958, and the forms given here are based on her idiolect. The standard Khmer forms and meanings are given here largely as in *Huffman's* and *Jacob's* dictionaries.

I could not find any records on the history of the Phnom Penh dialect, but the current pronunciation is at least 100 years old, as indicated by the speech of a grandmother of Ms. Phoumy who is now 82 but still speaks the way she did as a child.

From 1975 to 1978 the Khmer Rouge scattered Phnom Penh inhabitants throughout the country, with the result that Phnom Penh pronunciation has become widely known. And since 1979, with the return of many Khmer people to their homes, the Phnom Penh pronunciation has become quite popular. At present it is accepted and used unofficially by Phnom Penh people and others at all levels of society in their daily lives. One can predict that it will be the Khmer language of the future.

One of the most noticeable features of Phnom Penh Khmer is the variation between initial *r* and *h*, with its other concomitant features.

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## 2. Phoneme inventories

### 2.1 Standard Khmer

The pure vowels in Standard Khmer are: i, ii, e, ee, ε, εε, a, aa, ɑ, ɑɑ, ɔ, ɔɔ, o, oo, u, uu, ʊ, ʊʊ, ə, əə.

The glided vowels are: ia, iə, iiə, əi, ai, ae, ao, au, aə, oa, ua, uaə, uə, uuə, əu.

The initial simple consonants are: m, n, ɲ, ŋ, b, d, p, t, c, k, ʔ, p<sup>h</sup>, t<sup>h</sup>, c<sup>h</sup>, k<sup>h</sup>, f, s, h, w, y, l, r

The initial consonant clusters are: pr, tr, cr, kr, sr

The final consonants are: m, n, ɲ, ŋ, p, t, c, k, ʔ, h, w, y, l

### 2.2 Phnom Penh

The pure vowels in Phnom Penh Khmer are as in Standard Khmer, but lacking /i/ and /ε/ (Noss lacked /ɔ/ [1966:91]). The glided vowels are as in Standard Khmer but lacking /εə/ and /ɔə/. The finals and the initial simple consonants are as in Standard Khmer except /r/, but Phnom Penh lacks the clusters (Noss lacked /f/ [1966:90]).

## 3. The r > h shift

The shift described above as *r > h* is in reality a registral shift involving several aspects of the phonology. There seem to be no restrictions on the occurrence of this shift; it may occur in all phonological environments (see Appendix 1, co-occurrence chart). Samples of the shifts are given below; for more examples see Appendix 2.

### 3.1 *r > h*

This is a shift of *voiced > voiceless* and *rhotacized > nonrhotacized*. The *r > h* initial words are marked by falling-rising pitch. For example:

ʔoŋrae	>	ʔaŋhĕε	ruam	>	hũuam	riən	>	hĩiən
ruuəŋ	>	hũuəŋ	ruup	>	hũup	rεεc	>	hĕεc
rooy	>	hĕoy	samrap	>	samhĩiap	ruh	>	hĕəh

### 3.2 *Stop + r > aspirated stop consonant*

This is similar to the above except that the *h* is just a voiceless aspirated release /<sup>h</sup>/ of a stop rather than a fully segmental /h/. The clusters *pr*, *tr*, *cr*, *kr* become aspirates *p<sup>h</sup>*, *t<sup>h</sup>*, *c<sup>h</sup>*, *k<sup>h</sup>*. For example:

prae	>	p <sup>h</sup> ĕε	pram	>	p <sup>h</sup> ĩiam	pron	>	p <sup>h</sup> oŋ
truu	>	t <sup>h</sup> ũu	traeŋ	>	t <sup>h</sup> ĕεŋ	trac	>	t <sup>h</sup> ĩiac
crəi	>	c <sup>h</sup> əi	cruŋ	>	c <sup>h</sup> ũuŋ	criə?	>	c <sup>h</sup> ĩiə?

3.3 *sr* > *s<sup>h</sup>* > *s* + tone

I hypothesize a two-step change in which the *r* after *s* is devoiced and derhotacized to form an aspirate *s<sup>h</sup>*, which in turn becomes *s* plus falling-rising pitch. In a two-syllable word this results in reduction to one syllable. For example:

sroot	>	s <sup>h</sup> oot	>	sǒot
sruuəl	>	s <sup>h</sup> uuəl	>	sǔuəl
sraa	>	s <sup>h</sup> iia	>	sǐia
sɔmraan	>	smhiian	>	smǐian

3.4 *bVr* > *ph* + tone

In a two-syllable word where the first syllable has a voiced stop and the second has *r*, the word may collapse into a monosyllabic word with aspirated voiceless stop and falling-rising pitch.

baaraŋ	>	bəhiiaŋ	>	bǐiaŋ	>	p <sup>h</sup> ǐiaŋ
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3.5 *Diphthongization*

The simple vowels /a, aa/ and /ɑ, ɑɑ/ change to /iia/ and /uua/. For example:

kraŋ	>	k <sup>h</sup> iiaŋ	kraap	>	k <sup>h</sup> iiap
traŋ	>	t <sup>h</sup> uuaŋ	traaŋ	>	t <sup>h</sup> uuaŋ

3.6 *Monophthongization*

The vowel glides to mid height /æ/, /aə/, and /ao/ change to simple vowels /ɛɛ/, /əə/, and /ɔɔ, oo/, respectively. And there are other occasional changes. For example:

crae	>	c <sup>h</sup> ɛɛ	kraeŋ	>	k <sup>h</sup> ɛɛŋ	sraeŋ	>	sɛɛŋ
praə	>	p <sup>h</sup> əə	sraeŋ	>	səəŋ	kraən	>	k <sup>h</sup> əəŋ
kraol	>	k <sup>h</sup> ɔɔl, k <sup>h</sup> ool	kraok	>	k <sup>h</sup> ɔɔk, k <sup>h</sup> ook	sraom	>	sɔɔm, sōom
craən	>	c <sup>h</sup> əəŋ						

3.7 *Vowel lengthening*

Many short vowels are lengthened. For example:

criə?	>	c <sup>h</sup> iia?	prəh	>	p <sup>h</sup> ɔɔh	preŋ	>	p <sup>h</sup> ɛɛŋ
riəp	>	hǐiəp	prəh	>	p <sup>h</sup> əəh	truuh	>	t <sup>h</sup> uuh
trəm	>	t <sup>h</sup> əəm	ruam	>	hǔuam	ruŋ	>	hǔuŋ
pruh	>	p <sup>h</sup> uuh						

### 3.8 Vowel height change

The change of *r* > *h* may also affect vowel height; /u/ may lower to /ə/ and /o/ may raise to /uu/. For example:

ruh	>	həəh
proah	>	p <sup>h</sup> üuah

In summary, this is a complex register shift in syllables containing *r*. It involves simultaneous shift in common register components such as devoicing, pitch, vowel gliding, vowel length and vowel height.

#### Appendix 1. Distribution of Phnom Penh final consonants and vowels in syllables with original initials /r/, /pr/, /tr/, /cr/, /kr/, /sr/.

	r-	pr-	tr-	cr-	kr-	sr-
ii				-w		
e		-ŋ				
ee		-ŋ, -n				
εε	-c					
a	-ŋ, -p, -c	-m, -ŋ, -p, -ʔ, -h	-m, -ŋ, -p, -c, -ʔ	-ŋ, -c	-ŋ, -ʔ	-m, -ŋ, -p, -c, -ʔ, -h
aa	-n	-n, -c, -w	-ʃ, -c, -w	-n, -ŋ, -l	-ʃ, -m, -n, -p	-ʃ, -ŋ, -p, -t, -w, -l
ɑ		-ŋ, -ʔ, -h	-ŋ, -h	-h		-m, -ŋ, -h
ɑɑ		-p	-ŋ	-ʔ	-ʃ, -ŋ, -ʔ	-p
ɔ		-h			-ŋ	
ɔɔ			-m			
o		-ŋ				
oo	-y	-m	-m, -p	-ŋ, -t, -k	-p	-p, -t
u	-ŋ	-h	-ŋ, -h	-ŋ, -h, -l		
uu	-p	-ʃ	-ŋ	-k	-ʃ	
u	-h	ʃ-h	-ʃ			
uuu				-h		
ə		-ŋ, -h	-m, -ŋ, -h, -w	-h		-m, -p
ia	-ʔ					
iə	-n, -ŋ, -p	-ŋ, -p, -y	-p, -y	-ŋ, -p, -ʔ	-p, -ʔ, -w	-w
iiə	-n, -ŋ, -p, -y	-w		-p, -y		
ai		-ʃ			-ʃ	
ae	-ʃ	-ʃ, -ŋ, -t, -c	-ʃ	-ʃ, -ŋ, -c	-ʃ, -ŋ	-ʃ, -c, -ŋ
ao					-m, -k, -y, -l	-m, -p, -c
au					-ʃ	
aə		-ʃ		-n	-n	-ŋ
oa		-h				
ua	-m, -h			-m	-m	
uaɔ			-m			
uə	-p	-h	-p	-ŋ, -ʔ--h	-p, -h	
uuə	-c, -ŋ	-h, -ŋ-l		-ŋ, -l	-c, -h	-c, -l
uɔ	-ŋ				-ŋ	
ɛi		-ʃ	-ʃ	-ʃ	-ʃ	-ʃ
ɛu		-ʃ		-ʃ	-ʔ	

## Appendix 2. List of r &gt; h words.

Standard	Phnom Penh	
ʔaŋ.rae	ʔaŋ.hěe	cradle, hammock
ʔaa kruəʔ	ʔaa k <sup>h</sup> ũuəʔ	evil, demon
ʔaa.srəm	ʔaa.sũuam	hermitage
baa.raŋ	p <sup>h</sup> iaŋ	France, foreigner
caəŋ.kraəŋ	caəŋ.k <sup>h</sup> ũuaŋ	to edit, compile, collect
caŋ.kraan	ck <sup>h</sup> iaŋ	stove
crəəʔ	c <sup>h</sup> ũuaʔ	to fill
crəh	c <sup>h</sup> ũuah	to be imitative of the sound of hacking, slashing
crəh.rəh	c <sup>h</sup> əəh.həəh	to choose
crəi	c <sup>h</sup> əi	a kind of tree
crəu	c <sup>h</sup> əu	deep
crəən	c <sup>h</sup> əən	many, much
crəŋ	c <sup>h</sup> iaŋ	river bank
crəal	c <sup>h</sup> ial	very red
crəan	c <sup>h</sup> ian	to push
crac	c <sup>h</sup> iac	a kind of tree
crac	c <sup>h</sup> ěe	to shuffle cards; a kind of palm tree
cracŋ	c <sup>h</sup> ěŋ	to stand with hands at waist; to support, prop from an angle
cracc	c <sup>h</sup> ěec	to intrude, interfere, bother
criəʔ	c <sup>h</sup> iaəʔ	to split into lengthwise sections
criəŋ	c <sup>h</sup> iaŋ	to sing
criəp	c <sup>h</sup> iaəp	dead silent
criiəp	c <sup>h</sup> iaəp	to come to the knowledge of, be learned by
criiəy	c <sup>h</sup> iaəy	soft and easily squashed
criiw	c <sup>h</sup> iiw	shrivelled
crooŋ crəaŋ	c <sup>h</sup> ooŋ c <sup>h</sup> iaŋ	sticking up here and there irregularly
crook	c <sup>h</sup> ook	to resort to the shade, take shelter in, at; to depend on the help or power of others
croot	c <sup>h</sup> oot	to cut down with a sickle
cruəʔ	c <sup>h</sup> ũuəʔ	pickled vegetable
cruəh	c <sup>h</sup> ũuəh	gorge, mountain stream, spring
cruəŋ	c <sup>h</sup> ũuəŋ	chopping board
cruŋ	c <sup>h</sup> ũuŋ	angle, corner
cruam	c <sup>h</sup> ũuam	to eat (vulgar)
cruh	c <sup>h</sup> ũuh	to fall off, be shed
crul	c <sup>h</sup> ũul	to go beyond the reasonable limit
cruuəl	c <sup>h</sup> ũuəl	to scatter in panic, scatter in disorder
cruuəŋ	c <sup>h</sup> ũuəŋ	wrinkled (face)
cruuk	c <sup>h</sup> ũuk	pig
cruuwh.ruh	c <sup>h</sup> ũwh.hũwh/ c <sup>h</sup> ũwh.həəh	to choose
kəŋ.traa	kəŋ.t <sup>h</sup> ia	contract

khluun praan krɔŋ	k <sup>h</sup> lūun p <sup>h</sup> ian k <sup>h</sup> ɔŋ	body city; to catch by placing net, pot, etc., over; to protect
kraa kraa? kraaŋ krəi kraa kra?	k <sup>h</sup> ūua k <sup>h</sup> ūua? k <sup>h</sup> ūuaŋ k <sup>h</sup> əi k <sup>h</sup> ūua k <sup>h</sup> ia?	poor, rare, difficult sausage to plait one's hair poor heartwood of tree which has fallen through natural causes
kraən kraŋ	k <sup>h</sup> əən k <sup>h</sup> ianŋ	to urge a huge book for official registration in the King's palace or temples
kraa kraa? kraam kraap krae kraeŋ	k <sup>h</sup> ia k <sup>h</sup> ia? k <sup>h</sup> iam k <sup>h</sup> iap k <sup>h</sup> ɛɛ k <sup>h</sup> ɛeŋ	a kind of insect sound of an object pulled out kilogram to prostrate bed to have regard for others and their feelings
krai kraok kraol kraom kraoy krau kriə? kriəp	k <sup>h</sup> iai k <sup>h</sup> ɔk/k <sup>h</sup> ok k <sup>h</sup> ɔl/k <sup>h</sup> ol k <sup>h</sup> ɔm/k <sup>h</sup> om k <sup>h</sup> ɔy/k <sup>h</sup> oy k <sup>h</sup> iau k <sup>h</sup> iə? k <sup>h</sup> iəp	extremely to wake up stable, cattle-shed under behind outside ugly appearance; to tie to a post a kind of snack; sound of brittle object being crushed
kriəw kroop kruəh kruəp kruam kruu kruuəc kruuəh kruəŋ prɔh pra? praap praŋ prah prəŋ prəŋ praen prəh/pruh	k <sup>h</sup> iəw k <sup>h</sup> oop k <sup>h</sup> ūuəh k <sup>h</sup> ūuəp k <sup>h</sup> ūuam k <sup>h</sup> ūu k <sup>h</sup> ūuəc k <sup>h</sup> ūuəh k <sup>h</sup> ūwəŋ p <sup>h</sup> ɔh p <sup>h</sup> ūua? p <sup>h</sup> ūuap p <sup>h</sup> ūuaŋ p <sup>h</sup> ūuah p <sup>h</sup> əŋ p <sup>h</sup> əŋ p <sup>h</sup> ɛeŋ p <sup>h</sup> əh/p <sup>h</sup> ūwh	to castrate a cover accident, casualty seed, gain extremely weak teacher a kind of bird gravel, small rounded stones ingredient male to roof, thatch, to be roofed with next to, adjacent, very near a kind of tree to sprinkle to make an effort to try hard to a kind of deer; conical bamboo entry to a fish trap
prəi prəu pra? praə praŋ (khae)	p <sup>h</sup> əi p <sup>h</sup> əu p <sup>h</sup> ia? p <sup>h</sup> ə p <sup>h</sup> ianŋ	forest unmarried and old silver, money to use dry, hot (season)

praac	p <sup>h</sup> iac	intelligent
praaw	p <sup>h</sup> iaaw	sound of crushing brittle objects
prae	p <sup>h</sup> ǣ	to alter, change
praec(k)	p <sup>h</sup> ǣc	small river, a part of cart
praet	p <sup>h</sup> ǣt	demon, ogre, monster, inhabitant of hell
prah	p <sup>h</sup> iaah	to toss and turn in sleep; roll along the ground; move, struggling to free oneself
prai	p <sup>h</sup> iaai	salty
pram	p <sup>h</sup> iam	five
prap	p <sup>h</sup> iap	to tell
preŋ	p <sup>h</sup> ǣŋ	oil
preeŋ	p <sup>h</sup> ǣŋ	ancient
preen	p <sup>h</sup> ǣn	food offered to spirits
priəŋ	p <sup>h</sup> iaŋ	to do in rough, do as a practice before the real thing
priəp	p <sup>h</sup> iaəp	pigeon
priəy	p <sup>h</sup> iaəy	ghost, demon, malevolent spirit
priəw	p <sup>h</sup> iaəw	groping, hazard a guess
proŋ	p <sup>h</sup> oŋ	to be guarded; to be ready to; to intend to; to plan for; to try to
proah	p <sup>h</sup> uəah	to be kind to, square, deliver from death
proom	p <sup>h</sup> oom	to be ready, agree to, consent to, accept
pruəh	p <sup>h</sup> uəh	<i>because; to sow, scatter, broadcast</i>
pruh	p <sup>h</sup> uh	to bark
pruu laan	p <sup>h</sup> uu laan	a bus conductor
pruuəh	p <sup>h</sup> uuəh	to spit onto
pruuəl	p <sup>h</sup> uuəl	a bit at a time, trying it out; wicker work frame with various uses
pruuəŋ	p <sup>h</sup> uuəŋ	arrow
raəŋ	həəŋ	to winnow, sift
riəŋ	hiiəŋ	shape, form, appearance
riən	hiiən	to learn
riəp	hiiəp	to prepare
ria?	hiiə?	shallow
riiəŋ	hiiəŋ	to have had enough of, give up
riiən	hiiən	platform, stage
riiəp	hiiəp	flap
riiəy	hiiəy	small change
rooy	hoooy	hundred
ruəp	hūuəp	to count
ruah	hūuəh	to rake
ruam	hūuəm	to dance
ruŋ	hūuŋ	to push
ruuəc	hūuəc	to finish, achieve, get through to the end
ruuəŋ	hūuəŋ	to shrink, shrivel
ruup	hūup	picture, shape, statue, likeness

ruəŋ	huŋwəŋ	matter, issue, story, event, play
ruh	huŋwh/həəh	root
rɛɛc	hɛɛc	to carry on one's shoulder
səm.raan	smiian	to sleep
səm.rac	səm.hiic	to decide; to achieve
səm.rap	səm.hiic	for
sraaʔ	sŋuaʔ	to decrease(water)
sraap	sŋuap	to follow closely; to agree with
sraŋ	sŋuaŋ	to bathe (Buddhist monk); to pick something out of a liquid, save from drowning
srah	sŋuah	fresh, vivid before one's eyes, nice-looking, pretty
srəi	səəi	female
srəm	səəm	appearing bit by bit
srəp sraal	səəp siial	to get excited
sraʔ	siiaʔ	stack; to tie round tightly
sraəŋ	səəŋ	scurf
sraŋ	siiaŋ	a kind of insect
sraa	siia	alcohol
sraaŋ	siiaŋ	glimmer, opaque
sraal	siial	light in weight; not serious
sraap (khae)	siiap	July-August (lunar system)
sraat	siiat	to take off clothes, undress
sraaw	siiaw	to wind in, wind up
srac	siiac	to finish, complete
srae	sɛɛ	paddy-field
sraec	sɛɛc	to shout
sraeŋ	sɛɛŋ	leprosy
srah	siiah	lake, pond
sram	siiam	to be cracked
sraoc	sɔɔc/sɔoc	to sprinkle
sraom	sɔɔm/sɔom	envelop
sraop	sɔɔp/sɔop	to cover all over the surface
srap	siiap	already complete
sriəw	siiew	to feel a chill of fear; to shiver
sroop	sɔop	to suck in
sroot	sɔot	swiftly and directly
sruuəc	sŋuəc	pointed, sharp
sruuəl	sŋuəl	easy, comfortable
trɔɔm	tʰɔɔm	to be weakened
trɔaŋ	tʰŋuaŋ	to catch liquid in a container
traŋ	tʰŋuaŋ	direct, straight
trah	tʰŋuah	a kind of tree
trəŋ	tʰəəŋ	to be silent and halt, unable to continue what one's doing
trəh	tʰəəh	than
trəi	tʰəəi	fish
trəm	tʰəəm	exact, just up to the same point as
trəm trəw	tʰəəm tʰəəw	right, accurate, proper
trəw	tʰəəw	must, correct, right



traʔ	t <sup>h</sup> iaʔ	an anonymous letter
traŋ	t <sup>h</sup> iaaŋ	a kind of tree
traac	t <sup>h</sup> iiac	a kind of tree
traaw	t <sup>h</sup> iiaw	taro
trac ɔɔ	t <sup>h</sup> iiac ɔɔ	to go, walk, move forward
trae	t <sup>h</sup> ɛɛ	horn
traeŋ	t <sup>h</sup> ɛeŋ	a kind of tree
tram	t <sup>h</sup> iiam	to soak
trap	t <sup>h</sup> iiap	to imitate
triəp	t <sup>h</sup> iiəp	a kind of sweet
troom	t <sup>h</sup> oom	go down (of elephants going into bent position)
troop	t <sup>h</sup> oop	sag, flop down on
truəp	thūuəp	wealth, possessions, belongings; to spread out under
truŋ	t <sup>h</sup> ūuŋ	pen, enclosure
truŋ triəy	t <sup>h</sup> ūuŋ thīiəy	form, shape
truaəm	t <sup>h</sup> ūuaəm	to put up with, endure, suffer
truh	t <sup>h</sup> ūuh	to harm
truu	t <sup>h</sup> ūu	a cylindrical fish-trap
truuŋ	t <sup>h</sup> ūuŋ	chest
truh	t <sup>h</sup> ūuh	than

## REFERENCE

Noss, Richard B. 1966. \*/R/ in two modern Khmer dialects. *SCAL* pp.89-95.

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