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.

MON-KHMER STUDIES 24: 105-113

^{*} I would like to thank Dr. David Thomas for editing and offering valuable suggestions for presentation of this note, and also to Dr. Suwilai Premsrirat for providing encouragement and advice in writing this note.

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2. Phoneme inventories

2.1 Standard Khmer

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, n, n, b, d, p, t, c, k, ?, ph, th, ch, kh, f, s, h, w, y, l, r

The initial consonant clusters are: pr, tr, cr, kr, sr The final consonants are: m, n, n, n, p, t, c, k, ?, h, w, y, 1

2.2 Phnom Penh

The pure vowels in Phnom Penh Khmer are as in Standard Khmer, but lacking /i/ and / ϵ / (Noss lacked / σ / [1966:91]). The glided vowels are as in Standard Khmer but lacking / $\epsilon\sigma$ / and / $\sigma\sigma$ /. The finals and the initial simple consonants are as in Standard Khmer except / τ /, but Phnom Penh lacks the clusters (Noss lacked / τ / [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, cocurrence 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:

?oŋrae	>	?aŋhĕe	ruam	>	hŭuam	riən	>	hĭiən
ruuən	>	hŭuən	ruup	>	hǔup	reec	>	hĕec
rooy	>	hŏoy	samrap	>	samhiiap	rwh	>	hðəh

$3.2 \ Stop + r > aspirated stop consonant$

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

		p ^h ěe			p ^h iiam	proŋ	>	p ^h ŏoŋ
truu	>	thŭu	traeŋ	>	t ^h čeŋ	trac		
crəi	>	c ^h žəi	cruŋ	>	c ^h ŭuŋ	criə?	>	chiiə?

3.3 $sr > s^h > s + tone$

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

$3.4 \ bVr > ph + tone$

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.

3.5 Diphthongization

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

$$kran > k^h$$
ian $kraap > k^h$ iap $tron > t^h$ uan $troon > t^h$ uan

3.6 Monophthongization

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

crae praə kraol craən	> >	p ^h ðə k ^h ðəl, k ^h ŏol	kraeŋ sraəŋ kraok	>	k ^h ěeŋ sðəŋ k ^h ðok, k ^h ŏok	sraen kraen sraom	>	k ^h ðən
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3.7 Vowel lengthening

Many short vowels are lengthened. For example:

	>		proh prəh ruam	>		preŋ truɪh ruɲ	>	t ^h wiwh
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3.8 Vowel height change

The change of r > h may also affect vowel height; /ui/ may lower to /99/ and /o/ may raise to /uu/. For example:

rwh	>	hặch
proah	>	p ^h ŭuah

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				
33	-c					
a	-ŋ,-p,-c	-m,-ŋ,-p,-?,-h	-m,-ŋ,-p,-c,-?	-ŋ,-c	-ŋ,-?	-m,-ŋ,-p,-c,-?,-h
aa	-n		-#,-c,-w		-#, -m,-n,-p	- # ,-ŋ,-p,-t,-w,-l
α		-ŋ,-ʔ,-h	-ŋ,-h	-h		-m,-ŋ,-h
αα		-p	-ŋ	-?	-#,-ŋ,-?	-p
Э		-h			-ŋ	
၁၁			-m			
0		-ŋ				
00	- y	-m	-m,-p	-ŋ,-t,k	-p	-p,-t
u	- n	-h	-ŋ,-h	-ŋ,-h,-l		
uu	-p	.#	-ŋ	-k	_#	
w	-h	•-h	-#			
ww				-h		
э		-ŋ,-h	-m,-ŋ,-h,-w	-h		-m,-p
ia	-?					
iə	-n,- ŋ, -p	-ŋ,-p,-y	-p,-y	-ŋ,-p,-?	-p,-?,-w	-W
Gii	-n,-ŋ,-p,-y			-p,-y		
ai		_#			_ #	
ae	_#	-#, -ŋ,-t,-c	_#	- # , -ŋ,-c	- # ,-ŋ	– # , -c,- n
ao					-m,-k,-y,-l	-m,-p,-c
au					-#	
aə		_#		-n	-n	-ŋ
oa		-h				
ua	-m,-h			-m	-m	
uao			-m			
นอ	-p	-h	-p	-ր,-?h	-p,-h	
uuə	-c,- n	-h,-ɲ-l		-ŋ,-l	-c,-h	-c,-l
เมอ	-ŋ				-ŋ	
əi		_#	_#	_#	_#	_#
эu		-#		_#	-?	

Appendix 2. List of r > h words.

Standard	Phnom Penh	
?an.rae	?an.hěe	cradle, hammock
?aa kruə?	?aa k ^h ŭuə?	evil, demon
?aa.sram	?aa.sŭuam	hermitage
baa.ran	p ^h ian	France, foreigner
caan.kraan	caan.khŭuan	to edit, compile, collect
can.kraan	ck ^h iian	stove
craa?	chua?	to fill
	c ^h ŭuah	
crah	c-uuan	to be imitative of the sound of hacking, slashing
crəh.rəh	c ^h ðəh.hðəh	to choose
crəi	c ^h ðəi	a kind of tree
crəu	c ^h ðəu	deep
craen	c ^h ອ້ອກ	many, much
cran	c ^h iian	river bank •
craal	chial	very red
craan	c ^h ian	to push
crac	c ^h iiac	a kind of tree
crae	c ^h ěe	to shuffle cards; a kind of palm tree
	c ^h ěen	to stand with hands at waist;
craeŋ	Cecij	to support, prop from an angle
craec	c ^h ěec	to intrude, interfere, bother
criə?	cliie?	to split into lengthwise sections
crian	c ^h iəŋ	to sing
criap	c ^h iəp	dead silent
criiəp	c ^h iiəp	to come to the knowledge of, be
сттор	1	learned by
criiəy	c ^h iiəy	soft and easily squashed
criiw	chiw	shrivelled
croon craan	c ^h ŏoŋ c ^h iiaŋ	sticking up here and there irregularly
crook	c ^h ŏok	to resort to the shade, take shelter in,
		at; to depend on the help or power of
	hv	others
croot	c ^h ŏot	to cut down with a sickle
cruə?	chŭuə?	pickled vegetable
cruəh	c ^h ǔuəh	gorge, mountain stream, spring
cruən	c ^h ŭuən	chopping board
cruŋ	c ^h ŭuŋ	angle, corner
cruam	c ^h ŭuam	to eat (vulgar)
cruh	c ^h ŭuh	to fall off, be shed
crul	c ^h ŭul	to go beyond the reasonable limit
cruuəl	c ^h ŭuəl	to scatter in panic, scatter in disorder
cruuon	c ^h ŭuən	wrinkled (face)
cruuk	c ^h ŭuk	pig
crwwh.rwh	c ^h wัwh.hwัwh/	to choose
	c ^h ເພັພຸh.hວັວh	
kaŋ.traa	k ăŋ .t ^h iia	contract

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khluun praan kron kron kron kron kron kron kron kro			
krag khua yanga city; to catch by placing net, pot, etc., over; to protect pro	khluun nraan	khliun ohijan	body
kraa khuaa poor, rare, difficult sausage kraan khiaa a khiaa poor kraan khiaan khiaan kraan khiaan khiaan kraan khiaan khiaan kraan khiaan khiaa			
kraa khuaa? sausage to plat one's hair kraa? khuaa? sausage to plat one's hair kraan khaa? heartwood of tree which has fallen through natural causes to urge kraan khiaan a huge book for official registration in the King's palace or temples a kind of insect kraaa khiaan khiaam kilogram to prostrate kraap khiaap to prostrate kraap khiaap to prostrate kraap khiaap to prostrate kraen khiaan kilogram to have regard for others and their feelings krain khiaa khiaan kraap khiaa khiaa extremely kraok khiaa khiaan kraok khiaa khiaan kraok khiaa khiaan kraok khiaan khiaan kraok khiaan khiaan kraoy khiaan khiaan khiaan kraoy khiaan k	Kibij	k 551j	
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krai khiai khiai cattle-shed kraok khiao kraok khiao khiao kraok khiao kraok khiao kraok khiao kraok khiao kraok khiao khiao kraok khiao khiao kraok khiao khiao kraok khiao khiao khiao khiao kraok khiao khiao kraok khiao khiao kraok khiao khiao khiao kraok khiao k		k ^h ŭua?	•
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kra? kraən kraən kray kriian krai kraa krai kriian kraan kriian kraap kriian kriian kraap kriiai krae krae krae krae krae krae krae krae		k ^h ðəi k ^h ŭua	•
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kran khian a huge book for official registration in the King's palace or temples a kind of insect sound of an object pulled out kraam khiam kilogram kraap khiam kilogram kraap khian to prostrate bed krae khēe bed kraen khōsin/khōok to have regard for others and their feelings extremely kraok khōsi/khōok to wake up stable, cattle-shed under kraon khōsin/khōom under behind ourside kriao khian outside object being crushed to castrate kroop khōop a cover krush khian accident, casualty kruup khian extremely weak kruup khian extremely weak kruun khian extremely weak kruun khian extremely weak kruun khian extremely weak kruun khian mext to, adjacent, very near a kind of tire pron phaon phaon pron phaon phaon next to, adjacent, very near a kind of tree to sprinkle pron pron phaon phaon pron phaon phaon to roof, thatch, to be roofed with next to, adjacent, very near a kind of tree to sprinkle to make an effort to sprinkle pron pron phaon phaon unmarried and old pra? phaon unmarried and old silver, money prao phaon phaon unmarried and old silver, money prao to use	kraən	k ^h ðən	
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kraoy krau kriau kriau kriaiu kriaiu kriay kriiap k	kraom	k ^h ɔ̃ɔm/k ^h ŏom	
krau khiau outside kriə? khiau outside kriə? khiap khiap a kind of snack; sound of brittle object being crushed to castrate kroop khoop a cover kruah khiuah accident, casualty kruap khiuap seed, gain extremely weak kruu khiu teacher kruuac khiuac a kind of bird gravel, small rounded stones kruan khiuap ingredient proh phiaa? to roof, thatch, to be roofed with proup proh phiaap next to, adjacent, very near pron praen phiaah to sprinkle prop phiaah proh phiaah to sprinkle pron proh phiaah pron phiaah proh phiaah to make an effort to a fish trap prou phiaa? inmarried and old pra? phia? silver, money prae phiaa? silver, money prae phiaa phiaa silver, money prae phiaa silver, money phiaa silver, money prae phiaa silver, mon	kraoy		behind
kriəp khiəp a kind of snack; sound of brittle object being crushed to castrate kroop khöop a cover kruəh khūuəh accident, casualty kruəp khūuəp seed, gain kruam khūuam extremely weak kruu khūuəc a kind of bird kruuəc khūuən ingredient proh phɔsəh male pro? phūua? to roof, thatch, to be roofed with prong phuah phaən to sprinkle prong phauah to sprinkle prong phauah prong phauah to sprinkle prong phaən phəsən to make an effort to try hard to a fish trap prou phaən phaən unmarried and old pra? phaən phaən to use	krau		outside
kriəp khiəp a kind of snack; sound of brittle object being crushed to castrate kroop khoop a cover kruəh khiuəh accident, casualty kruəp khiuəp seed, gain kruam khiuam extremely weak kruu khiuah gravel, small rounded stones kruən khiuəh gravel, small rounded stones kruən khiuən ingredient proh phiuap next to, adjacent, very near pron proh phiuap next to, adjacent, very near pron praen phiuah to sprinkle pron phiaən to make an effort to try hard to a fish trap prou phia? phia? silver, money prae phiae phiae to use	kriə?	kʰiiə?	ugly appearance; to tie to a post
kriew khoop a cover cove	kriəp	k ^h iiəp	a kind of snack; sound of brittle
kroop khoop a cover krush krush khush accident, casualty krusp khusp seed, gain kruam khus extremely weak kruu khus teacher krush khush gravel, small rounded stones krush khusp ingredient proh phash male pro? phusp next to, adjacent, very near pron phusp next to, adjacent, very near pron phash phash to sprinkle pron phash phash to make an effort to proh/pruh phash to to a fish trap prou phase prou phase prou phase prou phase prou phase prou prou phase phase prou phase phase phase prou phase to use			object being crushed
kruəh kruəp khuəp kruəp khuəp kruam kruu khu kruuəc khu kruuəh kruuəh kruuəh kruuən kruu kruuən kruu kruuən kruuən kruu kruuən kruu kruuən kruu kruuən kruu kruuən kruuən kruu kruuən kruu kruuən kruu kruuən kruu kruuən kruu kruuan kruu	kriəw		to castrate
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kruam kruu kruu khu kruu khu kruu khu kruu khu kruuc khu kruuc khu kruuch kruuch khu kruuch k		k ⁿ ŭuəh	accident, casualty
kruu khuu teacher kruuəc khuuəc a kind of bird kruuəh khuuən gravel, small rounded stones kruuən khuuən ingredient proh phoon male prol phual to roof, thatch, to be roofed with proap phuap next to, adjacent, very near pron phuan a kind of tree pron phoon to make an effort pron phoon to try hard to pron phoon to try hard to pron phoon to try hard to proh/pruh phoon to try hard to proh/pruh phoon to a fish trap prou phoon to make and old prol prol phoon to make and old prol prol phoon to try hard to a kind of deer; conical bamboo entry to a fish trap prou phoon unmarried and old prol prol phoon to use	kruəp	k ⁿ ŭuəp	seed, gain
kruuəc khuuəc a kind of bird kruuəh khuuəh gravel, small rounded stones kruuən khuuən ingredient male proh phone p	kruam		extremely weak
kruuəh kruuən pron pron pron pron pron pron pron pro	kruu		
kruij khuiji ingredient proh phosoh phosoh male proq phua? to roof, thatch, to be roofed with proup phuap next to, adjacent, very near pron phuap a kind of tree proh phoson to make an effort pron phoson phoson to try hard to proh/pruth phosoh/phuiji to a fish trap proi prou phoso unmarried and old prof prop phoso use		k ⁿ ŭu ə c	
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prei phései forest preu phéseu unmarried and old pra? phia? silver, money prae phése to use	prən/prum	p"əəh/p"uluih	·
preu phéeu unmarried and old pra? phia? silver, money prae phéee to use		hy . ·	_ *
pra? phia? silver, money praə phaə to use	-	b, 991	
praə phəə to use			
	•	p'iia <i>i</i>	•
praij (knae) p"naij dry, not (season)	•		
	prag (knae)	p-nan	dry, not (season)

praac	p ^h iiac	intelligent
praaw	p ^h iiaw	sound of crushing brittle objects
prae	p ^h ĕε	to alter, change
praec(k)	p ^h ἔεc	small river, a part of cart
praet	p ^h čet	demon, ogre, monster, inhabitant of
-	· .	hell
prah	p ^h iiah	to toss and turn in sleep; roll along the
		ground; move, struggling to free
		oneself
prai	p¦ĭiai	salty
pram	phiiam	five
prap	p ^h iiap	to tell
preŋ	phěen	oil
preeŋ	p ^h ěeŋ	ancient
preen	$p^{\rm h}$ ěen	food offered to spirits
priəŋ	philan	to do in rough, do as a practice before
	b	the real thing
priəp	qeii ^{ri} q	pigeon •
priəy	p ^h ĭiəy	ghost, demon, malevolent spirit
priiaw	weii ^d q	groping, hazard a guess
proŋ	p ^h ŏoŋ	to be guarded; to be ready to; to
	h	intend to; to plan for; to try to
proah	p ^h ŭuah	to be kind to, square, deliver from
	h v	death
proom	p ^h ŏom	to be ready, agree to, consent to,
	h v	accept
pruəh	p ^h ŭu⊋h	because; to sow, scatter, broadcast
pruh	p ^h ŭuh	to bark
pruu laan	p ^h ŭu laan	a bus conductor
pruuəh	p ^h ŭuəh p ^h ŭuəl	to spit onto
pruuəl	p uuəi	a bit at a time, trying it out; wicker work frame with various uses
nruuan	p ^h ŭuən	arrow
pruuən	həən	to winnow, sift
raəŋ riəŋ	hĭiəŋ	shape, form, appearance
riən	hiiən	to learn
riəp	hĭiəp	to prepare
ria?	hĭia?	shallow
riiəŋ	hĭiəŋ	to have had enough of, give up
riiən	hĭiən	platform, stage
riiəp	hiiəp	flap
riiəy	hĭiəy	small change
rooy	hŏoy	hundred
ruəp	hŭuəp	to count
ruah	hǔuah	to rake
ruam	hŭuam	to dance
run	hŭup	to push
ruuəc	hǔuəc	to finish, achieve, get through to
		the end
ruuən	qeийd	to shrink, shrivel
ruup	hŭup	picture, shape, statue, likeness
	4	

rwəŋ	hwwwaŋ	matter, issue, story, event, play
ruih	hwwh/həəh	root
reec	hěec	to carry on one's shoulder
sam.raan	smĭian	to sleep
sam.rac	sam.hiiac	to decide; to achieve
sam.rap	sam.hijap	for
sraa?	sŭua?	to decrease(water)
sraap	sŭuap	to follow closely; to agree with
sran	sŭuan	to bathe (Buddhist monk); to pick
		something out of a liquid, save
		from drowning
srah	sňuah	fresh, vivid before one's eyes, nice-
51411	ouddi.	looking, pretty
srəi	sžei	female
srəm	sžem	appearing bit by bit
srəp sraal	səəm səəp siial	to get excited
sra?	siia?	stack; to tie round tightly
	săan	scarf
sraən		a kind of insect
sran	siiaŋ	
sraa	šiia	alcohol
sraan	siiaŋ	glimmer, opaque
sraal	siial	light in weight; not serious
sraap (khae)	siiap	July-August (lunar system)
sraat	sĭiat	to take off clothes, undress
sraaw	šiiaw	to wind in, wind up
srac	siiac	to finish, complete
srae	sĕε	paddy-field
sraec	sěec	to shout
sraen	sěen	leprosy
srah	siiah	lake, pond
sram	siiam	to be cracked
sraoc	sžoc/sčoc	to sprinkle
sraom	sðam/sŏom	envelop
sraop	sðop/sðop	to cover all over the surface
srap	siiap	already complete
sriəw	šiiəw	to feel a chill of fear; to shiver
sroop	sŏop	to suck in
sroot	sŏot	swiftly and directly
sruuəc	sŭuəc	pointed, sharp
sruuəl	sŭuəl	easy, comfortable
mccrt	t ^h 3om	to be weakened
traan	t ^h ŭuarj	to catch liquid in a container
tran	t ^h ŭuaŋ	direct, straight
trah	t ^h ŭuaĥ	a kind of tree
trəŋ	t ^h ðəŋ	to be silent and halt, unable to
-	•	continue what one's doing
trəh	t ^h ðəh	than
trəi	t ^h ðəi	fish
men	t ^h ðəm	exact, just up to the same point as
trem trew	t ^h ðəm t ^h ðəw	right, accurate, proper
traw	weč ^h j	must, correct, right
	- /	,,0

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tra?	t ^h iia?	an anonymous letter
traŋ	t ^h iaaŋ	a kind of tree
traac	t ^h iiac	a kind of tree
traaw	t ^h iiaw	taro
trac coo	t ^h iiac coo	to go, walk, move foward
trae	t ^h že	horn
traeŋ	t ^h čeŋ	a kind of tree
tram	t ^h iiam	to soak
trap	t ^h iiap	to imitate
triəp	t ^h ĭiəp	a kind of sweet
troom	t ^h ŏom	go down (of elephants going into bent
		position)
troop	t ^h ŏop	sag, flop down on
truop	thŭuop	wealth, possessions, belongings; to
-	•	spread out under
truŋ	t ^h ŭսդ	pen, enclosure
truŋ triəy	t ^h ŭuŋ thĭiəy	form, shape
truaəm	t ^h ŭuaəm	to put up with, endure, suffer
truh	t ^h ŭuh	to harm
truu	t ^h ŭu	a cylindrical fish-trap
truuŋ	t ^h ŭuŋ	chest
truth	t ^h ւŭւսհ	than

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Received: September 1993

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