

The phenomenon of monosyllabization in the Kiengiang dialect of Khmer

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1. Introduce

Besides Cambodia , the country which uses Khmer as a national language , Khmer is spoken by a large population in Thailand and Vietnam . In Vietnam , Khmer is the language of more than six hundred thousand native Khmer people living in provinces in the Mekong delta such as Travin , Vinhlong , Soctrang , Angiang , Kiengiang , Minhhai and along the Vietnam - Cambodia border (see appendix 1) . After a long process of interaction with various ethno- linguistic groups , especially the Kinh people and Chinese , The Khmer in this area of Vietnam has undergone a number of changes in pronunciation . One of the most clear changes is , especially in the Kiengiang dialect , the phenomenon of monosyllabization . This is also a common phenomenon for other polysyllabic languages in South East Asia . It is suggested that the phenomenon of monosyllabization in the Kiengiang dialect of Khmer came about as the result of the following conditions :

1.1. After a long ongoing process of interaction with the Kinh people and Chinese , various inevitable contacts occurred . One of these contacts is linguistic contact with tonal language such as Vietnamese . This contact is an important factor in the phenomenon of monosyllabization in the Kiengiang dialect . This phenomenon occurred more quickly than in other Khmer dialects such as the Khmer dialect in Cambodia .

1.2. The second condition is the principle of “ least effort “ in pronunciation . This is a common principle for the polysyllabic languages in the Southeast Asian area . This principle has had different influences on each language . We assume that this principle has strongly influenced the phenomenon of monosyllabization of Kiengiang dialect . It speeds up the occurrence of phonetic changes faster .

1.3. The third condition is the necessity of improving the means of communication in order to suit to the social development

This phenomenon has led to a number of results . One of them is the gradual fading out of polysyllabic words which are being replaced by monosyllabic words in the linguistic system . Now the word and the phoneme have become the same . The occurrence of words which contrast in pitch in the Khmer dialect of Kiengiang is also a result of this phenomenon . Monosyllabization has different influences on the language . For example , for Chamic language it is tone , for Khmer language it is pitch . There are more and more words which contrast by pitch in the Kiengiang dialect . The Kiengiang dialect has been chosen for this study because it displays these changes the most clearly as compared with other dialects such as Travin ,

Angiang ... Furthermore , data that we have collected shows that the changes in the Kiengiang dialect are representative for all Khmer dialects in Vietnam . For example , in the Travinh dialect , there are many more initial consonant clusters . Of these clusters , the nasal cluster is pronounced more clearly than in the Kiengiang dialect . There are not many words which contrast by pitch . But in the Kiengiang dialect , the initial consonant clusters are decreasing . Nasal consonants of the initial consonant clusters are pronounced slightly ; There are more and more words that contrast in pitch . The reason why the Kiengiang dialect has a lot of changes is because of the following distinct conditions : Kiengiang is an area where the Khmer people and the Kinh have interacted for a long time . They have many close relations with each other . Moreover , Kiengiang is also an area where transportation is very difficult . Therefore , the Khmer people in Kiengiang have less relationship with the other Khmer groups . These difficulties probably are important reasons create number of changes in the Kiengiang dialect . In this paper , we will consider the following changes :

A. The phenomenon of monosyllabization .

B . The reduction of trill initial consonant clusters of the main syllable in the pattern C1C2VC3 . In this pattern , C2 is a trill ed / r / .

C. The shift from trill consonant / r / to fricative glottal / h / (R > H)

D. The occurrence of pitch in the dialect of Kiengiang Khmer (the linguistic data shows contrast by pitch as a result of the phonetic changes in the Kiengiang dialect)

1.4. Characteristic of Khmer consonants consists of 21 initial consonants , there are four aspirate consonants . All can occur as initial consonants and 12 as final consonants (based on Khmer in Kiengiang) . The final consonants will be indicated by the bold and italic characters in the table below .

	bilabial	Alveolar	palatal	velar	Glottal
Stops vl	<i>p</i>	<i>t</i>	<i>c</i>	<i>k</i>	?
asp	ph	th	ch	kh	
vd	b	d			
Fricatives		s			<i>h</i>
Nasals	<i>m</i>	<i>n</i>	<i>ɲ</i>	<i>ŋ</i>	
Lateral		<i>l</i>			
Trill		r			
Semi-vowels	<i>w</i>		<i>y</i>		

Among these initial consonants , initial aspirative consonants are different from Khmer in Cambodia . In Cambodian Khmer , there are no initial aspirated consonants . The aspirated consonants are pronounced clearly in areas such as Travinh , Minhhai , Vinhlong and they contrast with the unaspirated stops . But these consonants have been pronounced slightly in Kiengiang and Soctrang dialect . It is suggested that aspirated consonants are changing to unaspirated consonants .

1.5. Data collection . In order to prepare this study , we have had to collect from the field . A list of 1360 words have been used for this research . However , not all of the words have been used in this study . The subjects were from Kiengiang province . We also have collected data in other provinces such as Travinh , Vinhlong , Minhhai in order to compare with the Kiengiang dialect . The subjects vary in age , sex and education . They have lived in the area since they were born and they use Khmer in their daily life . All of them are fluent native speakers in these dialects , while only some others are literate in Khmer . The subjects were asked to pronounce each word in the wordlist . The data that we collected shows the phenomenon of monosyllabization has taken place for young people . It seems that the phonetic changes have taken place more significantly in the language of people who are under 30 years old .

1.6. The dialect of Khmer in Vietnam has not been studied by many linguists . This research contains only the first steps in studying this dialect . Therefore , it is probably that there are some instances of mis-analysis . There are still many interesting matters that have not been researched . We hope that these matters will be studied in the future . The term “ standard “ that is used in this paper refers to modern Khmer orthography which is generally considered the base for standard pronunciation of Khmer . The standard pronunciation here refers to the variety of Khmer that is taught in school and spoken by educated Khmer especially in their careful speech . Comparision between modern Khmer orthography and standard Khmer pronunciation as presented in the Khmer - Viet dictionary of Hoang Hoc (1979) .

2. Phenomenon of monosyllabization .

2.1. Syllabic pattern : There are two kinds of syllables : Pre-syllable and mainsyllable . In the dialect of Khmer in Vietnam , main syllable consists of four elements : initial consonant - medial - vowel - final consonant . The full syllable pattern will be C (C1C2) SVC3 . A Presyllable consists of three factors : initial consonants - vowel - final consonant . The full syllabic pattern will be : C'(C'1C'2)V'C3 . There are two kinds of presyllables . These are open presyllables and closed presyllables . The final consonant of a closed pre-syllable is one of four nasal consonants / m / , / n / , / ɲ / , / ŋ / . The presyllable usually does not display the complete pattern . Nowadays , there are only a few people who pronounce the full presyllable . Most of the presyllables now only contain one or two factors . Therefore , monosyllabization is an active and common phenomenon in the Khmer dialect in Vietnam , especially for young people . There are a number of initial consonant clusters as the result of this process . The phonemes of consonant clusters combine with each other according to the following rules :

2.1.a. In the pattern C1C2SVC3 , the voiced consonants do not occur in the C1 position ; In the C1 position , a fricative voiced consonant does not combine with other consonants .

2.1.b. In the C1 position, nasal consonants combine with only other consonants that have the same place of articulation.

2.1.c. There are not more than two elements in an initial consonant cluster of a main syllable. There are some consonant clusters which consist of three elements. These are the nasal consonant clusters. Nowadays, the nasal consonants have been reduced and it probably will be reduced completely in the syllable, but the meaning will not change. This phenomenon can be seen very clearly in Kiengiang dialect.

The process of monosyllabization takes place according to the three main following tendencies:

2.2. The first tendency: Initial nasal consonant clusters of main syllable. These are the result of monosyllabization. In the Khmer language, there are number of pre-syllables having final nasal consonants. In the process of monosyllabization, initial consonants and main vowels are reduced. The final nasal consonants combine with the initial consonants of the main syllable that have the same place of articulation. It creates initial nasal consonant clusters. This phenomenon takes place variety in the dialects. The data that we collected showed that this phenomenon took place according to three main following tendencies:

2.2.1. The nasal consonant clusters consist of three elements. Appearance of these consonant clusters has broken the rule that a consonant cluster can only have two elements. The syllable pattern must be C(C1C2C3)SVC4. In this pattern, C1 is nasal consonant, C3 is trill consonant. However, the nasal consonants are only recognized when they are pronounced very clearly, slowly and carefully. We assume that reduction of nasal consonants is a phenomenon more suited to the pronunciation of Khmer dialect in Vietnam, especially in the Kiengiang dialect. Therefore, the full pattern of a main syllable will be C1C2SVC3. We hypothesize a three-stages change as follows:

standard	KG dialect			
	1	2	3	
cincra:m	ncra:m	?cra:m	cra:m	to chop
congkra:n	nkra:n	?kra:n	kra:n	kitchen

2.2.2. The nasal consonant clusters consist of two elements. In the pattern C1C2SVC3, C1 is a nasal consonant and C2 are consonants which have the same place of articulation. This process takes place according to the two following tendencies:

2.2.2.1. final nasal of pre-syllable combines with initial consonant of main syllable which have the same place of articulation. This process takes place as in the following examples (for more example, see appendix 3)

standard	KG dialect	gloss
thumphia	mphia	to sew
banthup	nthup	room

əŋche:p ɲche:p to invite
 However, nasal consonants are reduced and may not be pronounced, especially for young people and the people who are illiterate.
 2.2.2.2. Nasal consonants are reduced completely. In this case, the syllable and the phoneme are the same. We hypothesized a three stage change as follows:

standard Khmer	Kiengiang Dialect			gloss
	1	2	3	
əŋkhi	ŋkhi	?khi	khi	to sit
bəncok	ncok	?cok	cok	rice noodle
cinchum	ncum	?cum	cum	to feed

This phenomenon can be seen very clearly in Kiengiang dialect, but it is not clear in the other dialects such as Travin, Vinhlong. We assume that these dialects are in the second stage of this process.

2.2.3. There are some common rules of change for the nasal consonant clusters in the polysyllable language of the area. Among them, the most common rule is the phenomenon of simplification of nasal consonant clusters. The complex nasal consonant clusters will change to more simple nasal consonant. For example, changes from nasal consonant clusters of Proto Viet-Muong to nasal consonants having the same place of articulation (N.K Xokolovskaia 1979). (*). This rule has been influences on the Khmer dialect in Vietnam. This phenomenon took place in the dialect of Khmer in Vietnam in the following way. In the pattern C1C2VC3, C1 can be a labial nasal /m/ or an alveolar nasal /n/; C2 are voiced stop consonants having the same place of articulation as C1. In the process of monosyllabization, C2 was reduced. Initial consonant of syllable now is a nasal consonant. This phenomenon is very common in the Kiengiang and Soctrang dialects, but not common in the other dialects. This is a reasonable thing because whether nasal exists or not in these dialects, reflects a different stage of the process of monosyllabization. The data that we collected showed that the Travin dialect has changed noticeably and in the future will probably be the same as Kiengiang dialect. There are three stages in this process (see appendix 4)

2.2.3.1. first stage: the final consonant of the pre-syllable combines with initial consonant of the main syllable. The result of this process is initial nasal consonant clusters in the pattern C1C2VC3. In this pattern, C1 can be labial or alveolar nasal consonants, C2 are voiced stop consonants.

2.2.3.2. second stage: Voiced stop consonants are reduced. Glottal stop occurs before labial and alveolar nasal. At this stage, C1 is a glottal stop; C2 can be labial or Alveolar nasal.

2.2.3.3. Third stage: The glottal stop are reduced. Initial consonant of syllable are nasal consonants plus falling pitch. At this stage the syllable and phoneme are the same. This process takes place as follows:

Standard Khmer	KG dialect	Gloss
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	1st stage	2nd stage	3rd stage	
andɛ:t	ndɛ:t	?nɛ:t	nɛ:t	float
andia	ndia	?nia	nia	white ant
kambit	mbit	?bit	mit	knife
ambil	mbil	?bil	mil	salt

Monosyllabization will take place as in 2.2.2.1 if the initial consonant of the main syllable is not a voiced stop consonant .

2.3. The second tendency : The reduction of the trill in the consonant clusters of the main syllable . In the Khmer language , there are a number of open pre syllable patterns that consist of a consonant or consonant cluster , a vowel nucleus . The full pattern will be C'1C'2V' . C'1 includes most of the initial consonants ; C'2 is a trill consonant . In the process of monosyllabization , C'2 and V' are reduced . C'1 combines with initial consonants of the main syllable . This is a phenomenon that is very common in all of Khmer dialects in Vietnam . This is also a difference in pronunciation between the Khmer in Vietnam and the Khmer in Cambodia (In the dialect of Khmer in Cambodia , this kind of pre-syllable is still pronounced clearly) . This process will take place as follows : C'1C'2CVC1 > C'1CVC1 (for more example see appendix 5)

standard Khmer	KG dialect	gloss
krodao	kdao	hot
srobak	sbak	a little time
prala:n	pla:n	to take an exam

In this case , the aspirative consonants have changed into unaspirative consonants . Nowadays , it is difficult to find consonant clusters of pre-syllables such as pr , kr , er , sr , khr , ... in the dialect of Khmer in Vietnam . This phenomenon has increased the number of possible consonant clusters in the main syllable . We hypothesize that this process in Khmer in Vietnam take place faster than the Khmer in Cambodia because of contact with the Vietnamese language , a monosyllabic and tonal language .

2.4. The third tendency : Pre-syllable are reduced completely . A vowel / a / occurs before the main syllable as a new pre-syllable . This new pre-syllable are usually / l / or a vowel / a / . This phenomenon takes place only when the initial consonant of the pre-syllable is trill / r / and aspirated velar stop / kh / , (see appendix 8) . For example :

standard Khmer	KG dialect	gloss
khokhi:	akhi:	one kind of tree
rolək	alək	waves
rolət	alət	to scratched
robo:t	lbo:t	to slip

3. Phenomenon of reduced trill consonant . In the Khmer language , there are a number of consonant clusters of main syllable type where the second element is a trill . Through a long process of contact with monosyllabic and tonal language such

as Kinh, the trill has been reduced. There is only the first element plus falling pitch. This phenomenon has created pairs of words which have the same segmental. These words only contrast with each other in pitch. The words with falling pitch are a result of reduced trill in the consonant cluster. It is suggested that language contact has influenced this phenomenon strongly in Khmer dialect in Vietnam. This phenomenon can be found in most of dialects of Khmer in Vietnam. In this paper, symbol (ˀ) is used to show syllables with falling pitch. (For more examples, see appendix 2)

Standard	KG dialect	Gloss
krɑː	kɑːˀ	poor
krao	kɑo	out of
sɾɛː	sɛːˀ	paddy field
crɑːt	cɑːt	stick

4. The R > H shift in the dialect Khmer of Kiengiang. This is a characteristic in Kiengiang dialect. It also occurs in the neighbouring dialect such as Soctrang dialect and Minhhai dialect. This shift happens when initial consonant of the main syllable is a trill. This phenomenon does not happen in consonant cluster. This also creates a number of pairs of words which contrast in pitch. Some examples below show this phenomenon. (For more examples, see appendix 6)

standard	KG	gloss
riən	hiən	to learn
rɑːp	hɑːp	to count
rik	hiːk	to blossom
rɑːm	hɑːm	to dance

5. About the occurrence of pitch in dialect of Khmer in Vietnam

This is a new matter in Khmer phonology and it has not been studied very much. In this paper, we aim to bring these matters to the attention of other linguistics. Further study is needed. However, the data that we collected proves that monosyllabization process, reduction of trilled initial consonant clusters and the R > H shift have influenced the occurrence of pitch in the dialect of Khmer in Vietnam. This has been proved by pairs of words having the same segmental which only contrast by pitch as example below. In this paper, the symbol (ˀ) have been used for the word having falling pitch. (For more examples, see appendix 7)

Gloss	1st group	2nd group	gloss
neck	krɑː	krɑː > kɑːˀ	poor
earring	kao	krɑo > kɑo	outside
dare	hian	rian > hiən	to learn

6. conclusion

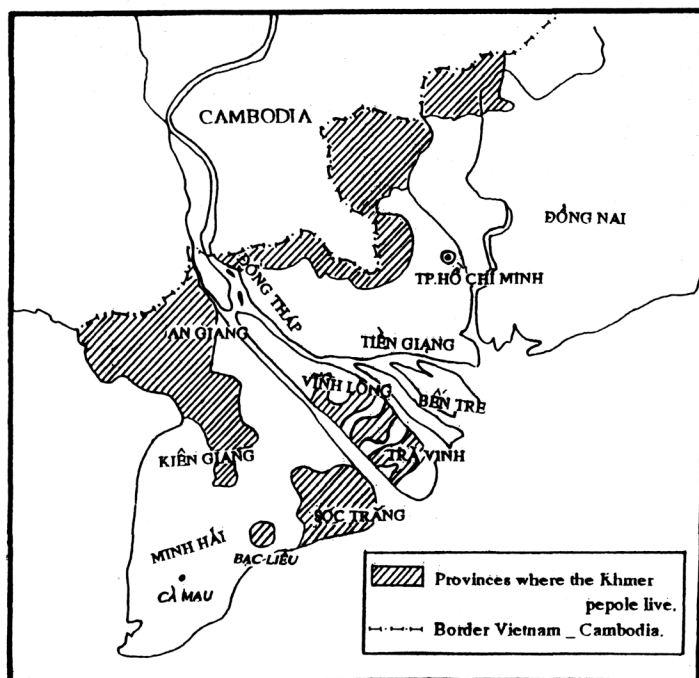
This study reflects major phonetic changes in the Kiengiang dialect of Khmer when compared to orthography. These changes are a common phenomenon in Khmer language in Vietnam especially in the Kiengiang dialect of Khmer.

Monosyllabization is a common occurrence in all of the dialects of Khmer in Vietnam . This phenomenon creates a number of initial consonant clusters and more and more monosyllabic words . The words which have the same segmental are contrasted by pitch increasingly . It is suggested that language contact has strongly influenced these phonetic changes in the dialect of Khmer in Vietnam . The principle of " least effort " speeds up these changes . The study of this phenomenon has yet to be concluded . Therefore , further study are needed .

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Appendix 1. Map of number of Khmer speakers in Vietnam



Appendix 2

Standard	KG dialect	Gloss
kra:	kɑ:	poor
kra:p	kɑ:p	cover
crɑ:n	cɑ:n	to push
kra:l	kɑ:l	to spread out
krah	kɑh	comb
kra:m	kɑ:m	micropodus
kru:ŋ	kũ:ŋ	city
kru:m	kũ:m	group
kro:c	kɔ:c	orange
kruac	kũac	one kind of bird
kruah	kũah	gravel
kriə:p	kiə:p	rice paper
kriəm	kiəm	dry
kriəw	kiəw	to castrate
kɛ:ŋ	kɛ:ŋ	thought
kro:k	kɔ:k	stand up , get up
kro:m	kɔ:m	under
kro:y	kɔ:y	behind
khro:p	khɔ:p	to cover
khru:p	khũ:p	enough
khra:n	khra:n	to be well off
khra:p	khra:p	seed
khru:	khũ:	teacher
crak	cɑ:k	gate
crat	cɑ:t	stick
crah	cɑh	brush
crɑ:n	cɑ:n	push
cro:t	cɔ:t	to harvest
crə:n	cə:n	much , many
crɑ:m	cɑ:m	to chop up
criŋ	ciŋ	to sing
chro:k	chɔ:k	to hide
chroŋ	chɔŋ	bat
chru:ŋ	chũ:ŋ	corner
chru:k	chũ:k	peak
chre:	chɛ:	afternoon

chrah
 tronɣ
 tra:p
 tra:m
 thru:ŋ
 thre:t
 thro:m
 prak
 pra:c
 pra:m
 pra:p
 pra:y
 pə:
 proh
 pre:ŋ
 priəp
 prɛ:
 praŋ
 phro:m
 phruk
 phriəp
 phruh
 phre:ŋ
 phrec
 phɛk
 phrah
 phru:m
 phro:m
 srok
 sronɣ
 srɛ:k
 sanɣ
 sra:t
 sra:
 sra:l
 srʌ:y
 srok

chah
 tàŋ
 tà:p
 tà:m
 thù:ŋ
 thè:t
 thɑ:m
 pək
 pɑ:c
 pɑ:m
 pa:p
 pɑ:y
 pə:
 pòh
 pɛ:ŋ
 piəp
 pɛ:
 paŋ
 phò:m
 phruk
 phiəp
 phuh
 phè:ŋ
 phɛc
 phɛk
 phàh
 phù:m
 phò:m
 sək
 sɔŋ
 sɛ:k
 sanɣ
 sɑ:t
 sɑ:
 sɑ:l
 sʌ:y
 sok

clean
 streath ahead
 tomato
 to pickle
 chest
 to lean
 to stand
 silve
 intelligent
 five
 talk to
 salted
 to use
 boy , male
 oil
 to compare
 to traslate
 dry season
 to agree
 morning
 pigeon
 bake
 fortune
 to touch
 rive
 budha
 border
 to agree
 to drop
 to pick up
 to shout
 bee
 bird
 alcohol
 light
 girl
 district

Appendix 3*

Standard	KG dialect	Gloss
kamthec	mthec	ash
bambɛ:k	mbɛ:k	to divide
kampo:y	mpo:y	top tuft of hair
kamphɔh	mphɔh	small shrimp
kamphu:ŋ	mphu:ŋ	preent tense
kamphu:l	mphu:l	top
komphe:m	mphe:m	one kind of insect
kambi:t	mbi:t	knife
cəŋka:	ŋka:	chin
cəŋkʌh	ŋkʌh	chopsuck
cəŋko:t	ŋko:t	wheel
cəŋkiəŋ	ŋkiəŋ	light
cəŋrit	ŋrit	cricket
ci:pcw:m	pcw:m	to feed
ci:pcə:m	pcə:m	eyebrows
ci:pciəŋ	pciəŋ	ring
bəŋchu:n	nchu:n	to take sb to
ci:pcram	pcra:m	to chop up
chəpchaŋ	pcchaŋ	wall
?cɛle:n	nle:n	earthworm
dəmnəp	mɔ:p	sticky rice
thomphok	mphok	hook
bəŋha:n	ŋha:p	to guide
bəŋ?a:p	ŋ?a:p	to flirt
bəncok	ncok	rice noodle
bəntic	ntic	a little
bənthup	nthup	room
bənthə:t	nthə:t	rules
bənthə:p	nthə:p	continue
bəntho:	ntho:	to blow of steam
bənlɛ:	nlɛ:	vegetable
bəmphoŋ	nphoŋ	pile
bəmphil	mphil	to spoil
bəmphe:	mphe:	to rock

* nasal consonants are pronounced very slightly

bankə:t
 sɔŋkiə
 sansə:m
 sansə:m
 ʔaŋka:
 ʔaŋka:m
 ʔaŋche:n
 banla:
 romlɔk
 konlɛ:n
 thomla:k
 thomphaŋ
 thomphiə
 samphah
 kanse:ŋ
 banka:ŋ
 thonthw:ŋ
 phno:mphe:p
 ʔanrw:ŋ

nkə:t
 ŋkiə
 nsə:m
 nsə:m
 ŋka:
 ŋka:m
 nche:n
 nla:
 nlɔk
 nle:n
 mla:k
 mphaŋ
 mphiə
 mphah
 nse:ŋ
 nka:ŋ
 nthw:ŋ
 mphe:p
 nrw:ŋ

to establish
 to fell one's teeth on edge
 fog
 to save money
 rice
 rice husk
 to invite
 thorn
 to remind
 place
 to drop
 bamboo shoot
 to chew
 to prostrate
 handkerchief
 shrimp
 to look forward
 capital of Cambodia
 hammock

Appendix 4

Standard	1st stage	KG dialect	2nd stage	3rd stage	Gloss
sɛndɛ:k	ndɛ:k	ʔnɛ:k	n̩ɛ:k	n̩ɛ:k	bean
ʔɛndə:k	ndə:k	ʔnə:k	n̩ə:k	n̩ə:k	tor
dɛndwɿŋ	ndwɿŋ	ʔn̩w̩:ŋ	n̩w̩:ŋ	n̩w̩:ŋ	to propose marriage
dɛndə:m	ndə:m	ʔn̩ə:m	n̩ə:m	n̩ə:m	to dispute
ʔɛndɛ:t	ndɛ:t	ʔn̩ɛ:t	n̩ɛ:t	n̩ɛ:t	float
sɛndo:k	ndo:k	ʔn̩ɔ:k	n̩ɔ:k	n̩ɔ:k	to stretch
bɛndə:	ndə:	ʔn̩ə:	n̩ə:	n̩ə:	to lead
sɛnda:p	nda:p	ʔn̩a:p	n̩a:p	n̩a:p	young rice plants
ɛnda:t	nda:t	ʔn̩a:t	n̩a:t	n̩a:t	tongue
ɛndo:n	ndo:n	ʔn̩o:ŋ	n̩o:ŋ	n̩o:ŋ	well
ɛndɛ:ŋ	ndɛ:ŋ	ʔn̩ɛ:ŋ	n̩ɛ:ŋ	n̩ɛ:ŋ	one kind of fish
kɛndiə	ndiə	ʔn̩iə	n̩iə	n̩iə	white ant
kɛnda:l	nda:l	ʔn̩a:l	n̩a:l	n̩a:l	in the middle
dɛnda:m	nda:m	ʔn̩a:m	n̩a:m	n̩a:m	to cook
ʔɛmbi:l	mbi:l	ʔm̩i:l	m̩i:l	m̩i:l	salt
sɛmbə:ŋ	mbə:ŋ	ʔm̩ə:ŋ	m̩ə:ŋ	m̩ə:ŋ	straw
pra:mbuan	mbuan	ʔm̩uan	m̩uan	m̩uan	nine
sɛmbok	mbok	ʔm̩ɔk	m̩ɔk	m̩ɔk	bird nest

Appendix 5

Standard	KG dialect	Gloss
krodah	kdah	paper
krab^y	kb^y	buffalo
krəphə:	kphə:	crocodile
kromu:m	kmu:m	young girl
krada☉	kda☉	hot
krələ:	klə:	jar
krələ:p	kla:p	overtum
krəʔo:p	kʔo:p	sweetsmell
crəke:ŋ crəka:ŋ	cke:ŋ cka:ŋ	bulky
crəne:n	cne:n	envy
crəba:l	cba:l	to mix
crəba:c	cba:c	massage
crəməh	cməh	nose
crələ:m	clə:m	mistake
trəbak	tbak	to snap
prəkah	pkah	to inform
prəka:n	pka:n	to forbear
prələ:ŋ	plə:ŋ	to take exam
prəchan	pchan	to struggle
prəchu:m	pchu:m	meeting
prəpəp	pəp	in a hurry
prəda:w	pda:w	to teach
prəma:t	pma:t	bile
prəsa:	psa:	in law
prələk	plək	dirty
phrəlʷ:ŋ	phlʷ:ŋ	spirit
srapa:t	sra:t	quiet
srobək	sək	a moment
sromək	smək	to snore
sromo:c	smo:c	ant
prəcan	prəcan	be jealous

Appendix 6

Standard	KG dialect	Gloss
ro:k	hò:k	to look for
riə:n	hiə:n	to learn
ro:m	hò:m	to dance
ru:ŋ	hù:ŋ	cave
ran	han	to stop sb
rah	hah	to shine
ruŋ	hũŋ	to push
rat	hat	to run
ro:p	hò:p	to count
re:k	hè:k	to shoulder
riə:n	hiə:n	shape
riəp	hiəp	to tidy up
riəw	hiəw	to grope for
ri:k	hi:k	to blossom
ri:ŋ	hi:ŋ	shallow
r w:ŋ	h w:ŋ	hard
rit	hit	to tighten
ruac	huac	to be able to
ro:y	hò:y	hundred
ro:k	hò:k	bacteria
ro:m	hò:m	to gather together
roh	hoh	to live
ru:m	hũ:m	to cover

Appendix 7 *

Gloss	Standard	KG dialect		Gloss
neck	kɑ:	krɑ:	>	kɑ:
to follow	ta:m	tra:m	>	ta:m
pickle				
money	kah	krah	>	kàh
bird	sa:t	sra:t	>	sà:t
caring	ka:w	kra:w	>	kà:w
when	ka:l	kra:l	>	kà:l
to burried	kɑ:p	kɑ:p	>	kà:p
a pair	khu:	khru:	>	khù:
wrong	khoh	khroh	>	khòh
dare	hiən	riən	>	hiən
whistle	huac	ruac	>	huac
to tear off	hɛ:k	rɛ:k	>	hɛ:k
bull frog	hi:ŋ	ri:n	>	hi:ŋ
to hold	ka:n	cɔnkra:n	>	ka:n
to curled	kuac	kruac	>	kuac
brain	khua	khrua	>	khua
bowl	ca:n	cra:n	>	cà:n
wait for	ca:m	cra:m	>	cà:m
hair	sok	srok	>	sòk
party	pak	prak	>	pàk
to be fine	sok	srok	>	sòk

poor	to	thick	to take off	out , outside	to pread out	cover	taeher	accident	to learn	to be able to	to shoulder	shallow	kitchen	kind of bird	family	to push	to chop up	to drop	silve	district
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* Falling pitch in this paper will be use in () symbol