

# PREFIXATION AND INFIXATION IN OLD MON, OLD KHMER, AND MODERN KHMER

First I must acknowledge my indebtedness to my colleague, Mr. H. L. Shorto, for most kindly supplying me with information on OM prefixes and infixes. All the data on OM here used have been taken from his notes. For OKhm the body of material is smaller and the language much less diverse than OM (many of the OKhm texts being lists of slaves' names and their duties.) It has therefore provided me with many problems and fewer examples than I should have liked.

In attempting this comparison between the three languages I looked at the collected data with a view to answering three questions:

- I. What graphic/phonetic and phonological elements may be (a) prefixed, (b) infixed in each language?
- II. In what graphic/phonetic and phonological contexts do these elements occur?
- III. What grammatical functions do they perform?

The answers which I found are presented in the three following sections.

*Section I.* The graphic/phonetic and phonological elements which may be prefixed or infixed.

A table of these elements is given on pages 21-23.

In so far as OKhm and MKhm are concerned, prefixes and infixes may be treated phonologically as being entirely consonantal, consisting of one or two consonants. Such vowels as are written or pronounced before or after or between two consonants of a prefix or infix (short 'inherent' vowel or short neutral vowel, ə, in MKhm; short 'inherent' or occasionally i in OKhm) do not show sufficient variation to be regarded as essential phonological elements and may be satisfactorily treated as prosodic features of the junction between consonants. Cf.:

Khmer <i>chlŭəh</i> <sup>1</sup> 'to quarrel'	<i>prəchlŭəh</i> 'to squabble together' (Prefix <i>pr</i> and prosodic ə)
<i>rəəs</i> 'to rake'	<i>rənəs</i> 'a rake' (Prosodic ə and infix <i>n</i> )
OKhm <i>jāhv</i> 'to barter'	<i>pamjāhv</i> 'bartered goods' (Prefix <i>pN</i> and prosodic <i>a</i> between consonants)
<i>pre</i> 'to use'	<i>pamre</i> 'person used, servant' (Prosodic <i>a</i> and infix <i>m</i> )

(Contrast *som* 'to beg', *smom* 'beggar', where no junctional short vowel is felt to be necessary (Infix *m*).)

<sup>1</sup> The phonetic transcription here used for MKhm was evolved by Miss E. J. A. Henderson. See 'The main features of Cambodian pronunciation', *BSOAS*, xiv, 1, 1952, pp. 149-74. For OM and OKhm a straightforward transliteration is used, with the symbol ' representing the vowel-base.

It may also be conveniently mentioned here that aspiration is another Khm feature of junction which is recorded in later OKhm spelling and in MKhm : e.g. OKhm *sam* 'together', *phsam* 'to add together'; MKhm *kəp* 'pleasing' *phkəp* 'to please'. (In both cases prefix *p* and prosodic aspiration.)

In OM more frequent use seems to have been made of a short vowel between prefixes and the initials of roots to which they were attached and a slightly wider variation of vowel is noted (short *a*, *i* and *u* all occur). Thus the prefix *p* (causative) has at least three forms:

<i>lop</i> 'to enter'	<i>plop</i> 'to bring in'
<i>duk</i> 'to be poor'	<i>paduk</i> 'to oppress'
<i>piñ</i> 'to be full'	<i>pupiñ</i> 'to fill'

and the hypothetical prefix *s* has two forms, *s* and *si*:

<i>kīr</i> 'to dig'	<i>skīr</i> 'shall dig'
<i>dmoñ</i> 'to stay'	<i>sdmoñ</i> 'shall stay'

and, before another *s*,

<i>sūl</i> 'to write'	<i>sisūl</i> 'shall write'
	<i>sisgih</i> 'shall be rich'
	<i>sisip</i> 'shall embellish'

and

<i>k'im</i> 'to smile'	<i>sik'im</i> 'shall smile' (an isolated instance of <i>si</i> before a consonant other than <i>s</i> )
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I have entered in the graphic column of the tables the exact spelling of OM words (as for OKhm also), but in the phonological column I have taken the liberty of singling out the M consonants, for the purpose of comparison with Khm.

Some OM infixes are preceded or followed by a short vowel and here Mr. Shorto takes the consonant as the phonological element, e.g.:

<i>gruñ</i> 'to laugh'	<i>ginruñ</i> 'laughter'
<i>p'ār</i> 'to put into practice'	<i>pun'ār</i> 'conduct' (Infix <i>N</i> in both cases)

These are entered in the phonological column as N.

The M infix *u/i*, for which Mr. Shorto uses the symbol *u*, occurs as follows. Either

- (a) it is infixed between the two consonants of an initial sequence
  - (i) with no change taking place in either consonant, e.g. *kcit* 'to die', *kucit* 'death'; or
  - (ii) with voicing of the first consonant, e.g. *phic* 'to fear', *buhic* 'to frighten'. Or
- (b) when the root has a single initial consonant
  - (i) this is reduplicated and the infix occurs between the two

- consonants, e.g. *moy* 'one', *mimoy* 'each'; or  
 (ii) reduplication occurs but the first consonant is deglottalized, e.g. *bat* 'to compare with', *biḥat* 'to measure, test'.

Such occurrences as (b) (i) and (ii) are phonetically so like the Khm words formed by the occurrence of the reduplicative prefix (e.g. *kākary* 'to scratch continually', from *kary* 'to scratch'; *pəbaos* 'to sweep diligently', from *baos* 'to sweep'), that I have entered them in square brackets, in the graphic column of the prefix table to demonstrate that a phonetic similarity may conceal a morphological difference.

The M infix *N* may similarly occur either between the two consonants of an initial sequence or between the two consonants formed by the reduplication of a single initial in the root, e.g. *pi* 'three', *pumpi* 'triad'; *juḥ* 'leg', *jūḥjun* 'post of building'. Again the resulting phonetic, as opposed to morphological, similarity between this phenomenon and some Khm prefixed forms (e.g. *tḍən* 'to be in time, to catch up', *tḥəntḍən* (with prefix + *N*) 'to be just behind') seems sufficiently striking to be entered in square brackets in the prefix table I A 2, as well as in the infix table, I B 2, where they belong morphologically. *pun*, *pum*, in the M prefix column have also no place in the phonological column, since they represent a prefix (*p*) and an infix (*N*), and not two prefixed consonants.

### Summary: Section I

No particular likenesses are observed in connection with the single consonants which may be prefixed in the three languages, but when two consonants are prefixed these may in all cases be either *C + r* or *C + N*.

Where one consonant is infixed it may be *n*, *m*, or *N* in all the languages. In addition M has *r* and *l* infixes while Khm has *p*, *b*. Where two infixed consonants are concerned, all three languages have only nasals and liquids. One two-consonant infix, *mn*, occurs in all the languages.

M is unique in having a vowel infix, *u*.

### Section II

1. The graphic/phonetic contexts in which prefixes and infixes occur. It was found

(a) that the prefixes of all the languages (single consonant and two consonants) may all be prefixed to roots having a single initial consonant, thus forming words in which two or three consonants occur in close succession. Some prefixes occur before words beginning with a two-consonant sequence, e.g. *s* in OM (*dmoḥ* 'to stay', *samoḥ* 'shall stay'); *kN* in OKhm (*steḥ* (title), *kamsteḥ* (title)); *pr* in MKhm (*chlḥəḥ* 'to quarrel', *prəchlḥəḥ* 'to squabble together').

(b) That in all the languages infixes may occur with roots having either a single initial consonant or a two-consonant initial sequence.

2. The phonological contexts in which prefixes and infixes occur.

*Prefixation and infixation in Mon and Khmer*

**I. A**

*1. Single Consonant prefixed*

Phonetic nature of prefix or infix	OM		OKhm		MKhm	
	Graphic	Cons only	Graphic	Phonol.	Phonetic	Phonol.
Velar	(gu)	(g)	—	—	<i>k, kh, kə</i> <i>kə</i> [+ <i>k</i> ]	<i>k</i> Rd. <i>k</i>
Palatal	[ <i>ji</i> + <i>j</i> ]	—	—	—	<i>ŋə</i> [+ <i>ŋ</i> ] <i>c, ch cə</i> <i>cə</i> [+ <i>c</i> ]	Rd. <i>ŋ</i> <i>c</i> Rd. <i>c</i>
Dental	[ <i>ti, tu</i> + <i>t</i> ] [ <i>di</i> + <i>d</i> ]	— —	( <i>ta</i> ) [+ <i>t</i> ] ( <i>na</i> ) [+ <i>n</i> ]	Rd. <i>t</i> Rd. <i>n</i>	<i>ŋə</i> [+ <i>ŋ</i> ] <i>tt, th, tə</i> <i>tə</i> [+ <i>t</i> ]	Rd. <i>ŋ</i> <i>t</i> Rd. <i>t</i>
Bilabial	<i>p, pa</i> [ <i>bi</i> + ' <i>b</i> '] ( <i>m</i> ), [ <i>mi</i> + <i>m</i> ]	<i>p</i> — ( <i>m</i> )	<i>p, ph</i> — ( <i>mī</i> ) [+ <i>m</i> ]	<i>p</i> — (Rd. <i>m</i> )	<i>də</i> [+ <i>d</i> ] <i>p, ph, pə</i> <i>pə</i> [+ <i>p</i> ] <i>bə</i> [+ <i>b</i> ] <i>m, mə</i> <i>mə</i> [+ <i>m</i> ]	Rd. <i>d</i> <i>p</i> Rd. <i>p</i> Rd. <i>b</i> <i>m</i> Rd. <i>m</i>
Liquid	( <i>r</i> ) ( <i>ru/lu</i> )	( <i>r</i> )	—	—	<i>rə</i> <i>rə/lə</i> [+ <i>l</i> ]	<i>r</i> Rd. <i>r/l</i>
Sibilant	<i>s, si</i> ( <i>sa/su</i> )	<i>s</i> ( <i>s</i> )	—	—	<i>s</i> <i>sə</i> [+ <i>s</i> ]	<i>s</i> Rd. <i>s</i>
Glottal	—	—	—	—	—	—

*2. Two Consonants prefixed*

Velar	[ <i>kin</i> + <i>k</i> ] [ <i>kir</i> + <i>k</i> ] [ <i>gin</i> + <i>g</i> ] [ <i>gir</i> + <i>g</i> ] [ <i>jñ</i> + <i>j</i> ] [ <i>ñir</i> + <i>ñ</i> ]	— — — — — —	<i>kaŋ, kaŋ</i> <i>kan, kam</i>	<i>kN</i>	<i>k</i> + short 'inherent' + any nasal <i>krə</i>	<i>kN</i> <i>kr</i> <i>cN</i>
Palatal	—	—	( <i>cam</i> )	( <i>cN</i> )	<i>c</i> + s.i. + a.n. <i>crə</i>	<i>cr</i> <i>tN</i>
Dental	—	—	( <i>tam</i> ) ( <i>dam</i> ) [+ <i>d</i> ]	( <i>tN</i> ) ( <i>dN</i> )	<i>t</i> + s.i. + a.n. <i>trə</i>	<i>tr</i> <i>dN</i>
Bilabial	<i>pan, pun</i> ( <i>pur</i> ) [ <i>pun, pum</i> ]	<i>pN</i> ( <i>pr</i> ) —	<i>pañ, pan,</i> <i>pam</i> <i>pra</i> ( <i>mra</i> )	<i>pN</i>  <i>pr</i> ( <i>mr</i> )	<i>p</i> + s.i. + a.n. <i>prə</i> <i>b</i> + s.i. + a.n.	<i>pN</i>  <i>pr</i> <i>bN</i>
Liquid	<i>rin</i> ( <i>rir</i> ) ( <i>lum</i> )	<i>rN</i> ( <i>rr</i> ) ( <i>lN</i> )	( <i>ram</i> ) ( <i>lan</i> ) [+ <i>l</i> ]	( <i>rN</i> ) ( <i>lN</i> )	<i>r</i> + s.i. + a.n. <i>l</i> + s.i. + a.n.	<i>rN</i>  <i>lN</i>
Sibilant	[ <i>sir</i> + <i>s</i> ]	—	—	—	<i>s</i> + s.i. + a.n. <i>srə</i>	<i>sN</i>  <i>sr</i>
Glottal	—	—	' <i>an</i> , ' <i>am</i>	' <i>N</i>	' + s.i. + a.n.	' <i>N</i>

I. B. INFIX TABLE

1. Single non-nasal Consonant infixed

Phonetic nature of prefix or infix	OM		OKhm		MKhm	
	Graphic	Phonol (HLS)	Graphic	Phonol.	Phonetic	Phonol.
Bilabial	—	—	<i>p, ap</i>	<i>p</i>	<i>b</i>	<i>b</i>
Liquid	<i>ir, ar</i> <i>ur, ra, ri</i> ( <i>il</i> ) <i>w, uw</i>	<i>r</i>  ( <i>l</i> ) <i>w</i>	—	—	—	—

2. Single nasal Consant infixed

Nasal	<i>m</i> (All occur when root has a single initial consonant)	<i>m</i>	<i>m, hm, am</i> <i>am</i> (Occurs between two cons. of init. sequence also)	<i>m</i> <i>m</i>	<i>m, hm</i>	<i>m</i>
	<i>n</i> (All occur when root has a single initial consonant)	<i>n</i>	<i>n, hn, an</i> <i>am</i> (Occurs between two cons. of init. sequence also)	<i>n</i> <i>n</i>	<i>n, hn</i>	<i>n</i>
	<i>in, iñ, uñ</i> <i>un, añ, añ</i>	<i>N</i>	<i>am, añ, an</i>	<i>N</i>	short 'inherent' + any nasal	<i>N</i>
	(Occur between two consonants of initial sequence of root or between two consonants formed by reduplicated initial of root)					

3. Two Consonants infixed

OM		OKhm		MKhm	
Graphic	Phonol. (HLS)	Graphic	Phonol.	Phonetic	Phonol.
<i>inm, añm</i> <i>añn</i>	<i>Nm</i> <i>Nn</i>	— <i>añn</i>	— <i>mn</i>	— short 'inherent' + <i>mn</i> <i>rən</i>	— <i>mn</i>
<i>irn</i> — <i>uñw</i>	<i>rn</i> — <i>Nw</i>	— — —	— — —	— — —	<i>rn</i> — —
(All occur only when root has single initial consonant)					

4. Vowel, or Vowels, infixed

OM		OKhm		MKhm	
Graphic	Phonol.	Graphic	Phonol.	Phonetic	Phonol.
<i>u/i</i>	<i>u</i>	—	—	—	—

(Occurs between two consonants of initial sequence of root or between two consonants formed by reduplicated initial sequence of root. May be accompanied by voicing or deglottalization of initial.)

Meaning of abbreviations, etc. in tables:

( ) (OM) only one or two occurrences known. (OKhm) meanings not completely established.

[ ] Placed for interest in graphic column but have no place in phonological column of the table.

Rd. Reduplicated.

N Nasal which may vary in point of articulation according to the context, or even at the discretion of the scribe.

Here there are some striking features of resemblance. In all three languages both prefixes and infixes are chiefly consonantal and as such either

(a) they occur without adding a syllable to the structure of the root, e.g. OM *cow* 'to return', *scow* 'shall return', *goñ* 'to be brave', *gmoñ* 'brave'; OKhm *gāl* 'to present oneself to a superior', *phgāl* 'to have oneself presented to a superior'; *rañ* 'to dance', *rmañ* 'dancer'; MKhm *rɿ:s* 'to pick out, choose', *crɿ:s* 'to take one's choice'; *do:* 'to trade', *thno:* 'price'. Or

(b) they are linked to the root by means of a short vowel. In this case, the resulting word often has an iambic construction, length of syllable and, for MKhm at least, stress occurring in the utterance of the vowel and final of the root, e.g. OM *puwiñ* 'play', from *wiñ* 'to play'; *jirhān* 'love', from *chān* 'to love'; OKhm *'antām* 'plantation', from *tām* 'to plant'; *camnār* 'engraving', from *cār* 'to engrave'; MKhm *bəŋriən* 'to teach', from *riən* 'to learn'; *trənūm* 'perch', from *tūm* 'to perch'.

It is in all the languages the initial or initial sequence of the root to which an infix (as well as a prefix) is attached, the vowel and final of the root being unaffected. It is partly because of this that phonetically similar material has seemed grammatically different to Mr. Shorto and myself. Mr. Shorto, for whom *u/i* is an infix in its own right (*kmin* 'to be king', *kumin* 'to enthrone'; etc.), arrives at the conclusion that the same infix occurs in the initials of the roots *jāp*, 'each, all', *moy* 'one', necessitating the reduplication of those initials: *jipāp* 'all', *mimoy* 'each'. Similarly the high-frequency occurrence C<sub>1</sub>NC<sub>1</sub>VC (e.g. *jiñjuñ*) is to him an instance of infix N in a root with a single initial consonant (*juñ*). To me the high-frequency occurrence in MKhm: C<sub>1</sub>əC<sub>1</sub>VC represents a reduplicating prefix, as in *kəka:y* 'to scratch constantly', from *kay* 'to scratch'. (I have no reason to suspect the presence of a vowel-infix.) The comparatively rare occurrence C<sub>1</sub>NC<sub>1</sub>VC represents a prefix CN + root with accidentally similar initial.

*Section III.* The grammatical functions performed by the prefixed and infixes.

The collected data are presented in a table on p.25.

It will be observed that the nominalizing and causative functions are common to all three languages and are carried out by both prefixes and infixes. It is only for OKhm that no instance of a causative link has been noted and this may be due to lack of evidence only. The nominal function may be further analysed into types of noun produced, and here one is struck by the occurrence in all three languages of the double nasal infix (*Nn/Nm/mn*) for general nouns, the utensil-infix *n*, and the agent-infix, *m*.

The frequentative function is common in both OM and MKhm and the absence of instances in OKhm may be due again to lack of evidence and also to lack of the right kind of text; frequentative words tend to occur in a rather vivid style of language in Khm. Only prefixes are used in Khm to express this function, whereas M uses both prefixes and infixes. A glance at the Khm prefixes, however, shows that the same kinds of consonant (i.e. nasals and *r*) which are infixed into the beginning of the word in M are present in several of the Khm prefixes. The latter have been divided in the table according to whether they tend to give a straightforward repetitive meaning to the root or have an intensifying or restricting effect on the meaning of the root. Reduplicated *c*, *m* and *s* fulfil both functions, e.g. *thēak* 'to kick', *tathēak* 'to kick repeatedly'; *kaon* 'to bend', *cōmkaon* 'to bend with effort' (both intransitive).

The entry for OKhm in the quantifier section was made on the strength of only two occurrences noted by me, *tanloh* (capacity measure; quantifier), from *tloh* (capacity measure), and *sanre* 'rice-field' (quantifier), from *sre* 'rice-land'. These words I have elsewhere<sup>1</sup> regarded as nouns which have taken the *n*-infix (utensil, means), but it seems worth while to take them out here for comparison with M. In MKhm the two words seem to have disappeared, and among the quantifiers which I have listed I find only a few words in which the presence of an infix of this kind might be suspected: *cōmriak* 'strip' (quantifier for pieces of fish or meat), from *criak* 'to tear in strips'; *sonrap* 'suit, set', from *srap* 'finished'; *kōndap* 'sheaf', from *kdap* 'to grasp in the hands'. In all these words, the infix is *N*, which may represent the general nominalizer or the agent infix just as well as the *n*-infix.

OM and OKhm are again comparable in using prefixes or infixes to express a verbalizing function, although evidence for OKhm is slender (*ampān* 'to arrest', from *pān* 'to hold, keep').

OM is alone in using prefixes and infixes for two sets of functions:

- (i) The hypothetical and preparative function (prefixes *s* and *sa/su*). These I have put together as they are similar in meaning as well as possibly

<sup>1</sup> 'The structure of the word in Old Khmer', *BSOAS*, 23, 2, 1960, pp.351-68.

THE GRAMMATICAL FUNCTIONS OF THE PREFIXES AND INFIXES

Grammatical Function	OM		OKhm		MKhm	
	Pref.	Inf.	Pref.	Inf.	Pref.	Inf.
1. Nominalizing						
(a) General	<i>tN, p, m, r, rN, rr, lN</i>	<i>N<sub>1</sub>, N<sub>2</sub>, Nn, Nm, Nw, n, r, rn, l, w, uw, u</i>	<i>pN, 'N (pr)? (kN)?</i>	<i>nm</i>	<i>cN, dN tr, m, lN, sN</i>	<i>mn, N</i>
(b) Utensil	—	<i>n</i>	—	<i>n</i>	<i>'N</i>	<i>n, N, rn</i>
(c) Agent	<i>(gu)</i>	<i>Nm</i>	—	<i>m</i>	—	<i>m, N,</i>
(d) Object made	—	—	—	<i>p</i>	—	<i>b</i>
(e) Attributive noun	—	<i>m, um, N<sup>2</sup></i>	—	—	—	—
2. Causative	<i>p, (r) ?, rin, lu?</i>	<i>u, (N) ?, r</i>	<i>p</i>	—	<i>cr, dN, p, pN, bN</i>	<i>m</i>
3. Frequentative	<i>pr, (r)?</i>	<i>N, r</i>	—	—	<i>Rd. k, c, td, d, p, b, η, j, m, s</i>	—
Intensifier	—	—	—	—	<i>Rd. c, m, s + kN, cN, pr, lN, sr, sN</i>	—
4. Quantifier	—	<i>N, n, w</i>	—	<i>n</i>	—	—
5. Verbalizing	<i>(p)</i>	<i>u</i>	<i>('N)</i>	—	—	—
6. Hypothetical	<i>s</i>	—	—	—	—	—
Preparative	<i>sa/su</i>	—	—	—	—	—
7. Distributive numeral	—	<i>u</i>	—	—	—	—
Group numeral.	—	<i>N, r</i>	—	—	—	—
8. Proper name	—	—	<i>(kN)?</i>	—	—	—
9. Attributive verb	—	<i>N<sub>2</sub></i>	—	—	<i>k, kr, kN, tr, r, rN</i>	—

identical phonologically: e.g. *gap* 'to please', *sgap* 'shall please'; *rap* 'to hold', *surap* 'to put ready at hand'.<sup>1</sup> MKhm has a separate word for this grammatical function (*nùŋ* 'shall, will, having the idea of'). In OKhm, the word *pi* 'in order to, with the intention of', seems to have a very wide variety of usages and might be regarded as at least partially fulfilling this function. No evidence of a prefix has been found.

<sup>1</sup> Mr Shorto has suggested that the OM preparative function is in effect a 'causative of the hypothetical'. 'To put ready at hand' might then be paraphrased 'to cause (someone) to be about to hold'.



(ii) Two functions which relate to numerals, i.e. the formation by means of infixes of distributive and group numerals. These seem to be entirely non-existent in Khm.

OKhm alone has a prefix to indicate a proper name. MKhm is alone in having a series of prefixes which turn a transitive verb into an attributive verb, with 'passive' sense, e.g. *cat-ca:y* 'to spend', *khcat-khca:y* 'dispersed'; *dɔ:k* 'to uproot', *rɔdɔ:k* 'uprooted'. The OM infix N<sub>2</sub>, which also forms an attributive verb, may, however, be regarded as comparable in function.

In M more than one prefix/infix may be used at the same time with a root, e.g.:

<i>dow</i> 'to run away'	<i>spdown</i> 'shall chase away' (Prefixes <i>s</i> and <i>p</i> )
<i>c'ah</i> 'to be pure'	<i>scu'ah</i> 'shall purify' (Prefix <i>s</i> and infix <i>u</i> )

This is very rare in Khm. Even where a 'family' of words are current, e.g. *kɔɔp* 'pleasing', *phkɔɔp* 'to please', *bɔŋkɔɔp* 'to give an order', one does not regard -ɔŋ- (N) as infixed into the prefixed form *phkɔɔp*, since *bɔN* is itself so commonly used as a prefix with many roots for which there is no intermediate form comparable with *phkɔɔp*, e.g. *pɛŋ* 'full', *bɔmpɛŋ* 'to fill'; *tùm* 'ripe', *bontùm* 'to ripen' (transitive).

It is possible, however, that a diachronic study of Khm would reveal that some apparent two-consonant prefixes developed from two separate prefixed or infixed units.

I would summarize the result of this inquiry as follows. There is very little in OKhm which has not continued and developed in MKhm. Where important contrasts are found, they are chiefly between M on the one hand and Khm, O and Mod, on the other. One is faced by close resemblances, in which are combined all aspects, phonetic, phonological, and functional, and by complete contrasts. Nevertheless it would seem to me that a comparison of MK on these same points (elements prefixed or infixed, contexts in which they occur, functions performed) with other non-MK languages would demonstrate the resemblance rather than the difference between M and Khm.