A DISTRIBUTION STATEMENT OF KAMANO PHONEMES

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I. Introduction.

This paper is a rewrite of the distribution statement of Kamano phonemes which was part of the phonemic statement written in 1961. The interpretation of the short vowel ʌ or ə occurring between consonants has been changed, and it is now regarded as a transition vowel on the following grounds:

1. Timing.

The timing of consonant clusters all of which include the transition vowel has the timing of CC, not CVC.

kfí'nea she dug up, ksáme' a man's name, yfína witchety grub.

2. Stress.

The transition vowel is never stressed, neither could it be interpreted as a pre-stress vowel as other vowels occur preceding stress, for example, tonára shelter, and pasára bamboo comb, in contrast to kfínea she dug up, and psí'nea she wore.

3. Slow Speech.

In slow speech the quality of the transition vowel varies from that of a harmonizing vowel to ʌ or ə. When two boys were asked to write kyópa, each wrote it differently - one wrote kayopa, the other wrote koyopa.

4. Native Reaction.

a) A test was carried out on twenty-two grade three boys and girls aged approximately thirteen years. 63% wrote a CC rather than a CVC pattern. All but one was inconsistent and that one consistently left out the short vowel. The vowels which were written were either a or a harmonizing vowel.

b) Semi-literate men who previously only knew a CV pattern are haapy to leave out the short vowel.

c) We find our materials much easier to read using this orthography.

d) Our informant who was previously illiterate, breaks words into syllables to support the transition vowel theory.

5. Dialects.

We have been told that in the Finintigu dialect of Kamano the short vowel is not present initially. However, in the Knampa dialect the one that is not present is an object or possessive third person pronoun prefix which in many instances need not be expressed and therefore appears to fluctuate with its absence. Native reaction favours writing it where it is obligatory. Where it is optional they are happy not to write it.

II. Phonemes

The phonemes are:

a) Vowels: /a/, /e/, /i/, /u/, /o/.

b) Consonants: /p/, /t/, /k/, /r/, /g/, /h/, /'/, /m/, /n/, /s/, /f/, /v/, /y/, and the single complex phonemes /'y/, /'m/, /'n/, /mp/, /nt/, /nk/.

Examples will be given in this order.

III. Syllable Patterns

The syllable in Kamano is a unit of potential stress placement with a nucleus of one or two vowels having optional onset of one to four consonants and optional closure of one consonant.

The following twelve syllable patterns are found:

V o yes, VV ie he comes, CV ku smoke, CVV via he goes CCV kfa rat, CCCV ftgo straight, CCCVV ftgoa straight, CCCCVV kmmréa he is recovered, VC a' woman, CVC ku' string bag, CCVC yfo' sugar cane.

The distribution of phonemes will be described in relation to the contrastive syllable types.

IV. Consonants

Glottal stop is the only consonant which closes a syllable. The single C slot which occurs syllable initially may be filled by any consonant except glottal.

For example:

pasá' comb, tatá' grandmother, kasá doorway, ru different, higé' a tree, sá'a enough, méni today, séri key, fá'to vého

yénto fern, yá'ya long, afú'mo' pig did it,
vú'nea he went, kó^{m}pa rod, a^{n}tú over there,
fá^{n}ki eagle.

Consonant clusters: clusters of two consonants are very common in Kamano, clusters of three are less common and only three words have been found with four consonants. All these clusters occur in syllable initial position. In order to save unnecessary repetition it may be stated here that glottal stop, and the complex units 'm, 'n, 'y never occur in clusters. Their absence will not be remarked on in the following statements.

In clusters of two consonants any consonant may occur in first or second position:
psi nettle, tka'uró jump!, kfa rat, rga mut,
mágru mumu drum, hru' flea, mna smell, nma bird,
shúfa unfinished, frea he dies, vhe' man, yfo' sugar cane, ^{m}porí pea, ^{n}tá'nimo' my mother, ^{n}káuve girl's name.
In second position:
kpípi stretch, vti plant cutting, tka'uró jump!,
atró let go!, fga pea root, yho' wind, nma bird,
mna smell, psi nettle, kfa rat, hva mushroom,
kyópa possum, h^{m}po mist, k^{n}táo close your eyes,
h^{n}kéfa man's name.
In clusters of three consonants the first position may be filled by any consonant except the prenasalized stops ^{m}p, ^{n}t, ^{n}k as follows:

prro' vsí'nea he split (pitpit), tmgéna our backs, krgefe'nea cold, rmgena our backs, ógtre pass, h^{m}prea he hites, msve grease, nvro carry me, swrea he becomes, fnne hie it disappears, vtgea he greets, ymgea he sees them.

The second slot may be filled by any consonant except the velars k, h, ^{n}k, for example:

tpge hia he breaks, ktrea he leaves you, krve cuscus, sgne hia he breaks it, kmgéna your back, fnne hia it disappears, Ksféfi man's name, hinkfrí'nea he pinched, kvrea he carries you, kyge (meaning as yet unknown) h^{m}prea he bites, k^{n}trea he leaves you.

The third slot may be filled by any consonant except p, t, ^{n}t, ^{n}k, s, f, for example:

kykio wind it! tgrea he cut sugar cane, vtgea he greets, krhe' gay, tógtmea it's burned, sgne hia it's torn, hnkve hard, ngye hia I am ashamed, ^{m}pókt^{m}pokro round beads.

It will be seen that the patterning is somewhat irregular in second and third positions. We would expect that in second position, because p and t occur, k might also occur. And because ^{n}t and ^{m}p occur we expect to find ^{n}k. In third position we would expect to find p, t, ^{n}t, and ^{n}k. This may prove to be the case when more data is examined.

Only three examples of clusters of four consonants are in the

data: (two are identical clusters but are different verb stems with affixes):

kmmrea he gets better, ugvtgia he greets you, regvtgea he teases you.

V. Vowels

The transition vowel occurs non-contrastively between all consonants in clusters. It does not occur of course within the complex phonemes 'm, 'n, 'y, ^{m}p, ^{n}t, ^{n}k.

Any vowel may occur as a complete syllable:

ásа well, ése' first, íya ginger, oyó yes, uná' a tree.

Any vowel may occur in CV pattern:

sa that's all, se that's all, ti water, ko look, ru different.

Any vowel may occur in CVC pattern:

afá' vhe' wicked man, asé' a vegetable, kópi' coffee, ko' rain, tu' white.

Only a occurs in VC pattern:

a' woman.

Vowel Clusters.

Of the five vowels only e and o form geminate clusters as in nee he certainly came, and ooti'nea he did not get up.

Any vowel may occur in first or second position of a cluster for example:

First position: ai'na a man's name, nea he eats, via he goes, oe I ue I

Second position:

ua I go, ue I certainly go, pui a bird call, vuo goi, Memáuri a girl's name.

VI. Co-occurrence Restrictions

Vowels.

Certain limitations in the co-occurrence of vowels occur so that of the twenty-five possible combinations the following nine do not occur: aa, ae, ao, ei, eu, ii, iu, ou, uu. An attempt has been made to describe these limitations on the basis of the vowel qualities, but this does not cover the whole problem. It is, however, completely dealt with if we realize that each point of co-occurrence restriction is at a juncture of two morphemes. We then see that two vowels do covertly occur but have been fused. So that we can say that each hole in the pattern is filled by two fused vowels according to morphophonemic rules (See unpublished paper, Vowel Fusion, by D. Drew, 1961). Examples of vowel of fusion are following:

eu cluster does not occur overtly vu-'ne-une go-past-we we all went is fused to vu'none.

ao cluster does not occur overtly, yáfa tree -o interrog. fuses to yafó is it a tree?

Vowels and Consonants.

Any vowel may precede any consonant but any vowel may not follow any consonant. The restrictions are as follows, each involving a complex unit:

'm is not followed by i, u; 'n is not followed by i; 'y is not

CHART SHOWING CLUSTERS OF TWO CONSONANTS

	p	t	k	r	g	h	'	m	n	s	f	v	y	'y	'm	'n	^{m}p	^{n}t	^{n}k
p	-	pt	pk	pr		ph	-		pn	ps									
t		-	tk	tv	tg	th	-	tm	tn	ts	tf	tv	ty						
k	kp	kt	—	kr	kg	kh	—	km	kn	ks	kf	kv	ky						
r				rr	rg	rh	—	rm	rn		rf	rv							
g				gr	—	gh	—		gn	gs	gf		gy						
h	hp	ht	hk	hr	hg	—	—	hm	hn			hv	hy				$h^{m}p$	$h^{n}t$	$h^{n}k$
'	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
m		mt		mr	mg		—	—	mn	ms			my						
n				nr	ng	nh	—	nm	nn	ns	nf	nv	ny						
s				sr	sg		—			ss									
f			fk	fr	fg		—	fm	fn				fy						
v			vk	vr	vg	vh	—		vn				vy						
y	yp		yk		yg	yh	—	ym	yn		yf	yv	—						
$^{'}y$							—							—					
$^{'}m$							—								—				
$^{'}n$							—									—			
^{m}p				^{m}pr	^{m}pg		—		^{m}pn								—		
^{n}t		^{n}tk	^{n}tk	^{n}tr	^{n}tg	^{n}th	—		^{n}tn		^{n}tf							—	
^{n}k				^{n}kr			—		^{n}kn	nks									—

— The double dashes highlight the absence of glottal stop in clusters and the infrequency of geminate clusters.

followed by i, and o; ^{n}k is not followed by u.

Consonants and Consonants.

Clusters of two consonants are by far the most common and the greater part of the 361 possible clusters have been found in the data. The chart shows co-occurrence restrictions and the following observations may be made from this: The phoneme glottal stop does not occur in clusters; while all consonants may occur in cluster initial position, k, t, h, n, and y are in that order most productive in that a greater variety of consonants may follow them. Looking then, at the phonemes which occur in second position we see that r and n put least restrictions on the preceding consonants; also the complex units ^{m}p, ^{n}t, ^{n}k may only be preceded by h.

Of the 6859 possible clusters of three consonants comparatively few have been found in the data and not enough work has been done on these to make any particular statements.

VII. Distribution of the Syllable in the Word

The phonological word is a unit which may occur in isolation and which carries one pertinent stress. Up to eight syllables may combine to form a word. The major limitation in distribution is that longer syllables do not occur word initially or medially. Of the twelve syllable patterns nine occur in word initial position. Syllables with both complex onset and complex nucleus do not occur in word initial position.

The following are examples of word initial syllable patterns:

V asa wall, VV Ai'na man's name, CV kasa doorway,

CCCV kygi'nea he turned, VC i'o no, CVC sa'a enough CCVC kra'a those two cooked.

In word medial position seven patterns occur. VC is not found nor long clusters with two vowels and two or more consonants. Those which do occur are as follows:

V ne'amo' his son, CV kafana door, CVV Memauri girl's name, CCV atre'nea he left, CCCV renmgi'nea he folded, CVC nena'a those two are eating, CCVC negra'a those two are cooking.

In word final position VV and VC do not occur. The remaining ten patterns are as follows: CV kasa doorway, CVV nevia he is going, CCV akro peel it, CCVV akrea he peels it, CCCV ogtre pass, CCCVV neh^{m}pria he is reading, CVC tata' grandmother, CCVC hirhi' shiver.

Syllable Boundaries.

When a closed syllable is followed by a consonant-initial syllable no new consonant cluster shapes are formed over the boundaries because of morphophonemic rules governing glottal which is the only consonant occurring in syllable-final position. Before the fricatives f, v, h, and r glottal stop is neutralized. Before any stop (p, t, k, g) the two unite to form a voiceless preglotallized stop. Before nasals and y the two unite to form a complex unit. Vowels occur in juxtapostion in words to form clusters of three vowels but no more.

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