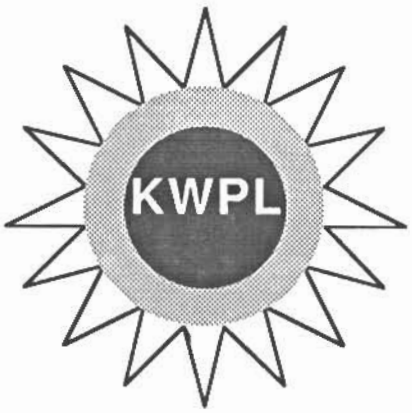
Kansas Working Papers in Linguistics

edited by

Shehdeh Fareh
Yukihiro Yumitani



Partial funding for this journal is provided by the Graduate Student Council from the Student Activity Fee.

Volume 12 1987

Kansas Working Papers in Linguistics

Volume 12, 1987

SOME KLAMATH-SAHAPTIAN GRAMMATICAL CORRESPONDENCES

Noel Rude

Abstract: Evidence for the genetic relationship between Klamath and Sahaptian is growing. The current list of potential Klamath-Sahaptian cognates contains core lexical material sufficient to demonstrate the validity of a genetic relationship, although many details of sound correspondence have yet to be worked out. But it is not only in core lexical material that Klamath and Sahaptian are related. The purpose of this paper is to show that these languages also share enough grammatical morphology to make a convincing case by itself.

Introduction: Aoki (1962) describes the relationship within Sahaptian (between Nez Perce and Sahaptin), while Aoki (1963) provides a list of potential cognates and proposes certain sound correspondences between Klamath and Sahaptian. DeLancey et al (1986) expand the list of Klamath-Sahaptian cognates as well as suggest others in Chinookan and Tsimshian. It should be noted that this paper neither assumes nor argues for any special subgrouping of Klamath-Sahaptian within a greater Penutian phylum.

Klamath maintains a three way manner distinction for stops (plain unaspirated, aspirated, and ejective), while in both Sahaptian languages there is only a two way distinction (plain stops and ejectives). At this time it is not clear whether the distinction between plain unaspirated and aspirated stops is a secondary development in Klamath or whether it was lost in Proto-Sahaptian. In the proposed Sahaptian-Klamath cognate sets, ejectives generally correspond to ejectives and nonejectives to nonejectives (with most exceptions being explainable as diminutive derivation by glottalization). Both Klamath and Sahaptian have glottalized resonants, but in Sahaptian they are generally derivable from /R + ?/. It is with regard to the various relationships between the vowels, the palatals, velars, and uvulars, and the status of the voiceless resonants in Klamath and the lateral affricates in Sahaptian that there is the least certainty.

Although this paper presents sufficient data to suggest a genetic relationship between Sahaptian and Klamath, it is of course possible that some similarities could be the result of the areal spread of certain grammatical morphology. It is when taken all together, and when considered along with the many cognates in fundamental vocabulary, that the evidence for a genetic relationship becomes overwhelming.[1]

Kansas Working Papers in Linguistics. Vol. 12, 1987. pp. 67-83

NP morphology:

Kinship terms: In Sahaptian there are two kinds of kinship terms which have been called "referential" and "nonreferential".[2] The nonreferential forms are only used in the vocative and with the possessive prefixes for 'my' and 'your'. Table 1 lists the Nez Perce forms for 'father' and 'mother', and Table 2 the equivalent forms for Umatilla Sahaptin. Most of the referential kinship terms are derived by prefixing *pi(i)- or *pe(e)-. According to Jacobs (1931:236), this kinship prefix is "clearly related to the independent third person pronoun. ... It seems a fossilized element which in most instances has no possessive signification, serving to symbolize forms that are not used for first or second person possessive."

	ABS	OBJ	ERG/GEN	VOC
'my father'	na?tóot	na?tóotap	na?tóotam	tóota?
'your father'	?im'tóot	?im'tóotap	?im'tóotam	
'(his) father'	pist	pisine	pisitpim	
'my mother'	ne?iic	ne?iicep	ne?iicem	?iice?
'your mother'	?im?iis	?im?iisep	?im?iisem	
'(his) mother'	pike	pikéene	pikéepim	

Table 1. Some Nez Perce kinship terms.

	ABS	OBJ	GEN	VOC
'my father'	natútas	natútaspa	natutasmi	túta
'your father'	tút	tútpa	tutmi	
'(his) father'	pšit	pšina	pšitmi	
'my mother'	na?iłas	na?iłaspa	na?iłasmi	?iła
'your mother'	?ił	?iłpa	?iłmi	
'(his) mother'	pčá	pčána	pčanmi	

Table 2. Some Umatilla Sahaptin kinship terms.

Not only do many Klamath kinship terms have Sahaptian

cognates, Klamath even employs much the same morphology.[3] Just as in Sahaptian, nonvocative kinship terms prefix a bilabial stop; in the case of Klamath the unaspirated b-. And, as a comparison of the Klamath forms in Table 3 indicates, Klamath kinship terms inflect with a similar set of case marking suffixes. The Nez Perce ergative/genitive kinship term suffix -em and the Klamath genitive suffix -am appear to be cognate. In both Sahaptian and Klamath there is a special case marking suffix for kinship terms; -ep in Nez Perce, -pa in Sahaptin, and -ap in Klamath. In Sahaptian it marks the object, and in Klamath the subject. This skewing may reflect the difference between the 3-way case marking system of Sahaptian (in which both arguments in a transitive clause are case marked [ERG and OBJ] while the subject in an intransitive clause [ABS] is unmarked for case) and the purely nominative-accusative pattern in Klamath.

	NOM	OBJ	GEN	VOC
'father'	**ptisap**	**ptisa**	**ptisam**	**tisiip**
'fathers'	**ptisiisap**	**ptisiisa**	**ptisiisam**	
'mother'	**pk'isap**	**pk'isa**	**pk'isam**	**k'isiip**
'mothers'	**pk'isiisap**	**pk'isiisa**	**pk'isiisam**	

Table 3. Some Klamath kinship terms.

The Klamath system differs from Sahaptian in that there are no possessive prefixes, and also in the mode of plural marking. In Nez Perce kinship terms are made plural by the suffix -me, and in Klamath by the suffix -i(i)s (see Table 3).[4]

NP Case marking: In both Sahaptian and Klamath NPs are marked for case.

In Sahaptian the object NP suffix is -*ne, and in Klamath it is -'as. While there seems to be no equivalent of the Klamath -'as in Sahaptian, Sahaptian -*ne does have a cognate in Klamath. Demonstratives and articles in Klamath are marked for object by the suffix -n. Adjectives in Klamath case mark by a different set of suffixes; -i for nominative subject, and -a for object. While -i seems to have no cognate in Sahaptian, in Nez Perce nonderived adjectives suffix -ene (instead of -ne) for the object case. It thus appears that the case marking of adjectives with -*e predates the split between Klamath and Sahaptian. After the

development of object marking with -ne in Sahaptian, Nez Perce continued to mark adjectives with both -e and -ne.

Genitives appear to be case marked by cognate suffixes, Nez Perce -nim, Sahaptin -nmi, and Klamath -'am.

The Sahaptin allative NP suffix -kan/-can reconstructs as -*ke'n. As Rigsby notes (Sahaptin Grammar, p. 44), the Sahaptin variants -kan and -čan point to an earlier vowel e which, when not made a by vowel harmony, would palatalize the k.

In Nez Perce the form of the ablative suffix is -ix (phonemically -ik), while in both Klamath and Sahaptin it takes the form -i. In Sahaptian the ablative suffix -*i(k) occurs in its simple form with the demonstratives, but with nouns it is composed of the allative -*ke'n plus -*i(k), e.g. Nez Perce -ki'nix, and Sahaptin -kni/-čni where, once again, the alternate palatalized and non-palatalized forms reveal the earlier first vowel to have been e. In Klamath -knii means 'from, people or person from'. That the glottal stop was originally part of -*ke'n and not of -i(x) is made clear by the Nez Perce simple ablative (which suffixes to the demonstratives and the interrogative mi-) in which only -i(x) (and not -*ke'n) is suffixed, e.g. kinix 'from this', koniix 'from that', minix 'whence?'. Nez Perce -laykin and Sahaptin -laykan, both NP suffixes meaning 'near', perhaps also contain the allative element -*ke'n.[5]

The Sahaptian instrumental NP suffix is -*ki(n) (Nez Perce -ki, Sahaptin -ki/-kil/-kin). The Sahaptin k has not palatalized, perhaps because the earlier vowel was a schwa (schwa regularly became i in Nez Perce). This might explain the vowel in the cognate Klamath instrumental suffix -tga (the t is a locative in Klamath).

Derivational suffixes: The most common nominalizer in Klamath is -s. Nez Perce also nominalizes with -s, and Sahaptin with -š, but in Sahaptian the most productive nominalizer is -t (-t is a locative in Klamath).

In Klamath -waas derives place names (waas 'nest, den, burrow, home' is a nominalized waa 'pl. live, stay, exist'). The equivalent place name suffix in Nez Perce is -niwees (similarly formed from the Nez Perce copula wee and the nominalizer -s).

Pronominal morphology:[6]

Personal pronouns: Sahaptian and Klamath share the same basic pronominal formatives from which the respective systems of personal pronouns are built (the singular forms of these

are listed in Table 4). The basic formants are *ni for 1st person, *mi for 2nd person, and *bi for 3rd person.[7]

The pronominal element ʔi, a suppletive 2nd person pronoun in Klamath, is probably cognate with the alternate 2nd person pronoun ʔée in Nez Perce. Also in Nez Perce, ʔi- is a kind of deictic element which is not only prefixed to the other pronouns, but to a very large number of other morphemes. In Klamath mi is the formant for most of the oblique 2nd person pronouns, and by itself means 'your'.

	Nez Perce	Northeast Sahaptin	Warm Springs Sahaptin	Yakima Sahaptin	Klamath
1st	ʔiin	in	ini	ink	ni
2nd	ʔiim ʔée	im	imi	imk	mi 'your' ʔi
3rd	ʔipi	pɨn	pɨn	pɨnk	bi

Table 4. Personal pronouns.

Pronouns in Klamath are pluralized by -at, a suffix identical in form to the Klamath plural imperative (which is also -at): naat 'we', ʔaat 'you pl.', baat 'he/she/it'. The Nez Perce ʔée 'you' is also pluralized by the same suffix--tx -- as marks plural imperatives: ʔéetx 'you all'.

The Klamath emphatic pronouns with oo, e.g. noo 'I myself', would seem to derive from a suffixation of waa, defined in Barker KD as 'pl. live, stay, exist' (the sequence i + waa regularly becomes oo in Klamath).[8]

The Klamath suppletive gew 'my' probably derives from the proximate marker g, cf. the proximate demonstrative 'this' (Klamath gee, Nez perce kii, Sahaptin čí,[9], and the Nez Perce 1st person clitic -x < -*k). It is possible that the -ew element of Klamath gew is related to the Sahaptin allative NP suffix -yaw.

Demonstratives: Nez Perce has a simple two way demonstrative system; kii 'this' and yox 'that', with oblique forms kin- 'this' and kon- 'that'. There is a three way system in Sahaptin; čí 'this', k'wáy (oblique forms mostly built on kun-) 'that', and yuk (a cognate of the Nez Perce suppletive yox) 'that over yonder'. Klamath also has a three way system; gee 'this' (a likely cognate of Sahaptian *kii

'this'), hoot 'that' visible, and nee 'that' invisible. The Sahaptian proximate *kin- and distal *kon- have clear Klamath cognates in ginaa 'this way' and gonii 'that way' (cf. the Nez Perce locative kine 'in this, here' and ablative koniix 'from that'). The Klamath visible hoot 'that' is possibly cognate with the Sahaptian 3rd person verbal prefix *hi-.

	Klamath	Nez Perce	Sahaptin
Proximate	gee	kii, kin-	čí
Distal	hoot	yox̣, kon-	k'wáy, kun-
Invisible, or More distant	nee		yuk

Table 5. The demonstratives.

The Klamath demonstratives have special plural forms which are found only in the oblique cases. These are formed by suffixing the pluralizer -y plus the objective -'as: geey'as 'these', honky'as 'those' (visible), and neey'as 'those' (invisible). This pluralizing suffix -y is probably related to the Klamath kinship pluralizer -i(i)s, and also to the Nez Perce plural nominative verbal suffix -i(i).

Interrogative and relative pronouns: The nonhuman interrogative/indefinite pronoun ('what? something') is cognate in all three languages; ?itúu in Nez Perce, túṅ in Umatilla Sahaptin, and dwaa in Klamath. The human interrogative ('who? someone') is ?isii in Nez Perce and šin in Umatilla Sahaptin.[10]

For the human interrogative pronoun, Klamath has kani 'who? someone'. It is built from the Klamath relative particle ka, which is obviously cognate with the Nez Perce relative particle ke.

The Nez Perce relative particle ke stands at the beginning of relative clauses and suffixes pronominal clitics in agreement with 1st and 2nd person subjects and objects within the relative clause. In Klamath ka also functions as a nonhuman interrogative pronoun 'which?' (cf. kani 'who?'), and also forms the basis of the relative pronoun which in Klamath inflects only for case; kat subject and kant object.

Third person referent tracking: The 3rd person personal pronouns in Sahaptian and Klamath are all emphatic. Nonemphatic pronominal reference in both languages is accomplished

by pronominal clitics.

In Sahaptin nonemphatic 1st/2nd person pronominal reference is obligatorily marked in all finite clauses by a system of 2nd place (Wackernagel's position) clitics. In Nez Perce a cognate system of pronominal clitics attach only to certain particles and adverbials. In both Sahaptian languages 3rd person pronominal reference is marked by three verbal prefixes. In Nez Perce these are:

1) **hi-**
   a. 3rd person subject of an intransitive verb.
   b. 3rd person subject of a transitive verb when its object is 1st or 2nd person.

2) **ʔe(w)-**
   a. 3rd person object of a transitive verb when its subject is 1st or 2nd person.
   b. 3rd person genitive selected as subject of an intransitive verb.

3) **pée-** 3rd person subject of a transitive verb and its 3rd person singular object.[11]

Rigsby (forthcoming) describes much the same functions for the equivalent verbal prefixes (i-, á(w)-, and pá-) in Umatilla Sahaptin. Jacobs (1931), however, makes somewhat different observations for Northwest (Klikitat) Sahaptin. Virginia Hymes and Carol Genetti (both personal communication) note similar differences at Warm Springs. Ames (1986) provides a preliminary description based on the Jacobs collection of Klikitat texts. Perhaps it will be possible to characterize a single original function for each of these prefixes in Sahaptian, and thus also explain the seemingly unrelated syntactic distribution of Nez Perce ʔe(w)-.

In Klamath the verb has no person markers. Instead, 3rd person arguments are referenced by a system of 2nd place clitics which are equivalent in form to the definate articles; the nominative hok and objective honk. The formant ho- is related to the Klamath visible demonstrative (the nominative hoot 'that' and objective hon 'that') and is likely also cognate with the Sahaptian 3rd person verbal prefix *hi-.[12]

Verbal morphology:

Stem types: In both Sahaptian languages verb stems divide into two morphological classes. In Nez Perce these are referred to as "conjugations I and II" in Swadesh (1930), and "s-class" and "c-class" in Aoki (1970).

Stems belonging to Swadesh's conjugation I (or Aoki's c-class) have a final n which surfaces only when stem final and with certain suffixes. The morphological distinction has broken down in most of the Sahaptin dialects. Sahaptin verb stems corresponding to the Nez Perce conjugation I (or c-class) Virginia Hymes (personal communication) calls "n-stems". The n is being reanalyzed, however, as a component of certain suffixes rather than as part of the verb stem. And thus Jacobs (1931:104) lists an "n-" and refers to it as a "grammatically inorganic glide ... appearing initially in a morphologic element". In Nez Perce this /n/ has four allomorphs, [Ø], [n], [ni], and [in], as in the following examples with the verb for 'speak'.[13]

4) c'iix̣-c-e
   speak-IMPF-SG.NOM
   'I am speaking'

5) c'iix̣n-e
   speak-PST
   'I spoke'

6) c'iix̣ni-qan-a
   speak-HAB-PST
   'I used to speak'

7) c'iiqin
   speak
   'Speak!' or 'I have spoken' or 'a speech'

The corresponding forms for the other morphological stem class are as follows. Note that here the absence of a suffix marks only the imperative. Separate morphemes code the perfect and nominalizations.

8) tée'mik-s-e
   go down-IMPF-SG.NOM
   'I am going down'

9) tée'mik-e
   go down-PST
   'I went down'

10) táa'mix-qan-a
    go down-HAB-PST
    'I used to go down'

11) tée'mix
    go down
    'Go down!'

12) tée'mik-s
    go down-IMPF
    'I have gone down'

13) tée'mik-t
    go down-N
    'to go down, going down, a descent'

According to Swadesh (1931), "One might theorize that conjugation I consists of stems ending in n which added to c (i.e. [š]) becomes ts, i.e. páin + -ca > páitsa (i.e. páayca 'I am arriving')." This [n] + [s] --> [ts] is not a synchronic rule of Nez Perce phonology. It should also be noted

that there are verbs with a surface stem final n before the imperfective suffix, e.g.

14) táwx̣an-c-a
snore-IMPF-SG.NOM
'I am snoring'

That Swadesh's analysis is historically accurate, however, is borne out by a comparison with Klamath. In Klamath also about half of all verb stems end in n, a segment which deletes in certain phonological environments. Klamath cognates of Sahaptian n-stems typically also end in n:

15) NP wii(n) 'cry, weep'
Kl win 'interpret a shaman's song'
swin 'sing'

16) NP wicx̣- adv. 'defecate'
Sah č'x̣(n) 'defecate'
Kl sq'en 'defecate'

17) Sah wisx̣(n) 'sew'
Kl sqen 'sew'

18) NP -te(n) 'go in order to ...'
Kl otn (allomorphs include -tan) 'on, against, attached to' (marks the semantic role of an object NP)

19) NP hi(n) 'say, tell' (cf. him- adv. 'with the mouth')
Kl han- 'with the mouth' (cf. hem talk, speak)

20) NP -tiwe(n) associative object
Sah twana 'follow, accompany'
Kl dola 'with'[14]

The cognate set for for 'eat' -- Klamath p'an (an n-stem) and Sahaptian *hipi (an i-stem) -- has members which are of opposite stem type.

The element n most likely has a morphological origin. I have made lists of n-stems for both Klamath and Sahaptian, and in each case a sizable percentage of n-stems are verbs of motion. This leads one to suspect that this verb stem marker -n may derive from the same source as the Klamath-Sahaptian verbal translocative -n(a) and perhaps even the objective suffix -*n.

There is another Klamath-Sahaptian verb final element besides n. There are, for example, a large percentage of Nez Perce verbs which are not n-stems but which end in i (perhaps

most often a stressed i), e.g. ?ini 'give', hani 'make', neki 'think' (cf. nek- 'carry'), talqi 'stop' (cf. the nominal talláx 'stop'), etc.). Also in Klamath, a large proportion of verbs which do not end in n end in i', e.g. cayi' 'split', dyeemi' 'be hungry', m'aasi' 'be sick, taste', yaami' 'admire', etc. Although cognate forms are not readily apparent, it is a fact that a majority of verbs in both Nez Perce and Klamath end in either n or i(').

Directionals: In both Klamath and Sahaptian verbs can inflect with cislocative ('hither') and translocative ('thither') directional suffixes (see Table 6). The one element obviously shared by both Klamath and Sahaptian is the translocative formative -*n, which Jacobs (1931:198) gives as "-na, motion or direction away; indeed. A very old directive ..."

	Klamath	Northwest Sahaptin	Northeast Sahaptin and Nez Perce
Cislocative	-ebg	-m	-(i)m
Translocative	-en	-na	-kik

Table 6. Sahaptian-Klamath directionals.

Object selection: Both Sahaptian and Klamath have strategies for the selection of certain non-patient case roles for object. In each language the "new" (or "promoted") object noun is case marked as an object and its semantic case role is marked by a verbal suffix (see Rude 1986a, b, and c). In example 21 from Nez Perce the verbal suffix -?ey marks the object (?áayatona 'woman') as a benefactive object.

21) pée-?wi-?ey-s-e ?ímes ?áayato-na
3.3-shoot-BEN-IMPV-SG.NOM deer woman-OBJ
'He shot a/the deer for the woman'

There are two benefactive verbal suffixes in Nez Perce, -?ey and -?eni. Their occurrences are conditioned by the nature of the following aspectual suffix: -?ey occurs before the imperfective suffixes, -?eni before the past and future, etc. Cognates of one or the other of these occur variously in the Sahaptin dialects.

The verbal suffix -?eni (Sahaptin -ni) is identical in form to the verb for 'give': NP ?eni, Sah ni.

The verbal suffix -?ey (Sah -(a)y) is not otherwise identifiable within Sahaptian. But it does have a cognate in Klamath. In Klamath the verbal suffix which marks a benefactive object is -ii, as is illustrated in example 22.

22) coy ?itbambl-ii-ya mna tGeewn'-a
and bring them back-BEN-IND his older sister-OBJ
'And [he] brought them back for his older sister'

In Klamath the verb for 'give' is oy. And in Klamath the phonological sequence oy regularly becomes ii when not in syllable initial position. A large percentage of Klamath verb stems and suffixes begin with either e or o, which leads one to the suspicion that these derive from old verbal prefixes.

Locative or goal objects are marked in Klamath by the verbal suffix -otn (the allomorph -tan in the following):

23) coy hok w'ak'a hot-tan-ank lilhanks-as
and the little coyote SG.jump-LOC-PF deer-OBJ
'And the little coyote having jumped on to the deer...'

Nez Perce also has a grammatical construction identical to that in Klamath (as was illustrated in example 23), but with a noncognate verbal suffix.[15] The Sahaptian cognate of the Klamath suffix -otn is probably -*te(n), which implies going somewhere in order to perform the action of the verb (in Sahaptin this suffix, -ta, additionally functions to mark the future). Example 24 is from Nez Perce.[16]

24) koná hi-ip-téen-e
there 3NOM-eat-GO-PST
'He went there to eat'

Thus two basic Sahaptian-Klamath verbs -- 'be' in Sahaptian and 'go' in Klamath -- have been reanalyzed as verbal suffixes to mark goal objects.

In Sahaptian associative objects co-occur with the verbal suffix -*tiwee(n), the verbal origin of which is clear from Sahaptin twana 'accompany'. The construction is illustrated by the following example from Nez Perce.

25) láwtiwaa-na pée-tuqi-twen-e miyóoxato-m
friend-OBJ 3.3-smoke-ASSOC-PST chief-ERG
'The chief smoked with a friend'

Example 26 illustrates the Klamath construction. That it derives from verb serialization with c'asgaay'as dola originally denoting 'accompanied Weasel' is indicated by the

observation that dola is likely dol plus the indicative suffix -a, and that dol is probably cognate with Sahaptian *tiwee(n) 'accompany' (that Klamath has l here is probably due to consonant symbolism).

26) coy p'a-yeeg-a sqel c'asgaay-'as dola
and eat-begin-IND Old Marten Weasel-OBJ with
'And Old Marten began to eat with Weasel'

Tense-aspect-modality: The Klamath system of TAM suffixes is less developed than in Sahaptian (Nez Perce being the most developed of all). While etymologies can be postulated for most morphological formatives in all three systems, this is not relevant here. Perhaps the only comment that need be made is to note the similarity in both form and function between the Klamath indicative suffix -a and the Sahaptian past suffix -*e.

Another thing to note here is the similarity of the imperative in both Klamath and Sahaptian. In the Sahaptian n-stem imperatives regularly suffix nothing. Other stems, however, suffix either -*i or -*k. In Klamath -i and also -iik mark the imperative singular, while -ek is a 1st person singular hortative 'let me ...'. In Sahaptian plural imperatives suffix -*(i)tk (-(i)t plural plus the imperative -k). In Klamath the plural imperative is -(a)t.

Morphological causatives: Both Sahaptian and Klamath have morphological causatives. There are two prefixal causatives in Sahaptian, *hii- and *šeep-, and three in Klamath, s-, sne-, and hes-. All the Klamath causative prefixes seem to contain a formative s-, as does also the Sahaptian *šeep-. But if Sahaptian *šeep- contains a formative *š, the origin of the eep component is at present unclear.

For the Klamath causative sne-, it might prove insightful to compare the Klamath verb neebg 'happen, occur', which (assuming neebg contains the cislocative ebg) points to a possible morpheme ne 'do, make'. The Klamath-Sahaptian object suffix -*n(e) and verb stem marker -*n might also be related.

Klamath hes- is likely a cognate of the Sahaptian causative *hii-. An alternative possibility, however, is that the Klamath causative hes- contains he-, the allomorph of the reflexive-reciprocal which occurs before [s]. (This possibility was suggested by Scott DeLancey, personal communication.)

The Klamath classificatory prefixes: Klamath verbs of motion or manipulation inflect with verbal prefixes which classify an absolutive argument (patient subject in an intransitive

la-ch'ak-tik=i mi=ni=b'i june7 ma7 oj kan-0 libre=a.
inc-FINISH-laplin=npt neg=emp=rpt ONE rel fut STAY-3a FREE=clt
That's why they say that when we are destroyed, no one will be left.

6. a7nima=b'i la-och-0--k'e7en oj=ni=b'i
EVEN THOUGH=rpt inc-ENTER-2a--UPWARD fut=emp=rpt

ch'ak-uk-tik=a.
FINISH-laplin=clt
'Even though we might go into caves, (it is said) we will really be destroyed.'

7. ja najate7 0-ch'ak=b'i--pax-uk-e7 chante7il ja
det LONG AGO com-FINISH=rpt--BECOME-sbj-3apl ANIMAL det

kristiyano jumasa porke sok=b'i ja7 0-ch'ak-iy-e7.
PEOPLE ALL because with=rpt WATER com-FINISH-ivm-3apl
Long ago (it is said) all the people became animals because (it is said) they were destroyed by water.

8. ja7-0 y-uj mi 0-ch'ak-iy-e7 jun tiro y-uj
cl-3a 3e-relN neg com-FINISH-ivm-3apl ONE LOTS 3e-relN

ja ja7=i.
det WATER=npt
For this reason they weren't all finished by the water.

9. ay-0=to=b'i b'a wa-x-y-a7-0--kan xe7n takin.
BE-3a=still=rpt loc pro-inc-3e-MAKE-3a--STAY PIECE DRY
'(It is said) there were pieces that stayed dry.'

10. pero ja lame kristiyano wego oj=b'i ch'ak-0
but det GENERATION PEOPLE now fut=rpt FINISH-3a

spetzanil porke sok=xa=b'i k'ak' oj ch'ak-uk-0
EVERYONE because with=now=rpt FIRE fut FINISH-sbj-3a

ja satk'inal=i.
det WORLD=npt
'But the present creation (it is said) will all be destroyed because next the world will be destroyed with fire.'

11. wa-x-y-al-aw-0-e7 ja kristiyano jumasa ja
pro-inc-3e-SAY-tvm-3a-3epl det PEOPLE ALL det

wego ke ja kristiyano jumasa ja s-b'aj najate7
now rel det PEOPLE ALL det 3e-SELF LONG AGO

chikan jastal ja s-modo-e7=i jach=b'i
ACCORDING TO how det 3e-WAY-3pl=npt THUS=rpt

0-ch'ak--pax-uk-e7 ja jastal s-modo ja chante7 jumasa
com-FINISH--BECOME-sbj-3apl det how 3e-WAY det ANIMAL ALL

clause, patient object in a transitive clause). For many of these classificatory prefixes there are probable etymologies within both Klamath and in Sahaptian that belie a nominal origin. For example, Klamath c'l^{e}- "a massive shapeless obj. (such as a piece of meat)" is obviously related to Klamath c'oleeks 'meat, flesh, body' and to Nez Perce ciláakt 'body', l^{v}- "a round [saliently 3-dimensional] obj." is likely connected with looq 'seed, core' and lolp 'eye' (probably a reduplication, cf. also Nez Perce silu 'eye', si- 'seeing'), qa- "a heavy or pronged object" is probably related to the Sahaptin qú 'heavy', and c'i- 'liquid in a container' might be related to Proto-Sahaptian *kewe- 'water' (but cf. also Klamath Gawam 'spring of water'). It is thus probable that the Klamath system of verbal classificatory prefixes are the result (a la Mithun 1984) of noun incorporation.

However, the system may simply (or also) represent an extension in the use of adverbial prefixes with instrumental force which were already a part of the parent Sahaptian-Klamath language. In support of this notion is the fact that, although the Klamath classificatory prefixes regularly agree with a manipulated patient, if an instrument is present in the same clause they will agree with it instead. For example, in 27 the verbal prefix ?- (saliently one dimensional) classifies the instrument (Old Marten's cane weapon), not the patient (the head which was cut off):

27) coy honk been sqel ?iime-tga
and that again Old Marten cane weapon-INSTR

?-akc'-a n'os
CL-cut off head-IND head
'And again Old Marten cut off the head with [his] cane weapon' (Stern 1951)

'Heads' are classified in Klamath by the verbal prefix for saliently 3-dimensional objects, l-:

28) n'os maat-s ?a l-enall-a
head 2PL-OBJ DECL CL-take away-IND
'[He] takes away your heads' (Stern 1951)

29) coy honkt-cgas l-akc'-a n'os
and that-next CL-cut off head-IND head
'And [he] cut off the next head' (Stern 1951)

The following Klamath classifiers (as listed in Barker 1963) have probable cognates in Sahaptian which are instrumental classifiers. As in Klamath, the Sahaptian morphemes are verbal prefixes. (For ex. 34-35, it may be noted that the sound correspondences between the palatals and velars in

Klamath-Sahaptian are as yet unclear.)

30) **d^{v}-** 'act upon a slender vertical object', and doo- 'act upon a prone long object, a long bundle, etc.'; cf. Nez Perce tiw'e- 'with a stick or pointed object' (Aoki 1970:85), also Nez Perce tuuk'e- 'with a cane-like object' (Aoki 1970:86), Sahaptin twa- 'with a long object' (Rigsby SG:67) or 'with a sharp implement' (Jacobs 1931:155, 162).

31) **qa-** 'act upon a heavy or pronged object'; cf. Nez Perce qi- 'with sticky matter' (Aoki 1970:85). Cf. also Sahaptin qú 'heavy'.

32) **sl^{v}-** 'act with a sawlike obj., with a toothed obj.'; cf. Nez Perce wisle- 'with implement' (Aoki 1970:86)

33) **w-** 'act with a long instrument'; cf. Nez Perce we 'with chopping instrument' (Aoki 1970:86), Shahaptin wa- 'with an implement' (Jacobs 1931:158)

34) **k^{v}-** 'act with a pointed instrument'; cf. Nez Perce cúu- 'with pointed object' (Aoki 1970:84), Sahaptin sú- 'with a long object' (Jacobs 1931:155, 162).

35) **c'a-** 'act on a handful of granular objs. (as sand, grain, beads, dried wokas, etc.)'; cf. Nez Perce 'ise- 'with knife (one object)' (Aoki 1970:86), Sahaptin sa- 'cut at with a knife' (Jacobs 1931:-160).

NOTES

1 The sources for Klamath are the works of Barker, for Nez Perce those of Aoki, and for Sahaptin Jacobs (1931), Hymes (1975), Beavert and Rigsby (1975), and Rigsby (forthcoming). Most of the example sentences in Klamath are from the fieldnotes of Theodore Stern (1951), and most of the Nez Perce and Sahaptin examples are from my own fieldnotes. I wish to thank Theodore Stern for his valued comments on an earlier draft of this paper.

2 See Jacobs (1934), Aoki (1966), Lundsgaard (1967), and Rude (1986b).

3 Klamath kinship terms are described in Barker

(1964). Klamath tis 'father' and k'is 'mother' are probably cognate with Sahaptian *toot 'father' and *kee 'mother', with Klamath k'is a likely example of diminutive glottalization. For other cognate Klamath-Sahaptian kinship terms, see Aoki (1963).

4 The Klamath kinship plural marker -i(i)s (and also the Klamath suffix -y, the pluralizer for demonstratives) may possibly be cognate with the Nez Perce plural suffix -i(i). Nez Perce -i(i) is a verbal suffix which marks plural subject agreement. Also, -i(i) is probably a component of the Sahaptian reciprocal prefix *pii-, and possibly even of the dual noun suffix -*iin.

5 Jacobs (1931:230): "The verb root -lai- ..., into or by water, may be cognate."

6 Besides the pronominal formatives mentioned in this section, there are other relevant correspondences, such as, for example, the pronominal clitic meaning 'also, too': Nez Perce -k'e, Sahaptin -č'a, and Klamath -c'is.

7 In Barker's orthography, which is employed here, the unaspirated-aspirated contrast is represented by b, d, g, etc., versus p, t, k, etc.

8 The copula in Sahaptian is *wee and in Klamath gi. Klamath gi, however, functions for both 'be' and 'do'. 'Thus Klamath gi and the Klamath verbal prefix g^{v}- 'go' are probably both cognate with Nez Perce kúu 'go, do'.

9 In Sahaptin k > č /___*i, *e.

10 The only potential cognate in Klamath which comes to mind is the reflexive/reciprocal verbal prefix se-.

11 Since Sahaptian *pée- marks only singular objects, a reasonable etymology is the 3rd person pronominal *bi (cf. Klamath bi) plus -ée, which in Nez Perce marks individuated objects (when suffixed to certain adverbial morphemes) and singular subjects (when suffixed to verbs).

12 Both Klamath and Nez Perce regularly preserve *h, e.g., compare the Nez Perce verb hin 'say, tell' and adverbial prefix him- 'act with the mouth' with Klamath adverbial prefix han- 'act with the mouth' and verb hem- 'talk, speak'. Cf. also Nez Perce háacwal 'boy' and Klamath hiswaqs 'man, male, husband'.

13 In Aoki's, Rigsby's, and Hyme's publications c is used for [ts]. Since there is no contrast between [ts] and [č] in Klamath, in the Klamath data in this paper c will

designate [č].

14 Further comment on this cognate set will follow in another section below. Klamath dola 'with' is dol [cognate with Sahaptian *tiween 'accompany'] plus the indicative suffix -a. In both Sahaptian and Klamath the sporadic alternation of l with n results from a diminutive consonant symbolism.

15 Locative or goal objects co-occur with the verbal suffix -(n)ʉu in Nez Perce and -(n)awa in Sahaptin, which is constructed from the past suffix -*e plus the copula *wée (of which Klamath waa 'pl. live, stay, exist' is the probable cognate).

16 In Klamath the verbal suffix with the same function is -ca, i.e. p'aca 'go [somewhere] to eat'. There is as yet, however, no independent evidence of a Sahaptian t Klamath c sound correspondence.

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