

Chapter 11

On the Amerind Origin of the Proto-Algonquian Numeral Suffix **-a:šyeka*

Merritt Ruhlen

It is well known that certain problems within a linguistic family can only be resolved by taking into account evidence outside that family. The best known example are the exceptions to Grimm's Law within the Germanic family. These exceptions were eventually explained by Karl Verner, who showed, on the basis of evidence in Sanskrit and Greek, that they were due to an original difference in the placement of stress, a conditioning environment that had been lost in the Germanic family itself. In the present paper I would like to discuss an unresolved problem within the Algonquian family of North America that concerns a suffix found on the numerals 6, 7, and 8, whose origin and meaning have never been satisfactorily explained. What I will show is that the solution to this problem appears only in the extra-Algonquian context, that is, in other languages of the Amerind family, of which Algonquian is but one member.

Frank T. Siebert (1975, 303–9) offers a general overview of the three numeral systems reconstructed for Proto-Algonquian: a quinary system, a decimal system, and a descriptive system, which have evolved in tandem in complex ways. It is the quinary system that I wish to consider here. According to Siebert

in the quinary system the numeral particles from one to ten fall into two groups, lower numerals of the first hand from *one* to *five*, which were formed from elementary roots, and the higher numeral particles of the second hand from *six* to *ten*, which were formed by compounding the roots of the lower numbers with the Proto-Algonquian complex final */*-a:šyeka/*, consisting of the prefinal */*-a:t-/* 'by the side, of the row of the second hand' and the abstract final */*-yeka/*. (Siebert 1975, 303)

For example, the Proto-Algonquian numeral *ne-kwet-w-i* '1' is similar to *ne-kwet-w-a:šyeka* '6', except for the different final suffix, and the same is true for '2'

(*ni-iš-w-i*) and '7' (*ni-iš-w-a:šyeka*), and for '3' (**ne-ʔt-w-i*) and '8' (*ne-ʔš-w-a:šyeka*). In the numeral '8', *t* has shifted to *š*, either by analogy with the previous numeral '7', by assimilation to the following *š*, or possibly by ordinary consonant symbolism, according to which grade 3 (augmentative-pejorative) of *t* is *š*.¹ The Proto-Algonquian numerals 1–8 are shown in Table 11.1.

There are, however, a number of problems with Siebert's proposal. First, while the suffix *-i* found on the numerals 1–5 can be identified as the Proto-Algonquian inanimate marker, the meaning and origin of the suffix *-w-* found on 1–8 and the suffix *-aašika* found on 6–8 remain less clear. Mary Haas (1958, 242) proposed that the suffix *-w-* was 'perhaps . . . a numeral-forming suffix', and Marc Picard (1986) concurs with this conclusion. A second problem with Siebert's proposal is his analysis of the suffix on the numerals 6–8. According to Siebert, this suffix is a complex final consisting of two parts: (1) a pre-final */*-a:t/* and (2) an abstract final */*-yeka/*. Siebert claims that the pre-final is a deverbal formation of the Proto-Algonquian root */*ma:t/* 'side by side, in a row', while the abstract final has no known meaning. Furthermore, the 'quinary system abstract final is always preceded by the quinary prefinal' (Siebert 1975, 304), so the entire analysis is suspect.

Picard (1986) has cogently pointed out the weaknesses of Siebert's proposal and has offered a differ-

Table 11.1. Proto-Algonquian numerals 1–8.

<i>*ne-kwet-w-i</i> '1'	<i>*ne-kwet-w-aašika</i> '6'
<i>*niiš-w-i</i> '2'	<i>*niiš-w-aašika</i> '7'
<i>*ne-ʔt-w-i</i> '3'	<i>*ne-ʔš-w-aašika</i> '8'
<i>*nyee-w-i</i> '4'	
<i>*nyaalan-w-i</i> '5'	

ent analysis of the suffix found on 6–8. Picard suggests that this suffix contains a semantic unit for ‘5’ which he reconstructs as Proto-Algonquian **-awetan-*. The evolution of the Proto-Algonquian word for ‘6’ would then have been: **ne-kwet-w-awet-ika* > **ne-kwet-w-aat-ika* (by an independently motivated rule of vowel contraction) > **ne-kwet-w-aaš-ika* (by an independently motivated rule that palatalizes *t* to *š* before high front vowels and yod), thus arriving at Proto-Algonquian **nekwetwaašika*.

There are, however, problems with Picard’s solution as well. First, while the *-š-* in *-aašika* could derive from an earlier *-t-* (as he and Siebert believe), it could also derive from earlier *-š-*. According to Proulx (1984, 177), Proto-Algic **s* regularly becomes Proto-Algonquian **t*, which in turn regularly gives *š* in a palatal environment (before *i*, *ii* and *y*). Thus, Proto-Algic *s* and *š* merge in a palatal environment in Proto-Algonquian and their outcomes in individual Algonquian languages are identical. Second, while the *-aa-* in *-waašika* could derive from an earlier *-awe-*, it could also derive from earlier *-aa-* unchanged (Proulx 1984, 181). Third, the final *-ika* remains unexplained. In sum, Picard’s solution also seems unsatisfactory; like Siebert’s, it is based on dubious conjectures that leave the final part of the numeral suffix *-aašika* unexplained.

On the basis of the Algonquian evidence alone Siebert and Picard propose a bimorphemic analysis of this suffix, but the meanings they assign to the first part are totally different, and neither ventures a guess as to the origin or meaning of the second part, which is simply an ‘abstract final’. No doubt that within Algonquian the meaning of this final element has been lost, and the meaning of the first element, the ‘pre-final’, is none too clear either. Meaningless elements, however, derive from historical antecedents that did have meaning and these meanings, lost in individual families, can often be discovered in the external context.

I would like to propose a third analysis that involves neither the morphological complications of Siebert’s, nor the phonological complexity of Picard’s. What I would like to suggest is that the numeral suffix found on 6–8 is simply a fossilized relic of a word meaning ‘left hand’. As described by Siebert, the numbers 6–10 in the Proto-Algonquian quinary system were counted on the second (presumably left) hand, whereas the numbers 1–5 were counted on the first (right) hand. Thus, I propose that the Proto-Algonquian numerals 6–8 originally meant ‘1 on the left hand’, ‘2 on the left hand’, and ‘3 on the left hand’. Furthermore, the intercalated suffix *-w-*

appears to be a stage III article, that is, a demonstrative that has lost its original deictic meaning but is still preserved as a more or less meaningless affix.² Proto-Algic had a proximal demonstrative **wV* that passed into Proto-Algonquian and has left various synchronic traces in contemporary Algonquian languages (Proulx 1991, 131). Its occurrence in the Algonquian numerals is one of them, in which case its meaning has been eroded to that of a stage III article. If the initial numeral prefix *ne-* is related to a similar prefix that Siebert (1967, 34) calls the ‘prefix of universal existence’, then Proto-Algonquian **ne-kwet-w-aaši-ka* originally meant, morpheme by morpheme, ‘there is-one-this-hand-left’. This solution also provides an explanation for the distribution of the prefinal and final within Algonquian. As noted above, the final never occurs except with the prefinal; the prefinal, however, occurs both with (Fox *nekotwaašika*) and without (Cree *nikotwaaso*) the final. Why should this be so? In counting the number six, one could say simply **nekwetwaaši* ‘one on this hand’ while simultaneously showing the left hand, or one could say **nekwetwaašika* ‘one on the left hand’, either showing or not the left hand. The distribution of the prefinal and final indicates that the Proto-Algonquians counted both ways.

The crucial evidence for this proposal, however, lies outside the Algonquian family and thus is inaccessible to scholars, such as Siebert and Picard, who fail to take into account the broader Amerind context. The true origin of the Proto-Algonquian suffix **-w-aašika* can be discerned in Zuni *wešikkʔa* ‘left side’. Unless one believes that the Zuni word for ‘left side’ is accidentally similar to the suffix that the Proto-Algonquians attached to numbers counted on the left hand, then these forms must be cognate. Furthermore, the Zuni word and the Proto-Algonquian suffix can in turn be analyzed into three parts. The first part is the stage III article **w-* discussed above; the second part is an Amerind word for ‘hand’, **ʔaši* ~ **ʔišu*; the third part derives from an Amerind word for ‘left side’, **qetʰ*.

Zuni itself, a Penutian language spoken in New Mexico, shows *ʔasi* ‘hand’, while other Penutian languages, as well as other non-Penutian Amerind languages, provide further support for a bimorphemic analysis of Proto-Algonquian **-aašika*. In the Gulf group of Penutian we find such forms as Chitimacha *waši* ‘hand’, Atakapa *wiš* ~ *woš* ‘hand’, Tunica *-waš* in *-tírwaš* ‘nail, claw’, Natchez *ʔi:š* ‘hand’, and, in the Muskogean family, Creek *inki-wisa:ka* ‘hand’ (Munro 1994, 177). In the Mexican subgroup of Penutian we find Huave *owiš* ~ *viš* ‘arm’, and in the

Mayan group, Mopan *?iš t'up* 'little finger' and Quiché *iš(-k'aq)* 'nail'. Note that in the Chitimacha, Atakapa, Tunica, Creek, and Huave forms the former demonstrative prefix **w-* has become fossilized, from a synchronic point of view, as part of the noun stem.

This root for 'hand' is also found in the Costanoan family, a member of California Penutian, for which Catherine Callaghan (1988, 57) has reconstructed Proto-Costanoan **?iš-u* 'hand', leading to San José *išu*, San Francisco *isu*, Santa Clara *isu*, and Rumsen *is*. Joseph Greenberg (1987, 145–6) cited some of these forms in his Penutian etymology No. 7.

Within the Almosan subgroup of Amerind, Paul Proulx (1984, 176; 1985, 72–3) has reconstructed Proto-Algic **-Vʔs* 'hand' (a body part medial), with reflexes Wiyot *wéʔs* 'hand', *-aš* 'lower arm', *-iʔs* (in compounds for 'thumb' and 'finger'), and Yurok *-sen* 'arm'. The third member of Algic is the Algonquian family, whose numeral suffix *-w-ašika* is the subject of this paper. In the Keresiouan branch, genetically closest to Almosan, we find Crow *išu:še* 'arm' and Hidatsa *išaki* 'hand' in the Siouan family, and Arikara *išu?* 'hand' and Wichita *?i:s* 'hand' (instrumental) in the Caddoan family.

For the Hokan branch of Amerind Terrence Kaufman (1988, 123) has reconstructed Proto-Hokan **is-* 'with the hand'. In the Pomo family we have Kashaya *?iša* 'arm', Southern Pomo *?i:šan* 'arm', and *ša* 'arm' in both Central and Northern Pomo. Yuman examples include Cocopa *išāl* 'hand, arm', Maricopa *išāl'* 'hand', Yuma *hisaly* 'hand', and Mohave *isalya* 'hand'. Yurumanguí *a-is-ka* 'hand' is probably also related.

In the Chibchan branch there is Paya *wiš-ka* 'arm' (with perhaps the same demonstrative *w-* prefix fossilized on the stem) and Cuitlatec *ihči* 'upper arm', while in the Andean subgroup we have Yamana *yoš* 'hand' and Tehuelche *oš ~ haš* 'arm'. These latter forms represent Greenberg's Andean etymology No. 53, which I earlier connected with various Penutian forms discussed above (Ruhlen 1994, 167). In the Macro-Tucanoan group only Capishana *i-so* 'hand' has come to my attention. Equatorial examples include Yaruro *iči* 'arm', Cofan *yasa* 'arms', Yaruro *iči* 'hand', and possibly Guajajara *ižuwa* 'arm'

Table 11.2. Proto-Amerind **w-aši* 'hand, arm'.

Branch	Language	Form	Meaning
Almosan	Proto-Algonquian	*-waaši-ka	(numeral suffix)
	Proto-Algic	*-Vʔs	'hand'
Penutian	Wiyot	wéʔs	'hand'
	Zuni	wešikkʔa	'left hand'
	Zuni	?asi	'hand'
	Chitimacha	waši	'hand'
	Atakapa	wiš	'hand'
	Natchez	?i:š	'hand'
	Tunica	tir-waš	'fingernail'
Keresiouan	Proto-Costanoan	*?iš-u	'hand'
	Arikara	išu?	'hand'
	Wichita	?i:s	'hand'
Hokan	Proto-Hokan	*is-	'with the hand'
	Kashaya	?iša	'arm'
Chibchan	Paya	wiš-ka	'arm'
	Cuitlatec	ihči	'upper arm'
Andean	Yamana	yoš	'hand'
	Tehuelche	haš	'arm'
Macro-Tucanoan Equatorial	Capishana	iso	'hand'
	Yaruro	iči	'arm'
	Cofan	yasa	'arms'
	Pawate	ažiba	'arm'
Macro-Carib	Carare	yaso	'arm'
	Macro-Panoan	Charrua	is-baj
Macro-Ge	Vilela	isip	'hand'
	Lule	is	'hand'
	Umutina	išo	'forearm'

and Pawate *ažiba* 'arm'. In Macro-Carib there is Opone *iaso* 'arm', Carare *yaso* 'arm', and Yagua *sa-hase* 'upper arm'; in Macro-Panoan, Charrua *is-baj* 'arm', Vilela *isip* 'hand', and Lule *is* 'hand'; and in Macro-Ge, Umutina *išo* 'forearm'. A summary of reflexes of Proto-Amerind **w-aši* 'hand, arm' is given in Table 11.2.

I have studied the Proto-Amerind word for 'left hand' in Ruhlen (1995), where I propose a preliminary reconstruction of **qetʔ*. In the Almosan subgroup of Amerind, to which Algonquian belongs, reflexes include Yurok *kes(-omewet)*, Nootka *qatʔ-*, and possibly, by metathesis, Proto-Salish **ts'iqʷ* (Kuipers 1970, 60). In the Keresiouan branch of Amerind, we find Hidatsa *ida-kiša* (cf. *ada* 'arm'), Yuchi *kaš'o*, and Cherokee *agas-gani*, this latter form apparently borrowed into Creek (*kaskaná*) and Biloxi (*ḡaskani*). For the Hokan branch of Amerind, Kaufman (1988, 162) reconstructed Proto-Hokan **Kisár-iK*, with reflexes such as Proto-Yuman **kəsár* (Wares 1968). Penutian examples of the Amerind root for left hand include Proto-Atakapa-Chitimacha **keʔs* (Swadesh 1946), Tunica *?okešta*, Yuki *me-kač'*, Lake Miwok *k'ešili*, and Proto-Tzeltal-Tzotzil **k'ešam* (Kaufman 1972). Amerind examples from South America include Pehuelche *kesna*, Yabamasa *gat'o-t'atia*, and

Table 11.3: Proto-Amerind *qet^s 'left hand'.

Branch	Language	Form	Meaning
Almosan	Proto-Algonquian	*-waaši-ka	(numeral suffix)
	Yurok	kes-omewet	'left hand'
Keresiouan	Nootka	qat ^s	'left hand'
	Hidatsa	ida-kiša	'left hand'
	Yuchi	kaš'ó	'left hand'
Hokan	Cherokee	agas-gani	'left hand'
	Proto-Hokan	*Kisár-iK	'left (handed)'
Penutian	Proto-Yuman	*kásár	'left hand'
	Atakapa	kets	'left hand'
	Chitimacha	ki's	'left hand'
	Yuki	me-kač'	'left hand'
	Lake Miwok	k'ęšiliwa	'left (direction)'
	Zuni	wešikk'a	'left hand'
	Proto-Tzeltal-Tzotzil	*k'ešam	'left hand'
Chibchan	Manare	kut ^s -maya	'left hand'
Andean	Pehuelche	kesna	'left hand'
Macro-Tucanoan	Yabamasa	gat ^s -o-t'atia	'left hand'
Equatorial	Timote	kučumiya	'left hand'
Macro-Ge	Proto-Ge	*-ket ^s	'left hand'

Timote *kučumiya*. A summary of reflexes of Proto-Amerind *qet^s 'left (hand)' is given in Table 11.3.

This comparative evidence suggests that the Proto-Algonquian suffix found on the numerals 6–8 consists of three (historically independent) parts: *w-aaši-ka 'this-hand-left'.³ If we weigh the proposals of Siebert, Picard, and that advanced in the present paper, it seems to me that my analysis explains more of the relevant data, in a more cogent manner, than the other analyses. My explanation is semantically and phonetically transparent — when considered in the broader Amerind context — and does not leave any unexplained residue.

Notes

1. The third possibility was suggested to me by Paul Proulx.
2. This analysis of -w- was suggested to me by Paul Proulx.
3. For Proto-Algic, Proulx (1984, 194) reconstructed the numeral suffix as *-etleyek?a. However, if the hypothesis advanced here is correct, Proulx (pers. comm.) recognizes that it would have implications for his Proto-Algic reconstruction: 'It suggests that the consonant grade alternation I reconstructed as *r to *l in 1991 would be better symbolized as *Z to *l, where *Z can be any sibilant but *s and *š, and that the proper reconstruction here is *-VZéyek?a 'number from 6–9, and that the Wiyot cognates reflect a by-form *-Vléyek?wi'.

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