

# A PROTO-SIOUAN NOMINAL NUMBER SUFFIX \*-KA?

Carlo Maria Pertica, M.A.  
Ca' Foscari University in Venice  
[carlomar.pertica@gmail.com](mailto:carlomar.pertica@gmail.com)

**Abstract:** This paper aims to propose an interpretation of the \*-ka ending detectable in many Proto-Siouan reconstructed nouns. Through the semantic analysis of its recurrences (in zoonyms, kinship terms and mass object nouns) we will propose, by the comparison with a potential typological parallel, a number marking value of this possible suffix.

---

**Summary:** 1) Introduction; 2) Proto-Siouan nominal system; 3) Semantic analysis of Proto-Siouan nouns ending in \*-ka; 4) Discussion and conclusions.

## 1) Introduction

After Wolff's (1950a; 1950b; 1950c) and Matthews' (1970) first phonological insights into the subject, an important series of conclusions about the phonology and grammar of Proto-Siouan (PSi) were drawn in the '90 (cf. Jones, 1990; Rankin, et al., 1998) by the main editors of the Comparative Siouan Dictionary (CSD), a vast coordinated project that dates to a workshop held in the summer of 1984 at the University of Colorado.<sup>1</sup> The recent and updated online publication of the CSD database (Rankin, et al., 2015) has paved the way for conducting – with due caution, given the still work-in-progress nature of the project – a deeper analysis of the internal structure of PSi. It is, in this regard, certainly worthy of mention the first section of the 2016 publication *Advances in the study of Siouan language and linguistics* (Rudin & Gordon); the volume includes, together with other essential contributions, a Rory Larson (2016) systematic overview of the set of sound changes identified in the historical evolution of the various branches of this language family.

Even if the discussion on this topic has seemingly come to a stalemate during the last few years,<sup>2</sup> the online database continues to offer interesting possibilities for producing fruitful reflections upon the

---

<sup>1</sup> For further details about the history of the project cf. Rood & Koontz, 2002 and Larson, 2016, pp. 63-64.

<sup>2</sup> Mainly due to the disappearance, retirement or focus shift of many members of the original CSD team (Larson, 2016, p. 64). Consider, however, Kasak, 2019 and Manzelli, 2019.

phonological, morphosyntactic and lexical system of PSi. In the present paper, using the aforementioned instruments, we will, therefore, try to provide a fresh approach to some features of the language under consideration by examining the recurrence of a *\*-ka* termination in certain groups of PSi nouns in order to propose a possible singulative/collective value of this ending.

## 2) Proto-Siouan nominal system<sup>3</sup>

The current state of research recognizes the following main features of PSi nominal system (Rankin, et al., 1998, p. 373):

- Number was unmarked on nouns (since it was, albeit ambiguously, marked on the verb).
- Substantives were predominantly inflected by possession.

We can, in fact, generally distinguish between two types of substantives:<sup>4</sup>

- i. Inalienable nouns, mostly kin terms, and external body parts, which always presented a possessive prefix (specifically PSi 1<sup>st</sup> sing. *\*wi·-* ~ *\*wi·-*, 2<sup>nd</sup> sing. *\*yi·-* ~ *\*yi·-*, 3<sup>rd</sup> sing. *\*i-* ~ *\*i-*)<sup>5</sup> and
- ii. Alienable nouns, which might or might not have a possessive prefix that, if present, was followed by a possessive base *\*-hta(-we)* (cf. Hidatsa *wa-áaciiwiri* 'my mother's milk' *wata-áaciiwiri* 'my milk') (Boyle, 2007, p. 72).

## 3) Semantic analysis of PSi nouns ending in *\*-ka*

A rather interesting feature detectable through the analysis of PSi lexicon is the fact that a substantial group of reconstructed etyma (51 items) shows an ending *\*-ka*. Even if a sequence of this type is also attested at the right edge of some verbal stems, a significant majority of its recurrences (in some cases alternating, cf. *infra*) can be observed among substantives (42 out of 380 reconstructed nouns).

---

<sup>3</sup> When reporting reconstructed PSi forms, in this paper, the notation of the CSD is employed. Cf. Rankin, et al., 1998, p. 366; Rankin, et al., 2015, s.v. Introduction.

<sup>4</sup> In PSi, as well as in some other modern Siouan languages such as Lakota. Cf. Ingham, 2003, pp. 13-16.

<sup>5</sup> "Variability in nasality of these prefixes remains unexplained just as in the independent pronouns. [...] In Catawba, Siebert (1945) found nasality to correspond to noun/verb classes. It is not phonologically conditioned in any observable sense." (Rankin, et al., 2015, s.v. 1st singular possessor, inalienable).

It is in addition remarkable, from a morphosemantic point of view, that such a termination consistently recurs in nouns belonging to specific semantic fields.

We can almost immediately recognize a first, more prominent, group of *ka*-zonyms, designating, at least for the major part, animal species that tend to occur in groups in the wild.

TABLE 1: PROTO-SIOUAN ZOONYMS ENDING IN \*-KA

PSi form	Meaning
*xó·ka	'badger'
*sí·ka	'bird (5)'
*hé·(-x)(-ka)	'buzzard (2), (3)'
*wayú·tka ~ *warú·tka	'dove, pigeon'
*ahtóx-ka	'fox'
*(w)ahpeSka	'frog (2)'
*wašq'ka, *wi-šq'ka	'frog (3)'
*-hpú·ska	'grouse'
*ó·xka	'heron, crane'
*(wa-)qhpó·ka	'moth, owl'
*wqšetjka (?)	'rabbit'
*wi-he(-ka)	'raccoon'
*awąka	'skunk'
*šika	'squirrel, flying squirrel'
*wa-krúS-ka	'vermin (2)'
*-kreSka	'vermin (3)'
*htó·ska	'woodpecker'

A second set of words is, then, composed of substantives referring to degrees of kinship; again, it is indeed noteworthy that the family roles here examined tend, at least in theory, to be normally filled by a multiplicity of individuals (as in the case of ancestors, children, brothers, etc. in opposition to other roles such as mother, father etc.).

TABLE 2: PROTO-SIOUAN KIN TERMS ENDING IN \*-KA

PSi form	Meaning
*hu'ka	'ancestor, chief, elder, relative'
*i-2Vka (?)	'brother (2)'
*(i-)sú'(-ka)	'brother (5)'

*ší-ka	‘child > youth’
*i-htq̄·ke-aka	‘sister (5)’
*i-hq̄ka	‘sister-in-law’
*i-há·ka	‘son, third or younger’
*ruSka	‘twin, pair’

Lastly, even within a substantial portion of objects designated by the remaining words for which we can reconstruct an ending in *\*-ka*, there is a visible tendency to occur if not in mass – such as in *\*itka* ‘star’ (> Crow *ihká* ‘id.’, Biloxi *i<sup>n</sup>tka*, *i<sup>n</sup>tká*, *ḡitka* ‘id.’, etc.)<sup>6</sup> or *\*(wa-)hó·h-raqh-ka* ‘cranberry’ (> Stoney *pom tonka* ‘id.’, Tutelo *hohnùñk* ‘cranberries’, etc.) – at least in pairs, as in the case of body parts such as *\*ašú·t-ka* ‘testicle’ (> Lakota *asuḡkta* ‘kidney’, Hidatsa *á·šuka* ~ *a·šúka* ‘testicles’, etc.) and *\*yeka* ‘leg, thigh’ (> Stoney *čhejá* ‘id.’, Omaha-Ponca *žegá* ‘id.’, etc.).

TABLE 3: PROTO-SIOUAN KA-NOUNS DENOTING DUAL BODY PARTS OR OTHER USUALLY NUMEROUS ENTITIES

PSi form	Meaning
*qka	‘cord, string (2)’
* <i>(wa-)hó·h-raqh-ka</i>	‘cranberry’
* <i>(i-)rátka</i>	‘left (side or hand)’
*yeka	‘leg, thigh’
* <i>waro·(-ka)</i> , * <i>wi-ró·(-ka)</i>	‘male’
*itka	‘star (1)’
* <i>ašú·t-ka</i>	‘testicle (1)’

#### 4) Discussion and conclusions

The authors of the CSD assign an attributive value to the suffix *\*-ka* (Rankin, et al., 2015, s.v. fox) and Kasak (2019, p. 245), as well, agrees on the value of this suffix, confirming that an attributive suffix *-ka* is productive in Mandan. However, the deployment of this termination would not seem to match that of a suffix of this kind.

An alternative solution (despite some difficulties that we shall discuss) for the distribution of this phonological sequence at the right edge of certain elements of the lexicon so far reconstructed for PSi, would be

<sup>6</sup> The similarities between *\*itka* ‘star’ and *\*itká* ‘egg’ (> Lakota *itká* ‘egg, testicle’, Crow *ihká* ‘egg’, etc.) could be explained by the fact that we are dealing with the same etymon, as hypothesized by Matthews (1985, p. 125), or by a simple case of homophony (Rankin, et al., 1998, s.v. star 1).

to interpret this as a number-marking morpheme. Given the fact that number was probably unmarked in PSi nouns and equivocally marked on verbs, it wouldn't be unrealistic to find a suffix of this type attached to nominal bases denoting, as pointed out in the previous paragraph, mass objects, such as 'stars', 'strings', animals, kinship degrees, or double body parts.

A similar distribution of a number marking morpheme could be identified in Luwo, a Nilo-Saharan language spoken in South Sudan, where the various singulative suffixes ( $-ɔ \sim -Nɔ$ ,  $-a$ ,  $-u$  and especially  $-k$ ) are almost entirely observed among nouns signifying body parts (e.g.  $-k$  in *dhək* 'mouth,' *ditík* 'chin,' *ùtək* 'shoulder', etc.) and animals (*úpùk* 'turtle', *gwók* 'dog', etc.) (Storch, 2014, pp. 91-95). It would not definitely be implausible to find such a morpheme affixed to nominal bases designating degrees of kinship (cf. Dryer, 2013).

A potential problem related to the interpretation of  $*-ka$  as a numeral affix would be the fact that not all the animals designated by *ka*-zonyms are ethologically social (i.e., fox, woodpecker and owl, if we consider this the primary meaning of PSi  $*(wa-)qhpó'ka$  and not 'moth'). However, we reckon that in this context it would not be excessive to suppose an analogical spread of this affix amongst PSi zonyms.

It is in every way evident that, in certain lexical elements, the presence of this suffix is alternating (e.g.  $*wi-he(-ka)$  'raccoon',  $*(i-)sú'(-ka)$  'brother', etc.): this could be traced either to a different diatopic or diastratic preservation of crystallized forms containing a pre-protomorpheme in PSi or instead to an actual productiveness of this morpheme in the protolanguage (probably a more plausible hypothesis). If we believe that a protomorpheme  $*-ka$  was employed as a numeral marker in alienable and inalienable nouns, we can reckon this as

- i. A collective suffix, parallel to the already reconstructed  $*-sa$  (Rankin, et al., 2015, p. s.v. collective suffix),<sup>7</sup> perhaps with a different semantic nuance (cf. PSi  $*ruSka$  'twin, pair' vs. Mandan *ru'pša* 'twins'), or as
- ii. A singulative one. The typological plausibility of a language in which a singulative and a collective marker can be used independently of each other (i.e., in which, a singulative marker can recur in a word that does not already carry a collective

---

<sup>7</sup> The existence of which deposes, in any case, to the potential presence of an ulterior numeral suffix.

marker or meaning and vice versa) would seem to be confirmed by a case such as the Breton language (Press, 1986, pp. 69-70).<sup>8</sup>

Either way, the identification of a suffix of this type could suggest that the PSi system of numeral marking, though limited, was probably more complex (according to which of the two previous hypotheses is believed to be more probable) than the one hitherto reconstructed.

## References

- Boyle, J. P., 2007. *Hidatsa morpho-syntax and clause structure*. Chicago: PhD thesis, University of Chicago.
- Dryer, M. S., 2013. *Coding of Nominal Plurality*. In: Dryer, Matthew S. & Haspelmath, Martin (eds.), *The World Atlas of Language Structures Online* [Available at: <http://wals.info/chapter/33>].
- Ingham, B., 2003. *Lakota*. München: Lincom Europa.
- Jones, A. W., 1990. The case for root extensions in Proto-Siouan. In: F. Ingemann (ed.), *1990 Mid-America Linguistics Conference Papers*. Lawrence, Ks: University of Kansas Department of Linguistics, pp. 505-517.
- Kasak, R. M., 2019. *Affix ordering and templatic morphology in Mandan*. New Heaven, Ct: PhD thesis, Yale University.
- Larson, R., 2016. Regular sound shifts in the history of Siouan. In: C. Rudin & B. J. Gordon (eds.), *Advances in the study of Siouan languages and linguistics*. Berlin: Language Science Press, pp. 233-255.
- Manzelli, G., 2019. Ancora sulle presunte lingue senza consonanti nasali: il caso del proto-siouano. *Quaderni di lavoro ASIt*, 22, pp. 89-120.
- Matthews, G. H., 1970. Some Notes on the Proto-Siouan Continuants. *International Journal of American Linguistics*, 36(2), pp. 98-109.
- Matthews, G. H., 1985. *Handbook of Siouan Languages*. Philadelphia: PhD thesis, University of Pennsylvania.
- Press, I., 1986. *A Grammar of Modern Breton*. Berlin: Mouton Press.

---

<sup>8</sup> It would not, in this regard, be far-fetched to assume that from a hypothetical initial singulative semantic value the suffix acquired an attributive one in a second phase.

- Rankin, R. L., Carter, R. T. & Jones, A. W., 1998. Proto-Siouan Phonology and Grammar. In: X. Li, L. Lopez & T. Stroik (eds.), *Papers from the 1997 Mid-America Linguistics Conference*. Columbia: University of Missouri-Columbia, pp. 366-375.
- Rankin, R. L. et al., 2015. *Comparative Siouan Dictionary*. [Available at: <https://csd.clld.org/>].
- Rood, D. S. & Koontz, J. E., 2002. The Comparative Siouan Dictionary Project. In: W. Frawley, K. C. Hill & P. Monroe (eds.), *Making Dictionaries: Preserving Indigenous Languages of the Americas*. Berkeley: University of California Press, pp. 259-281.
- Rudin, C. & Gordon, B. J. (eds.), 2016. *Advances in the study of Siouan languages and linguistics*. Berlin: Language Science Press.
- Storch, A., 2014. *A Grammar of Luwo: An anthropological approach*. Amsterdam; Philadelphia: John Benjamins Publishing Company.
- Wolff, H., 1950a. Comparative Siouan I. *International Journal of American Linguistics*, 16(2), pp. 61-66.
- Wolff, H., 1950b. Comparative Siouan II. *International Journal of American Linguistics*, 16(3), pp. 113-121.
- Wolff, H., 1950c. Comparative Siouan III. *International Journal of American Linguistics*, 16(4), pp. 168-178.