

VERB CONJUGATION IN STONEY NAKODA: FOCUS ON ARGUMENT-MARKING AFFIXES*

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1. Introduction

Stoney Nakoda is a language of the Siouan language family, mostly spoken among some Indigenous groups in the central United States, southern Alberta, Manitoba, and Saskatchewan. The few studies done on the languages and dialects similar to Nakoda have reported a split-intransitive pattern in their argument-marking affixation system on the verb, which means they behave similar to both nominative/accusative and ergative/absolutive languages. Thus, they have mostly been reported as classifying their verbs based on their active and stative status. The present study aims to investigate the verb conjugation system of one of the dialects of Stoney Nakoda (spoken in Morley, Alberta) with a focus on argument-marking affixes. To do this, the data were elicited from a native speaker of the language using pictures and direct English translation. The analysis of the elicited data showed that this dialect also has a split-intransitive pattern in its argument-marking affixation system on the verb differentiating between the active and stative verbs. The active verbs can be either intransitive or transitive with similar subject marking affixes in both cases, like nominative/accusative languages. The stative verbs, on the other hand, are mostly intransitive and their grammatical subject is identical to the object of the active transitive verbs, like ergative/absolutive languages. However, some deviations from this active/stative rule were observed in the elicited data which may indicate a change in the inflectional system of the language from a transparent classification of the verbs to a more form-based variation.

This paper is organized as follows. Section 2 gives some general information about Nakoda and its relationship with similar languages/dialects. Section 3 presents a brief review of the suggestions on the case-marking system of Saskatchewan Nakoda in the literature. Data elicitation methodology and elicited data of the present study is explained in Section 4. The discussion and analysis of the elicited data is provided in Section 5. Finally, Section 6 provides the concluding statements of the study.

2. Nakoda (Stoney) and related languages

The terms Nakoda and Assiniboine have been frequently used interchangeably, considered as the same language. This study aims to report some observations in the literature of the behavior of Saskatchewan Nakoda (aka Assiniboine) regarding the verb conjugation system on the verb and compare that with the elicited data from a Morley Nakoda speaker.

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Nakoda¹ is the Indigenous language spoken in “southern Alberta, Saskatchewan, and Manitoba and in the central United States” by the people separated “from the Dakota groups in the Northern United States after an internal dispute” who later “became a part of the Canadian plains Indian culture and allied themselves with the Cree speaking group” in the 1600s (Schudel, 1997, p. 3). Figure 1 illustrate the Siouan language family and the position of Nakoda (Stoney) in this language family tree.

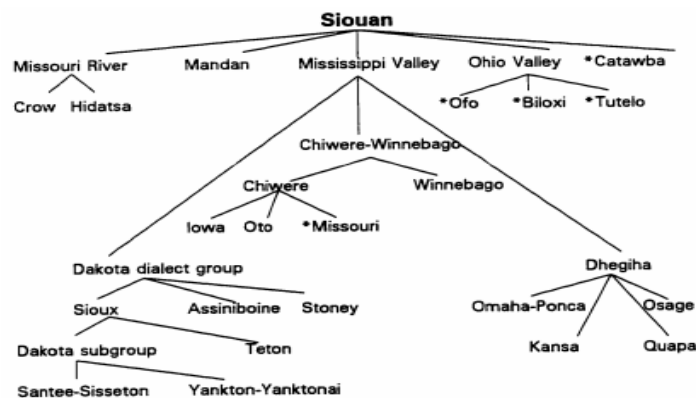


Figure 1 Siouan language family (Schudel, 1997, p. 4)

Parks and DeMallie (1992) suggested that the presence of voiced stops (e.g. ‘d’) instead of unaspirated voiceless stops (e.g. ‘t’) is one of the major distinguishing features between Nakoda and other related Sioux languages. Based on the results of a dialect study, they classified the languages of the Sioux-Assiniboine-Stoney peoples into five major dialects, two of which containing sub-dialects. As in Table 1, Parks and Demallie (1992, p. 251) consider elements such as “Dialect group”, “Self designation”, and “political designation” in their classification.

Table 1 Sioux-Assiniboine-Stoney Dialect Groups (Parks & Demallie, 1992, p. 251)

Dialect Group	Self Designation	Political Designation
Santee-Sisseton	Dak ‘óta	Sioux
Yankton-Yanktonai	Dak ‘óta	Sioux
Teton	Lak ‘óta	Sioux
Assiniboine	Nak ‘óta	Assiniboine
Stoney	Nak ‘óta	Stoney

Parks and Demallie (1992) refer to Stoney as the most divergent dialect compared to Assiniboine and the other Sioux dialects and propose that “it is actually on the verge of becoming a separate language” (249). Specifically, pointing to the common mistake of considering Assiniboine and Stoney as the same language, they argue that these two languages are mutually unintelligible.² Also, Harbeck (1969, as cited in Parks & Demallie,

¹ The terms Nakoda and Stoney (and also Stoney Nakoda) are used interchangeably pointing to the same language throughout this paper. This language is also known as Iyethka in some communities.

² “Assiniboine is not immediately mutually intelligible with other Sioux dialects” (Parks & Demallie, 1992, 249).

1992), considering Assiniboine and Stoney as two different languages (not dialects of the same language), points out that Assiniboine is more similar to other Sioux dialects than Stoney. Taylor (1983, as cited in Parks & Demallie, 1992) also calls Stoney as Alberta Assiniboine. According to Parks and Demallie (1992), Assiniboine speakers are mostly settled in Montana and Saskatchewan, and the “Stoney speakers, representing the westernmost distribution of the Sioux-Assiniboine-Stoney speech community, are located in Alberta, along the eastern base of Rocky Mountains between Calgary and Edmonton” (p. 249). Specifically, regarding the Stoney speakers and their location, Parks and Demallie (1992, p. 249) point out that:

“The largest community, which is divided into three bands (Bears paw, Chiniquay, and Wesley), is located at Morley, midway between Banff and Calgary. Morley has two satellite reserves that were established during this century: one is at Big Horn, the other at Eden Valley, both north of Calgary. The two northernmost reserves, both small, are located west of Edmonton: one is the Paul band, near Duffield, some forty miles west of Edmonton; the other the Alexis band, on Lac Ste. Anne, about fifty miles from Edmonton.”

Although the language of the people of these five reserves (i.e. Stoney) differs significantly from Assiniboine and other Sioux dialects, Assiniboine by itself shows only slight differences from the other dialects (Parks & Demallie, 1992). One of the clear differences distinguishing Assiniboine from other Sioux dialects is the “softening phonetic changes that have led some linguists to analyze the sound system as having a voiced stop series corresponding to the voiceless unaspirated stops of the other dialects” (Hollow, 1970, as cited in Parks & Demallie, 1992, p. 249).

Generally, Parks and Demallie (1992) believe that “the Stoneys in Alberta represent Assiniboine groups that migrated farther west than the others and whose speech over several centuries has changed more radically than Assiniboine” (p. 250). Although Assiniboine and Stoney have the same origin, the two dialects are not mutually intelligible any more and actually Assiniboine seems “closer to the Sioux dialects than it is to Stoney”, due in part to the innovations and borrowings from Cree (Parks & Demallie, 1992, p. 251).

However, most of the cited studies in this paper, specifically Schudel (1997) and Cumberland (2006) which are frequently cited, have used the terms Nakoda and Assiniboine interchangeably, considering them as the same language. One of the main aims of this paper is to report their findings and compare them with the elicited data from a Morley Nakoda speaker. Therefore, in most cases, the term Nakoda in the reported studies in the literature review section is actually referring to Saskatchewan Nakoda (a.k.a. Assiniboine), but the reported data of this study are from the Morley Nakoda.

Grammatically, similar to other Dakota dialects, Nakoda “has no case system, but relies on a complex active/stative verbal system”³, “does not recognize grammatical gender”, and has “both inclusive and exclusive first person plural forms” (Schudel, 1997, p. 9). Also, it shows a lot of similarities with other dialects in terms of its morphology (e.g. similar affixes) and syntax (e.g. SOV basic word order with particles placed at the end of the sentence) (Schudel, 1997). In her study of Saskatchewan Nakoda, Schudel (1997) states that the major verbal inflectional categories in this language include “the personal pronoun

³ Active verbs denote “actions and processes” and statives point to “a state or condition of the main argument” of the verb (Schudel, 1997; Cumberland, 2006; among others). This distribution will be discussed more in the following sections.

prefixes, the plural suffix *-bi*, the aspectual suffix representing ‘an unrealized event’ *-kta*, the negative suffix *-ši*, and the suffix *-č* which appears to be a declarative, assertive suffix.” (p. 38).⁴ Among these, all being inflectional morphemes not causing any changes to the word class or meaning, the plural suffix is obligatory on verbs, but optional on nouns, therefore the personal argument-marking affixes are obligatory on verbs, even in the presence of overt subject and object noun phrases (Cumberland, 2006).

3. Case-marking system of Nakoda: argument-marking affixation

In this section I report some of the claims on the argument-marking affixation on Nakoda verbs based on the few studies done on this language. Most of this section is based on Schudel (1997) and Cumberland (2006), and the literature they have reported in their studies on Nakoda. In the subsequent sections, I will provide my own observations regarding my elicited data and try to compare my observations with these studies and their claims on the verb conjugation system.

Most of the Indigenous North American languages do not possess overt case markings on their subject and object NP arguments, although they usually use argument-marking affixes on the verb to show the case forms of their arguments (Mithun, 1999). In such languages, a verb can make a complete and meaningful statement by itself. In other words, these argument-marking affixes (subject/object) appear on the verbs regardless of the presence or absence of independent subject or object NPs.

Nakoda verbs can “be inflected for person, number, and aspect” (Cumberland, 2006, p. 184).⁵ It has been argued by some researchers that the argument-marking affixes of Siouan languages are syntactic arguments, a view labelled as Pronominal Argument Hypothesis (Jelinek, 1984). However, rejecting this hypothesis in the case of Assiniboine, West (2003) considers the argument-marking affixes as agreement markers. Since either considering these affixes as pronominal syntactic arguments or agreement markers does not affect the main purpose of this study, I do not take sides on this issue and use the neutral phrase “argument marker” instead. According to the existing literature, the argument-marking affixes in Nakoda are obligatory on the verbs even if the main arguments (subject/object) are in the form of independent noun phrases (Cumberland, 2006).

Nakoda verbs have usually been categorized into active and stative (Schudel, 1997; Cumberland, 2006). In some North American languages, the core arguments are categorized “based on the semantic roles of participants” (Mithun, 1999, p. 213). In such languages, the arguments serving as agent are of one category, whereas those serving as patient are in another category (Mithun, 1999). Since most of the verbs with an agent argument denote an action and the verbs accompanied by a patient argument denote a state, in most of the cases agent/patient and active/stative systems yield identical patterns (Mithun, 1999). In other words, “actions are typically instigated by persons acting agentively, while states typically involve participants playing a passive or patient-like role”, however, “differences emerge only when semantic agenthood and activity do not coincide, or semantic patienthood and stativity do not coincide” (Mithun, 1999, p. 215). “While nominative/accusative and ergative/absolute case marking are common on nouns, agent/patient and active/stative case marking on nouns are rare” and these patterns

⁴ Argument-marking (pronominal) affixes on verbs will be discussed in more details in next section.

⁵ Impersonal verbs are not inflected for number or person but they are inflected for aspect.

are “much more common on pronouns, especially bound pronominal affixes” (Mithun, 1999, p. 217).

The active verbs in Nakoda can be intransitive or transitive while the stative verbs are mostly intransitive. Except for third person plural animate object of active transitive verbs (*wicha*), the subjects of stative verbs are identical to the object of active transitives, while subject of active verbs (intransitive or transitive) have different forms (Schudel, 1997; Cumberland, 2006; among, others). As pointed out by Cumberland (2006), although active intransitive verbs are not restricted for the animacy of their subjects (i.e. subject can be either animate or inanimate), their transitive forms only take animate subjects. She also mentions that stative verbs, pointing to a state or condition of their grammatical subject, can have either animate or inanimate grammatical subjects.

In the case of nominative/accusative languages, the subject marker of intransitive and transitive verbs have the same form. Languages with ergative-absolutive systems, on the other hand, do not categorize their core arguments as the typical subject and object. In such cases, the ergative is the agent participant of transitive forms, whereas the absolutive can be either the patient participant of transitive structures or the single argument (either agent or patient) of intransitive structures. Thus, there is no direct association between subject/object and ergative/absolutive categories. In ergative/absolutive languages, the object marker of transitive verbs is identical to the subject marker of intransitive verbs, whereas the subject marker of transitive verbs takes a different form. Table 2 illustrates nominative/accusative and ergative/absolutive verbal systems.

Table 2 nominative/accusative and ergative/absolutive verbal systems

Nominative/Accusative		Ergative/Absolutive	
Intransitive	Transitive	Intransitive	Transitive
Subject	Subject	Object	Subject

Both nominative/accusative and ergative/absolutive systems have been reported to be present in Nakoda. As shown in Table 3, Dixon (1994 as cited in Schudel, 1997), calls such combined verbal systems observed “in Nakoda and other Siouan languages split-S systems and proposes that there is a division between intransitive subjects, S_a , and S_o ” (p. 50).⁶ Specifically, Dixon’s division is based on transitivity (intransitive vs. transitive), with intransitive also subcategorized into two categories, i.e. intransitives with subject identical to the transitives’ subject markers, and the intransitives with subject markers identical to the object markers of transitive forms.

Table 3 Dixon's Split-S verbal system (Schudel, 1997, p. 50)

Transitive	Intransitive	
Subject	S_a	(nominative/accusative-like behavior)
Object	S_o	(ergative/absolutive-like behavior)

However, in her analysis of Dakota, Shaw (1976, as cited in Schudel, 1997) prefers the active/stative designation instead of intransitive/transitive. Thus, the active verbs either indicate action (e.g. to run) or just take both subject and object arguments, whereas the stative verbs indicate actions not in control of the subject or states not requiring active

⁶ split-intransitive is another common term referred to languages with such a two-fold behaviour (West, 2006).

involvement of the subject (e.g. to be beautiful). This active/stative categorization seems to be more semantic than syntactic. In this distinction, active verbs can be transitive or intransitive, but stative verbs are always intransitive, as in Table 4. Moreover, the object of active transitive verbs is identical to subject of stative verbs, whereas the subject of active verbs has different forms.

Table 4 Active/Stative verbal system (Schudel, 1997, p. 50)

Active		Stative	
Intransitive	Transitive	Intransitive	Intransitive
Subject	Subject	Object	Subject
(nominative/accusative-like behavior)		(ergative/absolutive-like behavior)	

Schudel (1997) believes that Shaw's active/stative designation is simpler than Dixon's (1994) intransitive/transitive designation, although they both give the same result. Dixon (1994) points to the semantic differences between Nakoda verbs calling them active and neutral, yet his analysis is mainly based on transitive versus intransitive distinction which technically divides the intransitive verbs into two classes based on whether their subject marker is identical to the subject or object marker of the transitive form. However, Shaw's (1976) designation based on active versus stative distinction "appears more closely related to those describing the ergative and accusative systems" (Schudel 1997, p. 52). Table 5 illustrates the split-intransitive system observed in Saskatchewan Nakoda. The presented data are from Schudel (1997), and Cumberland (2006).

Table 5 Split-intransitive system of Saskatchewan Nakoda

Active Intransitive	Active Transitive	Stative Intransitive
wa -naži 'I stand'	úši- ø - wa -na	ma -yaza 'I am sick'
ya -naži 'you stand'	'I pitied him/her'	ni -yaza 'you are sick'
ø -naži '(s)he stands'	wa- ma - ø -yaga	ø -yaza '(s)he is sick'
	'(s)he sees me '	

The table shows that the single argument of the active intransitive forms (e.g. *wa* 'I') is the same as the subject of the transitives, and the single argument of stative intransitive forms (e.g. *ma* 'I') is the same as the object of the transitive forms (e.g. *ma* 'me').

4. This study

4.1 Methodology

The data elicitation for this study was done at the University of Calgary during Ling 605, i.e. field methods in linguistics, in the Winter-2017 semester. All students were meeting with the consultant (Mr. Vernon Twoyoungmen, a native speaker of Stoney from Morley) once a week. The elicitation sessions were held in a soundproof room using both video and audio recorders.

Data elicitation in this study was done in two ways: using pictures and direct translation. In the former, different pictures were shown to the consultant and he was asked to say what was happening in the photo, and in the latter case, direct English to Nakoda translations by the consultant were used. The biggest problem of picture elicitation was that most of the elicited sentences were of (singular/plural) third person which turned out

to be null in most of the cases in Nakoda, and it was also difficult to elicit the exact structure of interest based only on pictures which could be explained in different ways. Direct translation, on the other hand, has been criticized as not being a very natural way of data elicitation, yet proved to be faster and effective within the limited constraints of this study.

4.2 Elicited data

The data for this research was elicited in 4 different sessions. For all the elicitation sessions, the focus was on intransitive and transitive verbs and the argument-marking affixation on the verb in case of different persons and numbers of the core argument(s) of the verb. Specifically, the focus of the first elicitation session was on unaccusative (e.g. to fall) and unergative (e.g. to run) intransitive verbs. The second session was focused on transitive forms (e.g. hit) and some checking of intransitive verbs. Sessions three and four mostly focused on checking the previous forms and adding a few other forms to clarify the possible generalizations of the patterns of the structures of interest. Some of the relevant elicited data are available in the Appendix.⁷ The recorded audio and video files of all these elicited forms are available at the University of Calgary Library.

5. Discussion and analysis of the elicited data

This study aims to investigate the verb conjugation system of Morley Nakoda specifically compared to the closely related dialect Saskatchewan Nakoda (aka Assiniboine). Hence, the semantic features of the verbs and different morphological forms of the argument-marking affixes on the verbs were compared and contrasted with the reported data from Saskatchewan Nakoda. In line with the reported literature, it was observed that the verbs are distributed in two separate classes according to the morphological forms of the argument-marking elements attached to them. However, this classification does not seem to be totally based on the semantic features (i.e. active vs. stative) of the verb. Specifically, some major deviations from this dichotomy were observed in the elicited data (e.g. *walk* behave as active and *run* as stative) which may indicate a shift in the inflectional system of the language from a semantic-based classification of the verbs to a general form-based classification.

The word order is generally SOV. Sentences are usually marked for gender, i.e. whether uttered by a male or female speaker, or addressed to a male or female person. The masculine form is marked by *no* (1a), and feminine version is marked by *ch* (1b) at the end of the sentence.⁸

- (1) a. ga wîcha ga tababan ape =no⁹
 DET man DET ball hit =MS
 (lit) ‘The man hit the ball.’ (Male Speaking)

⁷ The consultant-supplied orthography of Nakoda alphabet is being used in this paper.

⁸ The feminine marker may cause phonological changes to the preceding word, e.g. *ape no* is pronounced *apa ch*.

⁹ MS stands for “Male Speaking”, and FS stands for “Female Speaking”. Also, S and O represent subject and object markers, respectively, and the number beside them represents person. DET stands for ‘determiner’.

- b. mâ-ta =ch.
S1-die =FS
(lit) ‘I die.’ (Female Speaking)

5.1 Argument-marking affixes

Argument marking on the verb seems to be required, although the marker is null for third person (subject & inanimate object), even when the verb arguments are independent NPs. Verbs are distributed into two classes according to the morphological forms of their argument-marking affixes. These differences between the two types of argument-marking affixes are more obvious in first- and second- person forms, i.e. *wa* vs. *ma* and *ya* vs. *ni*, respectively. The third-person is null in both cases. Moreover, there is a dual form of first person (i.e. we ‘you & I’) which also has the same form (i.e. *î(g)*) in both cases.¹⁰ Examples in (2) clarify these variations between the two verb types.

- | | | | |
|--------|----------------------------------|----|-----------------------------------|
| (2) a. | Type 1 | b. | Type 2 |
| | îrhi =no ‘to laugh’ | | îhirhpa =no ‘to fall’ |
| | î-wa-rhi =no. ‘I laugh.’ | | ma-hirhpa =no. ‘I fall.’ |
| | î-ya-rhi =no. ‘you laugh.’ | | ni-hirhpa =no. ‘you fall.’ |
| | î-∅-rhi =no. ‘(s)he laughs.’ | | ∅-hirhpa =no. ‘(s)he falls.’ |
| | î-î-rhi =no. ‘we (you&I) laugh.’ | | îg-hirhpa =no. ‘we (you&I) fall.’ |

Table 6 illustrate the possible argument-marking forms with the two different types of verbs.

Table 6 Argument-marking forms with the two different types of verbs

Person	type 1	type 2	Representation
1	wa	ma	I
2	ya	ni	you (singular)
3	∅	∅	he/she/it
1dual	î(g)	î(g)	you and I

Although these two separate morphological forms were observed, it does not seem to purely depend on the semantic features of the verb (i.e. active or stative). There were instances of active and stative verbs among both verb types. Specifically, some active verbs behaved morphologically similar to type 2 verbs, e.g. *run* (3b), opposing *walk* (3a), while some stative verbs such as *forget* (not remember) (4a), compared to *die* (4b), were among type 1 verbs.

- | | | | |
|--------|---------------------------------|----|------------------------------------|
| (3) a. | Type 1 (Active) | b. | Type 2 (Active) |
| | mani =no ‘to walk’ | | âchichi =no ‘to run’ |
| | ma-wa-ni =no. ‘I walk.’ | | â-mî-chichi =no. ‘I run.’ |
| | ma-ya-ni =no. ‘you walk.’ | | â-nî-chichi =no. ‘you run.’ |
| | ma-∅-ni =no. ‘(s)he walks.’ | | â-∅-chichi =no. ‘(s)he runs.’ |
| | ma-î-ni =no. ‘we (you&I) walk.’ | | â-âg-chichi =no. ‘we (you&I) run.’ |

¹⁰ This argument marker affix might get different pronunciations e.g. *ũ(g)*, *ã(g)*, or *õ(g)*.

- | Type 1 (Stative) | | Type 2 (Stative) | |
|-------------------------|--|-------------------------|-------------------------------------|
| (4) a. | giksishi =no ‘to forget (not remember)’ | b. | tahbi =no ‘to die’ |
| | wa -giksishi =no. ‘I forget.’ | | ma -ti =no. ‘I die.’ |
| | ya -giksishi =no. ‘you forget.’ | | ni -ti =no. ‘you die.’ |
| | ø -giksishi =no. ‘(s)he forgets.’ | | ø -ti =no. ‘(s)he dies.’ |
| | î -giksishi =no. ‘we (you&I) forget.’ | | î -ti =no. ‘we (you&I) die.’ |

A list of elicited verbs in this study classified according to their subject marking affixes is presented in (5).

- (5) a. **Type 1:** walk, stand, laugh, forget, know (knowledge of a person or procedure)
 b. **Type 2:** run, eat, fall, freeze, roll, sleep, sweat, tremble, (to be) sick, (to be) tall

It should be mentioned that the studies on Nakoda dialects have considered *y*-stem active verbs to behave different from the normal ones, regarding the first and second person subject markers on the verb. The idea is that, instead of *wa* and *ya* affixes, *mn*- and *n*- attach to these verbs in the first and second person forms, respectively, as in (6) (Schudel, 1997; Cumberland, 2006; among others). It is claimed that in the case of first and second person, *y*- in the verb root is replaced with the argument markers, but is visible in third person with null argument marker (6d) (Schudel, 1997; Cumberland, 2006; among others).

- (6) a. éyaku ‘to take’
 b. émnaku ‘I take’
 c. énaku ‘you take’
 d. éyaku ‘he/she takes’

(Cumberland, 2006, p. 200)

However, such an argument cannot account for the elicited verbs in this study. No clear *y*- was observed in the third person forms of active verbs such as *run* and *eat* which had type 2 argument markers. Additionally, stative verbs such as *to know* getting the active argument markers (*wa* & *ya*) are not accounted for by this proposal.

As clear from the examples in 2-4, there were variations in whether the argument-marking form attaches to the verb as a prefix or infix. As discussed in Section 3, some researchers (e.g. Schudel, 1997) propose that the argument markers appearing as infixes on the verbs are the result of old locative, instrumental or some other prefixes already attached to the verb and became part of the verb stem over time. Considering the elicited verbs in this study (e.g. sleep, run, sweat, etc.), such proposal does not seem likely, although it needs more research. However, no clear correlation between the semantic features of the verb and the argument-marking affixation form (prefix vs. infix) was observed. Table (7) illustrates different affixation forms of the single argument of intransitive verb elicited in this study. Moreover, it should be pointed out that no noticeable effect of syllable count or adjacent segments was observed regarding the affixation type (i.e. type 1 or 2 verbs) or form (prefix vs. infix) in the elicited verbs.

Table 2 Different affixation forms (prefix vs. infix) of the intransitives' single argument

Morphological Form	Type 1	Type 2
Prefix	forget, know(?)	stand, walk, laugh
Infix	fall, tremble, freeze, sleep, die, (to be) sick, (to be) tall	run, eat, sweat

This preliminary observation based on a limited set of verbs in the data set (which needs more research) may indicate a historical change in the inflectional system of Nakoda from a purely semantic (active vs. stative) sensitive system to a more form sensitive system which seems to be different from the proposals on the y-stem verbs.

5.2 Number and animacy

The affix *bi* is used as the plural marker on the verbs.¹¹ Neither of the first-person argument-marking affixes (*wa* & *ma*) were observed to co-occur with the plural marker. In fact, to pluralize first person, its dual form (i.e. referred to as 1 dual) co-occurs with the plural marker *bi*. In other words, the dual form is unmarked for number.¹² Second person is simply pluralized by the plural marker *bi*. Examples in (7) show the pluralized forms on both verb types.

- (7) a. **Type 1**
 îrhi =no 'to laugh'
 î-**ya**-rhi =**bi** =no. 'you (plural) laugh.'
 î-**ø**-rhi =**bi** =no. 'they laugh.'
 î-î-rhi =**bi** =no. 'we (plural) laugh.'
- b. **Type 2**
 îhirhpa =no 'to fall'
ni-hirhpa =**bi** =no. 'you (plural) fall.'
ø-hirhpa =**bi** =no. 'they fall.'
 îg-hirhpa =**bi** =no. 'we (plural) fall.'

However, third person seems to behave somehow different from the other forms in its plural form. Third person gets two separate forms in the case of animate and inanimate objects with no plural marker. The plural animate objects appear as *wîcha* 'them_{Animate}' without plural marker *bi*, as in (8).¹³

- (8) John a-**wîcha**-pi =no.¹⁴
 John STEM-O3-hit =MS
 (lit.) 'John is hitting **them** (animate).'

Plural inanimate object, on the other hand, is null without the plural marker (9a). The same form seems to be used in the case of singular third person (9b).

¹¹ It is also attached to nouns as a plural marker, yet, unlike verbs, it does not seem to be required with plural nouns.

¹² There might also be a difference between inclusive (speaker and addressee and maybe other people) and exclusive (speaker and other people but not the addressee) which needs more research. However, all the elicited forms in this study were cases of inclusive either dual (i.e. *we*: you and I) or plural (*we*: as a group of more than 2).

¹³ It has the same surface form of the word for *man*.

¹⁴ STEM in the examples' glosses represents the first part of the verb separated by the argument marker infix.

- (9) a. John \emptyset - \emptyset -snoya hitn =no.
 John O3-S3-melt ? =MS
 (lit.) ‘John is melting them.’
- b. in John \emptyset - \emptyset -snoya hitn¹⁵ =no.
 ? John O3-S3-melt ? =MS
 (lit.) ‘John is melting it.’

However, when there is an NP object, it can be pluralized by *bi*, although the verb still remains unmarked, as *châ-ga=bi* ‘the trees’ in (10a). Yet, plural marker does not seem to be required on object NP, as *shûshî-ga* ‘the apples’ in (10b).

- (10) a. châ-ga =bi ya a- \emptyset -wa-pi =no
 tree-DET =PL ? STEM-O3-S1-hit =MS
 (lit.) ‘I hit the trees.’
- b. shûshî-ga \emptyset -m-wati =no
 apple-DET O3-1S-eat =MS
 (lit.) ‘I eat apples.’

Additionally, it seems that inanimate plural subjects do not get the plural marker either on the NP or on the verb, as in (11).

- (11) a. warhpi \emptyset -gaka =no.
 leaves S3-fall =MS
 ‘Leaves are falling.’
- b. chôn \emptyset -gapeya =no
 tree S3-be-tall =MS
 (lit.) ‘Trees are tall.’
- c. ga \emptyset -ohmîmâ yi =no.
 DET S3-roll ? =MS
 (lit.) ‘They (round stones) are rolling.’

There is clearly an animacy effect, because in the case of [-human, +animate], our consultant uses the plural marker attached to the verbs (and also to the NP in most cases), such as (12).

¹⁵ *Hitn* in this case might be a causative morpheme which our consultant also used in the case of examples with the verb *break*, as in (i).

- i. ni John \emptyset - \emptyset -ganniyarh hitn =no
 ? John O3-S3-break ? =MS
 (lit.) ‘John broke it.’

- (12) ga-shûga=bi-ga ø-ohmîmâ =bi wû =no.
 DET-dog=PL-DET S3-roll =PL ? =MS
 (lit.) ‘The dogs (two) are rolling’

However, in pointing to dolls as subject of the sentence, the consultant used the plural *-bi* on the verb, as in (13). It seems that dolls are considered representations of human beings, and therefore animate.¹⁶ Actually, he used *wîcha-stâ chân-ga a bi* to refer to ‘those two dolls’, and pointed out that the exact meaning is ‘human imitations’.

- (13) a. ø-îstîmâ =bi =no
 S3-sleep =PL =MS
 ‘They (dolls) are sleeping.’
- b. ih ø-îrhi-a =bi wû =no
 ? S3-laugh-? =PL ? =MS
 (lit.) ‘They (two dolls) are laughing.’

Additionally, no difference was observed on the verb affixes in case of singular [+human] versus [-human] subjects or objects, as in (14)

- (14) a. [+animate, +human]
 ga-wîcha-ga ø-îhirhpa =no
 DET-man-DET S3-fall =MS
 ‘The man is falling.’
- b. [+animate, -human]
 ga-shûga-ga ø-îhirhpa =no
 DET-dog-DET S3-fall =MS
 ‘The dog is falling.’
- c. [-animate, -human]
 ga-châ-ga ø-îhirhpa =no
 DET-tree-DET S3-fall =MS
 ‘The tree is falling.’

Thus, it seems that the plural marker *bi* is not added to the verbs in case of inanimate plural arguments (subject or object).

5.3 Transitive verbs

As expected, the transitive verbs require two arguments, i.e. subject and object. Except for third person subject and object which are unmarked (null), both arguments are required to be overtly marked on the verb as affixes. In the case of transitive verbs, subject has the same form of the subjects of type 1 intransitive verbs (marked in 15a & 16a) and the object has the same form of subject marker of type 2 intransitive verbs (marked in 15b & 16b).

¹⁶ This is also true of animacy gender in Algonquian languages such as Cree (Wolfart, 1973).

- (15) a. John a- \emptyset -**wa**-pi =no
 J. STEM-O3-S1-hit =MS
 (lit.) ‘I hit John.’
- b. John a-**ma**- \emptyset -pi =no
 J. STEM-O1-S3-hit =MS
 (lit.) ‘John hit **me**.’
- (16) a. John ana- \emptyset -**ya**-rptâ =no
 J. STEM-O3-S2-listen =MS
 (lit.) ‘**You** listened to John.’
- b. John ana-**ni**- \emptyset -rptâ =no
 J. STEM-O2-S3-listen =MS
 (lit.) ‘John listened to **you**.’

In almost all of the observed cases, subject and object of the transitive verbs are infixes to the verb and in all the cases which both subject and object marker are overt, the object marker precedes the subject marker; however, they are always attached to each other with no elements in between (17).

- (17) a. a-**wîcha**-**wa**-gi =no.
 STEM-O3pl-S1-help =MS
 (lit.) ‘I help them (animate).’
- b. a-**wîcha**-**ya**-kida =no
 STEM-O3PL-S2-look at =MS
 (lit.) ‘You are looking at them (animate).’

Like the intransitive verbs, number (of subject and/or object) is marked by the affix *bi* except for first person dual which is unmarked for number. In the cases where both subject and object are plural, only one affix *bi* is attached to the verb which can cause ambiguity. For instance, the sentence in (18) has three different meanings.

- (18) a-îg- \emptyset -pe =bi =no.
 STEM-O-S-hit =PL =MS
 (lit.) ‘They hit us (you&I).’ [pluralizing the null subject]
 (lit.) ‘They hit us (plural).’ [pluralizing both the object *îg* ‘we (plural)’ and the null subject]
 (lit.) ‘She/He hit us (plural).’ [pluralizing the object *îg* ‘we (plural)’]

This sentence can also mean ‘we (plural) hit her/him’ if we consider it as *a- \emptyset -îg-pe =bi =no*, which has the same surface form. However, it does not mean ‘we (plural) hit them (animate)’, because in that case the plural animate object marker *wîcha* is used (19).

- (19) a. wîcha-îg-pe =bi =no.
 STEM-O3-S1dual-hit =PL =MS
 (lit.) ‘We (plural) hit them.’

There is also the mixed object/subject form *chi* or *cha*, as in (20), which is used in the case of first person subject and second person object (I-you). This affix will be accompanied by *bi* in case of plural objects (I-you (plural)), as in (20b).¹⁷

- (20) a. a-**chi**-kida =no.
 STEM-[O2+S1]-look at =MS
 (lit.) ‘I look at you (singular).’
- b. a-**cha**-kida =**bi** =no.
 STEM-[O2+S1]-look at =PL =MS
 (lit.) ‘I look at you (plural).’

All in all, the elicited data in this study were in line with the reported literature with regard to the distribution of Nakoda verbs in two classes based on the morphological form of their argument-marking affixes. In other words, this language generally seems to use a split-intransitive pattern in its argument-marking affixation system on the verb, i.e. it shows features of both nominative/accusative and ergative/absolutive languages. Thus, there are two classes/types of intransitive verbs; one getting the same argument marker as the subject marker of transitive verbs (i.e. nominative/accusative behavior) and one having its single argument marker in the form of object marker of transitive verbs (i.e. ergative/absolutive behavior).

Type 1 verbs get the affixes *wa* and *ya* as the representations of their first and second person arguments, respectively. In the case of type 2 verbs, on the other hand, these two argument markers appear in the form of *ma* and *ni* affixes on the verb. Third person argument marker is null and dual first person appears as *ĩ(g)* (or *ũ(g)*) in both verb types. However, the classification does not seem to be purely based on the semantic features (active vs. stative) of the verb. There were both stative and active verbs among both morphological classes, i.e. active verbs (e.g. *run*) behaving morphologically similar to type 2 verbs and stative verbs (e.g. *forget* (not remember)) have similar behavior to type 1 verbs. One probable hypothesis is that the language has undergone a historical change in its inflectional system, i.e. a shift away from a semantically transparent active/stative system to a more form-based (phonological) classification of the verbs. It should be pointed out that, since there was no extra *y* sound appearing in the third person forms, compared to first and second person, of active verbs such as *run* and *eat* which had type 2 argument markers and stative verbs such as *to know* had type 1 argument markers, proposals on the different behavior of *y*-stem verbs do not account for verb conjugation system of this language. Additionally, although these morphological affixes were appearing as prefixes or infixes on the intransitive verbs, no clear pattern was observed for this variation. This might be related to the phonological features of the verbs and needs more research and data to determine if there is any pattern. However, considering the nature of the elicited verbs in this study (e.g. *sleep*, *run*, *sweat*, etc.), it is unlikely to imagine that the infixation of the argument marker is the result of old locative, instrumental or other prefixes already attached to the verb and became part of the verb stem over time as proposed by Schudel (1997). One interesting observation is that the argument markers on the verbs *run* and *walk*, although different, are infixed in both verbs. This also might be a variable worthy of more research in future.

¹⁷ No case of plural subject singular object of this form was elicited.

6. Conclusion

This study is aimed at investigating the verb conjugation system of a dialect of Stoney Nakoda spoken in Morley, Alberta, with a focus on argument-marking affixes on the verb. The language is observed to use a split-intransitive pattern in its argument-marking affixation system with two classes/types of intransitive verbs; i.e. the single argument of the intransitive verb can appear in a form similar to the subject or object markers of transitive verbs depending on the verb class/type. However, since there are cases of both active and stative verbs among the two morphological classes of the verbs, verb classification does not seem to be purely based on the semantic features (active vs. stative) of the verb. One probable hypothesis is that the language has undergone a historical change in its inflectional system from a semantically transparent active/stative system to a more formal classification of the verbs mostly determined by phonological features which seems to be different from the proposals on different behavior of y-stem active verbs. Additionally, considering the nature of the elicited verbs in this study, the argument marker's appearance as prefix or infix on the verb being the result of old locative, instrumental or other prefixes already attached to the verb does not seem likely. More research and data elicitation is required to be able to make more specific comments on the verb conjugation system of the language.

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Appendix 1: Type 1 intransitive verbs elicited in this study

		singular			dual
		1 'I'	2 'You'	3 'She/He/It'	We (You&I)'
Prefix	to forget 'giksishi no'	wa -giksishi no	ya -giksishi no	ø -giksishi no	î -giksishi no
	to know 'thnoya'	wa -thnoya no	ya -thnoya no	ø -thnoya no	?
Infix	to laugh 'îrhe no'	î- wa -rhe no	î- yâ -rhe no	î- ø -rhe no	î- î -rhi-yâ no
	to walk 'mani no'	ma- wa -ni no	ma- ya -ni no	ma- ø -ni no	ma- î -ni no
	to stand 'nazi no'	nazi- wa -ha no	nazi- ya -ha no	nazi- ø -ha no	nazi- ôg -ha no
		plural			
		1 'We (group)'	2 'You (group)'	3 'They (Animate)'	3 'They (Inanimate)'
Prefix	to forget 'giksishi no'	î -giksishi-bi no	ya -giksishi-bi no	ø -giksishi-bi no	NA
	to know 'thnoya'	?	ya -thnoya-bi no	ø -thnoya no	
Infix	to laugh 'îrhe no'	î- î -rhi-yâ-bi no	î- yâ -rha-bi no	î- ø -rha-bi wû no	NA
	to walk 'mani no'	ma- î -ni-bi no	ma- ya -ni-bi no	ma- ø -ni-bi no	NA
	to stand 'nazi no'	nazi- ôg -ha-bi no	nazi- ya -ha-bi no	nazi- ø -ha-bi no	?

Appendix 2: Type 2 intransitive verbs elicited in this study

		singular			dual
		1 'I'	2 'You'	3 'She/He/It'	We (You&I)'
Prefix	to freeze 'datha-ge no'	mâ -datha-ga-a no	nî -datha-ga-a wû no	ø -datha-ge no	î -datha-ga-a no
	to sleep 'îstîmâ no'	m -îstîmâ no	n -îstîmâ no	ø -îstîmâ no	îg -îstîmâ no
	to die 'ta bi no'	mâ -ti no	nî -ti no	ø -ti no	î -ti no
	(to be) sick 'yazâ no'	mâ -yazâ no	ni -yazâ no	ø -yazâ no	î -yazâ no
	(to be) tall 'hâska no'	ma -hâska huna	na -hiska no	ø -hiska no	î -hiska no
	to fall 'îhirhpa no'	mâ -hirhpa no	n -îhirhpa no	ø -îhirhpa no	î -îhirhpa no
	to tremble 'châchâ no'	mâ -châchâ no	nî -châchâ no	ø -châchâ-bi no	î -châchâ-bi no
Infix	to sweat 'hosti no'	cho- ma -sti no	cho- ni -sti no	??cho- ø -sti no	cho- îg -sti no
	to roll 'gahmihmah no'	o- mâ -hmimâ no	o- nî -hmimâ no	o- ø -mimâ no	o- ôg -ohmimâ no
	to run 'aîchichi no'	a- m -îchichi no	a- n -îchichi no	a- ø -îchichi-ya wû no	ûg -aîchichi-ya no
	to eat 'wati no'	wa- ma -ti no	wa- na -ti no	wa- ø -ti no	?
		plural			
		1 'We (group)'	2 'You (group)'	3 'They (Animate)'	3 'They (Inanimate)'
Prefix	to freeze 'datha-ge no'	î -datha-ga-bi-a wû no	nî -datha-ga-bi-a wû no	ø -datha-ga-bi-a wû no	ø -datha-ga-a wû no
	to sleep 'îstîmâ no'	îg -îstîmâ-bi no	n -îstîmâ-bi no	ø -îstîmâ-bi no	NA
	to die 'ta bi no'	î -ti-bi no	nî -ti no	ø -ta-bi no	NA
	(to be) sick 'yazâ no'	î -yazâ-bi no	ni -yazâ-bi no	ø -yazâ-bi no	NA
	(to be) tall 'hâska no'	î -hiska-bi no	ni -hiska no	ø -haska-bi no	ø -haska no
	to fall 'îhirhpa no'	î -îhirhpa-bi no	nî -îhirhpa-bi no	ø -îhirhpa-bi no	
	to tremble 'châchâ no'	î -châchâ-bi no	nî -châchâ-bi no	ø -châchâ-bi no	NA
Infix	to sweat 'hosti no'	cho- îg -sti-bi no	cho- ni -sti-bi no	??cho- ø -sti-bi no	NA
	to roll 'gahmihmah no'	o- ôg -ohmimâ-bi no	o- nî -hmimâ-bi wû no	o- ø -mimâ-bi no	o- ø -gamimâ yî no
	to run 'aîchichi no'	ûg -aîchichi-ya-bi no	â - ni -chichi-a-bi no	ø -aîchichi-ya-bi wû no	NA
	to eat 'wati no'	?	?	?	NA