Subjects and Objects in Assiniboine Nakoda

by

Shannon Louise West
B.A., University of Regina, 1998

A Thesis Submitted in Partial Fulfillment of the
Requirements for the Degree of

MASTER OF ARTS

in the Department of Linguistics

Supervisor: Dr. Leslie Saxon

Abstract

The Assiniboine Nakoda language spoken by aboriginal peoples of southeastern Saskatchewan and northern Montana can be characterized as a language with configurational sentence structure and mixed argument type.

Subjects and objects of the Nakoda verb are arranged hierarchically with respect to each other. Subjects c-command objects, but objects do not c-command subjects. The object is a sister to the verb, but the subject occupies a position outside of the Verb Phrase. This asymmetry between subjects and objects is evident in coordination constructions. Binding data also indicates an asymmetry that is not expected in a flat structure analysis.

Subjects and objects are realized as Determiner Phrases or null pronominals (*pro*). Arguments are almost always realized as the null pronominal. 3rd person arguments may also appear as Determiner Phrases. Local arguments (1st and 2nd persons) are expressed in the form of *pro* in agreement with person and number prefixes on the verb.

Table of Contents

List of Figures and Tables

Acknowledgements

This thesis would not have been completed without the enormous help, support, and consideration of so many people.

First, I'd like to thank my primary Nakoda consultant, Leona Kroeskamp of the First Nations University in Regina, Saskatchewan. Her many hours of patient teaching made this work possible.

I would also like to thank my professors at the First Nations University (formerly Saskatchewan Indian Federated College) at the University of Regina. I'd like to express my gratitude to Dr. Brent Galloway for access to his Nakoda field notes, for the Directed Studies classes in Nakoda grammar, and for his kindness and generosity. Without him, my job would have been much harder. Thanks also to Dr. Jan van Eijk for generously sending Nakoda materials he found, and of course, for his wacky sense of humour.

Special thanks goes to the Siouan linguistics community. Dr. David Rood, Dr. Bob Rankin, Dr. Catherine Rudin, John Koontz, John Boyle and Linda Cumberland have all been a great source of help. Linda Cumberland provided me with electronic copies of the Nakoda Reader, making searching for examples *so* much easier. Linda also provided needed examples from her fieldnotes, and gave me a number of ideas for research. She really was a blessing! Thanks also to the Siouan Linguistics email list for all the wonderful ideas and insights.

I would like to thank my committee members, Dr. Tom Hukari and Dr. Emmanuel Hérique, for their time and their invaluable advice and commentary.

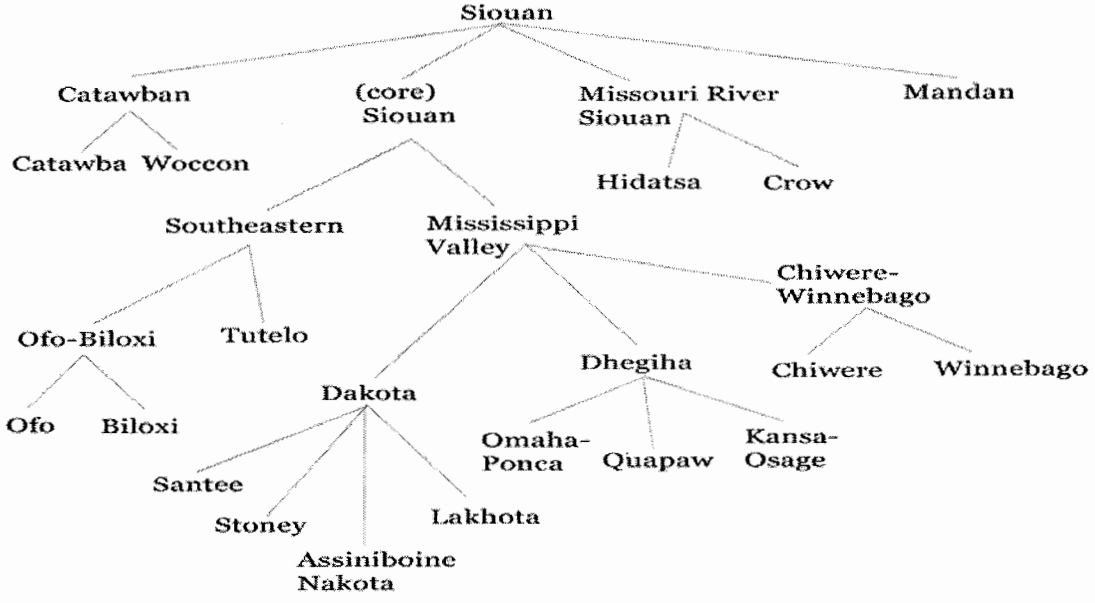
One of the most important people to me throughout my thesis writing process was my advisor, Dr. Leslie Saxon. Dr. Saxon's influence is evident on every page of this thesis. Throughout the process, she was enormously helpful. Her unending support was given with friendship and patience. I cannot come close to expressing how grateful I am to her for her encouragement, ideas and insightful criticisms.

Finally, I'd like to thank my family. Thank you to my parents, who always told me I could do whatever I set my mind to. And a million thank yous to my wonderful husband Chris and my darling daughter Josie who supported me throughout my education with endless encouragement and love. I will forever be grateful to them. I dedicate this work to them.

Chapter 1 - Introduction

1.0 - Introduction

The Assiniboine Nakoda[1] language is a member of the Dakotan branch of the Mississippi Valley branch of the Siouan family of languages. It is spoken in southeastern Saskatchewan on the Carry the Kettle (near Indian Head) and OceanMan (near Carlyle) reserves. Assiniboine is also spoken near Fort Belknap, Montana. Dakota and Lakhota, related dialects that are somewhat mutually intelligible with Assiniboine, are spoken to the northwest and southeast respectively. Stoney, another similar language, is spoken about 800 kilometres west in Alberta. Also belonging to the Mississippi valley branch are the Winnebago and Chiwere languages, and the Dhegihan languages including the Omaha, Ponca, Osage, Kansa and Quapaw languages (Parks and DeMallie, 1992). The following diagram illustrates the entire Siouan family.



note: Campbell classes the Dakotan languages as dialects, not separate languages

Figure 1 - The Siouan Family of Languages

[Illustration mine - data adapted from Campbell (1997)]

[1] The terms Assiniboine and Nakoda are used interchangeably throughout this work. Nakoda is also spelt Nakota in many studies. Between vowels, stops vary freely between voiced and voiceless unaspirated. This is reflected in various orthographic conventions. Appendix 2 illustrates the differences.

1.1 Overview

In this thesis, I aim to provide some insights into the nature of the syntax of Assiniboine, with special regard to the hierarchical nature of the sentence and the realization of subjects and objects. This project was designed to aid both theoretical linguists who pursue study of the theory of Language and Siouan researchers who are trying to understand the structure of Siouan languages. The copious data provided should also be beneficial to those who wish to learn or teach this language.

The rest of this chapter is devoted to a brief overview of the syntax of Nakoda and the phenomena to be investigated. Chapter 2 provides an extensive (though by no means exhaustive) review of the relevant literature. Chapter 3 is an investigation of the configuration of the Nakoda sentence. Chapter 4 deals with the subjects and objects of Nakoda, and how they are realized in the sentence. Chapter 5 concludes the thesis with a discussion of implications and further study.

1.2 Assiniboine Nakoda

Currently, there are fewer than fifty fluent speakers of Nakoda left, all over the age of fifty-five. This language will die with this generation unless serious efforts at language revitalization are quickly undertaken. Nakoda is taught at First Nations University (FNU) in Regina, Saskatchewan and Fort Belknap College in Montana, and there are efforts underway to have it included as part of the curriculum at the Carry the Kettle Nakota Nation School near Indian Head, Saskatchewan. There is no established orthography for Nakoda, but throughout this thesis, I will use a version of the orthography I designed for simplicity of use and consistency. It relies on IPA, Americanist, and the FNU Nakota orthography.[2]

There has been very little written on the Nakoda language. There is no comprehensive grammar or dictionary yet, though both projects are underway by other researchers. More comprehensive work has been undertaken on the closely related Teton dialect, which is also known as Lakhota. (Among many others, see Boas and Deloria, 1941; Burman, 1883; Dahlstrom, 1983; deReuse, 1994; Plunckett and McKeever, 1986;

[2] FNU Nakota orthography is inconsistent, and therefore not used in this work. See Appendix 2

Rood and Taylor, 1996; Schwartz, 1979; Van Valin, 1977, 1985, 1987; Williamson, 1979, 1984).

1.3 Introduction to the syntax of Assiniboine Nakoda

Assiniboine Nakoda has fairly strict SOV word order. While the order of elements may differ from the canonical SOV, this is neither scrambling nor free word order, but rather, the result of topicalization or some other movement. Out of context, a sentence is almost always interpreted in SOV order, even when such an order provides an odd semantic concept such as 'the man bit the dog'. Word order is discussed in some detail in §3.1.2.

A sentence may be comprised of a single verb, or may be complex. Determiner Phrases (DPs), often referred to by other researchers as Noun Phrases (NPs), are optional as arguments of the verb, and are used when context demands them. 1st and 2nd persons are marked by agreement prefixes on the verb. 3rd persons are marked with null agreement markers on the verb and by the optional DPs. 1st and 2nd person DPs are very rare and are discussed in §4.2.1. Some simple sentences are provided below[3]:

1) Wĩyã že wicĩnjana ne waxbé edãhã k'ũ
woman det girl this tea some give
The woman gave this girl some tea.

2) Wĩyã že mastĩnja wãží kudé
Woman det rabbit one/a shoot
The woman shot a rabbit.

3) Wĩyã že bustága
woman det kiss
The woman kissed him/her/it
S/he kissed the woman.

4) Kudé
shoot
S/he shot him/her/it.

5) Stústa
tired
S/he is tired.

[3] All unattributed data is from my fieldnotes collected between 1996 and 2003.

6) Mastĩnja že wa-kúde
rabbit det 1sS-shoot
I shot the rabbit.

7) Wĩyã že ma-bústaga
woman det 1sO-kiss
The woman kissed me.

8) Wĩyã že ni-bústaga
woman det 2O-kiss
The woman kissed you.

9) Wĩyã že ya-bústaga
Woman det 2S-kiss
You kissed the woman.

10) Ni-bústaga
2O-kiss
S/he kissed you.

As the data show, there is a case marking system for verbal agreement. Subject and object agreement are marked differently from each other. Given the data in (1) - (10), one might ascertain that Nakoda has a Nominative/Accusative case marking system similar to that of German. However, this proves to be incorrect. Observe in (11) and (12) what appear to be object inflections marking the subject of the sentence. Verbs fall into two classes, and it is the class of verb that determines the type of inflection.

11) Ma-stústa
1sO-tired
I am tired.

12) Ni-stústa
2O-tired
You are tired.

The prefixes that reflected object agreement in (7), (8) and (10) appear to be marking subjects in (11) and (12). This is a result of the Split Intransitive Case marking system. This system is illustrated in Figure 2.

Class 1 Verbs	Class 2 Verbs
Subject of transitive	Object of transitive
Subject of intransitive	Subject of intransitive

Figure 2: Split Intransitive Case Marking System

The items enclosed in the ovals are marked the same on the verb, meaning that there are two classes of intransitive verbs. This type of case marking system is often referred to as the active/stative case marking system, because one class of intransitives roughly corresponds to verbs of action and the other to verbs expressing states. However, this is a rough correspondence only and cannot be considered the defining factor separating these classes[4]. One interesting difference between the two classes is that Class 1 verbs must have an animate subject. For example, the verb *giyã*, 'to fly' can only be used with an animate subject, because it is a Class 1 verb.

13) Zitkána že tãdéyãba okná giyã
bird det air through fly
The bird flew through the air.

14) ?*Waóyabi že tãdéyãba okná giyã
paper det air through fly
The paper flew through the air.

15) Waóyabi že tãdéyãba okná gaxmóga
paper det air through fly
The paper flew through the air.

Examples (13) and (15) are grammatically and semantically correct. Example (14) is questionable, and one consultant suggested that the paper had somehow been animated and was purposefully flapping in order to fly. This clearly suggests that the verb must have an animate subject. Class 2 verbs may have either an animate or inanimate subject,

[4] See Legendre and Rood (1992) for discussion of the semantics of the two classes of verbs in Lakhota. I have yet to find any verbs that differ in class between the two languages, so their discussion is also relevant to Nakoda.

so animacy is not a defining factor. However, if the subject is inanimate, one can determine that the verb is Class 2.[5]

The set of person marking prefixes on Nakoda verbs is provided in Figure 3. Class 1 verbs (which roughly correspond to verbs of action) invariably use the affixes on the far left as subject markers. If the Class 1 verb is transitive, the object is marked with the Class 2 prefix. First person is marked for number, but 2nd is not. Plural number is distinguished by the post verbal enclitic *=bi*. 3rd person object is generally also not marked for number, except for *wica,* which marks 3rd person animate plural object. It is only used as object agreement, unlike the other Class 2 prefixes, which mark subjects of Class 2 verbs and objects of transitive verbs. *Ci* is a portmanteau morpheme used with Class 1 transitive verbs when the subject is 1st person singular and the object is 2nd person (singular or plural - number is denoted by the presence or absence of *=bi*).

Class 1		Class 2	
wa-	1st person +singular	**ma-**	1st person +singular
ya-	2nd person	**ni-**	2nd person
ũ-	1st person -singular		
0-	3rd person		
		wica-	3rd person plural animate object
ci-	1st person + singular subject 2nd person object		

Figure 3 - Person marking prefixes

Wica is also the only person marker that denotes the animacy of the object. It also does not require use of *=bi* to make it plural like other 3rd persons and 2nd person. *Wica* is inherently plural.

16) šũga wĩtkótko že ãbahotũna wica-kuwa
dog crazy det chicken 3pAO-chase
The crazy dog is chasing the chickens.

17) tiyóba nowa natága wãží=bi
door all close stand=pl
The doors are standing closed.

[5] There may be a couple of exceptions to the rule that Class 1 verbs have animate subjects. For example, in Nakoda, a book may 'sit' on a table, and a slough may 'lie' in a ditch.

(16) and (17) demonstrate the animate nature of *wica*. Because the object in (16), *chickens*, is animate, the verb takes the 3rd person animate plural object agreement marker *wica*. But in (17) the subject is inanimate plural so the verb takes the regular plural enclitic *=bi*. In (18) below, the subject is animate and plural, and there is no object. *Wica* is not evident, despite the fact that *ištima* 'sleep' is a Class 2 verb, showing that *wica* cannot be used as a subject marker for Class 2 verbs like the other Class 2 prefixes.

18) šű̃ga žéna ištíma=bi
dog det-pl sleep=pl
The dogs are sleeping.

The order of agreement prefixes on the verb is 3rd-1st-2nd-verb, though only two of the agreement markers may appear on any verb. This order is invariant except for the class of verbs sometimes referred to as 'double-patient' verbs, i.e. those with two Class 2 markers (not illustrated here, but see §5.2.3.1).

19) Tába ma-yá-k'ũ
ball 1sO-2S-give
You gave me a ball.

20) Tába wicá-ya-k'ũ
ball 3pAO-2S-give
You gave them a ball.

21) Tába wicá-wa-k'ũ
ball 3pAO-1sS-give
I gave them a ball.

22) Tába wicá-ya-k'ũ=bi
ball 3pAO-2S-give=pl
You (pl) gave them a ball.

23) Tába wicá-ũ-k'ũ=bi
ball 3pAO-1-give=pl
We gave them a ball.

The 3-1-2 morpheme order can lead to some ambiguous forms, especially because 3rd person (except animate plural object) and 1st person -singular are the same for both classes. This is illustrated in (24) and (25).

24) Tába ũ-ní-k'ũ=bi
ball 1-2-give=pl
We gave you (sg) a ball.
We gave you (pl) a ball.
You (sg) gave us a ball.
You (pl) gave us a ball.

25) ũ-ní-k'ũ=bi
1-2-give=pl
We gave it to you (sg).
We gave it to you (pl).
We gave them (inanimate) to you (sg).
We gave them (inanimate) to you (pl).
You (sg) gave it to us.
You (pl) gave it to us.
You (sg) gave them (inanimate) to us.
You (pl) gave them (inanimate) to us.

Examples (24) and (25) clearly illustrate the unselective nature of the plural enclitic *=bi*. It may agree with any or all of the arguments of the verb. Plurality is not doubly marked on the verb to indicate more than one plural argument. While this may cause ambiguities, as in the two examples above, these are not problematic to listeners because context is accessible to them. Furthermore, there are always other ways to disambiguate the sentence, including body language and other non-verbal communication.

One of the primary goals of this thesis is to provide evidence that the person markers discussed above (and identified in Figure 3) are agreement morphology, and do not alone represent the arguments of the verb. Rather, hierarchically arranged DPs occupy the subject and object positions of the sentence. Often the DP is *pro*. The following section delves deeper into the issues of agreement and hierarchically arranged DPs.

1.4 Introduction to Theoretical Issues

There are two primary theoretical issues to be studied in this thesis: Configurationality - the hierarchical structure of subjects and objects - and Pronominal

Arguments - the satisfaction of the verb's selectional requirements exclusively by pronouns. A language is configurational if the subject and object of a sentence are arranged in such a manner that subject and object are positioned asymmetrically with the subject structurally higher than the object. For other researchers (see Williamson, 1982, for a discussion of configurationality in Lakhota), configurationality refers to the existence of a Verb Phrase (VP) in the sentence. Essentially, the two definitions agree, because a VP is usually defined as a sentential constituent containing a verb and object. The subject is outside of the VP.[6] My goal in this thesis is to provide strong evidence that Nakoda is configurational, in that the subject and object are hierarchically arranged asymmetrically with respect to each other. Evidence of configurationality is provided in terms of subject/object asymmetries, which are not expected if the subject and object are sisters to each other and the verb.

Beyond the question of the configurational nature of the Nakoda sentence, is the question of how the arguments of the verb are represented in the sentence. 'Pronominal Arguments' is a reference to the Pronominal Argument Hypothesis (PAH) developed by Jelinek (Jelinek, 1984) and later Baker (1996) to explain a variety of phenomena in language, by arguing that in some languages all arguments of verbs are pronominal. This work aims to show that Nakoda is a Lexical Argument Language, not a Pronominal Argument Language, since both pronouns and other classes of DPs may satisfy the selectional requirements of the verb. I show that DPs in Nakoda occupy argument positions in the structure. By definition, this eliminates the possibility that Nakoda is a Pronominal Argument language.

Further background for the issues of configurationality and the PAH is provided in Chapter 2 - a literature review of these and other topics.

1.5 Syntactic Framework

This thesis presupposes a wide range of syntactic theory; it is written within a Minimalist framework of syntax. The Minimalist Program (MP) (Chomsky, 1992; 1995;

[6] The VP-internal subject hypothesis (Koopman and Sportiche, 1991; Kuroda, 1988; Sportiche, 1988) is a theory that the subject is actually base-generated in the specifier position of the VP. This is basically irrelevant to our discussion, because under the VP-internal subject hypothesis, the subject and object are also hierarchically arranged.

1995b) is a recent development in the Principles and Parameters theory of syntax. Principles and Parameters Theory suggests that all languages are subject to conditions of Universal Grammar (UG), a theoretical grammar that all languages share, which is presumed to be innate. What distinguishes languages from each other is their parameter settings. For example, one well-known parameter is the Null-Subject Parameter (Jaeggli and Safir, 1989), which states that in some languages, the subject of the sentence may be null. This accounts for the grammaticality of sentences (4) and (5) above in Nakoda, because Nakoda has a positive setting for the Null-Subject Parameter. In English, however, sentences must have overt subjects, so English has a negative setting for the Null-Subject Parameter. Parameters such as the Null-Subject Parameter and the ones discussed in this thesis are what allow linguists to make predictions about languages. A parameter setting may have far-reaching implications, and tell us a lot about the grammar of a language. In turn, the grammar of a language will have an impact on theory. The more we know about individual languages, the more accurate and universal we can make the theory.

As noted at the beginning of this section, this thesis focuses on two parametric settings in Universal Grammar (UG): the Configurationality Parameter and the Pronominal Argument Parameter. These two parameters, and the implications of their settings, are the core of the thesis. The Configurationality Parameter, which is not uncontroversial in itself (see §2.1.2), states that there are two kinds of basic structures available to language: configurational structure in which subjects and objects are arranged asymmetrically with respect to each other; and non-configurational structure, also called flat structure, in which the subject, object and verb are all sisters to each other in the sentence. As a result, no structural differences between subject and object are predicted. The Pronominal Argument Parameter (also rather controversial) restricts languages with regard to argument type. A language with a positive setting for the Pronominal Argument Parameter may only have pronouns as subjects and objects of the verb. A language with a negative setting will have pronouns or lexical arguments (DPs or NPs) as subjects and objects. I show that Nakoda has a positive setting for the Configurationality Parameter (Chapter 3), and a negative setting for the Pronominal Argument Parameter (Chapter 4).

1.5.1 The Minimalist Program

As stated above, the Minimalist Program (MP) is a model of grammar based on Principles and Parameters theory. While there are a number of very good syntactic frameworks throughout the linguistic literature, I feel that that Minimalist Program is well suited to explaining the phenomena at hand because it is specifically designed to handle parameters of UG. Because the Minimalist Program is a fairly recent development (1995), I provide a brief description of it, focussing mainly on the differences from the older models. For a far more thorough overview, see Marantz (1995).

The model of the MP has four major components: the lexical resources, the computational system, Spell-Out, and two interface levels – Logical Form (LF) and Phonetic Form (PF). The lexical resources (including fully inflected nouns, verbs, and other lexical items) are combined via Merge, a structure-building process, and put through the computational system. Many movements may occur in the computation, either before or, optimally, after the point of Spell-Out, which is the point where the derivation splits and is input to the two interfaces, PF and LF. "PF (is) the structure that interfaces with the perceptual system in speech recognition and with the articulatory system in speech production. LF interfaces with a speaker's general knowledge and with extralinguistic cognitive systems..." (Marantz, 1995: 353).

Syntactic operations, including movements, occur for a reason: to "check" features. For example, a verb might move to the head position of the Object Agreement Phrase (AgrO) to check its agreement features. Failure to check features will lead a derivation to "crash" at LF or PF. A form that crashes at one of these interfaces (LF or PF) is said to "fail to converge", which causes the sentence to be rendered ungrammatical. Feature checking is said to be a universal principle, a requirement of all languages (Chomsky, 1995b); however, languages differ in which features are strong (and require overt movement before Spell-Out) or weak (and permit covert movement for checking after Spell-Out at LF – covert movement).

Conditions on movement do not only dictate why elements move, but also where they move. Integral to these constraints is the idea of Economy. Several important principles hinge on a theory-internal concept of economy: Least Effort, Last Resort, Greed, Shortest Move, and Procrastinate. Items may not move more often than they must

(Shortest Move and Least Effort), before they must (Procrastinate and Last Resort), or to satisfy the requirements of other items (Greed).

As much as possible, I avoid getting into theoretical discussions about why items move, weak and strong features and interface levels. However, since my work does rely heavily on theory, I provide as much theory background as space permits. The literature review in Chapter 2 provides much of the necessary background for the theory discussed within this thesis.

1.6 Review

In this chapter, I provided an introduction to the Siouan family of languages, explained where the language studied herein fits into that family, and provided an introduction to the verbal syntax. I outlined the structure of the thesis, gave a brief look into the phenomena studied in following chapters and the conclusions drawn therein, and provided introduced the theoretical model used.

The following chapter is a literature review of the topics of configurationality, pronominal arguments, Nakoda syntax and verbal morphology, and of how other researchers handled the subjects in question.

Chapter 2 - Literature Review

2.0 Introduction

The Assiniboine language has not been extensively studied. The work on this language is limited to grammar sketches (Levin, 1961; West, 2001c), an incomplete dictionary (Fourstar, 1978) and a textual analysis (Schudel, 1997). There is also a Nakoda Language Project underway in Fort Belknap, Montana, which focuses on teaching the Nakoda language (including the Canadian Assiniboine dialect). The materials from this project are very useful as reference, but are not intended to be linguistic analysis. Most of what has been written on Dakotan languages focuses on Lakhota, a neighbour of Assiniboine's, with a much larger population of speakers.

It is often assumed by the Siouan language researchers that Siouan languages have pronominal arguments and/or flat structures (Boas and Deloria, 1941; Burman, 1883; Dahlstrom, 1983; Graczyk, 1991; Legendre and Rood, 1992; Levin, 1961; Plunckett and McKeever, 1986; Rood and Taylor, 1996; Schudel, 1997; Schwartz, 1979; Shaw, 1980; Van Valin, 1977, 1985, 1987; Williamson, 1984). In order to support my claim that Assiniboine is not a pronominal argument language, and does not have a flat structure, an analysis that disputes almost everything that has been written on Assiniboine, I look to the theoretical implications of previous analyses. This chapter is devoted to a review of some of the literature written on the topics of the pronominal Argument Hypothesis (PAH), Configurationality, and sentence structure in Siouan languages. The first two topics are huge; there have been volumes devoted to each, so no new review could possibly cover every researcher. Instead, a brief overview of PAH, and how it was developed is offered. I discuss the works of Eloise Jelinek (Jelinek, 1984, 1989a, 1989b, 1995; Jelinek and Demers, 1994) and Mark Baker (Baker, 1985, 1988, 1991, 1996), who are also important researchers in the field of Configurationality. In addition, a counterpoint to their work on these areas is the work of Margaret Speas, whose theories are quite different from those of Jelinek and Baker. I offer only the briefest of comments on her work. The section devoted to Siouan argument structures looks at the Nakoda language, where it becomes immediately clear that there is much work to be done. There

are no studies devoted to sentence structure in Nakoda. For this reason, I look to studies of neighbouring languages, primarily Lakhota, which is a closely related language.

The structure of this chapter is as follows: §2.1 provides an overview of the research on the Pronominal Argument Hypothesis and Configurationality. §2.2 reviews work done on Siouan argument structures, starting with the work on Nakoda and then branching into other related works including those of Schudel (1997), and Graczyk (1991), Van Valin (1997, 1987), Rood and Taylor (1996), and Williamson (1984). A conclusion follows in §2.3. Throughout the chapter, while commenting on the works of other researchers, I try to make it clear which work I agree with, which theories I adopt, and which I reject.

2.1 Pronominal Argument Hypothesis and Configurationality

The Pronominal Argument Hypothesis (PAH) is a theory of clause structure designed to explain a cluster of syntactic phenomena that is difficult to explain under the usual assumption that a verb's arguments are expressed lexically in the form of complete noun phrases. It states that in some languages, all arguments of the verb must be expressed pronominally, either overtly on the verb in the form of affixes or as null pronominals. Nakoda shares many characteristics with languages considered to be pronominal argument languages, but I argue that its arguments are not strictly pronominal; third person arguments may be lexical. No previous study has been done on the status of Nakoda's arguments, though it is generally assumed that the person marking prefixes in Siouan languages are pronominal arguments (Graczyk, 1991; Rood and Taylor, 1996; Schudel, 1997; Van Valin, 1977, 1985, 1987, 1990; and many others) There are, of course, dissenting opinions, and my thesis is similar to what is proposed in Williamson (1984) for the Lakhota language. I concur with Williamson and I extend to Nakoda Williamson's conclusion that person markers in Lakhota are not pronominal arguments. Rather, these person markers are agreement morphology, agreeing with null subjects or objects.

Although it is a fairly new area of study, there have been thousands of pages of work devoted to the issues of pronominal arguments and configurationality in languages. A pronominal argument language can be defined as one in which all subjects and objects

are pronominal in nature; overt lexical determiner phrases (DP's) are optional (Jelinek, 1989b). These languages are characterized by free word order, null anaphora, and the lack of DP anaphors, infinitivals, binding conditions and weak-crossover effects. They also require a rich system of morphological person marking, which, depending on the variation of the theory the researcher subscribes to, may function as agreement or as the pronominal argument of the verb. Many Iroquoian, Athapaskan, Siouan, Salish, Algonquian, Muskogean, Bantu and Austronesian languages have been analysed as pronominal argument languages (Baker, 1991, 1996; Graczyk, 1991; Jelinek, 1984, 1989a, 1989b, 1995; Jelinek and Demers, 1994; Mchombo, 2001; Nordlinger, 1998; Reinholtz and Russell, 1995; Rood and Taylor, 1996).

The works of Mark Baker (1988; 1991; 1996) and Eloise Jelinek (Jelinek, 1984, 1989a, 1989b, 1995; Jelinek and Demers, 1994; Willie and Jelinek, 2000) provide an in-depth theoretical study into the nature of Pronominal Argument languages, providing the researcher with predictions about what phenomena will occur in this type of language. Their work has been crucial for studies on the status of arguments in various languages. Their work has influenced the work of many other researchers. Some, of course, maintain the theory, building on it and developing it further. Others take issue with some part of the theory and change it to reflect their data and argumentation (Broadwell, 1993; Davis, 1994, 1997; Speas, 1989, 1990, 1991b, 1991a, 1996; Speas and Yazzie, 1996). Of particular interest are Jelinek (1989) and Broadwell (1993), which both use Choctaw as their language of study. Jelinek argues that Choctaw is a pronominal argument language, while Broadwell contends that arguments are lexical in Choctaw. This comparison allows the reader to see the point of view of each side of the pronominal argument vs. lexical argument debate (see §2.1.4).

In the following sections, I provide an overview of the PAH and configurationality which includes a short history of these theories and the terms used in their development, including a section on the work of Rachel Nordlinger (1998), whose theory of pronominal arguments and configurationality is built on those of Baker, Jelinek and Speas. Her work is particularly significant because it rejects the notion of a binary parameter of configurationality, favouring a continuum of configurationality instead. Throughout these sections, I define the terms as they will be used throughout this thesis,

and show how they overlap and interact. In the final section, I provide an overview of the Jelinek and Broadwell papers on Choctaw.

2.1.1 The Pronominal Argument Hypothesis

The theories of Baker and Jelinek differ from each other in many respects. Both researchers believe that the Pronominal Argument (PA) languages have mandatory pronominal arguments; any DPs are considered adjuncts to the sentence. Where they most clearly differ is in the nature of the pronominals. In Baker's version, argument positions, in the usual case, are filled with *pro*. The agreement morphology on the verb absorbs the case that would be assigned to the arguments. The features of this agreement morphology thus agree with the features specified by *pro*. In Jelinek's theory, the affixed person marking satisfies argument requirements itself, and overt DPs are adjuncts.

2.1.1.1 Jelinek's Pronominal Argument Hypothesis

Jelinek's 1984 paper on pronominal arguments was a development of the Configurationality Parameter as defined by Hale (1983:26).

1) **Configurationality Parameter**:[7]

   i) In configurational languages, the Projection Principle (Chomsky, 1981:29) holds of the pair (Lexical Structure (LS), Phrase Structure (PS)).

   ii) In non-configurational languages, the Projection Principle holds of LS alone.

The problem with the Configurationality Parameter, as defined above, was that it led to the possibility of surface structures that had no indications of grammatical relations. Jelinek's proposal was to eliminate that possibility by reanalysing the person marking clitics in Warlpiri (Hale's language of study) as the arguments of the verb. That way, there is no need to stipulate that the Projection Principle does not hold. In this version of the theory, pronominal arguments are person markers, not null elements; the person marking satisfies the selectional requirements of the verb. Jelinek (1984) is explicit that person marking is not agreement morphology, a point Baker explicitly rejects. Jelinek's reason for adopting this view is that in Warlpiri, a person marking clitic

[7] This is not the definition of Configurationality that I am using. It is given for background information.

may be coindexed with a nominal that does not agree with it in person, case, or number. Strictly speaking, this would not be possible if it were an agreement marker. This approach removes a level of abstraction, as there is no null *pro* to contend with, as there is in Baker's theory.

2.1.1.2 Baker's Polysynthesis Parameter

In Baker's version of the Pronominal Argument Hypothesis argument positions are filled with *pro*. Overt DPs that would fill the subject and object positions in a lexical argument language such as English are analyzed as adjuncts to the sentence in PA languages. The agreement morphology on the verb absorbs the case that would be assigned to the arguments. The features of this agreement morphology then agree with the features specified by *pro*. Figure 4 is a representation of a basic sentence in a verb-final language (such as Dakotan languages) within Baker's version of this theory.

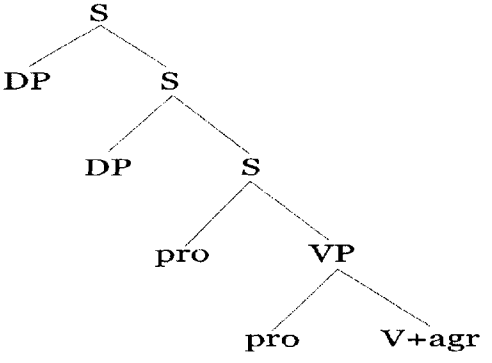


Figure 4- Basic sentence of a verb-final non-configurational Pronominal Argument Language[8] in Baker's theory ((Baker, 1996: 62)

There are several advantages to Baker's approach over a lexical argument approach to languages such as Mohawk. Theories of language that have been shown to work well in describing many other languages do not have to be set aside, or manipulated terribly in order to account for these kinds of languages. These advantages include: a) verbal restrictions such as what the verb can agree with or incorporate can be accounted for by allowing that the morpheme within the verbal form must be in a properly governed

[8] Note that this use of non-configurational is Baker's, and is not how I use the term. This structure of Baker's is configurational in the sense that there is a hierarchical alignment of subject and object. It is the adjunct status of the DPs that he calls non-configurational, because adjuncts typically can appear in any order.

relationship with an empty category; b) allowance of the application of various accepted theories.

Inspired by Chomsky's (1981) Visibility Condition, which states that a phrase is only visible for θ-role assignment if it is assigned abstract case, Baker presents the Morphological Visability Condition:

2) **The Morphological Visibility Condition (MVC)** (Baker, 1996: 17)
A phrase X is visible for θ-role assignment from a head Y only if it is coindexed with a morpheme in the word containing Y via:
(i) an agreement relationship, or
(ii) a movement relationship.

Baker notes that it is possible to break the MVC into two separate parameters. This would allow for a possibility of at least three, and logically four possible types of language. The first type, where both (i) and (ii) hold, is what Baker calls 'polysynthetic'. This would include languages like Mohawk, Nahuatl and Mayali (Baker, 1996:17). The second type would include languages in which arguments must be agreed with, but there are no incorporation phenomena (Baker, 1996: 18). According to Baker, examples of non-polysynthetic pronominal argument languages are Lakhota, Warlpiri, Navajo, Salish languages and Choctaw. The third type of language is that in which neither part of MVC hold. These are widely varied. They may have pronominal affixes and show some types of incorporation, though this should not be systematic to all argument types. In other words, such languages may use constructions similar to those in Mohawk, but the MVC does not force this. The fourth type of language that is logically possible is one in which only the second part of the MVC holds. This type of language would have noun incorporation, but not agreement morphology.[9]

Baker rejects Lakhota for polysynthetic status on the basis of its lack of syntactic incorporation and WH-movement, and the presence of "true" determiners and an infinitive (Baker, 1996: 500-501). However, he does refer to Lakhota as a "head-marking non-configurational language" (93 n4). Head-marking, as defined by Nichols (1986), refers to the marking of syntactic relations on the head of the clause or phrase, as opposed

[9] Baker (1996: 18-19) predicts that this kind of language cannot exist, because Noun Incorporation is not flexible enough to satisfy the conditions of the MVC itself.

to the dependent. The Dakotan languages are head-marking languages; morphological marking which denotes the syntactic relation between a head and a dependent is marked, almost invariably, on the head. In contrast, English is a dependent-marking language because the syntactic relations are expressed on the dependent, not the head. These patterns, at the clause level, are illustrated by Nichols (1986: 61) as follows:

3) **Dependent-marked[10] :**

Noun + ^{M}Case Noun + ^{M}Case Noun + ^{M}Case ^{H}Verb

Head-marked:

Noun1 Noun2 Noun3 ^{H}Verb + $^{M}aff_{N1}$ + $^{M}aff_{N2}$ + $^{M}aff_{N3}$

Head-marking languages and pronominal argument languages are sometimes considered to be the same thing. Van Valin (1987) uses the terms interchangeably, and Davis (1994) notes:

> The most salient characteristic of head-marking languages is the obligatory morphological registration in the form of agreement markers of argument DPs on the predicates which select them. As a direct corollary, overt nominals are strictly optional, and in some languages quite restricted in occurrence. There is fairly long tradition (especially within Amerindian linguistics: see Mithun (1986) and references on Iroquoian, Van Valin (1985) on Siouan, for example) of interpreting these facts to mean that the head marking languages somehow satisfy the selectional requirements of predicates morphologically, rather than syntactically (Davis, 1994: 1-2)

It is not entirely clear how it is that satisfying the selectional requirements of the verb *necessarily* follows from a rich, obligatory morphological system of person marking on the verb. If these morphemes truly do satisfy the requirements of the verb, then they are arguments, not agreement, but if they are agreement morphology, then they cannot also be argumental. Van Valin (1977, 1987) says that Lakhota verbal affixes are not agreement morphology, but does not say why they cannot be so. Williamson (1984), on the other hand, says that the person marking morphology is agreement, which should not be possible if the verbal affixes always fulfill the selectional requirements of the verb. There are multiple reasons to argue that the person marking in Nakoda is agreement, not

[10] Superscript M = marking
Superscript H= head

argumental, but the language is still best analysed as a head-marking language. For these reasons, I do not equate head marking with pronominal arguments.

2.1.2 Configurationality

Beyond the topic of whether or not Nakoda has pronominal arguments is the question of its configurationality. The term *configurational* is used differently in the literature by various researchers, so to avoid confusion I adopt the definition of the researchers whose work I am responding to (Williamson, 1984: 2; Van Valin, 1986: 380) who define 'configurational' as having a VP in the structure, where there is an asymmetrical relationship between subject and object. Non-configurational languages, in turn, are said to lack the VP, and the subject and object are sisters in the tree structure.

Speas (1990: 127) states, "In general, those languages which have been called 'non-configurational' are languages which lack the various sorts of surface evidence that we find in English that strings of words are hierarchically arranged". However, Speas challenges the idea of the existence of a configurationality parameter. She demonstrates that in several languages that are often depicted as non-configurational (Japanese, Malayalam, Warlpiri and Hungarian), there is in fact good reason to analyse them in a configurational manner. She looks at Hale's diagnostics of non-configurationality with respect to eleven different languages, and concludes that because these languages fail "to fall into two groups with respect to the diagnostics is a reason to doubt that languages may be classified according to a parameter involving a principle as fundamental as the Projection Principle" (Speas, 1990: 143). Furthermore, Speas takes the data of Japanese, Malayalam, Warlpiri, Hungarian, and some VSO languages, and explains how these languages, which are often described as non-configurational, are better analysed as having a configurational structure, with a hierarchical alignment of subject and object. By her analysis, a parameter of configurationality is not a plausible parameter.

Nordlinger (1998) agrees with Speas's assessment of the plausibility of a configurationality parameter. She also notes that languages fail to fall into two distinct ends of a range called configurational and non-configurational. Most languages, she says, fall somewhere in between. It is difficult to see how a language could be partially configurational, but Nordlinger defines the term differently. Instead of referring to either

the Projection Principle or the existence of a VP in the sentence, Nordlinger defines a configurational language as one that "identifies grammatical relations in the syntax" (Nordlinger, 1998: 25).

A non-configurational language, according to Nordlinger, is one in which "argument functions are encoded in the morphology" (1998). Even under these definitions, I still would argue that Nakoda is configurational.[11] Subjects and objects are encoded in the syntax and the agreement morphology provides feature identification when subjects or objects are null.

Whether there is a configurationality parameter or a configurationality continuum is not within the scope of this thesis. Throughout, I am assuming the existence of a configurationality parameter, and arguing that Nakoda has a positive setting for it. If, in fact, either Speas or Nordlinger is correct and there is no such two-way setting, there would be no negative effects on my analyses. Rather, my work would serve to support Speas's assertion that there is no such thing as a non-configurational language. There would be no direct effect on Nordlinger's work, as Nakoda would still fit nicely into the configurational category on the continuum.

Although there has been no study of configurationality in the Nakoda language, Williamson (1984) and Van Valin (1977, 1987) state that Lakhota (Nakoda's closest relative) has no VP, and that its clause structure is flat. In their analyses, there is no hierarchical asymmetry between subject and object. Rather, subject, object, and verb c-command each other. The lack of hierarchical structure accounts for free word order data and an apparent lack of asymmetries between subject and object. I reject this analysis for the Nakoda dialect for two main reasons: a) there is very fixed word order in Nakoda – variation on the basic SOV order is only possible in focus constructions; b) there are some subject/object asymmetries evident. This is discussed in greater detail in Chapter 3.

[11] It is not surprising that I would not change my view of the status of Nakoda if I adopted Nordlinger's definition of configurationality. The existence of rich agreement morphology that is required of non-configurational languages becomes the defining point of configurationality, but little else changes. All other criteria of configurationality stay the same. The biggest advantage to Nordlinger's approach is a greater flexibility in characterizing languages and an explanation of the lack of two distinct groups that are expected of a parametric approach while still accounting for the features of non-configurationality. My reason for not adopting her approach to configurationality is that my work is intended to reply to some of the statements made by other researchers regarding configurationality in Siouan languages, and it is more efficient to maintain their definitions.

2.1.3 On the Relationship between Configurationality and Pronominal Arguments

It is interesting to note that the diagnostics for configurationality and the characteristics usually attributed to pronominal argument languages have many similarities. In fact, these are many overlapping attributes expected of non-configurational languages and pronominal argument languages, though they are required for different reasons. Much of this overlapping is due to the fact that the PAH was originally developed as a solution to the problems of the Configurationality Parameter (Hale, 1983).

Table 1 lays out the attributes of non-configurationality and pronominal arguments together, providing a comparison between the two concepts, each of which will be discussed to some extent in later chapters.

	Pronominal Arguments	**Non-configurationality**
Free word order (Baker, 1996; Jelinek, 1984; Van Valin, 1987)	✓	✓
Lack of Binding Condition C effects (Baker, 1996; Jelinek, 1984; Van Valin, 1987)	✓	✓
Symmetrical subjects and objects (Baker, 1996; Jelinek, 1984; Van Valin, 1987)	✓ (not for Baker (1996))	✓
Lack of Weak-Crossover effects (Baker, 1996; Jelinek, 1984; Van Valin, 1987)	✓	✓
Optional DPs (Baker, 1996; Davis, 1994; Jelinek, 1984)	✓	
Mandatory WH-movement (Baker, 1996; Davis, 1994; Jelinek, 1984)	✓	
Adverbial-type quantifiers only. (No D-Type quantifiers) (Baker, 1996; Davis, 1994; Jelinek, 1984, 1995)	✓	
No infinitival (Baker, 1996; Jelinek, 1984)	✓	

	Pronominal Arguments	**Non-configurationality**
All DPs definite (Davis, 1994)	✓	
Overt DPs are adjuncts (Baker, 1996; Jelinek, 1984)	✓	
Discontinuous Constituents (Baker, 1996; Jelinek, 1984)		✓

Table 1: Attributes Expected of Pronominal Argument and Non-Configurational Languages

The first four attributes in Table 1 are the four criteria that Van Valin (1987) used to argue that Lakhota is non-configurational. As shown, they are also required attributes of pronominal argument languages. Given the overlap in expected characteristics, it is no surprise that languages that are pronominal argument languages are often also considered non-configurational. It is also not surprising that some researchers consider PAH languages to be non-configurational, and vice versa. For example, Russell and Reinholtz (1996) say:

> Overt NPs in non-configurational languages are widely held to have adjunct status. This is seen to explain a number of properties which suggest an absence of hierarchical relationship between NPs...One of the most successful analyses of these properties is the Pronominal Argument Hypothesis...*The PAH holds that in non-configurational languages* thematic roles are assigned to pronominal arguments (*pro* or "agreement morphemes") within the verbal complex (emphasis mine).

Russell and Reinholtz (1996) note that many researchers seem to equate non-configurational languages and pronominal argument languages. Russell and Reinholtz work under the assumption that the PA language category subsumes the category of non-configurational languages, but not necessarily vice versa. In fact, they argue that Cree, a language long held to be non-configurational, is a pronominal argument language, but that any overt DP need not be an adjunct. They conclude that the adjunct status of DPs does not follow from PAH as Baker (1996) argues. Rather, the DPs in Cree are complements and specifiers of the functional categories Topic and Focus (c.f. Willie and Jelinek (2000) on discourse configurationality). Their work strongly reinforces Speas's claims that no language is without configurational structure, as Cree fits all of the

diagnostic criteria generally held for non-configurationality. Clearly, the diagnostic criteria need to be revisited.

A problem with much of the work in the area of configurationality and pronominal arguments is the idea that non-configurational status necessarily entails mandatory pronominal arguments. Much of this stems from Jelinek's (1984) original work on the topic, in which she takes the notion of non-configurationality and develops the PAH from it. She continues to use the term non-configurational to talk about these languages, assuming non-configurational structure because the arguments of the verb are part of the verb complex. However, there is no reason why there cannot be configurational structure within the verb itself in the morphology, unless one does not treat morphology as part of the syntax. Non-configurationality only requires that a language have a symmetrical relationship between subject and object. If the subject and object are DPs, and both are sisters to the verb, the language is non-configurational, but has lexical arguments.

2.1.4 Jelinek and Broadwell on Choctaw

A useful pair of papers on the topic of configurationality and pronominal arguments are Jelinek (1989b) and Broadwell (1993). Both of these papers are on the status of argument type in the Choctaw language. Jelinek's paper is an attempt to explain the verbal structures and case split in Choctaw by applying the Pronominal Argument Hypothesis; Broadwell's 1993 paper is a rebuttal to Jelinek that argues, (1) that there are too many problems with the PAH to make it work, (2) that a lexical argument analysis works far better, and (3) that the syntactic phenomena that Jelinek says are definitive of PA languages are actually compatible with various syntactic types. Broadwell and Jelinek agree on some points; the Choctaw language definitely presents like a Pronominal Argument language. It has discourse controlled NPs, independent pronouns only in marked constructions, and a lack of an adjacency condition on NPs and pronominal inflection. These are all expected qualities on a non-configurational pronominal argument language. But Jelinek and Broadwell differ in their primary beliefs about the language. Jelinek says:

> Choctaw nominals do not inflect for number, but the verb may do so. The fact that a Choctaw noun need not agree either in number or in case with the verbal affix it 'triggers', and the fact that the inflected verb alone is a grammatical sentence strongly suggest that the pronominal affixes have syntactic functions other than simple agreement. (129)

Jelinek has a tough job; it is very difficult to prove a positive assertion. So her argumentation relies on showing the difficulties of an analysis where the person markers are marking agreement. In the quote above, she disputes an agreement analysis by asking what it is that these markers are agreeing with if they are indeed agreement, because the markers do not agree in number or case with the nominals that supposedly trigger them. Furthermore, she believes that the markers have a syntactic function because a verb can stand as a sentence. So if there is nothing else in the sentence except the verb, then the affixes must be syntactic arguments. It is evident that Jelinek is not inclined to use null pronouns, as *pro* offers a solution to the problem of a verb alone comprising a sentence. The fact that "...there is no one-to-one correspondence between the case marking of a pronominal and its grammatical relation..." (128) is a much harder problem to overcome in a lexical argument analysis and it is a problem that Broadwell does not address.

In fact, his paper does not really attempt to find flaws in Jelinek's argumentation, only to bring up other data that she may have missed. For example, Broadwell asserts that person marking is not always obligatory. A type II object suffix (i.e. that which is generally associated with the object of a transitive verb or the subject of an stative intransitive verb) may be omitted in the presence of an emphatic pronoun (Broadwell, 1993: 395) but the subject affix of the same class cannot be omitted. This counters Jelinek's assertion that pronominal arguments may never be omitted, and raises difficulties for her analysis because a sentence in which the pronominal affix is missing would presumably be without an object, despite the transitivity of the verb and the clear object meaning in the sentence.

Although Jelinek makes frequent reference to the non-configurational nature of the Choctaw sentence, Broadwell provides evidence of a VP in the form of the pro-verb *yohmih* meaning 'do so, do also'. This verb acts like a VP anaphor, in that it is interpreted as identical with the VP of the preceding clause. (Broadwell, 1993: 397). Further, there are some restrictions on this verb with regard to person marking. One type of marker (II)

is inside the VP, and another type (I - subject of transitive and active intransitive verbs) is outside the VP. *Yohmih* is a complete VP and cannot occur with affixes contained within the VP. This clearly illustrates Broadwell's opinion that Choctaw is configurational, having a VP in the clause structure. His treatment of the active/stative verb system relies on the VP.

Both articles do justice to the Choctaw verb system. Jelinek's paper is far more comprehensive than Broadwell's, but the Broadwell paper is not intended to be a thorough account. Rather it is meant to refute Jelinek's claim in defence of earlier analyses. It is difficult to see how either analysis could be entirely correct. Both researchers provide a lot of good information and analysis that would be difficult to explain under the other account.

2.2 Siouan Argument Structures

There has been no extensive study of the Nakoda argument structure, and there exists no complete descriptive grammar of the language. In fact, to the best of my knowledge, the only Nakoda projects in progress, aside from this work, are a descriptive grammar and a dictionary project. In this section, I briefly outline the work that has been done on argument structure in Siouan languages, starting with Nakoda, and branching out into related languages and related analyses.

2.2.1 Schudel 1997

There has been one recent analysis of Assiniboine Nakoda texts, which includes a brief reference to subjects and objects (Schudel, 1997). Similar to the analysis presented in this thesis, Schudel states that DPs, when they appear, fulfill the selectional requirements of the verb. Where my analysis diverges from Schudel's is in the analysis of verbal inflection, which she states is argumental when there are no DPs. This is supported by the fact that there is complementary distribution between verbal inflection and coindexed DPs, which occurs because 1st and 2nd person independent pronouns are usually predicated (see §4.2.1), and 3rd person agreement is usually zero marked. If a verb has a 1st or 2nd person argument, the verb shows inflection marking to reflect this as in (4) and (5).

4) Ni-sába
2-black
You are black (with dirt)

5) Ma-stústa
1s-tired
I am tired.

If the verb has third person arguments, the verb will show no overt agreement (except for 3rd plural animate object), and the 3rd person argument will either be *pro* or an overt DP as shown in (6) – (9).

6) Hokšína že ma-bústaga.
Boy the 1s-kiss
The boy kissed me.

7) Hokšína že wicĩjana že ibústaga.
Boy the girl the kiss
The boy kissed the girl.

8) ibústaga.
Kiss
He/she/it kissed him/her/it

9) Wicá-bustaga.
Loc-3pAnimO-kiss
He/she/it kissed them.

In examples (6) through (9), there is a third person subject acting on either a first or third person object. There is never third person subject marking on the verb. In most situations, there is no third person object marking either. Example (9) illustrates the exception, which is *wica*, the 3rd animate object.

2.2.2 Graczyk 1991

An analysis similar, though not identical, to that of Schudel (1997), is that of Randolph Graczyk for the Crow language (Graczyk, 1991). Like Nakoda, Crow is a Siouan language, though it is quite different from Nakoda. Graczyk says:

> ...following Hale 1983, Jelinek 1984, 1987, 1989, Van Valin 1985 and Baker 1991[12]) the pronominal affixes are syntactic arguments, while independent pronouns and lexical NPs coreferential with the bound pronominals are adjuncts or appositives. (Graczyk, 1991).

The view presented by Graczyk is that Crow is a pronominal argument language. His analysis closely follows Jelinek's version of the theory, that the overt affixes are the arguments. However, there is a twist in Crow: there are no overt third person pronominals of the same sort as first and second persons. In order to accommodate this fact Graczyk states:

> While I agree that this claim is valid for Crow with regards to the first and second Pronominals, I would propose a different solution for the third person zero pronouns: namely, that in the absence of a lexical NP these zeros are genuine arguments. If, however, lexical NPs are present that satisfy the subcategorization requirements of the verb, those lexical NPs are the syntactic arguments, with the zeros functioning merely as null agreement markers. (Graczyk, 1991:99).

A problem with Graczyk's analysis is in the idea that the zero on the verb is agreement or argumental depending on the existence of another element. This would require that the 3rd person zero on a verb be multi-functional, sometimes functioning as agreement and sometimes functioning as the argument of the sentence, depending on whether there is a lexical NP in the sentence that satisfies the subcategorization requirements of the verb.

In an analysis where all verbal person marking is agreement morphology there is no need for zero nominals that can be either argument or agreement, and the verb need not "look for" a DP before deciding what to do with its zero.

2.2.3 Van Valin 1977

Several years prior to Graczyk's study of Crow, Van Valin (1977) analysed Lakhota affixal person markers and DPs as arguments, relying on their complementary distribution as evidence. His description of the order of elements in the Lakhota verb is

[12] I believe Graczyk is wrong about Baker (1991). Baker does not espouse the idea that pronominal affixes are syntactic arguments. Rather, he argues that pronominal affixes are agreement morphology, and that the syntactic argument is *pro*.

templatic: "When both "subject" and "object" pronouns occur in a transitive verbal complex, the usual order is "object" preceding "subject", except in the case of 'we-you', which is ũ-ni (pi)" (Van Valin, 1977: 6). My conclusions differ from his in several ways. First, as stated above, I argue that person markings on the verb are agreement; I do not accept the premise that they are argumental. Second, Van Valin's work is functionalist and rejects the notions of subject and object as irrelevant, choosing instead to rely on semantic macro-roles of Actor and Undergoer. Although this may seem like mere theory-dependent terminology, there are many different implications under that type of analysis. In a later paper, Van Valin (1987) presents four sets of facts that suggest that there is no VP in the Lakhota syntax. Each of these issues will be discussed in Chapter 3, where it will be argued that they either do not hold in Nakoda, or have an alternate explanation compatible with the presence of a VP in Nakoda clause structure.

2.2.4 Rood & Taylor 1996

Rood and Taylor (1996) provide a sketch of the Lakhota language in which the authors describe the structures of the language without a particular theoretical angle. As a result, it is sometimes difficult to be certain whether they intend the prefixes to be subjects and objects or agreement morphology, or both. For example, they say that because active transitive verbs require two participants (agent/subject, patient/object), they also permit two affixes to occur. They do not say whether these affixes are agreement, or whether they fulfill the argument requirements of the verb (462). Similarly, they say, "Lakhota verbs may be inflected to indicate the person and number of subjects, direct objects, indirect objects, and possessors of objects" (464). Whether this 'indication' represents agreement relations, or the inflection satisfies the subcategorization requirements of the verb is unstated.

2.2.5 Williamson 1984

Williamson, in her 1984 dissertation on Lakhota syntax, argues that personal prefixes are agreement markers, agreeing with NPs that are dropped. As noted earlier, she suggests that this "is related to the fact that Lakhota has a flat, VP-less structure, where

there are no asymmetries between subject and objects as far as government relations are concerned" (Williamson, 1984: 64-65). However, she sets up a system of virtual structure that is hierarchically arranged. These hierarchical structures are necessary for Case assignment and Binding Theory. In essence, she argues that the surface structure of the Lakhota sentence is VP-less, but that hierarchical arrangement is necessary for non-surface relationships. In my analysis of Nakoda, I agree with her analysis of the personal prefixes as agreement markers, but I do not believe that her VP-less structure is necessary in Assiniboine. This is largely a difference in the theories we work with. Virtual structures are not part of the theory that I am working with, so my analysis lacks that level of structure, employing hierarchical structure at all levels. However, her analysis and mine are quite similar. We both argue that NPs are necessarily associated with agreement morphemes on a one-to-one mapping, despite the fact that NPs and their associated agreement markers do not overtly co-occur.

2.3 Review

The work presented in this paper differs significantly from all previous work on Siouan syntax. Williamson's work on Lakhota is the closest approach to my own, differing most significantly in the area of configurationality. She argues that there is no VP in the Lakhota sentence. I argue that there is one in Nakoda's structure. It is possible that we are both correct, though that seems unlikely given the close relationship between the two languages. Apart from Williamson, all other Siouan syntax works I am aware of state that subjects and objects are realized as pronominal arguments prefixed to the verb or by DPs when they exist. While I concur that DPs do fulfill verbal requirements, I argue that the verbal prefixes are agreement morphology, not pronominal arguments.

Chapter 3 - A Configurational Approach to Nakoda Sentence Structure

3.0 Introduction

The purpose of this chapter is to provide evidence that Nakoda is best analysed configurationally, where subject c-commands object, but not vice versa. Figures 5 and 6 demonstrate the structural nature of configurationality and non-configurationality at their most basic level.

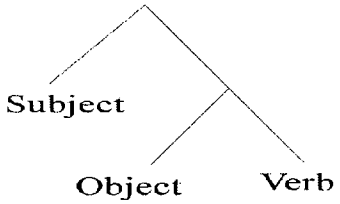


Figure 5: Configurational SOV sentence

In Figure 5, the object and verb form a constituent usually referred to as a Verb Phrase (VP). Williamson (1984) and Van Valin (1977, 1987) argue that this constituent is irrelevant in Lakhota (Assiniboine's closest neighbour), and that the language should be analysed non-configurationally. They propose a structure more like Figure 6, in which the subject and object are both sisters to the verb.

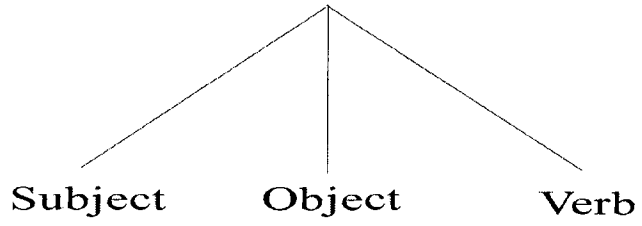


Figure 6: Non-configurational SOV sentence

There are some theoretical issues with the configuration in Figure 6 (for example, it causes binding violations discussed below). Setting aside the theoretical issues, there is also good evidence that Assiniboine cannot be analysed non-configurationally because there are asymmetries between the subject and object for which configurational structure is the best explanation. These asymmetries will be discussed in detail in §3.1.

In this chapter, I provide evidence that Nakoda is configurational and that Nakoda fails the 'diagnostics' of non-configurationality. Further, I argue that these diagnostics are not an effective way of deciding whether a language has configurational structure or not.

3.1 Evidence of configurationality

The most important piece of evidence supporting a configurational analysis of a language is the existence of a VP, which contains an object, but not the subject of the sentence. By definition, a configurational language has a VP, and a non-configurational language does not. In this section, I explore the asymmetries of Nakoda's grammatical relations that lead to the conclusion that there is a VP in the language.

3.1.1 Coordination data

Coordination data is particularly good for revealing the asymmetry between subject and object in Nakoda. In the following sections, I show how coordination illuminates the Verb Phrase. There are two main data points: (1) argument sharing – subjects and objects behave asymmetrically when verbs in two conjuncts share an argument; (2) scope over conjuncts – auxiliaries, adverbs and post-verbal enclitics all may have scope over two verb phrase conjuncts.

3.1.1.1 Argument Sharing

In the English sentence *Mary insulted Bill and sulked* the subject of the second clause must be the same as the subject of the first. Only *Mary* can be assumed as the subject of the verb *sulked.* The reason for this lies in the configurational structure of the English sentence; the object is not available for the second verb. The subject of the sentence is positioned outside of the VP, further from the verb than the object, which is sister to the verb. The object is not in a position that the second verb may use it for its subject.

Because in a non-configurational language except linear sequence there is no structural difference between subject and object, either the subject or the object is

expected be able to be assumed as the subject of the second verb– they share the same structural relationship to the verb. However, in Nakoda, like English, only the subject may be understood as shared between the two conjuncts.

1) John [Mary yu- šíkna] hĩkná [šikná- yãga].
J. M. CAUS-angry CONJ angry- sit
John insulted Mary and sulked.

In (1), *Mary* cannot be the subject of the second verb regardless of whether that would make more semantic sense. It would be logical for Mary to sulk after being insulted, but that reading is not licit.[13] The subject of the second conjunct may only be the same as the subject of the first conjunct. The object of the first conjunct is not available to the second conjunct's subject position, indicating a clear asymmetry between the subject and object. When *yušíkna* is conjoined with 'sulk' *šiknáyãga*, *Mary* is obligatorily included in the conjunction, while *John* is not. This demonstrates that the verb and object are treated as if together they form a single constituent, which clearly must be a VP. However, if we were to conclude that (1) was an example of verb coordination, as opposed to verb phrase coordination, there would be no motivation to disallow *Mary* as the subject of the second conjunct.

In (1) *Mary* cannot be understood as the subject of the second conjunct, and furthermore, no other 3rd person may be the subject, even though 3rd person subject marking is always null. Were the second conjunct a clause on its own, any other third person would be predicted as a licit subject of the verb 'sulked'. However, since only *John* can be the subject, the second conjunct of (1) cannot be a separate clause, and is thus construed as a VP.

Examples (2) – (4) are similar to (1) in that the first conjunct is a transitive verb with an overt object and the second conjunct is an intransitive verb with no overt subject; the only subject available is the one shared with the first conjunct.

2) Hokšína že [ta- kóna -gu apá] hĩkná [céya].
boy DET POSS- friend -3POSS hit CONJ cry
The boy hit his friend and cried.
*The boy hit his friend and he (his friend) cried

[13] To achieve a reading in which Mary sulks, the sentence requires an auxiliary verb *kiya*, meaning 'to cause to be', to follow the second verb, making the sentence read, 'John insulted Mary, and made her sulk'

3) Wíyã že [wicá že wayága] hĩkná [céya].
woman DET man the see CONJ cry
The woman saw the man and cried.
*The woman saw the man and he cried

4) Hokšína [ta- kóna -gu apá] hĩkná [ceyĺ] kta.[14]
boy POSS- friend -3POSS hit CONJ cry IRR
The boy will hit his friend and then will cry.
*The boy will hit his friend and then he (the friend) will cry

The subject is structurally higher than the object, because it is the object of the first verb that is included in the conjunction structure, excluding it from being understood as the subject of the second clause. The subject of the first clause is not included in the conjunction, so it must be structurally higher than the object.

As stated above, a VP analysis explains why the object of the first clause cannot be coindexed with the subject of the second conjunct, but further evidence is available in (5) and (6) where a verb plus object occurs in both conjuncts.[15]

5) Wicá že [bisbíza =bi =na žé=na wa-wíca-yaga] hĩkná
man DET mouse =pl =DIM the=pl IO -3pO-see CONJ

[búza =bi=na žé =na wicá-gico].
cat =pl=pl DET =pl 3pO-call

The man saw the mice and called the cats.
The man[i] saw the mice and then he[i,*j] called the cats.
*The man saw the mice and she called the cats

6) John [axhúyabi skúya yúda] hĩkná [mni ibíxã óda yatkã́] ogíhi.
J. bread sweet eat CONJ water boil lots drink can
John can eat a cake and drink lots of beer.
*John can eat a cake and she can drink lots of beer

In (5) and (6), the second verb phrase shares a subject with the previous verb phrase, and cannot have a disjoint subject. One might expect that (5) and (6) are examples

[14] The epenthetic [a] at the end of some verbs becomes [ĩ] before many enclitics. See Shaw (1980) for more information.

[15] The existence of the Indefinite Object marker on the verb of the first conjunct of (5) is a lexicalization. Usually, this prefix indicates that the verb is intransitive, but that there is an indefinite object. However, in the case of the verb 'to see', the *wa-* prefix has joined the word, and is used regardless of whether or not there is an overt object.

of conjoined sentences, but such a scenario does not hold because the conjuncts are obligatorily interpreted as sharing a subject and are therefore interpreted as conjoined verb phrases. No other subject can be understood as external argument of the second verb. Each conjunct consists of a verb and object sharing the subject *John*. The logical explanation for this is VP coordination.

Figure 7 is a representation of (5).[16]

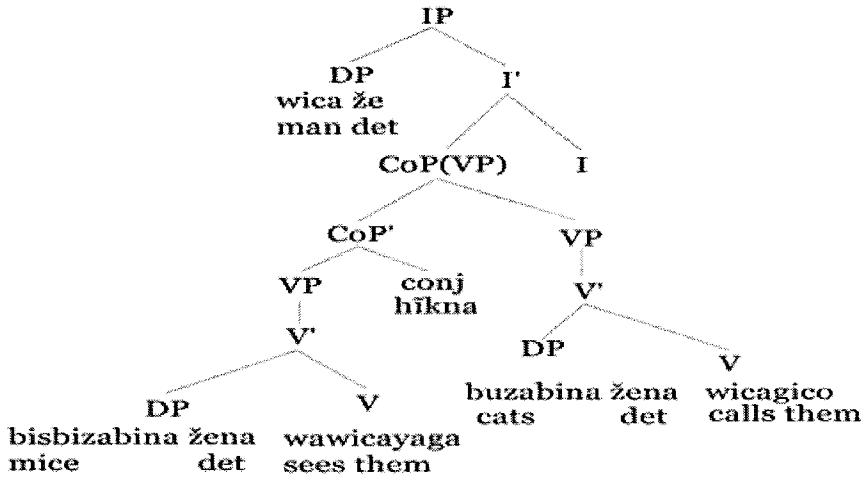


Figure 7: Coordinated VPs

The VPs in Figure 7 both have their own objects, and share the subject *wicá že*. The features of the I node have scope over both conjuncts. The nature of scopal relations over conjuncts and how they pertain to the configurational nature of the sentence is the focus of the sections below.

3.1.1.2 Optional agreement morphology on 1st conjuncts

Third person agreement in Nakoda is almost always null. The exception is the third person animate plural object agreement prefix *wicá*, which is almost certainly a historically incorporated noun, as it is homophonous with the word for 'man'. When the object of the verb is animate and plural, the verb must prefix *wicá*. In (5) above, both

[16] CoP is a Conjunction Phrase. Johannessen (1998) noted that conjunctions act as heads, and as such should project to the phrasal level. The CoP may represent the conjunction of any identical categories.

verbs in the CoP exhibit this object agreement. However, in (7), *wicá* is only marked on the second conjunct.[17]

7)	wicá	že	buzá=bi	žé	=na	[wayága]	hĩkná	[wicá-gico].
	man	DET	cat =pl	DET	=pl	see	CONJ	3pO-call

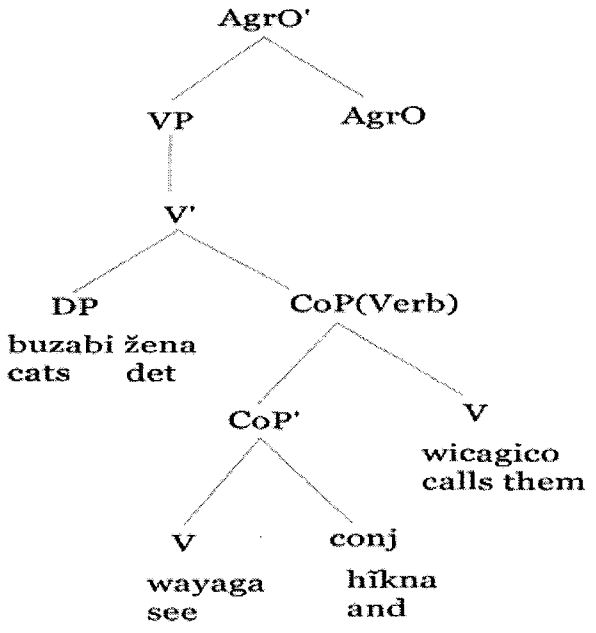
The man sees the cats and calls them.
*The man sees the cats$_i$ and calls them$_j$.
The man sees and calls the cats.

Despite the lack of object agreement morphology on the first verb, the verb is transitive, and the object is *buzábi* 'the cats'. If (7) involves clausal conjunction, then either conjunct is expected to be able to stand alone, but removing *hĩkná wicagico* from (7) leaves an ungrammatical sentence. This cannot be clause coordination.

Having established that (7) is not an example of clause coordination, another analysis is warranted. I argued that (1) - (6) are examples of VP coordination, but I do not feel this is the correct analysis for (7). Instead, I argue that it is verbs conjoined in (7), not verb phrases. The verbs share an object. If it were VPs that are conjoined, then it would be predicted that each could have its own object, but that is not possible. The second conjunct cannot have a null 3rd person object of its own, because then a licit disjoint reading would be predicted, and such a prediction proves false. Furthermore, the bare verb in the first VP would have a plural object with which it shows no agreement, which is unprecedented outside this configuration.

Figure 8 shows the structure of (7), excluding the subject.

[17] It is interesting to note that of all person marking, only *wica* may be optional on one conjunct. All other person marking must be shown on both verb conjuncts. Because this thesis is devoted to sentence structure, not coordination, I cannot delve deeply into the subject.



...sees and calls the cats.

Figure 8: Verb coordination

Within the Minimalist Program (Chomsky, 1995b), AgrO is the functional projection at which a verb checks features. In a simple structure (i.e. one without a conjunction structure), the verb moves to AgrO to check its features. When there is a conjunction structure such as in (7) where the CoP takes the place of the verb, it must also take the place of the verb in feature checking; instead of the verbs moving to check features, the entire CoP (verb) moves. The CoP gets its features from percolation of the features of the individual verbs, in this case, 3rd person animate plural object agreement.

3.1.1.3 An Aside on the CoP

Figures 7 and 8 represent coordination structures where verb phrases or verbs are conjoined. Note that in both structures the conjunction *hĩkná* 'and' is shown forming a constituent with the first conjunct, not the second. That is, CoP is represented as head-final. There are two reasons for this: first, the language is head-final and conjunctions act as functional heads (Johannessen, 1998: ch3); second, there are numerous examples in the literature of sentences ending in conjunctions. Were the conjunction to have the second conjunct as its complement, the conjunction would not be allowed in sentence

final position, as its complement would be missing. Examples of conjunction final sentences are provided in (8) and (9).[18]

8) wikni žéce ecũ=bi snoyá=bi hĩk wĩkni ne en
grease that kind do=pl melt=pl CONJ grease this in

ĩcijahi yuska=bi hĩk.
mix knead=pl CONJ

They melted the grease and kneaded the grease into the mix.
(Drummond, 1976, How Women Made Pemmican)[19]

9) hiyú'ĩj'iya néce wĩcáyuza hĩ́k
he threw himself this way he held them and

He threw himself over the edge and he held on to them like this.
(Parks and DeMallie, 2003 - Walking Chief, 39)

[my orthography and morphemic analysis]

hiyú' ĩc'i- ya n-éce wĩcá-yuza hĩk.
throw REFL CAUS this-way 3pO-hold CONJ

3.1.1.4 Scope of Enclitics

Nakoda has a wide variety of post-verbal enclitics. Their behaviour in conjoined structures is quite revealing of structural relations, as will be explained below.

kta	irrealis
xti	optative
bi	plural – subject (animate, all persons), object (1st and 2nd persons)
s'a	habitual
ca	evidential (no attested examples with coordination)
hã	durative
šĩ	negative
wo	imperative (male speaking)
hwo	interrogative (male speaking)
he	interrogative (optional) (female speaking)

[18] The Parks and DeMallie (2003) stories are from a reader, and therefore not broken into morphemes. I have provided morphemic analysis of the sentences after the original. For some examples, I also provide a more literal translation below the morphemic analysis. Mistakes in translation or morphemic definition are mine alone.

[19] I've changed the orthography of Drummond's texts to match mine for consistency. Also, I have no page or line numbers for Drummond's work, so I only cite the story name.

Table 2 - Post verbal enclitics

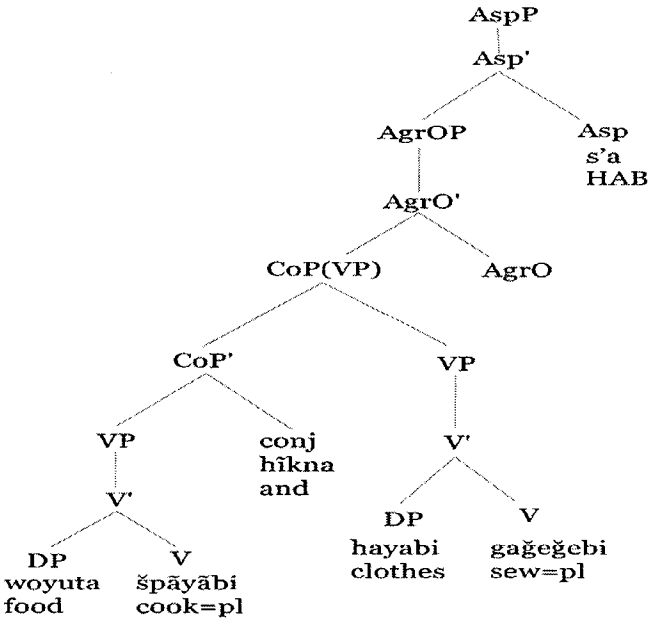
As their glosses show, these enclitics mark aspect, modality, mood, negativity, and plurality. One test for the constituency of the VP is to see if the enclitics have scope over both conjuncts. If they do, that provides evidence that there is a VP. If there were no VP, and the structure were flat, as previously analysed in the Dakotan languages, the enclitic would not be expected to have scope over all the conjuncts. However, this is not the case; all the enclitics may have scope over a conjoined structure.

The aspectual clitic *s'a* in (10) and (11) below, means 'habitually' or 'usually'. In (10) it applies to both *špãyãbi* and *gaǧéǧebi* (cooked and sewed), not just to 'sewed'. See Figure 9 for the structure of (10) excluding the subject.

10) Wiyã́ =bi žé =na [woyúta špãyã́ =bi] hĩkná [hayábi
woman=pl the=pl food cook =pl CONJ clothes

gaǧéǧe =bi] s'a.
sew =pl HAB

The women usually cooked the food and sewed the clothes.



... usually cooked the food and sewed the clothes.

Figure 9: Scope of Aspect over conjoined VPs

This sentence cannot read 'The women cooked the food and usually sewed the clothes'. In my analysis, *s'a* is the head of the functional projection AspP (Aspect Phrase), which c-commands the conjoined VPs. This is further evidence that there is a verb phrase in Nakoda sentences. Similarly, in (11), *s'a* 'usually' refers to both 'put them there' – *ewicaknãgabi* and 'put up/erect' – *ózibabi*. The people *usually* put up the tent and *usually* put the body of the favoured child in it.

11) žécen žéhãc'ehã ĩkcewĩcašta hokšĩcĩjabige néca
then at that time Indians favored child this kind

t'ábi hắda, wĩyãbi koská eštá [wí žéca wašté
they died when, women men either tent that kind good

néca ózibabi] hĩ́kna [žén éwicaknãgabi] s'a hũštá.
this kind they put it up and then there they used to place them it is said

In those days, when a "favored child" died, whether women or young men, the Indians put up a good tent and then they used to put them into it, it is said.

(Parks and DeMallie, 2003 - Shields, 44)

[my orthography and morphemic analysis]

žécen	žéhãc'ehã	ĩkcewĩcašta	hokšĩcĩjabige	né-	ca
then	at that time	Indians	favored child	this-	kind

t'á=bi	hắda,	wĩyã	=bi	košká	eštá	[wí	ž-éca	wašté
die=pl	when,	woman	=pl	men	either	tent	that-kind	good

né-	ca	óziba=bi]	hĩ́kna	[žé-n	é-	wica-	knãga	=bi]
this-	kind	erect=pl	CONJ	the-PROX	LOC-	3pO-	put	=pl

s'a,	hũštá.
HAB	it is said

It is not only aspectual enclitics that can have a scopal relationship with both conjuncts. In (12), the irrealis *kta* has scope over *yabi* – 'to go' and *koyakwicayabi* 'they made them wear', despite the fact that it is only marked on the second conjunct – on the verb 'to go'.

12)

[šũgatãga	ne	cã-	ba-	kmikma en	koyak-	wica	-ya
horse	this	wood-	INSTR-	round LOC	wear-	3pO	-CAUS

=bi]	hĩk	[žehãn	doki	ya	=bi]	=kta	hãda
=pl	CONJ	then	where	go	=pl	=IRR	when

žehãn	i-	ya-	ya-	=bi.
then	LOC-	go-	REDUP-	=pl

When they went (places), they would make the horses wear the wagons and then they would go somewhere. (my translation)

They harnessed the horses to the wagons. Then wherever they wanted to go, they went. (very loose translation – Schudel's)

(Schudel, 1997: 196 (16-17))

Other dialects of the Dakotan family also exhibit signs of a verb phrase. From Teton Dakota (Lakhota), a construction similar to (12) has both the irrealis *kta* (ablauted to *kte* in (13) and (14)) and the assertative *lo* enclitics with scope over the conjoined VPs:

Lakhota

13)	Ni-hű	okíyaka	yó	[léchi	ĥéyata	tókhi		é?-ũ-thipi]		na
	2-mother	tell	IMP	here	away	s/where		loc-1p-live		CONJ
	[héchiya	wóyute		i-	wá-	gni]	kte	ló.		
	there	food		LOC-	1sS-	find	IRR	ASSR		

Tell your mother we will go camp in this direction somewhere out in the wilds and I will try to find food there.
(Boas and Deloria, 1941: 5.3)

Kta, the irrealis enclitic, means that the action has not, will not, might, or will take place. In (13), the young man and his family have not gone anywhere yet, but he says 'we will camp', and that he 'will try to find food'. Clearly, the modal affects the reading of both verbs. This is especially clear because there is no morphological past tense, or any morphological tense at all in the Dakotan languages. If *kta* did not have scope over both verbs, the reading 'Tell your mother that we went to camp somewhere away from here, where I will try to find food' would be predicted as a valid reading, but it is not. Therefore, *kta* affects the reading of both verbs, an outcome expected if the conjuncts are arranged hierarchically. (13) exhibits a parallel between Lakhota and Assiniboine Nakoda; both languages appear to allow the post-verbal enclitics scope over a pair of VPs.

In Assiniboine, the optative enclitic *xti* is like *kta* – it can occur on both conjuncts, or only on the final conjunct.

14)	Jim	[na-	ni-	x'ũ]	nagú	[wa-	ni-	yagĩ]	=kte	=xti
	J.	pre-	2O-	hear	CONJ	pre-	2O-	see	=IRR	=OPT
	duká	gaknáge		=šĩ.						
	but	near		=NEG						

Jim wanted to see and hear you, but he wasn't close (enough).
*Jim heard you and wanted to see you, but he wasn't close (enough)

In (14) *xti* definitely refers to both verbs of the CoP. There is no system of morphological tense in Nakoda, and there is no marking on the verb to show time in any way, so if *xti* did not have scope over both the conjuncts together, the disallowed translation could be expected to be valid. However, since *xti* does refer to both *nanix'ũ*

and *waniyaga*, we can tell that these are conjoined VPs, not just simple verbs. Similarly, since neither of the actions actually occurred, this is another example in which the irrealis *kta* affects the meaning of two conjuncts. These examples are particularly illuminating of the hierarchical structure. In a non-hierarchical structure, such as those proposed for Lakhota (Van Valin, 1987; Williamson, 1984), the enclitics would be adjacent to the final verb in the conjunction phrase and it is difficult to understand how each clitic could apply to both verbs. It is therefore logical to assume hierarchical structure.

In (15) below, three enclitics *bi*, *kta*, and *šĩ*, all apply to the Nakoda verbs *tímahen iyáya* 'go inside' and *yúda* 'eat her'.

15) ...tiyóba žená cã ű́s xayá=bi dágu šũktógeja
door those sticks with they blocked any wolf

šũkjúk'ana eštá tímahen iyáya hĩk yúdabikteši.
coyote or inside to go and they will not eat her

... wove the door with sticks, so that no wolves or coyotes would go inside and eat her.
(Parks and DeMallie, 2003 - Shields, 46)

[my orthography and morphemic analysis]

...tiyóba že-ná cã ű́s xayá=bi dágu šũktógeja
door DET=pl wood with block=pl any wolf

šũkjúk'ana eštá [tímahen iyáya] hĩk [yúda] =bi =kte =šĩ.
coyote or inside go CONJ eat =pl -IRR =NEG

Clearly, the speaker is not saying, 'they blocked the door with wood so any wolf or coyote went in there and did not eat her', which is the expected reading if the enclitics refer only over the second conjunct as they are expected to in a 'flat language'.

Although the negative enclitic *šĩ* has scope over both verb phrases in (15), it is more common that both verbs have the negative enclitic, as in (16).

16) ĩgnĩge =šĩ hã nagũ ĩš oyage =šĩ.
pay attention =NEG DUR CONJ also tell =NEG
He paid no attention and also didn't tell anyone.
(Drummond, 1976: Pipe of Peace)

The plural marker, *bi*, is almost always marked on both conjuncts, as in (10 -12), but (15) and (17) show that it can appear on the final conjunct only.

17)

Pté	wãží	óbi	cen	tanó	owáštege	éca
buffalo	one	they shot	so	meat	best	that kind

maksá	hĩk	co'ű́ba	hĩk	žen	wódabi.
he cut it	and	they cooked	and	then	they ate

They shot a buffalo, then cut the best meat, and cooked it, and they ate it there. (Parks and DeMallie, 2003 - Shields, 53)

[my orthography and morphemic analysis]

Pté	wãží	ó	=bi	cen	tanó	owáštege	é-	ca
buffalo	a	shoot	=pl	because	meat	best	that-	kind

maksá	hĩk	co'ű́ba	hĩk	že	-n	wóda	=bi.
cut	CONJ	cook	and	the	-PROX	eat	=pl

Because they shot a buffalo, they cut the best meat and cooked it and ate it there.

Example (17) illustrates how the enclitic *=bi* can apply to more than one conjunct. If *=bi* did not affect all three conjuncts of the main clause, the sentence would have to read 'Because they shot a buffalo, he cut the best kind of meat, he cooked it, and they ate it', but this is not a valid reading for this sentence in this context. There is no 'he' near enough to this sentence to which the verbs could be referring.

Although there is not space to show it here, the Nakoda enclitics all may take scope over two or more conjuncts. In many cases, two or more verb conjuncts have enclitics, but it is also a valid construction to have the verbal enclitics only on the final conjunct, even when all verbs are affected. This supports my claim that the Nakoda language is configurational, because it demonstrates a hierarchical arrangement, in which the enclitics have scope over the entire coordinate structure.

3.1.1.5 Scope of Auxiliaries

Auxiliary verbs are not commonly used in Nakoda, but what little data I do have with auxiliary verbs in coordination structures further support my claim that there is a verb phrase in the basic Nakoda sentence structure. Examples (18) and (19) both have the auxiliary verb *ogíhi*, meaning 'to be able to'.

18) John [wací] nagú [nowá] ogíhi.
J. dance CONJ sing can
John can sing and dance.
*John dances and can sing

The verbs in (18) are plain, uninflected, intransitive verbs. The auxiliary verb *ogíhi* is a higher verb with a VP complement - in this case a CoP (VP). The higher verb has scope over both of the VPs in the CoP, because the auxiliary verb directly c-commands it. No enclitics are allowed to intervene between the final verb of the CoP and the auxiliary verb as is shown in the ungrammatical (19), but the auxiliary verb may take enclitics, as demonstrated in (20).

19) *John wací nagú nowá cha ogíhi
J. dance CONJ sing EVID can

20) John wací nagú nowá ogíhi=ši.
J. dance CONJ sing can-NEG
John cannot sing and dance.

In (21), both verbs are transitive and have overt objects. In both sentences the auxiliary verb has scope over both conjuncts.

21) John [ağúyabi skúya yúda] hĩkná [mni ĩbíxã óda yatkã] ogíhi.
J. bread sweet eat CONJ water boil lots drink can
John can eat a cake and drink lots of beer.
*John ate a cake and can drink lots of beer

Sentences (19) and (22) both illustrate that the auxiliary verb *ogíhi* can, and in fact, must, have scope over both of the conjuncts. Because both conjuncts in (21) are object-verb constituents, and the auxiliary has scope over both of them, we know that this is VP coordination, not clause coordination. The scope of the auxiliary verb clearly illuminates the fact that there is a VP in the structure of the Nakoda sentence.

3.1.1.6 Scope of Adverbs

If adverbial expressions can also be shown to have scope over conjoined structures, we may derive arguments for a VP constituent from them. Examples like (22) show that, indeed, adverbial expressions, like auxiliaries and verbal enclitics, may have scope over both conjuncts. Unlike the auxiliary verbs and enclitics though, adverbs precede the coordinate structure.

22) Dagúškina že waná [máni nagú iʔá].
baby DET now walk CONJ talk
The baby already walks and talks.

In example (22) both of the conjuncts share the adverb *waná* 'already/now'. The structure cannot have a reading in which the adverb only refers to *mani*. This means that the adverb must c-command both verbs, not just the first one, as would be expected if the language were non-configurational. In a non-configurational structure, the adverb is expected to scope over only the verb adjacent to it.

Example (23) below shows the same sentence as (22), but negated.

23) dagúškina že naxáx [máni =šĩ nagú iʔé =šĩ].
baby DET not yet walk =NEG CONJ talk =NEG
The baby doesn't walk or talk yet.

Both the verbs are negated, and are under the scope of the adverb *naxáx*. So like the example in (22), the adverb is not closer to the first verb than the second. Again, this is contrary to what one would expect of a non-configurational language, and further supports my argument that Nakoda has configurational structures.

Both (22) and (23) are examples of the coordination of two intransitive verbs. (24) is an example where both verbs are transitive and have overt objects. Here too, the adverb

preceding the conjuncts has scope over both of the actions expressed in the structure. Clearly, the adverb is outside the conjoined structure in a position where it c-command each verbal projection.

24) Wíyã =bi žé=na nus [woyúta špãyã =bi] hĩkna [hayábi
woman=pl DET=pl quickly food cook =pl CONJ clothes

gağéğe=bi].
sew =pl

The women quickly cooked the food and sewed the clothes.

The sentence in (24) is unambiguous; the adverb *nus* 'quickly' refers to both the actions 'cook' and 'sew'. In order to have scope over only one of the verbs, it has to be positioned before the second conjunct. The position that the adverb occupies in (24) c-commands the entire conjunction structure. If it did not, there would be no structural reason for the wide scope of the adverb.

The English equivalents of many of these sentences are ambiguous. The adverb may have scope over one or all of the verbs in the coordination structure, because the adverb may occur within or outside of the VP. For example, the gloss of (24) may read *The women [quickly cooked the food] and [sewed the clothes].* This is not the case in Nakoda. When the adverb precedes a coordination structure, it falls outside the VP. If only one of the conjuncts is to be modified with the adverb, then that conjunct is placed in the final position of the coordination structure with the adverb immediately preceding it as in (25).

25) Wíyã =bi žé=na [woyúta špãyã =bi] hĩkna [nus hayábi
woman=pl DET=pl food cook =pl CONJ quickly clothes

gağéğe=bi].
sew =pl

The women cooked the food and quickly sewed the clothes.

The scopal relationships that are evident in all the data presented in (18) through (25) are expected of a configurational language. Adverbs and auxiliaries c-command entire conjunction structures because they are structurally higher than the structure itself.

In a non-VP analysis, it is not obvious how an adverb or auxiliary would scope over an entire structure.

Coordination structures provide insight into the structure of the Nakoda sentence. Scope relations and argument sharing provide evidence of my claim the VP is a valid projection in Nakoda.

3.1.2 Word order restrictions

Non-configurational languages are often predicted to have free word order, or at least free ordering of subject and object, on the understanding that there is no hierarchical structure to fix the ordering in a particular manner. There is some debate (Davis, 1995; Hale, 1985; Nordlinger, 1998; Speas, 1990) as to whether or not free word order is criterial for configurationality. There are factors other than configurationality that can cause word ordering restrictions, depending on which theory one subscribes to. Word order could be constrained by argument hierarchies, directionality requirements, adjacency restrictions, discourse configuration or various other factors, though some linguists would argue that most of these factors are more easily explained in a configurational structure than a non-configurational one.

Despite the fact that free word order can be explained outside of a non-configurational structure, it is still cited, perhaps as weak, but supporting evidence of a lack of VP, because a relatively free word order is often understood to be a necessary condition of non-configurationality (cf. Van Valin, 1987; Williamson, 1984). That is, non-configurationality requires free word order, but free word order does not necessarily imply non-configurationality. Nakoda does not have free word order. The order of the elements of the Nakoda sentence is always SOV unless an element is moved into a focus position. Sentences with a focussed element are highly marked, and in general, a strange semantic reading is preferred over an interpretation of OSV. For example, in (25), the first reaction of a native speaker to this sentence was that it means 'a banana ate the boy'. It was offered in retrospect that the sentence may be interpreted as OSV, but in order to get that reading, the object must be stressed as in (25).

25) škóškobena wãží hokšína že yúda.
banana a boy DET ate
A banana ate the boy. - preferred translation
The boy ate a banana. (not the apple)

The OSV reading might be offered in reply to 'What did the boy eat?' because the new information would be 'the banana', but would be unlikely as a response to 'Who ate a banana?' The new information may be raised to a position of focus.

In (26) there are two sentences that express essentially the same sense, and are translated identically. However, in context, one or the other is appropriate. The information that is new to the listener is presented first, so the (a) variant is more suitable if the listeners do not know where the speaker plans to return. The (b) variant is more appropriate when the listener knows where the speaker is returning, but not that she's planning to return just then.

26) a. wana Bernice ti ekta wa-kna.
now B. house at 1sS-return

b. wana wa-kna Bernice ti ekta.
now 1sS-return B. house at

I'm going back to Bernice's house now. (Cumberland, 1998-2001)

It is the new information that is moved out of its usual sentence final position, as in (b) where the verb is preposed. However, it should be made clear that even in the context where the verb is new information, preposing is not a necessary phenomenon; it is optional. This is not the 'free word order' that is characteristic of non-configurational languages.

3.1.3 Binding conditions

Further evidence for configurational structure in Nakoda comes from binding. Binding refers to the relationship between anaphors and antecedents. Technically, a binds b if and only if a and b are co-indexed and a c-commands b (Chomsky, 1981). In a configurational language like English, the subject c-commands the object, but not vice

versa; subjects bind objects (when they are coreferential), but objects cannot bind subjects. There are three binding conditions (Chomsky, 1981: 188):

27) **Condition A** - An anaphor is bound in its binding domain

28) **Condition B** - A pronominal is not bound (i.e. is free) in its binding domain

29) **Condition C** - An R-expression cannot be bound

The Binding Conditions account for the ungrammaticality of English sentences like **She cleaned Josie's room* where *she* and *Josie* are co-referenced. If *Josie* were coreferential with *she*, then there would be a Binding Condition C violation (29), because the R-expression, *Josie*, would be bound by the pronoun. Binding Condition A requires that an anaphor such as a reflexive pronoun have a c-commanding antecedent, explaining the ungrammaticality of **Herself found the ball* and **The bruise hurt myself.* In both ungrammatical sentences, the anaphor (*herself* or *myself*) does not have any element in an argument position with which it can be coindexed. Binding Condition B accounts for the ungrammaticality of **She saw her* where *she* and *her* are coreferenced because the object pronoun *her* would here be bound by the subject illicitly.

In a non-configurational language, subjects and objects c-command each other, so it follows that objects can bind subjects. However, this leads to some interesting implications that prove to be false. There is no way to satisfy one condition without violating another. Figure 10 is a diagram of an English sentence if it were analysed as flat. The object anaphor *herself* binds the pronoun *she* (Binding Condition B violation). The object anaphor binds the R-expression, *Anna*, in subject position, so there is a violation of Binding Condition C. However, Condition A is satisfied. To satisfy conditions B and C, the sentence would have to read *Herself burnt Anna/her*, but that would in turn violate Condition A.

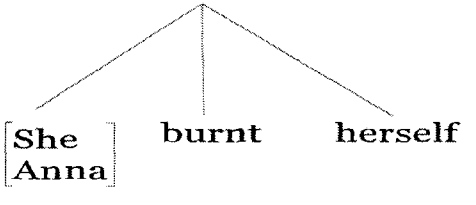


Figure 10: Flat structure

Jelinek (1984) uses these binding facts to argue that there cannot be overt NP anaphors in non-configurational languages. However, while the lack of NP anaphors is expected of non-configurational languages, it would be fallacious reasoning to argue that because a language lacks overt NP anaphors it is also non-configurational.

3.1.3.1 Reflexives

In Nakoda, there are no overt NP anaphors. Instead, the verb has a reflexive agreement prefix *ic'i* and an object agreement prefix. This suggests that the verb is transitive in its reflexive form, and that the subject and object are coindexed. (31) demonstrates the paradigm.

30) **kte - to kill**

m- ic'i- kte	ũg- ic'i- kte =bi
1sO- REFL- kill	1p- REFL- kill =pl
I killed myself	We killed ourselves
n- ic'i- kte	n- ic'i- kte =bi
2O- REFL- kill	2O- REFL- kill =pl
You killed yourself	You killed yourselves
ic'i-kte	ic'i- kte =bi
REFL-kill	REFL- kill =pl
He killed himself	They killed themselves

Van Valin (1987) referring to Williamson (1984) states that the Binding Conditions are inoperative in Lakhota. Van Valin says, "The failure of c-command to figure in the statement of coreference conditions on pronouns is further evidence that Lakhota is a 'flat syntax' language" (380). This conclusion cannot be supported in Nakoda, despite their common features. Binding conditions are operative in Nakoda. Observe in (31) that *Chris* heard someone or was heard by someone, but that someone cannot be *Chris* himself.

31) Chris nax'ũ.
Chris hear
a) Chris heard him/her/it.
b) S/he heard Chris.
c)*Chris heard himself

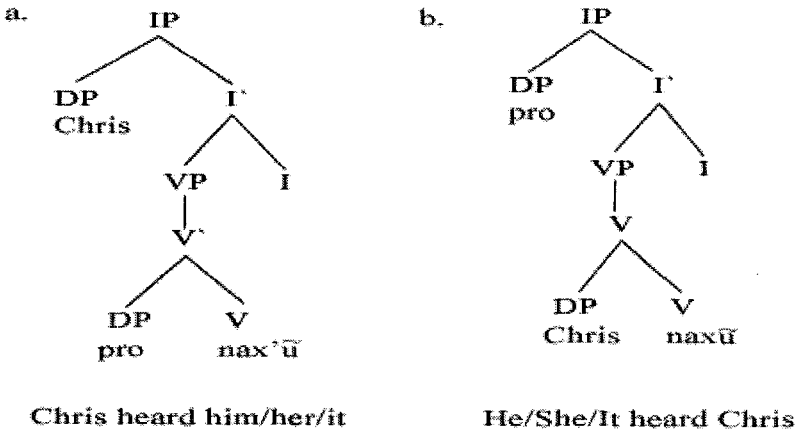


Figure 11: Simple transitive verb

If *Chris* bound *pro* in (31a) (i.e. they were co-referential) there would be a Binding Condition B violation, and if *pro* bound *Chris* in (31b), there would be a Binding Condition C violation. However, the bound reading of (31) is disallowed, and one must use a reflexive marker on the verb to produce that reading.

32) Wicá že ic'i- kte.
man DET REFL- kill
a) The man killed himself.
b) *The man killed him/her/it.
c) *He/She/It killed the man

In (32), the reflexive marker *ic'i* reflects the anaphoric nature of the pronoun object, which is coindexed with the subject antecedent. The disallowed readings in (32) are a result of Binding Condition A (27); the anaphor must be bound. Figure 12 represents the structure of (32).

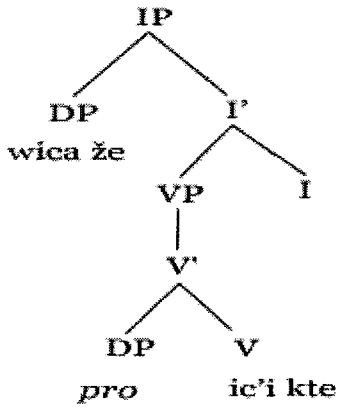


Figure 12: Reflexive verb

The possessive reflexive marker on the verb 'to wash oneself' also indicates the presence of an object.

33) John [maká okná ohĩxpaya] hĩkná [ic'i-k-nužáža].
John mud in fall and then REFL-POSSREFL-wash
John fell in the mud and then washed himself.

The function of the possessive reflexive is to bind the possessor of the object to the subject. There is no overt object, so *pro* must function as object.

3.1.3.2 Possessives and Possessive Reflexives

Possessives and possessive reflexive forms also shed light on the role of binding in Nakoda. In (34), the possessive marker *-gu* may refer to either the subject or some other third person in the discourse.

34) Alyna hű -gu wayága.
Alyna mother -3POSS see
Alyna$_i$ saw her$_{i/j}$ mother. (coreference or disjoint readings okay)

Example (34) is parallel to English *Alyna saw her mother* where *her* may refer to the subject, but is not required to. However, as we see in (35) and (36), the verbal possessive reflexive prefix *gi-* forces coreference between possessor and subject, similar in sense to the English sentence *Alyna saw her own mother.*

35) Alyna hű -gu wa- gí- yaga.
Alyna mother -3POSS IO- POSSREFL- see
Alyna saw her mother. (coreference only)

36) Akídabi gá tãkuna žéʔe waná sũgágu
They looked over there older sister that one now her ygr brother

giktékta cen otápa.
she was going to kill him so she followed him

When they looked, it was their sister, now she was going to kill her younger brother so she followed him.
(Parks and Demallie, 2003 - Weasel (39))

[my orthography and morphemic analysis]
Akída=bi gá tã-kuna žéʔe waná sũgá-gu
look=pl over there POSS-older sister that one now y.brother-POSS

gi- kté=kta cen otápa.
POSSREFL- kill=IRR so follow.

The base form of the verb 'to kill' is *kte*. By prefixing the possessive reflexive *gi-* the verb becomes 'to kill one's own'. In the case of (36), the older sister was going to kill her younger brother. The reading is bound, and even out of context the possessor cannot be disjoint in reference. The prefix *gi-* acts like an operator, binding the variable possessive marker (*-gu* in this case), forcing it to be coreferential with the subject.

The possessive reflexive prefix *gi-* can also bind first and second person possessive variables. In (37), *gi-* binds the possessive inherent in the relational noun *kona* 'friend', forcing it to be coreferenced with the subject. In (38), the possessive is marked overtly with *ni-ta-*, and the 2nd person possessive is bound to the subject *ya*.

37) Koná ogíne mnĩktac.
friend look for one's own I will leave

I will go look for my friend.
(Parks and Demallie, 2003 - Walking Chief (9))

[my orthography and morphemic analysis]
Koná o- gí- ne m- nĩ =kta =c.
friend pre- POSSREFL- look 1s- leave =IRR =DECL

38) Nécen nitakona ogineya wo.
in this way your friend look for your own !

So go look for your friend
(Parks and Demallie, 2003 - Walking Chief (15))

[my orthography and morphemic analysis]

Nécen	ni-	tá-	kona	o-	gí-	ne-	ya	=wo.
in this way	2-	POSS-	friend	pre-	POSSREFL-	look	go	=IMP

When it is used the verbal possessive reflexive operator binds the possessive variable. When the verb does not have this operator, and there is a possessive variable, the variable is unbound, and as a result, ambiguous. It may refer to the subject, or any other available person sharing the same person features, accounting for the ambiguity of (34). Furthermore, any inherently possessed object (or person) may be bound by the operator *gi-* even if no possessive marker is overt on that object, as in (38) above, and (39) and (40) below[20].

39) Josie oištimabi k- nužáža.
Josie room POSSREFL- clean
Josie$_i$ cleaned her$_i$ room.

40) ãbahotũna ne-ná wíca-wa-k-nuda.
chicken this-pl 3pAO-1sS-POSSREFL-eat
I ate my chickens.

Neither object in (39) nor (40) is marked with possessives, though both are possessed items. As a result the *gi-* prefix (which in the case of y-stem verbs, like *yuda* 'to eat' and *yužaža* 'to clean', loses the /i/, causing the /gy/ cluster, which then fuses to form the final /kn/ cluster) binds the inherent possession of the object, forcing coreference between possession and the subject of the sentence. The *gi-* prefix acts as a verbal operator, binding the possessor of the object. Its position is the specifier position of the VP, where it directly c-commands the object DP. Because the possessor of the object may be bound or unbound depending on the presence of the verbal operator, it acts as a

[20] Any Nakoda noun may be inherently possessed unless there are problems of semantics. For example, *maxbiya* 'the sky' is not something that can be possessed, so will not show nominal possession or be bound by verbal possession.

variable. When *gi-* is present, the possessor of the object is marked as an anaphor. The anaphor finds its antecedent in the subject. Because *gi-* can co-occur with both subject and object agreement, as in (40) above, it cannot function as either of these types of agreement.

The presence of the reflexive possessive operator leads to the binding of the possessor of the object by the subject, but does not have any effect on a possessed subject because it is not in a c-command relationship with the subject, and cannot bind it. In (41), the subject is the possessed item, and no *gi-* occurs, nor may it occur, as shown in (42).

41) Hũ-gu Mary apá.
Mother-3POSS Mary hit
a. $\text{Her}_{i,j}$ mother hit Mary_i.
b. Mary's_i mother hit $\text{her}_{i,j}$.

Example (41) is structurally ambiguous. The subject may either be *hũgu Mary* 'Mary's mother' (b) or *hũgu* 'his/her mother' (a).

42) Hũ-gu Mary a- gí- pa.
Mother-POSS Mary LOC- POSSREFL- hit
*Mary's mother hit her
*Her mother hit Mary

In (42), the possessor *-gu* on the subject DP is outside of the scope of the possessive reflexive *gi-* and since an R-expression cannot be interpreted as possessed in Nakoda, the sentence is ungrammatical. This clearly illustrates another asymmetry between subject and object because *gi-* only appears when the subject is the antecedent of the anaphoric possessive marked object.

Binding data is good evidence of configurationality assuming that one presupposes syntactic configuration in binding conditions. If Binding Conditions A and B rely on syntactic configuration (and this is debatable), then non-configurational languages would differ from configurational languages only with regard to Binding Condition C (assuming Binding Condition C also relies on syntactic configuration) and the existence of lexical reflexives would fail as a criterion for sorting these languages. What is evident in Nakoda is that the subject and object are systematically treated differently, which is an asymmetry by any account and supports the theory that subjects are structurally higher than objects.

3.1.4 Other tests of configurationality

Some tests of configurationality that are generally used to provide evidence of a VP constituent in English are dislocation, clefts, and replacement with *do* or *so*. These tests have no parallels in Nakoda. There are no cleft constructions or constituent replacements with *do* or *so* like English 'I ate some cake, and so did Chris'. Some examples of displacement were noted in §3.1.3, but none of these sentences are particularly helpful at showing the configurational nature of the sentence, because the VP itself does not move. Rather the verb or the object (or invisibly, the subject) may move to the left if they constitute new information.

3.3 Conclusion

The evidence presented in this chapter strongly supports my statement that Nakoda's sentence structure is configurational; there is a VP in the sentence. Verbal enclitics can have scope over coordinated verbs (§3.1.1.3); adverbs and auxiliaries have scope over both conjuncts in a verbal coordination structure (§3.1.1.4, §3.1.1.5); A verb and object are treated as a constituent and may be coordinated with another verb/object constituent (§3.1.1.1); there are subject/object asymmetries observable in the form of binding data and argument sharing (§3.1.1, §3.1.1.1); there are word ordering restrictions (§3.1.3). All of this evidence is expected in configurational languages and difficult to explain in a non-configurational account. It seems clear that Nakoda is better analysed configurationally, despite the conclusions that other researchers have drawn about related neighbouring languages.

Having established the configurational nature of the sentence, the next chapter deals with how the subjects and objects are realized, where they are positioned in the structure, and what the function of person marking is.

Chapter 4 - Subjects and Objects

4.0 Introduction

Chapter 3 presents a discussion of the configurational structure of the Nakoda sentence, in which I concluded that the subject and object are hierarchically arranged. This chapter is a look at the subject and object of the sentence and how they are realized. Previously, researchers have analysed person marking in Siouan languages as pronominal and overt DPs as arguments (Graczyk, 1991; Schudel, 1997; Van Valin, 1977). I reject this analysis of person marking, favouring an agreement morphology account similar to Williamson's account of Lakhota (1984). I also rule out the possibility that Nakoda is a Pronominal Argument language in which overt DPs are in adjunct position.

In this chapter, I argue that Nakoda is best analysed as having both lexical and pronominal arguments. Specifically, I argue that 1st and 2nd person arguments are pronominal, in the form of the null pronominal *pro*, and that 3rd person arguments can be either lexical (in the form of an overt Determiner Phrase) or pronominal (in the form of *pro*). The structure of this chapter is as follows: first, I present evidence that Nakoda DPs are in argument positions, an impossibility in a Pronominal Argument Language. In support of this claim, I demonstrate Binding Condition C effects, evidence of WH-in-situ, and a quantificational system incompatible with DP adjuncts. Second, I argue that person marking on Nakoda verbs is agreement morphology, not pronominal arguments. I show that some markers can co-occur with DPs and that the structural differences required between sentences with 1st or 2nd person arguments and those with only 3rd person arguments are not motivated.

4.1 Determiner Phrases in Argument Position

Although there have been no statements suggesting that Nakoda is a Pronominal Argument Language in the sense that all arguments are pronominal and all overt DPs are adjuncts (see §2.1), there have been numerous references to pronominal arguments in Siouan languages (Graczyk, 1991; Schudel, 1997; Van Valin, 1977, 1987). A few sources refer to Nakoda's neighbour, Lakhota, as a non-configurational head-marking language

(Baker, 1996; Reinholtz and Russell, 1995), a statement often equated with Pronominal Argument Language (though not here). In order to clear up any confusion on the matter of pronominal arguments in Nakoda, this section demonstrates that Nakoda's DPs are in argument positions and it therefore shows that Nakoda cannot be a Pronominal Argument (PA) Language as defined by either Baker (1988; 1996) or Jelinek (1984; 1989b; Jelinek and Demers, 1994).

4.1.1 Binding Condition C

In Chapter 3 (§3.1.3), there was a discussion of how binding conditions illustrate the configurational nature of the Nakoda sentence. Binding conditions (in particular, Binding Condition C) can also help demonstrate the position of various elements in the sentence. Binding Condition C defined in (26) of Chapter 3 is repeated here for convenience:

1) **Binding Condition C** - An R-expression cannot be bound.

Binding Condition C holds in Nakoda main clauses, as shown in (2).

2) ta- oíštimatipi Josie$_{*i,j}$ kijí-yuška
POSS- room Josie BEN-clean
S/He cleaned Josie's room (for her). (Disjoint only)

Example (2) exhibits Binding Condition C effects: The subject *pro* of the sentence c-commands the R-expression *Josie*, but because of Binding Condition C, the R-expression cannot be coindexed with the subject, so a bound reading is disallowed. The subject *pro* and the R-expression *Josie* must be disjoint.

For the sentence to achieve a reading in which Josie cleans her own room, the verb must take the possessive reflexive prefix as in (3).

3) Josie oíštimabi k- nužáža
Josie room POSSREFL- clean
Josie cleaned her own room.

In (2) and (3), the Binding Condition C effects are evident in main clauses, not subordinate or complement clauses. This seriously encumbers an analysis in which the R-

expression is adjoined to the sentence. There would be no reason to expect only the disjoint reading of (3), if one analysed the DPs as adjuncts because adjuncts are not generally considered to be subject to binding.

Binding Condition C effects are also evident in complement clauses in Nakoda as in (4) - (6).

4) [dúwe John ogíya že] ĩ- m- núğĩ =kta
who John help COMP pre- 1sS- ask =IRR
I will ask him who helped John. (Disjoint only)

5) John mina-táwa že kijí- yuksà
John knife-own COMP BEN- break
He broke the knife John owns. (Disjoint only)

6) [búza wãží hayakena nen John opétũ že]
cat a morning this John buy COMP

o- má- gi- yaga
pre- 1sO- DAT- tell

'He told me that John bought a cat this morning. (disjoint only)

Examples (4) – (6) illustrate Binding Condition C in complement clauses. They show that the R-expressions in complement clauses cannot be coindexed with the pronouns that c-command them. In each of the sentences above, *John* is c-commanded by *pro*, but they may not be coreferential. Binding Condition C effects in complement clauses are not entirely incompatible with the PAH, at least not Baker's (1996) version of it. Baker shows that Binding Condition C holds in Mohawk, his primary example of a Pronominal Argument Language. Example (7) in Mohawk is similar to (4) above. The R-expression is in the lower clause, and cannot be coindexed with the c-commanding pronominal argument.

Mohawk:

7) Λ- hi- rihw- a- nútu -'s -e' úhka
FACT- 1Ss/MsO- matter-ø- ask -BEN -PUNC who

Sak wa- huwa- snyéna -'
Sak FACT- FsS/MsO- help -PUNC

'I will ask him who helped Sak.' (disjoint only)
(Baker, 1996: 44)

However, these effects *only* appear in complement clauses. (8) shows that when the R-expression is in an adverbial clause rather than a complement clause, there are no Condition C effects and coreference between the pronoun and R-expression is licit.

Mohawk:

8) Wa- hí- 'nha' -ne' ne tsi Sak
FACT- 1sS/MsO- hire -PUNC because Sak

ra- yo'tΛ -hser -íyo.
MsS- work -NOM -be.good

'I hired him because Sak is a good worker.' (Co-reference okay)
(Baker, 1996: 43)

The lack of Binding Condition C effects outside of complement clauses is part of Baker's motivation for arguing that complement clauses are in argument position, but regular NPs are not. If the object *pro* in example (8) were in argument position, we would predict the sentence to be ungrammatical due to a violation of Binding Condition C. However, if complement clauses were not in argument position, there is no reason for the disjoint only reading of (7).

Example (9) illustrates the fundamental difference between Nakoda and Mohawk's sentence structure. The subject *pro* precedes the R-expression *Uwari*, which would result in a Binding Condition C violation if the subject were able to bind the R-expression. However, co-reference between *pro* and *Uwári* is a licit reading, indicating that the overt DP is not in an argument position, but rather is adjunctive.

Mohawk:

9) Wa'- te- huwa- noru'kwányu-' ne Uwári akó-skare'.
FACT- DUP- FsS/msS-kiss- -PUNC NE Mary FsP-friend
'She kissed Mary's boyfriend'. (Co-reference okay)
(Baker, 1996: 45)

A DP within a complement clause cannot be coindexed with an argumental *pro* in Mohawk but a DP within an adjunct clause can. The clause structure that is consequent to Baker's analysis is illustrated in Figure 13.

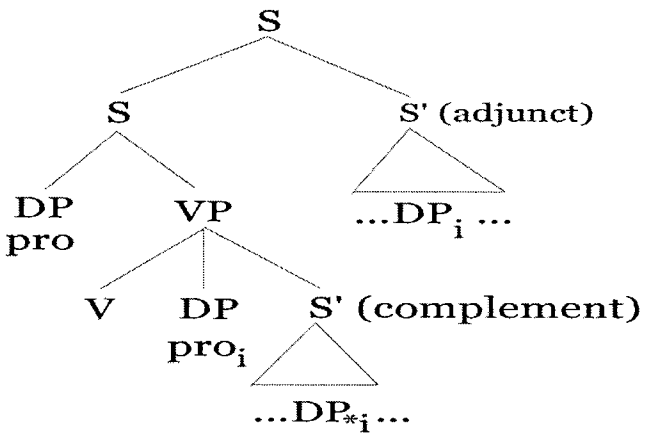


Figure 13: Complement and Adjunction structures.
Baker, 1996: 44

In Jelinek's version of the hypothesis, there are predicted to be no Condition C effects at all in Pronominal Argument languages, because the only elements that can occupy argument positions are the pronominal affixes of the verb. It is not clear how she would handle the Mohawk facts presented above. It is clear, however, that the Binding facts in Nakoda's complement clauses make a Jelinek-style analysis difficult to maintain. The DPs and complement clauses she analyses as adjuncts to the sentence quite clearly play a role in binding.

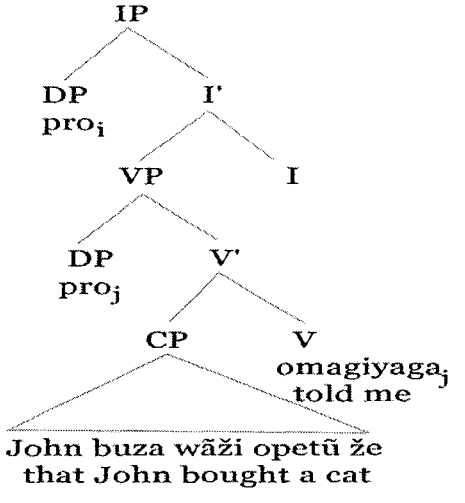
Binding Condition C effects are difficult to explain under either Jelinek's or Baker's version of the Pronominal Argument Hypothesis. However, as shown above, there are Binding Condition C effects in Nakoda. As a result of these effects, one is able to deduce a lot about the structure of the sentence. We saw in Chapter 3 that binding

conditions provide evidence of configurationality and here we have seen that not only are the subject and object hierarchically arranged, they occupy argument positions in the clause.

Further information about clausal structure in Nakoda can be derived from the existence of Binding Condition C effects. Example (10) is particularly useful in illuminating the structure of the sentence, because it is structurally ambiguous.

10) John búza wãží opétũ že o- má- giyaga
John cat a buy COMP pre- 1sO- tell
a. He told me that John bought a cat (disjoint only)
b. John told me that he bought a cat (disjoint or coreference okay)

When the subject of (10) is *he*, the reading is disjoint only; someone else other than *John* is the actor in the main clause. Binding Condition C prevents the coreferential reading. Clearly, John is embedded in the lower clause, and cannot be coreferenced with the subject *pro* that c-commands it (see Figure 14).



He told me that John bought a cat (Disjoint only)

Figure 14: No Binding Condition C violation

Figure 14 represents example (10a), and shows how the R-expression *John* in the lower CP clause is not coindexed with the *pro* in the subject position. If *John* were coindexed with the *pro* in the spec of IP, there would be a Binding Condition C violation because the R-expression would be bound. In the other reading of the sentence, where

John is the subject of the sentence, either coreference or disjoint readings are available because there is no Binding Condition C violation in either reading, as the R-expression is free (i.e. not c-commanded by any coreferential item). *John* is not in the embedded clause, so there can be no Binding Condition C violation, regardless of the reading (see figure 15).

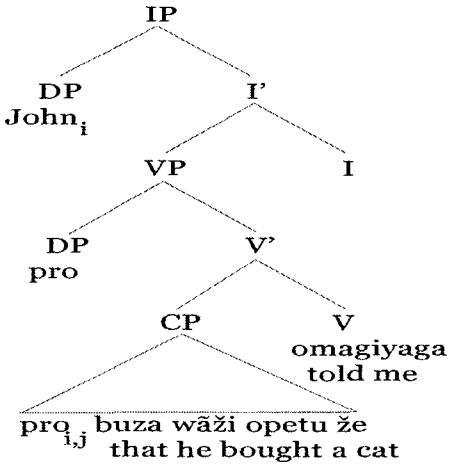


Figure 15 - No Binding Condition C violations

Binding Condition C effects provide clear data in favour of an approach in which DPs are treated as arguments of the verb. Because such an approach is incompatible with the Pronominal Argument Hypothesis, it seems prudent to reject such an approach to explain the Nakoda data. The next sections provide more evidence to support my claim that DPs are in fact arguments of the verb in Nakoda. These sections are devoted to illuminating the structure of the sentence, with particular regard to the placement of DPs.

4.1.2 Quantification

Quantifiers play an important role in the Pronominal Argument Hypothesis. All proponents of the PAH agree that PA languages lack one kind of quantifier, though different terminology and analyses are used in the PA literature. In this section, I provide a descriptive analysis of the system of quantification in Nakoda. I also present the

statements made by Jelinek (1995) and Baker (1996) with regard to quantifiers in Pronominal Argument languages. Following that is a discussion showing that Nakoda's quantification system does not suit a Pronominal Argument analysis of its syntax.

Nakoda has two universal quantifiers: *owa* and *iyúha/iyúhana* 'all' or 'every'. *Owa* may cliticise the demonstrative *ne* 'this' resulting in the form *nowa* 'all these'.

11) **Owá** wĩcágico gáyabi.
all he called them they say.

He called them all, they say.
(Parks and DeMallie, 2003 - Leo Wing (13))

[my orthography and morphemic analysis]

Owá wĩcá-gico gá-ya-bi.
all 3pO-call that-say-pl

12) "**Owá** nén ókšã miméya wacíbiktac," eyága.
"all of them here around in a circle they will dance," he said.

"You are all going to dance around in a circle here," he said.
(Parks and DeMallie, 2003 - Leo Wing (17))

[my orthography and morphemic analysis]

"**Owá** nén ókšã miméya wací-bi-kta-c," eyá-ga.
all here around in a circle dance-pl-IRR-DECL say-that

The demonstrative *ne* that attaches to *owá* appears only when there is a noun. When the quantifier appears alone, as in (11) and (12), the plain form is used. In (13) where there is a noun that *owá* modifies, the quantifier must take the demonstrative.

13) žécen aké tiyóba žé **nowá** cã' xayá cén gicíkna
then again door that all of it sticks blocked then she returned with him.

Then he wove the door again with all of the sticks. So then, she returned with him.
(Parks and DeMallie, 2003 - Shields (113))

[my orthography and morphemic analysis]

žé-cen aké tiyóba žé n-**owá** cã' xayá cen gicí-kna
the-so again door det this-all wood blocked then with-return

Like *owá*, *iyúha* 'every' may cliticise the demonstrative *ne* 'this', resulting in *niyuhana/niyúha* 'each of these' (sometimes translated as 'all kinds' or 'all these')[21]. The *-na* ending on *iyúha* is a regular plural ending for determiners (and only determiners, to the best of my knowledge)[22], suggesting that *iyúha* is a determiner-type quantifier (see (34) below for definition and discussion).

14) tona wãʔéya k-nuhe-na **iyúha** thep-kiya
some provisions REFLPOSS-have-DEF all eat up-CAUS
He had eaten all the provisions he had brought with him.
(Drummond, 1976 - The Boy Who Made Peace (20))

15) Nãgáx t'áhã céyaš hĩ žé **iyúha** bóhiya-yãga
just then he was dead so hair that all scattered-it remained
Just then, he had died so that all that remained was hair scattered around.
(Parks and DeMallie, 2003 - Blackbird (64))

When the quantifier *iyúha* appears, there is no plural agreement triggered on the verb (as in (14) and (15)), but when *iyúha* is appears with *-na*, the verb is required to be plural as in (16) and (17).

16) žécen eyáš šű̃ga žé **iyúhana** wapábi hũštá.
then so dogs that all of them barked it is said.
Then when they were going back, all the dogs barked, it is said.
(Parks and DeMallie, 2003 - Shields (127)

---

[21] There are also limited examples of *owa* and *iyúha* cliticising the demonstrative *ga-* 'that', resulting in the forms *kówa* and *kiyuha(na)*. I cannot explain the alternation from the voiced stop to the voiceless aspirated stop. I can only speculate that rather than *ga* 'that', the obsolete determiner *ki* is being used. An example of each is provided here for reference.

"...Misũgabi mitákožabina **kówa** wacíwĩcawakiyĩktac,"
"...my younger brother my grandchildren all I am going to make them dance,"
I am going to make all my little brothers and my grandchildren dance
(Parks and DeMallie, 2003 - Leo Wing (12))

Owĩza **kiyúhana** wĩcágijaǧa hũštá.
robes all she made for them it is said.
She made all of their robes for them.
(Parks and DeMallie, 2003 - Isabelle Wing (36))

[22] cf. že *the* → žéna *the (pl)*
ne *this* → nena *these*
ga *that* → gana *those*

[my orthography and morphemic analysis]

žé-cen	eyáš	šűga	žé	**iyúha-na**	wapá=bi	hũštá.
the-so	so	dog	det	every-pl	bark=pl	it is said.

17)

žécen	eyáš	hãgéya	šűga	**iyúhana**	nãpábic.
then	so	after awhile	dogs	all of them	they ran away

So then after a while all the dogs ran away.
(Parks and DeMallie, 2003 - Shields (131))

[my orthography and morphemic analysis]

žé-cen	eyáš	hãgéya	šűga	**iyúha-na**	nãpá=bi=c.
the-so	so	after time	dog	every-pl	run away=pl=DECL

(18) provides an example of *iyúha* in the distributive form with the demonstrative proclitic. As expected, it fails to trigger the plural version of the verb.

18)

Wĩcašta	nína ówecogac	dágu	**niyúha**	wanída.
man	very he was talented	things	all	he was industrious.

The young man was very talented. He was industrious in all these things.
(Parks and DeMallie, 2003 - Shields (191))

(19) offers an example of the collective form of *iyúha* with the demonstrative proclitic. Notice that neither verb has the plural ending *=bi* that might be expected, given the statement above that the verb must be plural when *iyúhana* appears. However, the lack of plural marking is due to the fact that *=bi* only marks animate plurals, and the *wacónica* 'dried meat' and *dágu* 'things' are inanimate.

19)

Né'ĩš	wacónica,	dágu	**niyúhana**	wĩcagijax
this also	dried meat,	things	all kinds	she made for them

wĩcágijiknãga
she kept for them

Dried meat, all kinds of things she made for them, she kept them.
(Parks and DeMallie, 2003 - Isabelle Wing (35))

[my orthography and morphemic analysis]

Né'- ĩš	wacónica,	dágu	**n-iyúhana**	wĩca-gi-jax
this- also	dried meat,	something	this-every	3pO-DAT-make

wĩcá-giji-knãga.
3pO-BEN-keep

The *-na* ending is not a marker of animacy, as might be presumed from example (19). In (20), the distributive version of *iyúha* appears, despite the fact that the noun to which it refers is animate, as evidenced by the animate plural *wĩca.*

20) Né zuyéyabi hã'da dóhani **iyúha** wĩcágasodabišĩ.
this war party when never all they don't all get killed.
When this war party goes out, never are they all killed.
(Parks and Demallie, 2003 - Shields (28))

The fundamental difference between *owá* and *iyúha* is hard to divine. Parks and Demallie (2003) translate both of them as 'all', though *iyúha* is also translated as 'every' in some cases. Schudel (1997:253) translates *iyúhana* as 'all of them', but mentions neither *iyúha* nor *(n)owá.* One clear difference between *iyúha* and *owá* is that *owá* does not make the distinction between collective and distributive; it may not take the ending *-na.*

In addition to the universal quantifiers, Nakoda has quantitative articles (a, none, no), numerals (two, three, etc.) and indefinite numerals (few, many, some). The most common quantitative article is *wãží,* which translates as either 'one' or 'a'. This article is not the same as the numeral used for counting, *wãc,* though they do share the same root.

21) žécen wĩca že šũga-tãga a-wĩca-kni hĩk **wãži** agan
the-so man DET horse LOC-3pAO-bring back CONJ one on

ĩga iyaya k'a
mount go CONJ

The man brought in some horses, mounted one and rode off.
(And so, the man brought back horses, sat on one and left)
Drummond (1976 - The Boy Who Made Peace)

22) Ĩjídobac í žehãga **wãží** céğa **wãží** dágu
fourth time he went at last one kettle one thing

taʔĩši oxnóga obúspabi.
worn out holes patched.

Finally, he went a fourth time and brought back an old kettle, full of holes and patched.
(Parks and DeMallie, 2003 - Leo Wing (40))

[my orthography and morphemic analysis]

Ĩjí-doba-c í žehãga **wãží** céğa **wãží** dágu
time-four-DECL go at last one kettle a something

taʔĩši oxnóga obúspa=bi.
worn out holes patch=pl

Other quantifiers include *óda* 'many', *gidãna* 'little bit', *aba* and *edãhã* 'some', *jonana* 'few', and a wealth of indefinite NPs that act as WH- words (discussed below in §4.1.3). Naturally there are other quantifiers, but there is not the room to include them all here.

23) žécen né ohu̯gagã epé néʔĩš **óda** ĩš
then this tale I say this also many also

žécedugeš ĩš oyágabi hãda, **gídãna** tokã.
not exactly in that way others they tell when, little bit different

And so this tale I told, when many others tell it, it's not exactly the same, it is a little bit different.
(Parks and DeMallie, 2003 - Leo Wing (53))

[my orthography and morphemic analysis]

žé-cen né ohu̯gagã epé né-ʔĩš **óda** ĩš
the-so this tale I say this-also many also

žécedu-ge=š ĩš oyága=bi hãda, **gídãna** tokã.
that way-DEF=NEG too tell=pl when, little different

24) žécen koškábi žé **abá** otúweda iyázagen,
then young men that some old lodge sites meandering among,

cã' wakpác gakná hũštá.
trees river by it is said.

Then some of the young men [were walking] around the old campsite in the trees by the river, it is said.
(Parks and DeMallie, 2003 - Shields (54))

25) Dukán iyúhana wĩcágico cen **abá** wamãkaškã kiyãna
but all of he called them then some animals nearby

ũ̂bi né iyúhana temyábi gayábi.
they were these all they ate it up they say.

But he called them all and some animals that were nearby ate it all up [they say].
(Parks and DeMallie, 2003 - Leo Wing (52))

[my orthography and morphemic analysis]

Dukán iyúhana wĩcá-gico cen **abá** wamãkaškã kiyãna
but every 3pAO-call then some animals nearby

ũ̂=bi né iyúhana temyá=bi gayá=bi.
be=pl this every eat up=pl say=pl

26) a. wicašta šikna ű=bi **edãhã** šija=bi
people angry be=pl some evil=pl

b. wicašta **edãhã** šikna ű=bi šija=bi
people some angry be=pl evil=pl
Some angry people are evil.

27) a. wicášta **jonána** wayáwa ogíhi=bi
men few read able to=pl

b. **jonána** wicášta wayáwa ogíhi=bi
few men read able to=pl
Few men can read.

As shown in (26) and (27), some quantifiers seem to 'float'. However, they always remain adjacent to that which they quantify. Any other position for *jonána* or

edãhã is not licit. This is similar to the distribution of demonstratives, which may appear before or after the noun.

In (28) and (29), an example of another type of quantifier is provided. These quantifiers are indefinite quantifiers.

28) Lakhota **duwe**=ni hi=bi=šĭ
Lakhota someone=neg come=pl=neg
None (not some) of the Lakhota's came.

29) žécen košká žé "Né dãyã' wa'ũ duká **dágunix**
then young man that "this well I live but nothing

imã'gažãgešĭ duká dágu manín wĭcóx'ãge
I am not lacking but things away from camp customs

dágunix snokwáyešĭ."
none I do not know."

Then that young man [said], "I live well here, and although I am not lacking anything, I know nothing of the customs and things away from camp.

(Parks and DeMallie, 2003 - Shields (12))

[my orthography and morphemic analysis]

žé-cen košká žé "Né dãyã' wa-'ũ duká **dágu-ni-x**
the-so young man DET "this well 1sS-be but something-NEG-SPEC

i-mã-'gažãge-šĭ duká dágu manín wĭcóx'ãge
pre-1sO-lack-neg but things away from camp customs

dágu-ni-x snok-wá-ye-šĭ."
something-NEG-SPEC know-1sS-know-NEG."

(28) and (29) are examples of indefinite quantifiers, which are discussed in detail in §4.1.3. What it is meant to show here is that some quantifiers can be negated with the negative suffix *-ni*. The *-x* suffix marks specificity.

Nakoda's quantification system also includes verbal quantifiers. This type of quantifier is a Class 2 verb (see §1.3) and can be inflected for person in the Dakotan languages. Numerals fall into this class (as in (30)) and, interestingly, other quantifiers can also function as verbs (as in (31)).

30) ũ-**doba**=bi
1-four=pl
'We are four / There are four of us'

31) ũ-**jonana**=bi
1-few=pl
'We are few/ There are a few of us'

In (32) and (33) the quantifiers *iyúha* and *óda* function as verbs. This is particularly evident in the case of *iyúha* because the plural ending on it in (31) is *=bi*, not *-na*, as expected when *iyúha* functions as a determiner. This sort of 'verbing' is not unusual in Nakoda. Almost all words can function as verbs.

32) Nahãx ĩdúx wãgãn yãgá žé ejé'ena ĩtãcãc
yet really above he sits that he alone lord

eyábi cen abá žé ejé'ena cégiyabi
they say then some that he alone they pray to him

iyúhabišĩ duká.
not all though.

But yet they say the one above is the only Lord, so some pray only to him - not all, though.
(Parks and DeMallie, 2003 - Tucker (17))

[my orthography and morphemic analysis]

Nahãx ĩdúx wãgãn yãgá žé ejé'ena ĩtãcãc
yet really above sit DET alone lord

eyá=bi cen abá žé ejé'ena cégiya=bi
say=pl then some DET alone pray=pl

iyúha=bi=šĩ duká
every=pl=neg but

33) Abá snohyábi duká nínax **ódabišĩ.**
some they understand but very they are not many.

Some understand, but not very many.
(Parks and DeMallie, 2003 - Tucker (23))

[my orthography and morphemic analysis]

Abá	snohyábi	duká	nína-x	**óda**=bi=šĩ.
some	know=pl	but	very-SPEC	many=pl=NEG

The negation and pluralization of quantifiers is one way of classifying them in Nakoda. Verbal quantifiers are negated as any other verb, with the *=šĩ* enclitic. They also show number agreement with *=bi* as other verbs. *Iyúha* 'every' shows number agreement as a determiner does, with the suffix *-na*. I do not know of a way to show negation with *iyúha* (as a determiner). *Owá* 'all' is inherently plural, as are *aba* and *edãhã* 'some'. None of these may be negated unless they are acting as verbs. Some indefinites show negation in the form of the suffix *-ni*, as does the article *wãží*.

4.1.2.1 The lack of D-type quantifiers in Pronominal Argument Languages

Both Jelinek and Baker predict an absence of certain kinds of quantifiers in PA languages. Jelinek (1995) argues that in PA languages there are no Determiner-type quantifiers (e.g. every, most, some). Relevant to her work are two types of quantification: **A**dverbial-type and **D**eterminer-type (as described by Partee (1987)).

34) **D-Quantification**: includes determiner quantifiers such as *every, each, most, some, seven, no,* etc. D-Quantification is associated with NPs. "The function of D-Quantifiers is to fix quantifier scope to a particular argument position" (Jelinek, 1995: 532).

35) **A-Quantification**: includes the expression of quantificational notions by means of Adverbs, Affixes, Auxiliaries, etc. A-Quantification is associated with VPs. A-Quantification is unselective (Jelinek, 1995: 488 & 532). Examples of A-quantifiers include *sometimes, somewhat, barely, always, usually, on occasion,* etc.

Jelinek states that D-quantifiers "typically are excluded from A-bar positions" (1995: 532) therefore D-quantifiers are limited to argument positions in the sentence. As a result, PA languages may not have D-quantifiers in their lexicon because no DP may occur in an argument position. Jelinek states this clearly: "in order to have D-Quantification, a language must have lexical arguments" (Jelinek, 1995: 532).

If Nakoda were a PA language, one would not expect to find D-type quantifiers. This proves not to be the case. Nakoda has quantifiers of both A-type and D-type, referential and non-referential. It also has verbal quantification, where the verb itself is the quantifier. Many of Nakoda's quantifiers are indefinites, which do not inherently have quantificational force (Heim, 1982).

4.1.2.1.1 D-type quantifiers in Nakoda

There are some striking similarities between some quantifiers and determiners in Nakoda. *Iyúha* 'every' is one example that clearly indicates the similarities. First, *iyúha* may take the ending *-na*, as in *iyúhana*. With *-na, iyúha* is collective. Without the ending, *iyúha* is distributive. The *-na* ending is the same plurality indicator that appears on the demonstratives and determiners *že* 'the', *ne* 'this', and *ga* 'that' (*žená*, *nená* and *ganá*, respectively), indicating commonality between the words. Only determiners use this particular *-na* ending[23]. Furthermore, like determiners, if the quantifier shows plural agreement, plurality marking is not necessary on the NP complement. There are some examples of double plural marking though, where both the head and complement are marked for plurality.

36)	Wica=bi	**iyúha-na**	gakĩ	ũ-bi.
	man=pl	each-pl	over there	be=pl
	All the men are over there.			

37)	Wiyã=bi	**žé-na**	ambahotuna	edãhã	ope-ic'i-cu
	woman=pl	DET-pl	chicken	some	pre-refl-buy
	The women bought themselves some chickens.				

In (36) and (37), both the heads and the complements of the subject DPs are marked for plurality. *Iyúha* and the determiner *že* behave identically in various environments.

When the noun does not show a plural marker such as *-na* or *=bi*, plurality can be assumed from the plurality of the determiner or quantifier as in (38).

[23] Another suffix *-na* is attached to nouns, but it signals diminutive, not plurality.

38)	Ikje	wicašta	**iyúhana**	hi=bi=šĩ
	ordinary	man	each	come=pl=neg
	All of the people didn't come			
	Not all of the people came			

In (38), the noun *wicašta* is not overtly plural, but plurality is assumed because of the quantifying determiner *iyúhana*. It is also reflected on the verb in the form of plural subject agreement *=bi*.

Another similarity between determiners and quantifiers such as *iyúha* is that both may act like a pronoun, similar to 'all' in the English sentence 'All who were in attendance were pleased'. An example of *iyúhana* acting as a pronoun was provided in (25) in the first clause of the sentence *Dukán* ***iyúhana*** *wĩcágico...* 'But he called all of them...'

The quantifier *iyúhana* seems to be a clear example of D-type quantification. It shares the same morphological properties as other determiners, and the same syntactic distribution as other determiners. The existence of this D-type quantifier is a definite liability in an analysis of Nakoda as a Pronominal Argument language.

Edãhã[24] 'some' also appears to be a D-type quantifier, though the evidence is not as strong for this analysis as it is for *iyúha* 'every'. *Edãhã* does not employ the plural marker *-na*, but appears to be inherently plural. Like *iyúhana*, when *edãhã* modifies a plural noun, the noun does not necessarily have to be overtly plural. For example, in (26), the noun *wicašta* bears no plural marking, yet does show plural agreement on the verb, so we know it must be plural. This is identical to the example of *iyúhana* in (38) above.

In (39) and (40), the quantifier 'some' appears on its own as the argument of the verb. This is the same as other determiner and demonstrative words.

[24] This quantifier is also pronounced [edahã]. I believe the nasalization that appears on the first [a] vowel is a result of nasal harmony.

39) Edahã knibis'a.
some they always return
Some of them always return.
(Parks and DeMallie, 2003 - Shields (131))

[my orthography and morphemic analysis]

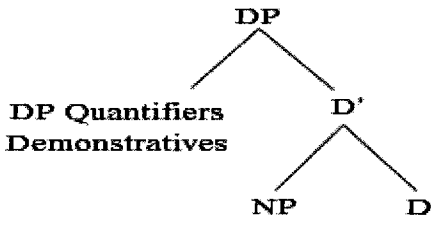
Edahã kni=bi=s'a
some return=pl=HAB

Also like *iyúha* 'every', *edãhã* may act as a pronoun.

40) Edãhã ma-k'ũ.
some 1sO-give
Give me some.

Beyond the morphological and semantic differences between *iyúha* and *edãhã* is the striking difference in distribution. *Edãhã* is mobile; *iyúha* is not. On first glance, there does not appear to be a logical explanation for this. However, Matthewson (1998) may provide a solution. She suggests that a two-way split (A- and D-type) of quantifiers does not adequately describe the possibilities of quantificational systems. She proposes from evidence in Salish that determiner-type quantification should be split into two categories: DP quantification and D^0 quantification. DP quantification includes words like 'all' in 'all the men'. These quantifiers occupy the specifier position of DP. D^0 quantifiers are in the head of DP, i.e. D, and include words like 'every' in phrases like 'every man'. The distinction between D^0 and DP quantifiers may elegantly solve the problem of why *edãhã* is mobile, but *iyúha* is not. I propose that *iyúha* is a D^0-quantifier and that *edãhã* is a DP quantifier. This seems logical because as the specifier of the head, the DP quantifier is more free to appear on either side of the head. This mobility is also evident in the demonstratives which may appear either to the left or to the right of the head, as illustrated in Figure 16. The non-demonstrative determiner *že,* however, may only appear on the right.

a.



b.

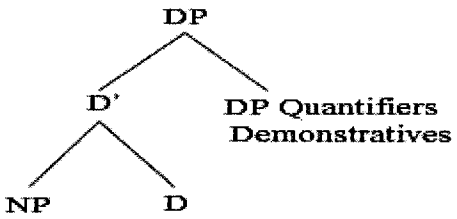


Figure 16: Possible positions for demonstratives and DP Quantifiers

Demonstratives may also act as determiners and fill the D^0 position. This is particularly evident in sentences where there is a quantifier and a demonstrative. For example, in (41), the demonstrative is between the DP quantifier and the noun.

41) Koškabi ne iyušna tibi
young men these seven they lived

Seven young men lived together.
(Parks and DeMallie, 2003 - Isabelle Wing (1))

Koška=bi ne iyušna ti=bi
young.man=pl det seven live=pl

There lived these seven young men.

In the case of (41), the demonstrative acts as the head of the DP and *iyušna* is the specifier. The first three words form a constituent. They cannot be interrupted by an adverb.

42) a. *Koška=bi ne ecagen iyušna ti=bi
young.man=pl this always seven live=pl

b. *Koška=bi ecagen ne iyušna ti=bi
young.man=pl always this seven live=pl

c. Ecagen koška=bi ne iyušna ti=bi
Always man=pl this seven live=bi

d. Koška=bi ne iyušna ecagen ti=bi
young.man=pl this seven always live=pl

These seven young men always lived [together].
There were always these seven young men.

Iyúhana rarely occurs with demonstratives that have not been cliticised to it in the form of *niyúhana* or *kiyúhana*. However, there are a couple of examples in the corpus I am using. An example already cited is (26), repeated here for convenience.

(26) [my orthography and morphemic analysis]

Dukán	iyúhana	wĩcá-gico	cen	abá	wamãkaškã	kiyãna
but	every	3pAO-call	then	some	animals	nearby

ũ̂=bi	[**ne**	**iyúhana**	temyá=bi	gayá=bi].
be=pl	this	every	eat up=pl	say=pl

But he called them all and some animals that were nearby ate it all up [they say]. (Parks and DeMallie, 2003 - Leo Wing (52))

In the final clause of (26) *ne iyúhana temyá=bi*, the determiner *ne* appears with the quantifier and is not cliticised to it. In that example, I analyse *ne* as the specifier and *iyúhana* as the head because *iyúhana* is the word that shows the plural marking. As briefly mentioned in Chapter 3, Nakoda is a head-marking language, and while plural agreement is a tricky notion in Nakoda, it is usually optional on the specifier and complement of the D. Further evidence that *iyúha* is the head, in the D^0 position is that (41) above is grammatical without *ne*, but without *iyúhana*, the demonstrative *ne* would require the plural ending *-na* in order to maintain the plurality of the object. Because of the optionality of the demonstrative, and the plural marking on the quantifier, it is more likely that the quantifier, not the demonstrative, heads the phrase.

Another striking set of examples is provided in (43) and (44). In these examples, the mobility of the quantifier *óda* 'lots' gives us some insight into how the determiners and quantifiers work together.

43)

Wiyã=bi	**óda**=bi	ga-ná	mni	i-t'á=bi
woman=pl	lots=pl	dem-pl	water	for/of-die=pl

Those many women are thirsty.

44)

Wiyã=bi	ga-ná	**óda**	mni	i-t'á=bi
women=pl	dem=pl	lots	water	for/of-die=pl

Many of those women are thirsty.

The examples in (43) and (44) illustrate how the placement of quantifiers may alter the meaning of the sentence.

While the presence of the DP quantifier is not particularly problematic to an analysis of pronominal arguments (see Matthewson (1998) for discussion of DP quantifiers in Pronominal Argument Salish languages), the D^0 quantifier *iyúha* is. Jelinek is very clear that these types of quantifiers cannot appear in Pronominal Argument languages because their nature is to quantify an argument. The existence of the D^0 quantifier is indication that Nakoda DPs are indeed arguments of the verb, not adjuncts to the sentence.

4.1.2.2 The lack of non-referential quantifiers in Pronominal Argument languages

Baker (1996) argues that there are no non-referential quantifiers (like English *every, everyone, everything, nothing, nobody*) in PA languages. This class of quantifiers is said to have the properties in (41)[25]:

45) **Properties of non-referential quantifiers** (Baker, 1996: 53-66):

a. It never triggers plural agreement on the verb.[26] (Every boy likes toys. *Every boys like toys.)

b. It shows weak crossover effects (see §4.2.1.1). (Every child told a teacher he liked a story. A teacher he_i liked told $everyone_i$ a story.)

The absence of non-referential quantifiers in PA languages is not thought to be accidental. Rizzi (1986) and Cinque (1990) give evidence about the nature of Clitic Left Dislocation (CLLD) in Italian. An NP can be dislocated to an adjoined position, but only if the NP is referential and non-quantificational.

46) a. *Nessuno, lo conosco in questa citta.
'Nobody, I know him in this city.'

b. Se stessa, Maria non ci pensa
'Of herself, Maria doesn't think'. (Rizzi, 1986: 395)

[25] Baker lists another property of non-referential quantifiers: c. To take scope over a pronoun, it must be in the same minimal clause. (*No one went to work. He was sick. All the men stayed home. They were sick.). This property is not included here because due to the nature of Nakoda's pronouns, it is impossible to determine whether or not a Nakoda quantifier has that property.

[26] I'm not sure why Baker rules out plural agreement with non-referential quantifiers. Reinholtz and Russell (1995) take 'non-referential quantifier', as used by Baker (1996), to mean 'strong quantifier', which is a universal quantifier with singular reference.

The ungrammaticality of (46a) is accounted for by noting that a pronoun cannot be interpreted as a variable bound by a dislocated quantificational element. This means that non-referential quantified NPs are necessarily excluded from CLLD constructions. Baker (1996: ch3) argues that CLLD constructions are similar to basic clause structure in Mohawk and other PA languages. On this assumption, Baker predicts that non-referential quantified DPs will not occur in PA languages. DPs are not found in A-positions in such languages. In A'-positions, non-referential quantified DPs will be illicit, parallel to CLLD in Italian. The existence of non-referential quantifiers would necessarily result in vacuous quantification.

4.1.2.2.1 Non-referential Quantifiers in Nakoda

The properties that Baker (1996) employs to discover whether items are truly quantificational or not are difficult to use in Nakoda. This partially stems from a decided lack of data in the area, though that is not entirely the problem. The first requirement, (45a), is difficult to gauge because it is often hard to know what exactly triggers plural agreement *=bi*. The enclitic *=bi* marks not only plurality, but also animacy and grammatical function. It is impossible to say definitively that the quantifier is responsible for the triggering of the plural marker. For example, in (16), repeated here, the plural enclitic *=bi* co-occurs with *iyúha*.

16) žécen eyáš šű̆ga žé iyúhana wapábi hũštá.
then so dogs that all of them barked it is said.
Then when they were going back, all the dogs barked, it is said.
(Parks and DeMallie, 2003 - Shields (127))

The enclitic *=bi* on the verb *wapábi* 'to bark' is not necessarily triggered by the quantifier. Rather, it marks that the subject is plural and animate. If the subject is inanimate and plural, then *=bi* does not get triggered, as shown in (47).

47) pteğa iyuhana oyaxe
lake all dried up
All the lakes dried up.
(Cumberland, 1998-2001)

Simply stated, Baker's statement that plural agreement is not triggered by non-referential quantifiers is not useful with respect to the quantifier *iyuha(na)*. I have not found any examples of the other universal quantifier *owa* in a subject position in any of the corpora, so it is impossible to say whether or not it triggers plural agreement.

Weak-crossover is also not as helpful as it could be in determining whether a quantifier is a non-referential quantifier. The weak-crossover (WCO) effect allows that a quantified DP only be coindexed with a pronoun it c-commands (Reinhart, 1983: 122). If a quantified DP and a pronoun are coreferential, and the pronoun is not properly bound by the DP, then the sentence will be ungrammatical. WCO effects are evident in English.

48) *Who$_i$ does his$_i$ mother love t$_i$

In (48), the WH- word moves to an A' position, and therefore cannot bind the pronoun *his*, so coindexation between *who* and *his* is not possible. Furthermore, *his* does not c-command the trace, and therefore cannot bind it either (though, if it did, that would be a Binding Condition C violation and would be ungrammatical anyway).

49) a. *Her$_i$ father hugged every girl$_i$
b. Every girl$_i$ hugged her$_i$ father.

In (49a), the quantified DP *every girl* cannot be coreferential with the pronoun *her*, though the reverse (b) is grammatical.The reason is that *her* in (a) does not bind the DP *every girl* by c-command.

Without getting into the details of what grammatical principles are responsible for creating WCO effects, it is still possible to look at the differences between languages, and how they pattern with respect to WCO. Unfortunately WCO is not particularly clear in Nakoda because of the fact that almost all of the pronouns in Nakoda are null and that most of the usual tests of WCO use WH- words, which in Nakoda are non-quantificational (this is discussed in greater detail in §4.1.3). Other tests of WCO use possessive constructions. Under the assumption that the *-gu* suffix is a possessive pronominal inflection, there is evidence of WCO effects with the quantifier *iyúha*. This is illustrated in (50).

50) Hũ-gu hokšína iyúha ibutága.
mother-3POSS boy every kiss
His_i mother kissed every boy_{*i}.

The quantified DP *hokšína iyúha* 'every boy' cannot be coindexed with the possessive pronominal inflection *-gu*. However, reversing the sentence, as in (51) does allow coindexation.

51) Hokšina iyúhana hũ-gu ibutága=bi.
boy every mother-3POSS kiss=pl
Every boy_i kissed $his_{i,j}$ mother.

In (51), the quantified DP subject c-commands the possessive in the object because, as established in Chapter 3, the subject c-commands the object, but not vice versa. Because of the c-command relationship, the co-indexation between *hokšína iyúha* and *-gu* is licit.

Since *iyúha* activates WCO effects, as seen in the contrast between (50) and (51), *iyúha* appears to be a non-referential quantifier, as defined by Baker, on the basis of the WCO effects. This seriously hampers a Baker-style analysis for Nakoda. *Iyúha* seems to be a difficult quantifier to accommodate in either a Baker or Jelinek-style approach to Pronominal Arguments. Under Baker's theory, all DPs in PA languages occupy adjunct positions, including quantified DPs.[27] Under the assumption that a quantificational DP can bind a pronoun only from an A-position, the grammar of (50) provides crucial evidence that the DP *hokšina iyuha* 'every boy' is in an argument position. This can be generalized to all subject DPs. Similarly, the contrast in grammar between (50) and (51), parallel to English, likewise argues that direct objects occupy argument positions.

The next section builds on the preceding section on quantifiers. I offer an account of the WH- system in Nakoda. As I suggested earlier, WH- words in Nakoda are indefinites and are not inherently quantificational, hence are not subject to the rules of the quantification system.

[27] Baker's theory that there can be no non-referential quantifiers in PA languages is disputed by Reinholtz and Russell (1995). They argue that strong quantifiers can be base generated as adjuncts, but not in a position in which they would bind a pronoun. They propose the Anti-Locality Condition (ALC), which states that a pronoun must not be locally bound by a quantifier. This theory allows strong quantifiers in pronominal argument languages. However, the quantifier *iyúha* 'every' violates the ALC in sentences such as (50) and (51) above.

4.1.3. WH- in-situ in Nakoda

In simple sentences in Nakoda, WH- phrases appear in the same positions as the DPs that they replace.

52) a. Linda wa- naga
Linda IO- 2S.see
You see Linda.

b. duwe wa- naga?
who IO- 2S.see
Who did you see?

53) a. wĩtka yamni ya- cĩga
eggs three 2S- want
You want three eggs.

b. wĩtka dona ya- cĩga?
eggs how many 2S- want
How many eggs do you want?

Simple sentences make it difficult to determine where the WH- phrases are placed in the structure. Although they appear to be in the same position as DPs, which I contend are in argument position, there is no way to tell from simple sentences like those in (52) and (53) whether movement has occurred. For example, in (52b), *duwe*, 'who', may have moved up the tree from an argument position into the specifier position of CP. There is simply no way to tell from a simple sentence. However, clauses with embedded CPs give us a better idea of the position of WH- elements.

54) John dágu opétũ že Bill snohya.
John what bought COMP Bill know
Bill knows what John bought.

In (54), the WH- word *dágu* remains in the same position as that which is questioned. It does not move to the front of the lower clause, which would be the specifier position of either IP or CP, but rather remains in-situ.

55) Harvey žéna duwe náži eyá že echãni?
Harvey there who stand say COMP 2s.think
Who do you think that Harvey said was standing there?

In (55), *duwé* 'who' does not move up to the Spec of CP, even to achieve proper scopal relations[28].

56) a. Taguškibina cãgašgabi gağa=bi že
children fence make=pl C

wa-wica-m-naga wa-ʔi
1O-3pAO-1sS-see 1sS-go

I went to see some children who made a fence.

b. Dagúškibina dágu gağá=bi že wa-wica-m-naga ya-ʔi?
children what make=pl C 1O-3pAO-1sS-see 2S-go
What did you go to see some children who made it?

(56) shows that even an object embedded in a relative clause can be questioned, with no movement of the WH- word. Clearly, WH- does not move in the syntax. These examples show that WH- is not in the specifier position of the CP, but rather, is in argument position.

The in-situ nature of Nakoda's WH- words contradicts the expectations of the Pronominal Argument Hypothesis, and thus is evidence that Nakoda is not a PA language. In a PA language, only those elements that cannot receive case (i.e. WH-traces, pro and complement clauses) can be in argument position according to Baker (1996).

4.1.4 The Impossibility of WH- in-situ in Pronominal Argument Languages

Baker (1996: ch2) argues that WH-in-situ is impossible in PA languages because within that theory, only pronouns and complement clauses may occupy argument positions. Furthermore, because a pronoun cannot be A-bar bound by a quantifier, WH-words cannot be adjoined to IP (Rizzi, 1986). This only leaves the specifier position of CP as a possible position for a quantifier or WH- phrase.

However, Baker does not suggest that the specifier of CP is where WH- words are base-generated. Rather, he extends his analysis of quantifiers (see §4.1.2) to WH- words in order to argue that Mohawk WH- phrases must be generated in argument positions,

[28] Because movement does not occur in the syntax, and movement is definitely warranted in order to achieve proper scope relationships, it is necessary for movement to occur at Logical Form (LF).

and that as operators, they must also bind variables in order to be properly interpreted. Since null pronominal elements cannot be interpreted as variables bound by operators in A'-positions, WH- phrases in Baker's approach are generated in argument positions and moved to the specifier position of CP.

In many Lexical Argument languages, including English, WH- phrases move before Spellout to a position from which their scopal properties derive. However, this is not the case in Nakoda, so it is natural to ask why. The next section deals with the reasons why Nakoda's WH- words need not move.

4.1.4.1 Indefinite DPs and Unselective Binding

Nakoda's WH- words are also interpreted as indefinites such as 'someone', 'something', 'somewhere', etc. Indefinites do not move to the specifier of CP because there is no motivation to do so. Example (57) reveals a second interpretation for (54) above, and shows that the WH- word can be interpreted as an indefinite.

57) John dágu opétũ že Bill snohya.
John what bought COMP Bill know
Bill knows that John bought something.

Examples (58) and (59) further illuminate the indefinite nature of WH- words in Nakoda sentences, by showing that when there is a question particle (or equivalent rising intonation), the WH- is interpreted as a question word, and that the lack of such a particle (or intonation pattern) results in a declarative sentence with an indefinite DP.

58) a. Duwe axhuyabi skúya temya (he/hwo)?
who bread sweet eat up Q
Who ate up the cake?
Did someone eat up the cake?

b. Duwe axhuyabi skúya temya.
who bread sweet eat up
Someone ate up the cake

59) a. Dágu dokũ =bi (he/hwo)?
what do =pl Q
What are they doing?
Are they doing something?

b. Dagu dokũ =bi.
what do =pl
They are doing something.

Notice in (58) and (59) the optional presence of the Q operator in the final position of the sentence. This enclitic is optional, and more often said in men's speech than women's. Men use *hwo* and women use *he*. These particles may be used in any question. Without the question particle, the sentence may be interpreted as either declarative or interrogative. However, with the particle in place, only the interrogative reading is valid.

Examples (60) and (61) below are similar to those in (58) and (59): the interrogative reading also has two variants.

60) a. Dagu wa-n-aga (he/hwo)?
what IO-2s-see Q
What do you see?
Do you see something?

b. Dagu wa-n-aga.
what IO-2s-see
You see something

61) a. Duwe Suzy ibutágĩ =kta (he)?
who Suzy kiss =IRR Q
Who will kiss Suzy?
Will someone kiss Suzy?

b. Duwe Suzy ibutágĩ =kta.
who Suzy kiss =IRR
Someone will kiss Suzy

The ambiguous readings in (58) through (61) show that when there is a question particle in C, the sentence has an interrogative reading. This means that the WH- word is not required to move in order to get its quantificational force. Instead, the question

particle acts as an operator and may unselectively bind the indefinite word (Heim, 1982). The other option is for it to make the sentence a yes/no question, leaving the indefinite words as indefinites. The Q operator sits in the C position and may bind any or all indefinites in the sentence. For example, in (62) there are two indefinites (variables), either or both of which may be bound by the question particle (operator).

62) Dúwe dágu mánu he?
who what steal ?
'Who stole what?'
'What did someone steal?'
'Who stole something?'

On their own, indefinites do not have interrogative properties. This is why an operator, i.e. a question particle in C, must bind them. Because the operator binds unselectively, sentences may have multiple interrogative readings as in (60a), (61a) and (62) (Heim, 1982; Nichigauchi, 1990; Pesetsky, 1987).

Having established that Nakoda's WH- words are indefinite DPs bound by a question particle operator, it is apparent that DPs in Nakoda *must* occupy an argument position, not an adjunctive position, in the sentence. This clearly precludes it from the PA language category as defined by Baker (1996) and Jelinek (1984, 1989). WH- in-situ data is strong evidence that Nakoda is best analysed as a lexical argument language.

4.2 Person Marking Prefixes as Agreement Morphology

There is a lot of evidence to support the idea that Nakoda is a configurational lexical argument language. As I have shown in the previous sections, Nakoda's DPs are in argument positions that are hierarchically arranged with respect to each other. Throughout, I have assumed that verbs with first and second person arguments (local persons) have *pro* as their arguments. This section defends that assumption. I explain what problems I see with the alternative analysis that the person markers are themselves the arguments of the verb. I believe these problems make that analysis too hard to maintain, so I adopt the agreement morphology analysis.

It certainly seems simpler at first to argue that local person subject and objects are the person marking prefixes of the verb. That the prefixes are overt is a big advantage to

the idea that the morphology of the verb satisfies its selectional requirements because it removes the need for *pro* and thus a layer of abstraction. However, the overt nature of the prefixes is the only advantage this hypothesis seems to have. There are a variety of problems with the analysis. The first is the simple fact that arguments need not be overt in Nakoda. A simple verb, seemingly uninflected, may actually have three arguments as in (63).

63) k'ũ
give
he gave it to her

While it is true that arguments of the verb certainly are null in some Nakoda sentences, there is no evidence that this is the case in sentences with 1st and 2nd person arguments. However, it does weaken the claim that inflections are arguments simply because they are overt.

The idea that inflections are arguments requires a split in configurationality based on the fact that 1st and 2nd person inflection is overt while 3rd person inflection may be null. That is, one would have to argue that sentences with 1st and 2nd person arguments are non-configurational because the inflection expresses the arguments and there are no other syntactic positions. Rather, the morphology satisfies the selectional requirements of the verb. Furthermore, 1st and 2nd person arguments can co-occur with 3rd person arguments, meaning that a single sentence would have to be split in configurationality, allowing the morphosyntax to provide one argument and the syntax to provide another. While there are cases of splits across person lines (for example, see Jelinek (1986) on Nisgha), there does not seem to be any motivation to indicate this is the case in Nakoda. Positing a split in configurationality across person lines should present some interesting phenomena that would shed light on the syntactic differences between local and non-local persons. I have found no syntactic differences between local and non-local persons that would indicate this type of split. There is, however, some evidence suggesting that the inflections are agreement. The next sections present that evidence.

4.2.1 Independent Personal Pronouns

In Chapter 1, I mentioned that independent personal pronouns in Nakoda are usually predicated, but did not explore the subject. At this juncture, I offer an analysis of the personal pronouns. There are three sets of independent personal pronouns in Nakoda. These are almost never arguments of the sentence, and are only used in emphatic, contrastive and negative contexts. In fact, it is the emphatic and contrastive nature of these pronouns that causes them to be situated at the left edge of the phrase. Recall from the discussion of free word order in Chapter 3 (§3.1.2), that focused DPs appear on the left. Emphatic and contrastive pronouns are, by nature, focused elements, and therefore appear to the left edge of the clause. If it can be shown that pronouns can occupy argument positions, and both the pronoun and the verb are marked for person, then there is redundant marking, which indicates that the person marking attached to the verb is agreement.

The sets of pronouns are shown below. Note that number is only relevant to 1st person.

	Emphatic, e.g. 'me'	Negative, e.g. 'not/but me'	Contrastive, e.g. 'me too' 'and me'
1s	m-iye	m-iye(k)=šĩ	miš
2	n-iye	n-iye(k)=šĩ	niš
3	iye	i-ye(k)=šĩ	iš
1p	ũg-iye=bi	ũg-iye(k)=šĩ=bi	ũgiš

Table 3 - Pronouns in Nakoda

The pronouns in Table 3 are almost always adjuncts to the sentence, or are predicated. Nouns and pronouns may become verbs through a zero derivation process that creates Class 2 intransitive verbs (i.e. those whose inflection pattern with the objects of transitive verbs). The pronominal verb can then be negated, as in the negative context above. I have not found any examples of negative pronouns in argument positions, likely because this is not expected, on semantic grounds. It is possible, and in fact likely, that the negative pronouns are not a separate set of pronouns, but rather verbs, which can then be negated by the usual sentence negation. That analysis would explain the lack of negative pronouns in argument positions.

Some examples of each set of pronouns are provided below.

64) **níš** dóken ecanũ=kta=he
And you how 2.do=IRR=Q
And you? What will you do?

Drummond, 1976: The Boy Who Made Peace

65) **m-iyek=šĩ** že m-nudĩ=kte=ši
1s-PRON=neg DET 1s-eat=IRR=NEG
Not me! I wouldn't eat that.
It is not me who would eat that.

66) Dóhãgeja dãyã'gina, "Mĩcĩkši **ĩš** **nĩš** yakníc,"
really she was happy, "my son also you yourself you returned,"

eyá eyáš céya.
she said so she cried.

She was really happy. "My son, it is you! You have come home, after all!" she said, then she wept.
(Parks and DeMallie, 2003 – Shields (133))

67) Hušté-gũza žé, ĩxpéya aktága cén,
pretended to be lame that, leave behind he ran then,

žéhãnãg[a] Ĩktómi né "Misũ̀ **míš** edáhã
and so now Ĩktómi this "younger brother for me some

omĩjiyapt[a]," eyá-ũ gayáb[i].
save for me," repeating he was they say.

The one who pretended to be lame ran, leaving him behind, and so Ĩktomi kept repeating this, "Younger brother, save some for me."
(Parks and DeMallie, 2003 - Leo Wing (51))

The *iš* set of pronouns, the contrastive pronouns, usually appears on the left edge of the clause as in (64) through (67). However, in (68), the pronoun *miš* seems to be inside the VP.

68) Né wĩkóške né piyábi né
"this young woman this they buried this

necéduktac omĩjiyaga duká, **miyé**
it would happen this way she told me but, myself

wawágidã hĩk né zuyéyabi **mĩš** ówapa.
I was determined and this war party myself I joined it.

"They buried this young woman, just as she told me it would happen, but I insisted, and I myself, joined this war party.

(Parks and DeMallie, 2003 - Shields (71))

Again, without further evidence, it is impossible to determine whether or not the pronoun is actually within the VP. It looks like it is, since it separates the object and the verb, but that leads to the question of why the subject DP follows the object. The object does not appear to be a focused item, but the subject does, as it is contrastive. One would expect that the contrastive element would be moved to a position of focus, but that is not the case here. Another analysis that would clear up the ordering issue is that the word *zuyéyabi* is not the object at all, but rather an adjunct. The pronoun then could either be another adjunct or the subject of the verb. The object would be *pro*. However, there is no data to support either analysis. Fortunately, (69) provides another example, in which it can be shown that the apparent object is actually an adjunct.

69) Mãkóce né **miyé** wagáğa cen matógapa
earth this myself I-make so I am the oldest
I made this earth myself, so I am the oldest.

(Parks and DeMallie, 2003 - Blackbird (45))

In (69), it looks like the pronoun *miyé* is in an argument position since it is between the object and the verb. However, the apparent object, *mãkóce ne* 'this earth', is an adjunct in this sentence, and not the object of the verb. If it were the object of the verb, we would not expect to see the indefinite object prefix *wa-* on the verb *gağa* 'to make', as

it is only used when the verb has no object.[29] So the pronoun *miyé* is situated on the left edge of the clause, making it impossible to determine whether it is an argument of the verb, a pronominal adjunct or a predicate meaning 'it was me'. Example (70) provides a clearer example of a pronoun in argument position.

70)	šũga	že	ũg-ita-kona-gu=bi	nagú	**ũg-iye=bi**	ũ-kuwa=bi
	dog	DET	1p-POSS-friend-POSS=pl	CONJ	1p-PRON=pl	1p-chase=pl
	The dog chased our friends and us.					

Example (70) is the clearest example of a pronoun in argument position that I was able to find. The pronoun *ũgiyebi* is part of the coordinated object of the verb 'to chase'. *Nagu* is one of the conjunctions that may not end a coordinated phrase, but rather requires a conjunct to the left and right of it, so a predicate analysis will not work for the second conjunct, unless the first conjunct is also analysed as a predicate, which would read 'it was our friends'. However, if it were the case that the two conjuncts were both predicates, they would more likely be joined by the conjunction *hĩk* or *hĩkna*, which are used to conjoin verbs. There are a few examples of *nagú* conjoining two apparent phrases though, so another piece of evidence is needed to confirm that the two conjuncts are indeed DPs. Consider, if the conjoined phrases are VPs, then they would be expected to either precede or follow the sentence. Their position between the subject DP and the verb suggest that they are the object of the sentence. Furthermore, there is plural agreement on the verb 'to chase', indicating a plural animate object or plural subject. The subject is clearly singular, having no plural marking on either the noun or the determiner, so the plural agreement must be licensed by a plural animate object. *Pro* is ruled out as a possible object because the plural enclitic is not licensed by 3rd person objects. The only possible object is the conjunct phrase, which contains a pronoun. The verb shows agreement with the 1st person plural object, in the form of the prefix *ũ*. If that prefix were in fact the object of the verb, not agreement, it would be redundant, because the object is the conjunct phrase. Analysing the inflection as the argument of the verb would mean that the object DPs would have to be adjuncts, and as shown above, that is not a possible analysis. The prefix *ũ-* must be agreement morphology.

[29] The verb *wayaga* 'to see' is an exception to this rule. The *wa-* prefix on *wayaga* has become lexicalized in Nakoda, and the root *yaga* is not used alone. This is not the case in Lakhota, which has not lexicalized the indefinite object prefix.

Pronouns provide preliminary evidence that verbal inflections are agreement morphology, but the nature of the language is such that it is very hard for the researcher to determine the exact position of the pronoun in most sentences. The next sections provide more evidence to support the conclusions drawn above.

4.2.2 Other Redundant Person Marking

The pronominal data provides good evidence that verbal inflections are agreement in the form of redundant marking. That is, if the inflections are in fact the arguments of the verb, and a DP can also be shown to be an argument of the verb, the verb will be marking the same argument more than once. Redundant marking is evidence that the verbal inflections are not arguments, but rather agreement.

There are other types of redundant marking that also support the idea that the inflections are best looked upon as agreement. Raising verbs, i.e. verbs that trigger the movement of the subject of a sentential complement to the subject position of the matrix clause, provide such evidence. In English, an example is the verb *seems,* as in *The child seems to have eaten her brussels sprouts.* The subject of the complement *to have eaten her brussels sprouts* raises out of that clause and into the subject position of the matrix verb *seems*. There is only one subject DP in raising constructions (Chomsky, 1981; Rosenbaum, 1967). So it follows that if there is subject inflection on both the raising verb and the matrix verb, that subject marking is not the representation of the subject, but rather is subject agreement. Most of the verbs that are generally considered raising verbs are not in Nakoda's inventory. Instead, those meanings are represented in the verbal enclitics. However, the verb *aya* 'to become' is one example of a raising verb. In (71), it is demonstrated that there can be subject inflections on both the raising verb and the matrix verb.

71) ši-wa-kna m-aya
pre-1sS-angry 1sO-become
I'm becoming angry.

Inflections appear on both the matrix verb and the raising verb in (71), which would be redundant if the prefixes were the arguments of the verbs. However, the

marking on both verbs is expected if it is analysed as agreement. Interestingly, the double marking is not always required in the raising construction, as in (72). The agreement marker may appear only on the matrix verb (72a) or only on the embedded verb (72b).

72) a. Ištíme a-má-ya
sleepy pre-1sO-become
I'm getting sleepy.

b. M-ištíme ayá
1sO-sleepy become
I'm getting sleepy.

One possible reason for the difference between (71) and (72a,b) is that both verbs in (72) are in the same class and require the same prefixes, whereas in (71), the verb 'to be angry' is a Class 1 verb. Another possibility is that the two raising verbs are slightly different from one another. This is somewhat probable, as the prefix *ma-* 1sO is directly prefixed to the verb in (71), but is infixed in (72a).

Another example of a raising construction with two person markers in Nakoda involves the verb *ogíhi* 'can'. Like English, 'can' has two meanings: 'to be able' and 'to be possible'. It is the latter that is the raising verb. (73) and (74) provide a contrast. The difference is in the negative marking, which only appears on the raising verb in (73), but on both verbs in (74).

73) wa-cí-mnaga o-wá-gihi=šĭ
1O-1sS.2O-see pre-1sS-possible=neg
I cannot see you. It is not possible for me to see you.
(context: something is in the way)

74) wa-cí-mnage=ši o-wá-gihi=šĭ
1O-1sS.2O-see=neg pre-1sS-able=neg
I cannot see you. I do not see you. I'm not able to see you.
(context: sight is bad)

Both verbs in (73) and (74) show person marking, which is significant because it again supports my assertion that the person markers are agreement, because only one argument is allowed in a raising construction.

The evidence from raising verbs for the assertion that person markers are agreement morphology is not sufficient on its own. However, with the other evidence

presented, it makes my argument stronger. The area of raising verbs in Nakoda needs further study.

4.2.3 The Unaccusative Hypothesis

Throughout this work, I have referred to the two classes of intransitive verbs as Class 1 and Class 2 verbs. I deliberately avoided discussion of the different syntax of these verb classes. In this section, I address the issue of the two classes of intransitive verbs and evidence they provide to further strengthen my claim that the person-marking prefixes on Nakoda verbs are agreement morphology. I argue that the Unaccusative Hypothesis (Burzio, 1986; Levin and Hovav, 1995; Perlmutter, 1978; Pullum, 1991) explains the Split-S case marking system in Nakoda, and that applying the Unaccusative Hypothesis (UH) to Nakoda is not compatible with an analysis of the person marking prefixes as arguments of the verb.

The Unaccusative Hypothesis is a theory that postulates there are two classes of intransitive verbs: Unergative, which has a deep subject as its only argument, and Unaccusative, which has a deep object as its only argument. The classifications are formalized in Table 3, below.

Unergative - Class 1	**Unaccusative - Class 2**
DP[$_{VP}$ V]	[$_{VP}$ DP/CP V]
Verb licenses external argument	Verb licenses internal argument

Table 4: Schema of syntactic configuration of unergative and unaccusative verbs
(adapted from Levin and Horav, 1995: 3. Where DPs are shown, Levin and Horav use NP).

Table 4 clearly defines the unergative and unaccusative verb in terms of the arguments they license. The Unergative verb licenses an external argument, which is the usual position for subjects. The unergative verb's argument looks like a subject, and acts like a subject. It may move to satisfy some feature-checking requirement, but may not have to. Unaccusative verbs, on the other hand, license an internal argument, the usual position of objects. Assuming that every sentence needs a subject, as required by the Extended Projection Principle (Chomsky, 1981), the internal argument of an unaccusative verb will have to be promoted to a subject position via movement. But moving to fulfill the EPP is only one possible reason for the movement. Burzio (1986) argues that the deep

object moves to subject position because unaccusatives cannot assign accusative case to their arguments (hence the term 'unaccusatives'[30]). The argument moves in order to be assigned case.

Some researchers argue that the difference between unaccusative and unergative verbs is strictly semantic, and is not encoded in the syntax (e.g. Van Valin, 1990). As stated earlier (§1.3), the two classes of intransitive verbs in Nakoda cannot be determined strictly by semantics. However, there is evidence that the two classes are systematically treated differently from each other, which suggests that the division is not completely arbitrary and that unaccusativity is syntactically encoded. Stress assignment after reduplication is different in the two classes of verbs, a palatalization rule only applies to unergative verbs (cf. Legendre, 1992 on Lakhota), and the two types of verbs are conjoined differently. The class of verb is clearly available to the morphophonology of the language. The division of the intransitive verbs is clearly represented in the grammar if other components of it can access the class of verb.

Intransitive verbs in Lakhota have been analysed as unaccusative and unergative (Legendre and Rood, 1992; Williamson, 1979; Williamson, 1984), which seems to be a reasonable analysis, and is the one I have adopted for Nakoda. The split in the classes of verbs is roughly in terms of active and stative verbs, and the patterning of person markers are exactly the kind of phenomena that Perlmutter (1978) describes in his discussion of unaccusativity. Nakoda's Class 1 verbs are unergative. They license an external argument, which patterns with the subject of transitive verbs. The Class 2 verbs are unaccusative. They license only an internal argument, which then moves to the subject position to fulfill the Extended Projection Principle, and to be assigned case.

Returning to the question of the status of pronominal inflection, if the prefix on the verb is the argument licensed by the verb, there are two major implications. First, morphology becomes syntax. The morphology of the verb would have to be subject to the same syntactic processes as the syntax. For the deep object to move from its internal argument position into an external argument position, there would have to be a configurational structure within the verb complex in which the subject is higher than the

[30] The term 'unaccusative' was coined by Geoff Pullum in a letter to Paul Postal in 1976 (Pullum, 1991). To the best of my knowledge, the first published mention of the term is Perlmutter (1978). Burzio (1986) never uses the term at all. In fact, he rejected it outright.

object. Configurational morphology and morphology as part of syntax raise some theoretical questions. If the morphology of the verb is subject to the same constraints and has a configurational structure like the syntax of the sentence, the fact that the subject and object are not in the same order in the verbal complex as they are in syntax is puzzling. One might predict that the morphological ordering of subject and object would be the same as the syntactic ordering of subject and object, which is SOV. This proves incorrect. The order of inflectional markers in Nakoda is based on person, not grammatical function. Even if one ignores person entirely and looks to the grammatical function, the order of inflectional morphemes turns out to be OSV in all but one case (1p acts on 2). In order to maintain the analysis that these morphemes are arguments of the verb, something must account for the difference in morphosyntactic and syntactic structure.

Setting aside the theoretical issue of configurational morphosyntax, let's turn to the issue of case assignment. Assuming that the argument of an unaccusative verb is assigned case after it moves, as Burzio (1986) does, there are some problems with an analysis that the arguments are the prefixes on the verb. If the prefixes are the arguments of the verb, and they are assigned case after they move, there is no apparent reason for the subjects of unaccusative verbs to be assigned an object case. Instead, it might be predicted that the arguments would be given nominative case. However, if the person markers are agreement morphology, they can reflect the original position of the argument with which they agree without any theoretical difficulties.

From a theoretical standpoint, it is difficult to reconcile that the person marking prefixes as pronominal with a view that the intransitive verb classifications are unergative and unaccusative. In this context, analysing the personal prefixes as agreement morphology appears to be more theoretically sound.

4.3 Conclusion

In this chapter, I presented evidence that Nakoda's Determiner Phrases typically occupy argument positions, ruling out a strict Pronominal Argument account of the language. I showed that the quantificational system in Nakoda is incompatible with either Baker or Jelinek's theories of Pronominal Arguments. I provided evidence of Binding Condition C effects in both main and complement clauses, another unexpected and problematic feature in a Pronominal Argument language. I also showed that WH- phrases

in Nakoda are non-quantificational, indefinite DPs that occupy argument positions. The WH- words acquire quantificational force by binding from a WH- operator in C.

The second section of this chapter offered discussion of the agreement system in Nakoda, and demonstrated that the agreement markers are not the arguments of the verb, as previously analysed. Rather, they agree with null or 'dropped' pronouns. Evidence in favour of this analysis was provided in the form of redundant marking and problematic theoretical implications. Also, I provided evidence that the Unaccusative Hypothesis is incompatible with an account of Nakoda verbal person marking as arguments of the verb.

The next chapter is a conclusion of the work presented to this point. Included is a discussion of issues left unsolved, and some preliminary analyses.

Chapter 5 - Concluding Remarks

5.0 Conclusion

In this thesis, I have argued for two main points: Nakoda has configurational sentence structure and is a Lexical Argument Language. These points are reviewed in 5.3. However, before the final review, I discuss the implications this work has on other recent studies of closely related languages. There is also discussion of some issues that are left unresolved and my preliminary hypotheses on those topics, which serve as suggestions for further research that can build upon this thesis.

5.1 Implications for Current Research

There is not a lot of current research into the Assiniboine Nakoda language. There is no other current theoretical work in this language at all. There are however a fair number of people studying the Lakhota language. As I made clear in various sections, Lakhota and Nakoda are quite different in a number of respects, and clearly the research on Lakhota is more comprehensive. However, it would be interesting to study how the languages diverged from one another. It would also be interesting to re-evaluate some of the Lakhota research to see if another analysis might be warranted. Of course, it may be the case that Nakoda and Lakhota just diverged that much from each other, but they also might be more alike than they appear to be. A good start might be to look at the Lakhota coordination structures to re-evaluate claims of flat structure.

The PAH and Configurationality parameters discussed within the thesis have some issues that need to be cleared up. First, the overlap between the two concepts is troubling, though it is understandable how the conflation of concepts arose. The PAH was designed to explain the set of phenomena associated with languages previously called non-configurational. However, the idea of configurationality has to do with structure, and the PAH describes the realization of arguments in certain types of languages. Of course, there may be a lot of overlap between the PA languages and non-configurational languages, but the fact is that the two concepts need to be separated. In Jelinek's version of the PAH, the concept of configurationality does apply, because under that hypothesis,

the subjects and objects are bound to the verb. In a PA language according to her hypothesis, there is no configurational syntactic structure with regard to subjects and objects. However, under Baker's version of the hypothesis, the subject and object *pro* are hierarchically arranged with respect to each other. Non-configurationality, in the sense of flat structure, does not apply in that case.

Another issue that is significantly affected by this work is that of the diagnostics for configurationality and pronominal arguments. On the surface, Nakoda's syntax appears to pass the diagnostics. It does not have pleonastic subjects, overt DPs are optional and somewhat freely ordered, and there is a rich agreement system. Baker refers to Lakhota as a non-configurational head marking language (Baker, 1996: 93n.30), using Jelinek's definition of 'non-configurational'. I have shown here that Nakoda, though very closely related to Lakhota, cannot be considered non-configurational, despite the diagnostics it passes. A viable solution would be to call the diagnostic phenomena 'necessary features'.

5.2 Further Research

All areas of the Nakoda language require research; there is almost no contemporary (or historical) work on the language. While I have provided some insights into the syntax and verbal morphology, for reasons of space I could not be comprehensive. However, this work can be used to further research in Nakoda linguistics. Some of the topics that I have mentioned without thoroughly analysing are provided in the following sections. Where possible, I offer hypotheses about the data in question.

5.2.1 Verbal Enclitics

In the discussion of configurationality in Chapter 3, some data on verbal enclitics illustrated the configurational nature of the Nakoda sentence. The verbal enclitics have not been extensively studied in Nakoda: a comprehensive study of verbal enclitics, their function, their structural position in the sentence, how they interact with each other, and what combinations are licit is needed. Schudel (1997) briefly discusses a few of these enclitics (suffixes, by her analysis). She provides translations and examples of the enclitics *=he* 'question particle' *=bi* 'plural animate subject' and 'plural 1st and 2nd

person object', *=kta* 'irrealis', *=šĩ* 'negative', and *=c* 'assertative' (not previously discussed here). However, there is no discussion offered about how the enclitics may combine with each other. Some of this work has been done for Lakhota (Rood and Taylor, 1996), but Lakhota seems to have a much larger list of enclitics available to its verbs, so a study devoted to Nakoda is definitely necessary.

The list of Nakoda's enclitics (§3.1.1.4) is repeated here, and filled out somewhat with the little information I have. In this chart, the enclitics are put in the order that they may appear after the verb, with the ones that are in complementary distribution together in the same cell. The broken line indicates that I have not been able to elicit an example in which both of these appear together, but I do not know definitively if these enclitics can co-occur. I do not suggest that this list is comprehensive, only that these are the enclitics I have discovered in my studies. It is an area that needs much work.

Clitic	Function and example
hã	**durative** Aspect enclitic - the action was continuous at the time it was happening (c.f. Rood &Taylor (1996)) a. awódabi že ks'a table det broke The table broke. b. awódabi že ks'a=hã table det broke The table was broken (not passive).
kta	**irrealis** Modal enclitic - the action has not, will not, might, will, could or should happen. c. wayagĩ=kta see=IRR He will see it.
xti	**optative** The speaker wishes the action would happen. Always occurs with irrealis, because if the speaker wishes for something, it obviously has not occurred. d. búza že m-nuzĩ=kte=xti cat DET 1s-hold=IRR=OPT 'I would like to hold the cat'

Clitic	Function and example
bi	**plural** Plural subject (animate, all persons), plural object (animate 1st and 2nd persons - 3rd person plural object is marked with prefix *wica*[31]) e. šũga iyúhana hišmá=bi dog every fur=pl All dogs are furry. f. Wa-ci-mnagĩ=kte=xti=bi IO-1sS.2O-see=IRR=OPT=pl I would like to see you (pl) again.
šĩ	**negative** The action or state is negated. Often used with *=kta*. g. Wa-ci-mnagĩ=kte=xti=bi=šĩ IO-1sS.2O-see=IRR=OPT=pl=NEG I would not like to see you (pl) again.
s'a	**habitual** The action happened regularly. Translated 'always', 'often' or 'usually'. h. Mani ũ-ya=bi=s'a walk 1p-go=pl=HAB We always go walking.

[31] It could be argued that *wica* is a suppletive form of plural object used for 3rd persons.

Clitic	Function and example
wo	**imperative** (male speaking) i. Iyodãga=wo! sit down=IMP Sit down!
hwo **he**	**interrogative** (male speaking) **interrogative** (either male or female speaking) j. Wicĩjana že dagu gağeğe hwo? girl DET what sew Q What did the girl sew? k. Duwe ga wayaga he? who that see Q Who saw that?
no	**declarative** (male speaking, optional usage) l. "Miyéš wĩmã'ca no," eyá hũštá. myself I am a man !" he said it is said. "Me, I am a man!" he said, it is said. (Parks and Demallie, 2003 - Shields (74))
c	**assertative** m. že-cen akni=c the-so return home=asrt And so, he returned home. (Drummond, 1976 - The Pipe of Peace)
ca	**evidential** The speaker is not sure about the assertion, but is reporting on something that evidently happened. Often translated as 'must', 'apparently' or 'evidently'. n. Tehã wóda=bi=ši cen, nina nodit'a aya=bi=ca long eat=pl=NEG because very hungry become=pl=EVID Because they have not eaten in a long time, they must be getting very hungry.

I believe that these enclitics head functional categories as they clearly mark mood, aspect and modality. There is evidence of how they are structured in the way that they interact with coordinated structures, but I have not worked out all of the details.

5.2.2 Verbal derivation

One of the most puzzling aspects of Nakoda morphology is that of the interaction of verbal derivation and inflection. The morpheme order is: derivational affix-inflectional affix-verb root. This order appears to violate universal principles of morphology. Usually, the verb is assumed to go through a derivation process before the inflection is applied, and the Nakoda pattern looks like the opposite. However, I do not think there is a violation of principles. Rather, if one assumes that the inflectional affixes are attracted to the verb root, the problem is solved. The derivation process may still take place first, but then when the inflectional process occurs, the inflectional affixes find the verb root and attach to it rather than to the stem. (1) demonstrates the phenomenon.

1) a. Yúda
eat (transitive)

wa+yuda --> mnúda
1sS+ eat --> I eat it

b. Wóda (wa 'indefinite object' + yuda 'eat')
eat (intransitive)

wo-wá-da
I eat

In (1a), the 1st person subject agreement morpheme is prefixed on the verb. In (1b), the indefinite object prefix *wa-*, which is sometimes analysed as a detransitivizing prefix, attaches to the verb *yuda* 'to eat'. A regular morphophonological operation changes the wa+yu combination to *wo*, and then the inflectional prefix *wa-* attaches to the closest part of the root, but not before the derivational affix. The same inflectional marker is attached in both (a) and (b). In (a) it looks like a prefix, attaching to the verb stem; in (b) it looks like an infix. However, they both essentially are the same, in that they attach to the root.

In (2), the process is more transparent. The inflectional prefix attaches directly to the verb root *pa*, separating the locative from the root.

2) a. A-pá
LOC-strike
to hit

b. A-má-pa
LOC-1sO-strike
He hit me.

The derivational prefix *a-* means 'on' or 'at', so literally, (2b) would read 'he strikes on me'. The inflectional prefix added afterward is aligned with the root *pa* rather than the stem *apa*.

Further study in verbal derivation is required in order to evaluate whether the hypothesis presented above can be maintained.

5.2.3 Morphological ordering of agreement

The order of inflectional prefixes on the verb in the Dakotan languages has been described in two different ways. First, in terms of grammatical function: Object Agreement - Subject Agreement - Verb except when 1st person subject acts on 2nd person object (Rood and Taylor, 1996: 467; Schudel, 1997: 57). Second, in terms of persons: 3rd person - 1st person - 2nd person - Verb (Williamson, 1979: 359).[32] I prefer the latter analysis because there are no exceptions to the rule.

In West (2001b), it was argued that hierarchies are operative in Nakoda, and that these hierarchies motivate the order of agreement morphology. In that analysis, there are operative grammatical function and person hierarchies, and "competition" for alignment next to the verb root. This analysis also accounts for the lack of the ni-wa (2nd person object-1st person subject) combination, which is instead denoted by the portmanteau morpheme *ci-*.

The historical facts of Siouan languages indicate that the set of agreement markers that are closest to the verb (i.e. the 1st person prefixes) were formed first, the 2nd person markers which are next closest to the root were formed next, and *wica* was formed last (R. Rankin, p.c.). However, the historical facts are only known to the speaker in the form

[32] Williamson does not analyse *wica* as person agreement, but rather as a suppletive form of the regular plural marking *-pi.* As a result she describes the order as 2nd person-1st person-verb, omitting reference to third person.

of a template that has been formed. Templatic analyses are not the optimal analyses within a generative framework, where it is argued that the speaker can generate sentences based on rules, principles and parameters that are learned, not on templates that are memorized. The verbal morphology of Nakoda needs extensive study.

5.2.3.1 "Double Patient" Verbs

There is a set of verbs that takes two agreement morphemes from the Class 2 inventory of prefixes. These verbs are often referred to as "double patient verbs" because the prefixes typically identify the semantic patient. The term is a bit of a misnomer, as often neither of the participants of a double patient verb are patients, but that is not our concern here. Instead, I provide a set of data with the idea it can be used for future studies. I can only barely speculate on what is going on with this set of verbs.

The major difference between double patient verbs and the transitive paradigm is that the morpheme order is different. Williamson (1979: 359) states that in Lakhota, the double patient verbs always have a 2-1-verb root morpheme order, and that these sentences are ambiguous with regard to which prefix is interpreted as subject and which as object agreement. So in (3) below, the sentence has two diametrically different translations.

Lakhota:

3) i-ni-ma-steca
?-2O-1O-shame
I am ashamed of you.
You shame me. (Williamson, 1979: 359)

Williamson's analysis is that one of the markers is an initial object, and the other is an initial oblique. This analysis may work for Nakoda as well, but there are differences in the morphological ordering, that may cause some problems. First, the order of these

morphemes is not fixed in the same way as in Lakhota. Either 1st or 2nd persons may occupy the first position, but with a difference in meaning.[33]

4) a. I-ma-ni-šteja
pre-1sO-2O-ashamed
I am ashamed of you.

b. I-ni-ma-šteja
pre-2O-1sO-ashamed
You are ashamed of me.

5) a. I-ma-ni-stusta
pre-1sO-2O-tired
I am tired of you.

b. I-ni-ma-stusta
pre-2O-1sO-tired
You are tired of me.

From (4) and (5) it is clear that the person features are not the relevant ordering factor, but rather the grammatical relationships are responsible for the ordering of the agreement markers. The order is AgrS-AgrO-VRoot. However, when the 1st person is plural, the ordering is not so clear. For reasons that are unclear at this time, the 1st person plural agreement morpheme can appear before the derivational prefix *i-*.

6) ũg-i-ni-stusta=bi
1p-pre-2O-tired=pl
We are tired of you (pl)

It is only with the "double patient" verbs that any of the prefixes may appear outside of the derivational affixes.

To further confuse the issue, *ũ-* does not always appear outside of the derivational affix, even in the same verb, as in (7).

7) i-wica-ũ-stusta=bi
pre-3pAO-1p-tired=pl
We are tired of them.

[33] Throughout the thesis, I've been using the term 'pre' to denote the part of the verb before the root when the meaning of the preverbal marker is not obvious. In (3), (4) and (5), the preverbal marker 'i' apparently denotes that the verb requires an extra argument. I hesitate to call it an oblique marker, because obliques should be strictly optional, whereas the *i-* marker indicates the need for the argument. Perhaps they could be called applicatives. This is one of the areas that needs extensive work. There are many questions surrounding these preverbal markers.

8) i-wica-ma-stusta
pre-3pAO-1sO-tired
I am tired of them.

In (6), the order is AgrS-AgrO-VRoot, as in (4) and (5). However, the double patient verbs in (7) and (8) seems to exhibit AgrO-AgrS-VRoot order. This is currently unexplained, though one possible solution is that as in regular transitive verbs, *wica* must precede all other markers, regardless of grammatical function. However, far more work is required before this hypothesis can be substantiated. The entire area of Class 2 verbs with two arguments needs studying. Rood and Taylor (1996) provide a very short paragraph on their existence, but do not delve into the subject. Schudel (1997) does not mention these verbs at all.

5.2.4 Is there a difference between noun and verb?

Nouns and verbs in Nakoda share many of the same features[34]. All words commonly thought of as nouns can operate as verbs; they only need to be inflected for person. It is partially this sort of fact that has been central to the question of whether there is a fundamental difference between nouns and verbs in Salish languages (for opposing opinions compare: Kinkade, 1983; van Eijk and Hess, 1986).

The similarity between noun and verb in Nakoda is limited to the usage of both as predicate, and the use of the plural enclitic *=bi*. There is other evidence that suggests that there is a fundamental difference between these two classes and that there is a process of zero derivation that allows nouns to be 'verbed'. The most obvious difference is the reduplication process. The function of reduplication differs between the classes 'noun' and 'verb'. Reduplication of nouns usually expresses plurality, whereas verbal reduplication usually expresses an increase in intensity or repetitious action (Schudel, 1997: 63).

[34]See Ingham (2001) for a discussion of this issue in Lakhota.

Verb reduplication

9) ya-smi-smi
by mouth-bite-RED
to nibble, as when eating ribs

10) xo-xoba
RED-snore
to snore continuously

Noun reduplication

11) waxbé-xbe
leaves-RED
lots of leaves, flowers, twigs Schudel, 1997: 64

12) tokã-kã
another-RED
lots of different things Schudel, 1997: 64

The differences between noun and verb in Nakoda are also evident in the different processes of functional conversion: the way that nouns can function as Class 2 verbs without stem changes, but in order for a verb to become a noun, it has to undergo overt derivation. There are several nominalizing operations, which are not available to nouns because they are already nominal. If they were not, there should be no blocking of the derivational process. One of these nominalizing processes is illustrated in (13) and (14).

13) a. Woda=bi
eat=pl
They eat.

b. A-wóda-bi
loc-eat=pl
table

14) a. mina
knife
*a-mina

Because *mina* 'knife' is already nominal, any attempt to nominalize it is blocked. However, *wóda* 'to eat' is an intransitive verb, and may undergo nominalization. There are other prefixes that nominalize verbs, but there is not the space here to delve into them

all. Also, nominalization is not a very common process in Nakoda, so there are not many examples.

All of the issues discussed above are relevant to the discussions in this thesis, and are offered as suggestions for further research. This list is not intended to be comprehensive. Virtually every area of the Nakoda language needs further extensive study.

5.3 Review of Analyses

Nakoda's syntax is configurational in the sense that the subject of the Nakoda sentence is structurally higher than the object. The object and verb together form a constituent that must be a Verb Phrase. The evidence of subject/object asymmetries presented in Chapter 3 argues strongly in favour of a configurational structure. Subject/object asymmetries are hard to explain in a non-configurational analysis because in a flat structure, subjects and objects are structurally symmetrical, and as such, are expected to exhibit parallel syntactic behaviour. However, this is simply not the case in Nakoda. There are several subject/object asymmetries that make a non-configurational analysis hard to maintain.

The coordination data is particularly convincing evidence of configurationality. Subjects and objects pattern differently. Subjects may be shared between clauses (§3.1.1.1); that is, the subject of the first conjunct may be assumed to be the subject, but not the object, of the second conjunct. However, the object of the first conjunct may not be assumed to be the subject of the second conjunct. This is explained by configurational structure. Because the subject is higher in the structure than the object, it is available to both conjuncts when VPs are conjoined, while the object is not. In a non-configurational structure, this asymmetry is not expected. Instead, under that view, the subject and object are structurally parallel, and there is no obvious reason why the object of the first clause should be rejected as the subject of the second.

More evidence comes from the behaviour of verbal enclitics in coordination structures (§3.1.1.4). In a simple, non-coordinated sentence, verbal enclitics have scope over the verb to which they attach. In a sentence with coordinated verbs or verb phrases, the verbal enclitic of the final conjunct may also take scope over other conjuncts. This suggests that there is a hierarchical structure, and that the enclitics are structurally higher

than the verbs. In a similar vein, auxiliary verbs and adverbs may also scope over two or more conjuncts, providing further proof of configurationality (§3.1.1.5 – 3.1.1.6).

Binding facts also provide evidence in favour of a configurational approach to Nakoda sentence structure (§3.1.3). The nature of possessives (§3.1.3.1), reflexives and possessive reflexives (§3.1.3.2) provides great insight into the configurational structure. A flat structure approach to reflexive verbs necessarily results in Binding violations. If the subject is a pronoun and is bound by an object, there is a Binding Condition B violation. If the subject is an R-expression and is bound by an object, there is a Binding Condition C violation. Within a flat structure analysis, in order to satisfy one binding condition, another must be violated. A flat structure approach to possessives and possessive reflexives in Nakoda is also problematic as it cannot provide an account of another asymmetry between subject and object. The possessive reflexive binds the possessor of the object to the subject, but cannot have any effect on a possessed subject. This asymmetry is problematic in a non-configurational structure.

Having established that a configurational structure prevails in Nakoda's syntax, I followed in Chapter 4 with a discussion of how the hierarchically arranged subjects and objects are realized in the sentence. Noting some discussion of pronominal arguments and pronominal argument languages with regard to Siouan languages, I studied the syntactic phenomena in Nakoda and concluded that an analysis of strictly pronominal arguments cannot be upheld.

In a PA language, DPs are adjuncts to the sentence; they do not occupy argument positions. The adjunct status of DPs has a variety of implications attached to it including a lack of Binding Condition C effects (§4.1.1), mandatory WH- movement (§4.1.3), and a lack of D-type quantifiers (§4.1.2). None of these implications are found in Nakoda's syntax. Binding Condition C is operative in both main and complement clauses. WH-movement is not necessary. In fact, in most WH- sentences the WH- word is in situ. And finally, Nakoda does have an inventory of D-type quantifiers.

I am often asked by other researchers why I analyse the person-marking prefixes as agreement, and not as arguments of the verb. This is one of the issues I hoped to clear up in this thesis. What I found was that there was not a wealth of evidence for either analysis. However, an analysis in which the morphology satisfies the selectional

requirements of the verbs is more difficult to accept because it requires that there be a different sentence structure for sentences with local arguments than for sentences with non-local arguments, and I was not able to uncover any evidence to support different sentence structures by person. However, I was able to find a few examples of redundant markings, that is, examples of sentence types with only one argument, but two person markers (§4.2.2). There is also evidence of personal pronouns in argument positions where the verb shows agreement with them (§4.2.1). And finally, I pointed out some theoretical issues that make it very difficult to reconcile the notions of unaccusativity with pronominal prefixes on the verb (§4.2.3). It is quite clear to me that the person markers on the Nakoda verb are in fact agreement morphology, not arguments of the verb.

Bibliography

Baker, Mark. 1985. The mirror principle and morphosyntactic explanation. *Linguistic Inquiry* 16: 373-415.

Baker, Mark. 1988. *Incorporation.* Chicago: University of Chicago Press.

Baker, Mark. 1991. On some subject/object non-asymmetries in Mohawk. *Natural Language and Linguistic Theory* 9: 537-576.

Baker, Mark. 1996. *The Polysynthesis Parameter.* Oxford Studies in Comparative Syntax. New York: Oxford University Press.

Boas, Franz, and Ella Deloria. 1941. *Dakota Grammar.* vol. 22: Memoirs of the National Academy of Science. Washington: U.S. Government Printing Office.

Broadwell, George Aaron. 1993. Is Choctaw a Pronominal Argument Language? In *1992 Mid-America Linguistics Conference and Conference on Siouan and Caddoan Languages*, eds. Evan Smith and Flore Zephir, 389-401: University of Missouri: Columbia.

Burman, W. A. 1883. *The Sioux language.* CIHM/ICMH Microfiche series no. 30227. Winnipeg: Original issued in series: Publications / Manitoba Historical and Scientific Society ; no. 5. Filmed from a copy of the original publication held by the Library Division, Provincial Archives of British Columbia. Ottawa : Canadian Institute for Historical Microreproductions, 1982. Publications / Manitoba Historical and Scientific Society.

Burzio, Luigi. 1986. *Italian syntax: A Government-Binding Approach.* Natural Language and Linguistic Theory. Dordrecht: Kluwer Academic Publishers.

Campbell, Lyle. 1997. *American Indian Languages: The Historical Linguistics of Native America.* vol. 4: Oxford Studies in Anthropological Linguistics. New York: Oxford University Press.

Chomsky, Noam. 1981. *Lectures on Government and Binding.* Dordrecht: Foris.

Chomsky, Noam. 1992. A minimalist program for linguistic theory. In *The View from Building 20*, ed. Kenneth Hale, Samuel J. Keyser. Cambridge: MIT Press.

Chomsky, Noam. 1995. Bare Phrase Structure. In *Government and binding theory and the minimalist program : principles and parameters in syntactic theory*, ed. Gert Webelhuth, 383-440. Cambridge, Mass.: Blackwell.

Chomsky, Noam. 1995b. *The minimalist program.* Current studies in linguistics 28. Cambridge, Mass.: MIT Press.

Cinque, Guglielmo. 1990. *Types of A-bar Dependencies.* Cambridge: MIT Press.

Cumberland, Linda. 1998-2001. Field Notes: Assiniboine. Bloomington: American Indian Studies Research Institute

Dahlstrom, Amy. 1983. Agent-Patient Languages and Split Case Marking Systems. In *Proceedings of the Ninth Annual Meeting of the Berkeley Linguistics Society,* eds. Amy Dahlstrom et al., 37-46. University of California, Berkeley: Berkeley Linguistics Society.

Davis, Henry. 1994. A Configurational Pronominal Argument Language. Paper presented at *WECOL*, Fresno, California.

Davis, Henry. 1995. The Clitic Affix Distinction in Radical Head Marking Languages. Paper presented at *31st Annual Meeting of Chicago Linguistics Society - Parasession on Clitics*, Chicago, IL.

Davis, Henry. 1997. Turning the Pronominal Argument Hypothesis on its Head. Paper presented at *Workshop on the Structure and Constituency of the Languages of the Americas*, Winnipeg, Manitoba.

deReuse, Willem J. 1994. Noun Incorporation in Lakota (Siouan). *International Journal of American Linguistics* 60: 199-260.

Drummond, Valerie. 1976. Carry the Kettle Texts, Department of Linguistics, University of Toronto: M.A. Thesis.

Fourstar, Jerome. 1978. *Assiniboine Dictionary.* Wolf Point Montana: Unpublished.

Graczyk, Randolph. 1991. Incorporation and Cliticization in Crow Morphosyntax, Linguistics, University of Chicago: Ph.D Dissertation.

Hale, Kenneth. 1983. Warlpiri and the Grammar of Non-Configurational Languages. *Natural Language and Linguistic Theory* 1: 5-47.

Hale, Kenneth. 1985. On Nonconfigurational Structures. Ms. Massachusetts Institute of Technology.

Heim, Irene. 1982. The semantics of definite and indefinite noun phrases, Department of Linguistics, University of Massachussets, Amherst: Ph.D Dissertation.

Ingham, Bruce. 2001. Nominal and Verbal Status in Lakhota: A Lexicographical Study. *International Journal of American Linguistics* 67: 167-192.

Jaeggli, Osvaldo, and Kenneth J. Safir. 1989. *The Null subject parameter.* vol. 15: Studies in natural language and linguistic theory. Dordrecht: Kluwer Academic Publishers.

Jelinek, Eloise. 1984. Empty Categories, Case and Configurationality. *Natural Language and Linguistic Theory* 2: 39-76.

Jelinek, Eloise. 1986. The Ergativity Hypothesis and the Argument Hierarchy in Nisgha. In *Working Papers for the 21st Annual Conference on Salish and Neighboring Languages*, 7-17. Seattle: University of Washington.

Jelinek, Eloise. 1989a. *Argument type in Athabaskan: evidence from noun incorporation.* Ms., University of Arizona, Tucson.

Jelinek, Eloise. 1989b. The Case Split and Pronominal Arguments in Choctaw. In *Configurationality: The Typology of Asymmetries*, ed. László Marácz and Pieter Muysken, 117-141. Dordrecht: Foris.

Jelinek, Eloise, and Richard A. Demers. 1994. Predicates and Pronominal Arguments in Straits Salish. *Language* 40: 697-736.

Jelinek, Eloise. 1995. Quantification in Straits Salish. In *Quantification in Natural Languages*, eds. Emmon Bach, Eloise Jelinek, Angelika Kratzer and Barbara Partee, 487-540. Dordrecht: Kluwer Academic Publishers.

Johannessen, Janne Bondi. 1998. *Coordination.* Oxford Studies in Comparative Syntax. Oxford: Oxford University Press.

Kinkade, M. Dale. 1983. Salish evidence against the universality of 'noun' and 'verb'. *Lingua* 60: 25-40.

Koopman, Hilda, and Dominique Sportiche. 1991. The Position of Subjects. *Lingua* 85: 211-258.

Kuroda, S.-Y. 1988. Whether we agree or not: a comparative syntax of English and Japanese. *Lingvisticae Investigationes* 12: 1-47.

Legendre, Geraldine, and David S. Rood. 1992. On the Interaction of Grammar Components in Lakhota: Evidence from Split Intransitivity. *Berkeley Linguistics Society* 18: 380-394.

Levin, Beth, and Malka Rappaport Hovav. 1995. *Unaccusativity : at the syntax-lexical semantics interface*. Linguistic inquiry monographs; 26. Cambridge: MIT Press.

Levin, Norman Balfour. 1961. *The Assiniboine language*. The Hague: Mouton.

Marantz, Alec. 1995. The Minimalist Program. In *Government and binding theory and the minimalist program : principles and parameters in syntactic theory*, ed. Gert Webelhuth, 349-382. Cambridge, Mass: Blackwell.

Matthewson, Lisa. 1998. *Determiner Systems and Quantificational Strategies: Evidence from Salish*. The Hague: Holland Academic Graphics.

May, Robert. 1977. The Grammar of Quantification, Department of Linguistics, MIT: Ph.D Dissertation.

May, Robert. 1985. *Logical Form: Its Structure and Derivation.* Cambridge: MIT Press

Mchombo, Sam. Effects of Head-marking on Constituent Order in Chichewa. accessed

Nichigauchi, Taisuke. 1990. *Quantification in the Theory of Grammar*. vol. 37: Studies in Linguistics and Philosophy. Dordrect: Kluwer Academic Publishers.

Nichols, Johanna. 1986. Head-marking and Dependent-marking Grammar. *Language* 62: 56-119.

Nordlinger, Rachel. 1998. *Constructive Case: Evidence from Australian Languages.* Stanford: CSLI Publications.

Parks, Douglas R., and Raymond J. DeMallie. 1992. Sioux, Assiniboine, and Stoney Dialects: A Classification. *Anthropological Linguistics* 34: 233-255.

Parks, Douglas R., and Raymond J. DeMallie eds. 2003. *Nakoda Reader, with accompanying audio recording.* Indiana University: American Indian Studies Research Institute.

Partee, Barbara. 1987. Noun Phrase Interpretation and Type-Shifting Principles. In *Studies in Discourse Representation and the Theory of Generalized Quantifiers*, eds. Jeroen Groenendijk, Dick de Jongh and Martin Stokhof. Dordrecht: Foris.

Perlmutter, David M. 1978. Impersonal Passives and the Unaccusativity Hypothesis. Paper presented at *Fourth Annual Meeting of the Berkeley Linguistics Society*, University of California, Berkeley.

Pesetsky, David. 1987. Wh- in situ: Movement and Unselective Binding. In *The Representation of (In)definiteness*, eds. Eric J. Reuland and Alice G. B. ter Meulen, 98-130. Cambridge: MIT Press.

Plunckett, Gray, and Michael McKeever. 1986. A Relational Grammar Approach to Verb Agreement in Lakota. *Working Papers of the Summer Institute of Linguistics*: 89-105.

Pullum, Geoffrey. 1991. Citation etiquette beyond Thunderdome. In *The Great Eskimo Vocabulary Hoax and Other Irreverent Essays on the Study of Language*, 147-158. Chicago: University of Chicago Press. (Also appears in: Natural Language and Linguistic Theory 6: 579-588)

Reinhart, Tanya. 1983. *Anaphora and Semantic Interpretation.* Chicago: University of Chicago Press.

Reinholtz, Charlotte, and Kevin Russell. 1995. Quantified NPs in Pronominal Argument Languages: Evidence from Swampy Cree. *North Eastern Linguistics Society* 25: 389-403.

Rizzi, Luigi. 1986. Null Objects in Italian and the Theory of *pro*. *Linguistic Inquiry* 17: 501-558.

Rood, David S., and Allan R. Taylor. 1996. Sketch of Lakhota: A Siouan Language. In *Handbook of North American Indians*, ed. Ives Goddard, 441-482. Washington, DC: Smithsonian Institute.

Rosenbaum, Peter. 1967. *The Grammar of English Predicate Complement Constructions.* Cambridge: MIT Press.

Russell, Kevin, and Charlotte Reinholtz. 1996. Hierarchical Structure in a Non-Configurational Language: Asymmetries in Swampy Cree. In *Proceedings of the 14th West Coast Conference on Formal Linguistics*, eds. José Camacho, Lina Choueiri and Maki Watanabe, 431-445. Stanford: CSLI Publications.

Schudel, Emily. 1997. Elicitation and Analysis of Nakoda Texts from Southern Saskatchewan, Indian Languages, Literature and Linguistics, University of Regina - Saskatchewan Indian Federated College: M.A. Thesis.

Schwartz, Linda. 1979. The Order of Dakota Person Affixes: An Evaluation of Alternatives. *Glossa* 13: 3-11.

Shaw, Patricia A. 1980. *Theoretical issues in Dakota phonology and morphology.* Outstanding dissertations in linguistics. New York: Garland Pub.

Speas, Margaret. 1989. The Position of Navajo in the Configurationality Debate. In *Configurationality: The Typology of Asymmetries*, ed. Laszló Maracz and Pieter Muysken, 301-318. Dordrecht: Foris Publications.

Speas, Margaret. 1990. *Phrase Structure and Natural Language.* Studies in Natural Language and Linguistic Theory. Dordrecht: Kluwer Academic Publishers.

Speas, Margaret. 1991a. Generalized Transformations and the D-Structure Position of Adjuncts. In *Perspectives on Phrase Structure: Heads and Licensing*, ed. Susan D. Rothstein, 241-258. San Diego: Academic Press.

Speas, Margaret. 1991b. Functional Heads and Inflectional Morphemes. *Linguistic Review* 8: 389-417.

Speas, Margaret. 1996. Null Objects in Functional Projections. In *Studies in Natural Language and Linguistic Theory*, ed. Johan Rooryck and Laurie Zaring, 187-212. Dordrecht: Kluwer Academic Publishers.

Speas, Margaret, and Evangeline Yazzie. 1996. Quantifiers and the Position of Noun Phrases in Navajo. In *Athabaskan Language Studies: Essays in Honor of Robert W. Young.*, ed. Eloise Jelinek, Sally Midgette, Keren Rice and Leslie Saxon, 35-80. Albuquerque: University of New Mexico Press.

Sportiche, Dominique. 1988. A theory of floating quantifiers and its corollaries for constituent structure. *Linguistic Inquiry* 19: 425-449.

van Eijk, Jan, and Thom Hess. 1986. Noun and Verb in Salish. *Lingua* 69: 320-331.

Van Valin, Robert. 1977. Aspects of Lakhota Syntax, University of California: Ph.D Dissertation.

Van Valin, Robert. 1985. Case marking and the structure of the Lakhota clause. In *Grammar Inside and Outside the Clause*, eds. Johanna Nichols and Anthony Woodbury, 363-413. Cambridge: Cambridge University Press.

Van Valin, Robert. 1987. The Role of Government in the Grammar of Head-Marking Languages. *International Journal of American Linguistics* 53: 371-397.

Van Valin, Robert. 1990. Semantic Parameters of Split Intransitivity. *Language* 66: 221-260.

West, Shannon. 1999. The Pronominal Argument Hypothesis: The status of Dakotan languages. Paper presented at *Department of Linguistics Colloquium Series*, University of Victoria.

West, Shannon. 2001a. Assiniboine and the Pronominal Argument Hypothesis. Paper presented at *Comparative Siouan Syntax Workshop*, Boulder, Colorado. September 27-29, 2001.

West, Shannon. 2001b. An Optimality Theoretical Analysis of Assiniboine Agreement Morphology: Termpaper for Linguistics 590 - Directed Studies in Morphological Theory. Victoria, British Columbia: Department of Linguistics, University of Victoria.

West, Shannon. 2001c. A Sketchy Sketch of Canadian Assiniboine Syntax. Paper presented at *Comparative Siouan Syntax Workshop*, Boulder, Colorado. September 27-29, 2001.

Williamson, Janis. 1979. Patient Marking and the Unaccusative Hypothesis. *Papers from the Regional Meeting of the Chicago Linguistics Society* 15: 353-365.

Williamson, Janis. 1984. Studies in Lakhota Grammar, University of California: Ph.D Dissertation.

Willie, MaryAnn, and Eloise Jelinek. 2000. Navajo as a discourse configurational language. In *The Athabaskan Languages: Perspectives on a Native American Language Family*, ed. Theodore B. Fernald and Paul R. Platero, 252-287. Oxford: Oxford University Press.

Appendix 1 - Abbreviations

A	Animate
AGRO	Object Agreement – functional category
AGRS	Subject Agreement – functional category
ALC	Anti-Locality Condition (Reinholtz and Russell, 1995)
AUX	Auxiliary
BCC	Binding Condition C
BEN	benefactive
C	head of CP
CP	Complementizer Phrase
CAUS	causative
COMP	complementizer
CONJ	conjunction
CoP	Conjunction Phrase
DAT	dative
DECL	declarative
det	determiner
DIM	diminutive
DP	Determiner Phrase
D-structure	Deep Structure
DUR	durative
EVID	evidential
GB	Government and Binding theory
HAB	habitual
IMP	imperative
INSTR	Instrumental
IO	indefinite object (not strictly accurate in some cases – often a historical remnant of an indefinite object)
IRR	irrealis
LF	Logical Form
LOC	locative
MP	Minimalist Program
NEG	negative
NP	Noun Phrase
O	Object
OT	Optimality Theory
P&P	Principles and Parameters theory
PA	Pronominal Argument
PAH	Pronominal Argument Hypothesis
PF	Phonetic Form
pl	plural
POSSREFL	possessive reflexive
PRE	part of the verb before the root - not always analysable
pro	null argument
PRON	pronoun

PROX	proximate
Q	question particle
REFL	reflexive
S	singular
S	Subject
S-structure	Surface Structure
SPEC	specific
UG	Universal Grammar
VP	Verb Phrase
V	Verb

Appendix 2 - Orthography

Assiniboine Nakoda	IPA
a	a
e	e ~ ɛ
i	i ~ ɪ
u	u
o	o
ã	ã
ĩ	ĩ
ũ	ũ
p	p^h
p’	p’
b	p ~ b
t	t^h
t’	t’
d	t ~ d
k	k^h
k’	k’
g	k ~ g
s	s
z	z
c	ʧ
j	ʤ
š	ʃ
ž	ʒ
x	x
ğ	ɣ
ʔ	ʔ
’	stress