

Split Configurationality in Hocak

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MORPHEME ABBREVIATIONS

A	active
ABS	absolute
ACC	accusative
agr _{s/o}	subject/object agreement
anim	animate
asp	aspectual
aux	auxiliary
B	stative
caus	causative
comp	complementizer
conj	conjunction
dat	dative
decl	declarative
def	definite
dem	demonstrative
det.d	determiner, definite
det.i	determiner, indefinite
di	dual inclusive
Dir/th	direct theme sign
dur	durative
ERG	ergative

e	exclusive
excl	exclusive
fact (li)	factive
FC:SAP	feature contrast, Speech Act Participant
FC:third person	feature contrast, third person
fut	future
gen	genitive
goal	goal
hab	habitual
IIN	independent indicative neutral
imp	imperfect
IMPERF	imperfect
indef	indefinite
iness	inessive
Inv	inverse
irr	irrealis
loc	locative
neg	negative
NOM	nominative
NONPAST	nonpast
o	object
pl	plural

POS.HOR	positional, horizontal
POS.NTL	positional, neutral
POS.VERT	positional, vertical
poss.refl	possesive reflexive
PRES	present
pro	pronoun
prog	progressive
prop	proper
Q	question
recp	reciprocal
recip	reciprocal
refl	reflexive
rel.s	relative, specific
rel.n	relative, nonspecific
SAP	speech act participant
sg	singular
ss	same subject marker
suf	suffix
supess	superessive
TA	transitive animate verb
U	undergoer
USIT	usitative

ABSTRACT

Siouan (Native American) language scholars have debated for decades the question of whether these languages are configurational or nonconfigurational, owing to the head-marking polysynthetic characteristics of these languages. This dissertation seeks to provide an analysis of the configurationality in Siouan, focusing on data from Hocąk. I show that in Siouan, the configurationality split is manifested in Siouan by a split in morphological behavior between first and second person, or Speech Act Participant (SAP) arguments and third person arguments. I claim that the SAP system is nonconfigurational and the third person system is configurational. This dissertation consists of an overview of Siouan languages (chapter 2), a review of a selection of literature on the topic of configurationality (chapters 3-4) and characteristics of the morphological split between SAP and third person (chapter 5), and my analysis of split configurationality in Hocąk (chapter 6) and a selection of other Siouan languages (chapter 7).

In chapter 2, I present an overview of Siouan languages, focusing on aspects of Hocąk grammar and morphology. In the first few sections, I provide a brief general overview of Siouan languages, discussing their properties, including their such stative-active nature and their polysynthesis properties of Siouan. The following sections provide a background specifically on Hocąk, including its main morphological and syntactic characteristics.

Chapter 3 consists of review a selection of works from the vast body of literature that has explored the question of configurationality and polysynthesis in the world's languages. The works under discussion are Hale (1983) and the Configurationality Parameter, Jelinek (1984), who builds on the work of Hale to create the Pronominal Argument Hypothesis, Baker (1988, 1996), who formulates the Polysynthesis Parameter in an effort to explain the parametric

distinction between language behavior cross-linguistically, Speas (1990) and her contention that configurational languages should not be possible, Nordlinger (1998), and the configurationality continuum, and, lastly, Li (2005), who proposes a morphology-syntax mapping hypothesis that explains the behavior of both non-polysynthetic and polysynthetic languages.

Chapter 4 provides a review of previous scholarship on configurationality in Siouan languages. The languages discussed are Lakhota, Crow, Assiniboine, and Hidatsa, reviewing the works of Williamson (1984), Van Valin (1977, 1985, 1987), Graczyk (1991), West (2003) and Boyle (2007). Many of the diagnostics these authors have used to determine the configurationality status of these languages are ones I adopt in analyzing Hocąk configurationality.

Chapter 5 reviews a selection of works that examine and analyze the SAP/third person split in morphological behavior in several of the world's languages. From the large body of literature and scholarship on this topic, I select for this dissertation those works which I have found to be most useful and informative when examining the SAP/third person split, in Siouan. The works I discuss are Benveniste (1971), Silverstein (1976), Noyer (1992), Rice and Saxon (1994), Ritter (1995, 1997), and Brittain (2001).

Chapter 6 consists of my analysis of my analysis of Hocąk configurationality. Drawing from the ideas of Nordlinger (1998) and Li (2005), I argue that Hocąk displays a combination of *both* configurational and nonconfigurational attributes, and that this configurationality split corresponds to the split in morphological behavior between SAP and third person pronominal affixes. I show that Li (2005)'s Parameter of the Lexicon, which explains the difference in morphology-syntax mapping between non-polysynthetic and polysynthetic languages, can also

apply intra-language. I argue that in Hocąk, SAP arguments receive their theta roles in the morphology, without the use of syntactic structure, and third person arguments utilize hierarchical structure to receive their grammatical function information.

Chapter 7 applies my analysis to other Siouan languages, using Hidatsa, Assiniboine, Lakota, and Crow as examples. I argue here that my analysis is advantageous in understanding the configurationality of these languages, as it addresses the SAP/third person characteristics that have caused scholars difficulty in proving whether the languages are configurational or pronominal argument languages.

Chapter 8 concludes the dissertation.

CHAPTER 1

INTRODUCTION

1.1 Introduction and Background

Since at least Williamson (1984) and Van Valin (1985), Siouan linguists have defined configurationality as the presence of a verb phrase; or, the presence of subject-object asymmetry within a language (Hale 1983). A nonconfigurational structure would be a flat one, wherein subject and object both are sisters to the verb. Siouanists have debated for decades whether these languages are configurational or nonconfigurational, owing to the head-marking polysynthetic characteristics of the Siouan language family. Arguments have been made on both sides. For example, Williamson (1984) and Van Valin (1986) argue that Lakota has a flat, VP-less structure, wherein subject and object c-command each other. Others, such as West (2003) for Assiniboine and Boyle (2007) for Hidatsa, have argued that these languages have a VP and are fully configurational. The purpose of this dissertation is to weigh in on the issue of configurationality in Siouan languages, presenting an analysis that combines both configurational and nonconfigurational approaches.

In this dissertation, I provide an analysis of the configurationality of Siouan languages, first applying my analysis to Hocąk, then discussing its application in other Siouan languages. Central to my analysis is the idea of the configurationality continuum, proposed by Nordlinger (1998). The idea is that configurationality is not a parametric distinction; rather, languages' configurationality can be marked as points along a continuum. The continuum ranges from configurational, where grammatical relations are defined in the syntax, at one end to nonconfigurational, where grammatical relations are identified in the morphology, on the other. I

will show that the configurationality split is manifested in Siouan by a split in morphological behavior between first and second person, or Speech Act Participant (SAP) arguments and third person arguments. I claim that the SAP system is nonconfigurational and the third person system is configurational. Using ideas first proposed by Li (2005), I show how these systems work together.

I argue that in the SAP agreement system, the grammatical roles are determined by the morphology; in the third person agreement system, grammatical roles are determined through the phrase structure. When the two systems are combined, I argue that the interpretation of grammatical roles takes place in a hierarchical manner: first the SAP roles are interpreted, through the morphological component of the grammar. Once the SAP argument slots are filled, if there are any other argument slots still to be filled for third person, the third person system creates a hierarchical, phrase structure that will allow the interpretation of third person subject or object.

1.2 Theoretical Approaches

My analysis operates within the generative Chomskyan frameworks of Principles and Parameters and the Minimalist Program. I also draw broadly on ideas from Nordlinger (1998) who operates within the LFG (Lexical Functional Grammar) frameworks, however I do not adopt LFG -style analyses in this paper. Because Siouan languages are generally considered somewhat polysynthetic, I also draw heavily on the scholarship done on the topic of polysynthesis and nonconfigurationality, specifically Hale (1983), Jelinek (1984) and Baker (1996). Crucial to this analysis is Li's (2005) Parameter of the Lexicon, which proposes that the boundary between the lexicon and the syntax is not the same cross-linguistically; rather, it varies

depending upon the nature of the language. I argue that the Parameter of the Lexicon exists *within* each language of Siouan, and that this is manifested in the split between SAP agreement and third person agreement.

1.3 Data sources

A great amount of data in this dissertation comes from the Hocak language. With a few exceptions, the Hocak data used in this dissertation comes from two main sources: 1) native speaker judgements 2) language learning and revitalization materials. All non-Hocak language data comes from written sources from other scholars. Each reference is given next to the example for non-Hocak data.

First, all Hocak data for which a reference is not given next to the example comes from elicitations collected between 2012 and 2015 from native Hocak speaker Cecil Garvin. Cecil is an elder in the Ho-Chunk tribe and has taught Hocak language classes in the state of Wisconsin for many years. Additionally, he has both authored and co-authored learning materials currently in use by the Ho-Chunk Nation, and has served as a master in master-apprentice language programs. Myself and several of my colleagues are extremely fortunate to have had such a knowledgeable and interested partner in our endeavors to both learn to speak a little Hocak, and to understand its inner linguistic intricacies.

The second main source of Hocak language source material used both by myself and my colleagues to help create elicitation materials, and to find written course data, is language learning and supplementary materials. This includes the *Hocak hit'ekjawi!* textbook, created by the Hocak Waazija Hacı Language Division in Black River Falls, Wisconsin, and the Hocak LexiquePro Dictionary, created by Iren Hartmann in conjunction with the Language Division.

1.4 Layout of the dissertation

Chapter 2 of this dissertation consists of an overview of Siouan morphology and syntax. Chapter 3 consists of a literature review, focusing on scholarship of configurationality and polysynthesis. The works covered on Hale (1983), Jelinek (1984), Speas (1990), Nordlinger (1998), Baker (1996) and (2014), and Li (2005). Chapter 4 specifically discusses previous scholarship on configurationality of Siouan languages, focusing on Hidatsa, Crow, Assiniboine, and Lakshota. Chapter 5 discusses previous analyses of the SAP/third person split cross-linguistically, focusing on select works including Benveniste (1971), Silverstein (1976), Noyer (1992), Rice and Saxon (1995), and Brittain (2001). Chapter 6 and 7 discuss my analysis of the SAP/third person split, first in Hocak, and then in other Siouan languages. Chapter 8 follows, concluding the dissertation and providing a summary.

CHAPTER 2

OVERVIEW OF SIOUAN LANGUAGES

2.1 Overview of Siouan languages

In this chapter, I present an overview of Siouan languages, focusing on aspects of Hocąk grammar and morphology. In section 2.1 I provide a brief overview of Siouan languages: what they are, where they are spoken. Section 2.2 discusses the stative-active properties of Siouan languages, section 2.3 discusses the polysynthetic properties of Siouan. The following sections provide a background specifically on the Hocąk language, as Hocąk is the focus of this dissertation and the majority of the language data comes from Hocąk. Section 2.4 discusses morphology, section 2.5 discusses syntax, and section 2.6 concludes the chapter.

2.1.1 Languages and subgroups

The Siouan language family consists of several smaller language subgroups, all of which that remain spoken today are spoken in the northern plains of the United States and up into Canada. Fig 1 displays a map of Siouan language speaking areas, highlighted in red:



(Mithun 1999)

Historically, a few Siouan languages were spoken in other areas, such as the Ohio Valley and Virginia. These languages are now extinct. The following table, adapted from Boyle 2007, shows the Siouan language families and subgroups:

Table 1: The Siouan-Catawban Language Family

Eastern Siouan

Catawba + , *Woccon*+

Core Siouan

Missouri Valley Siouan

Crow

Hidatsa

Mandan

Ohio Valley Siouan

Virginia Siouan

Monyton+

Tutelo+

Saponi+

Occaneechi+

Ofo-Biloxi

Ofo+

Biloxi+

Mississippi Valley Siouan

Dakotan

Lakhota (Teton)

Dakota (Santee-Sisseton)

(Yankton-Yanktonai)

Assiniboine

Stoney

Winnebago-Chiwere

Winnebago (Hocąk)

Chiwere (Ioway+, Oto+, Missouri+)

Dhegiha

Omaha-Ponca

Kansa (Kaw+) - Quapaw+

Osage+

(Boyle 2007:13)

As the table above shows, Siouan is divided at the top between Eastern Siouan and Core Siouan.

Core Siouan is further divided into Missouri Valley, Ohio Valley and Mississippi Valley, as well

as Mandan which is its own language and forms its own subgroup. Mississippi Valley Siouan is the most diverse of the subgroups, as it contains the most languages inside it. Note that no languages of the Ohio Valley subgroup are spoken today. This dissertation will focus on the languages of the Core Siouan group.

2.1.2 Stative-active properties of Siouan

All Siouan languages display stative-active, sometimes referred to as split-S, case marking or semantic alignment. This means that intransitive verbs can be marked in one of two ways, depending on if the verb is of an active type (e.g. 'run') or of a stative type (e.g. 'be cold'). Siouan languages index their subjects and object with pronominal affixes that attach to the verb. If an intransitive verb is active, it will take the pronominal affixes that index the subject of an active transitive verb. If the intransitive verb is stative, it will take the same pronominal affixes that index the object of an active transitive verb. Below are some examples from Hocąk that illustrate this. In (1a), we see the pronominal affixes in a transitive active verb. In (1b), an intransitive stative verb, we see the affix *h_i-*, which indexed the object in (1a), now indexing the stative subject. In (1c), the subject of the intransitive active verb is marked with the same affix *ra-* as seen in (1a).¹

- (1) a. *h_i-ra-xee*
 1_U-2_A- bury
 'You bury me.'
- b. *h_i-š'ak*
 1_U-be.old
 'I am old.'
- c. *ra-šgac*
 2_A-play
 'You play.' (Helmbrecht 2006)

¹ All glosses reflect respect original authors' conventions.

Whether a verb will take active or stative case-marking is lexically determined in Siouan; a speaker cannot choose between the two sets of affixes depending on the degree of active or stativeness he or she wishes to express.

Whether a verb is classified as stative or active can usually be determined by the verb's semantic properties, but this is not necessarily the case. In Lakhota, the first person active subjects are marked with the pronominal affix *wa-*, and objects/stative subjects are marked with the pronominal affix *ma-*. In the examples below, we see that some seemingly stative verbs take *wa-* for their subject marker (2) and some seemingly active verbs mark their subjects with *ma-* (3).

- (2) a. **wat^hi**
'I live, I dwell'
- b. **waksapa**
'I'm prudent'
- c. **ta^wala**
'I'm patient'
- d. **inawawizi**
'I'm jealous'

(Mithun 1991:515)

- (3) a. **maxipaye**
'I fell'
- b. **namap^hop^ho**
'I blew up in anger'
- c. **mač^heka**
'I stagger'
- d. **t^hemamni**
'I give out'

(Mithun 1991:515)

The examples above show that in Lakhota, certain verbs have are lexically determined to take

(DECL), all affixed to the verb to create the desired meaning.

Some Siouan languages have productive incorporation processes as well, which is another hallmark of polysynthetic languages. Below are examples of Noun Incorporation (NI) in Hidatsa:

- (5) a. macée iídagidiheec
 wacée iítaki-ti-hee -c
 man rabbit-die-caus.D.SG -DECL
 '(a) man kills (a) rabbit.' (Boyle 2007:236)
- b. aruʔihdíash iídagidiheec
 aru-ihťia-š iítaki-ti-hee -c
 REL.N-big-DET.D rabbit-die-CAUS.D.SG -DECL
 'He killed (a) rabbit that was big' (Boyle 2007:237)

In (5), *iítaki* 'rabbit' has been incorporated into the verbal complex. Boyle (2007) argues that NI in Hidatsa is fully syntactic, and that it is a productive process.

Not all Siouan languages have productive NI, however. For example, Hocąk has instances of noun incorporation, but they are fossilized forms. Helmbrecht (2002) states that productive NI is "possible to a limited degree" (Helmbrecht 2002:46) with certain types of nouns, but does not present data to support the existence of actual NI rather than simple N+V compounding. In fact, Helmbrecht goes on to state that he has found no instances in which the incorporated object noun ceases to occupy the object argument slot of the verb. He even provides the following example (among similar others), which shows that when the N+V compound verb *haashagihiina* is given an object, the result is ungrammatical:

- (6) *Haazišucke haashagihiina
 haazišucke haas-ha-gihii-na
 raspberries berry-1A-pick-DECL
 'I picked raspberries' (lit. 'I berry-picked raspberries')

Furthermore, the author has been unable to elicit any productive NI constructions when working

with a Hocąk native speaker. Based on this evidence we can conclude that Hocąk most likely does not have a productive NI process, and that therefore this is not a property universal to all Siouan languages.

The implications of this difference in instances and types of NI has caused much debate in the literature as to the nature of NI; whether it is a syntactic or a lexical word formation process, or some combination of both (Mithun 1984, 1986; Sadock 1980, 1986, 1991; DiSciullo and Williams 1987, and many others). This issue will be discussed in further detail in Chapter 3.

2.2 Hocąk morphology

As mentioned above, like all Siouan languages, Hocąk is classified as stative-active, and is somewhat polysynthetic. Hocąk has robust verbal morphology, but its nominal affixes are few; tense, aspect, person and number agreement, postpositions and all applicatives are marked on the verb, while nouns are only marked for definiteness, proper names, and certain locative postposition suffixes. Hocąk also does not have productive incorporation processes. In this section, we discuss the types of affixes present in Hocąk, how they are ordered, and how they operate over the word to which they are attached.

2.2.1 Nouns

Hocąk nouns can be bare, or marked for definiteness. The suffix *-ra* marks definiteness, and the suffix *-hižq* marks indefinite nouns. Bare nouns denote generic number. Examples of this are shown below in (7)²:

2 I gloss third person forms as including person, number and case, while first and second (SAP) person forms are glossed with person and semantic role only. This will be discussed further in Chapter 7, which presents my arguments that Hocąk has two separate systems for third person vs. SAP agreement.

- (7) a. Hinųkra waši
 Hinųk -ra waši-Ø
 woman-DEF dance-3SG.S
 'The woman danced'
- b. Hinųkhižą waši
 hinųk-hižą waši-Ø
 woman-INDEF dance-3SG.S
 'A woman danced'
- c. Hinųk waši
 Hinųk waši-Ø
 women dance-3SG.S
 'Women danced'

Proper names are marked with the suffix *-ga*, as shown below in (8). This suffix is used only for human and pet names (Hartmann & Garvin 2009). Nouns can also be marked with certain postpositional deictic suffixes, an example of which is shown below in (8) with the locative suffix *-eja*:

- (8) Cecilga hostoeja waši
 Cecil-ga hosto-eja waši-Ø
 Cecil-PROP gathering-there dance-3SG.S
 'Cecil danced at the gathering.'

2.2.2 Verbs

Like all Siouan languages, Hocąk has been said to exhibit stative-active, or split-S, semantic alignment, wherein subjects of transitive verbs are marked with one set of morphemes (Table 3), objects of transitive verbs are marked with a second set of morphemes (Table 3), and subjects of intransitive verbs are marked with either the active set or the stative set, depending on whether the verb expresses an action or a state.

Table 2: Active set

	Sg.	Dual	Pl.
1 inclusive		<i>hĭ-</i>	<i>hĭ-...-wi</i>
1 exclusive	<i>ha-</i>		<i>ha-...-wi</i>
2	<i>ra-</i>		<i>ra-...-wi</i>
3	\emptyset		<i>-ire</i>

Table 3: Stative set

	Sg.	Dual	Pl.
1 inclusive		<i>wq̄q̄ga-</i>	<i>wq̄q̄ga-...-wi</i>
1 exclusive	<i>hĭ-</i>		<i>hĭ-...-wi</i>
2	<i>nĭ-</i>		<i>nĭ-...-wi</i>
3 (S)	$\emptyset-$		<i>-ire</i>
3 (O)	$\emptyset-$		<i>wa-</i>

(based on Helmbrecht & Lehmann 2008)

In this dissertation, I will refer to first and second person individually as first and second person, but collectively as Speech Act Participant (henceforth SAP) forms, after Noyer (1992) and others – a further detailed discussion of why these can be grouped together will be presented in Chapter 5 and 6. In this dissertation, I show that the SAP pronominal affixes display stative-active semantic alignment, thus I gloss them using the semantic macro-roles Actor and Undergoer (Van Valin 1977). I also show that third person pronominal affixes display nominative-accusative alignment, thus I gloss them as Subject and Object.

Hoc̄ak has several classes of verbs, which display somewhat different person morphology. Hartmann & Garvin (2009) refer to these classes as conjugations, and I follow suit here. In this section, we will first explore the “basic” pronominal affixes in Hoc̄ak and how they are formed, and then briefly discuss the other verb classes, which vary somewhat.

Example (9) displays the Hoc̄ak stative-active system:

- (9) a. h̥ɪɾaxe
 h̥ɪ-ra-xee
 1U-2A-bury
 'You bury me.'
- b. h̥ɪš'ak
 h̥ɪ-š'ak
 1U-be.old
 'I am old.'
- c. rašgac
 ra-šgac
 2A-play
 'You play.'

(Helmbrecht 2006:7-8)

The basic conjugation of Hocąk verbs have pronominal forms that appear as affixes on the verb. SAP forms are marked with prefixes. This is shown above in (9a) and (9c), with the transitive verb *xee* 'bury' and the unergative verb *šgaac* 'play'. Example (9b) below shows this same patterning but with the stative verb *š'aak* 'be old'. In transitive verbs, affix ordering for SAP forms is OSV, as shown above in (9a) with *xee* 'bury'. Notice the use of the first person undergoer form *h̥ɪ-*, which is the same as seen in (9b), for the subject of a stative verb.

As in most other Siouan languages, Hocąk third person singular forms are phonologically null. They do however display a form of stem allomorphy in third person, wherein the stem vowel of the root lengthens with a third person subject. This is displayed below in (10) and (11), where we see stem vowel lengthening in only the (c) examples, which have third person subjects.

- (10) a. h̥ɪ-ra-xe
 h̥ɪ-ra-xee
 1U-2A-bury
 'You bury me.'
- b. haxe
 Ø-ha-xee
 3SG.O-1A-bury
 'I bury him/her/it.'

- c. xee
 Ø-xee-Ø
 3SG.S-bury-3SG.O
 'He/she buries him/her' (Helmbrecht 2006:11)
- (11) a. hašgac
 ha-šgac
 1A-play
 'I play.'
- b. rašgac
 ra-šgac
 2A-play
 'You play.'
- c. šgaac
 šgac-Ø
 play-3SG.S
 'He/she/it plays.' (Helmbrecht 2006:7)

The vowel lengthening occurs with third person plural subject, as well:

- (12) šgaacire
 šgaac-ire
 play-3PL.S
 'They play.' (Helmbrecht 2006:7)

Because the vowel lengthening only occurs with third person subject, it may function as a morphological marker of third person subject in Hocak. However, this lengthening does not occur in complex (disyllabic) verb roots. The vast majority of verb roots in Hocak are monosyllabic, with all disyllabic roots at some point being derived from the addition of prefixes. The degree to which these roots are considered derived versus lexicalized varies today³. Pending further investigation as to the distribution of this lengthening, given the difference between the monosyllabic and disyllabic roots, I leave this matter for further analysis and treat third person as having phonologically null affixes, after the behavior of fellow Siouan languages.

3 For further discussion see Helmbrecht and Lehmann (2008).

Other Siouan languages have a third person plural object form, but Hocak is unique among Siouan languages in having a third person subject form as well as a third person object form. The third person morphemes are in unique positions relative to the verb root, compared with the SAP morphemes. This is shown below in (13), wherein the third person plural object affix *wa-* is placed before the verb, and the third person plural subject affix *-ire* is located to the right of the verb root.

- (13) Wąąkra hųcra waajaire
 Wąąk -ra hųc -ra wa- haja -ire
 man -DEF bear -DEF 3_{PL.O}- see -3_{PL.S}
 'The men saw the bears.'

As seen above, the third person subject morpheme *-ire* is uniquely located to the right of the verb root -- all other pronominal affixes are located to the left of the verb root. The third person object morpheme *wa-* is located to the right of the verb root, but, as will be discussed in greater detail and shown in Fig. 1, this is a different preverbal slot than the SAP pronominal affixes. The placement of the third person pronominal affixes will be discussed in greater detail in Chapter 5, where I argue for a specific reason why these morphemes are unique in position compared to all other person markers.

Hocak expresses person, number, tense, aspect, instrumentals and other applicatives on the verb. Fig. 1 below shows all possible verbal prefixes, in a left to right manner from outermost to innermost affixes. Each available slot that can contain an affix is numbered. Some slots, such as those holding applicatives, may be filled with one of several choices of affix. However, only one affix may occupy a single verbal slot at a time.

Fig. 1

Hocak Prefixes										
9	8	7	6	5	4	3	2	1		
Pronoun I		Outer applicatives		Pronoun II		benefactive/applicative /reflexive/reciprocal/possessive reflexive		Inner instrumentals		Verb root
		Instrumentals	Locatives							
hj- 1.DI.A / 1.PLA	wa- 3PL.OBJ	hi- APPL.INSTR	hə- APPL.INESS	boo-	hj- 1E.U	ha- 1E.A	gi- APPL.BEN	gi-	X	
wəəəə- 1DIU/1PLU			ho- APPL.SUPESS	naəə-	nj- 2.U	ra- 2.A	ki- RFL	ra-		
				məəə-	nj- 1&2		kiki- RCP	ru-		
				taa-			kara-/kV- POSS.RFL	wa-		

(from Hartmann 2011:12)

The above chart shows prefixes only, as these are the majority of morphemes attached to the verb. Suffixes will be discussed individually, in the following sections, as they come up in the context of the discussion at hand.

2.2.3 Inclusive, exclusive, dual markers

Hocak further distinguishes first person forms by having separate forms for dual, exclusive, and inclusive. First person dual, expressed with the prefix *hj-*, denotes the speaker and the addressee: you and I. It is glossed here as DI for "dual inclusive" because it includes the addressee as well as the speaker. This is shown below in example (14) with the example *gikarahe* 'invite':

- (14) Hġikarahe
 hj- Ø- gikarahe
 1DI.A- 3SG.O- invite
 'You and I invited him/her'

(Garvin & Hartmann 2009:192)

The first person exclusive and inclusive plural forms distinguish between the exclusive; that is, the first person plural form that does not include the addressee, and the inclusive first person form that does include the addressee. The first person exclusive plural form is the same as the

regular SAP forms, shown in Fig. 1 above, occupying slots 4 and 3, with the addition of the SAP plural suffix *-wi*. Example (15) illustrates this:

- (15) Hagikarahawi
 Ø- ha- gikarahe -wi
 3SG.O- 1A- invite -PL
 'We (not you) invited him/her'

The first person inclusive forms are formed by the combination of the first person dual SAP prefix *hĭ-* and the SAP plural suffix *-wi*. In Hocąk, inclusive forms are constructed by the use of a dual form; i.e. there is no exclusive dual, or separate dual form that is nonspecific for inclusive or exclusive; the dual only appears in the inclusive forms.

- (16) Hĭgikarahawi
 hĭ- gikarahe -wi
 1A.DI- invite -PL
 'We all invited him/her' (Garvin and Hartmann 2009:192)

2.2.4 Conjugations

Certain Hocąk verbs utilize internal change to index the first person forms instead of pronominal affixes, and these verbs also form their second person in a different way than the "regular" forms discussed above. Verbs that change this way are those whose third person singular (bare) forms start with [r] and [w]. Rather than adding on a pronominal prefix for first person, these verbs change their initial consonant. To form second person, this conjugation of verbs utilizes a type of reduplication process: the second person pronominal prefix is comprised of *š* + stem vowel; the vowel that is present in the root is inserted after *š*- to form the second person affix. Examples (17)-(18) below illustrate this. Example (17) shows the patterning with words beginning with [r], using the verb *ruwĭ* 'buy', and (18) shows the pattern with words beginning with [w], using the word *waši* 'dance.'

- (17) a. ruwı
 Ø-ruwi-Ø
 3SG.O-buy-3SG.S
 'He/she bought (it)'
- b. tuuwı
 Ø-tuwı
 3SG.O-1A.buy
 'I bought (it).'
- c. ŝuruwi
 Ø-ŝu-ruwı
 3SG.O-2U-buy
 'You bought (it).'
- (18) a. waŝi
 waŝi-Ø
 dance-3SG.S
 'He/she danced.'
- b. paaŝi
 paŝi
 1A.dance
 'I danced.'
- c. ŝawaŝi
 ŝa-waŝi
 2A-waŝi
 'You danced.'

Verbs of this type form their plurals the same way as verbs that use affixation for the SAP forms: the SAP plural morpheme *-wi* is suffixed to the right edge of the verb.

2.2.5 Infixation

A certain conjugation of Hocak verbs involves infixation. In these verbs, the SAP pronominal prefixes appear immediately after this initial component of the root, interrupting the root. Verbs that show infixation are those that possess certain types of what Helmbrecht & Lehmann (2008) refer to as Initial Stem Components (ISCs): an initial part of a lexicalized stem

that was historically an independent derivational affix. Some examples of ISCs are the outer instrumentals (slot 5 in Fig. 1 above) such as *boo-* 'by striking', and ISCs that are homophonous with the superessive applicatives *ha-* and *ho-*. Verbs with these and other ISCs place their SAP pronominal affixes between the ISC and the rest of the root, rather than prefixed to the entire root. This is shown below in (19a) with the verb *boowax* 'to break string with a blow, by shooting', in (19b) with the active verb *hoxiwi* 'cough', and in (19c) with the stative verb *harape* 'wait/wait for/stay home'.

- (19) a. Boawax
 Boo<ha>wax
 <1A>break.string.by.shooting
 'I broke the string with a blow' (Garvin & Hartmann 2009:266)
- b. Hoaxiwi
 ho<ha>xiwi
 <1A>cough
 'I cough' (Helmbrecht and Lehmann 2008:35)
- c. Harape
 ha<ra>pe
 <2A>wait/wait.for/stay home
 'You wait/wait for/stay home' (Helmbrecht and Lehmann 2008:33)

A similar process occurs with the class of verbs in which SAP forms are created through internal change. Even though the initial consonant of these verbs is not [w] or [r], the internal change still takes place with the part of the verb root that does start with [w] or [r], skipping part of the ISC. Example (20) below displays this process with the verb *howaḡuk* 'wear':

- (20) a. howaḡuk
 Ø-howaḡuk-Ø
 3SG.O-wear-3SG.S
 'He/she wore (it)'

- b. hopağuk
 Ø-hopağuk
 3SG.O-1A.wear
 'I wore (it)'
- c. hošawağuk
 Ø-ho<ša>wağuk
 Ø-<2A>wear
 'You wore (it).'
- (Garvin & Hartmann 2009:264)

Helmbrecht and Lehmann (2008) argue that this infixation is the result of a process, which consisted first of the fossilization of these derivational prefixes. Over time, these derivational prefixes were reanalyzed as part of the verb stem, causing them to lose their individual meaning, with the result that scholars such as Helmbrecht and Lehmann treat them as part of the verb stem, referring to them as ISCs rather than derivational affixes. This now presents a dilemma, since cross-linguistically it is common to have the derivational affixes closest to the verb, and the inflectional affixes farther away. While other Siouan languages such as Lakhota resolved this change by externalizing the pronominal affixes; that is, moving them to the left of the verb, Hocağ retained the position of the pronominal affixes as if the ISC is still a derivational affix, even though grammatically, this component has been fossilized into part of the verb and the pronominal affix is perceived as an infix rather than an inflectional prefix. Helmbrecht & Lehmann (2008) show that this fossilization process did take place in other Siouan languages such as Dakota, but that these languages adapted to resolve the process by moving the pronominal prefixes to the left of the entire verb.

2.2.6 Positionals, tense, and aspect

Hocağ present tense is marked by using a positional auxiliary, and they are a common feature in Siouan language. The positional morpheme is a component to the verb that denotes

the physical position of the subject of the verb. Hocak has three positions: standing, sitting, and lying/in motion, and they are either expressed as verbal suffixes or as independent auxiliaries.

There are three singular positional and one plural positional in Hocak, shown below in (21):

(21) a. *-je(e)* 'standing/vertical'

Jaanısge raje?
 jaa<nı>sge ra-je
 how<2.SG.U> 2A-POS.VERT
 'How are you [standing]?'

b. *-nık* 'sitting/horizontal'

Jaanısge řanık?
 Jaa<nı>sge řa-nık
 how<2U> 2A-POS.NTL
 'How are you [sitting]?'

c. *-ak/qk/wık* 'lying or in motion'

Jaanısge řawık?
 Jaa<nı>sge řa-wık
 how<2U> 2A-POS.HOR
 'How are you [lying]?'

d. *-nıkık* 'standing plural'

Jaanısge řa-nıkık?
 Jaa<nı>sge řa-nıkık?
 how<2U> 2A-POS.VERT.PL
 'How are you allHow are you [lying]?'

Present tense is unmarked, and the positional auxiliaries always co-occur with it. The suffix *-řını* is aspectual, meaning that the action has been completed. It appears concurrent with past tense if the verb stem ends in a consonant, and on the auxiliary verb expressing present tense *wa'u*.

- (22) Hųcra nįįpakšana.
 hųc-ra nįįp-ak -šana
 bear-DEF swim-POS.HOR -AUX
 'The bear is swimming.'

Future tense is marked on the verb with the suffix *-kjane*:

- (23) Hųcra nįįpikjane
 hųc-ra nįįp-kjane-Ø
 bear-DEF swim-FUT-3SG.S
 'The bear will swim.'

Past tense is unmarked:

- (24) Hųcra nįįpšana
 hųc-ra nįįp-šana
 bear-DEF swim-COMPL
 'The bear swam.'

Aspect is expressed morphologically in Hocak, through the use of suffixes attached at the far right of the verbal complex. In later chapters we will see that these may operate over full verb phrases, perhaps making them better defined as clitics rather than suffixes.

2.2.7 Applicatives

Like many Siouan languages, Hocak possesses instrumental applicative prefixes that express the physical manner with which the action is completed. There are two sets of instrumental applicatives in Hocak: the short instrumental prefixes are the so-called "inner" ones, referring to their location relative to the verb root. They are shown in Fig. 1 in slot -1. The long instrumental prefixes are the outer ones, shown in slot -5. An example of a verb with and its various instrumental prefixes is shown below in Table 3.

Table 3

wa-zip	waa-zip	gi-zip	ra-zip
by.pressure-make soft	by.cutting–make soft	by.striking-make soft	by.mouth-make soft
'to mash s.t.'	'to whittle s.t.'	'to stir s.t. until soft'	'to make s.t. soft with mouth'

2.2.8 Reflexives and reciprocals

Hocak expresses reciprocals, reflexives, and possessive reflexive affixes, all through the use of affixes prefixed to the verb root. Example (25) below displays the reciprocal *kiki*, (26) displays the reflexive *ki-*, and (27) displays the possessive reflexive *kara-*.

- (25) Matejaga anaga Meredithga waisgapsguura kikiruwjire.
 Mateja-ra anaga Meredith-ga waisgapsguu-ra kiki-ruwĵ
 Mateja-PROP and Meredith-PROP cake-DEF RCP-buy

-ire

-3.PL.S

'Mateja and Meredith bought the cake for each other.'

- (26) Bryanga waisgapsguuhiža hokik'ų
 Bryan-ga waisgapsguu-hiža ho<ki>-k'ų
 Bryan-PROP cake -one <REFL>-give
 'Bryan gave himself a cake.'

- (27) Naąkaraži
 naą-<kara>-ži
 <POSS.REFL>stand.up
 'To stand up for one's own.' (Helmbrecht 2002)

2.3 Hocak syntax

This section provides an overview of some aspects of Hocak syntax. The elements under discussion are by no means a complete overview of all aspects of Hocak syntax (see Johnson, Rosen, Schuck and Lockwood (2012) for a complete overview), however it covers the relevant aspects of the language that the reader will need to follow my arguments in the later chapters of

- c. Waḡatirera ruwı, hinuḡkra
 waḡatire-ra Ø-ruwı-Ø hinuḡ-ra
 car-DEF 3SG.O-buy-3SG.S woman-DEF
 'The woman bought the car' (OVS)
- d. Ruwı, hinuḡkra, waḡatirera.
 Ø-ruwı-Ø hinuḡ-ra waḡatire-ra
 3SG.O-buy-3SG.S woman-DEF car-DEF
 'The woman bought the car.' (VSO)
- e. Ruwı, waḡatirera, hinuḡkra
 Ø-ruwı-Ø waḡatire-ra hinuḡ-ra
 3SG.O-buy-3SG.S car-DEF woman-DEF
 'The woman bought the car.' (VOS)

In double object constructions, canonical word order is as follows: subject, indirect object, direct object, verb. This is shown below in (30):

- (30) Hinuḡkhiḡa hocıcihiḡa wiiwagaxhiḡa hok'ı.
 hinuḡ-hiḡa hocıci-hiḡa wiiwagax-hiḡa Ø-hok'ı-Ø
 woman-INDEF boy-INDEF pencil-INDEF 3SG.O-give-3SG.S
 'A woman gave a boy a pencil.'

However, any word order is still possible with ditransitives. As with sentences with only one object, prosodic pauses again can be used to disambiguate NP arguments. This is shown in (31) below, where the subject NP *hinuḡkhiḡa* "woman" can occur in multiple positions in the sentence:

- (31) (Hinuḡkhiḡa,) hocıcihiḡa (hinuḡkhiḡa,) wiiwagaxhiḡa (hinuḡkhiḡa,) hok'ı
 (hinuḡk-hiḡa) hocıci-hiḡa (hinuḡk-hiḡa) wiiwagax-hiḡa (hinuḡk-hiḡa) Ø-hok'ı-Ø
 woman-INDEF boy-INDEF woman-INDEF pencil-INDEF woman-INDEF 3SG.O-give-3SG.S
 'A woman gave a boy a pencil.'

2.3.2 Adjunct word order

This section describes word order of adjuncts relative to arguments in the Hocak sentence. Here we discuss comitatives, locatives, manner expressions, and time expressions. In general, default adjunct position is directly to the left of the verb, but there are exceptions, which

will be discussed in turn.

Comitatives are formed with the word *hakižu* 'be with', which is positioned to the right of the word that is its subject, *wąqkra* 'the man'. This is shown below in (32).

- (32) Hinųkra wųqkra hakižu waši
 hinųk-ra wųqk-ra hakižu waši-Ø
 lady-DEF man-DEF be.with dance-3SG.S
 'The lady danced with the man.'

Locatives are more free in placement with respect to the phrase they modify. This is shown below in (33), where the locative adjunct *hoxataprookeja* 'in the woods' appears in a number of locations. In (33a), the *hoxataprookeja* is in the default preverbal position. In (33b) below, *hoxataprookeja* is still preverbal, but it is sentence-initial, to the left of the subject.

- (33) a. Hinųkra hoxataprookeja heepši.
 hinųk-ra hoxatap-rook-eja heepši-Ø
 lady-DEF woods-inside-there sneeze-3SG.S
 'The lady sneezed in the woods.'
- b. Hoxataprookeja hinųkra heepši.
 hoxatap-rook-eja hinųk-ra heepši-Ø
 woods-inside-there lady-DEF sneeze-3SG.S
 'In the woods, the lady sneezed.'

The situation is the same for stative verbs; locatives may appear in multiple locations, as shown below in (34a-b):

- (34) a. Wųqkra hokizaeja wašoše
 wųqk-ra hokiza-eja wašoše-Ø
 man-DEF battlefield-there be.brave-3SG.S
 'Men are brave on the battle field.'
- b. Hokizaeja wųqkra wašoše
 hokiza-eja wųqk-ra wašoše-Ø
 battlefield-there man-DEF be.brave-3SG.S
 'Men are brave on the battlefield.'

While locative adjuncts are relatively free in terms of where they can appear in the

sentence, there are certain scope effects that come about as a result, in certain instances. (35a) below exemplifies the neutral order of a transitive verb, its arguments, and the locative *hoxataprookeja*. The locative's default location is immediately before the verb. Example (35b) shows the locative in a fronted, sentence-initial position:

- (35) a. Wijukra šųkra hoxataprookeja haja
 wujuk-ra šųk-ra hoxatap-rook-eeja Ø-haja-Ø
 cat-DEF dog-DEF woods-inside-there 3SG.O-see-3SG.S
- b. Hoxataprookeja wijukra šųkra haja
 hoxatap-rook-eja wujuk-ra šųk-ra Ø-haja-Ø
 woods-inside-there cat-DEF dog-DEF 3SG.O-see-3SG.S
 'The cat saw the dog in the woods.'
- = 'The cat saw [the dog in the woods].'
 ≠ '[The cat in the woods] saw the dog.'

The English translations of the above Hocak sentences are ambiguous. In (35a-b), the following readings are available: a) the cat is the woods and the dog is not, b) the dog is in the woods and the cat is not, and c) both cat and dog are in the woods. In the Hocak sentences, however, there is less ambiguity. Neither (35a) nor (35b) can have meaning a), where the cat is in the woods and the dog is not. In both sentences, the locative *hoxataprookeja* 'in the woods' immediately precedes the verb. However, if the subject moves to a postverbal position, it is now within the scope of the locative; the dog is now in the woods, as shown below in (36).

- (36) Šųkra hoxataprookeja haja, wijukra
 šųk-ra hoxatap-rook-eja Ø-haja-Ø wujuk-ra
 dog-DEF woods -inside-there 3SG.O-see-3SG.S cat-DEF
 ='The cat in the woods saw the dog [that was also] in the woods.'

These show that the location of the locative adjunct relative to the subject has bearing on the the scope of the adjunct: Postverbal subjects are within the scope of the locative. This will be revisited in Chapter 6, in which these scope effects are discussed in further detail, with respect to

their bearing on the argument status of NPs.

In this section, I briefly discuss word order of manner adverbs. The below examples display the the location of the manner adverb *hikuḱe* 'quickly', which is before the object:

- (37) Hinuḱhiḱa hikuḱe waḱatirehiḱa ruwi
 hinuḱ-hiḱa hikuḱe waḱatire-hiḱa Ø-ruwi-Ø
 woman-INDEF be.in.a.hurry car-INDEF 3SG.O -buy- 3SG.S
 'A woman bought a car quickly'
- (38) Hinuḱra hikuḱe waḱatirera ruwi
 hinuḱ-ra hikuḱe waḱatire-ra Ø-ruwi-Ø
 woman-DEF be.in.a.hurry car-DEF 3SG.O-BUY- 3SG.S
 'The woman bought the car quickly.'

The default location of temporal adjuncts is also preverbal, but as with other adjuncts we have discussed, there can be variation. In (39a) below, the temporal adjunct *gicḱwi nuḱpharegi* 'at 2 o'clock' is in its default preverbal position. In (39b), the temporal adjunct is located in sentence-initial position, before the subject NP.

- (39) a. Hinuḱhiḱa gicḱwi nuḱpharegi heepḱi.
 hinuḱ-hiḱa gicḱwi nuḱp-ha-regi heepḱi-Ø
 woman-INDEF ring two-?-when.it.is sneeze-3SG.S
 'A woman sneezed at 2 o'clock.'
- b. Gicḱwi nuḱpharegi hinuḱhiḱa heepḱi
 gicḱwi nuḱp-ha-regi hinuḱ-hiḱa heepḱi-Ø
 ring two-?-when.it.is woman-INDEF sneeze-3SG.S
 'A woman sneezed at two o'clock.'

Examples (40) displays the neutral ordering of temporal adjuncts with a stative verb. The same situation applies as with active verbs with respect to the location of the adjunct; it can appear preverbally, as in (40a), or sentence-initially, as in (40b):

- (40) a. Wauḱra haḱp-te'e wašoše
 wauḱ-ra haḱp-te'e wašoše-Ø
 man-DEF day-this be.brave-3SG.S
 'The man is brave today.'

- b. Həqəpte'e wəqəhižə wəšoše
 həqə-te'e wəqə-hižə wəšoše-Ø
 day-this man-INDEF be.brave-3SG.S
 'A man is brave today.'

In (40a), the temporal expression *həqəpte'e* 'today' is immediately preverbal, while in (38b) *həqəpte'e* is sentence-initial.

2.3.3 Subordinate clause word order

This section discusses the formation of subordinate clauses in Hocək. Specifically, we will cover, complement clauses, relative clauses, and purpose clauses. Complement clauses take the place of an argument of the verb. In Hocək, all subordinate clauses require the suffixation of the definite morpheme *-ra* to the verb, serving as a complementizer, as shown in (41) below:

- (41) Hinəkra wəqətihižə ruwıra yaaperesšana.
 hinək-ra wəqəti-hižə Ø-ruwı-Ø-ra hi<ha>peres-šana
 woman-DEF car-INDEF 3SG.O-buy-3SG.S-DEF <1A>-know-DECL
 'I know that the woman bought a car.'

Because the definite determiner is used to form these subordinate clauses, in this sense the definite determiner actually forms a nominalized sentence within the matrix clause. Thus a more literal translation of (41) might read, 'The fact that the woman bought a car, I know (it).'

Object complement clauses may appear after the subject as normal, or they may be fronted. In (39a) below, the object complement clause follows the subject NP, as expected in canonical SOV word order, and in (42b), the complement clause precedes the subject NP.

- (42) a. Hunterga hinəkra wəqətihižə ruwıra hiperesšana.
 Hunter-ga hinək-ra wəqəti-hižə Ø-ruwı-Ø-ra Ø-hiperes-šana
 Hunter-PROP woman-DEF car-INDEF 3SG.O-buy-3SG.S-DEF 3.SG-know-DECL
 'Hunter knows that the woman bought a car.'

- b. Hinükra wažatirehižą ruwįra Hunterga hiperesšana.
 hinük-ra wažatire-hižą Ø-ruwį-Ø-ra Hunter-ga Ø-hiperes-šana
 woman-DEF car-INDEF 3SG.O-buy-3SG.S-DEF Hunter-PROP 3.SG-know-DECL
 'Hunter knows that the woman bought a car.'

The method of complement clause construction in Hocąk is similar to the construction of the complement clause in Assiniboine, (Cumberland 2005), Crow (Graczyk 1991), Hidatsa (Boyle 2007) and Lakota (Van Valin 1977), all of which require some type of clause-final determiner to act as a complementizer.

Similarly, relative clauses act as NPs in Hocąk. They can appear in any syntactic role: subject of transitive verb (43a) subject of active intransitive verb (43b) subject of stative verb (43c) and object (43d-e).

- (43) a. Hinükra wažatirera ruwįra Teejopeja hirawahashii.
 hinük-ra wažatire-ra Ø-ruwį-Ø-ra Teejop-eja
 woman-DEF car-DEF 3O.SG-buy-3SG.S-DEF Madison-there
 Ø-hirawahas -hii
 3SG.O-drive -arrive.going
 'The woman who bought the car drove to Madison.'
- b. Hųęcra nįjpra hoohižą ruucšana.
 hųęc-ra nįjp-Ø-ra hoo-hižą Ø-ruuc-Ø-šana
 bear-DEF swim-3SG.S-DEF fish-INDEF 3SG.O-eat-3SG.S-DECL
 'The bear that swam ate a fish.'
- c. Wąąkwažoonira wašošera hųęcra ruxe.
 wąąkwažooni-ra wašoše-Ø-ra hųęc-ra Ø-ruxe
 hunter-DEF be.brave-3SG.S-DEF bear-DEF 3.SG-chase
 'The hunter that was brave chased the bear.'
- d. Wąąkwažoonira, hųęcchižą nįjpa kra t'eehii.
 wąąkwažooni-ra hųęc-hižą nįjp-ąk-ra Ø-t'ee-hii-Ø
 hunter-DEF bear-INDEF swim-POS.HOR-DEF 3SG.O-die-CAUS-3SG.S
 'The hunter killed the bear that was swimming.'

- e. Hinųkra hocįjikhiža kšeehiža ruucra wiiwagaxhiža hok'ų.
 hinųk-ra hocįjik-hiža kšee-hiža Ø-ruuc-Ø-ra wiiwagax-hiža
 woman-DEF boy-INDEF apple-INDEF 3SG.O-eat-3SG.S-DEF pencil-INDEF
- Ø-hok'ų-Ø
 3SG.O-give-3SG.S
 'The girl gave a pencil to the boy who ate the apple.'

Hocąk displays a characteristic of relative clauses that is typical of Siouan languages: they are internally-headed. I follow Boyle (2007) in adopting Culy's (1990) definition of the Internally Headed Relative Clause (IHRC): it is a nominalized sentence that modifies a nominal which is internal to the sentence. Boyle (2007) uses this definition to identify and analyze Hidatsa IHRCs, and I follow suit here and use this definition to characterize Hocąk IHRCs: the head of the relative clause is inside of the relative clause, rather than being part of the matrix clause. As shown in the examples above, the Hocąk relative clause follows the noun it modifies, and is formed by once again suffixing the definite determiner *-ra* onto the clause-final verb.

Purpose clauses can be formed with the suffixation of the future morpheme *-kjane* to the verb of the subordinate clause, as shown in (44a). The affixation of *-kjane* does not appear to be a requirement, however, as evidenced in (44b)

- (44) a. Hinųkra Teejopeja hirawahashii, eja wašik'jeekjane.
 hinųk-ra teejop-eja hirawahas-hii-Ø eja
 woman-DEF Madison-THERE drive-arrive.going-3SG.S there
- waši-jee-kjane
 dance-POS.HOR-FUT
 'The woman drove to Madison to dance.'

- b. Hinukra Teejopeja hirawahashii, wažatirehiža ruwǵ.
 hinuk-ra Teejop-eja hirawahas-hii-Ø wažatire-hiža
 woman-DEF Madison-THERE drive-arrive.going-3SG.S car-INDEF
 Ø-ruwǵ-Ø
 3SG.O-buy-3SG.S
 'The woman drove to Madison to buy a car.'

Negative purpose causes ('lest') are constructed in the same way, with the addition of the negative morpheme *haqke ...-ni*, as shown in (45). Negative purpose clauses may also be separated from the main clause with a prosodic pause. This is also displayed above in (44), and below in (45).

- (45) Hųcra naqra hoti, waqkwažoonira haqke t'eehiinik'jene.
 hųc-ra naq-ra Ø-hoti-Ø waqkwažooni-ra haqke
 bear-DEF tree-DEF 3SG.O-climb-3SG.S hunter-DEF NEG
 Ø-t'eehii-Ø-ni-kjane
 3SG.O-kill-3SG.S-NEG-FUT
 'The bear climbed the tree, lest the hunter kill him.'

A morpheme or phrase may also be included in the purpose clause to emphasize the sense of potentiality, as shown in (46a) below with *-ege* 'might', and in (46-c) with the adverb *kooresge* 'perhaps'.

- (46) a. Waqkra haqke hųcra guucni t'eehiiege hiregajene.
 waqk-ra haqke hųc-ra Ø-guuc-Ø-ni Ø-t'eehii-Ø-ege
 man-DEF NEG bear-DEF 3SG.O-shoot.at-3SG.O-NEG 3.SG.O-kill-3.SG.S-
 might
 hire-Ø-kjane
 think-3SG.S-FUT
 'The man did not shoot at the bear, lest he kill it.'

- b. Hinųkra haąke wašini, kooresge hijcgekiikjekjane.
 hinųk-ra haąke waši-Ø-ni kooresge
 woman-DEF NEG dance-3SG.S-NEG perhaps

hiicge-kii-jee-kjane
 be.tired-REFL-POS.HOR-FUT
 'The woman did not dance, lest she be tired.'

- c. Waąkwažoonira haąke huųcra guucni, kooresge xinihiik'jeek'jene.
 waąkwažooni-ra haąke huųcra guuc-Ø-ni kooresge
 hunter-DEF NEG bear-DEF shoot.at-3SG.S-NEG possibly

xini-hii-jee-Ø-kjane
 growl-REFL-3SG.S POS.HOR-FUT
 'The hunter did not shoot at the bear, lest it growl.'

2.3.4 *Wh-* in situ

Like all Siouan languages, Hocąk is a *wh-* in situ language. The examples in (47) below show that the subject remains in initial position when it is expressed by a *wh*-word. (47a) displays a *wh-* subject of a stative verb, (47b) the subject of an intransitive active verb, and (47c) the subject of a transitive verb.

- (47) a. Peežegahijcge?
 peežega hijcge-Ø
 who be.tired-3SG.S
 'Who was tired?'
- b. Peežega waši?
 peežega waši-Ø
 who dance-3SG.S
 'Who danced?'
- c. Peežega wažatirera ruwi?
 peežega wažatire-ra Ø-ruwi-Ø
 who car-DEF 3SG.O-buy-3SG.S
 'Who bought the car?'

Examples (48a-b) below show that object *wh*-words remain in the default object position, between the subject and verb.

- (48) a. Hinukra jaagu ruwi?
 hinuk-ra jaagu Ø-ruwi-Ø
 lady-DEF what 3SG.O-buy-3SG.S
 'What did the lady buy?'
- b. Hinuknikra jaagu hocicira hok'u?
 hinuk-nik-ra jaagu hocicira-Ø-hok'u-Ø
 girl-DIM-DEF what boy-DEF 3SG.O-give-3SG.S
 'What did the girl give to the boy?'

Example (49) below shows that the *wh*-word *hacijja* 'where' can appear either in sentence-initial position or after the subject. As shown in Section 2.3.3., these are the two locations where locative adjuncts are most commonly placed.

- (49) a. Wąakra hacijja onak'o hijcge?
 wąak-ra hacijja onak'o hijcge-Ø
 man-DEF where POS.NTL be.tired-3SG.S
 'Where was the man tired?'
- b. Hinukra hacijja wašire?
 hinuk-ra hacijja waši-ire
 woman-DEF where dance-3S.PL
 'Where did the women dance?'
- c. Hacijja hinukra wažatirera ruwi?
 hacijja hinuk-ra wažatire-ra Ø-ruwi-Ø
 where woman-DEF car-DEF 3SG.O-buy-3SG.S
 'Where did the woman buy the car?'

Finally, the examples in (50) and (51) show that *jaajaną* 'when' and *jaagu'u* 'why' also appear in initial position, which is the neutral position for many adjuncts.

- (50) a. Jaajaną nak'o wąakra hijcge?
 jaajaną nak'o wąak-ra hijcge-Ø
 when POS.NTL man-DEF be.tired-3SG.S
 'When was the man tired?'
- b. Jaajanare hinukra wažatirehižą ruwi?
 jaajanare hinuk-ra wažatire-hižą Ø-ruwi-Ø
 when-PST women-DEF car-INDEF 3SG.O-buy-3SG.S
 'When did the women buy a car?'

- c. Jaajanare hinuknikra hocicira wiiwagaxra hok'u?
 jaajanare-re hinuk-nik-ra hocici-ra wiiwagax-ra Ø-hok'u-Ø
 when-PST woman-DIM-DEF boy-DEF pencil-DEF 3SG.o-give-3SG.s
 'When did the girls give the boy the pencil?'
- (51) a. Jaagu'u waakra hijige?
 jaagu'u waak-ra hijige-Ø
 why man-DEF be.tired-3SG.s
 'Why was the man tired?'
- b. Jaagu'u hinukra wažatirera ruwi?
 jaagu'u hinuk-ra wažatire-ra Ø-ruwi-Ø
 why woman-DEF car-DEF 3SG.o-buy-3SG.s
 'Why did the woman buy the car?'
- c. Jaagu'u hinukra hocicira wiiwagaxra hok'u?
 jaagu'u hinuk-ra hocici-ra wiiwagax-ra Ø-hok'u-Ø
 why girl-DEF boy-DEF pencil -DEF 3SG.o-give-3SG.s
 'Why did the girl give the boy a pencil?'

Multiple *wh*-questions are expressed by means of combining a *wh*-word and indefinite pronoun.

This is shown in (52) below, with *peežega* 'who' as subject and *wažq* 'something' as object.

- (52) Peežega wažq ruwi?
 peežega wažq Ø-ruwi-Ø
 who something 3SG.o-buy-3SG.s
 'Who bought what?'

Unlike most *wh*-words, discourse linked, or D-linked *wh*-words always appear in initial position, as exemplified in (53). This could be the result of either *wh*-movement or focus movement.

- (53) a. Waak hacijja naka hijige wa'u?
 waak hacijja naka hijige-Ø wa'u
 man where POS.NTL be.tired-3SG.s AUX
 'Which man was tired?'
- b. Hinuk hacijja jeega waši?
 hinuk hacijja jeega Ø-waši-Ø
 woman where POS.VERT 3SG.o.dance-3SG.s
 'Which woman danced?'

- c. Hinuḱ hacijja jeega waḣṭirehiḣa ruwi?
 hinuḱ hacijja jeega waḣṭire-hiḣa Ø-ruwi-Ø
 woman where POS.VERT car-INDEF 3SG.O-buy-3SG.S
 'Which woman bought a car?'
- d. Waḣṭire hacijja aka hinuḱra ruwi?
 waḣṭire hacijja aka hinuḱ-ra Ø-ruwi-Ø?
 car where POS.HOR woman-DEF 3SG.O-buy-3SG.S
 'Which car did the woman buy?'
- e. Hinuḱniḱ hacijja jeega hocijira wiiwagaxhiḣa hok'ʉ?
 hinuḱ-niḱ hacijja jeega hocijira wiiwagax-hiḣa Ø-hok'ʉ-Ø
 lady-DIM where POS.VERT boy-DEF pencil-INDEF 3SG.O-give-3SG.S
 'Which girl gave the boy a pencil?'
- f. Wiiwagax hacijja jaka hinuḱniḱra hocijira hok'ʉ?
 wiiwagax hacijja jaka hinuḱ-niḱ-ra hocijira Ø-hok'ʉ-Ø
 pencil where POS.HOR lady-DIM-DEF boy-DEF 3SG.O-give-3SG.S
 'Which pencil did the girl give to the boy?'
- g. Hocijira hacijja jeega hinuḱniḱra wiiwagaxra hok'ʉ?
 hocijira hacijja jeega hinuḱ-niḱ-ra wiiwagax-ra Ø-hok'ʉ-Ø
 boy where POS.NTL woman-DIM-DEF pencil-DEF 3SG.O-give-3SG.S
 'Which boy did the girl give the pencil to?'

Although the neutral position for *wh*-words is in situ, they can also optionally be fronted, as exemplified in (54). Again, it is not clear whether these are examples of *wh*- or focus movement.

- (54) Jaagu hinuḱra ruwi?
 jaagu hinuḱ-ra Ø-ruwi-Ø
 what woman-DEF 3SG.O-buy-3SG.S
 'What did the woman buy?'

Wh-words cannot be moved rightward, as shown in (55) for *peeḣega* 'who' and (56) for *hacijja* 'where.' A *wh*-word at the right periphery is interpreted as a separate question, indicated in the examples with a comma.

- (55) a. Hijiḱge, peeḣega?
 hijiḱge-Ø peeḣega
 be.tired-3SG.S who
 'Was someone tired? Who?'

- b. Waši, peežega?
 waši-Ø peežega
 dance.3SG.S who
 'Did someone/they dance? Who?'
- c. Wažatirehiža ruwı, peežega?
 wažatire-hiža Ø-ruwı-Ø peežega
 car-INDEF 3SG.O-buy-3SG.S who
 'Did someone buy a car? Who?'
- (56) a. Wąakra onak' o hijcge, hacijja?
 wąak-ra onak' o hijcge-Ø hacijja
 man-DEF POS.NTL be.tired-3SG.S where
 'Was the man tired? Where?'
- b. Wąakra waši hacijja?
 wąak-ra waši-Ø hacijja
 man-DEF dance-3SG.S where
 'Did the man dance? Where?'
- c. Hinukra wažatirera ruwı, hacijja?
 hinuk-ra wažatire-ra Ø-ruwı-Ø hacijja
 woman-DEF car-DEF 3SG.O-buy-3SG.S where
 'Did the woman buy the car? Where?'

2.3.5 Verb Phrase Ellipsis

Hocak displays a variety of ellipsis phenomena, including stripping, sluicing and Verb Phrase Ellipsis (VPE). I focus here on VPE, as this is the process that is most relevant to the central thesis of this dissertation, and revisit it in greater detail in Chapter 4, in the context of its bearing on the question of whether Hocak is configurational. VPE is a construction in which a verb phrase has been elided. As discussed in Johnson (2013a, 2013c) and Johnson, Rosen & Schuck (2013a), the process of VPE is characterized by the elision of all VP-internal material, and it is licensed by the presence of the light verb *uy* 'do' replacing the verb and the object, to the exclusion of the subject. This is shown in (57-60) below. Example (57) shows VPE of a simple

transitive phrase, and examples (58-60) show VPE that includes adjuncts: temporal, locative, and comitative, respectively:

- (57) Cecilga wažatirehižą ruwį kjane anąga nee šge haų kjane.
 Cecil -ga wažatire -hižą Ø-ruwį-Ø kjane anąga nee šge ha -ų
 Cecil -PROP car -INDEF 3S.O-buy -3SG.S FUT and I also 1A-do

kjane.

FUT

'Cecil will buy a car, and I will too.'

- (58) Cecilga xjanąre waši anąga Bryanga šge ų.
 Cecil-ga xjanąre Ø-waši-Ø anąga Bryan -ga šge
 Cecil-PROP yesterday 3S.O-dance-3SG.S and Bryan -PROP also

Ø-ų-Ø

3S.O-do-3SG.S

'Cecil danced yesterday, and Bryan did too.'

- (59) Cecilga ciinąkeja wažatirehižą ruwį anąga Bryanga šge ų.
 Cecil -ga ciinąk -eja wažatire -hižą ruwį -Ø anąga Bryan
 Cecil -PROP city -there car -INDEF buy -3SG.S and Bryan

-ga šge Ø-ų-Ø

PROP also 3S.O-do-3SG.S

'Cecil bought a car in the city, and Bryan did too.'

- (60) Cecilga hinąkra hakižu waši anąga Bryanga šge ų.
 Cecil -ga hinąk -ra hakižu waši -Ø anąga Bryan -ga šge
 Cecil -PROP woman-DEF be.with dance -3SG.S and Bryan -PROP also

Ø-ų-Ø

3S.O-do-3SG.S

'Cecil danced with the woman, and Bryan did too.'

A *pro*-form analysis of the Hocąk *ų* construction is untenable for a number of reasons. First, Antecedent Contained Deletion is allowed, which should not be possible if this is simply a case of a null *pro*-form being present as the object of *ų*.

- (61) Bryanga ruwı̄, jaagu Meredithga ı̄ı̄ra.
 Bryan-ga Ø-ruwi-Ø jaagu Meredith-ga Ø-ı̄ı̄-Ø-ra
 Bryan-PROP 3SG.O-buy-SG.S what Meredith-PROP 3S.O-do-3SG.S-DEF
 'Bryan bought what(ever) Meredith did.'

VPE with *ı̄ı̄* also can appear in embedded clauses and adjuncts (Johnson, Rosen and Schuck 2013a, Johnson 2013a), as shown below in (62). This also should not be possible under a *pro*-form analysis of the *ı̄ı̄* construction.

- (62) a. Bryanga hāāke nīı̄tāşjak taaxu ruwı̄nī, nūnīge Meredithga ı̄ı̄ra yaaperes̄şanā.
 Bryan-ga hāāke nīı̄tāşjak taaxu Ø-ruwi-Ø-nī nūnīge Meredith-ga
 Bryan-PROP NEG coffee 3SG.O-buy-SG.S-NEG but Meredith-PROP
 Ø-ı̄ı̄-Ø-ra hi<ha>peres̄şanā.
 3S.O-do-3SG.S-DEF <1A>know-DECL
 'Bryan didn't buy coffee, but I know Meredith did.'
- b. Bryanga ı̄ı̄ kjanegi Meredithga Hunterga (nīşge) gīşja hii kjaneg.
 Bryanga Ø-ı̄ı̄-Ø-kjaneg-i Meredith-ga Hunter-ga nīşge
 Bryan-PROP 3S.O-do-3SG.S-FUT-if Meredith-PROP Hunter-PROP also
 Ø-gīşja-hii-Ø kjaneg.
 3SG.O -visit-3SG.S FUT
 'Meredith will visit Hunter if Bryan will.'
- c. Bryanga hāāke ı̄ı̄nīge Meredithga (nīşge) hāāke Hunterga
 Bryan-ga hāāke Ø-ı̄ı̄-Ø-nī-ge Meredith-ga nīşge hāāke
 Bryan-PROP NEG 3S.O-do-3SG.S-NEG-because Meredith-PROP also NEG
 Hunter-ga gīşja hii-nī.
 Hunter-PROP visit-NEG
 'Meredith didn't visit Hunter because Bryan didn't.'

Hoc̄ak VPE will be revisited in Chapter 4, as its presence in the language constitutes evidence that Hoc̄ak does have a verb phrase, and thus is configurational. Whether Siouan languages contain VPs is a point that has been debated extensively in the literature over the past few decades (cf. Van Valin 1977, Williamson 1984, Graczyk 1990, Boyle 2007).

2.4 Conclusion

In this chapter, I have provided an overview of Siouan languages, and provided background information on Hočąk morphology and syntax. This chapter has covered word order, both in adjunct order and subordinate clauses. This chapter also reviews certain syntactic phenomena that occur in Hočąk such as Verb Phrase Ellipsis.

CHAPTER 3

CONFIGURATIONALITY LITERATURE REVIEW

3.1 Introduction

In this chapter, I review a selection of works from the vast body of literature that has explored the question of configurationality and polysynthesis in the world's languages. Section 3.2 reviews the seminal work of Hale (1983) and the Configurationality Parameter, section 3.3 reviews Jelinek (1984), who builds on the work of Hale to create the Pronominal Argument Hypothesis. Section 3.4 discusses the work of Baker (1988, 1996), who explores polysynthesis, section 3.5 discusses Speas (1990). Section 3.6 reviews the work of Nordlinger (1998), and her configurationality continuum. Lastly, section 3.7 discusses the work of Li (2005), who proposes a morphology-syntax mapping hypothesis that explains the behavior of both non-polysynthetic and polysynthetic languages. Section 3.8 concludes.

3.2 Hale 1983

Hale (1983) examines the Australian aboriginal language Warlpiri, and the properties which define it as "nonconfigurational", in an effort to provide a unified analysis of such non-configurational languages, and what distinguishes these languages from the configurational type. He seeks to find out if configurationality is a parametric distinction.

First, Hale begins by addressing the three properties possessed by Warlpiri that cause it to be associated with the nonconfigurational language type:

- (1)
 - i. free word order
 - ii. the use of syntactically discontinuous constituents
 - iii. extensive use of null anaphora

Hale acknowledges the existence of these properties in Warlpiri. Words can appear in any order

potentially, as shown below in (2):

- (2) a. Ngarkka- ngku ka wawirri panti -rni
 man ERG AUX kangaroo spear NONPAST
- b. Wawirri ka panti -rni ngarrka-ngku
 Kangaroo AUX spear -NONPAST man ERG
- c. Panti -rni ka ngarrka-ngku wawirri
 Spear -NONPAST AUX man -ERG kangaroo
 The man is spearing a kangaroo. (Hale 1983:6)

Warlpiri also can have discontinuous constituents, as shown below in (3), where a nominal element is not linearly adjacent to its other components:

- (3) Wawirri kapi -rna panti -rni yalumpu
 Kangaroo AUX spear NONPAST that
 I will spearing that kangaroo. (Hale 1983:6)

The determiner *yalumpu* 'that' is not near the noun it modifies, and yet the two morphemes are part of the same syntactic noun phrase.

Lastly, Warlpiri has extensive null anaphora. Hale's use of the term refers to when a nominal is not overtly expressed, as in (4) below:

- (4) a. Ngarrka- ngku ka panti- rni
 man ERG AUX spear NONPAST
 The man is spearing him/her/it.
- b. Wawirri ka panti- rni
 kangaroo AUX spear NONPAST
 He/she is spearing the kangaroo.
- c. Panti- rni ka
 spear NONPAST AUX
 He/she is spearing him/her/it. (Hale 1983:7)

Hale's initial analysis of Warlpiri is that its syntactic structure is provided by phrase structure rules which allow flat structures (non-binary branching trees), as well as phrases that are

categorically non-specific. Hale is dissatisfied to leave his conclusions there, however, and begs the question of *why* Warlpiri has such a "permissive" phrase structure system, when other languages do not?

Hale presents the possibility that "phrase structure, as an autonomous entity in linguistic theory, reduces to a bare minimum in the unmarked case -- i.e., to statements stipulating just the relative linear ordering of the head and its sisters within each phrasal type (i.e., at each level of hierarchical structure)"(Hale 1983:10). Given this, he proposes that the distinction between languages of the configurational type and languages of the non-configurational type exist as a result of differences in their relations between phrase structure (PS) and lexical structure (LS). Hale's LS refers to the argument structure of the verb. Hale assumes that LF is defined, in part, by the relation of LS to PS (Hale 1983:11).

Hale proposes that the lexical entry of each verb has, in addition to a categorial designation and a phonological form, a lexical structure (LS) and a definition. The verb's LS lists its argument(s), subscripted with a variable/variables that correspond to their status as subject or object. Under this analysis, arguments receive their theta role when they "evaluate" the verb's LS entry and see which variable they should associate themselves with: subject or object.

Hale assumes that LS is always configurational, thus all languages are configurational at the level of LS. However, some languages mirror this configurational structure at PS, and others do not. Thus, in order to find out the difference between configurationality and nonconfigurationality, Hale examines the different ways that languages express the projection of lexical items onto the syntactic structure. He cites the Projection Principle, given below in (5):

(5) The Projection Principle

Representations at each syntactic level (i.e. LF and D- and S-structure) are projected from the lexicon, in that they observe the subcategorization properties of lexical items.
(Hale 1983:25, from Chomsky 1986)

The Projection Principle prevents a syntactic rule from altering the lexical assignment of theta roles to arguments - no movement rule, for example, could alter this assignment. Thus in terms of the Projection Principle, Hale can now state configurationality in terms of a parametric distinction. This is the Configurationality Parameter, given below in (6):

(6) The Configurationality Parameter (CP):

- (a) In configurational languages, the projection principle holds of the pair (LS, PS).
 - (b) In non-configurational languages, the projection principle holds of LS alone.
- (Hale 1983:26)

In configurational languages, the projection principle "determines a fixed and uniform relation between noun phrases occupying specific positions in PS and arguments occupying the corresponding positions in LS." (Hale 1983:30) Hale argues that this relation is an identity relation.

Hale does note that the non-configurational characteristics of free word order and null anaphora fall out as a result of the way the projection principle holds in these languages, and that languages' behavior may be additionally restricted by other factors (phonological, etc.). He gives the example of Navajo, which in all other respects according to Hale is nonconfigurational (Hale 1981a), except that its word order is not as free as Warlpiri's. In Navajo, the linear ordering of words in a sentence allows grammatical functions to be assigned to the correct nominals, thus there are certain word order restrictions in place to ensure correct interpretation. Additionally, Hale discusses other principles that might be in charge of the existence or non-existence of null anaphora, such as recoverability: a language may restrict its use of null anaphora to instances

where the meaning is recoverable through the discourse context. So, the Configurationality Parameter "determines what superficial characteristics a non-configurational language *may* exhibit, not characteristics that it *must* exhibit" (Hale 1983:42).

Lastly, Hale briefly discusses possible implications if the Configurationality Parameter is "a true parameter of linguistic variation"(Hale 1983:42). He inquires as to what role phrase structure actually plays in the interpretation of sentences, if the CP does not determine a specific relation between LS and PS. Hale focuses on a small part of this question only, by examining languages' behavior with respect to Binding Condition C.

3.3 Jelinek (1984)

Jelinek (1984), building on the insights of Hale (1983), proposes an alternative analysis of nonconfigurational languages. She proposes the Pronominal Argument Hypothesis to explain the nature of nonconfigurationality. Jelinek disagrees with Hale (1983) on the source of nonconfigurationality.

Examining data from Warlpiri, Jelinek proposes another hypothesis. First she reviews Hale's points, revisiting the three properties of nonconfigurationality: free word order, extensive null anaphora, and discontinuous constituents. She reviews Hale's (1983) Configurationality Parameter, which states that the Projection Principle only holds at LS in nonconfigurational languages, and as such it is not necessary to propose empty categories to explain the null anaphora in these languages. Jelinek instead argues that empty categories are present in these languages, and yet there is also no need to claim that Warlpiri, or languages of its type (henceforth W-type) obey the Projection Principle in a different way than configurational languages.

Jelinek proposes that in the so-called W-type languages, LS argument positions are satisfied always and only in PS by clitic pronouns, and overt nominals are optional adjuncts that have no argument function. This is the Pronominal Argument Hypothesis (henceforth PAH).

Jelinek bases this argument on several facts about clitic pronominal behavior in Warlpiri. First, she takes as evidence some well-known facts about Warlpiri clitic pronouns: they are never bound by an argument nominal, they may have antecedents outside of the sentence, and they behave as R-expressions (Jelinek 1984:44). In short, the clitic pronominals behave more like pronouns than agreement markers.

Second, there is unusual agreement behavior between clitic pronouns and their co-indexed nominals -- they can be co-indexed without agreeing in person, number, or case. In Warlpiri, clitic pronouns carry grammatical case, nominals carry non-grammatical (oblique) case. Examples (7)-(9) below illustrate that the clitic pronouns mark NOM/ACC while the nominals mark ERG/ABS. NOM/ACC are grammatical cases, while ERG/ABS are lexical cases.

- | | | | | |
|-----|--|-----------------------------------|---------------------------|------------------------|
| (7) | Ngajulu-rlu
I-ERG
I see you | ka-rna-ngku
PRES-1sgNOM-2sgACC | nyuntu-Ø
you-ABS | nya-nyi
see-NONPAST |
| (8) | nyuntulu-rlu
you-ERG
You see me | ka-mpa-ju
PRES-2sgNOM-1sgACC | ngaju-Ø
me-ABS | nya-nyi
see-NONPAST |
| (9) | nyuntu-Ø
you-ABS
You are shouting, you shout | ka-mpa
PRES-2sgNOM | purla-mi
shout-NONPAST | (Hale 1973:328) |

Yet Warlpiri clitic pronouns may be co-indexed with a nominal that does not agree with them in person, number or case. The below examples show that NOM/ACC clitic pronouns do not agree in case with their co-indexed ERG/ABS-marked nominals, and they do not need to agree in

person or number either:

- (10) Puyukuyuku-puru, kula-lpa-rlipa-nyanu yapa-Ø
 fog-WHILE NEG-IMPERF-1pl(INC)NOM-REFL person-ABS
- nya-ngkarla
 see-irrealis
 'We (plural inclusive) cannot see one another (as) person (s) (i.e., our shapes and figures)
 when it is foggy.' (Hale 1983:33)
- (11) Nya-nyi ka-rna-ngku ngarrka-Ø-lku
 see-NONPAST PRES-1sgNOM-2sgACC man-ABS-after
 'I see you (as) a man now (i.e. as fully grown, or initiated)' (Hale 1983:32)

In (10), the nominal *yapa* 'person' is co-indexed with the clitic pronoun *-nyanu* which is interpreted as first person plural since it is an anaphor of *-rlipa*. In (11), the absolutive nominal *ngarrka* 'man' agrees with the coreferential clitic pronoun *-ngku* in neither case or person.

Recall that Hale (1983) argues that the difference between configurational and nonconfigurational languages lies in the way the Projection Principle holds in each language type: in nonconfigurational languages, the Projections Principle holds at LS only, not at PS. Hale (1983) argues that nominals are optional in Warlpiri; neither *pro* nor PRO need be postulated. Under the PAH, clitic pronouns in nonconfigurational languages are not instantiations of agreement with a nominal; rather, they are the actual arguments. Consider the following sentence in (12) below:

- (12) Wawirri kapi-rna panti-rni yalumpu
 kangaroo AUX spear-NONPAST that
 'I will spear that kangaroo.' (Hale 1983:6)

Hale treats AUX as a member of the verbal complex, where INFL features are marked such as Subject and Object. AUX provides pronominal attribute information such as person and number of the LS arguments. Contrastingly, Jelinek (1984) argues that AUX is a constituent in and of

itself, which contains case-marked, fully referential clitic pronouns that serve as the arguments of the verb.

Jelinek's proposal to treat nominals as adjuncts rather than as arguments neatly explains the three properties of Hale's. First, to explain the missing nominals (null anaphora) in Warlpiri, they may be freely omitted because they are not arguments. The phonologically null third person NOM/ACC pronominal clitics are not instances of *pro*-drop because they are not *pro*; the features of these arguments are not determined by agreement. Second, the discontinuous constituents are easily explained, since under this analysis, nominals are adjuncts and thus more than one nominal may be coindexed with a single argument. This can yield a discontinuous constituent, such as the one in (12) above. And lastly, as adjuncts, nominals have nothing requiring them to appear in a fixed order. The Warlpiri clitic pronouns, by contrast, must appear in SUBJECT(NOM)-OBJECT(ACC) order. If that order is altered, an ungrammatical sentence results.

Jelinek ultimately provides a revision of the Configurationality Parameter proposed by Hale (1983):

- (13) Configurationality Parameter (extended)
- a. In a configurational language, object nominals are properly governed by the verb.
 - b. In a W[arlpiri]-type nonconfigurational language, nominals are not arguments, but are optional adjuncts to the clitic pronouns that serve as verbal arguments.
- (Jelinek 1984:73)

(13b) is the essence of the Pronominal Argument Hypothesis. This hypothesis is, she argues, superior to Hale's because it is compatible with the Projection Principle, while still permitting typological variation in languages with respect to lexical structure and grammatical relations. While she specifically examines Warlpiri data to support her hypothesis, it can apply to any

head-marking language that appears to have the typical nonconfigurational features observed by Hale.

3.4 Baker (1988), (1996)

This section examines the work of Baker (1988, 1996), and analysis of the word formation process of incorporation. He argues for a purely syntactic analysis of incorporation: incorporation is the result of head movement. Baker (1996) in particular examines data from Mohawk to support his points, presenting evidence from Binding Conditions, coreference and *wh*-questions which illustrate problems for a lexicalist analysis of Noun Incorporation (henceforth NI). Based on these facts, Baker argues that NI is a syntactic process, derived by movement of a head object noun into a verb phrase. Section 3.4.1 discusses Baker's arguments for a syntactic analysis of NI, Section 3.4.2 discusses the implications of Baker's arguments and discusses his analysis of how polysynthetic, nonconfigurational languages can be reconciled with linguistic theory, and Section 3.4.3 provides a brief conclusion.

3.4.1 Arguments for syntactic NI

Mohawk is a "typical" polysynthetic language in that it exhibits productive noun incorporation and has both subject and object agreement on the verb. It also is a typical nonconfigurational language in the sense of Hale (1983) and Jelinek (1984): it has extensive null anaphora, discontinuous constituents, and free word order. Additionally, Mohawk has other properties that are determined by Baker (1996) to be typical of nonconfigurational languages, such as lack of true quantifiers (see Baker 1996 for a full discussion).

An essential component to Baker's claims is his analysis of nonconfigurational languages: in such languages, NPs are not in argument position; rather, they are adjuncts, adjoined high in

the clause at TP, and co-indexed with null *pros* that are in the actual argument positions in the syntactic structure. Based on evidence from coreference in Mohawk, Baker argues that NPs do not occupy argument positions. This is illustrated in (14)-(15) below. In (14a), the object *pro* of the matrix verb *nha* 'hire' (the person being hired) may optionally be coreferential with the embedded subject *Sak*. In (14b), *Sak* cannot be coreferential with the matrix object *pro*. In both sentences in (15), however, *Sak* can be coreferential with the subject *pros*.

- (14) a. Wa hi'-nha'-ne ne tsi Sak ra-yo'tΛ-hser-iyo
 fact-agr_{s/o}-hire-punc because Sak agr-work-nom-be.good
 'I hired him because Sak is a good worker.'
- b. Wa-hi-hrori' tsi Sak ruwa-nuwhe's
 fact-agr_{s/o}-tell-punc that Sak agr_{s/o}-like-hab
 'I told him that she likes Sak.'
- (15) a. Wa'-t-ha-ya'k-e' ne thik Sak rao-a'share'.
 fact-dup-agr_{s/o}-break-punc NE that Sak pref-knife
 'He broke that knife of Sak's.'
- b. Kanat-a-ku wa'-etsiseni-kΛ-^ε isi tanu Sak rao-skare'.
 town-Ø-in fact-agr_{s/o}-see-punc you and Sak pref-friend
 'He saw you and Sak's girlfriend in town.' (Li 2006:113)

The coreference distinction in (14a-b) show that Mohawk obeys Binding Condition C (BCC), which requires that r-expressions be free. In (14a), coreference with the matrix object *pro* and *Sak* is possible because *Sak* is in an adjunct embedded clause, and is not c-commanded by the matrix object *pro*. In (14b), *Sak* is c-commanded by the matrix object *pro*, thus it is not free and coreference is impossible. Contrastingly, *Sak* can be coreferential with the subject *pro* in (15a-b), which would violates BCC because the subject *pro* would c-command *Sak*. Baker accounts for these contrasts in BCC effects by arguing that NPs are in adjunct rather than argument position, thus putting the NPs outside of any binding domain of any argument.

Assuming that NPs are not in argument position based on the binding facts shown in (14)-(15), Baker presents three arguments for a syntactic head-movement analysis of NI: His first argument comes from the lack of co-occurrence of object agreement on the verb and the presence of NI. This is shown in the examples below: in (16a-b), either NI or object agreement on the verb is possible alone, and in (16c-d), co-occurrence of NI and object agreement is impossible.

- (16) a. Shako-nuhwe'-s (ne owira'a)
agr_{s/o}-like-hab NE baby
'He likes them (babies).'
- b. Ra-wir-a-nuhwe'-s
agr_s-baby-Ø-like-hab
'He likes babies.'
- c. *Ra-nekwe'-s ne owira'a
agr_s-like-hab NE baby
'He likes babies.'
- d. *?Shako-wir-a-nukwe'-s
agr_{s/o}-baby-Ø-like-hab
'He likes babies.'
- (Baker 1996:21)

The coreference facts in (16) above are explained if NI is the result of the raising of the head N of the object NP into the verb. The facts are problematic for a lexicalist theory of NI in the style of DiSciullo and Williams (1987). In their theory, NI is considered a verbal compound, with both the combined N and V theta roles assigned to a single syntactic argument. Baker argues that if this were the case, there is no reason why object agreement would be banned in only one case of NI in Mohawk and not both.

Baker's second argument for syntactic NI comes from binding effects. In example (17a), the *pro* object may be coreferential with the subject NP. In contrast, (17b) shows that a full

object NP may not be coreferential with the object *pro*. Additionally, the incorporated N in (17c) cannot be coreferential with the subject NP 'bullhead', but it can in (17d).

- (17) a. Rabahbot yah tha'-te-yo-tʌhutsoni ne ukha
 bullhead not contr-dup-agr_s-want NE someone
 a-ye-hninu-'.
 opt-agr_{s/o}-buy-punc
 'The bullhead doesn't want anyone to buy it.'
- b. Rabahbot yah tha'-te-yo-tʌhutsoni ne ukha
 bullhead not contr-dup-agr_s-want NE someone
 a-ye-hninu-' ne kʌ-ts-u'.
 opt-agr_{s/o}-buy-punc NE pref-fish-suf
 'The bullhead doesn't want anyone to buy fish.'
- c. Rabahbot yah tha'-te-yo-tʌhutsoni ne ukha
 bullhead not contr-dup-agr_s-want NE someone
 a-ye-ts-a-hninu-'
 opt-agr_{s/o}fish-Ø -buy-punc
 'The bullhead doesn't want anyone to buy the fish'
- d. Rabahbot wa'-k-atkatho-' tsi-yutʌhminutha' sok
 bullhead fact-agr_s-see-punc at-store so
 wa'-k-its-a-hninu-'.
 fact-agr_s-fish-Ø-buy-punc
 'I saw a bullhead at the store and so I bought the fish.'
 (Baker 1996:321)

The facts in (17) again are easy to explain if the head object NP is incorporated into the verb via head movement. In (17a), coreference of the *pro* object with the subject NP is possible because the two are in separate binding domains; this sentence obeys Binding Principle B. In (17b), there is a full NP object rather than a *pro*, and coreference is not possible between the NP object and the NP subject. This falls out directly from Binding Condition C, which requires that r-expressions be free. In (17c), only a disjoint reading between the subject NP *rabahbot* 'bullhead'

and the object NP *its* 'the fish' is possible, so Baker argues that there has to be a D-structure object NP r-expression whose head N has later incorporated into the verb in the syntax. (17d) simply shows that NI and coreferentiality are not necessarily or intrinsically incompatible; they can coexist as long as Binding Condition C is obeyed; in (17d), the antecedent 'bullhead' does not c-command the object NP 'fish', so coreference is possible. These data would be problematic for Di Sciullo and Williams (1987) lexicalist analysis. They would treat the empty object in (17c) as a *pro*, which would work on its own (with or without NI) to satisfy Binding Condition B in (17a,c and d) - thus their analysis would have no explanation for how NI and an overt NP object could pattern together.

Baker's third piece of evidence for a syntactic analysis of NI comes from *wh*-questions, and their incompatibility with NI in Mohawk. Baker claims that in polysynthetic languages, *wh*-phrases are the only overt NPs that are base-generated in argument position. In (18a), below, the an incorporated object head N 'baby' coexists with an adjunct NP 'nice baby', resulting in a grammatical sentence. In contrast, (18b) has an object *wh*-question which cannot coexist with an incorporated object N 'baby.'

- (18) a. T-Λ-ke-wir-a-hkw-e' ne ka-wir-iyo
 dup-fut-agr_s-baby-Ø-pick.up-punc NE pref-baby-nice
 'I will pick up the nice baby.'
- b. ?*Ukha t-a-hse-wir-a-hkw-e'?
 who dup-fut-agr_s-baby-Ø-pick.up-punc
 'Who are you going to pick up (a baby)?' (Baker 1996:323)

The ungrammaticality of (18b) is explained if, assuming that the *wh*- phrase *ukha* 'who' is base-generated in the object position, the object N is trying to syntactically incorporate into the verb - it cannot do so, because the object argument position is already filled by the *wh*-word.

Again, the compounding analysis of NI of Di Sciullo and Williams (1987) cannot predict the ungrammaticality of (18b). In their analysis, the compound verb can take an NP object, and so there is no principled reason why it could not also take a *wh*- object. Thus, according to their analysis, (18b) should be grammatical.

3.4.2 Marrying word formation with syntax

Typically nonconfigurational languages present obvious challenges to syntactic theory. First, if a language has discontinuous constituents and free word order, how can it fit into the traditional hierarchical, binary-branching phrase structure? Second, if a language can freely omit NPs, or allow a noun to incorporate into a verb from object position, how is the Theta Criterion satisfied? Baker's response to these questions is the Morphological Visibility Condition, given below in (19):

- (19) An XP is visible for theta role assignment from a head Y only if it is coindexed with a morpheme in the word containing Y via (a) Agreement or (b) Movement (incorporation).
(Baker 1996:17)

Baker (1996) claims that languages of the world are divided into two groups: polysynthetic languages, whose morphology is transparent to syntax and whose words contain actual morphemes that correspond to thematic material, and non-polysynthetic languages, in which words do not necessarily contain morphemes corresponding to theta roles. As Li (2005) observes, the MVC is a parameter that is set to "on" in polysynthetic languages such as Mohawk, and "off" in non-polysynthetic languages like English. In English, theta roles are assigned by a head to a syntactic position; in a polysynthetic language, this assignment can only happen when the head is associated with a morpheme in the word that assigns the theta role. We have seen this in the examples above, where this crucial morpheme is either the object agr morpheme (as in

example 16a), or the incorporated noun (16b).

In order to reconcile complex morphological formations with syntactic structure, Baker (1988) presents the Uniformity of Theta Assignment Hypothesis (UTAH), which requires that morphological thematic relations be represented in the same way syntactically at D-structure. The implications of the UTAH for cross-linguistic analysis of morphosyntactic behavior will be covered in greater detail in Section 3.7, where I discuss Li's (2005) response to Baker's analysis of the syntax-morphology interface.

3.5 Speas (1990)

In her work, Speas (1990) examines the principles which constrain the projection of sentence structure from lexical representations, and endeavors to "contribute to a complete theory of how it is that underlying sentence structures are projected from lexical representations" (Speas 1990:1). Her theoretical framework is that of GB (Chomsky 1981). It is Chapter 3 of her work that will be discussed here, as it is in this chapter that Speas examines the nature of (non)configurationality and presents her theory for how supposedly nonconfigurational languages should be analyzed.

After his 1983 paper, Hale (1985) observes that "there is no single parameter giving rise to the various properties commonly associated with the term 'non-configurational' (Hale 1985:7). Taking this idea further, Speas contends that there is no configurationality parameter of any kind, and that GB theory can handle those languages which appear to have the properties traditionally associated with nonconfigurationality, without proposing a dual structure. She defends the hypothesis that "there is no parameterization of the basic principles which constrain the projection of underlying structures" (Speas 1990:123). Her view is that there is no

Configurationality Parameter (Hale 1983). Instead, there are various different ways in which variation in other components of grammar may "conspire to mask the presence of underlying hierarchical structure" (Speas 1990:123).

Speas first examines the parameters of variation which have come to be associated with the term 'nonconfigurational'. She examines types of variation within the GB framework, and discusses the reasons why Hale (1983) and others felt that it was necessary to propose a configurationality parameter. She then proceeds to argue that Hale's CP makes incorrect predictions about the typology of languages, and that it is superfluous.

First, Speas defines a nonconfigurational language as one that simply lacks the surface features that a language such as English has, which show that sentences are hierarchically arranged. She reviews and lists all the evidence for hierarchical structure that has been used by various scholars to argue for a hierarchical structure in English:

Movement and deletion operations target a constituent that contains the verb and object, to the exclusion of the subject. Verbs plus objects form VP constituents, as can be shown with movement and deletion tests.

- (20) a. Mary said she would win the race, and win the race she did.
 b. Mary wrote a paper, and so did John.
 c. Mary didn't see the article, but John did ____.

(20a) shows that movement operations can target the VP, and (20b-c) show that ellipsis and deletion also target the verb and object; the subject and verb do not form a constituent.

It has also been argued (Marantz 1984) that the object has an asymmetric influence that on the verb's assignment of theta roles that subject does not likewise have over the object. In the

following examples, depending on the object, the same verb may assign agent role or a patient role to the subject. In (21a), the subject of the verb + object predicate would be the thrower of the ball, in (21b), the subject can be argued to be the loser of the match.

- (21) a. throw a baseball
 b. throw a boxing match

This does not happen with subjects; they do not determine choice of object.

- (22) a. The policeman threw NP
 b. The boxer threw NP

This behavior is predicted under a theory where the verb and object form a constituent, to the exclusion of the subject.

Marantz also shows that English idioms almost always involve a V+O predicate.

- (23) a. kick the bucket
 b. shake a leg
 c. chew the fat

Next, there is the simple observation that some verbs may be intransitive, but all verbs must have a subject. In that same vein, the object position may never take a null PRO, but subject can, as shown in (24) below:

- (24) a. Bill hopes PRO to win
 b. *Bill hopes that PRO will win

There are also the Binding Condition C (25) and Weak Crossover (26) violations, which show that subject has to be structurally higher than the object. This was discussed in Section 3.3, and explains the coreference facts of sentences such as these:

- (25) a. Mary_i likes her_{j/*i}.
 b. She_i likes Mary_{j/*i}.
- (26) a. Who_i loves his_i mother?
 b. *Who_i does his_i mother love?

Next, only objects can undergo incorporation, as discussed in Baker (1988, 1996) (See Section 3.4). All this has been taken to show that English is hierarchically arranged. However, many scholars have noted that some languages do not have the same outward evidence of a subject-object asymmetry, concluding that these languages must have a flat structure, where the subject, verb and object are all sisters. Japanese, Warlpiri, Malayalam, Chamorro, Hungarian, and Navajo are examples of the languages which have been analyzed as flat for this reason.

Verb Phrase Ellipsis, Weak Crossover effects, Binding Condition C effects and Noun Incorporation have all been used by Siouan scholars to test for the presence of subject-object asymmetry, and thus configurationality, in the languages they examine. These tests will be revisited in the next chapters when we discuss the configurationality status of Hocąk as well as several other Siouan languages.

As we have seen in previous sections, the free word order in Warlpiri (see Section 3.1 for a full discussion), as well as the null anaphora, and discontinuous constituents, all led Hale (1983) to propose the Configurationality Parameter, which states that languages behave differently with respect to the the Projection Principle. Speas argues, however, that one should be suspicious of the configurationality parameter, on the basis of two facts: First, there is no cluster of properties that all supposedly nonconfigurational languages all share. Warlpiri happens to have them all, but many other languages that have been claimed to be

nonconfigurational only have a few of them. There is not a clear divide between configurational languages and nonconfigurational ones, based on these properties. Second, a configurationality parameter implies that configurational and nonconfigurational languages each have grammars that are organized in completely different ways.

Speas argues that a dual representation is not necessary, and is also unmotivated. She looks at previous studies of Japanese, Malayalam, Warlpiri and Hungarian, showing that these do not have to be analyzed as having a flat structure; absence of structural evidence for subject/object asymmetries does not show that the underlying structure is not asymmetric, it just shows that we cannot tell. She shows that they may in fact be better analyzed as configurational.

3.6 Nordlinger (1998): the configurationality continuum

Nordlinger (1998) examines a number of indigenous languages of Australia, which have been classified by many linguists as nonconfigurational (Hale (1981) and Simpson (1991) for Warlpiri, Evans (1995a) for Kayardild, Austin (1993) for Jiwarli, among many others). Her goal is to provide "a unified formal account of case in nonconfigurational Australian languages and to speak to the syntactic definition of nonconfigurationality in general" (1998:1). Nordlinger operates within the framework of Lexical Functional Grammar (LFG), arguing that 'case morphology itself constructs grammatical functions and other clause-level information, independent of phrase structure' (1998:1). Presenting evidence from several Australian languages, she argues that configurationality is not a parametric distinction; rather, all languages represent points along a continuum, with fully configurational languages at one end, and fully nonconfigurational languages on the other end. While in this work I do not operate within the LFG theoretical framework, it is this observation that motivates and informs my own analysis of

Siouan, as will be discussed further in Chapter 6.

3.6.1 Theoretical framework

LFG is a lexically-based, modular theoretical framework. Its central tenet is the separation of syntactic form from function. It distinguishes morphological and syntactic components of grammar, holding that words are constructed according to different principles of composition than are syntactic phrases. LFG holds that underlying syntactic function, or f-structure, is the same across all languages, while the surface constituent structure, or c-structure, varies. Syntactic structures are represented simultaneously by both the c-structure and the f-structure.

C-structure models the surface form of a language, represented by phrase structure trees according to X' theory which project lexical and functional categories as well as the category of S. Because both functional and lexical categories and S can be projected by the c-structure, more nonconfigurational structures can be captured (Nordlinger 1998). The input to the c-structure trees are fully inflected words, and syntactic processes cannot manipulate the internal morphological structure of these items. This gives more power to the lexicon than transformational models of grammar such as Principles and Parameters.

The f-structure, which does not differ between languages, is represented by "attribute-value matrices" (1998:11) whose inputs are the lexical items in the sentence. Crucially, LFG allows both morphological and syntactic constituents to contribute the same types of information to the f-structure. This point has been a central theme in much work in LFG: 'Morphology competes with syntax' (1998:12).

In LFG, grammatical relations are mapped from overt forms and expressions according to

two principles: endocentricity, which defines hierarchical, configurational phrase structure according to X' Theory, and lexocentricity, which allows for flatter structures in which all of the arguments (including subjects) are sisters to the verb, and syntactic functions are identified by other means, such as case marking or verbal agreement. Lexocentricity is captured by Nordlinger by assuming that UG makes available a nonprojective category S that corresponds to a predicate and its arguments, and is not headed by something of the same category as itself (it is *exocentric*). Because S is not subject to the constraints of X', it can dominate multiple constituents and it can have a head of any category (1998:15).

Because of lexocentricity, LFG "allows morpholexical specifications of grammatical functions of the same formal and substantive type as syntactic specifications; it is possible for words to carry the same type of grammatical function information in their lexical entries as can also be introduced by phrase structure rules in the syntax" (1998:49) As will be discussed in Chapter 6, parallels can be drawn between endocentricity/lexocentricity and the Speech Act Participant/third person agreement systems in Siouan.

3.6.2 Problems with previous nonconfigurational analyses

As part of her analysis, Nordlinger must first confront the issue of defining nonconfigurationality, something that has been the subject of great discussion since Hale (1983) (see Section 3.1 for a full discussion). In this section, I present Nordlinger's discussion of the problems with the "traditional" analyses of nonconfigurational languages, and also with the way in which these languages have been classified with respect to their configurational properties. I then present her alternate approach to configurationality.

Nordlinger first identifies two issues which have caused problems with defining

(non)configurationality. First, the many viewpoints that have been taken as to the nature of these nonconfigurational properties are in many ways directly influenced by the theoretical framework in use in a given discussion. In other words, theory-internal arguments have often been used to define a given language's configurationality status. For example, in a Chomskyan-style theoretical framework, a given language's behavior with respect to binding principles is indicative of its phrase structure. But, of course, this only works because binding principles are defined as structural relations (c-command) in the GB/Minimalist framework itself. In other frameworks such as LFG and Head Driven Phrase Structure Grammar (Pollard and Sag 1995), however, binding refers to functional hierarchies rather than phrase structure. Binding facts would reveal nothing about a language's phrase structure, and thus configurationality, within these frameworks.

Second, Nordlinger notes that even when researchers are working within the same theoretical framework, they may have differing views of nonconfigurationality based on the characteristics of the language(s) they primarily are concerned with in their own research. For example, Baker (1990, 1991, 1996a) analyzes Mohawk as nonconfigurational because it exhibits Hale's classic three properties, even though discontinuous constituents appear in only highly restricted contexts in the languages. The free word order property has also been used by some linguists as the sole indicator of nonconfigurationality (Abraham 1986 for German), which would mean in this view that nonconfigurationality is synonymous with free word order. In later work, Hale himself (1989) stated that free word order should not be tied so closely with nonconfigurationality; that free word order is "not criterial for nonconfigurationality, and it never has been, though many putative nonconfigurational languages, to be sure, exhibit great freedom

of word order" (Hale 1989:294). Hale analyzed Navajo to be nonconfigurational based on its extensive use of null anaphora even though the language's word order is fairly fixed (Hale 1989).

Before defining her view of (non)configurationality, Nordlinger first poses some data from Australian languages that call into question the general typology that has been used to categorize languages in terms of their configurational properties. As seen in Section 3.2, the Australian language Warlpiri does exhibit the three properties shown by Hale (1983) to be typical of nonconfigurational languages. Other languages of Australia have also been shown to have these properties⁴. However, further research since Hale/Jelinek has shown that their approach, which derives these three properties from one source (bound pro clitics, see sections 3.2 and 3.3 for a full discussion), may not actually work for these languages. Pensalfini (1992) shows that in the 20 Pama-Nyungian Australian languages he studied, the presence of free word order does not mean discontinuous constituents are allowed. Kayardild, for example, shows great freedom of word order but normally disallows discontinuous constituents (Evans 1995a). The property of null anaphora was also shown to be independent of the other two nonconfigurational properties: Dyrbal has free word order and discontinuous constituents but greatly restricts the use of null anaphora (Austin and Bresnan 1996:263). Austin and Bresnan (1996) additionally show that the bound clitic pronouns in these languages, the behavior of which is the linchpin of the Hale/Jelinek nonconfigurationality analysis, is in fact an areal feature of Australian languages that is "independent of the other properties of syntactic structure" (Nordlinger 1998:35).

Nordlinger also presents empirical evidence from Wambaya that support the argument against the Hale/Jelinek approach to nonconfigurationality. Much of this evidence comes from

4 See Blake (1983) for Kalkatungu, Austin (1993) for Jiwari, Nordlinger and Bresnan (1996) for Wambaya.

the fact that it is problematic in many cases to analyze overt nominals as adjuncts in many of the Australian languages (Nordlinger 1998:35). Similar arguments have also been presented by Austin and Bresnan (1996) for Jiwari and Warlpiri and Austin (1993) for Jiwari.

Nordlinger's first piece of evidence against analyzing overt nominals as adjuncts comes from bound pronominal cross-referencing in Wambaya. In this language, bound pronominals only cross-reference subjects and direct objects, never dative indirect objects. Nordlinger provides the following examples:

- (28) a. Ayani gi-n babanya juwa-nka.
 search 3.SG.S.PRES-PROG sister(NOM) man-DAT
 '(My) sister is looking for a man.'
- b. ??Ayani gi-n babanya.
 search 3.SG.S.PRES-PROG sister(NOM)
 '(My) sister is looking (for a man/him).'
- (29) a. Yandu ng-a nganga
 wait 1.SG.S-PST 2.sg.DAT
 'I waited for you.'
- b. ??Yanda ng-a
 wait 1.SG.S-PST
 'I waited (for you.)' (Nordlinger 1998:35)

The verbs *ayani* 'search' and *yandu* 'wait' in the examples above subcategorize for two arguments: nominative subject, and dative indirect object. In examples (28a) and (29a) above, only the subject is cross-referenced in the auxiliary. The dative argument must be expressed as an overt nominal, which is shown in the questionability of (28b) and (29b). If all overt nominals were adjuncts, as the Hale/Jelinek approach contends, then there would be nothing fulfilling the indirect object function in (29a). *Nganga* 'you' cannot fulfill this function as it is an adjunct, neither is there a bound pronominal available to fulfill this function either.⁵ Additionally, the

⁵ One cannot analyze the indirect objects as having a zero bound pronominal, as zero instantiation is used to mark

contrasts between (a) and (b) arise because the presence of an overt nominal is required. This also has no explanation under Hale/Jelinek's analysis of nonconfigurationality.

The strongest piece of evidence against the Hale/Jelinek approach is that there exist languages which have all the nonconfigurational properties of Warlpiri and Wambaya, but have no clitic pronouns/agreement markers at all (Nordlinger 1998:37). The examples from Jiwarli below illustrate this. Examples (30)-(32) display free word order, (33)-(34) display discontinuous constituents, and (35)-(36) show null anaphora, yet there are no bound pronominals present.

- (30) Ngatha nhurra-nha murrurrpa mana-ra.
1.sg.erg 2.SG-ACC cicatrice(ACC) get-fut
'I will get you cicatrices.'
- (31) Yinha nhurra parlura-rni-nma payipa nganaju.
this(ACC) 2.SG.ERG fill-CAUS-IMP pipe 1.SG.DAT.ACC
'You fill up this pipe of mine!'
- (32) Yawarnu wantha-rrartu ngatha.
windbreak(ACC) put-USIT 1.SG.ERG
'I used to put down a windbreak.'
- (33) Kutharra-rru ngunha ngurnta-inha jiluru.
two(NOM)-now that(NOM) lie-pres egg(NOM)
'Now those two eggs are lying (there).'
- (34) Karla wantha-nma-rni jampa juma.
fire(ACC) give-imp-hence light(ACC) small(ACC)
'Give me a small fire light.'

third person singular. See Nordlinger 1998 for further discussion.

- (35) Papa-ngka tharrpa-rninyja karla
 water-LOC insert-PST fire(ACC)
 '(He) put the fire in the water.'
- (36) Wirntupinya-nyja-rru
 kill-PST-NOW
 '(They) killed (him).' (Austin and Bresnan 1996:13-16)

In the Jiwari examples above, there are no clitic pronoun markers at all, and yet they display the three classic properties of configurationality. Thus this evidence shows that the three properties of nonconfigurationality cannot be attributed to the presence of verbal agreement morphology, as argued by Hale/Jelinek.

3.6.3 Defining nonconfigurationality

Nordlinger next shows that the Jelinek/Baker method of classifying languages as configurational or nonconfigurational, which assumes all nonconfigurational languages into a head-marking model, does not fit the language facts. Baker (1996)'s model (1996:5) allows any given languages of the world to be one of three types: Type I, like English: isolating and head initial; Type II like Japanese: dependent marking and head-final, or it can be Type III: the typical "nonconfigurational" type according to their analyses, head marking and possessing free word order. These are, according to Baker (1996), the Mohawk-type languages.

Nordlinger contends that Baker's classification system fails to accurately categorize languages such as Jiwari, which is head-initial and also shows no overt evidence of being head-marking. Using these facts, Nordlinger proposes a system which allows for an expansion of the typology to include dependent marking head initial languages and other combinations, thus including all the types of configurational and nonconfigurational languages that exist.

Since Nordlinger believes that most languages are some combination of configurational

and non-configurational, she presents a classification system that fits this assumption.

Nordlinger defines (non)configurationality in the following way: configurational languages encode argument functions in the phrase structure, and nonconfigurational languages encode argument functions in the morphology.

Nordlinger introduces her analysis by first discussing the various case functions in Australian languages, and presenting two generalizations of case function that, she argues, every theory of case needs to capture. These generalizations form her central theory about case. The first generalization is given below in (37):

- (37) Generalization A:
Case morphology can construct grammatical relations on a par with, and independently from, phrase structure. (Nordlinger 1998:6)

This generalization states that in Australian languages, and any others that appear to be radically nonconfigurational in the sense that the morphology is either the only or the main element that indicates grammatical function, case morphology can "provide exactly the same types of information about grammatical function that can be provided by phrase structure in more configurational languages" (1998:6). In other words, morphology in nonconfigurational languages can take over some or all of the duties which are performed by phrase structure in configurational languages.

The second generalization Nordlinger discusses is given below in (38):

- (38) Generalization B
Case morphology can construct the larger syntactic context, including providing complex information about the clause. (Nordlinger 1998:6)

Generalization B states that case morphology can provide information about the higher clauses in which the nominal to which it is attached is embedded, in addition to providing other clause-

level information such as tense, mood and aspect.

Nordlinger's analysis of nonconfigurationality captures these generalizations explanatorily, arguing for a "bottom-up" model of case function (1998:7), wherein case is not licensed by something higher, as it would be within a phrase structure-type analysis. Rather, Nordlinger argues that case morphology constructs its own context. In other words, the syntax of a language is partially constructed by the morphology. Nordlinger argues that case markers carry information specifying their own grammatical function at the clause level, constructing a higher constituent that has a grammatical function to which they belong (1998:7). This is the same grammatical function information that would be associated with certain positions in phrase structure in a configurational language.

Nordlinger contends that configurationality is not a parametric distinction. Rather, configurational and nonconfigurational language types represent the extremes of a continuum, with fully configurational languages; that is, languages that identify grammatical relations entirely in the syntax, on one end of the spectrum, and fully non-configurational languages, languages that identify grammatical relations purely in the morphology, on the other. Most languages are a mixture of both types, and are situated somewhere in the middle of these extremes, based on "the extent to which languages use one strategy or another" (1998:45). She cites scrambling languages such as German, Finnish, and Russian as good examples of this, since their phrase structure is endocentric in that phrase structure demands a certain order of arguments, and they also exhibit properties of lexocentricity because of their use of case morphology to encode grammatical function. In short, they are a combination of both systems.

As will be discussed in Chapter 6, because it allows for morphological components to

have interpretive grammatical function, Nordlinger's LFG-based analysis can provide an avenue for analysis of the configurationality facts in Siouan. While I do not work within the LFG framework, I build upon Nordlinger's intuition that the issue of a language's configurationality cannot be so clearly defined by Hale's three characteristics, by Jelinek's Pronominal Argument Hypothesis, or Baker's (1996) Polysynthesis Parameter, all of which assume that a language either is fully configurational or fully nonconfigurational. I will go on to argue, with evidence from Hocak, that a language can be a combination of both.

3.7 Li 2005

Li (2005) provides a theory of the syntax-morphology interface that is concerned with resolving the debate over whether complex word formation is a result of syntactic processes, as argued by Baker (1988, 1996) and others, or whether words are formed by means of lexical or morphological processes only, as is claimed by the Lexicalist Hypothesis (Chomsky 1970, Jackendoff 1972). Li examines the word-formation process of incorporation, specifically examining the claims made by Baker (1988, 1996), which argue for a purely syntactic analysis of incorporation.

In this section, I summarize the background and theory presented by Li in his 2005 book. I discuss the evidence Li presents which is problematic for a purely syntactic or purely lexicalist analysis of incorporation. Third, I present Li's theory of the morphology-syntax interface, which both straightforwardly explains the facts and reconciles both approaches to word formation processes.

3.7.1 Lexicalist evidence against syntactic NI

Section 3.3 outlined the claims put forth by Baker (1988, 1996) that argue for a head-

movement (syntactic) analysis of incorporation. His analysis has been met with great success and espousal in the world of linguistic research. Unfortunately, the purely syntactic approach to word-formation processes such as incorporation do not adequately account for all of the data. Li displays this using evidence from Arabic anaphor binding in causative constructions, which show that word formation process of morphological causativization cannot be straightforwardly handled by a purely syntactic or a purely lexicalist analysis of word formation. This is shown in (39)-(42) below, where two types of causative constructions are employed. Examples (39) and (40) display periphrastic causativization, utilizing a biclausal structure and the verb root *jʕl* 'make'. Examples (41) and (42) are the morphological causative equivalents of (39) and (40).

They utilize a special morphological causative that is part of the matrix verb.

- (39) Jaʕal-a l-mudrris-uun_i ʔ-ʔulaab_j-a yajlis-uun
 made -agr the-teacher-pl.nom the-students-acc sit-agr
- biʕaanib-i baʕḏihum l-baʕ-i*_{i/j}
 next-gen each the-other-gen
 'The teachers_i made the students_j sit next to each other*_{i/j}.'
- (40) ʔan-nisaaʔ-u_i jaʕl-an l-banaat-i_j maymuumaat-in
 the-women-nom made-agr the-girls-acc upset-acc
- min baʕḏihin l-baʕḏ-i*_{i/j}
 from each the-other-gen
 'The woman_i made the girls_j upset about each other*_{i/j}.'
- (41) ʔal-mudrris-uun_i ʔajlas-uu ʔ- ʔulaab_j-a biʕaanib-i
 the-teacher-pl.nom made.sit-agr the-students-acc next-gen
- baʕḏihum l-baʕ-i*_{i/j}
 each the-other-gen
 'The teachers_i made the students_j sit next to each other*_{i/j}.'

- (42) ʔan-nisaaʔ-u_i ʔaymam-na l-banaat-i min
 the-women-nom made.upset-agr the-girls-acc from
- baʕḏihin_i l-baʕ-i_i
 each the-other-gen
- 'The woman made the girls upset about each other.' (Li 2005:2)

In both (39) and (40), the anaphor must be bound by the subject of the small clause, thus obeying Binding Condition A, which requires that an anaphor have a local antecedent that c-commands it. The anaphors in (39) and (40) do not make a distinction between whether the embedded c-commanding predicate is a verb (as in 39) or an adjective (as in 40).

Examples (41-42) display a morphological causative, wherein a verb root itself takes causative pattern. In (41), the reciprocal can only be coindexed with 'the students'; the subject of the root *jls* 'sit', the same root as seen in (39). It cannot be coindexed with the causer subject 'the teacher'. In contrast, (42) shows a deadjectival verb 'made upset' that comes from the same root *ymm* 'upset' as seen in (40). Here, the anaphor must be bound with the causer subject 'the women.' This shows that with respect to the syntactic behavior of binding, while biclausal causatives show no contrast with respect to category of the antecedent, morphological causatives behave differently depending on the category of the antecedent root.

These anaphor binding facts for (41) do encourage a "Baker-style" incorporation analysis, wherein the causative verb is derived by raising the embedded verb root to the matrix causative affix. Under such an analysis, Binding Condition A is obeyed when the anaphor is coindexed with the embedded subject 'the students' because they are in the same local binding domain. Coindexation of the anaphor and the causer subject would cause a violation of Binding Condition A because they are not the same binding domain. However, the analysis does not work as well for (42), where the anaphor cannot be coindexed with the embedded subject. The most

straightforward analysis of the structure of (42) is a lexicalist one; that it consists of only one clause, and thus only one binding domain. Under this analysis, then, the deadjectival causative is a lexically-derived word that enters the syntax already fully-formed, as a single morpheme.

Taken all together, these facts from Arabic are just one example to show that neither the syntactic nor the lexicalist approach can adequately account for all cross-linguistic facts about word formation: the syntactic head-movement approach fails to explain how a sentence like (42) would be possible, and the lexicalist approach fails to explain the binding facts in (41).

3.7.2 The Morphology-Syntax Mapping Hypothesis, Parameter of the Lexicon

Li seeks to resolve the syntactic/lexical debate by presenting a new theory of the syntax-morphology interface which combines both approaches. He provides a morphology-syntax mapping theory based on the Lexicalist Hypothesis that accounts for morphological processes such as incorporation, which Baker (1988) argues to be the result of head movement. He examines data from several languages, acknowledging the merits of both sides of the debate, and recognizing that both the syntactic and the purely lexical word-formation process theories have empirical foundations that cannot be encroached on by the other side (Li 2005:2). Li describes his theory as "word formation according to the LH and a (properly restricted) underlying multiphrasal structure enriched by head movement" (Li 2005:6). What follows is a summary of Li's theory of the morphology-syntax interface, and a preview of how it will be applied to analyze Siouan configurationality.

Li holds that a theory of the syntax-morphology interface should be able to predict when a word acts like a morphologically simple unit, and when it behaves as or holds in itself a complex syntactic structure. His theory consists of a combination of "syntax independent word-

formation in the style of the Lexicalist Hypothesis" (2005:4) and the Morphology-Syntax

Mapping Hypothesis (MSMH), given below in (43):

- (43) The Morphology-Syntax Mapping Hypothesis (MSMH)
 If morphological components X and Y are in a word W and there is a relation R between X and Y, then R is reflected in syntax if and only if:
- a. R is thematic, and
 - b. the representation of R in the syntax obeys all syntactic principles.
- (Li 2005:4)

This hypothesis basically states that a relation between morphological components in a word must be reflected in syntax if that relation involves the assignment of theta roles. The MSMH is Li's (2005) answer to Baker (1988)'s Uniformity of Theta Assignment Hypothesis (UTAH). UTAH states that thematic relations between arguments must be identically represented in the syntax at D-structure. What distinguishes the MSMH from UTAH, and what as we will eventually see makes the MSMH effective for analyzing Siouan, is that the MSMH allows that thematic-syntactic mapping can be *conditioned*, rather than required (Li 2005:5).

Both the MSMH and UTAH attempt to map word-internal thematic relations to corresponding syntactic structures (Li 2005:60), albeit with two important differences, which, Li argues, ultimately show the MSMH to be the superior hypothesis: first, the MSMH allows for selective syntactic representation of a word-internal thematic relation and the UTAH does not. As a result, Li concludes that the MSMH more accurately accounts for the facts. Second, when there is no thematic relation between two morphological components of a word, the MSMH forbids this relation to be represented in syntax. The UTAH does not, and leaves the decision of where to represent thematic relations presumably to some other component of UG. Li makes the crucial observation that just because something *can* be derived syntactically via UTAH, it does not necessarily mean that it *must* be, and, in fact, lexical word formation rules are necessary in

order to accurately account for the facts. Li presents evidence from Chinese resultative compounds that show this: in the following examples, we see that Chinese resultative compounds cannot be derived via head-to-head movement, and UG has no principle to stop this movement.

In brief, there are two types of resultatives in Chinese: the first is a compound, and the other is biclausal, referred to as the *V-de* construction because it is formed by suffixing *-de* to the causing verb, then following this with the result verb. These two types of resultative constructions behave differently with respect to the aspectual properties of duration adverbials that may appear in these constructions. Examples (44) and (45) below show that duration adverbials can occur freely inside the embedded clause of a *V-de* construction, but are unacceptable in compound resultative constructions. The examples in (44) show duration adverbials in *V-de* constructions, and the ones in (45) show them in compound resultative constructions.

- (44) a. Li Kui lei-de [ku-le lian-tian].
 Li Kui tired-asp cry-asp two-day
 'Li Kui was so tired he wept for two days'
- b. Li Zhishen bei dou-de [xiao-le yige shichen]
 Li Zhishen passive amuse-DE laugh-asp one two.hour
 'Li Zhishen was so amused that he laughed for two full hours.'
- (45) a. Li Kui lei-ku-le (*lian-tian).
 Li Kui tired-cry-asp two-day
 Intended reading: same as (9a)
- b. Li Zhishen bei dou-xiao-le (*yige shichen).
 Li Zhishen passive amuse-laugh-asp one two.hour
 Intended reading: same as (9b) (Li 2005:58)

This contrast is unexpected if the compounds in (45) were derived by raising the result verbs out

of a resultative phrase, because as the examples in (44) show, durational adverbials are able to modify a syntactically projected result verb denoting an action. In other words, if a durational adverbial can modify the syntactically projected result verbs in (44), there is no reason why they would not be able to modify the ones in (45), if they are also derived syntactically through head movement out of a resultative phrase. If, however, the compounds in (45) are considered lexical verbs, it is easy to explain why these sentences are ungrammatical: resultative compounds are intrinsically accomplishment verbs with endpoints, thus they cannot be modified by duration adverbs. Li provides the example below to illustrate this fact:

- (46) Qiangdao bei sha-le (*yige shichen)
 bandit passive kill-asp one hour
 'The bandit was killed (*for an hour).' (Li 2005:59)

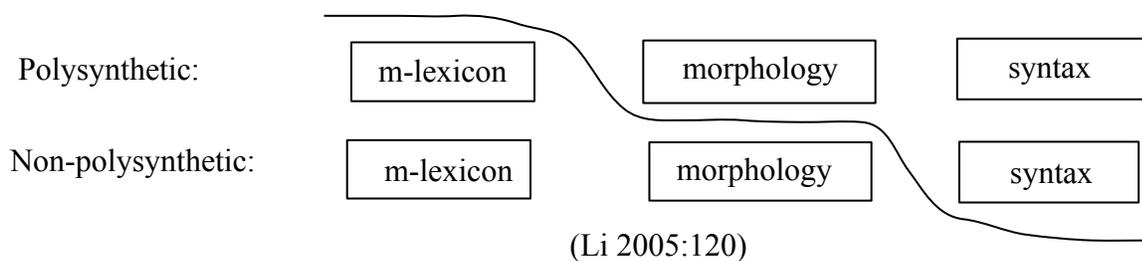
In (46), the accomplishment verb 'kill' cannot be modified by a duration adverb, just as the accomplishment verb 'laugh' in (45b) also cannot be modified by a duration adverb, thus the sentence is ungrammatical for the intended meaning. Li argues that lexical word formation mechanisms are necessary even though syntax *can* explain the facts: "showing that a specific instance of movement can happen is not enough to justify that it does happen" (Li 2005:59).

Both the UTAH and the MSMH exist to map word-internal thematic relations to syntactic structures. However, the differences between them yield different results when applied to the word formation of compounding. The MSMH forbids any word-internal nonthematic relation to be represented in syntax, as seen in the Chinese resultative compound data. The UTAH does not have this restriction. Since the goal of both the UTAH and the MSMH is to map a complex word to a syntactic structure, and since the UTAH does not properly restrict the results and the MSMH does, Li concludes that the MSMH is the superior method for mapping morphology to syntax.

Li uses his theory to account for the process of incorporation. He examines Baker's (1988, 1996) head movement analysis of incorporation, and shows the ways in which his theory is an improvement over Baker's. Baker (1996) examines polysynthetic language data to support his argument for his Morphological Visibility Condition (MVC), discussed earlier in Section 3.3. With the MVC, Baker claims that for polysynthetic languages, certain morphological components are needed for theta-role assignment in syntax, and that the internal structure of a word is visible to syntax.

The MVC is the result of Baker's claim that languages of the world are divided into two groups: polysynthetic languages, whose morphology is transparent to syntax and whose words contain actual morphemes that correspond to thematic material, and non-polysynthetic languages, whose words do not necessarily contain morphemes that correspond to theta roles. Li addresses the question of why languages might be divided this way, and observes that this question correlates to the question of where the lexicon-syntax boundary is located in a language: If a language possesses morphological processes that are transparent to syntax, this may show that these processes are taking place outside of the lexicon. If, contrastingly, a language's morphology is not transparent to syntax, Li takes this as a clue that these morphological processes are still inside the lexicon. He argues that in fact the lexicon-syntax boundary may not be the same for every language; rather, it may be parameterized. This is presented in the Parameter of the Lexicon (henceforth PoL), shown below in (47). Li defines the m-lexicon as the collection of morphemes in a language, and the morphology as the component of the the grammar that generates lexical words with morphemes:

(47)



In the PoL, everything to the left of the curved line is considered the lexicon. This captures the observation that words can be transparent to syntax in polysynthetic languages and blind to syntax in non-polysynthetic languages: in polysynthetic languages, the lexicon-syntax boundary is between the m-lexicon and the morphology, and in non-polysynthetic languages, the lexicon-syntax boundary is between the morphology and the syntax. In addition to the PoL, Li presents the following axiom, which allows his theory to "mesh" with the MVC:

(48) Thematic operations must be carried out at the earliest possible level of postlexical derivation.

(Li 2005:121)

This axiom, coupled with the PoL, explains the difference between polysynthetic and non-polysynthetic languages in terms of the morphological components being available to interact with the syntax. In polysynthetic languages, theta roles are discharged at the morphological, or word level, and in non-polysynthetic languages, theta roles are discharged later. In later chapters, I will discuss how the PoL and MSMH allow a correct interpretation of the configurationality facts in Siouan.

3.8 Conclusion

In this chapter, I have reviewed the relevant background literature relating to the issue of configurationality and its scholarship thus far that is relevant to the central thesis of this book.

Going in chronological order, first I reviewed Hale (1983)'s first observations of the three elements often found in configurational languages and the Configurationality Parameter, then Jelinek's improvement with the Pronominal Argument Hypothesis. I then review the work of Baker (1988, 1996) and the Morphological Visibility Constraint, and the Polysynthesis Parameter, with evidence from Mohawk. Next, Speas (1990) refutes the whole idea that nonconfigurational languages, as a different structural entity, do not exist. I then present the somewhat alternate viewpoint of Nordlinger (1998), who argues that in fact languages can be a mix of both configurational and nonconfigurational. Lastly, I present a new viewpoint on the morphosyntactic behavior of these so-called nonconfigurational languages from Li (2005), who presents the idea that the difference between configurational English-type languages and nonconfigurational Mohawk-type languages rests in the difference between where the lexicon-syntax boundary rests in each language type. A discussion of this background work on configurationality is essential for an understanding of the arguments I will make in later chapters as to the nature of configurationality in Siouan, as it builds on all of these prior observations of (non)configurationality.

CHAPTER FOUR

CONFIGURATIONALITY IN OTHER SIOUAN LANGUAGES

4.1 Introduction

This chapter summarizes previous scholarship on configurationality in other Siouan languages. Many of the diagnostics used to determine the configurationality status of these languages are ones I have used in my analysis of Hocąk configurationality, thus it is important that these diagnostics are discussed here. Recall that the definition of configurationality I am using here is the one used by most Siouanists: a configurational language is one that has a VP; that is, the language has a constituent comprised of the object and verb, to the exclusion of the subject.

4.2 Williamson (1984)

Williamson (1984) argues that Lakota is nonconfigurational, and additionally that Lakota pronominal prefixes are instances of agreement with dropped NPs. Her evidence for lack of a VP comes from the fact that there appear to be no subject-object asymmetries associated with the Empty Category Principle in Lakota. For example, no *that*-trace effect exists in the language. *That*-trace violations occur when a subject *wh*-phrase is long-distance extracted across an overt complementizer. Additionally, Lakota allows long-distance extraction out of *wh*-islands. These facts are shown in examples (1)-(3) below, where (1)-(2) show long-distance movement of a *wh*- phrase over a complementizer, and (3) shows long-distance extraction out of a *wh*-island.

- (1) Mary tuwa wayake ki ilukcha he
 Mary who see COMP you.think Q
 'Who do you think that Mary saw?' (Williamson 1984:281, (64a))

- (2) Tuwa hel naži he ki iluchka he?
 who there stand DUR COMP you-think Q
 'Who do you think that was standing there?' (Williamson 1984:281, (65a))
- (3) Toha tuwa u pi ki slolyaya he?
 when who come PL COMP you.know Q
 'Who do you know when is coming?' (Williamson 1984:281, (66a))

Long-distance extraction out of a *wh*-phrase should not be possible in a language that has a VP, because this would constitute a violation the Empty Category Principle (ECP). Since the Lakota sentences above are grammatical, Williamson argues, there is no VP node in the language; both subject and object are c-commanded by the verb.

Williamson does argue, however, that while the surface structure of Lakota is VP-less and lacks subject-object asymmetry, internally, the subject and object must be hierarchically arranged in order to allow for non-surface syntactic relationships such as Case assignment. As part of her analysis of Lakota syntax, she constructs a "virtual" (West 2003:30) syntactic structure that exists on top of the flat surface structure, which accounts for underlying syntactic relationships.

4.3 Van Valin (1977, 1985, 1987)

Van Valin (1977) examines Lakota pronominal affixes, and considers them arguments based on the fact that they are in complementary distribution with lexical DPs. In Van Valin (1987), he argues that Lakota syntactic structure is flat; that the language has no VP. He presents four pieces of evidence to support this argument. First, order of NPs in Lakota is quite free. As argued by Hale (1983), Jelinek (1984) and others, free word order is one of the typical characteristics of a nonconfigurational language. Second, like Williamson, he notes the same lack subject-object asymmetries associated with the ECP (no *that*-trace effect, movement out of

are themselves arguments rather than agreement morphology, that the phonologically null third person pronominal affixes are arguments in the absence of a coreferential lexical NP, and lexical NPs are arguments when present.

First, he argues that SAP pronominal affixes are arguments because they are obligatory, while independent pronouns serve an appositive or emphatic function only. Bound pronominal affixes co-occur with independent pronouns, which are always syntactically optional and serve a emphatic function when present, as shown below in (5):

- (5) hileen awaxaawé bíiluun xalússhi-wa -hk -uu -k
 these mountains 1.PRO.PL run-1.A -CAUS -PL -DECL
 'We are the ones who run these mountains.' (Graczyk 1991:89)

In (5), the independent pronoun *bíiluun* and the first person pronominal affix *-wa* co-occur.

Because Crow requires no independent pronoun to fulfill the argument requirements of the verb, Graczyk argues, the pronominal affixes are arguments.

Second, Graczyk argues that the null third person pronominal prefixes are arguments in the absence of a coreferential lexical NP. He refers to them as "syntactic formatives" that have optional syntax (Graczyk 1991:92). He gives the following facts as evidence: First, no coreferential NPs are required for a Crow sentence to be well-formed. This is illustrated in (6) below:

- (6) Ø- Ø- ataali -k
 3B- 3A- steal -DECL
 '(s)he stole (it).'
- (Graczyk 1991:92)

In (6), the arguments are understood. Second, null third person pronominals can serve as the antecedents of reflexives (7) and reciprocals (8):

- (7) baa- luúsh -koow -ii -ak hinne óotchia-sh xap -ák
 INDEF- eat -finish-CAUS -SS this night-DET lie.down -SS

ihch- Ø-íassee-k huu -k
 REFL- 3A-watch-DECL say.PL -DECL

'He finished eating, that night he lay down, he watched himself, they say.'
 (Graczyk 1991:93)

- (8) bach- Ø- kuxs -úu -k
 RECIP- 3A- help -PL -DECL
 'They helped each other.' (Graczyk 1991:93)

Third, a lexical NP can serve as the antecedent for a null third person pronominal affix in conjoined clauses. This is shown in (9) below:

- (9) Hísshishtawia húu-laa uá dappii-ák eelé axús-ak dáake
 Red.Eyed.Woman come-SS his.wife kill-SS belly slit-SS her.child

dachka-káat -uu -m dútt-ak hawáte bitáalasshia aliíchia-s(s)- shiit-ak
 twin-DIMIN -PL -DET grab-SS one lodge.screen behind-GOAL throw-SS

hawáte bahée awúua-s(s)-shiichi-k
 one spring inside-GOAL-throw-DECL

'Red Eyed Woman came, she killed his wife, slit her belly, she grabbed her twin children, one she threw behind the lodge screen, the other she threw into the spring.'
 (Graczyk 1991:93)

In (9), there are five conjoined clauses all containing the subject marker suffix *-ak*, all having the same lexical NP antecedent *Hísshishtawia* 'Red Eyed Woman.'

As stated above, Graczyk does not take a strong stance on the configurationality status of Crow, but proposes that it is "loosely configurational." He cites lack of free word order as one of the main pieces of evidence that the language is configurational. SOV is the neutral word order in Crow, as in all Siouan languages, and any other word orders have discourse-informational effects. This is shown in example (10) below, which has OVS word order:

- (10) *i*xp-úua *í*tchi-kiss -uua-sh *k*ootáa *h*íi-k *h*inne *t*alée-sh
 their.feather-PL good-sport-PL-DET entirely reach-DECL his oil-DET
 'It entirely covered their beautiful feathers, this oil' (Graczyk 1991:103)

In (10), the use of OSV word order deemphasizes the discourse-old subject *talee* 'oil', and emphasize the object *i*xp 'their feather'.

He lists both the nonconfigurational and configurational characteristics of Crow, which I reproduce here in Table 1:

Table 1

non-configurational	configurational
<ul style="list-style-type: none"> ▲ freer word order (than, say, English) ▲ few syntactic phenomena (such as passivization) where hierarchical structure is relevant ▲ nominal arguments may be marked exclusively on the verb 	<ul style="list-style-type: none"> ▲ lexical NPs not marked for case 3rd person arguments are phonologically null, which suggests that word order could determine grammatical roles of NPs ▲ constraints on word order exist (SVO, VSO, VOS orders disallowed) ▲ nominal and postpositional objects can incorporate, suggesting object is sister to verb in VP ▲ no evidence that lexical NPs are <i>not</i> arguments

(from Graczyk 1991:111)

Graczyk does not take a stance on the configurationality of Crow, but he does propose that the "freer" word order in Crow may not really be so free in a syntactic sense; that is, word order changes have more to do with discourse and less of showing a nonconfigurational structure for the language. Thus, he tentatively proposes that the language is configurational, and states that more detailed analysis is needed to determine the language's true status with respect to hierarchical argument structure.

4.5 West (2003)

West (2003) examines Assiniboine, also sometimes referred to as Nakoda. She argues that this language is fully configurational, with pronominal person markers being agreement markers rather than arguments. In her analysis, DPs also fulfill verbal argument requirements.

West argues that Assiniboine has subject-object asymmetry (and thus a VP) based on three pieces of evidence. First, Assiniboine has restrictions on word order. As in Crow, neutral word order in Assiniboine is SOV. Any change in word order results in discourse-informational effects. This is shown in (11) below, which has OSV word order:

- (11) škóšobena wāži hokšína že yúda
 banana a boy DET ate
 'The boy ate a *banana* (not an apple).' (preferred translation) or
 'A banana ate the boy' (West 2003:49)

In (11), the fronted object *škóšobena* 'banana' has a preferred focus reading, otherwise the first NP is interpreted as the subject. Since free word order has long been considered one of the hallmarks of nonconfigurationality (c.f. Hale 1983, Jelinek 1984 and others), the lack of free word order in a language can be argued to be evidence against that language's nonconfigurational status.

Second, there is extensive evidence of subject-object asymmetry from coordination data. Assiniboine coordination targets VPs; that is, it targets a verb + object unit that excludes the subject. This is illustrated in example (12) below:

- (12) Wíyā že wicá že wayága hīkná céya
 woman DET man the see CONJ cry
 'The woman saw the man and cried'
 *'The woman saw the man and he cried' (West 2003:34)

In (12), the subject of the second clause verb *ceya* 'cry' can only be *wiya* 'the woman', the subject

of the first clause. If Assiniboine had a flat structure, we would expect that *wica* 'the man' could also be interpreted as the subject of the second clause. Thus, this supports an analysis of the subject being higher and separate from a V+O node (VP).

Additionally, clitics take scope over both verbs in coordinated structures, not just over the verb to which they are attached. This is shown below in (13):

- (13) Wiyá-bi žé-na woyúta spāyá-bi hikná hayábi gaǵéǵe-bi s'a
 woman-PL the-PL food cook-PL CONJ clothes sew-PL HAB
 'The women usually cooked the food and sewed the clothes' (West 2003:39)

In (13), the aspectual clitic *s'a* takes scope over both verbs; the sentence cannot mean 'the women cooked the food and usually sewed the clothes' (West 2003). If Assiniboine had no VP, this reading should be possible. West (2003) argues that clitics head functional projections that c-command the coordinated elements (VPs), therefore the enclitic scope in these constructions show that VPs exist in the language.

Like previous Siouan scholars, West additionally makes claims about the status of the pronominal prefixes. She argues that Assiniboine SAP pronominal prefixes are *pro* arguments, and that third person arguments can either be lexical (NPs) or a pronominal *pro*. Evidence for this argument comes from Binding Condition C (BCC) effects in Assiniboine, as well as the presence of determiner-type (D-type) quantifiers in the language. According to Baker (1996), effects such as those resulting from binding conditions should only take place with arguments. West additionally shows that BCC holds for DPs and *pro* in Assiniboine. Baker also predicts that since nonreferential quantifiers are banned from adjunct positions, and nonconfigurational languages necessarily put all DPs in adjunct positions, nonconfigurational languages should not have true quantifiers, and yet Assiniboine has them. These specific pieces of evidence will be

discussed in greater detail in Chapter 6, in my analysis of the status of Hocąk pronominal affixes.

4.6 Boyle (2007)

Boyle (2007) examines Hidatsa, arguing that it is "strongly configurational" (Boyle 2007:212), that it has a VP, and thus subject-object asymmetry. His two main pieces of evidence to support this argument are 1) fixed word order and 2) subject-object asymmetry is apparent; Hidatsa displays this evidence in of coordination, noun incorporation, and scope of enclitics and locative adjuncts.

First, Hidatsa has fixed word order, meaning that any change to the default word order has discourse-informational effects. As in Crow and Assiniboine, Hidatsa unmarked word order is SOV, with any other word order reserved for topicalization or focus effects. This is shown below in (14), which has SOV order, and (15) which has OSV word order.

(14) buushígesh washúgash éegaac
 puušíhke-š mašúka-š éekaa-c
 cat-DET.D dog-DET.D see-DECL
 'The cat sees the dog.' (Boyle 2007:214)

(15) masúgash buushígesh éegaac
 masúka -š puušíhke-š éekaa-c
 dog-DET.D cat-DET.D see-DECL
 'The cat sees the dog.' (Boyle 2007:214)

In (15), *masúgash* 'dog' is interpreted as focused or topicalized (i.e. 'It was *the dog* the cat saw') due to its movement to the left edge.

Boyle's (2007) second argument for the configurationality of Hidatsa comes from its evidence of subject-object asymmetry. Some of these tests are the same as those used by West (2003). Coordination again supports the argument that a VP exists. First, coordination targets VPs in Hidatsa, as in Assiniboine. In the example (16) below, the elided element is the verb and

the object, to the exclusion of the subject:

- (16) Alex wía ikáaa réec
 Alex wía ikáa-a rée-c
 Alex woman see-CONT leave-DECL
 'Alex saw the woman and (Alex/*the woman) left.' (Boyle 2007:217)

In the above example, 'Alex' must be the subject of both conjuncts.

Additionally, as in Assiniboine, enclitics take scope over both conjuncts. In example (17) below, the enclitic *-ʔii* takes scope over both conjuncts:

- (17) “doosha wiriʔéeraga adáʔa kʰúuiidoog”
 “toošʰa wiri-éeraka atá-a kʰúu-ʔii-took”
 how sun-DEM appear-CONT come.up-HAB.SG-SPEC
 “How does the Sun always appear and come up?” (he wondered) (Boyle 2007:223)

Like West (2003), Boyle also argues for an analysis of enclitics as heading functional projections that c-command the coordinated elements, thus the enclitic scope data serve as evidence for the existence of a VP in Hidatsa as well as Assiniboine.

Third, Hidatsa has productive noun incorporation, in which only objects can incorporate. Subjects cannot incorporate, which is consistent with an analysis of the language that puts verb and object together as part of VP, excluding the higher subject. Example (18) below shows an object that has incorporated into the verb. Example (19), in contrast, shows that it is impossible for the subject to move downward and incorporate into the verb.

- (18) macée iidagidiheec
 wacée iítaki-ti-hee-c
 man rabbit-die-CAUS.D.SG-DECL
 '(a) man kills (a) rabbit' (Boyle 2007:236)

- (19) iidagi wacéediheec
 iítaki wacée-ti-hee-c
 rabbit man -die-CAUS.D.SG-DECL
 *'(a) man kills (a) rabbit'
 (a) rabbit kills (a) man' (Boyle 2007:236)

The NI data show that Hidatsa has a subject/object asymmetry; the subject is higher and cannot move downward to incorporate into the verb. Such movement would result in a violation of the ECP.

Boyle also makes three points about the pronominal prefixes in Hidatsa. First, he argues that the SAP prefixes are arguments rather than agreement morphology, citing the same evidence as Graczyk--independent pronouns are always optional and serve an emphatic function, as shown below in (20):

- (20) wík aru-waakúa-t^haa-c
 I.PRO FUT-1A.go.home- NEG-DECL
 '(as for me), I will not go home' (Boyle 2007:248)

Second, Boyle argues that lexical DPs also are arguments, and third, when there is no overt DP, a null third person *pro* serves as the argument. Boyle argues that Hidatsa is a head-marking configurational language, which is a category not listed in Van Valin's (pg. 246). He proposes that Crow, which was argued by Graczyk to have similar properties with respect to its pronominal affixes, is also of this type.

4.7 Conclusion

This chapter has covered previous analyses of configurationality in other Siouan languages. Many of these same diagnostic tests used in these works will be revisited in Chapter 7 when analyzing the configurationality of Hocąk. This chapter has also touched on previous scholars' analyses and treatment of the pronominal affixes, which will also be discussed in Chapter 7 with respect to Hocąk.

CHAPTER FIVE

CROSS-LINGUISTIC SAP/THIRD PERSON ANALYSES

5.1 Introduction

This chapter presents overviews of several articles that examine the SAP/third person split in morphological behavior that is present in many of the world's languages. The articles I have chosen to discuss here are those which I have found to be most useful and informative when examining the morphological behavior, specifically the SAP/third person split, in Siouan. These articles presented here delve into the SAP/third split issue in languages other than those in the Siouan family, and provide analyses for understanding these splits and their function in their respective languages. While the articles may discuss the material while operating under different theories, they all serve as a useful and informative background in the analysis of the SAP/third person split.

5.2 Benveniste (1971)

Benveniste (1971) first noted the tendency of many languages of the world to make a distinction between discourse participant and non-discourse participant. He bases his argument on observations of languages that distinguish morphologically between SAP and non-SAP arguments. He points out that, semantically, SAPs necessarily contain information about the speaker's position; that is, SAPs require discourse in order to get reference, while third person forms may have reference independent of discourse. He postulates the feature [person] to distinguish between SAP and third person forms, suggesting that "[p]erson belongs only to *I/you* and is lacking in *he*" (Benveniste 1971:217). Third person forms are underspecified for the feature [Person], and only SAPs participate in [Person] agreement.

- (c) bayi yaɾa/balan djugumbil
 VIS.THERE.ABS.M man.ABS/VIS.THERE.ABS.F woman.ABS
 miyandanju
 is.laughing
 'Man/woman (there) is laughing'
- (2) bayi yaɾa baŋgun djugumbiɾu buɾan
 VIS.THERE.ABS.M man.ABS VIS.THERE.ERG.F woman.ERG looking.at
 'Woman is looking at man'

Examples (3-5) below display the nominative-accusative case marking on SAP nominals.

- (3) ŋadja/ŋinda miyandanju
 1NOM/2NOM are.laughing
 'I am/you (sg.) are laughing'
- (4) ŋadja/ŋindaŋinuna/ŋayguna buɾan
 1NOM/2NOM 2ACC/1ACC look.at
 'I/you look at you/me'

Lastly, example (5) shows SAP and third person forms combined, with both types of case marking present on their respective nominal forms.

- (5) (a) ŋadja bayi yaɾa buɾan
 1NOM VIS.THERE.ABS.M man.ABS look.at
 'I am looking at the man'
- (b) ŋayguna baŋgul yaɾaŋgu buɾan
 1ACC VIS.THERE.ERG.M man.ERG look.at
 'Man is looking at me' (Silverstein 1976:150)

Silverstein argues that the Dyirbal case-marking system illustrated above expresses a specific notion of the 'naturalness' or unmarked character of the various noun phrases in different adjunct functions, particularly the transitive ones. He argues that it is most 'natural' in transitive constructions for first or second person to act on third, least 'natural' for third to act on first or second. Therefore, this points to a hierarchy of interpretation based on animacy such that SAP forms, which are more likely to be animate, are favored by the nominative-accusative case-

marking systems.

According to Silverstein's analysis, there are "basically only two pronoun types, traditionally categories of 'first' and 'second' persons." (Silverstein 1976:117). He refers to them as "shifters" that both index and denote participants in the speech act. He contends that third person behaves in a completely different manner from first and second person syntactically, which is supported in the evidence from Dyirbal displayed above. Silverstein further argues that accusative systems are favored by forms more likely to be animate (first and second persons in Dyirbal, for example), and that ergative systems are favored by non-animate forms (third persons).

5.4 Noyer (1992)

Noyer (1992) categorizes morphological forms based on their features. First person is categorized with the feature [\pm I], and second person with the feature [\pm you]. Additionally, following the observations of Benveniste (1971), Noyer assigns the feature [+participant] to refer to those morphological forms that have *either* first [+I] or second [+you] person features, or both, because they are both participants in the discourse. Thus SAP morphological forms have the feature [+participant]. Citing evidence from Hocak, Navajo and Lummi, he argues that that SAP forms "may function as a natural class in language" (Noyer 1992:172). In the examples below, each of these languages has a single morphological form that includes both first and second person. First, Hocak free pronouns distinguish only between SAP and third person, and disambiguation of first and second person is achieved through the verbal morphology (first and second person pronominal forms). This will be discussed in detail in the next chapter.

In Navajo, first and second person plural pronouns are homophonous:

- (6) *nih* 'we/you (pl)' independent pronoun
-nih- 'we/you (pl)' object clitic

(Noyer 1992:151)

In Lummi, a Salish language, first and second person accusative agreement affixes are homophonous:

- (7) *oŋəs* = 1sg accusative
oŋəs = 2sg accusative
oŋət = 2 pl accusative

(Noyer 1992:152)

Based on these and other cross-linguistic observations, Noyer concludes that SAPs share a special feature relationship that excludes third person features. He distinguishes SAP forms from third person with the feature [participant], where SAP forms are [+participant] and third person forms are

[-participant]. This is consistent with Benveniste's position that third person forms cross-linguistically do not bear the feature [Person]. First and second person forms are then disambiguated through verbal morphology.

Noyer notes a dependency relationship between local (SAP) and non-local (non-SAP) person marking. He observes that cross-linguistically, morphemes referencing the combination of a non-local individual (third person) and first person surface with first person morphological features rather than the third person ones, and morphemes that combine a non-local individual with second person display second person features. This shows that the morphological realization of SAP forms is "prioritized" over third person by the grammar.

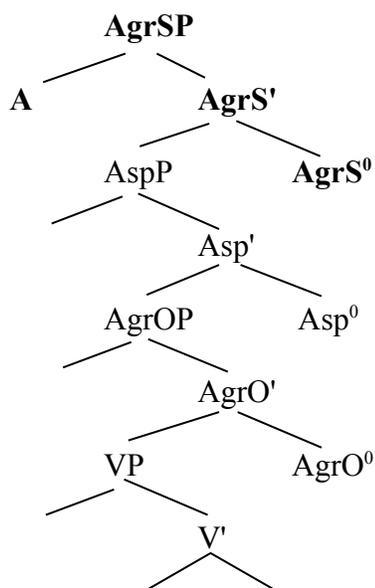
5.5 Rice & Saxon (1994)

Rice & Saxon (1994) argue that Subject Agreement and Number head two distinct functional projections in the syntax. Examining Slave (Athabaskan), they note that in fact only

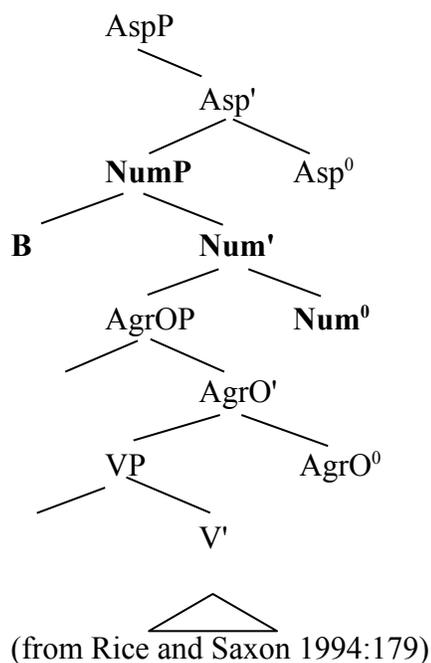
SAPs can enter into subject agreement, and that only third person forms can be distinguished from each other in terms of number. They express the differences between SAP and third person pronouns in Slave (Athabaskan) structurally by proposing an expanded TP, wherein SAP subjects are indicated structurally with the subject agreement node AgrS, as only SAP forms can engage in subject agreement in Slave, and third person forms are indicated with NumP.

Example (8) below, shows each of these structures for SAP and for third person forms. In (8a), **A** indicates SpecAgrSP, the position in which SAP subjects are checked for [Person]. In (8b), **B** indicates SpecNumP, the position in which third person subjects are checked for [Number].

(8) a.



b.

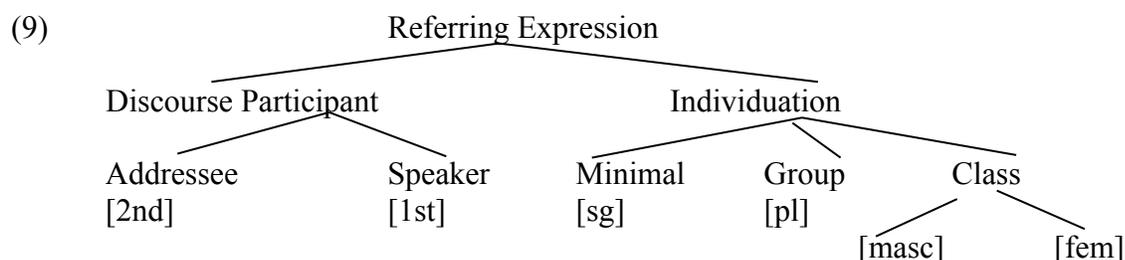


Thus Spec, AgrSP is the location at which SAP subjects are checked for the [Person] feature, and Spec,NumP is the location at which third person subjects are checked for [Number].

5.6 Ritter (1995), (1997)

Ritter (1995) provides a structural account of the morphological differences between SAP and third person forms by expanding DP to include the [Number] feature. She draws from evidence from Hebrew, showing that third person forms consist entirely of gender and number features, and that it is the feature [Number] that distinguishes third person forms from SAP forms. In this way, Ritter expresses Benveniste's original observation that SAP forms are [+Person], and third person forms are [-Person] in structural terms.

Ritter (1997) proposes a geometric person hierarchy to account for the facts noted in Noyer (1992) and her own earlier work, which capture SAP forms as a natural class. She examines Arabic and Ojibwe to argue further for this geometric representation. In this system, referring expressions are first separated into the two natural classes of discourse participant and "individuation", which captures the feature of third person forms. The SAP forms are disambiguated on a lower tier into first and second person features, and likewise the third person features are separated in terms of number and gender. I recreate and present the chart below in (9):



(Ritter 1997:5)

In this model, the topmost node projects all referring expressions, either local and non-local, separating them into two branches. This captures SAPs as a natural class. A morpheme is

interpreted as third person only when no Discourse Participant node is projected.

Disambiguation between SAPs is done on a lower node, *after* the SAP node has been projected.

5.7 Brittain (2001)

In her dissertation on Algonquian morphosyntax, Brittain (2001) examines the difference in SAPs and third person forms using examples from Western Naskapi, an Algonquian language. Under her analysis, in Algonquian languages the formal difference between local and non-local forms does not constitute two different systems of agreement, but rather a difference between the *type* of agreement relations entered into by SAP and non-SAP arguments (Brittain 2001:42).

Brittain provides evidence from Western Naskapi that supports Benveniste (1971) and Noyer (1992)'s hypotheses that third person forms do not bear the feature [Person], and that SAP is prioritized over third person by the grammar. In Western Naskapi, when local (SAP) and non-local (third person) forms are combined, only the SAP form is actually marked on the verb. This is shown below in examples (10) and (11). In (10), first and third person are combined in the agent of the verb, and only first person is marked with a pronominal clitic. In (11) the second and third person combine, and again the plural form is only indexed with the second person pronominal clitic⁶:

- (10) *Western Naskapi 1st exclusive: 1+3=1.pl*
 Niwâpimânân.
 ni-wâpim-ânân
 1-see(TA)-IIN.O:3/S:1.pl.excl
 'We (s/he and I) see him/her.'

6 Algonquian verbal morphology are grouped into two classes known as the Independent and Conjunct orders. The morphological claims made by Brittain with respect to differences between SAP and third person behavior are most evident in the Independent order; more limitedly observable in the Conjunct order, which is more fusional (Brittain 2001:42). Thus all examples given here are from the Independent order.

- (11) *Western Naskapi 2nd exclusive: 2+3=2.pl*
 Chiwâpiminâw.
 chi-wâpim-inâw
 2-see(TA)-IIN.O:1/2S:2.pl
 'You.pl see me.' (Brittain 2001:43)

As shown in these examples, the SAP forms are "prioritized" by the grammar such that these are the forms that are indexed on the verb, to the exclusion of the third person forms.

Brittain (2001) lists two major formal differences between the morphological behavior of SAP versus third person forms in Algonquian. First, there are different restrictions with respect to the occurrence of pronominal prefixes. Second, the actual inflectional suffixes are different.

The first difference is shown below in examples (12) and (13) from Western Naskapi, where the second person pronominal prefix is the only one that occurs with local forms (12), but *either* first or second person pronominal prefix can appear combine with third person forms (13).

- (12) a. Chiwâpimin.
 chi-wâpim-i-n
 2-see(TA)-IIN.Dir/th-FC:SAP
 'You.sg see me.'
- b. Chiwâpimitin.
 chi-wâpim-iti-n
 2-see(TA)-IIN.Inv/th-FC:SAP
 'I see you.sg.' (Brittain 2001:44)
- (13) a. Niwâpimâw.
 ni-wâpim-â-w
 1-see(TA)-IIN.Dir/th-FC:third person
 'I see him/her.'
- b. Niwâpimikw.
 ni-wâpim-ikw
 1-see(TA)-IIN.Inv/th
 'S/he sees me.'

- c. Chiwâpimâw.
chi-wâpim-â-w
2-see(TA)-IIN.Dir/th-FC:third person
'You.sg see him/her'
- d. Chiwâpimikw.
chi-wâpim-ikw
2-see(TA)-IIN.Inv/th
'S/he sees you.sg' (Brittain 2001:45)

If there is no SAP argument, no pronominal clitic appears on the verb. This is shown below in (14):

- (14) a. Wâpimâw.
wâpim-â-w
see(TA)-IIN.Dir/th-FC:third person
'S/he sees him/her.'
- b. Wâpimikuw.
wâpim-ikw-w
see(TA)-IIN.Inv/th-FC:third person
'His/her son sees him/her.' (Brittain 2001:45)

Brittain argues that her analysis of the pronominal clitics does not require that a null third person pronominal clitic be posited, because the SAP pronominal clitics adjoin to an Agr node that checks [Person] and third persons are not marked for this feature.

The second difference between SAP and third person forms is that they have different theme signs. Theme sign is the term given to a type of verbal bound morpheme that provides information about the "direction" of the action according to the person/gender hierarchy that exists in various forms in all Algonquian languages:

- (15) The Algonquian Person/Gender Hierarchy⁷
2>1>Indefinite Actor/animate>3>4>5>inanimate (Brittain 2001:25)

A direct theme sign indicates that the hierarchy is "respected"; for example, a situation in which

⁷ The persons 4 and 5 refer, respectively, to the obviative and further obviative persons, which index less salient non-local referents, distinguishing them from more salient third person referents.

second person is acting on first person. The inverse theme sign indicates the opposite; for example, first person acting on second person. Theme signs are categorized into two groups: those used with SAP forms, and ones used with third person forms. This is shown below in

Table 1:

Table 1

	SAP	Third person
Direct	<i>-i</i>	<i>-â</i>
Inverse	<i>-iti</i>	<i>-ikw</i>

(adapted from Brittain 2001)

Looking back to examples (12-14), we can see the difference between the theme signs in (12), which display the SAP theme signs *-i* and *-iti*, and those in (13-14), which display the third person theme signs *-â* and *-ikw*.

5.8 Conclusion

In this chapter, I have presented and discussed previous scholarship that examines the cross-linguistic phenomena of differences between the morphological behavior of SAP forms and third person forms. The arguments and observations put forth in previous work are directly relevant and informative to the argument at hand in this dissertation, and serve as useful background information to complement and enhance the understanding of the arguments I will make for Siouan SAP and third person morphological behavior in later chapters.

CHAPTER SIX

SPLIT CONFIGURATIONALITY IN HOÇAK

6.1 Introduction

As discussed in previous chapters, there has been much debate in recent decades about configurationality in language: its nature, whether languages are configurational or nonconfigurational, or even whether nonconfigurational languages really exist. I argue in this chapter that Hocak displays a combination of *both* configurational and nonconfigurational attributes, and that in Siouan, the nature of the configurationality split corresponds to the split in morphological behavior between SAP and third person pronominal affixes. My evidence for this comes from the differences in morphological and syntactic behavior between the SAP pronominal prefixes and the third person pronominal prefixes.

The chapter is outlined as follows: section 6.2 provides a background of the SAP/third person morphological split in Hocak, section 6.3 discusses the configurationality of Hocak, section 6.4 provides a more in-depth discussion of the status of the Hocak pronominal affixes, section 6.5 specifically discusses the SAP pronominals, section 6.7 details my analysis of split configurationality, and section 6.8 concludes the chapter.

6.2 SAP/third person split in Hocak

The previous chapter provided background into some of the previous observations and analyses of SAP/third person splits cross-linguistically. In this section, I present the SAP/third person split as evidenced in Hocak, discussing the five ways in which the language displays this split:

- ✧ The existence of only two independent pronouns: one for first and second person, one for third person.

- ⤴ The absence of an overt third person singular pronominal prefix; SAP pronominal affixes are overt.
- ⤴ The difference in semantic alignment between SAP and third person pronominal affixes.
- ⤴ The position of SAP morphemes versus third person morphemes relative to the verb stem.
- ⤴ The difference in plural agreement between SAP and third person morphemes.

The last piece of evidence will be most relevant for the split configurationality hypothesis I present in this chapter.

6.2.1 Independent pronouns

Hocak separates its independent pronouns into two, rather than three. For SAP independent personal pronouns, *nee* is used, as shown below in (1) and (2). For third person, *ee* is used, as shown in (3).

- (1) Cecilga waşikjane nūnige nee haḡke ha'ūnīkjane.
 Cecil -ga waši -Ø -kjane nūnige nee haḡke ha- uḡ -nī -kjane
 Cecil -PROP dance -3SG.S -FUT but I NEG 1E.A- do -NEG -FUT
 'Cecil will dance, but I won't.'
- (2) Sarahga waaji, nūnige nee haḡke honijini.
 Sarah -ga Ø- ho<ha>ji nūnige nee haḡke ho<nī>ji -nī
 Sarah -PROP 3SG.O- <1E.A>hit but you NEG <2U>hit -NEG
 'I hit Sarah, but I didn't hit you'
- (3) Bryanga, Meredithga ee hojḡguni hire
 Bryan -ga Meredith -ga ee Ø- hojḡ -Ø -guni hire -Ø
 Bryan -PROP Meredith -PROP she 3SG.O- hit -3SG.S -IRR think -3SG.S
 '[As for] Bryan, he thinks that Meredith hit him.'

From these examples, we can see that pronouns are split across the SAP/third person.

6.2.2 Third person zero

The second piece of evidence for an SAP/3 split in Hocak is the presence of a zero form in the third person: SAP pronominal affixes are overt, while third person singular pronominal affixes are phonologically null, as shown in (4) below.

- (4) a. Hašjakjane
 Ø- hašja -Ø -kjane
 3SG.O- 2A.see -3SG.S -FUT
 'You will see him/her/it'
- b. Hanjhigųwi
 ha<nj>gigųs -Ø -wi
 <2U>teach -3SG.S -PL
 'He taught you(pl)'

As shown in chapter 2, SAP pronominal affixes are devoid of number specification; all SAP morphemes are made plural with the suffix *-wi*. This is not the case in third person, where number is included in the meaning of the pronominal affix.

6.2.3 Semantic alignment pattern

As discussed in previous chapters, Hocąk, like its fellow Siouan languages, is classified as a stative-active language (Helmbrecht 2006). This is true within the SAP pronominal system, as the examples in (5), show:

- (5) a. hj- ra- -xee
 1E.U- 2A- -bury
 'You bury me.'
- b. hj- š'ak
 1E.U be.old
 'I am old.'
- c. ra- šgac
 2A- play
 'You play.' (Helmbrecht 2006)

However, this contrasts with third person agreement, which is only overt in the plural. This third person system displays nominative-accusative semantic alignment. In the third person, all plural subjects, both stative and active, are indexed with suffix *-ire*, as shown below in (6). In (6a), *-ire* is attached to the intransitive stative verb *taakac* 'be hot', to the intransitive active verb *nijp*

- (9) Sarahga wiiwagaxra šuucra waaja
 Sarah -ga wiiwagax šuuc -ra wa- haja
 Sarah -PROP pencil red -DEF 3PL.O- see
 'Sarah saw the red pencils'

Hocąk is unique among Siouan languages in having a third person plural subject form. It is the presence of the morpheme *-ire* which makes salient the nominative-accusative alignment in third person agreement.

6.2.4 Morphological position of pronominal affixes

The fourth piece of evidence of a SAP/third person split in Hocąk is found in the difference in the position of SAP vs. the third person pronominal affixes, relative to the verb stem. As discussed in previous chapters and as shown in examples (10)-(12) below, Siouan languages generally exhibit OSV pronominal affix order (here indexed as UAV; refer to Chapter 2 for further discussion):

- (10) Lakota: ma- ya- gnayã -pi
 1SG.U- 2A- trick -PL
 'You(pl) tricked me.' (Dahlstrom 1983:42)
- (11) Crow: bii- Ø- lichí -k
 1U- 3A- hit -DECL
 'He/she hit me.' (Graczyk 1991:72)
- (12) Hocąk: hį- ra- xee
 1E.U- 2A- bury
 'You bury me.' (Helmbrecht 2006:11)

As shown above, third person singular pronominal forms are generally null in Siouan languages, thus it is not possible to see where they are positioned. The third person plural pronominal affixes are overt in Hocąk, however, so their location relative to the verb root is discernible; they appear at the right and left edge of the verb stem. I assume that their null singular counterparts are located in the same place. As shown below in (13), the third person

plural subject pronominal affix *-ire* occupies a unique position relative to the verb root; no other pronominal affix is in a postverbal position.

- (13) a. Hinukra waistakire
 Hinuk -ra wa- gistak -ire
 woman -DEF 3_{PL.O}- slap -3_{PL.S}
 'The women slapped them!'/ 'They slapped the women'
- b. Hıjgeire
 Hıjge -ire
 be.tired -3_{PL.S}
 'They were tired'
- c. Nąara waacsgisiregi
 ną -ra wa- wacgis -ire -gi
 wood -DEF 3_{PL.O} cut -3_{PL.S} -IRR
 'If they cut firewood'

Because the third person plural object pronominal affix *wa-* appears to conform to the OSV ordering in that it occurs preverbally the way that the SAP pronominal affixes do, it is necessary to show that 3_{PL.O} *wa-* occupies a unique preverbal slot, apart from the slots occupied by the SAP pronominal affixes--otherwise one might assume that the SAP U morpheme and its corresponding third person O might be in the same slot. Evidence for the uniqueness of the third person object slot can be found in the position of applicatives: certain applicatives may occur between *wa-* and the SAP agreement morphemes. I will show that this is the case through the examples to follow.

In (14) below, we see the inner instrumental applicative *nq-* 'by foot' is situated between the third person pronominal affix *wa-* and the SAP pronominal prefix *ra-*.

- (14) Happsıcra wanąrazıpšana
 Happsıc -ra wa- ną- ra- zip -šana
 grape -DEF 3_{PL.O}- by.foot 2_A- smash -DECL
 'You (sg.) smashed the grapes by foot'

Applicatives can also occur between the third person object marker *wa-* and the SAP pronominal prefixes. These are the essive applicatives *ho-* 'in' and *hq-* 'on', which share the same slot relative to the verb stem. As example (15) below shows, *ho-* is between *wa-* and the verb root, and in (16), *hq-* is also to the left of the SAP pronominal affix *hı-*:

- (15) Wanıra reexeja woomaçgisre
 wani-ra reex -eeja wa- ho- maçgis -re
 meat-DEF pail -there 3_{PL.O}- APPL.INESS- cut -IMP
 'Cut the meats into the pail' (Hartmann 2011:4)
- (16) Xjanare hijinjızu
 xjanare hı- niızu
 yesterday APPL.SUPESS- 1_{E.U}- rain
 'It rained on me yesterday' (Hartmann 2011:4)

Because the essive applicatives in (15) and (16) occupy the same slot relative to the verb root, the examples above show that they occur between the 3_{PL.O} prefix and the SAP pronominal affixes. Thus, we see that though both the SAP prefixes and the 3_{PL.O} prefix are preverbal, they occupy different slots relative to the verb stem.

To review, we have seen that third person pronominal affixes occupy unique positions relative to the verb root; the 3_{PL.O} pronominal affix is preverbal, but it does not share the same slot as the SAP object pronominal slot. Thus, the difference in location relative of the verb stem between the SAP and third person pronominal morphemes is further evidence of the split between the two morphological types.

6.2.5 Plural agreement data

Data from plural agreement comprises the final piece of evidence in favor of an SAP/third person split in Hocak. I will show that the two systems differ in terms of how the [number] feature is expressed. Hocak SAP pronominal arguments are pluralized with the suffix

-wi. As shown below in (17), *-wi* is responsible for pluralizing both Actor and the Undergoer forms; *-wi* pluralizes the subject in (17a) and the object in (18b)⁸.

- (17) a. Hąąke ważątirera tuuwįńkjanawi.
 Hąąke ważątire-ra Ø- tuuwį-ńi-kjane-wi.
 NEG car-DEF 3SG.O- 1.A.buy-NEG-FUT-PL
 'We will not buy the car.'
- b. Hį -xee -wi
 1E.U -bury -PL
 'He/she buries us' (Helmbrecht and Lehmann 2008:20)

Hocąk has a single portmanteau morpheme *ńi*-, for 1st person acting on 2nd person

(1>2). As shown in (18) below, *-wi* can pluralize A or U when *ńi* is used:

- (18) Nįńxawi
 ńi -xee -wi
 1>2 -bury -PL
 'We bury you (pl)!'/'I bury you(pl)!'/'We bury you(sg.)'

These examples show that the SAP plural morpheme *-wi* does not contain, and is independent of, grammatical function or semantic alignment information. It does not distinguish between Actor and Undergoer forms. It simply carries the feature [Number], expressing plural when an SAP pronominal affix is present.

In contrast, plural in the third person is indexed on, and is part of, the subject and object pronominal markers themselves. As we have seen in previous sections of this paper, *-ire* indexes third person plural subjects, both stative and active, and *-wa* indexes third person plural objects.

Examples (19a-b), show this:

⁸ Ambiguity concerning which participant is being pluralized is resolved through the use of the portmanteau, inclusive vs. exclusive 1st person forms, or through other means such as reflexives, periphrastic constructions, and context.

- (19) a. Nįįtašjaktaaxura nağa nįįra taakacire
 Nįįtašjaktaaxu-ra nağa nįį-ra Ø-taakac-ire
 coffee -DEF and water-DEF 3PL.O-be.hot-3PL.S
 'The coffee and the water were hot.'
- b. Wąąkra hųcra waajaire
 Wąąk-ra hųc-ra wa-haja-ire
 man-DEF bear-DEF 3PL.O-see-3PL.S
 'The men saw the bears.'

As shown in (19), third person plural agreement and grammatical function are encoded on the same morpheme. Thus *-ire* contains the features of both [subject] and [number]. This contrasts with the SAP pluralization system, wherein the plural morpheme *-wi* is independent of grammatical function information.

6.3 Hocąk is configurational

In this section, I argue that Hocąk is configurational in the third person. First, however, it is important to establish that Hocąk *does* display characteristics that are considered typical of nonconfigurational languages; in fact, these characteristics have previously been used as evidence in favor of a nonconfigurational analysis of other Siouan languages (Van Valin 1977, Williamson 1984). As discussed in Chapter 4, and mentioned in the previous section, Van Valin (1985, 1987) cites lack of Binding Condition C (BCC) and Weak Crossover (WCO) effects as further evidence of a nonconfigurational syntactic structure for Lakota. Baker (1996) also argues that certain characteristics that should be typical in nonconfigurational languages: these languages should show no BCC effects within clauses, but *should* show these effects across clauses. He argues additionally that nonconfigurational languages also should lack NP anaphors, universal quantifiers that are grammatically singular, and negative quantifiers (after Cinque (1990), nonreferential quantifiers are banned from adjunct position, and Baker's analysis of

pronominal argument/nonconfigurational languages adjoins all NPs necessarily high in the clause, in adjunct position).

As shown in the examples to follow, Hocak does display all of the above characteristics.

As shown in (20) below, Hocak does not display BCC effects within clauses; coreference between the subject 'he' and the possessor 'Bryan' is grammatical.

- (20) (Ee) Bryanga hi'uni hiira homakini.
 Ee Bryan-ga hi'uni hii-ra Ø-homakini-Ø
 he Bryan-PROP mother POSS-DEF 3.O-visit -3.S
 'He_i visited Bryan_i's mom.'

Hocak also does display BCC effects across clauses, again as predicted by Baker for nonconfigurational languages. In (21) below, coreference between the matrix subject 'she' and the object of the embedded clause 'Meredithga' is ungrammatical.

- (21) (Ee) Hunterga Meredithga hajara hiraperesšana.
 Ee Hunter-ga Meredith-ga Ø-haja-Ø-ra Ø-hiraperes-šana
 she Hunter-PROP Meredith-PROP 3.O-see-3.S-COMP 3S-know-DECL
 'She*_{i/j} knows that Hunter saw Meredith_i'

Hocak also lacks WCO effects. In (22) below, a coreferential reading between the possessive pronoun and the object *wh*-word is grammatical.

- (22) a. Hi'uni hiira peežega haja?
 hi'uni hii-ra peežega Ø-haja-Ø
 mother 3POSS-DEF who 3.O-see-3.S-COMP
- b. Peežega hi'uni hiira haja?
 peežega hi'uni hii-ra Ø-haja-Ø
 who mother 3POSS-DEF 3SG.O-see-3SG.S
 'Who_i did his_i mother see?'

It is possible that the lack of BCC and WCO effects may have to do with the leftward-moved constituent, i.e. the NP *ee* in (21) and the *wh*-word *peežega* in (22b), moving to a focus or

topicalized position. In Hocąk (as well as other Siouan languages that lack these effects including Crow, Lakhota and Hidatsa), the leftward-moved constituent may reconstruct (Chomsky 1977); that is, behave syntactically as though it has not moved, thus movement across a subject would not trigger a BCC or WCO violation. I leave the question of why reconstruction would take place here for future research.

Hocąk also lacks NP anaphors, which are argued by Baker (1996) to be nonexistent in nonconfigurational languages. Instead, reflexive and reciprocal meanings are expressed morphologically on the verb, as shown below in (23):

- (23) Meredithga anağa Hunterga hokikijire
 Meredith-ga anağa Hunter-ga <kiki>hojĭ-ire
 Meredith-PROP and Hunter-PROP REFL-hit-3PL.S
 ‘Meredith and Hunter hit each other’

Lastly, according to Baker (1996), nonconfigurational languages should lack both universal quantifiers that are grammatically singular and negative quantifiers. Hocąk does not have a universal quantifier that is grammatically singular. As shown below in (24), both *hanaqac* ‘all/every’ and *hiżakišanaq* ‘each’ trigger plural agreement on the verb.

- (24) a. Bryanga waisgap sguu xuwuxuwura hanaqac warucšana.
 Bryan-ga waisgap sguu xuwuxuwu-ra hanaqac wa-ruuc-Ø-šana
 Bryan-PROP cookie-DEF all 3PL.O-eat-3SG.S-DECL
 ‘Bryan ate every cookie/all of the cookies.’
- b. Hocįcįra hiżakišanaq waisgap sguu xuwuxuwuhiża ruucire.
 hocįcį-ra hiżakišanaq waisgap sguu xuwuxuwu-hiża Ø-ruuc-ire
 boy-DEF each cookie-INDEF 3SG.O-eat-3PL.S
 ‘Each boy ate a cookie.’

Hocąk also lacks negative quantifiers. The equivalentents must be expressed by means of clausal negation (25a) and indefinite pronouns (25b):

- (25) a. Wawaahiwira haąke ważą hiiranj.
 wa<ha>hohi-wi-ra haąke ważą Ø-hii-ire-nj
 3PL.O<1s>beat-PL-COMP NEG thing 3PL.O-do-3PL.S-NEG
 'When we beat them, they didn't score at all.' (Hartmann 2012)
- b. Haąkiżą niįtaşjak taaxura karasgepnj.
 haąke-hiżą niįtaşjak taaxu-ra kara-rasgep-Ø-nj
 NEG-INDEF coffee-DEF own-drink.up-3SG.S-NEG
 'Nobody finished his coffee.'

As has been shown above, Hocąk does display characteristics deemed typical of nonconfigurational languages by previous scholars. However, I argue, following Johnson, Rosen and Schuck (2013b, 2015) that these characteristics do not constitute conclusive evidence of the lack of a VP constituent in Hocąk. In the next section, I present new evidence, both following the work of previous Siouan scholarship and novel evidence from Johnson, Rosen and Schuck (2013a, 2013b, 2015), to argue that Hocąk does possess a VP constituent.

Boyle (2007) for Hidatsa, West (2003) for Assiniboine, and Graczyk (1991) for Crow have argued that these languages have a VP, on the basis of the following diagnostics:

- ⤴ Word order restrictions: one of the hallmarks of a nonconfigurational language is free word order (Jelinek 1984, Hale 1983)
- ⤴ Coordination: coordination targets VPs rather than just a V
- ⤴ Enclitic scope: enclitic takes scope over coordinated VPs

I follow Johnson, Rosen and Schuck (2013a, 2015) in presenting evidence in favor of a subject-object asymmetry in the third person agreement system, first using the same diagnostics used by Boyle (2007), West (2003) and Graczyk (1991), and then presenting additional novel evidence from VPE, quantifier scope, and locative scope.

First, I quickly review Johnson, Rosen and Schuck's (2013a) evidence of word order restrictions in favor of a configurational analysis of third person forms in Hocąk. Across Siouan languages, the most neutral word order is SOV. Other word orders may have discourse-

informational effects. For example, West (2003) shows that in an Assiniboine sentence with OSV word order, the fronted object has a preferred focus reading; otherwise the first argument is interpreted as the subject. This is shown below in (26).

- (26) Assiniboine: škóšobena wāží hokšína že yúda
 banana a boy DET ate
 'A banana ate the boy' (preferred translation) or 'The boy ate a banana (not the apple)' (West 2003:49)

This test provides the same result in Hocąk. Word order is crucial to disambiguate subjects and objects. This is shown below in (27), where the first argument must be interpreted as the subject:

- (27) a. Wijukra šųkura haja.
 wijuk-ra šųk-*ra* Ø-haja-Ø
 cat-DEF dog-DEF 3.SG.O-see-3SG.S
 'The cat saw the dog'
 ≠'The dog saw the cat'

Second, it has been argued for other Siouan languages (Boyle 2007, West 2003) that coordination targets VPs, since coordination targets constituents including object and verb, but never subject and verb. The examples below in (28) and (29) display this. In these examples, only *wąąkwažoonįra* 'hunter' can be the subject of the second conjunct.

- (28) Wąąkwažoonįra hųcra ruxe anąa t'eehii.
 wąąkwažoonį -*ra* hųc -*ra* Ø- ruxe -Ø anąa t'ee -Ø -hii
 hunter -DEF bear -DEF 3SG.O- chase -3SG.S and die -3SG.S -CAUS
 'The hunter chased and killed the bear.'

- (29) Wąąkwažoonįra hųcra guuc anąa t'ee.
 wąąkwažoonį -*ra* hųc -*ra* Ø- guuc -Ø anąa t'ee -Ø
 hunter -DEF bear -DEF 3SG.O - shoot -3SG.S and die -3SG.S
 'The hunter shot the bear and [the hunter] died.'

If there was no subject-object asymmetry, either 'hunter' or 'bear' could be the subject of the second conjuncts in (28) and (29). Thus, these examples show that coordination targets a constituent that excludes the subject in Hocąk; namely, the VP.

Lastly, when verbs are coordinated, enclitics attached to the second conjunct take scope over both conjuncts, as shown below in (30)-(32).

- (30) a. Hunterga toora tuuc wahiigini.
 Hunter -ga too -ra tuuc wa- hii -3SG.S =gini
 Hunter -PROP potato -DEF cooked 3O.PL- CAUS -Ø =already
 'Hunter already cooked the potatoes.'
- b. Hunterga toora tuuc wahii anağa warucgini.
 Hunter -ga too -ra tuuc wa- -hii -Ø anağa wa-
 Hunter -PROP potato -DEF cooked 3O.PL- -CAUS -3SG.S and 3O.PL-
 ruuc -Ø =gini
 eat -3SG.S =already
 'Hunter already cooked the potatoes and ate them.'
- (31) a. Matejaga tookewehiege.
 Mateja -ga tookewehi -Ø =ege
 Mateja -PROP be.hungry -3SG.S =might
 'Mateja might (very well) get hungry.'
- b. Matejaga tookewehi anağa kerege.
 Mateja -ga tookewehi anağa Ø- kere -Ø =ege
 Mateja -PROP be.hungry -3SG.S and 3SG.O- leave -3SG.S =might
 'Mateja might (very well) get hungry and leave.'
- (32) a. Bryanga niıtaşjak taaxu ruwişeeži.
 Bryan -ga niıtaşjak taaxu Ø- ruwi -Ø =şeeži
 Bryan -PROP coffee 3SG.O- buy -3SG.S =wish
 'Hopefully Bryan will buy coffee.'
- b. Bryanga niıtaşjak taaxu ruwi anağa huık'u şeeži.
 Bryan -ga niıtaşjak taaxu ruwi -Ø anağa ho<hi>k'u -Ø
 Bryan -PROP coffee buy -3SG.S and <1U>give -3SG.S
 =wish
 =şeeži
 'I wish/hope Bryan will buy coffee and give it to me.'

If Hocak lacked a VP, this pattern would be unexpected: the clitics should only be able to scope over the verb to which they are attached. Instead, the clitics in the (b) examples above take scope

over both coordinated verb phrases, indicating that the constituent over which the clitics take scope is a VP, the constituent that would include both verbs. and that these enclitics attach at the VP level.

The next piece of evidence for the argument status of NPs in Hocak comes from Verb Phrase Ellipsis (VPE). As discussed in Johnson (2013a, 2013c) and Johnson, Rosen & Schuck (2013a), and reviewed in Chapter 2, the process of VPE in Hocak is licensed by the light verb *uu* 'do', eliding all material inside the VP, replacing the verb and the object, to the exclusion of the subject.⁹ This is shown in (33-36):

- (33) Cecilga wažatirehižą ruwı kjane anąga nee šge haų kjane.
 Cecil -ga wažatire -hižą Ø- ruwı -Ø kjane anąga nee šge ha -ų
 Cecil -PROP car -INDEF 3S.O- buy -3SG.S FUT and I also 1S -do

kjane.

FUT

'Cecil will buy a car, and I will too.'

- (34) Cecilga xjanare waši anąga Bryanga šge uu.
 Cecil-ga xjanare Ø- waši -Ø anąga Bryan -ga šge
 Cecil-PROP yesterday 3S.O-dance -3SG.S and Bryan -PROP also

Ø- uu -Ø

3S.O- do -3SG.S

'Cecil danced yesterday, and Bryan did too.'

- (35) Cecilga ciinąkeja wažatirehižą ruwı anąga Bryanga šge uu.
 Cecil -ga ciinąk -eja wažatire -hižą ruwı -Ø anąga Bryan
 Cecil -PROP city -there car -INDEF buy -3SG.S and Bryan

-ga šge Ø- uu -Ø

PROP also 3S.O- do -3SG.S

'Cecil bought a car in the city, and Bryan did too.'

⁹ Constructions with *uu* cannot be analyzed as a *pro*-form because Antecedent Contained Deletion is allowed, and the *uu* construction can also appear in embedded clauses and adjuncts (Johnson, Rosen and Schuck 2013a, Johnson 2013a).

- (36) Cecilga hinųkra hakižu waši anaęa Bryanga šge uų.
 Cecil -ga hinųk -ra hakižu waši -Ø anaęa Bryan -ga šge
 Cecil -PROP woman-DEF be.with dance -3SG.S and Bryan -PROP also
- Ø- uų -Ø
 3s.o- do -3SG.S
 'Cecil danced with the woman, and Bryan did too.'

If the structures in (33-36) were flat, there would exist no VP constituent that can be targeted by ellipsis, as the subject would be a sister to the verb as well as the object. Thus, the presence of VPE suggests that Hocąk must contain a VP constituent that can be targeted by ellipsis.

The next piece of evidence in favor of a configurational analysis of Hocąk is found in locative scope. In English, the sentence 'The cat saw the dog in the woods' has three possible interpretations: 1) the cat is in the woods and it saw the dog, and the dog is not in the woods, 2) the dog is in the woods and the cat saw it, and the cat is not in the woods and 3) the cat and dog are both in the woods, and the cat saw the dog. In Hocąk, however, the sentence has only two interpretations: either both the subject *wijukra* 'cat' and the object *šųųkra* 'dog' are in the woods, or the dog is in the woods and the cat is not. None of the sentences in (37) can describe a situation in which the subject *wijukra* is in the woods, and the object *šųųkra* is not in the woods; the locative adjunct must describe the location of the object. This is the case even when the locative *hoxataprookeja* 'in the woods' is fronted, as in (37a), or in a clause-final position, as in (37c),

- (37) a. Hoxataprookeja wijukra šųųkra haja
 hoxatap -rook -eeja wijuk -ra šųųk -ra Ø- haja -Ø
 woods -inside -there cat -DEF dog -DEF 3SG.O- see -3SG.S
- b. Wijukra šųųkra hoxataprookeja haja
 wijuk -ra šųųk -ra hoxatap -rook -eeja Ø- haja -Ø
 cat -DEF dog -DEF woods -inside -there 3SG.O- see -3SG.S

- c. Wijukra šųųkra haja, hoxataprookeeja
 wijuk -ra šųųk -ra Ø- haja -Ø hoxatap -rook -eeja
 cat -DEF dog -DEF 3SG.O- see -3SG.S woods -inside -there
- = 'The cat saw [the dog in the woods].'
 ≠ '[The cat in the woods] saw the dog.'

A nonconfigurational analysis cannot account for this instance of subject-object asymmetry. If Hocąk did have a flat structure, there should be an option for the locative to modify only the subject; a reading in which the cat is the woods and the dog is not should be possible. I argue instead, following Johnson, Rosen and Schuck (2013b, 2015), that the object NP is the complement to the verb, and the scope facts arise because there are two locations at which the locative phrase can merge: either it can adjoin at VP (a constituent consisting of verb + object), which would produce a reading in which the dog (object) is in the woods but not the cat (subject), or it can merge at a level higher than VP, producing a reading in which the locative takes scope over both subject and object, and both dog and cat are in the woods.

6.4 Pronominal affixes revisited

There has been much debate in the literature as to how to handle the pronominal affixes from a theoretical perspective. The question has often been closely linked with the question of configurationality. due to the overlapping attributes of so-called nonconfigurational and Pronominal Argument languages, thus it merits discussion here. For example, Jelinek (1984) argues that the existence of pronominal arguments in a language is one primary feature of nonconfigurational languages. As discussed in Chapter 4, different perspectives have been defended with respect to this question (Williamson 1984 and Van Valin 1985, 1987, Graczyk 1991, West 2003, Boyle 2007). In the Siouan literature, Van Valin (1977, 1985, 1987) and Williamson (1984) have argued that Lakhota is a Pronominal Argument language, as did

Graczyk for Crow and West for Assiniboine.

In this section I argue that DPs (or, in their absence, a discourse-referential *pro*), rather than the agreement pronominals, occupy argument positions in Hocąk. Additionally, I will provide evidence that the SAP pronominals are also agreement morphology, contra Graczyk (1991) and Boyle (2007) for Crow and Hidatsa, who provide an analysis in which DPs *and* SAP pronominal affixes are arguments. This section will review much of the same material from the previous section, as these pieces of evidence crucially rely on the existence of a VP.

Jelinek (1984) and Baker's (1996) analyses of nonconfigurational languages both argue that DPs do not occupy argument positions; rather, they are adjuncts. In the previous section I provided ample evidence to show that Hocąk is configurational based on the fact that it has a VP; here, I show that NPs are in argument position, contra Baker/Jelinek. In the Siouan literature, West (2003) and Boyle (2007) argue for argument status of DPs in Assiniboine and Hidatsa based on many of the same characteristics that, they argue, also typify these languages as configurational: the presence of Noun Incorporation and strict word order (arguments cannot change position without a change in meaning or interpretation), the presence of BCC effects, and the presence of determiner-type (D-type) quantifiers.

Building on the work of Boyle and West, Johnson, Rosen and Schuck (2013b) provide further evidence from quantifier scope, locative scope, and Verb Phrase Ellipsis (VPE) to argue that NPs occupy argument positions in Hocąk. The first piece of evidence for the argument status of NPs in Hocąk is from quantifier scope. Johnson (2013b) and Johnson & Rosen (2013) show that linear order determines the scope of quantified phrases in Hocąk. In a sentence with SOV word order, the subject obligatorily distributes over the object. This is shown in example

(38) below, where the sentence can only describe a situation in which each man caught a different fish.

- (38) a. Wą̀akra hi`akišana` hoohi`a gisikire.
 wa`ak -ra hi`akišana` hoo -hi`a Ø- gisik -ire.
 man -DEF each fish -INDEF 3SG.O- catch -3PL.S
 'Each man caught a fish.' (each > a; *a > each)

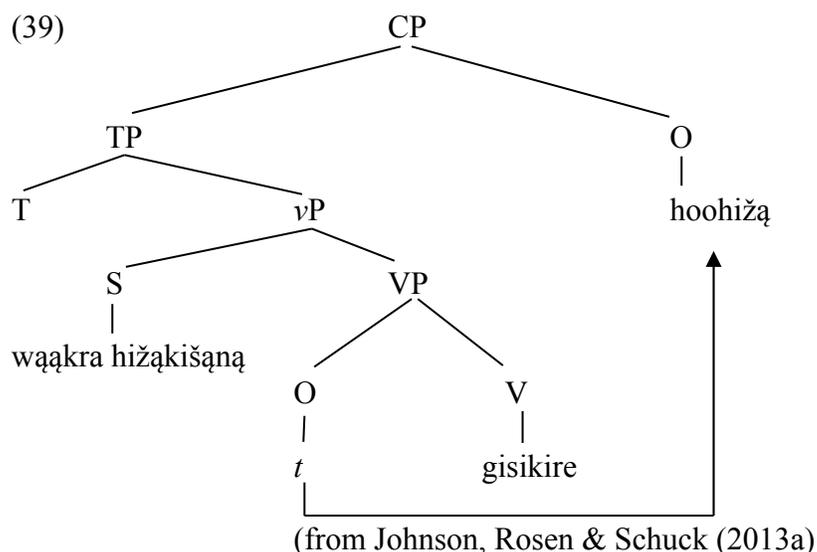
However, the interpretation changes with a change to SVO word order; (38b) can only describe a situation in which each man caught the same fish.

- b. Wą̀akra hi`akišana` gisikire, hoohi`a.
 wa`ak -ra hi`akišana` Ø- gisik -ire, hoo -hi`a.
 man -DEF each 3SG.O- catch -3PL.S fish -INDEF
 'Each man caught a fish.' (a > each; *each > a)

In a sentence with OVS word order, the subject takes scope over the object, as shown in (40c).

- c. Hoohi`a gisikire, wa`akra hi`akišana`.
 hoo -hi`a Ø- gisik -ire, wa`ak -ra hi`akišana`.
 fish -INDEF 3SG.O- catch -3PL.S man -DEF each
 'Each man caught a fish.' (each > a; *a > each)

These facts cannot be adequately accounted for if NPs are simply adjoined at the TP/S level while argument positions are filled by *pro*, as in a Pronominal Argument language. Under Jelinek (1984) and Baker's (1996) pronominal argument analyses, postverbal arguments do not have to be adjoined higher than preverbal ones. I follow Johnson, Rosen and Schuck (2013b), and claim that rightward moved constituents, as in the object *hoohi`a* in (26b) above, obligatorily take wide scope because movement targets a position high in the clause. A model of this structure is shown below in (39):



For the next piece of evidence for the argument status of NPs, let us revisit the locative scope effects discussed in the previous section. Johnson, Rosen and Schuck (2013b) show that locatives necessarily take scope over the object, but never over the subject if it is in neutral (sentence-initial) position. Recall the examples in (37), repeated below in (40), which displays the locative *hoxataprookeja* 'in the woods'. In both sentences, the locative *hoxataprookeja* 'in the woods' obligatorily modifies the object *šųkra* 'dog'. This remains true when the locative is in neutral post-subject position (40b) or in a fronted position (40a). However, the locative cannot take scope over the subject. Thus, neither of the sentences in (40) can describe a situation where only the cat is in the woods.

- (40) a. Hoxataprookeja wijukra šųkra haja
 hoxatap -rook -eeja wijuk -ra šųk -ra Ø-haja -Ø
 woods -inside -there cat -DEF dog -DEF 3SG.O- see -3SG.S
- b. Wijukra šųkra hoxataprookeja haja
 wijuk -ra šųk -ra hoxatap -rook -eeja Ø- haja -Ø
 cat -DEF dog -DEF woods -inside -there 3SG.O- see -3SG.S
- = 'The cat saw [the dog in the woods].'
 ≠ '[The cat in the woods] saw the dog.'

On the other hand, subjects that are in postverbal position are within the scope of the locative.

This is shown below in (41), where both the subject and object are in the woods:

- (41) Šuḡkra hoxataprookeja haja, wijukra
 šuḡk -ra hoxatap -rook -eeja Ø- haja -Ø wijuk -ra
 dog -DEF woods -inside -there 3SG.O- see -3SG.S cat -DEF
 'The cat in the woods saw the dog [that was also] in the woods.'

Neither Jelinek (1984) or Baker's (1996) analyses would predict that the adjoined locative NP *hoxataprookeja* would have different interpretive properties when it is located at different positions relative to the verb. Under their theories, where NPs are adjoined high in the clause at adjunct positions, there should be no change in interpretation when an NP locative changes position, since NPs are always adjuncts. Since their analyses cannot explain the difference in readings between (41) and (42), this shows that the NPs occupy argument positions, and thus locatives may take scope over vP. Johnson, Rosen and Schuck (2013b) propose that the postverbal NP must reconstruct in order to achieve the correct interpretation. After reconstruction, subject NPs are within the scope of the locative.¹⁰

Lastly, we revisit VPE data to show that NPs are arguments in Hocąk. As previous discussed, ellipsis may target a constituent including object and verb, excluding the subject. In

(42) below, *uḡ* 'do' replaces the object and the verb to the exclusion of the subject.

- (42) Cecilga [_{vp} waḡatirehiḡa ruwḡ] kjane anaḡa nee šge [ha'uḡ]
 Cecil -ga [_{vp} waḡatire -hiḡa Ø- ruwḡ -Ø] -kjane anaḡa nee
 Cecil -PROP [car -INDEF 3SG.O- buy -3SG.S] -FUT and I

 šge [ha -uḡ]
 also 1A -do FUT
 'Cecil will buy a car, and I will too.'

¹⁰ It is unclear why the NP may reconstruct in this case and not in the case of quantifier NPs as shown in (38)-(39). It is possible that a categorial difference is at work; at present, I leave this question to further research.

- (47) šũga že ũg-ita-kona-gu=bi nagú ũg-iyē-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' (West 2003:92)

West argues that (47) displays redundant person marking, with the independent pronoun itself being the argument and the pronominal marker showing agreement with this pronoun.

According to West, the fact that *ũ-* appears on both the verb and the independent pronoun is proof that the SAP pronominal forms are agreement rather than arguments. However, I argue that West's analysis of the independent morpheme is incorrect, thus rendering her claim of redundant person marking untenable.

West analyzes the actual independent pronoun morphemes as *iyē* combined with the pronominal person markers.; in the case of (47), *iyē* with the addition of the first person prefix *ũ-*. However, Cumberland (2005) in her grammar of Assiniboine analyzes these independent pronouns as frozen forms, rather than combinations of a root + pronominal prefixes.

Cumberland does not separate the independent pronouns of Assiniboine pronominal person marker + *-iyē*, either in glosses of examples or in her discussion of the pronominal prefixes.

Additionally, in looking at Hidatsa, which forms its independent pronoun forms in the same way, Boyle (2007) does not consider Hidatsa independent pronouns to be separated into pronominal + root. Based on this evidence, I argue that it is at the very best risky and at worst inaccurate to treat the *ũ-* in Assiniboine independent pronouns as a pronominal marker that attaches to a root.

If independent pronouns were in fact formed this way in Assiniboine, one would imagine that West should have been able to provide a multitude of examples illustrating redundancy of this type, and yet she states that the example in (49) was the only instance of redundant person marking that she was able to find. Thus, I argue that the example in (49) is not a definitive

example of pronominal redundancy, and therefore does not constitute positive evidence that SAP pronominal affixes are instances of agreement morphology.

West's second argument for an agreement analysis of SAP pronominals in Assiniboine is more theory-internal; she argues that the Unaccusative Hypothesis is incompatible with an analysis of SAP person markers as arguments. I will provide a full discussion of this in the next chapter when I discuss the applicability of my theory to Assiniboine.

For Hocąk, I argue that the SAP pronominal prefixes are agreement. I present two pieces of evidence in favor of this analysis. First, Hocąk coordination data shows that SAP pronominals are agreement morphology. Assuming that coordinated elements need to be of the same syntactic and semantic class, consider the following sentence in (48):

- (48) Bryanga nağa *(nee) Teejopeja hirawahashahiwi
 Bryan-ga nağa *(nee) Teejop-eja hirawahas<ha>hi-wi
 Bryan-PROP and I Madison-there <1A>drive-PL
 'Bryan and I drove to Madison.'

Essentially, this is the opposite of the Hidatsa example in (46). In (48), the independent pronominal is obligatorily present. Without the presence of the independent pronoun *nee*, ungrammaticality results. I have argued for the status of DPs as arguments. The DP in the above example is an argument, therefore its conjunct *nee* also must be an argument. Thus what we see ultimately is that behavior of the SAP pronominal affixes in Hocąk is agreement, in the same sense as pro-drop in Romance and Slavic languages.

Second, SAP and the third person pronominals each have a corresponding independent pronoun that serves an emphatic or appositive function, as we have seen in earlier sections. I have also shown that DPs are arguments in Hocąk. Therefore, the independent third person pronoun *ee*, as an argument DP, agrees with the third person pronominal affix, (as Graczyk and

Boyle claim that DPs are arguments), this also should be the case for the SAP independent pronoun and pronominal affixes. In other words, SAP pronominals should be treated as agreement because treating them as arguments would require the corresponding independent pronoun to be analyzed in a completely different way, while its third person counterpart is analyzed as an argument. This would be an ideal analysis, and would be difficult to motivate.

At the very least, this section has established that the waters are murky when attempting to conclusively prove one way or another whether SAP pronominals in a head-marking language family such as Siouan are arguments or agreement morphology, since it is not possible to conduct movement tests to establish their argument status. Evidence on either side is limited. Scholars therefore are often forced to choose a side, due to the limitations or constraints of the theories within which they work. West (2003), for example, argues that SAP pronominals are instances of agreement morphology in Assiniboine ultimately because it is simpler, and therefore preferable, to analyze all pronominal elements the same way. She provides ample evidence to support third person pronominals as agreement morphology, but lacks conclusive empirical evidence to support her argument. Graczyk (1991) and Boyle (2007) choose to analyze SAP pronominals as arguments rather than agreement morphology, though this analysis is also problematic because they are limited to only one or two pieces of direct evidence (as I am as well for Hocąk). Both an agreement analysis and a pronominal argument analysis have problems, however I argue that an agreement analysis is ultimately preferable for SAP pronominals, given the evidence above.

In this section, I have argued that all pronominals in Hocąk are instances of agreement morphology. However, as we have seen earlier in this chapter, there are marked differences

between SAP and third person forms, in terms of syntactic behavior as well as morphological attributes. My goal in the next section is to explain these differences in terms of how they are treated by the grammar, and thus how these differences effect a split in configurationality in Hocak, and, ultimately, in Siouan.

6.6 Defining nonconfigurationality in the SAP system

The previous section discussed various tests that have been used to test for the existence of a VP, and thus configurationality, in languages. These tests are designed to find subject-object asymmetry as evidence of (non)configurationality. However, all of the above examples used third person (DP) arguments only. These tests are effective in sentences in which all arguments are third person, or DPs, because the movement and behavior of the third person arguments are observable. Tests such as these are unfortunately unusable when the participants in the sentence are first or second person, since Siouan SAP pronominals are expressed as affixes on the verb. We have also seen in this chapter five major differences that set SAP and third person pronominals apart from each other. My aim in the next chapter is to capture the effect of the SAP/third person split phenomena in Hocak, and explain its behavior in terms of its bearing on the grammatical structure of the language. This analysis will provide a new insight into the long debate between scholars as to these languages' configurationality, and hopefully provide a simpler solution.

6.7 Split configurationality

I argue in this that when we are dealing with SAP pronominals in Hocak, configurationality as defined by the presence of subject-object asymmetry is irrelevant, let alone discernible, because it in fact does not exist. Nonconfigurationality in Hocak, and as we will see

in the next chapter, all of Siouan, is present in the SAP pronominal system because this system assigns grammatical function information in the morphology rather than the syntax. Drawing from the ideas of Nordlinger (1998) and Li (2005), I argue that SAP arguments satisfy the verb's subcategorization requirements at an earlier part of the derivation. I will show that SAP pronominals in Siouan can exist within a configurational language because the nature of their nonconfigurationality is that they are not even involved with syntax, in the sense of the traditional hierarchical structure sense. I argue instead that the morphology provides the SAP semantic roles to the verb, and the syntax handles third person DPs hierarchically, assigning grammatical function information in the typical way.

In Chapter 3, I reviewed the work of Nordlinger (1998), who argues that the difference between nonconfigurational and configurational languages is that nonconfigurational languages encode their argument functions in the morphology, and configurational languages encode their argument functions in the syntax. Two principles operate to map grammatical relations from overt forms, and it is the extent to which a language follows each of these principles that defines its place upon the configurationality continuum. These principles are endocentricity, which defines hierarchical, configurational phrase structure according to X' Theory, and lexocentricity, which allows structures in which subject and object are sister to the verb, and syntactic functions are identified by other means, such as case marking or verbal agreement. It is thus possible in a lexocentric system for words or morphemes to carry the same type of grammatical function information in their lexical entries as can also be introduced by syntactic phrase structure rules (Nordlinger 1998:49).

I argue that in Hocak, the principles of lexocentricity govern the SAP pronominal prefix

system. Thus, SAP pronominal prefixes' A and U grammatical function information is encoded in the morphology, rather than receiving their semantic information from phrase structure. The third person system is governed by the principle of exocentricity. The third person system operates according to hierarchical phrase structure, and the syntax encodes argument function. In the next section, building on the ideas of Li (2005), I show how the lexocentric SAP pronominal system and the exocentric configurational system operate simultaneously in Hocak.

6.7.1 Application of Li (2005)

To begin this chapter, let us quickly review the relevant points. As discussed in Chapter 3, Li (2005) provides a novel way to map morphology to syntax that combines both the lexicalist and syntactic approaches to morphological processes such as incorporation. First, he proposes the Morphology-Syntax Mapping Hypothesis (MSMH) to explain the process by which languages decide whether relationships between certain morphological components will be reflected in the syntax or not. The MSMH is given below, repeated from Chapter 3:

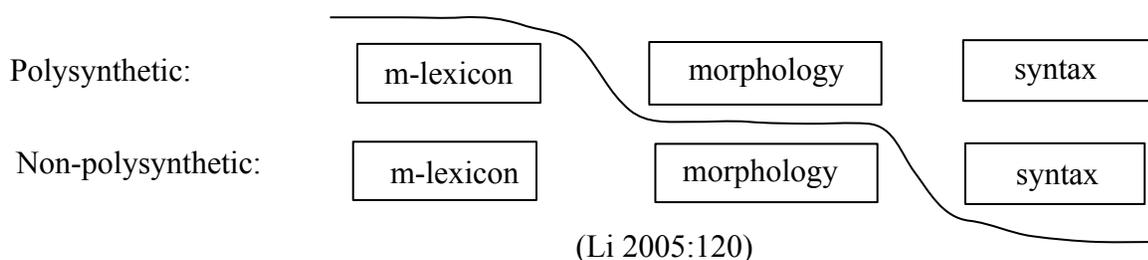
- (49) The Morphology-Syntax Mapping Hypothesis (MSMH)
 If morphological components X and Y are in a word W and there is a relation R between X and Y, then R is reflected in syntax if and only if:
- a. R is thematic, and
 - b. the representation of R in the syntax obeys all syntactic principles.
- (Li 2005:4)

According to the MSMH, the relations between morphological components of a word must be reflected in the syntax if these relations involve the assignment of theta roles. The result is that some morphologically complex words have to expand into multiphrasal structures in syntax (Li 2005:5)

The second part of Li (2005)'s theory takes Baker (1996)'s observation that the world's languages are split into two types (polysynthetic languages, wherein the internal structures of

words is transparent to syntax, and non-polysynthetic languages, in which words act as simple units that cannot undergo complex morphological processes such as incorporation), and explains this division by proposing that the lexicon-syntax boundary is located in different places in these language types. Li terms this Parameter of the Lexicon (PoL). According to the PoL, in polysynthetic languages, the lexicon-syntax boundary is between the m-lexicon (collection of morphemes in a language) and the morphology. Thus, in polysynthetic languages, only the morphemes themselves are part of the lexicon and thus invisible to syntactic principles such as the theta criterion. The morphology is not, and can interact with the syntax, is subject to the theta criterion and allows processes such as incorporation. This explains why, for example, polysynthetic languages may have clause-like words. In non-polysynthetic languages, however, the lexicon-syntax boundary is located between the morphology and the syntax. Now the lexicon includes the morphology, and consequently is opaque to syntactic principles; the morphology is not available for manipulation by the syntax. The PoL is given below in (50), the curved line defining the lexicon-syntax boundary:

(50)



Thus the lexicon in polysynthetic languages is identical to its m-lexicon, and the lexicon in non-polysynthetic languages consists of the m-lexicon plus the morphology (Li 2005:120).

In order for the PoL to work with earlier assumptions about the nature of polysynthetic

languages, Li proposes the following axiom, which works with the PoL to guarantee that theta roles are discharged in the morphology in polysynthetic languages, and in the syntax in non-polysynthetic languages.:

- (51) Thematic operations must be carried out at the earliest possible level of postlexical derivation.

(Li 2005:121)

Recall from Chapter 3 that Baker's Morphological Visibility Condition, which claims that a) certain morphological components are necessary for theta role assignment and b) the internal structure of a word is transparent to syntax, does not explain *why* theta role assignment can be done solely by means of syntax in non-polysynthetic languages such as English, but depends on morphological components in polysynthetic languages such as Mohawk (Li 2005). The PoL and (51) provide the answer: non-polysynthetic languages have to wait until syntax for theta-role assignment, since this is the point at which the lexicon is exited. Theta role assignment in polysynthetic languages, however, happens in morphology because the lexicon-syntax boundary is crossed immediately upon exiting the m-lexicon.

The evidence from Siouan as discussed in Chapter 4 show that these languages behave in some ways like configurational languages, and in other ways like nonconfigurational ones, and it has been a perennial struggle of scholars to provide conclusive evidence either way. The PoL allows the proposal another analysis: that it can apply not only to differentiate polysynthetic and non-polysynthetic languages, but that it can also operate *within* a language. I argue that the PoL captures the crucial difference between the SAP system and third person system in Hocak, and ultimately in Siouan, and shows that in fact the nature of this split is rooted in the boundary difference between morphology and syntax that exists in the language. Under my analysis, verbs

with SAP arguments (the SAP system) behave polysynthetically: the lexicon-syntax boundary is located between the m-lexicon and the morphology, and the morphology assigns theta roles. Verbs with third person arguments correspond to non-polysynthetic languages according to the PoL, with the lexicon-syntax boundary located after the morphology; the theta criterion being satisfied via the syntax, in the traditional structural manner with which we are familiar when analyzing non-polysynthetic languages such as English. This correlates directly with Nordlinger's distinction between lexocentricity and endocentricity within languages,

When sentences combine SAP and third person arguments, configurational and nonconfigurational structures exist simultaneously. According to the PoL, the verb and the SAP pronominal prefixes combine in the morphology, satisfying the verb's subcategorization requirements for any SAP arguments. Thus, the hierarchical binary branching syntactic structure will reflect represent third person arguments. This will be demonstrated in the next section.

6.7.2 Application of the split

All verbs are stored in the m-lexicon, subcategorized only for transitivity and whether they are stative or active, as shown below in (52):

(52) V[+/-active]
 [+/-transitive]

When they enter the morphology, verbs make a choice depending on whether SAP pronominal affixes are present or not. If SAP arguments are present, verbs behave polysynthetically, and their argument requirements (i.e. satisfaction of the Theta Criterion) are met in the morphology. Under the PoL model, Siouan SAP agreement morphemes do not participate in thematic relationships in order to *make visible* a syntactic argument (as the MVC suggests). Rather, the

morphemes participate because they have to: the theta roles of the verb must be discharged in the morphology, and these morphemes are the means available to the morphology to do so. (Li 2005:122)

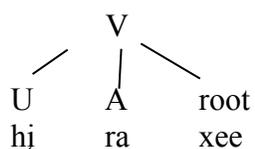
As was just stated, theta role saturation must occur in the morphology in the SAP system, owing to the PoL and the axiom in (51). The question then is: how can this take place, when under a Principles and Parameters model, theta role assignment happens in syntax? Building on the work of Williams (1981a), Heim (1982) and Higginbotham (1985), Li (2005) proposes that a theta role can be *reserved*, or "tagged for later use" when it cannot be assigned to an argument in the typical way (i.e. syntax). Thus in Hocak, when there is an SAP morpheme present in the morphology, the theta roles of the verb are tagged and reserved by the SAP morpheme(s), the theta role(s) are saturated, and the theta-criterion is satisfied. What enters into the syntax is an N+V compound that does not get expanded in the syntax; the syntax only sees a verb per the MSMH. If there are no SAP arguments present, the verb moves on to the syntax and fulfills its subcategorization requirements there, where theta roles are assigned by the syntax in the typical manner via hierarchical structure.

Thus any transitive verb enters the morphology from the m-lexicon and has three (ultimately four) options: both arguments are SAP, one argument is SAP and the other is not, or neither argument is an SAP. An intransitive verb has only two options. If a transitive verb enters the morphology and finds two SAP arguments, the two theta roles are saturated through theta-reservation, and the derivation is complete; no hierarchical structure is generated via the syntax. An example is given below in (53), where both arguments are SAPs. In this example and in all following trees, A and U are represented as terminal nodes because they already have

their theta roles before entering syntax; at the end of the derivation no *pro* would be represented in the syntactic structure.

(53) *hıraxee*

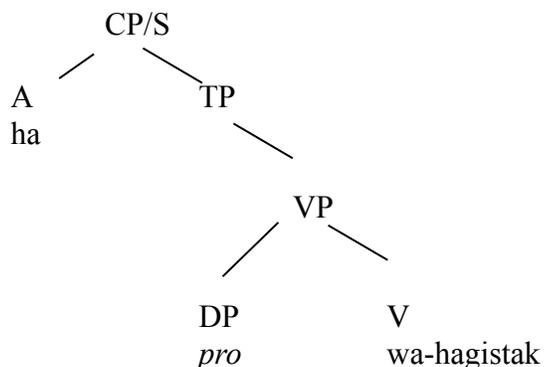
hı- ra- xee
 1_U- 2_A- bury
 'You bury me.'



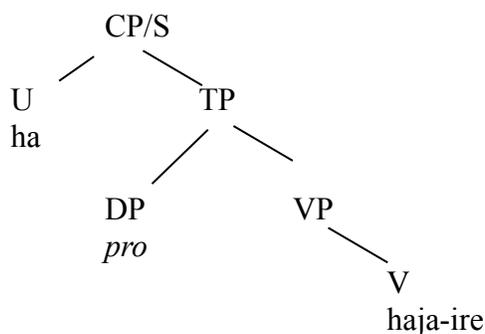
If a transitive verb enters the morphology and finds only one SAP argument, one theta role is saturated and the verb moves to the syntax to fulfill its other argument requirement.

Essentially, the verb becomes "de-transitivized" in the morphology such that the syntax needs to assign one theta-role only. The syntax then assigns the other theta role. Examples of such a situation are given in (54). (54a) shows an SAP A with a third person object, and (54b) shows an SAP U with third person subject.

(54) a. *Waaistak.*
wa-ha-gistak
 3_{O.PL}-1_A-slap
 'I slapped them.'

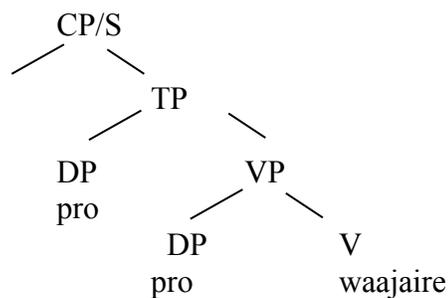


- b. Hıjjaire
 hj-haja-ire
 1U-see-3S.PL
 They see me



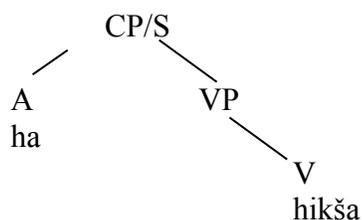
If a transitive verb enters the morphology and finds no SAP arguments, the theta-criterion cannot be satisfied in the morphology, and the verb moves to the syntax to fulfill its argument requirements.

- (55) Waajaire.
 wa-haja-ire
 3O.PL-see-3S.PL
 'They see them.'

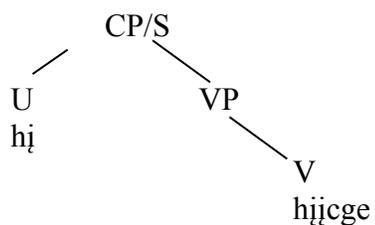


If an intransitive verb enters the morphology and finds an A or U (SAP) argument, the theta criterion again is satisfied in the morphology via theta reservation. Since Hocak is stative-active, intransitive active verbs take the A prefixes, and intransitive stative verbs take the U affixes.

- (56) a. Yaakša.
 hi<ha>kša
 <1A>laugh
 'I laugh.'

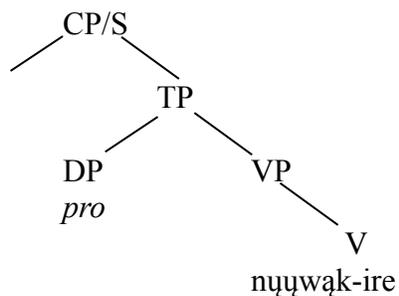


- b. Hījce.
 hī-hījce
 1U-be.tired
 'I am tired.'

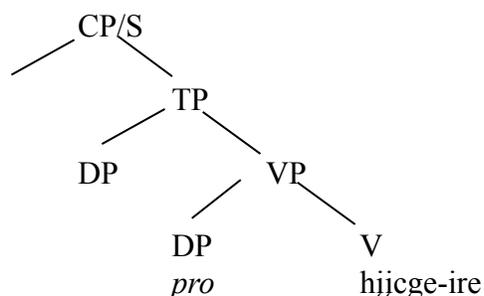


If an intransitive verb enters the morphology and finds no SAP argument, it moves to the syntax to fulfill the theta criterion. In the third person, Hocak displays nominative-accusative marking: subjects all marked the same and objects are all marked the same, regardless of whether the verb is stative or active. (57a) displays an unergative verb, while (57b) displays an unaccusative verb.

- (57) a. Hūwəḳire.
 nūwəḳ-ire
 run-3S.PL
 'They ran'



- b. H̱j̱cgeire.
 ẖj̱cge-ire
 be.tired-3S.PL
 'They are tired'



As we have seen, the simultaneous configurational/nonconfigurational system I have presented and argued for results in a structure in which SAP pronominal prefixes receive their theta roles in the morphology, come into the syntax as part of the verb, and any third person arguments receive their grammatical function information via hierarchical structure in the syntax.

This analysis accounts for the SAP/third person split facts discussed in Section 6.2, and provides an explanation as to why it has been such a struggle for Siouanists to agree on specifically whether the pronominal affixes are agreement morphology or arguments: they seem to behave like arguments when we see them (SAP system), and behave as agreement when we do not see them (third person). Under my analysis, SAP arguments are agreement morphology throughout, but because the lexicon-syntax boundary is located between the m-lexicon and the morphology for these morphemes, they receive their theta roles earlier; so at the end of the derivation, what is observable is only the SAP affixes. Endo/lexocentricity, the MSMH, and the PoL all provide a solution to the problem of reconciling nonconfigurational and configurational behavior between SAP and third person arguments in Hocąk, and, as I will shown in the following chapters, other Siouan languages as well.

6.7.3 A word on morpheme ordering

We have seen in this chapter and in previous chapters that the order of verbal morphemes is 3s.obj-U-A-V root-3s.subj. The surface morpheme ordering in Hock would not, under my current analysis, directly reflect the terminal nodes of the syntactic structure, appearing to violate the Mirror Principle (Baker 1996). It has been argued that there are other mechanisms at work to account for the ordering of morphemes in Siouan (see West 2001b for a discussion of an operative hierarchy in Assiniboine, for example). Historically, it would appear that the A and U morphemes were in existence first, since they are closest to the verb root and present in all Siouan languages, ordered the same in all languages, with the third person forms appearing at a later time (Helmbrecht and Lehmann 2008). It further appears that the morphology of Hocąk, as well as other Siouan languages, may operate from a templatic structure (Stump (1993, 1997, 2001)) for discussion, as has been proposed for many other polysynthetic languages, particularly the Athabaskan languages. Surface order in polysynthetic languages has been a long-discussed topic, and further work is needed in this area of Siouan linguistics.

6.8 Conclusion

In this chapter, I have argued that Hocąk's grammatical structure displays a mix of both nonconfigurational and configurational characteristics, and that in this language, this mix delineated across the SAP/third person boundary. I further argue that this is the case for all Siouan languages. My theory captures the observations made by countless scholars who have argued on both sides for languages' configurationality status, as well as Nordlinger (1998) who argues that the world's languages are points on a continuum of configurationality, rather than parametrically designated as one or the other, and Li (2005), who argues that the difference

between polysynthetic and non-polysynthetic characteristics is at least in part attributable to the variable location of the lexicon boundary of a given language.

In this chapter, I have argued that Hocak configurationality corresponds to the split in morphological behavior between SAP and third person pronominal person marking, such that the SAP system is nonconfigurational and the third person is configurational. I first discussed evidence for the SAP/third person split in Hocak. Next, I showed that SAP agreement system is nonconfigurational, and the third person system is configurational. Third, drawing from Li (2005)'s theory of the Parameter of the Lexicon and the Morphology-Syntax Mapping Hypothesis, I explained the mechanics of this split configurationality.

CHAPTER 7

SPLIT CONFIGURATIONALITY IN OTHER SIOUAN LANGUAGES

7.1 Introduction

In the previous chapter, I outlined my split configurational analysis of Hocąk. In this chapter, I discuss the application of my analysis to other Siouan languages, using Hidatsa, Assiniboine, Lakhota, and Crow as examples. I present my analysis as an optimal way to understand their behavior, as it directly addresses the SAP/third person characteristics that have caused scholars difficulty in proving whether the languages are configurational or pronominal argument languages.. Section 7.2 discusses Hidatsa, Section 7.3 discusses Assiniboine, Section 7.4 discusses Lakhota, and section 7.5 discusses Crow. Section 7.6 concludes the chapter.

7.2 Hidatsa

As discussed in Chapter 4, Boyle (2007) examines Hidatsa, arguing that it is "strongly configurational" (Boyle 2007:212). His two main pieces of evidence to support this argument are 1) Hidatsa has fixed word order and 2) subject-object asymmetry. Boyle also argues that DPs are arguments, and that the SAP pronominal affixes are arguments.

While Boyle argues that Hidatsa is fully configurational, I argue that Hocąk is a mix of both configurational and nonconfigurational. His analysis does not capture crucial phenomena that Hidatsa possesses which have led some scholars to argue for nonconfigurationality in Siouan (Van Valin 1985, and Williamson 1985 for Lakhota, for example).

As discussed in Chapter 6, Boyle argues that SAP pronominal prefixes are arguments, with two pieces of evidence: 1) independent pronoun forms cannot fulfill the argument slot of the verb; even when present, an SAP pronominal prefix must be present. They do not require the

presence of independent pronouns, and 2) SAP pronominal affixes can be coordinated with DPs, which are arguments under Boyle's theory.

My treatment of Hocąk throughout this dissertation has drawn heavily from Boyle's work on Hidatsa. We disagree on the status of the SAP pronominal affixes, but we both argue that the languages are configurational because they are in possession of a VP. Assuming that Boyle (2007) is correct about the SAP pronominals' status as arguments, his syntactic movement analysis works well to explain where SAP pronominals get Case and verb receive their theta roles. However, as discussed in the previous chapter, the data on SAP pronominals is limited, and I am not thoroughly convinced by Boyle's arguments for SAPs as arguments. I contend that a split configurational analysis is preferable in Hidatsa because it captures the SAP/third person split data that exists in all Siouan languages.

7.3 Assiniboine

As discussed in Section 4, West (2003) argues that Assiniboine is fully configurational. Additionally, all pronominal person markers are instances of agreement morphology. SAP arguments are expressed as null pronominals (*pros*) that agree with person and number verbal prefixes, and third person arguments are expressed either as *pros* or DPs. This is the same analysis I have espoused for Hocąk DPs and SAP pronominal affixes.

West presents positive evidence to show that third person pronominal affixes are instances of agreement morphology. However, due to the nature of Siouan, the same wealth of positive evidence in of SAPs as agreement morphology is unavailable. West provides two arguments in support of an agreement analysis of SAP pronominal markers. First, she argues that independent personal pronouns occupy argument positions, leaving the coreferential

pronominal person markers to be instances of agreement morphology (see previous chapter for detailed discussion). West's second argument is somewhat theory-internal: she argues that the Unaccusative Hypothesis is incompatible with an analysis of SAP person markers as arguments. West assumes that the difference between stative and active verbs in Siouan is encoded in the syntax à la Perlmutter (1978): unergative verbs license an external argument, which patterns with the set of active verbs in Siouan, and the unaccusative verbs, patterning with the stative verbs, license an internal argument which moves to subject position. This being the case, West argues that if the pronominal affixes were arguments, the movement of the internal argument up to subject position would mean that "morphology becomes syntax" since, as an argument, an SAP pronominal morpheme would need to be subject to the same constraints and processes of the syntax. As such, there would need to be a configurational structure motivating this movement (in this case, fulfillment of the EPP). This situation would be impossible since the SAP pronominals are not arguments under West's analysis. However, this type of problematic situation is exactly what my theory is designed to deal with. I will return to this topic in the following paragraphs.

I contend that West's arguments are flawed. First, I am unconvinced that her independent pronoun evidence actually shows independent pronouns in argument position, as discussed in the previous chapter. Second, West's second argument for the agreement status of all the pronominal affixes in Assiniboine conflates pronominal argument status with configurationality. As we have seen, while the Pronominal Argument Hypothesis and nonconfigurationality dovetail, one does not necessarily include the other. Van Valin (1990), for example, argues that the distinction between unaccusativity and unergativity in Siouan comes purely from semantics, and is not

reflected in the syntax. Graczyk (1991) and Boyle (2007) argue that Crow and Hidatsa are configurational, and yet the SAP pronominals are also arguments. According to West, SAP person morphemes cannot be arguments because the language is configurational and, crucially, her theory does not allow for morphology to be transparent to syntax. In essence, under West's theory, nonconfigurational languages do not exist.

I argue that my theory offers two advantages over West's. First, like Boyle's analysis of Hidatsa, West's approach fails to acknowledge the patterns of SAP person marking that caused many people to argue that the languages are nonconfigurational (Williamson 1984, Van Valin 1977, 1985, 1987). Second, the analysis I present in this paper, applied to Assiniboine, is advantageous because it does not restrict us to an "all or nothing" approach: it frees us to see the language as a combination of configurational and nonconfigurational.

Applying the PoL to Assiniboine addresses West's problem of the impossibility of of syntax-morphology transparency. As with Hidatsa, the configurationality split according to the SAP/third person provides a story for the exact place at which Siouanists have struggled to come up with one. The SAP system behaves nonconfigurationally, with the pronominal affixes as arguments, wherein the syntax-lexicon boundary is between the m-lexicon and the morphology, allowing what West would define as syntax-morphology transparency. The SAP arguments, which again arrive in the syntax already with their semantic macro-roles, do not receive their assigned theta roles via structure, thus the relationship is not reflected in the syntax. The third person system operates configurationally, as we have seen, since the lexicon-syntax boundary is between the morphology and the syntax, theta roles being discharged as they normally would be through hierarchical relationships.

7.4 Crow

As covered in Chapter 4, Graczyk (1991) does not explicitly argue for the configurationality status of Crow. He refers to the language as "loosely configurational", in that while the language exhibits characteristics of both nonconfigurational and configurational, there is a greater number of configurational characteristics. Graczyk's goal is to be descriptive rather than argue for the configurationality status of the language, so he leaves it at that and acknowledges that further work must be done. He argues that the pronominal markers' status as arguments is mixed: SAP pronominals are arguments, the null third persons are arguments, and lexical DPs are also arguments where present.

As such, my analysis works well when applied to Crow. There is a clear SAP/third person split, and Graczyk's assessment of the argument status of the pronominal affixes is similar to mine, except that he considers the SAP prefixes to be arguments. Graczyk's analysis acknowledges the split, however he analyzes the third person pronominals as arguments; behaving like the SAP argument pronominals. This is problematic because the third person system then has to behave one way in one situation, and another way in another situation: the null zeros are arguments when alone, and agreement morphology when an argument DP is present. Unfortunately Crow does not have any overt third person pronominal affixes at all, whether in the singular or plural, so it is impossible to test for their argument status, so I assume the simpler idea which is that third persons behave in one singular way and do not change based on whether or not lexical DPs are present. Under my analysis, Crow third person zero pronominal forms are agreement morphology, either with null *pro* or overt lexical DPs, as part of the third person system.

There is no way to see where these null zero forms, which Graczyk proposes do exist, are located relative to the verb root. Thus there is no positive evidence, as we have seen that there is for Assiniboine, Lakhotā and Hocąk, that the third person forms are located in a different place. But then neither is there reason to doubt it, and since the other Siouan languages have one, I am able to postulate that Crow's null third person forms are also located in a position different than the SAP ones. Crow also does not have one single form for SAP plural, so there is the issue of less overt evidence of the SAP/third person split. The split between SAP and third person is easily expressed over the configurationality split in the same manner as the PoL.

7.5 Lakhotā

As discussed in Chapter 4, Van Valin (1977, 1985, 1987) and Williamson (1984) both argue for a nonconfigurational analysis of Lakhotā, owing to the fact that the language does not display subject-object asymmetry associated with the Empty Category Principle (Weak Crossover, *that*-trace effects), the lack of *wh*-island effects, the lack of no Condition C effects, and relatively free word order. Williamson argues that the pronominal affixes are instances of agreement with dropped NPs; Van Valin argues that Lakhotā's pronominal affixes are arguments due to the fact that they are in complementary distribution with lexical DPs.

There are a few difficulties with this analysis, all stemming from the fact that Van Valin and Williamson's analyses do not acknowledge the configurational characteristics that exist in Lakhotā, along with the nonconfigurational ones. For one, word order is not truly free in Lakhotā. Williamson states that default word order is SOV, with any alternate orders providing discourse-informational effects. We have seen that this is also the case for other Siouan languages. Second, similar to other Siouan languages, Lakhotā has no overt third person

pronominal affixes forms except for the third person plural object prefix *wicha-*, which, according to Williamson (1984), is located in a different preverbal position than the SAP pronominal forms. This shows that there is a difference between the behavior of the SAP forms and the third person ones. Thus, an analysis that can reconcile the facts on both sides of the fence would have to be the superior one.

As the paragraph above suggests, a purely nonconfigurational analysis of Lakhota leaves out certain crucial patterns. A split configurational analysis of Lakhota would be more effective, as it allows for the observations made by Williamson and Van Valin to remain, while also capturing the facts that there is a default word order apparent when looking at the positioning of DPs within sentences, and that it is only in the pronominal affixes (more specifically, the SAP affixes) that that a lack of ECP-based violations is discernible.

7.6 Conclusion

In this chapter, I have discussed the ways in which my analysis can be applied to other Siouan languages. While each language possesses certain morphological intricacies that set each apart from each other, the basic structure is the same across the board in that there is a marked difference in Siouan between the way the SAP versus third person morphological and syntactic systems behave. For this reason, I have argued that other Siouan languages, using examples of Hidatsa, Assiniboine, Crow and Lakhota, are better analyzed with a split configurational system than in trying to force them to fit into one or the other.

CHAPTER 8

CONCLUSION

8.1 Concluding remarks

Siouanists have debated for decades whether these languages are configurational or nonconfigurational, owing to the polysynthetic characteristics of the Siouan language family. Arguments have been made on both sides. The analysis presented here combines both configurational and nonconfigurational approaches, as it is my contention that Siouan does employ both morphology and syntax to assign grammatical function to morphemes and derive sentences. The starting point for this work has been the dissatisfaction with both a purely configurational and purely nonconfigurational analysis, as both sides at best brush aside and at worst ignore certain facts about the languages' behavior. My theory is an attempt to gather the best of both worlds. I acknowledge that Siouan languages do have attributes of configurational and nonconfigurational languages, and attempt to organize them into two distinct categories. I have argued here that in Siouan languages, the differences in behavior between SAP and third person pronominal affixes point us toward a split between configurational and nonconfigurational behavior within the language itself.

In this dissertation, I have provided an overview of Hocąk morphological and syntactic qualities and attributes (chapter 2). I have also provided a review of a selection of literature focusing on configurationality and polysynthesis (chapter 3), including Hale (1983), Jelinek (1984), Nordlinger (1998), and Baker (1996), and Li (2005). In the next chapter (chapter 4), I review previous work on configurationality in Siouan, focusing on the work of Van Valin and Williamson, (Lakhota), Graczyk (Crow), West (Assiniboine), and Boyle (Hidatsa). Chapter 5

discusses previous analyses of the SAP/third person split cross-linguistically, focusing on select works including Benveniste (1971), Silverstein (1976), Noyer (1992), Rice and Saxon (1995), and Brittain (1998). Chapter 6 and 7 discuss my analysis of the SAP/third person split, first in Hocak, and then in other Siouan languages.

I provide an analysis of the configurationality of Siouan languages, first applying my analysis to Hocak, then suggesting its application in other Siouan languages. I have drawn heavily from the ideas of Nordlinger (1998) and the configurationality continuum, and Li (2005)'s Parameter of the Lexicon. Both of these ideas seek to contribute toward answering the question of explaining languages that do not seem to behave like typical, English-type configurational languages. The goal of both of these is essentially the same: to formally account for the behavior of languages that are different from the "typical" Western configurational language by arguing that morphology is more involved with traditionally "syntactic" processes and principles.

REFERENCES

- Abraham, Werner. 1986. Word order in the Middle Field of the German sentence. In: *Topic, Focus and Configurationality*. Werner Abraham and Sjaak de Meij, (eds). 15-38. Amsterdam: John Benjamins.
- Adger, David, Daniel Harbour, and Laurel J. Watkins. 2010. *Mirrors and microparameters: Phrase structure beyond free word order*. Cambridge: Cambridge University Press.
- Austin, Peter K. 1993. Word order in a free word order language: the case of Jiwari. In: Jane Simpson, David Nash, Mary Laughren, Peter Austin, and Barry Alpher (eds.). *Forty Years On: Ken Hale and Australian Languages*. Canberra: Pacific Linguistics, 305-324.
- Austin, Peter K., and Joan Bresnan. 1996. Non-configurationality in Australian Aboriginal languages. *Natural Language and Linguistic Theory* 14(2): 215-268.
- Baker, Mark C. 1988. *Incorporation: a theory of grammatical function changing*. Chicago, IL: University of Chicago Press.
- 1990. Pronominal inflection and the morphology-syntax interface. In *CLS-26*, 25-48.
- 1991. On some subject/object asymmetries in Mohawk. *Natural Language and Linguistic Theory* 9: 537-576.
- 1996. *The Polysynthesis Parameter*. Oxford Studies in Comparative Syntax. New York: Oxford University Press.
- Benveniste, Emile. 1971. The Nature of Pronouns. In *Problems of General Linguistics*, M.E. Meek, trans., pp. 217-222. Coral Gables, Florida: University of Miami Press.
- Boyle, John P. 2007. *Hidatsa Morpho-syntax and Clause Structure*. Chicago, IL: University of Chicago dissertation.
- Bresnan, Joan. 1971. *Contraction and the transformational cycle in English*. Ms., MIT, Cambridge, MA.
- Bresnan, J. and Kaplan, R.M. 1982. Introduction: Grammars as mental representations of language. In *The Mental Representation of Grammatical Relations*. In Bresnan J. (ed). xxvii-iii. Cambridge, MA: MIT Press.
- Brittain, Julie. 2001. *The Morphosyntax of the Algonquian Conjunct Verb: A Minimalist Approach*. New York: Garland (Routledge).

- Chomsky, Noam. 1970. Remarks on Nominalization. In *Readings in English Transformational Grammar*, ed. Roderick A. Jacobs and Peter S. Rosenbaum. 184-221. Waltham, Mass: Ginn and Co.
- . 1981. *Lectures on Government and Binding*. Dordrecht: Foris.
- . 1993. *A minimalist program for linguistic theory*. MIT Occasional Papers in Linguistics No. 1. Cambridge, MA: Distributed by MIT Working Papers in Linguistics.
- . 1995. *The minimalist program*. Cambridge, MA: MIT Press.
- . 2001a. Derivation by Phase. In Michael Kenstowicz ed. *Ken Hale: a Life in Language*, 1-52. Cambridge, Mass.: MIT Press.
- Cinque, Guglielmo. 1990. *Types of A'-Dependencies*. Cambridge, MA: MIT Press.
- Cumberland, Linda A. 2005. *A Grammar of Assiniboine: A Siouan Language of the Northern Plains*. Bloomington, IN: Indiana University dissertation.
- 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.
- DiSciullo, Anna Maria, and Edwin Williams. 1987. *On the definition of word*. Cambridge, Mass.: MIT Press
- Dixon, R.M.W. 1994. *Ergativity*. Cambridge: Cambridge University Press.
- Evans, Nicholas. 1991. A draft grammar of Mayali. Ms., University of Melbourne.
- Garvin, Cecil & Iren Hartmann. 2009. *Hoocqk hijj'ekjawi! A Hoocqk language text and workbook for beginners*. M.s.
- Graczyk, Randolph Ian. 1991. *Incorporation and Cliticization in Crow Morphosyntax*. Chicago, IL: University of Chicago dissertation.
- Grimshaw, Jane. 2005. *Words and structure*. Stanford, CA. CSLI Publications.
- Hale, Kenneth. 1981. On the position of Warlpiri in a typology of the base. Distributed by Indiana University Linguistics Club, Bloomington.
- . 1983. Warlpiri and the grammar of nonconfigurational languages. *Natural Language and Linguistic Theory* 1:5-49.

- 1985. 'On Nonconfigurational Structures', manuscript, MIT.
- 1989. On configurational structures. In *Configurationality: the typology of asymmetries*. László Marácz and Peter Muysken, eds. 293-300. Dordrecht: Foris Publications.
- Harrison, K. David & Rood, David S. & Dwyer, Arienne (eds.), *Lessons from documented endangered languages*. Amsterdam & Philadelphia: J. Benjamins (*Typological Studies in Language* 78); 271-315.
- Hartmann, Iren. 2011. Valency Classes in Hoocak (Siouan). *Valency Classes in the World's Languages*. Max Planck Institute-EVA Leipzig
- 2012. Hoocak Lexique Pro database.
- Heim, Irene. 1982. The semantics of definite and indefinite noun phrases. Ph.D. dissertation. University of Massachusetts, Amherst.
- Helmbrecht, Johannes. 2002. Argument Structure of the Hocak (Winnebago) Clause. *Arbeitspapiere des Seminars für Sprachwissenschaft der Universität Erfurt* 4.
- 2004. Are there Adjectives in Hocank (Winnebago)? *Arbeitspapiere des Seminars für Sprachwissenschaft der Universität Erfurt* 14.
- 2006. Hocak as an active/inactive language: Why there is no passive/antipassive. *Arbeitspapiere des Seminars für Sprachwissenschaft der Universität Erfurt* 20.
- Helmbrecht, Johannes & Christian Lehmann. 2008. Hocank's challenge to morphological theory. In *Lessons from Documented Endangered Languages*. K. David Harrison and David S. Rood, (eds.). Philadelphia, PA: John Benjamins.
- Higginbotham, James. 1985. On semantics. *Linguistic Inquiry* 16, 547-593.
- Jackendoff, Ray. 1972. *Semantic interpretation in generative grammar*. Cambridge, Mass.: MIT Press.
- Jelinek, Eloise. 1984. Empty categories, case and configurationality. *Natural Language and Linguistic Theory* 2:39-76.
- 1987. Headless relatives and pronominal arguments: A typological survey. In *Native American languages and pronominal arguments*, eds., Paul Kroeber & R. E. Moore, 136-48. Bloomington: Indiana University Linguistics Club.

- . 1989. The case split and pronominal arguments in Choctaw. In *Configurationality: The Typology of Asymmetries*. eds. Laszlo Maracz and Pieter Muysken, 117-141. Dordrecht: Foris.
- Johnson, Meredith. 2013a. Verb Phrase Ellipsis and *v*: Evidence from Hocąk. Paper presented at the 87th Annual Meeting of the Linguistic Society of America.
- . 2013b. Rightward Movement and Antecedent Contained Deletion: New Evidence from Hocąk. Paper presented at the 31st West Coast Conference on Formal Linguistics.
- . 2013c. Ellipsis is Derivational: Evidence from Hocąk VPE. Paper presented at the 49th Chicago Linguistics Society.
- Johnson, Meredith & Bryan Rosen. Why Hocąk head-final is: Evidence from quantifier scope and resultatives. Paper presented at the 34rd Siouan and Caddoan Languages Conference.
- Johnson, Meredith, Bryan Rosen & Mateja Schuck. 2013a. Evidence for a VP Constituent in Hocąk. Paper presented at the Society for the Study of the Indigenous Languages of the Americas.
- . 2013b. How Configurational is Hocąk? Paper presented at the 33rd Siouan and Caddoan Languages Conference, June 16, 2013.
- . To appear. Evidence for a VP Constituent in Hocąk. In: *Advances in the Study of Siouan Languages and Linguistics*. Catherine Rudin and Bryan James Gordon, eds.
- Johnson, Meredith, Hunter Thompson Lockwood, Bryan Rosen & Mateja Schuck. 2012. A preliminary Sketch of Hocąk Syntax. Paper presented at the 33rd Siouan and Caddoan Languages Conference, June 2012.
- Lehmann, Christian and Johannes Helmbrecht, (eds.) *Hocąk Teaching Materials, Vol. 1: Elements of Grammar/Learner's Dictionary*. 2010. Albany, NY: SUNY Press.
- Li, Yafei. 2005. *X⁰ syntax*. Cambridge, MA: MIT Press.
- Kayne, Richard. 1994. *The antisymmetry of syntax, Linguistic Inquiry Monographs 25*. Cambridge, MA: MIT Press
- Marantz, Alec. 1984. *On the Nature of Grammatical Relations*. MIT Press, Cambridge, MA.
- Mithun, Marianne. 1984. The evolution of noun incorporation. *Language* 60: 847-894.

- . 1986. On the nature of noun incorporation. *Language* 62: 32-37.
- . 1991. Active/agentive Case Marking and Its Motivations. *Language* 67:510-546.
- . 1999. *The languages of Native North America*. Cambridge: Cambridge University Press.
- Nevins, Andrew. 2007b. The representation of third person and its consequences for the person-case constraint. *Natural Language and Linguistic Theory* 25(3), 273–313.
- Nevins, Andrew. 2011. Multiple agree with clitics: person complementarity vs. omnivorous number. *Natural Language and Linguistic Theory* 29, 939–971.
- Nordlinger, Rachel. 1998. *Constructive Case: Evidence from Australian Languages*. Stanford: CSLI Publications.
- Noyer, Robert Rolf. 1992. *Features, Positions and Affixes in Autonomous Morphological Structure*. Cambridge, MA: MIT dissertation.
- Pensalfini, Robert. 1992. *Degree of Freedom: Word order in Pama-Nyungan languages*. Unpublished Honours Thesis, University of Western Australia.
- Rood, David S. and Regina Pustet. 2008. Argument suppression in Lakota. In *The typology of semantic alignment*, ed. Mark Donohue and Søren Wichmann, 334-356. Oxford University Press.
- Rice, Keren and Leslie Saxon. 1994. The Subject Positions in Athapaskan Languages. *MIT Working Papers in Linguistics* 22, 173-195
- Ritter, Elizabeth. 1993. Where's Gender? *Linguistic Inquiry* 24.795-803.
- Ritter, Elizabeth. 1995. On the Syntactic Category of Pronouns and Agreement. *Natural Language and Linguistic Theory* 13. 405-443.
- Ritter, Elizabeth. 1997. Agreement in the Arabic prefix conjugation: Evidence for a non-linear approach to person, number and gender features. In *Proceedings of the Canadian Linguistic Association Conference*, ed. by Leslie Blair, Christine Burns and Lorna Rowsell, 191-202. Calgary: Dept. of Linguistics, University of Calgary.
- Sadock, Jerrold. 1980. Noun Incorporation in Greenlandic. *Language* 56: 300-319.
- . 1986. Some notes on noun incorporation. *Language* 62: 19-31.

- . 1991. *Autolexical syntax: A theory of parallel grammatical representations*. Chicago: University of Chicago Press.
- Silverstein, Michael. 1976. Hierarchy of features and ergativity. In: *Grammatical Categories of Australian Languages*. R.M.W. Dixon, ed. 112-171.
- Simpson, Jane Helen. 1991. *Warlpiri Morpho-Syntax*. Dordrecht: Kluwer Academic Publishers.
- Speas, Margaret. 1990. *Phrase structure in natural language*. Dordrecht: Kluwer Academic Publishers.
- . 1994. Null arguments in a theory of economy of projection. In *UMOP 17*. eds. E. Benedicto and J. Runner. 179-208
- Sportiche, Dominique. 1985. A theory of floating quantifiers and its corollaries for constituent structure. *Linguistic Inquiry* 19: 425-449.
- Stump, Gregory. 1993. 'Position classes and morphological theory'. In Booij G & van Marle J (eds) *Yearbook of Morphology 1992*. Dordrecht: Kluwer, 129-180.
- . 1997. 'Template morphology and inflectional morphology'. In Booij G & Van Marle J (eds) *Yearbook of Morphology 1996*. Dordrecht: Kluwer, 217-241.
- . 2001. *Inflectional Morphology*. Cambridge: Cambridge University Press.
- Van Valin, Robert. 1977. *Aspects of Lakhota Syntax*. Unpublished dissertation, University of California, Berkeley.
- Van Valin, Robert D., Jr. 1985. Case marking and the structure of the Lakhota clause. In *Grammar Inside and Outside the Clause: Some Approaches to Theory from the Field*. eds., J. Nichols and A. C. Woodbury, Cambridge University Press: 363-413.
- Van Valin, Robert D., Jr. 1987. The role of government in the grammar of head-marking languages. In *International Journal of American Linguistics* 53(4): 371-97.
- West, Shannon Louise. 2003. *Subjects and Objects in Assiniboine Nakoda*. Victoria, BC: University of Victoria MA thesis.
- Williams, Edwin. 1981a. Argument structure and morphology. *The Linguistic Review* 1: 81-114.
- Williamson, Janis Shirley. 1984. *Studies in Lakhota Grammar*. San Diego, CA: University of California dissertation.

Woolford, Ellen. 2010 Active Stative Agreement in Choctaw and Lakota. ReVel8: 6-46.
(Revista Virtual de Estudos da Linguagem) Special Issue No. 4, Optimality Theoretic
Syntax, edited by Gabriel de Ávila Othero and Sérgio de Moura Menuzzi.

Zwicky, Arnold M. 1977. *On Clitics*. Bloomington, IN: Indiana University Linguistics Club.