

Argument Structure and the Syntax of a Non-Configurational
Language

by

Ann Grafstein

A thesis submitted to the Faculty of
Graduate Studies and Research, McGill University
In partial fulfillment of the requirements for the
degree of Doctor of Philosophy

Department of Linguistics
McGill University
Montreal
February, 1984

© Ann Grafstein, 1984

To the memory of my grandmother and to the next generation.

ABSTRACT

This thesis is an attempt to develop a model for the interpretation of thematic relations in the Algonquian language, Ojibwa. Ojibwa is a language with an extremely rich derivational and inflectional morphology and a highly flexible word order. The analysis developed in this thesis is based on the assumption that an adequate grammar of Ojibwa should reflect the fundamental role of the morphology in encoding thematic relations. A model of Ojibwa phrase structure is proposed which is similar to the model already developed by Hale (1982a,b) for Walbiri and by Farmer (1980) for Japanese. Within this model, lexical items are inserted in random order under category-neutral terminal nodes. An algorithm is then formulated which accounts for how nouns, which appear in random order in syntactic phrase markers, are associated with lexically-specified verbal argument positions. According to this algorithm, a noun in a syntactic phrase marker is associated with a verbal argument position when its features match the features specified by the verbal inflections which refer to that argument position.

RESUME

Cette thèse essaie de développer un modèle pour l'interprétation des relations thématiques en ojibwa, une langue algonquienne. L'ojibwa est une langue qui démontre une grande flexibilité dans l'ordre des mots, aussi bien qu'une richesse dans le système morphologique. Cette richesse caractérise et le système dérivationnel et le système flexionnel. L'analyse que nous développons dans cette thèse se base sur l'hypothèse q'une grammaire adéquate pour l'ojibwa devrait refléter le rôle fondamental de la morphologie dans l'interprétation des relations thématiques. Nous développons un modèle de la structure de base en ojibwa, qui est semblable à celui déjà développé par Hale (1982a,b) pour le walbiri et par Farmer (1980) pour le japonais. Dans ce modèle, les lexèmes sont introduits en ordre arbitraire sous des noeuds terminaux catégoriellement neutres. Ensuite, nous proposons un algorithme pour l'interprétation des phrases en ojibwa. Selon cet algorithme un nominal dans un arbre syntaxique peut s'associer avec une position verbale argumentaire si les traits morphologiques du nominal sont identiques à ceux qui sont spécifiés par les flexions qui se réfèrent à cette position argumentaire.

ACKNOWLEDGMENTS

My doctoral studies have been funded, for the most part, by a McConnell fellowship from McGill University, and by an F.C.A.C. bourse de l'enseignement supérieure, from the government of Québec. I have also benefited from a summer research fellowship from McGill University. I am grateful for this support.

The data on which the research in this thesis is based were collected during my association with the Algonquin Language Project, under the direction of Prof. G.L. Piggott. The project was funded by grants from the Social Sciences and Humanities Research Council of Canada.

The typing of this thesis was made far less painful by the use of a word processor which is connected to the main computer at McGill University. I am grateful to McGill's Computer Centre for the funds which enabled me to use the system.

Many people deserve to be acknowledged for their help during the preparation of this thesis. First and foremost, I would like to thank my thesis supervisor, Prof. Glyne Piggott. The time and energy which he has devoted to this

thesis have far exceeded the call of duty, and his supervision has at all times been thorough, meticulous and demanding.

I am also grateful to Prof. Nicole Domingue. Her constant willingness to offer encouragement and a sympathetic ear has helped me through some particularly low periods.

The content of this thesis has been improved through discussions with my friends and colleagues, Eithne Guilfoyle, Irene Mazurkewich, Jonathan Mead, Linda Walsh, and Elly Van Gelderen. Thanks also go to these same people for keeping me laughing all the way through.

I would especially like to acknowledge the indispensable help of the native consultants who shared their language with us. Shirley Batt deserves particular mention in this regard. Without her intelligence, persistence and curiosity, I would never have had access to some of the finer grammatical judgments, which have, in my opinion, led to the more interesting conclusions.

It is difficult to express my gratitude to my husband, Alan Bailin. His help has been invaluable at every stage of this work. He has read the entire thesis, and has made intelligent and useful comments on every aspect of it, from

the argumentation to the style. Perhaps more important, he bolstered my confidence when it flagged, and helped me find the courage to face the blank page.

Finally, I would like to acknowledge the support and encouragement I have received from my parents (all four of them), my friends, and my entire (extended) family.

TABLE OF CONTENTS

ABSTRACT	I
RESUME	II
ACKNOWLEDGMENTS	III
PREFACE	1
CHAPTER ONE - BACKGROUND	5
1.0 Introduction	5
1.1 Transcription	6
1.2 An Outline of Ojibwa Grammar	7
1.2.1 Classification of Nouns	7
1.2.2 Classification of Verbs	9
1.2.3 Morphology and Syntax	16
1.3 Obviation in Ojibwa	18
1.3.1 Obligatory Obviation	20
1.3.2 Optional Obviation	23
1.3.3 Obviation Marked with -ini	27
1.3.4 Discourse-Level Obviation	33
1.4 Review of the Literature	39

Notes for Chapter Three	164
CHAPTER FOUR - OBVIATION AND DISJOINT REFERENCE	170
4.0 Introduction	170
4.1 Binding Theory	173
4.2 "Binding" in Ojibwa	178
4.2.1 Are There Anaphors in Ojibwa?	179
4.2.2 "Pronominals" in Ojibwa	184
4.3 Obviation and Disjoint Reference	194
4.3.1 Obviation Across Verbal AS's	200
4.3.2 Obviation On Arguments of N	204
4.3.3 "Discourse" versus Sentential Obviation	207
4.4 The Principle of Disjoint Reference	214
4.5 Conclusion	220
Notes for Chapter Four	222
CHAPTER 5 - PREDICTION OF PROXIMATE AND OBVIATIVE THIRD	
PERSONS	228
5.0 Introduction	228
5.1 Obligatory Obviation	228
5.1.1 Obviation Within the AS of Noun Stems	234
5.1.2 Obviation Within Clauses	226
5.3 Obviation on Inanimate Noun Forms	247
5.4 Optional Obviation	256
5.4.1 Obviation on Arguments of Noun Forms	258
5.4.2 Obviation on Arguments of Different Verb	
Forms	261

Notes for Chapter Five	263
CHAPTER SIX - SUMMARY AND CONCLUSION	268
6.0 Introduction	268
6.1 An Overview of Ojibwa Grammar	270
6.2 Overgeneration	281
6.2 Residual Problems	288
Note for Chapter Six	293
APPENDIX	294
REFERENCES	295

PREFACE

This thesis explores the question of how thematic relations are encoded and interpreted in the Algonquian language, Ojibwa. Special emphasis will be given to the phenomenon of obviation. Obviation is a process whereby non-coreferential third persons are morphologically distinguished from one another when they appear within the same sentence. As will become apparent during the course of this study, obviation is crucial to the interpretation of thematic relations in sentences containing more than one third person.

The phenomenon of obviation has both intrigued and baffled linguists interested in the study of Algonquian languages. Nobody has yet been able to formally define either the precise grammatical contexts in which it occurs, nor has anyone been able to predict which third person will be non-obviative (or proximate) and which third person will be obviative within these contexts. In this thesis I argue that the contexts in which obviation occurs follow naturally from the assumption that obviation is the formal instantiation in Ojibwa of the principle of Disjoint

Reference in structures involving third persons. The determination of which third person will be proximate and which obviative within these contexts will be shown to follow from the way in which nouns are associated with the argument structure of verbs.

The analysis developed in this thesis is situated within the general framework of the Extended Standard Theory (EST). Specifically, I assume the recent variant of EST known as the "Government-Binding" theory (see Chomsky 1981, 1982 and references cited there). Within this model, a grammar consists of four components: (a) the lexicon; (b) the syntax, which consists of a set of context-free categorial rules (the base) and a set of transformational rules; (c) Phonetic Form; and (d) Logical Form. The rules of (c) and (d) each independently assign representations to structures generated by the syntax.

Ojibwa is a language with an extremely rich derivational and inflectional morphology and a highly flexible word order. In this thesis, I take the position that an adequate grammar of Ojibwa should reflect the fundamental role of the morphology in encoding thematic relations. For this reason I adopt essential aspects of the grammatical model proposed by Hale (1982a,b) for Walbiri and Farmer (1980) for Japanese. I assume, following Hale (1982a) that many of the observable grammatical differences between languages like English and languages like Ojibwa (see Chapter 3) follow from parametric variation in the

system of rules that comprise the base component.

Within the analysis developed in this thesis, grammatical functions such as 'subject of' and 'object of' are not syntactically definable in Ojibwa. In fact, I hold that there is no level of grammatical functions which is independent of the thematic roles which are assigned to arguments in syntactic phrase markers. These thematic roles are assigned on the basis of the morphology of the nouns and verbs in the phrase marker.

In this thesis I develop a model which can account for the interpretation of thematic relations in Ojibwa. Within this model, the lexical entry for each verb indicates the number of arguments it takes. Each argument position specified in a lexical entry is linked with a particular thematic role. A noun in a syntactic phrase marker is interpreted as being associated with a lexically-specified argument position when its features match the features encoded by the inflections which are attached to the verb. A noun which is associated with a particular argument position is then assigned the thematic role which is linked with that argument position.

This thesis is divided into six chapters. The first chapter provides a general and informal background on the grammar of Ojibwa. Also provided in the first chapter is a critical review of some of the literature on obviation. In the second chapter I outline a model of the Ojibwa lexicon. It is assumed that all word formation

processes--derivational and inflectional--take place prior to lexical insertion. Chapter 3 discusses Ojibwa phrase structure. An alternative to the traditional model of the base is proposed, along the lines developed in Hale (1982a,b) and Farmer (1980). I then propose an analysis of how nouns in phrase markers are interpreted as being associated with particular lexically-specified verbal argument positions. In Chapter 4 I present evidence to support the claim that obviation is the formal instantiation of the principle of Disjoint Reference in structures involving third persons. I argue that obviation is obligatory in just the contexts in which Disjoint Reference is obligatory, and optional elsewhere. Chapter 5 explores the problem of predicting the proximate and obviative third persons in those contexts in which obviation occurs. I argue that the solution to this problem reduces essentially to the process by which nouns come to be interpreted as verbal arguments. Chapter 6 provides a summary of the analysis developed in the thesis as well as some concluding remarks.

CHAPTER ONE - BACKGROUND

1.0 Introduction

The research presented in this thesis is based on data collected from several dialects of the Algonquian language Ojibwa. The bulk of the data cited here comes from two varieties of Algonquin, Rapid Lake and Winneway River; and one other dialect of Ojibwa, Western Ojibwa. The term Algonquin refers to a group of Ojibwa dialects spoken primarily in Northwestern Quebec. It should not be confused with the term Algonquian, which refers to the language family.

Several phonological and morphological features have been noted which distinguish Algonquin from other Ojibwa dialects. Since this thesis focusses on general properties of Ojibwa syntax and morphology, I will not mention dialectical differences except where they are relevant to a particular analysis. For a general discussion of some differences between Algonquin and other Ojibwa dialects, see Piggott (1978).

1.1 Transcription

The transcription system adopted here differs from the one familiar to Algonquianists, which is used, for example, in Bloomfield (1946, 1957) and Piggott and Kaye (1973). In these works, lenis consonants are represented by the symbols normally used for single voiceless consonants (e.g., p, t, k, etc.), and fortis consonants are represented by geminates of the symbols normally used for lenis consonants (e.g., pp, tt, kk, etc.). In this thesis, lenis consonants are represented by the symbols for single voiced consonants and fortis consonants by the symbols for single voiceless consonants. A colon (:) following a vowel indicates a long vowel and nasalized vowels are represented by a tilde (˜) over the vowel.

The transcription adopted here should not be interpreted as strictly phonetic. For example, certain predictable phonological processes are not reflected in the transcription. Furthermore, in order to minimize discrepancies in transcription, I have opted, in general, for a morphophonemic representation. In addition, it should be noted that since I am mainly concerned in this study with general properties of Ojibwa, some idiosyncratic properties of particular dialects are not represented. Most Algonquin dialects, for example, have a rule which simplifies nasal-obstruent clusters by deleting the nasal. Since this process is idiosyncratic to Algonquin dialects, I represent

such forms with the nasal-obstruent cluster.

1.2 An Outline of Ojibwa Grammar

Below I present a brief sketch of some aspects of Ojibwa grammar which will be relevant to the discussion which follows. During the course of this presentation I use terminology which, though standard in the field of Algonquian linguistics, may be unfamiliar to other readers. For the convenience of the reader, then, a list of such terms is provided in the Appendix.

1.2.1 Classification of Nouns

As in all Algonquian languages, nouns in Ojibwa are divided into two gender classes: animate and inanimate. It should be emphasized that this distinction is to a large extent arbitrary and serves a grammatical rather than a semantic function. While all semantically animate nouns are grammatically animate, the converse is not always true. The nouns asini: 'stone,' and ožibi:gina:tigw 'pencil,' for example, are, at least in some dialects, both grammatically animate. The arbitrariness of the classification is underlined by cases such as the following: miskomin 'raspberry' is grammatically animate, while mi:na:ži:š

'blueberry' is grammatically inanimate. Since there is no clear semantic criterion for the gender classification, I assume that the distinction is essentially a grammatical one (see Hockett 1966:59, note 4 and Piggott 1979 for some discussion of this point).

The gender classification of nouns is realized in the grammar in three ways. First, animate and inanimate nouns take different plural endings. The plural ending for animate nouns is -ag and for inanimate nouns -an. Secondly, the gender distinction is reflected in the way in which obviation is marked. As we shall see in detail below, obviation is a process whereby non-coreferential third person nominals are morphologically distinguished from one another when they appear within the same sentence. It will suffice for the moment to say that in any sentence containing two or more non-coreferential third persons, only one of these will be proximate and the rest will be marked obviative. A proximate noun is one which is not marked obviative. The obviative markers are -an for animate nouns and -ini for inanimate nouns (in those dialects which mark obviation on inanimate nouns). Finally, as will be illustrated in the next section, the gender of one of the arguments of a verb determines in part the lexical classification of the verb form.

Both animate and inanimate nouns are further sub-classified according to whether or not they are dependent. Dependent noun stems are those which occur only

in possessed form. This set consists mostly of kinship terms and terms for intimate or inalienable possessions (see Bloomfield 1946:96). The dependent noun stem *-ka:d 'leg,' for example, occurs only in combination with an affix indicating a possessor; e.g., ni-ka:d 'my leg.'

1.2.2 Classification of Verbs

Following Bloomfield (1946, 1957), Algonquianists generally recognize two main classes of verbs: intransitive and transitive.<2> Intransitive verbs contain anaphoric reference to actors while transitive verbs are marked for agreement with both actors and objects.<3> Within each of the two main classes, verbs are further sub-classified according to the gender of their arguments.

Let us look first at intransitive verbs. If an intransitive verb has an animate actor it is an Animate Intransitive (AI) verb. If, on the other hand, an intransitive verb has an inanimate actor, it is an Inanimate Intransitive (II) verb. Intransitive verbs are inflected according to the person, number and obviation status of their arguments. Some examples of sentences with intransitive verbs are provided in (1) and (2):

(1) a. wi:nizi - w<4> abino:ĵi:š

DIRTY AI 3 CHILD

'the child is dirty'

b. wi:nizi - w - ag abino:ĵi:š - ag

DIRTY AI 3 PL CHILD PL

'the children are dirty'

c. wi:nizi - w - an o - gosis - an

DIRTY AI 3 OBV 3 SON OBV

'his son is dirty'

(2) a. wi:nad - w wi:siniwa:gan

DIRTY II 3 TABLE

'the table is dirty'

b. wi:nad - w - an wi:siniwa:gan - an

DIRTY II 3 PL TABLE PL

'the tables are dirty'

c. wi:nad - ini o - wi:siniwa:gan

DIRTY II OBV 3 TABLE

'his table is dirty'

Let us now look at transitive verbs. As pointed out by Bloomfield (1957), transitive verbs are classified according

to the gender of their objects. If a transitive verb takes an animate object it is a Transitive Animate (TA) verb. If, on the other hand, a transitive verb takes an inanimate object it is a Transitive Inanimate (TI) verb. TI verbs inflect for the person of their actors and for the number of both their actors and objects. The use of TI verbs is illustrated in (3):

- (3) a. ni - wa:banda:n ĵi:ma:n
 1 SEE TI CANOE
 'I see the canoe'
- b. o - wa:banda:n ĵi:ma:n<5>
 3 SEE TI CANOE
 'he sees the canoes'
- c. o-wa:banda:n - an ĵi:ma:n - an
 3 SEE TI PL CANOE PL
 'he sees the canoes'
- d. o - wa:banda:n - a:wa: ĵi:ma:n
 3 SEE TI 3 PL CANOE
 'they see the canoe'

Let us now consider TA verbs. TA verbs are inflected for the person, number, and obviation status of their arguments. Some instances of sentences containing TA verbs

are provided in (4):

(4) a. ni - wa:bama: ogima:

1 SEE TA CHIEF

'I see the chief'

b. ni - wa:bama: - ag ogima: - ag

1 SEE TA PL CHIEF PL

'I see the chiefs'

c. o - wa:bama: - an ogima: - an

3 SEE TA OBV CHIEF OBV

'he sees the chief'

According to Bloomfield (1957) all transitive verbs contain theme-signs (TS). There are four theme-signs which can be attached to TA verbs in main clauses. Their occurrence is determined by the identities of both actor and object (see Bloomfield 1957:46 for some discussion).<6> The four theme-signs which occur on TA verbs are: -a:, -igw, -i, and -ini.

Forms containing the theme-signs -a: and -igw have at least one third person argument. The theme-sign -a: is considered to be a direct theme-sign, since when it occurs, the prefix on the verb always refers to the actor. When the theme-sign -igw is used, on the other hand, the prefix on the verb always refers to the object (see Bloomfield

1957:46). The theme-sign -i occurs on TA verbs with first person objects and second person actors. TA verbs with second person objects and first person actors take the theme-sign -ini. In both cases, the verbs take the prefix gi-, marking a second person participant. The use of these theme-signs is illustrated in (5):

(5) a. ni - gike:nim - a:

1 TA STEM TS
 KNOW

'I know him/her'

b. ni - gike:nim - igw

1 TA STEM TS
 KNOW

'he/she knows me'

c. gi - gike:nim - i

2 TA STEM TS
 KNOW 2-1

'you know me'

d. gi - gike:nim - ini

2 TA STEM TS
 KNOW 1-2

'I know you'

According to Bloomfield (1957:49), there are two theme-signs which are associated with TI verbs in main clauses: -a:, which denotes a third person object, and -n which denotes an inanimate object. For Bloomfield, then, the following is an example of the structure of a TI verb form:

(6) ni - wa:band - a: - n
 1 TI STEM TS INAN OBJ
 SEE
 'I see it'

Piggott (1979) argues convincingly that Bloomfield's analysis of the structure of TI verbs is incorrect. As is shown in Chapter 2, Piggott's (1979) conception of the internal structure of TI's leads him to propose certain modifications to the traditional four-way classification of Ojibwa verb stems.

The Ojibwa verbal system is divided into orders, each of which has its own set of inflections. The orders are: independent, conjunct and imperative. The independent order is basically used in principal clauses and yes-no questions. The conjunct order is used mainly in subordinate clauses and wh- questions; and the imperative order is used for commands and prohibitions. Personal prefixes are used in the independent order only.

Both the independent and conjunct orders are subdivided into several modes (see Bloomfield 1957:35f for discussion). I will be concerned in this study only with the independent and conjunct orders and with the indicative mode. Todd (1970:24) considers the indicative to be the "unmarked" mode and Goddard (1967) considers it to be the mode from which all other modes can be derived.

The use of the independent indicative is illustrated in (7a), below, and the use of the conjunct indicative is illustrated in (7b).

(7) a. gi - gi: - dagošin ona:go

2 PAST ARRIVE AI YESTERDAY

'you arrived yesterday'

b. ni - gi: - wi:ndamawa: e:gi: - dagošin - an ona:go

1 PAST TELL TA PAST ARRIVE AI 2 YESTERDAY

'I told him that you arrived yesterday'

As can be seen from (7), there are certain morphological differences between independent and conjunct verbs. First, conjunct verbs, unlike independent verbs, do not take prefixes. Secondly, conjunct verbs and independent verbs take entirely different sets of inflectional endings.

1.3 Obviation in Ojibwa

I would like now to discuss in some detail the phenomenon of obviation in Ojibwa. As was mentioned in the Preface, obviation plays a crucial role in encoding thematic relations in sentences containing more than one third person. This study attempts to examine obviation in terms of its role in the interpretation of thematic relations. I intend both to propose a precise formulation of the contexts in which obviation occurs and to account for the possible distributions of proximate and obviative third persons within these contexts.

It was noted above that obviation can be described as a process whereby non-coreferential third person nominals are morphologically distinguished from one another when they appear within the same sentence. As we shall see below (see Chapters 4 and 5), the function of obviation within the grammar of Ojibwa is essentially twofold: it formally indicates coreference or non-coreference between third persons and it helps distinguish the thematic roles of third person arguments in clauses containing more than one third person.

Since obviation plays a major role in the interpretation of thematic relations, I think it is appropriate here to present examples of the type of data which must be accounted for within any analysis of the way in which thematic relations are interpreted in Ojibwa. In

what follows, I indicate those contexts in which obviation must occur and those in which it may optionally occur. In Chapter 4 it will be shown that the obligatoriness or optionality of obviation in particular contexts follows from an analysis which views obviation as one of the ways in which the principle of obligatory Disjoint Reference is instantiated in Ojibwa.

Obviation is marked both on third person nominals and on verbs which have obviative arguments. In most dialects of Ojibwa, obviation can be marked only on animate nouns, although in some varieties of Algonquin, obviation is marked on inanimate nouns as well. In all dialects, however, a noun can only be marked obviative if there is an animate noun elsewhere in the sentence. Thus, in a sentence containing both an animate and an inanimate third person, the inanimate noun is the only one which can be marked obviative.

The most general way to characterize obviation informally is to say that when two or more non-coreferential third persons appear within the same sentence, one will be proximate and the rest will be obviative. We will see below that this generalization is too broad, since in some contexts obviation may not occur, even though there are two non-coreferential third persons within the same sentence.<7>

It will become apparent during the course of the discussion that what I consider to be obviation has more than one morphological realization. I will consider as an

instance of obviation any morphological marker which is attached to nouns and/or verbs uniquely in the presence of two or more non-coreferential third persons.

1.3.1 Obligatory Obviation

Obviation is obligatory both within clauses and within possessive expressions; that is, if, within either of these contexts, there is more than one third person, one of them must be obviative. Let us first consider obviation within possessive expressions. As is illustrated in (10), an animate noun in a possessive expression is always obviative if the possessor is a third person.

- (10) a. ni - da:nis niba: - w
 1 DAUGHTER SLEEP 3
 'my daughter is sleeping'
- b. gi - da:nis niba: - w
 2 DAUGHTER SLEEP 3
 'your daughter is sleeping'
- c. o - da:nis - an niba: - w - an
 3 DAUGHTER OBV SLEEP 3 OBV
 'his/her daughter is sleeping'

Notice that in (10c) the possessor is a third person (as indicated by the prefix o-), and the obviative affix -an is attached to the possessed noun o-da:nis-an. The obviative affix is also attached to the verb form (niba:-w), indicating that it has an obviative actor (i.e., the possessed noun o-da:nis-an).

Let us now consider obviation within clauses. As we saw above (see 4c)), if a transitive clause contains more than one third person, one of these third persons is marked obviative.

- (11) John o - wa:bama: - an makw - an
 3 SEE OBV BEAR OBV
 'John sees the bear'

We can see that (11) has an obviative object (makwan). As was noted above (section 1.2.3), the interpretation indicated in the gloss is required by the morphology of the verb and the nouns in the string. The theme-sign -a: which is attached to the verb stem wa:bam- indicates that its object is a third person, and the attachment of the obviative suffix -an indicates that its object is also obviative. So, John, being proximate, is interpreted as the actor and the obviative makwan is interpreted as the object. Sentences such as (11) with obviative objects may be compared with sentences such as (12) with obviative actors.

(12) Mary o - saye:z - an o - gi: - wa:bam - igw - an
 3 BROTHER OBV 3 PAST SEE TS OBV
 'Mary's brother saw her'

TA verbs with obviative actors take the theme-sign -igw. The combination of the theme-sign -igw and the obviative marker -an on the verb identifies the sentence as having an obviative actor and a proximate object.

I would like now to turn to the class of TA verbs which are often called double-object verbs. These verbs are sometimes considered to be subcategorized for two objects (see, for example, Piggott 1979). They differ from non-double-object transitive verbs in the following way. Recall that in the transitive verbs discussed above, the gender (animate or inanimate) of the complement to the verb determines the classification of the verb form (TA or TI). What is distinctive about these double-object verbs is that the verb agrees with the NP (henceforth NP1) which corresponds to what would be the indirect object in an equivalent English sentence. The NP (henceforth NP2) which corresponds to the direct object in an equivalent English sentence, affects neither the lexical classification of the verb nor the way in which it is inflected.

The examples which follow illustrate the use of double-object verbs with the verb stem bi:damaw- 'bring something to someone.' Notice that the gender of NP2 does not affect the morphological shape of the verb form in any

way.

(13) a. gi - gi: - bi:damaw - in ĵi:ĵi:š
 2 PAST BRING TS BABY(ANIM)
 1-2
 'I brought the baby to you'

b. gi gi: - bi:damaw - in mazine:gan
 2 PAST BRING TS BOOK (INAN)
 1-2
 'I brought the book to you'

In sentences with double-object verbs in which both NP complements are third persons, NP2 is always marked obviative. The verb stem in (14) (mi:n-) is a double-object verb stem which means 'give something to someone.'

(14) wa:bamin - an ni - gi: - mi:na: abino:ĵi:š
 APPLE OBV 1 PAST GIVE CHILD
 'I gave an apple to the child'

1.3.2 Optional Obviation

Above, I proposed the generalization that whenever two or more non-coreferential third persons appear within the same sentence, only one such third person can be proximate; the rest are obviative. I then noted that this

generalization, as it stands, is too broad. I would like now to discuss two cases in which obviation is optional; that is, in these cases, more than one proximate third person can appear in a sentence. It will be shown later that the optionality of obviation in certain contexts is not simply an exception to an otherwise valid generalization about obviation, but rather that it follows consistently from a particular analysis of obviation.

One context in which two non-obviative nouns appear within the same sentence is when one of the third persons is a possessor. In Western Ojibwa, for example, a third person possessor is often not marked obviative. We can see in the following Western Ojibwa sentences that the possessor (Mary) need not be marked obviative even though there is another third person in the same clause (John).

(15) a. John o - gike:nima: - an Mary o - mišē:h - an
 3 KNOW TA OBV 3 SISTER OBV
 'John knows Mary's sister'

b. John o - gike:nima: - an Mary-an o - mišē:h - ini<8>
 3 KNOW TA OBV OBV 3 SISTER FURTH OBV
 'John knows Mary's sister'

It should be noted that the tendency not to mark possessors obviative is much stronger in Algonquin than in Western Ojibwa. I have, for example, encountered no Algonquin

sentences of the type (15b) with the possessor marked obviative. So, while it appears that in Algonquin a possessor is never marked obviative, it may be optionally so marked in Western Ojibwa.

The second context in which two proximate third persons can appear within the same sentence is when the third persons in question are arguments of separate clauses; that is, when one third person is an argument of a matrix verb and the other is an argument of an embedded verb.

Bloomfield (1957), for example, observes that in any but "the closest contexts" obviation is sometimes avoided. In The Menomini Language, he notes more specifically that often "...the proximate person changes within a sentence, especially from clause to clause" (Bloomfield 1962:39).

Below is an example which illustrates the optionality of obviation across clause boundaries. In the following examples, both (a) and (b) are well-formed.

(16) a. ni-gi:-wi:ndamawa: ni-ma:ma: [minwe:nim-imag John-an]
 1 PAST TELL TA 1 MOTHER LOVE TA 1-OBV OBV
 'I told my mother I love John'

b. ni-gi:-wi:ndamawa: ni-ma:ma: [minwe:nim-ag John]
 1 PAST TELL TA 1 MOTHER LOVE TA 1-3
 'I told my mother I loved John'

The above sentences demonstrate that obviation is at

least to some extent optional when the two third persons are arguments of separate clauses. Notice that despite the fact that neither ni-ma:ma nor John is marked obviative in (16b), both of the above sentences have the same interpretation. This, however, is not always the case. The following two sentences, for example, in which one of the third persons is a pronominal, do not receive the same interpretation.

(17) a. ni - gi: - wi:ndamawa: [gi: - oji:m - imag John-an]
 1 PAST TELL TA PAST KISS TA 1-OBV OBV
 'I told him that I kissed John '

b. ni - gi: - wi:ndamawa: [gi: - oji:m - ag John]
 1 PAST TELL TA PAST KISS TA 1-3
 'I told John that I kissed him '

Let us look at the morphology of the verb forms in (17). The matrix verb form in (17a) is marked for a first person actor and a third person proximate object. The affixes -im-ag are attached to the embedded verb form. These affixes indicate that the embedded verb form has an obviative object. So, the obviative object of the embedded verb (John-an) must be interpreted as non-coreferential with the proximate argument of the matrix verb.

As in (17a) the matrix verb form in (17b) is marked for a first person actor and a third person proximate object. The embedded verb form is also marked for a third person

actor and a third person proximate object. However, in this sentence the embedded verb form is also marked for a first person actor and a third person proximate object. So, in this case the proximate argument of the embedded verb must be interpreted as coreferential with the proximate argument of the matrix verb.

Consistent with the claim that obviation is optional when the two third persons are arguments of different verbs, (17a) and (17b) are both well-formed. However, the reading under which the object of the embedded verb is interpreted as non-coreferential with the pronominal argument of the matrix verb is only possible when the object (John-an) is obviative and the embedded verb is marked for an obviative object.

1.3.3 Obviation Marked with -ini

As was mentioned earlier, obviation in Ojibwa has more than one morphological realization. Ojibwa morphology seems to distinguish between obviation that is marked with the affix -an and obviation that is marked with the affix -ini. The suffix -an occurs only on animate nouns and on AI and TA verbs in main clauses. The -ini ending has a wider distribution. It marks obviation on inanimate nouns and further obviation on animate nouns. It is also attached to verbs to mark the presence of an obviative argument.<9> We

shall first turn to further obviation on animate nouns.

Let us begin by considering the following sentence:

- (18) John o - gi - wa:bama: - an o - gosis - an
 3 PAST SEE TA OBV 3 SON OBV
 'John saw his son'

In Algonquin, the above sentence is ambiguous. It can mean either 'John saw his son' or 'John saw his son.'¹⁰ Of course, this type of ambiguity does not exist when the possessor is a fully specified NP. In this case, the third person prefix o- must refer to the lexical NP which immediately precedes it, as is illustrated in (19).

- (19) John o - gi - wa:bama: - an ikwe:w o - gosis - an
 3 PAST SEE TA OBV WOMAN 3 SON OBV
 'John saw the woman's son'

In this example, the third person prefix o- on gosisan 'son' must refer to ikwe:w 'woman'; it cannot refer to John, nor can it be free in reference.

It was noted earlier that unlike Algonquin, Western Ojibwa has retained the further obviative distinction. The examples which follow will help make clear the significance of this distinction. It has been indicated that in the Algonquin sentence (18), the third person prefix on o-gosisan can refer either to the proximate noun John or to

some other referent. This may be compared with the corresponding Western Ojibwa sentence (20a), which is not ambiguous.

(20) a. John o - gi: - wa:bama: - an o - gosis - an
 3 PAST SEE TA OBV 3 SON OBV
 'John saw his son'

b. John o - gi: - wa:bama: - an o - gosis - ini
 3 PAST SEE TA OBV 3 SON FURTH OBV
 'John saw his son'

In (20b), the -ini ending is the marker of further obviation. It unambiguously identifies the personal prefix on the possessed noun as referring to someone other than John. Correspondingly, the lack of further obviation in (20a) unambiguously identifies the proximate noun John as the referent of the third person prefix of the possessed noun.

Let us now turn to the use of -ini to mark obviation on inanimate nouns. In Algonquin, the attachment of -ini to inanimate nouns takes place under similar conditions as the attachment of -an to animate nouns. Consider, for example, the following sentences:

(21) a. ni - gi: - gi:špinado:n oda:ba:n

1 PAST BUY TI CAR

'I bought a car'

b. o - gi: - gi:špinado:n oda:ba:n - ini

3 PAST BUY TI CAR OBV

'he/she bought a car'

The main difference between animate and inanimate obviation is that no obviative marker appears on nouns which are possessed by proximate third persons. Recall, on the other hand, that any animate noun possessed by a third person is marked obviative (see, for example, (10) above). As an illustration of this point, consider the sentences of (22), where (b) is grammatical but (c) is not. It will be argued in Chapter 5 that while the noun in (b) is not overtly marked obviative, it is "covertly" so marked <11>, as is indicated by the fact that the II verb is inflected for an obviative argument.

(22) a. miša: - w gi - mi:giwa:m

BIG II 3 2 HOUSE

'your house is big'

b. miša: - ini - w ogima: o - mi:giwa:m

BIG II OBV 3 CHIEF 3 HOUSE

'the chief's house is big'

- c. *miša: - ini - w ogima: o - mi:giwa:m - ini
 BIG II OBV 3 CHIEF 3 HOUSE OBV
 'the chief's house is big'

If, on the other hand, in a sentence with a TI verb the prefix on the inanimate possessed noun does not refer to the actor, the -ini affix will be attached to the noun. Thus, for Algonquin as well as for Western Ojibwa, as we will see later, (23a,b) are not ambiguous.

(23) a. o - bimibide:to:n o-d-oda:ba:n

3 DRIVE TI 3 CAR

'he_i is driving his_i car'

b. o - bimibide:to:n o-d-oda:ba:n - ini

3 DRIVE TI 3 CAR OBV

'he_i is driving his_j car'

The absence of the -ini ending on the noun oda:ba:n in (23a) unambiguously identifies the pronominal possessor as coreferential with the proximate third person actor of the TI verb. In (23b), on the other hand, the -ini affix attached to the possessed noun unambiguously identifies the possessor as non-coreferential with the proximate third person actor of the TI verb.

The Western Ojibwa facts are somewhat different. In this dialect, an inanimate noun is only marked obviative

when it is possessed by a third person which is not coreferential with the actor of a TI verb. Western Ojibwa then does not distinguish the form of the noun ǰi:ma:n in (24a) from its form in (24b), although it does distinguish the forms of the noun ǰi:ma:n in (25a,b).

(24) a. ni - wa:banda:n ǰi:ma:n

1 SEE TI CANOE

'I see the canoe'

b. o - wa:banda:n ǰi:ma:n

3 SEE TI CANOE

'he sees the canoe'

c. *o - wa:banda:n ǰi:ma:n - ini

3 SEE TI CANOE OBV

'he sees the canoe'

(25) a. ininiw o - wa:banda:n o - ǰi:ma:n

MAN 3 SEE TI 3 CANOE

'the man_i sees his_i canoe'

b. ininiw o - wa:banda:n o - ǰi:ma:n - ini

MAN 3 SEE TI 3 CANOE OBV

'the man_i sees his_j canoe'

1.3.4 Discourse-Level Obviation

My discussion of obviation has so far been limited to cases in which both proximate and obviative third persons are within the same sentence. I would like now to consider the characteristics of obviation which takes place within the larger unit of the discourse.

Obviation has often been described as taking place within a "contextual span," which can range over several sentences within a discourse (see, for example, Bloomfield 1962, Hockett 1966 and Wolfart 1973--see also section 1.4 below). One might propose drawing a distinction between obviation which takes place at the sentential level and obviation which takes place at the level of discourse based on the fact that, unlike sentence-level obviation, discourse obviation seems to be entirely optional. The examples in (26), for instance, where (a) and (b) are grammatical but (c) is not, are examples of sentence-level obviation:

(26) a. ni - wa:bama: mo:zw

1 SEE TA MOOSE

'I see a moose'

b. John o - wa:bama: - an mo:zw - an

3 SEE TA OBV MOOSE OBV

'John sees a moose'

c. *John o - wa:bama: mo:zw

3 SEE TA MOOSE

'John sees a moose'

In (c), the two non-coreferential nouns are both proximate and the sentence is ungrammatical. This may be compared with (27), where (a) and (b) and (a) and (c) are both possible sequences within the same discourse.

(27) a. ikwe:w o - gi: - ba:škizwa: - an mo:zw - an

WOMAN 3 PAST SHOOT TA OBV MOOSE OBV

'the woman shot a moose'

b. mo:zw - an gi: - bangišin - w - an

MOOSE OBV PAST FALL AI 3 OBV

'the moose fell'

c. mo:zw gi: - bangišin - w

MOOSE PAST FALL AI 3

'the moose fell'

Now if we look at (27) we can see that mo:zwan 'moose' is marked obviative in (a) because it appears in the same clause as the third person proximate noun, ikwe:w 'woman.' The noun mo:zwan can then optionally be marked obviative in a subsequent sentence (assuming, of course, that it has the same referent in each case), as is demonstrated by the

grammaticality of both (b) and (c) above. However, I have encountered no examples in texts of obviation occurring when the proximate and obviative nouns are in different sentences. That is, I have seen no instance of a third person in one sentence being marked obviative because of the presence of non-coreferential proximate third person in a preceding sentence. As an illustration, we can imagine an Ojibwa discourse sequence corresponding to the hypothetical sequence (28). I know of no circumstance under which the noun soldiers in (b) would be marked obviative as a result of the presence of the noun Indian in (a).

(28) a. An Indian was fishing in the lake.

b. Some soldiers carrying guns were walking near-by.

It seems that although obviation does not occur when the proximate and obviative third persons are in different sentences, the proximate/obviative distinction, once established within a sentence, can optionally be retained across sentence boundaries. This optional retention of the proximate/obviative distinction is one of the many devices observable in Ojibwa texts for identifying the anaphoric links between third persons across sentence boundaries. It seems to occur primarily when both of the third persons involved are pronominals; i.e., not lexically-specified NP's. This is illustrated in the following sequence taken

from the text A Battle in the War of 1812 in Piggott and Kaye (1973).<12>

(29) a. žima:ganisi-ogima: gi:ižinika:zo niba:kohom
mi:nawa: ža:gana:si-giči-ogima:, žima:ganisi-ogima:
'The leader of the soldiers was called Nibakom, but
there was also an English officer in charge of the
soldiers.'

b. giči-mo:koma:nan ogi:-bi-odisigo:n, mi: taš ga:-igod:
'He (the Englishman) was approached by an American
and addressed as follows:'

c. "ni:n igiwi gidanišina:be:mag niwi:-ganawe:nima:g"
ogi:-igo:n.
'"I am going to take charge of those Indians of yours.
That is what he (the American) said to him (the
Englishman).'

(Piggott and Kaye 1973:82)

In (b) giči-mo:koma:nan 'American' is obviative. 'The English officer' (žima:ganisi-ogima: in (a)) is referred to by a pronominal in (b). Since the verb form odisigo:n (odis- 'approach someone') is inflected for an obviative actor and a proximate object, giči-mo:koma:nan 'the American' is interpreted as actor, and žima:ganisi-ogima: 'the English officer' as object. In (c) the verb form igo:n

(in- 'say something to someone')<13> is also inflected for an obviative actor and a proximate object. In this case, both gičimo:koma:nan 'the American' and žima:ganisi-ogima: 'the English officer' are referred to by pronominals. The obviative actor (giči-mo:koma:nan 'the American') is interpreted as the obviative actor of the verb form in (c). Correspondingly, the proximate object of (b) (žima:ganisi-ogima: 'the English officer') is interpreted as the proximate object of the verb form in (c). So, the only indication we have of which third person is the actor and which the object is that one of them (giči-mo:koma:nan 'the American') was marked obviative in the previous sentence.

It should be noted that where other devices exist to indicate the anaphoric links between third persons, the proximate/obviative distinction is not always retained across sentence boundaries. Consider the sequence in (30) from the text How a Woman Helped the Thunderers (Piggott and Kaye 1973).

(30) a. mi: gi:gogwežima:wa:d i:dig, "ga: na gida-na:damawisi:n
'So, they asked her, "Won't you help us?"'

b. "a:ni:š go na: gi:-ižičige:ya:n ži-na:damo:ninigog?:"
odina:n 'sa gi:we wa akwe:
'"What am I supposed to do to help you?" that woman
asked them.'

When I use the term "discourse obviation", I will be referring to cases in which the proximate/obviative distinction established in one sentence is optionally retained throughout subsequent sentences. In Chapter 4 I will argue that there is, in fact, no fundamental difference between sentential and discourse obviation.

1.4 Review of the Literature

I claimed above that obviation plays a crucial role in the interpretation of thematic relations in sentences containing more than one third person. In the preceding discussion, I have attempted both to present a reasonably clear picture of the range of phenomena generally referred to by the term "obviation," and to illustrate how it contributes to the interpretation of sentences. In the remainder of this chapter, I will present and discuss critically some accounts of obviation which have been proposed by various scholars.

1.4.1 Traditional Analyses

Traditionally, Algonquianists have tended to view the proximate/obviative distinction as a principle of Algonquian discourse, rather than as a principle of Algonquian sentence grammar. So, for example, according to Bloomfield, "In any close context, one animate third person, singular or plural, is PROXIMATE, and any other animate third persons are OBVIATIVE" (Bloomfield 1957:32). Similarly, Hockett (1966:60), in an article which focusses mainly on Potawatomi, refers to the proximate/obviative distinction as "a basic principle of Potawatami discourse." For Hockett (1966), animate third persons which appear within the same "contextual span" must be differentiated along the "obviation scale." He seems to consider a "contextual span" to be a stretch of discourse of variable length.

The particular contexts in which obviation occurs are enumerated at various points throughout Bloomfield (1957, 1962). Each such occurrence is viewed as a particular instance of the general principle of discourse noted above.

Given the view of obviation expressed by Bloomfield and Hockett, if two or more non-coreferential third persons appear at any point within the same "close context," only one of them can be proximate. However, Bloomfield (1957, 1962) notes that there are, nevertheless, cases in which obviation does not occur, even though two or more non-coreferential third persons appear within the same

"close context." The lack of obviation in such cases, according to Bloomfield, indicates that obviation can sometimes be "avoided" or "neglected." After listing some of the contexts in which obviation occurs, he observes, for example, that "obviative forms are used less than the preceding statements would indicate" (Bloomfield 1962:39). Thus, he notes that, in a discourse, the proximate third person is likely to shift from one sentence to another, or even from one clause to another within the same sentence.

For Bloomfield, obviation is more likely to be avoided if the third persons are positioned fairly far apart from one another in the discourse. "In any but the closest contexts, the proximate third person changes, so that obviatives are avoided" (Bloomfield 1957:32). However, citing as an example the fact that the possessor in a possessive expression is often not marked obviative (see section 1.3.2 above), he notes that "even in close contexts proximates occasionally appear instead of obviatives..." (Bloomfield 1957:32).

The assumption that the proximate/obviative distinction may apply to any two (or more) third persons whenever they appear within the same "close context" is a principle of discourse, and not necessarily of sentence grammar. It is also appropriate within this conception of obviation to assume, as it appears Bloomfield (1957, 1962) does, that the appearance of more than one third person within the same "close"

context" is an exception to this general principle.

In this study, I take the position that obviation is a property of sentence grammar rather than a principle of discourse. This position, as I believe this study will demonstrate, allows for a precise and formal statement of the syntactic contexts in which obviation occurs. Moreover, such a formulation of the syntactic contexts in which obviation occurs will enable us to predict those contexts in which obviation must occur and those in which it occurs only optionally. The optionality of obviation in certain contexts, then, will be seen as following from a valid generalization rather than as an exception to an otherwise general principle.<15>

Another traditional claim is that the role of obviation within the grammars of Algonquian languages is primarily to express the semantic notion of focus. Bloomfield defines the proximate third person as "...the topic of discourse, the person nearest the speaker's point of view, or the person earlier spoken of and already known" (Bloomfield 1962:38). For Hockett, the proximate third person is the entity which is at the "focus of interest" in a particular "contextual span" (Hockett 1966:60), and Wolfart considers the proximate third person to be "in focus" in contrast to the obviative third persons which are "peripheral" within a "contextual span" (Wolfart 1978:255).

I believe that there is a basic inadequacy to the

general approach to obviation outlined above. In the discussion which follows I try to demonstrate this inadequacy. The main problem with an approach that makes crucial use of notions such as 'focus' and 'contextual span' is that neither one is defined independently of obviation. Consider first the notion of 'focus.' Obviation is considered to express a contrast between those third persons which are in focus and those which are not. Wolfart, however, notes that "the correlates of focus in terms of discourse analysis are not fully known" (Wolfart 1973:17). Since no independent definition of 'focus' has been proposed, it would appear that the only way we know that a particular third person is in focus is that it is proximate.

This circularity becomes particularly apparent when we consider possessive expressions. Recall that any animate noun possessed by a third person is marked obviative. According to both Hockett (1966:64) and Wolfart (1973:17) this necessarily means that the possessor is somehow "nearer" or "closer" than the possessed noun. The only criterion on which this judgment is based is that the possessor is proximate while the possessed noun is obviative.

The case of sentences with double-object verbs poses a similar problem for this type of analysis. Recall that when both objects of a double-object verb are third persons, NP2, the noun corresponding to the direct object in English, is always the one which is obviative. This was illustrated in

(14), which I repeat here for convenience.

(31) wa:bamin - an ni - gi - mi:na: abino:ǰi:š
 APPLE OBV 1 PAST GIVE TA CHILD
 'I gave an apple to the child'

Using a traditional approach to obviation, we would have to say that in (31) abino:ǰi:š 'child' is in focus, since it is proximate. Furthermore, we would have to claim that for each sentence with a double-object verb of the type (31) (i.e., with a first or second person actor and two third person complements), NP1, which corresponds to the indirect object in English, is always in focus since it is always proximate. There does not seem to be any evidence, however, to justify making such an assumption. Moreover, this would imply that in a construction of this type, NP2 could never be focussed.

I think it can be seen from the preceding discussion that 'focus,' as understood in the works discussed here, is an impressionistic and ad hoc notion which is used solely for the purpose of explaining obviation. Since 'focus' is defined purely in terms of obviation, we gain little insight by then proposing 'focus' as an explanation for the same phenomenon which defines it.<16>

Next, let us consider the claim that obviation takes place within a 'contextual span' (Hockett 1966, Wolfart 1973, 1978) ('close context' in Bloomfield's terms). I will

try to show below that this notion, as used in the Algonquian literature, suffers from the same lack of independent motivation as does the notion of 'focus.'

As I stated above, Bloomfield (1957, 1962) notes that within a particular context, the choice of proximate third person is known to shift. Hockett and Wolfart identify these shifts with changes in focus. They further assume that a shift in the proximate third person necessarily corresponds to a change in contextual span. According to Hockett, for example, "...the more delicate distinctions...are sometimes omitted; or else what is said is to be recast into two or more successive spans instead of being put into one, with a shift in focus from one to the next" (Hockett 1966:61). Similarly, Wolfart states that "...focus changes are frequent; i.e., that spans are relatively brief" (Wolfart 1973:18).

It may be seen that like 'focus,' 'contextual span' is not defined independently of obviation. So, it appears, we are still caught in a circle. Obviation is assigned within a contextual span. Within any given contextual span, the proximate third person is focussed, while the obviative noun(s) is/are not. If a noun shifts in obviation status, it means that a shift in focus has occurred. Recall that the only way we can know that a shift in focus has occurred is if there has been a change in the obviation status of the nouns. Now, since the obviation status of each noun is considered to remain constant throughout a single contextual

span, a change in focus must also entail a change in contextual span. Furthermore, we know that there has been a change in contextual span only because the nouns have changed in obviation status.

We can see then that the traditional concepts used to account for the occurrence of obviation--'focus' and 'contextual span'--are themselves defined exclusively in terms of obviation. Therefore, any explanation based solely on these notions is bound to be circular and untestable.

1.4.2 Dunnigan, O'Malley and Schwartz (1978)

In their discussion of obviation, Dunnigan, O'Malley and Schwartz (1978) reject the traditional approach for reasons similar to those given above. They argue that the constraints governing the occurrence of obviation are syntactic, and that once established, obviation "...serves primarily a reference (emphasis theirs) rather than focus (emphasis theirs) function" (Dunnigan, et. al. 1978:8).

They account for the occurrence of obviation with what they call a Transitive Clause Constraint, which they formulate as follows: "In a transitive clause with one or more third person animate argument, all but one such argument must be obviative, and all arguments may be obviative only if one is also an obviative argument in another transitive relation" (Dunnigan et. al. 1978:9).

"Transitive relations" are defined as transitive sentences and possessive expressions (Dunnigan et. al. 1978:10). This constraint, they maintain, together with the morphology of verbs, ensures the recoverability of "semantic relations." <17> They claim that obviation serves the dual function of marking semantic relations within clauses and coreference relations across clauses.

According to this analysis, a complete understanding of obviation would require that it be viewed in relation to the structural properties of Ojibwa. As I indicated above, one of the most salient properties of Ojibwa is a highly flexible word order accompanied by a rich system of derivational and inflectional morphology. Thus, the association between verbs and their arguments ("semantic relations") is encoded primarily by means of morphological markers on nouns and verbs. Now, Dunnigan et. al. observe that there is, for the most part, a unique association between verbs and their arguments; that is, the morphology in general permits each argument to be assigned one and only one "semantic relation" with respect to a verb. They point out that the association between verbs and their arguments is potentially ambiguous only when a sentence contains two arguments of the same person, number, gender, etc.; that is, when both arguments are third persons. In Ojibwa, the potential ambiguity that might arise where there are two or more third person arguments is generally resolved by the use of obviation. <18>

In a language such as English, which makes extensive use of word order as a grammatical device, a sentence such as the man sees the dog is not ambiguous because the word order tells us which NP to interpret as subject and which to interpret as object. In the corresponding Ojibwa sentence, ininiw owa:bama:n animošan, on the other hand, we can interpret the role played by each argument only because ininiw 'man' is proximate, animošan 'dog' is obviative, and the verb is marked for agreement with a proximate actor and an obviative object. Dunnigan et. al. (1978) show, using several examples, that it is not unusual for languages with structural properties similar to Ojibwa to use grammatical devices which are similar to obviation in order to resolve potential ambiguity in the association between NP's and argument functions.<19>

The authors advance a similar explanation for the use of obviation to mark coreference relations across clauses. They reiterate a claim made by Heath (1975) that the fewer distinctions a language has in its third person pronominal system (i.e., for gender, number, etc.), the more likely it is to make use of other mechanisms for marking coreference relations; that is, the greater the number of obligatory distinctions a language has in its third person pronominal system, the more referential clarity is ensured by the pronominal system itself.

The authors go on to note that Ojibwa is one of those languages with a relatively undifferentiated third person

pronominal system. Then, assuming the validity of Heath's (1975) claim, they link this fact about Ojibwa's third person pronominal system with the use of obviation to mark coreference relations. They conclude that "...the elaborate system of interclausal coreference-marking of the Algonquian languages and their relatively undifferentiated third person pronoun systems are claimed to be non-accidentally correlated on the basis of their similar functions..." (Dunnigan et. al. 1978:19).

Dunnigan et. al. (1978) make some interesting observations about the function of obviation within the grammar of Ojibwa, and about how it interacts with the relative flexibility of constituent order which is characteristic of Algonquian languages. However, such a "functional" account falls short of explaining all occurrences of obviation. The limitations of this type of approach become apparent when we consider certain data from the Algonquin dialects. Although the authors' analysis is based primarily on data from one dialect of Ojibwa, they draw conclusions concerning the nature of obviation in all Algonquian languages (see Dunnigan et. al. 1978:15ff). I think it is legitimate, then, to assume that data from Algonquin may potentially have implications for their analysis.

The authors claim that the two functions of obviation (semantic role-marking within clauses and coreference-marking across clauses) are actually

"...subtypes of the higher order function of ambiguity avoidance" (Dunnigan et. al. 1978:19). Now, as we saw above, Algonquin has lost the further obviative distinction. It was noted that an Algonquin sentence such as John ogi:wa:bama:n ogisisan 'John saw his son,' is ambiguous, due to the absence of the further obviative distinction: John may have seen his own or someone else's son. As was also seen above, the Algonquin situation contrasts with the situation in dialects which have retained the further obviative distinction. Thus, we saw that in one such dialect, Western Ojibwa, the equivalent sentence to the one just mentioned is not ambiguous: it can only mean that John saw his own son. Now, if the explanation for obviation must be sought in terms of its contribution to "the higher order function of ambiguity avoidance," then it seems peculiar that Algonquin should have lost the further obviative distinction. The elimination of this distinction has created ambiguity where none existed previously.

I do not quarrel in general with the authors' assessment of the function obviation plays within the grammar of Ojibwa. Rather, I take issue with their reduction of obviation to its functional role. If, as the authors claim, obviation is a syntactic process, then presumably, it should occur under formally specifiable conditions which are independent of the function which a given occurrence of obviation may or may not be fulfilling.

Yet, while providing a detailed account of the role obviation plays within the grammar of Ojibwa, they have not succeeded in either formally specifying the contexts in which obviation will occur, or in accounting for which third person will be marked obviative within a given context.

Let us return, for example, to their formulation of the syntactic environments within which obviation occurs: the Transitive Clause Constraint. This constraint says basically that when there is more than one third person argument in a transitive clause, all but one of these will be obviative. It cannot be the basis for predicting which argument will be proximate and which obviative.

It may also be recalled that obviation is said to take place within a transitive relation. Now, as I stated above, the authors consider both transitive sentences and possessive expressions to be transitive relations. This claim is based on the fact that both contexts "share a common morphology and the common condition that obviation is marked only when at least two third person arguments are present" (Dunnigan et. al. 1978:10). So, on the one hand, the Transitive Clause Constraint is formulated to account for the occurrence of obviation, while on the other hand, transitive sentences and possessive expressions are defined as transitive relations because they behave similarly with respect to obviation. It seems clear then, that although the authors make some interesting observations about obviation and its role within the grammar of Ojibwa,

they fail to provide a principled explanation for where obviation occurs, or for the choice of which noun will be proximate and which obviative.

As this study will show, Dunnigan et. al. are correct in their claim that obviation must be understood in relation to the structural properties of Ojibwa grammar. It is my goal in what follows to propose a model of the grammar of Ojibwa within the general framework of the Government-Binding theory, as outlined principally in Chomsky (1981, 1982). The model to be developed here reflects the fundamental role played by the morphology in encoding thematic relations in Ojibwa. An algorithm will be proposed for associating arguments with verbal argument positions in accordance with the lexical properties of nouns and verbs. It will be argued that the contexts of obligatory obviation follow directly from the way in which the universal principle of obligatory Disjoint Reference is instantiated in Ojibwa. It will then be demonstrated that the choice of which third person is proximate and which obviative within contexts of both obligatory and optional obviation falls out essentially from the process whereby nouns are associated with verbal argument positions. So, the distinction between obligatory and optional obviation as well as the possible distributions of proximate and obviative third persons will be shown to result from the interaction between the universal principle of Disjoint

Reference and the way in which thematic relations are encoded in Ojibwa.

Notes for Chapter One

1. One example of such a process is the devoicing of word-final consonants which occurs in all the dialects discussed here.
2. I am omitting reference, for the moment, to the so-called "Pseudo-transitive" and "Pseudo-intransitive" verbs discussed by Bloomfield (1957). See Chapter 2 for some discussion of constructions involving these types of verbs.
3. The terms "actor" and "object" are those used in Bloomfield (1957). The position adopted in subsequent chapters of this thesis is that there is no level of grammatical relations in Ojibwa which is independent of thematic relations in the sense of Jackendoff (1972)--see also Williams (1981b). The terminology will later be modified in order both to better reflect this view and to be consistent with current linguistic practise.
4. This form surfaces phonetically as wi:nizi. The word-final -w, which indicates a third person actor, is deleted by a general phonological process which deletes word-final lax vowels and glides. Thus, the w is

realized phonetically only when it is not word-final.
See Piggott (1980:110f).

5. In a dialect which marks obviation on inanimate nouns, the suffix -ini would be attached to the noun ji:ma:n 'canoe.'
6. More precisely, different theme-signs encode properties of different arguments. This is discussed in some detail in Chapter 3.
7. One such context in which obviation never occurs is when two (or more) third persons appear within the same coordinate structure. Thus, we find sentences such as (a) but not (b):

oškinawe: ma:mawi: ikwe:si:s gi:-ma:ji:bato:-w-ag
BOY TOGETHER-WITH GIRL PAST RUN AWAY AI 3 PL
'the boy and the girl ran away'

*oškinawe: ma:mawi: ikwe:si:s-an gi:-ma:ji:bato:-w-ag
BOY TOGETHER WITH GIRL OBV PAST RUN AWAY AI 3 PL
'the boy and the girl (obv) ran away'

The absence of obviation in this context is not an exception to an otherwise general principle of obviation marking, but rather follows from the fact

that nouns which comprise a coordinate structure are interpreted as a single, plural verbal argument. See also Chapter 5, note 1.

8. The ending -ini in this case marks what is called the further obviative. This term refers to the second of two obviatives, normally to an animate noun which is possessed by an obviative. Further obviation will be discussed in greater detail below.
9. I am assuming that we are dealing with the same ending in each case. Of course, each circumstance under which -ini is attached could conceivably represent a different ending. However, I believe that the similarity of the environments in which each instance of -ini appears justifies treating it as the same ending in each case.
10. Actually, (18) is four-ways ambiguous. In addition to the two meanings mentioned in the text, it can also mean "John_i saw his_i sons' or 'John_i saw his_j sons.'" Since my present concern is with the difference between the reading under which John and the possessor are interpreted as coreferential and the reading under which they are interpreted as non-coreferential, I will not discuss the interpretation of o-qosisan as 'his sons.'

11. By "covertly" marked obviation, I mean that while there is no morphological obviative marker on an inanimate noun possessed by a third person, a verb which has such a possessed inanimate noun as an argument will be inflected for an obviative argument. See example (22) (see also Joseph 1980).
12. The transcription has been adapted to conform to the system used in this thesis. The English translations are taken verbatim from Piggott and Kaye (1973).
13. It is an idiosyncratic property of the TA verb stem, in- that the entire stem disappears when combined with the theme-sign -iqw. See Bloomfield (1957:46).
14. By "obviation scale," Hockett means the distinctions proximate, (nearer) obviative and further obviative.
15. It will be shown later that the appropriate generalization itself follows from broader grammatical principles.
16. I do not wish to rule out the possibility that the initial choice of which third person is proximate may have something to do with some notion of 'focus' or 'topic.' However, I hope to show that the grammatical relationship between proximate and obviative nouns is

systematic and formally specifiable.

17. The authors seem to use the term "semantic relations" or more often "semantic roles" to refer to the relations which they term "logical subject of" and "logical object of." It seems, then, that the "semantic relations" to which they refer can best be seen as corresponding to thematic relations in the sense of Jackendoff (1972).
18. This is not always the case, however. We will see in Chapter 3, for example, that in sentences containing three third persons, obviation alone is not sufficient to resolve ambiguity.
19. See Dunnigan et. al. (1978:16f) for examples of devices employed by some non-Algonquian languages for reducing ambiguity in argument structure.

CHAPTER TWO - THE OJIBWA LEXICON

2.0 Introduction

It is my contention that the question of which third person in a given context is proximate and which obviative largely reduces to the question of how nouns are interpreted as satisfying particular argument requirements of verbs. Since, as I hope this study will show, the form of lexical items plays a prominent role in determining how Ojibwa sentences are interpreted, I think it is appropriate here to outline the model of the lexicon which I will be assuming.

The appearance of Chomsky's (1970) "Remarks on Nominalization" heralded the emergence of the lexicon as a legitimate and important area of research within the field of generative grammar. Since then, there has been a considerable amount of research which is concerned both with delimiting the range of phenomena which can be properly termed "lexical," and with discovering the properties of the lexicon as distinct from those of other components of the grammar. The conception of the lexicon which will be assumed here incorporates features from several of the proposals which have appeared in the recent literature.

It is a starting point for any theory of morphology

that certain words are perceived by native speakers to be related (e.g., sing/singer/; quick/quickly; happy/happiness, etc.), while others are not. A particular theory of morphology, then, must (a) define which types of relationships between words fall within its domain and (b) provide for the appropriate way of expressing the lexical relationships between words.

With respect to (a), it has been argued (see, for example, Aronoff 1976, Allen 1978 and Anderson 1982) that only the derivational relationships between words fall within the province of a theory of morphology. Others hold (see, for example, Halle 1973, Lieber 1981 and Selkirk 1982) that a theory of morphology must account for inflectional as well as derivational relationships.

With respect to (b), some theories hold that the relationships between words are best expressed in terms of a set of rules which generate the words of a language. This is the view expressed in the works of Aronoff (1976), Siegel (1977) and Allen (1978). An alternative approach is proposed by Jackendoff (1975). Within this model, the relationships between words are expressed in terms of redundancy rules which specify which information in a lexical entry is redundant by virtue of the existence of a related lexical entry.

According to the model developed in Selkirk (1982), the internal structure of words has the same formal properties as the internal structure of syntactic phrases. She argues

that word structure, like syntactic structure, is generated by a context-free rule system whose properties are constrained by the principles of X-bar theory (see Selkirk 1982; see also Chomsky 1970, Jackendoff 1977, and Stowell 1981 for discussion of X-bar theory).

Walsh (1981) develops a model of morphology which attempts to account both for word formation and for the regularities holding among the existing words of a language. This model incorporates features of both the "word formation" models of Aronoff (1976), Siegel (1977) and Allen (1978), and the "redundancy rule" model of Jackendoff (1975).

Following Walsh (1981) I will assume that new words are formed by rules and that the relationships among existing words are expressed by redundancy rules. As will become apparent later, the aspects of the lexicon which are most central to the analysis proposed in subsequent chapters are the specification of the information contained in lexical entries and the assumption that all word-level processes (including inflection) take place prior to lexical insertion. Below I provide a summary of the conception of the lexicon which will be assumed in this work.

2.1 The Organization of the Lexicon

Following Aronoff (1976) I assume that the lexicon contains a list of all and only those words which are in some way idiosyncratic. The relationships among these words, I assume, are captured by redundancy rules of the type proposed in Jackendoff (1975). The words listed in the lexicon are the input to Word Formation Rules (WFRs), which form words from other words.

2.1.1 Word-Based Morphology

Aronoff (1976) contends that words and not morphemes serve as bases for WFRs. It should be mentioned here that Aronoff uses the term "word" to refer to the uninflected word or lexeme in the sense of Matthews (1974) (see Aronoff 1976:9). The uninflected unit in Ojibwa is generally referred to as a "stem." Aronoff's use of "word," then, corresponds to my use of "stem" with respect to Ojibwa.

Aronoff (1976) rejects the structuralist conception of the morpheme as the minimal unit of meaning and demonstrates that the "meaning" of a morpheme is not always constant or even identifiable. He argues, for example, that no common element of meaning can be attributed to the set of words prefer, confer and transfer, although they all share the morpheme -fer (Aronoff 1976:12). Because for Aronoff the

meanings of words change once they have been formed, it is not always possible to attribute constant meanings to the morphemes of which they are composed (Aronoff 1976:18).

It is this observation that morphemes do not always have "...meaning which can be assigned independently of each of the individual words in which they occur" (Aronoff 1976:9-10) that leads Aronoff to contend that words are formed from already existing words and not from morphemes. He proposes the following hypothesis as a basic tenet of his theory of morphology.

(1) All regular word-formation processes are word-based. A new word is formed by applying a regular rule to a single already existing word. Both the new word and the existing one are members of major lexical categories.

(Aronoff 1976:20)

The regular rules which apply to words to form new words are the WFRs. Within Aronoff's model, a new word is formed when a WFR attaches an affix to an already existing word. Each WFR specifies a set of words (called the base of the WFR) on which it can operate. Each WFR also specifies a syntactic label and subcategorization frame for the new word (the output of the WFR) and a semantic reading for it. The

semantic reading is a function of the meaning of the base (Aronoff 1976:220).

Walsh's (1981) model departs from Aronoff's (1976) conception of WFRs in one important respect. Aronoff (1976) distinguishes between those WFRs which are productive and those which are not. For Aronoff, the relationship between the base and the output of a productive WFR is regular and predictable, while the relationship between the base and the output of a non-productive WFR is in some way idiosyncratic. So, since for Aronoff "...all and only those words which are exceptional, i.e. arbitrary in at least one of their various features will be entered in the lexicon" (Aronoff 1976:43), only the outputs of non-productive WFRs are listed in the lexicon, while the outputs of productive WFRs are not.

Walsh (1981) concurs with Aronoff's view that all and only those words which are in some way idiosyncratic should be listed in the lexicon. However, within her model, all WFRs are productive. The output of a WFR, therefore, can never be listed in the lexicon. Although words listed in the lexicon may have internal structure, they are not, within this framework, formed by WFRs. In this study, I assume, following Walsh (1981), that all WFRs are productive.

2.1.2 The Ordering of WFRs

Within Aronoff's (1976) framework, each affix introduced by a WFR is associated with either a morpheme (+) boundary or a word (#) boundary. A particular affix is associated with either a + or a # boundary on the basis of the phonological properties of the affix: a + boundary affix, for example, may affect stress assignment, while a # boundary affix does not (see Siegel 1977 and Walsh 1981).

Within Siegel's (1977) framework, WFRs which introduce + boundary affixes are ordered before those which introduce # boundary affixes. This ordering, she claims, accounts for the ungrammaticality of a word such as *[[[fatal]#ism]+al] since #ism is associated with a # boundary and +al with a + boundary. Siegel (1977), then, assumes that there are two levels of WFRs: Level I WFRs, which introduce + boundary affixes, and Level II WFRs, which introduce # boundary affixes. All Level I WFRs apply before Level II WFRs, although the rules within a given level are not extrinsically ordered with respect to each other. Allen (1978) extends Siegel's ordering hypothesis by proposing a third level of WFRs consisting of rules of compound formation. These rules are ordered after the Level II WFRs. As we will see below, Walsh (1981) posits, in addition, a fourth level of WFRs to account for the attachment of inflections.

I adopt in principle the ordering hypothesis as

developed by Siegel (1977) and extended by Allen (1978) and Walsh (1981). However, since a full investigation into the relative orderings of all the various types of affixation processes in Ojibwa is beyond the scope of this study, I make no claims as to the applicability of specific elements of the proposals just discussed. I simply assume for Ojibwa that the WFRs which introduce different types of affixes are extrinsically ordered.

2.1.3 The Lexical Representation of Stems

In keeping with the claim that the stem (i.e., word) serves as the base for word formation processes in Ojibwa, I assume that listed in the lexicon are both monomorphemic noun stems and verb stems, as well as morphologically complex stems which are in some way idiosyncratic. Regular stem and word formations are derived by WFRs.

It is generally agreed that the lexical entry for any item must specify all information which is exceptional and idiosyncratic to that lexical item. Thus, the lexical entry for each lexical item will include the following information: (a) its phonological representation; (b) the syntactic category to which it belongs; (c) its semantic representation; and (d) the specification of its argument requirements.

It should be noted that the information specified in

(d) is not what is specified in a strict-subcategorization frame. Since, I assume (as will be seen in Chapter 3), following Hale (1982a,b), Farmer (1980), Nash (1980) and Stowell (1981), that the phrase structure rules are category-neutral and that phrases acquire categorial status only by percolation of the features of the lexical items they dominate, I must also assume that lexical insertion is context-free. There can be, then, no subcategorization constraints which require that a given lexical item can only be inserted in the context of some other lexical item belonging to a specified category (see Farmer 1980). Rather, the information specified in (d) is comparable to the concept of argument structure as developed in Williams (1981b).^{<1>} It may also be compared to the functional structure of Bresnan (1978), the predicate argument structure of Bresnan (1982b), and the Propositional Argument Structure of Farmer (1980). I will refer to this part of a lexical entry as an "Argument Structure" (AS). As is illustrated in some detail below (see (4)), part of what is specified in an AS is, for example, that an AI verb takes one obligatory argument, while a TA verb takes two.

As will become apparent in Chapter 3, grammatical relations such as 'subject of' or 'object of' cannot be defined configurationally in Ojibwa. In fact, since I have found no evidence that any rule or process in Ojibwa must make reference to grammatical relations, I assume that, at least for Ojibwa, there are no grammatical relations which

are defined independently of thematic roles.<2> Thus, the AS of a stem will be considered to consist of a specification of the number of arguments it takes. Each argument position specified in an AS is in turn linked with a thematic role in the sense of Gruber (1974) or Jackendoff (1972).

I would like to emphasize that I will be concerned only with the purely formal assignment of thematic roles to nominal arguments, in the general sense of Chomsky (1981). I do not attribute any theoretical status to the particular thematic roles which verb stems assign to their arguments. For this reason, I will identify the particular thematic roles which are assigned to nominals as theta-1, theta-2, etc. I assume, for example, that a non-double object TA verb stem assigns the role of theta-1 to one of its arguments and theta-2 to the other. I may, however, on occasion use the more traditional terms for thematic roles (e.g., agent, theme, goal, etc.) for terminological convenience.

I also adopt Chomsky's (1981) version of the Theta-Criterion as stated in (2):

- (2) Each argument bears one and only one theta-role and each theta-role is assigned to one and only one argument.

(Chomsky 1981:36)

In Chomsky's (1981) account of theta-role assignment, arguments are assigned theta-roles within particular syntactic configurations. So, for example, all verbs theta-mark their subcategorized complements, and some verbs theta-mark their subjects, depending on the lexical properties of the verb. According to Chomsky (1981) a position to which a theta-role is assigned is a theta-position. So, for example, the position in a phrase marker which is occupied by the subcategorized complement of a verb is always a theta-position.

Following Hale (1982a,b), however, I will assume that there is no distinction in Ojibwa between theta- and non-theta-positions (see Chapter 3 for some discussion). As I indicated above, in the Ojibwa lexicon, each stem is marked for taking a certain number of arguments and each argument position listed in the AS of a stem is linked with a particular theta-role. Nominals in a syntactic phrase marker are assigned theta-roles at the point when they are associated with the argument positions specified in the AS of the stem. The assignment of theta-roles to overt nominals will be discussed in Chapter 3.

We now turn to the representation of verb stems. I noted in Chapter 1 that Bloomfield (1957) recognizes four main classes of verb stems in Ojibwa: AI, II, TA and TI. According to his analysis, each of these classes of verb stems has associated with it a set of suffixes called "finals." These finals determine the lexical category of

of the stem. Under the Bloomfieldian analysis, if a verb stem ends in a member of the set of AI finals, it takes an animate agent, and if it ends in a member of the set of II finals, it takes an inanimate agent. Similarly, if a verb stem ends in a TA final, it takes an animate theme, and if it ends in a TI final, it takes an inanimate theme.

Piggott (1979) proposes an analysis of Ojibwa verb stem formation within the framework of the Extended Standard Theory. His analysis is an attempt to characterize the relationships which hold between verb stems. Many pairs of AI and II verb stems, for example, share the same root, differing only in their finals. One example of such a pair is the AI verb stem ni:nimizi - 'be weak,' which consists of the root ni:nim- plus the AI final -izi, and the II stem ni:nimad- consisting of the same root and the II final -ad. Under Piggott's (1979) proposal, each member of such a pair would have an independent entry in the lexicon, and the relationship between them would be expressed by a lexical redundancy rule of the following kind:

$$(3) \quad \left[\begin{array}{l} X + izi \\ +V \\ [+animate_] \end{array} \right] \quad \longleftrightarrow \quad \left[\begin{array}{l} X + ad \\ +V \\ [-animate_] \end{array} \right] <3>$$

(Piggott 1979:168)

Piggott's (1979) analysis of Ojibwa verb stems departs from traditional analyses (as represented in Bloomfield

1957) in several respects. For our present purposes, the most important innovation in Piggott's analysis is that he does not recognize a distinct class of TI verbs. Although the details of his analysis need not concern us here, he argues that TI stems are formally related to TA stems, and that they are morphologically indistinguishable from AI stems.

Now, it may be recalled from Chapter 1 that, according to Bloomfield (1957), a TI verb form such as ni-gike:nd-a:-n 'I know it' consists of the following formatives: the prefix ni, indicating first person; the TI stem gike:nd-; the theme-sign -a:; and finally, n, which indicates an inanimate object. Piggott (1979), on the other hand, argues that the -a: which is attached to what Bloomfield posits as the TI stem, is not in fact a theme-sign. Rather, he argues, it is simply a phonologically conditioned variant of the AI final -am. According to Piggott (1979), then, the TI verb form has the following internal structure: ni-gike:ndam-n, where -am is an AI final. He argues that the surface shape of a TI verb form is the result of a phonological process which lengthens the vowel (a) and deletes the immediately following nasal (m) in the presence of a following nasal (n) (see Piggott 1979:154ff for evidence motivating the existence of such a rule). The word-final n simply indicates the presence of a second argument (i.e., a theme, in our terminology).

So, according to Piggott's (1979) analysis, what are

generally considered to be TI verb stems are actually AI verb stems which can function either transitively or intransitively. If a verb form based on such a stem appears in a phrase marker without a second argument, the n ending is not attached and the verb form has the same inflectional paradigm as any other AI verb form. So, for example, nigike:ndam means 'I know.'⁴ If there is a second argument in the phrase marker the n is attached and the verb form has a different inflectional paradigm (see Piggott 1979:157). So, for example, nigike:nda:n nigamowin means 'I know the song.'

Following Piggott (1979), then, I assume that listed in the lexicon are verb stems belonging to three different classes: those which take one obligatory animate argument (AI's); those which take one obligatory inanimate argument (II's); and those which take two obligatory animate arguments (TA's). I assume that the lexical entry for each verb stem must specify the gender of its arguments.

Although TA verb stems are the only ones which must take a second argument (i.e., function transitively) (see Piggott 1979:171, 174 and 178), some verb stems which are morphologically (animate) intransitive (i.e., they contain AI finals) may optionally take a second argument. As we have just seen, this is the case with the AI stems which are lexically related to TA's and which can surface as TI verb forms.

Other AI's which optionally take a second argument are

those which Bloomfield (1957) identifies as "pseudo-transitives" (PT's). Bloomfield (1957) considers such verbs to be morphologically intransitive (because they contain AI finals) but able to function transitively. I assume that the AS of AI (PT) verb stems such as gimo:di- 'steal,' minikwe:- 'drink,' adawe:- 'sell,' etc., will indicate that they optionally take a second argument.<5> I assume, then, that the AS of a stem specifies both its obligatory and its optional arguments.

Below are illustrations of the type of information which I assume is contained in various lexical entries in Ojibwa. In each verb stem a '+' separates the root from the final. It should also be in some way formally encoded that, while verb stems require further affixation in order to function syntactically as words, noun stems, with the exception of dependent stems (i.e., noun stems which must be possessed--see Chapter 1, section 1.2.1), do not. This difference between verb stems and noun stems is indicated by the appearance of a hyphen (-) after verb stems but not after noun stems. In the lexical entry of a dependent noun stem, a hyphen appears before the stem, as in -saye:z 'brother.' Optional arguments are represented by the familiar parenthesis notation.

Each lexical entry for a stem will contain information about (i) its phonological shape, (ii) its syntactic category, (iii) its meaning, and (iv) its argument structure (in the case of verb stems and dependent noun stems). In

d. (i) gike:nd + am-

(ii) V

(iii) know

[+animate]<7> [-animate]

| |

(iv) Argument Structure: (x(y)) gike:ndam

| |

th-1 th-2

e. (i) gike:nim-

(ii) V

(iii) know someone

[+animate] [+animate]

| |

(iv) Argument Structure: (x,y gike:nim)

| |

th-1 th-2

f. (i) bi:damaw-

(ii) V

(iii) bring something to/for someone

[+animate] [+animate]

| |

(iv) Argument Structure: (x,y,z bi:damaw)<8>

| | |

th-1 th-2 th-3

I would like to make some further remarks here about the AS's of the lexical entries illustrated just above. First, the variables (x, y and z) which appear as part of the AS's of stems represent the argument positions which are later obligatorily or optionally associated with arguments. Secondly, as illustrated in (4), I assume that each argument position in an AS is associated with a particular theta-role. I wish to stress that the argument positions specified in an AS and their corresponding theta-roles imply nothing about the respective linear positions of the arguments which are associated with them, nor about configurationally definable grammatical functions such as 'subject' and 'object.'

As has already been stated, it is my contention that there are no syntactically definable grammatical functions in Ojibwa. So, while in a language like English, the relation between a lexically represented argument structure and a syntactic phrase marker can be expressed in terms of syntactic realization rules (see, for example, Bresnan 1978 and Williams 1981b), this is not the case in a language like Ojibwa. What must be determined for Ojibwa, then, is precisely how overt nominals in a phrase marker are interpreted as being associated with particular argument positions specified in an AS, and how they are assigned theta-roles. In Chapter 3 I argue that in Ojibwa the relationship between the argument structure of a stem (its AS) and the syntactic phrase marker in which it appears is

mediated by the inflectional morphology of the nouns and verbs in the string.

2.2 Inflections and the Lexicon

Some recent work in morphology within the framework of generative grammar has held that there is a principled distinction between derivational and inflectional morphology, and that the differences between these two types of processes suggest that they belong in different components of the grammar. As stated earlier, examples of such works include Aronoff (1976), Allen (1978) and Anderson (1982). Other researchers have argued that many of the proposed distinctions between inflection and derivation do not hold uniformly, and maintain that all word-level processes should be handled in the lexicon. As we have seen (section 2.0), some proponents of this view are Halle (1973), Lieber (1980), Walsh (1981) and Selkirk (1982). I adhere to this latter view for reasons which I will now outline.

It is interesting to note that although several criteria for distinguishing derivation from inflection have been proposed, the distinction nevertheless remains, in many cases, an elusive one. Anderson (1977) observes, for example, that the distinction between derivation and inflection is hard to draw on formal grounds as there are

substantial formal similarities between the two types of processes. Thus, he notes, "...both inflection and derivation seem to make use of affixation, replacement, reduplication, etc..." (Anderson 1977:16). Below I will consider some of the proposed distinctions between derivation and inflection and show that in most cases these cannot be considered criterial.

It has traditionally been assumed that inflections are organized paradigmatically; that is, they occur in the paradigms that are associated with particular word classes. Examples of the paradigmatic organization associated with particular word classes are the markers for case, gender, number, person, tense, etc. Derivational affixes, on the other hand, are considered to relate different word classes. If an inflection is attached to a particular word, the inflected form is not perceived as belonging to a different word class from the uninflected form. If, on the other hand, a derivational affix is attached to a word, a new word, belonging to a different word class may be formed. This new word has the inflectional paradigm appropriate to its new word class.

Aronoff (1976:2) argues that because inflection is paradigmatic, it can exhibit suppletion (i.e., one of the "slots" in the paradigm is filled by a phonologically unrelated form). An example of such suppletion in an inflectional paradigm is the pair go/went. He argues that because derivation is not paradigmatic, suppletion cannot

occur. For Aronoff, then, the occurrence of semantically related but phonologically dissimilar forms is not within the province of derivational morphology.

There are, however, derivational processes which appear to exhibit suppletion. As indicated earlier (see section 2.1.3), Piggott (1979) argues that in Ojibwa TI verb stems are derivationally related to TA verb stems. He contends that given a TA stem the form of a related TI stem is partially predictable (see Piggott 1979:170). Nevertheless, there are a few examples of TA/TI pairs which bear no phonological relationship to each other. These pairs, Piggott (1979) treats as suppletive. One example of such a suppletive TA/TI pair is amw-/mi:ji- 'eat someone/something.'

It has also been noted (Bloomfield 1933:223 and Aronoff 1976:2, for example) that inflectional paradigms, unlike derivational processes, can be defective. So, for example, we have the plural scissors but not the uninflected form *scissor. Similarly, the modal system in English does not have a complete paradigm: modals have no infinitives (Bloomfield 1933:223).

Walsh (1981), however, notes in criticism of this claim that a derivational set can also be "defective" in a similar sense; that is, the morphologically simple member of a derivational set may be lacking. So, while the morphologically complex words aggressor, unkempt and retribution exist, the "underived" forms *aggress, *kempt

and *retribute do not (Walsh 1981:61f).

It has often been observed that derivational processes produce changes in syntactic categories, while inflectional processes do not. Anderson (1982:586), however, notes that while this may be a sufficient criterion for a process being termed derivational, it is not a necessary one. While it is true that inflections never change syntactic category, it is not true that derivational processes always do. Walsh (1981), for example, cites the following as examples of derivational affixes which do not change the syntactic categories of the words to which they are attached.

(6) [fair]A	[un-fair]A
[tie]V	[un-tie]V
[brother]N	[brother-hood]N

(Walsh 1981:63)

Finally, it has often been argued that inflectional affixes must appear outside of derivational affixes (see, for example, Bloomfield 1933, Aronoff 1976, and Williams 1981a). Walsh (1981) observes that the relative ordering of inflectional affixes with respect to derivational affixes poses the only potential problem for the assumption that derivation and inflection both take place within the lexicon. She argues, however, that the relative ordering between the two types of affixes does not constitute sufficient grounds for assuming that they are attached in

different components of the grammar. She contends that it is possible to account for the ordering relationship between derivational and inflectional processes by assuming that the WFRs which attach inflections apply after those which attach derivational affixes.

Thus, Walsh assumes that in addition to the three levels of WFRs discussed above, the rules which introduce inflectional affixes constitute a fourth level of WFRs which apply after the WFRs of Level III. This ensures that inflections will not appear either before any derivational affixes or between the members of a compound word. It should be noted that since the ordering of WFRs is independently necessary within Walsh's (1981) framework, no additional machinery is required to ensure that inflectional affixes follow derivational affixes. We can see, then, that the ordering relationship between the two types of affixation processes does not constitute a priori evidence against treating them both as lexical processes. I will assume provisionally that WFRs which introduce inflections are ordered after other WFRs, as Walsh suggests, although below I will discuss evidence which calls into question the appropriateness of this ordering for Ojibwa.

I have presented evidence which suggests that there are many formal similarities between inflectional and derivational processes. There is, then, no reason in principle why they should take place in different components of the grammar. Furthermore, as I have just tried to show,

if we accept Walsh's (1981) proposal for extending the level ordering hypothesis to include inflections, then the ordering of inflections with respect to derivations poses no obstacle to including inflectional processes within the lexicon.

The difficulty in arriving at a formal definition of inflection leads Anderson (1982) to the conclusion that the set of inflectional affixes cannot be established a priori for all languages, but rather must be determined individually for each language. In this spirit, a reasonable criterion for distinguishing inflection in Ojibwa would be the following:

- (7) An inflectional affix is one which encodes a property of a particular argument.

When the affix -w is attached to an AI (or an II) verb stem, for example, it indicates that the argument of that verb stem is a third person. Similarly, when the affix -aq is attached to an AI (or a TA) verb stem, it indicates that the argument to which it refers is plural.

Now, if we accept this criterion for distinguishing inflection from derivation in Ojibwa, we may possibly be forced to abandon the claim that inflectional affixes always appear outside of derivational affixes. Based on this

proposed criterion, it seems fairly clear that the theme-signs which are attached to TA verb stems (see Chapter 1, section 1.2.2) are inflectional affixes. As I will show in Chapter 3, theme-signs encode the person features of one of the arguments of a TA verb. The theme-sign -igw, for example, indicates that the nominal which is associated with the argument position designated as x is a third person. Thus, the sentence ininiw ni-wa:bam-igw means 'the man sees me.' The theme-sign -igw may be compared with the theme-sign -a:, which indicates that the nominal which is associated with the y argument position is a third person. The sentence ininiw ni-wa:bam-a:, for example, means 'I see the man.' Given the criterion proposed above, then, we can reasonably conclude that theme-signs are inflectional affixes.

Let us now consider a set of forms in Ojibwa which correspond in meaning to agentless passives in English. An example of such a form is ni-wa:bamigw-o:, which means 'I am seen.' It is shown in Grafstein (1980) that Ojibwa constructions of this type are actually AI verbs, as is evidenced by the fact that they behave in exactly the same way with respect to the inflectional morphology as other verbs which are standardly recognized to be AI's. Now, I argue in Grafstein (1980) that a form such as ni-wa:bamigw-o: is derived in the following way (excluding the attachment of the prefix ni-). First, the theme-sign -igw is attached to the TA stem wa:bam 'see someone.' Then, the AI final -o:<9>

is attached to the combined form wa:bam+igw. Assuming the criterion proposed in (7) for distinguishing inflection from derivation, the affix -o: cannot be inflectional since it does not encode a feature of a particular argument. Moreover, the process which attaches -o: to TA verb stems plus theme-sign alters the argument structure of the base. As stated above, the AS of any TA stem specifies that it takes two obligatory arguments. The AI stems which are derived by -o: attachment, on the other hand, take only one argument. As far as I am aware, within any theory of morphology, an affixation process which changes argument structure would be considered derivational.

I have adopted an analysis of the Ojibwa equivalents of agentless passives which entails that a derivational process attaches an affix (-o:) after an inflectional affix (-igw). If this analysis is correct, then it can no longer be maintained that inflectional affixes always appear outside of derivational affixes. If we are forced to abandon this assumption, it is not clear that there is any way at all, at least for some languages, of formally distinguishing inflection from derivation. There appears to be no reason then to maintain that the two types of processes take place in separate components of the grammar, and that they are governed by distinct sets of rules and principles.

Notes for Chapter Two

1. One important difference between the notion of argument structure used here and that developed in Williams (1981b) is that I do not distinguish between external and internal arguments. As will be seen in Chapter 3, the conception of Ojibwa phrase structure which I adopt does not allow for a distinction between arguments which are external or internal to a maximal projection (see Williams 1981b for a discussion of internal and external arguments).

2. According to the theory outlined in Williams (1981b), grammatical relations have no linguistic significance in the grammar of any language. For an argument that lexical rules must be able to refer to grammatical relations, see Selkirk (1982). Within the framework of Lexical Functional Grammar (LFG) which Selkirk assumes, each thematic role which is associated with an argument must be assigned a grammatical relation (see, for example, Bresnan 1982a; see also Mohanan 1982 for a discussion of grammatical relations in non-configurational languages, within the LFG framework).

3. Implicit in the work of Piggott (1979) is the assumption that grammatical relations such as 'subject' and 'object' are relevant notions in the grammar of Ojibwa. His lexical entries and redundancy rules are designed to capture the fact that, for instance, AI verbs have animate subjects while II verbs have inanimate subjects. Since I do not accept the relevance of the notions 'subject' and 'object,' this notion of the animacy or inanimacy of arguments will be recast and formulated in terms of theta-roles in the following discussion.

4. Verb forms such as gike:ndam belong to the class which Bloomfield (1957) identifies as "Pseudo-intransitives." This label reflects Bloomfield's view that these verbs are morphologically transitive (because they contain the ending -am, which he identifies as a TI theme-sign) but functionally intransitive (because syntactically they do not take a second argument). See Bloomfield (1957); see also Piggott (1979) for arguments against this classification.

5. There are, however, certain differences between the AI's which are related to TA's and which can function transitively (the TI's) and the other AI's which can optionally function transitively (the PT's). First, although the presence of a second argument is always

overtly marked on the TI verb form in all Ojibwa dialects, this is not the case with PT's. Thus, while in some Ojibwa dialects a PT is overtly marked when it functions transitively, in the Algonquin dialects there is no difference in the morphological shape of the verb whether it functions transitively or intransitively (see Piggott 1979:152f for some discussion; see also Chapter 5 of this thesis). Secondly, while the optional second argument of a PT can be either animate or inanimate, the optional second argument of a TI can only be inanimate (see Piggott 1979:179).

6. For Farmer (1980) and Bresnan (1978, 1982a,b), specifications of argument structure figure only in the lexical representation of verbs. However, because of the existence of dependent noun stems, I believe some noun stems must be specified as taking arguments. The assumption that nouns have arguments is not unusual--see, for example, Williams 1981b). It may also be noted that I have represented the theta role of the nominal argument as "th-W." Since a possessor does not seem to bear the same thematic relation to its head (the possessed noun) as the x argument of a verb bears to the verb, I adopt this notation to distinguish between the thematic relations which a possessor bears to a possessed noun, and that which a verbal argument bears to the verb.

7. Traditional analyses do not make claims concerning the gender of what I have identified as the x arguments of transitive verb forms. Piggott (1979), however, argues that the x arguments (or 'subjects,' in the terminology of his analysis) of transitive verb forms (as well as those of a restricted set of AI verb forms) must be not only grammatically animate, but also semantically animate. Although he does not state explicitly to what class of entities the term refers, it appears to encompass the class of entities capable of independent locomotion; i.e., humans and animals.
8. I will argue in Chapter 3 that the z argument of "double-object" verb forms (the one corresponding to the English direct object) should be considered optional.
9. It should be noted that many AI verb stems contain the final -o:, as even a cursory perusal of the reverse dictionary in Piggott and Kaye (1973) reveals.

CHAPTER THREE - THE INTERPRETATION OF THEMATIC RELATIONS

3.0 Introduction

As I have stressed at several points in this study, a superficial examination of Ojibwa syntax reveals a high degree of flexibility in surface word order, and a rich system of derivational and inflectional morphology. Such features suggest that Ojibwa belongs to the class of so-called "free word order" languages, some examples of which include Latin, Sanskrit, Walbiri (see Nash 1980 and Hale 1982a), and perhaps Japanese (see Farmer 1980). These "free word order" languages have not been studied by linguists nearly as extensively as some of the so-called "fixed word order" languages such as English. The task for the linguist studying "free word order" languages, then, is both to develop grammars of these languages which are consistent with the general principles of linguistic theory, and to determine the implications such analyses might have for the form of grammars as defined by linguistic theory.

The first part of this chapter is devoted to a discussion of some recent proposals concerning the appropriate characterization of the properties of "free word

order" languages as compared with those of "fixed word order" languages. The assumption underlying each of these proposals is that this type of linguistic variation is predictable within a theory of grammar which allows particular languages to select from among certain options permitted by Universal Grammar. The properties of a particular grammar follow from the options which have been selected by the grammar of that language.

In the second part of this chapter I propose an appropriate syntactic model for Ojibwa. I consider the problem of how nouns are associated with the argument positions specified in the lexical entries of verb stems. I try to demonstrate that a complete account of this association requires a specification of the nature of the interaction between morphology and syntax in encoding thematic relations.

The model to be developed here reflects what I consider to be the fundamental role played by the inflectional morphology in encoding thematic relations in Ojibwa. However, I also show how this model can account for those instances (which will be illustrated below) in which thematic relations cannot be determined from the morphology alone. I argue that in such cases, thematic relations are interpreted in part on the basis of word order.

3.1 Word Order and Linguistic Theory

3.1.1 Characterizing Free Word Order Languages

A standard assumption in generative grammar has been that the grammars of "free word order" languages are organized along the same lines as the grammars of "fixed word order" languages. According to this view, the base components of all languages contain a set of context-free phrase structure (PS) rules of the type developed in Chomsky (1965). This conception of the PS component of the grammar was later modified in terms of X-bar theory (see, for example, Chomsky 1970, Jackendoff 1977 and Stowell 1981). PS rules are generally considered to define both the dominance relations and the ordering relations among the constituents they introduce.

Chomsky (1965) claims that the existence of "free word order" languages is not germane to the issue of whether or not base rules impose an order on the constituents they introduce. In so claiming, he suggests that there is no fundamental difference between "free word order" and "fixed word order" languages. He maintains that in every known language, there are severe restrictions on word order and that there is no known language in which "...each permutation of the words of each sentence...give(s) a grammatical sentence that, in fact, is a paraphrase of the original" (Chomsky 1965:126). In the framework of Chomsky

(1965), surface flexibility in word order is the result of stylistic permutations of a fixed underlying order.

In order to account for instances of flexible surface word order, Ross (1967) introduces the notion of "scrambling" rules. According to Ross (1967), these "scrambling" rules apply post-syntactically in the "stylistic component" of the grammar to effect the reordering of constituents within the same clause. There are, however, problems with Ross' (1967) conception of "scrambling" rules. First, the formulation of "scrambling" rules requires that all the constituents which are subject to reordering be listed. Secondly, these rules can apply an indefinite number of times to their own output. Thus, "scrambling" rules are extremely powerful devices which do not appear to be constrained by any known principle. For this reason it is unlikely that "scrambling" rules, as generally conceived, are possible rules of human languages (see, for example, Whitman 1979 for some arguments against scrambling rules).

Hale (1981), in an attempt to develop a syntactic model capable of accommodating "free word order" languages such as Walbiri, takes a very different approach from the one outlined above. He adopts the position (which he later revises--see below) that there is an important difference between the base components of "free word order" languages such as Walbiri and "fixed word order" languages such as English. The latter, he claims, are X-bar languages "...in

which the basic syntactic structures are defined by means of a set of phrase structure rules which impose a hierarchical, or 'configurational,' organization upon syntactic expressions" (Hale 1981:2). The base components of languages like Walbiri, on the other hand, are not characterized by X-bar theory. Rather, he claims that languages like Walbiri belong to the class of languages he calls "W-Star" languages.

In a W-Star language, there are no PS rules as they are generally conceived. The skeletal syntactic structure of Walbiri sentences is defined by the following rule:

$$(1) E \rightarrow W^*,$$

where E is an expression which consists of a string of (fully inflected) words (W). These words are freely inserted in random order. Within this approach, strings of words are assigned labelled bracketings by a set of parsing principles (see Hale 1981 for discussion). It should be noted that there is no reason to invoke "scrambling" rules within this theory. The rule schema represented in (1) is a "concatenation" mechanism which simply produces arbitrary sequences of words (Hale 1981:16).

Hale (1981) contends that the crucial difference

between W-Star (or, consistent with more recent modifications, non-configurational) languages and X-bar languages is not simply a matter of "free" versus "fixed" word order. Rather, he argues, there are a number of observable grammatical differences between the two language types which result from the difference in the organization of their base components. Some of the superficial (though not necessarily criterial) characteristics of a W-Star or non-configurational language are, according to Hale (1981): (1) the use of discontinuous expressions (i.e., members of the same sub-clausal constituent which do not necessarily appear adjacent to one another); (2) "free" word order; (3) the absence of pleonastic ('dummy') NP's such as it, there, etc; (4) the lack of movement transformations.

Hale (1981) claims that these differences stem from the fact that W-Star languages have no phrase structure rules, and hence, no phrase structurally defined positions. So, for example, in a language which has no PS rules (and therefore no constraints on the surface positions of particular categories), there is no reason why elements belonging to a single constituent would necessarily be grouped together. Similarly, a language with no PS rules would not make use of 'dummy' elements to "fill" empty PS positions. In the same way, since transformations are formulated so as to refer to particular PS slots into which

elements are moved, the absence of stipulated PS positions eliminates the possibility of transformations.

In subsequent work, Hale (1981 postscript and 1982a,b) modifies his view that languages divide into as sharp a dichotomy as X-bar and non-X-bar (W-Star) languages. He assumes instead that the grammars of non-configurational languages can best be understood in terms of how they fix the parameters of the rule systems of core grammar as defined within the Government-Binding (GB) theory (as outlined in Chomsky 1981, 1982 and references cited there). More specifically, he contends that the base components of non-configurational languages as well as those of configurational languages are characterized by the principles of X-bar theory. The grammatical differences between the two types of languages stem from parametric variation in the rule systems of their base components within the limits defined by X-bar theory. It is this more recent revision which will form the basis for subsequent discussion.

I would like to digress for a moment to consider briefly the organization of grammars within the GB theory (for a full discussion of the principles of GB theory, see Chomsky 1981 and references cited there). Within the GB theory a grammar is divided into the following components:

- (2) (i) lexicon
 - (ii) syntax
 - (a) categorial component
 - (b) transformational component
 - (iii) Phonetic Form (PF) component
 - (iv) Logical Form (LF) component

(Chomsky 1981:5)

The rules and representations of each of these components are subject to certain grammatical principles, among which are those associated with government theory, theta-theory, binding theory and Case theory. Each of these will be considered as it bears on the discussion.

I would like to pay somewhat closer attention to the rule system which comprises (iia) of (2): the categorial component. It is generally assumed that the rules of the categorial component conform to some version of X-bar theory. X-bar theory was originally conceived as a means of expressing cross-categorial generalizations within the base component (see Chomsky 1970). Thus, a rule schema such as (3) below expresses the internal structure of all major categories.<1>

- (3) a. $X'' \rightarrow [\text{SPEC}, X'] X' <2>$
- b. $X' \rightarrow X \dots$

(Chomsky 1970:210)

The ellipsis marks in (b) represent the position of complements.<3> The notation X'' stands for the maximal expansion of any major category (e.g., NP, VP, AP, etc.), which has the lexical category X as its head. Now, as was the case with traditional PS rules (see, for example, Chomsky 1965), PS rules within X-bar theory define two types of relationships among constituents: hierarchical and linear sequencing. For any PS rule the constituent on the lefthand side of the arrow dominates the constituents it introduces, and the order of constituents on the righthand side is the order in which they appear in deep structure (henceforth, D-structure). So, for example, a PS rule such as $S \rightarrow N'' V''$ specifies that S dominates both N'' and V'' and that N'' is positioned to the left of V'' in the D-structure tree.

Returning now to the position of non-configurational languages within X-bar theory, Hale (1982a,b) contends that the crucial difference between configurational and non-configurational languages resides in the rule schema of (3) above. He maintains that the PS component of configurational languages contains both rule types in (3), while non-configurational languages use only the rule schema represented in (3b). Thus, the phrase structure of non-configurational languages is relatively 'flat' (i.e., minimally hierarchical).<4> It is Hale's contention that "...the most interesting properties of non-configurational languages derive from an interaction between flat structure

and such grammatical principles as government, abstract case-assignment, and theta-role assignment" (Hale 1982a:87).

The rule schema which Hale proposes for non-configurational languages differs in other ways from generally accepted principles of X-bar theory. First, PS rules are generally considered to specify categorial information. Thus, there are separate PS rules to expand any non-terminal category (e.g., N", V", V', A', etc.). Hale (1981 postscript and 1982a,b) and Farmer (1980) contend that in non-configurational languages PS rules do not specify categorial information. A PS rule, as conceived in these works, is simply an expansion of node-markers, each of which is associated with a particular hierarchical level. Since the maximum depth of structure is X', each node-marker is either a non-terminal element (associated with the X' level) or a head (associated with the X⁰ level).

Secondly, within this framework, lexical insertion is context-free. Terminal and pre-terminal nodes acquire their categorial status by upward percolation of the features of lexical items (see Farmer 1980 for a detailed discussion of this proposal; see also section 3.3 below). According to Hale (1982a,b) the appearance of "scrambling" which is characteristic of non-configurational languages is a function of this context-free lexical insertion under categorially-unspecified terminal nodes.

Finally, within this model, PS rules make no reference to linear order apart from fixing the location of the head

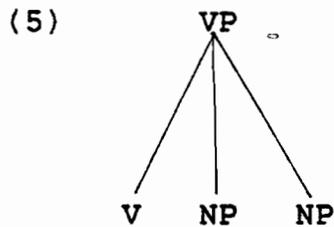
term.<5> So, within this framework, PS rules in non-configurational languages express only hierarchical information.

According to Hale (1981 postscript and 1982b), a "perfect" non-configurational language would have only one rule which expands X'. Farmer (1980) proposes the following rule for Japanese, a language which fixes the head in final position.

$$(4) X' \text{ ---} \rightarrow X' * X$$

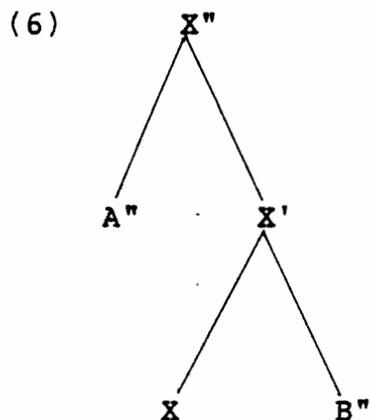
The * in (4), as in phonological notation (see, for example, Chomsky and Halle 1968:344), allows the symbol on the lefthand side to introduce an indefinite number of non-terminal symbols.

Hale contends that any grammatical principle which is formulated in terms of structural configurations cannot operate in the grammars of non-configurational languages. He refers specifically to the principles of government, theta-role assignment and abstract Case-assignment, government being the unifying principle of the three (see Chomsky 1981:51 for discussion of this point). Informally, a lexical head can be considered to govern its complements within the maximal expansion of which it is head (for a detailed discussion of government, see Chomsky 1981:Chapter 3; see also section 3.1.2 below). So, for example, in a structure such as (5) V governs both NP complements in VP:

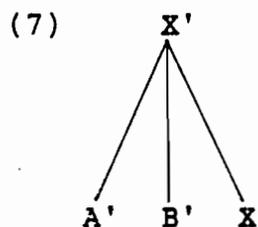


Hale (1982a) considers government to be simply "a relation which holds between the head of a category and its immediate sisters..." (Hale 1982a:89); the head is considered to govern its sisters. It should be noted that Hale's conception of government represents a departure from more generally accepted definitions of government. In any of the variants of such definitions of which I am aware (cf. Chomsky 1981:163, 164 and 165), it is stipulated that a governor must be a member of the category X^0 (i.e., a lexical head).

Using this somewhat broadened conception of government, Hale (1982a,b) contends that in configurational (X'') languages, government can distinguish between two separate domains: the domain of X'' and that of X' . So, for example, in a structure such as (6), Hale considers X' (the head of the domain defined by X'') to govern A'' , and X (the head of the domain defined by X') to govern B'' .



In non-configurational languages, there are no separate domains within which government can operate, as is illustrated in (7).



Notice that in (6), government can distinguish two different argument positions (i.e., specifier position (A'') and complement position (B'')). In (7), on the other hand, government cannot be said to distinguish separate argument positions. Hale (1982a,b) contends that, for this reason, government cannot be considered a grammatical principle in languages characterized by 'flat,' minimally hierarchical base structures.

The absence of government in non-configurational languages has implications for the application of other

related grammatical principles as well. The assignment of abstract Case, for example, is dependent on government. Specifically, Case theory assumes that any member of the category [-N] (i.e., verb, preposition or tense) assigns Case to the NP which it governs (for discussion of abstract Case assignment, see Chomsky 1981, Stowell 1981 and section 3.1.2 below). Hale (1982a,b) contends that in non-configurational languages, Case is inherent (i.e., associated with nominal expressions within the lexicon), rather than being assigned on the basis of syntactic configurations.

Hale (1982a,b) argues on similar grounds that structural theta-role assignment is not possible within the grammars of non-configurational languages. Within the GB framework of Chomsky (1981) arguments are assigned theta-roles when they appear in certain structurally defined theta-positions. Since, within Hale's framework, there is no way of distinguishing among structural positions in non-configurational languages, theta-role assignment cannot take place in the way outlined in Chomsky (1981). Instead, as may be recalled from Chapter 2 of this thesis, an argument position in a verbal Argument Structure is linked with a particular theta-role. An overt nominal is assigned a theta-role when it is associated with a particular argument position: it receives the theta-role with which that argument position is linked (see, for example, Nash 1980:Chapter 6, Farmer 1980:Chapter 4, and Chapter 2 of this

thesis).

3.1.2 Arguments for a Universal Category-Neutral Base

It was pointed out in the last section that the X-bar account advocated by Farmer (1980) and Hale (1981 postscript and 1982a,b) represents a departure from the W-Star account of Hale (1981). An assumption underlying the W-Star account is that non-configurational languages essentially have no phrase structure. Such an account implies that there are two radically different types of languages: those with phrase structure and those without (see Pullum 1982 for a criticism of the W-Star account along these lines). The underlying assumption of the X-bar account, on the other hand, is that the base components of all languages are characterized by the principles of X-bar theory, and that these principles permit specific kinds of parametric variation.

The attempt to understand the properties of non-configurational languages as following from the selection of particular options from among those permitted by core grammar receives additional impetus from recent work by Stowell (1981, 1982). Extending Farmer's (1980) proposal for Japanese, Stowell (1981, 1982) contends that the base components of all languages are category-neutral. Under this proposal, PS rules do not specify the internal

structure of each category in the language. The only function of PS rules is the specification of hierarchical structure, which is generalized across categories.

PS rules, according to Stowell, reflect the (universal) principles of X-bar theory (see Stowell 1981:70). Language particular contributions to phrase structure are restricted to fixing the parameters of X-bar theory in certain permissible ways. So, for example, while configurational languages distinguish between two levels of structure beyond that of the lexical head (X' and X"), the maximum hierarchical depth in non-configurational languages is the X' level. Similarly, languages can vary as to whether they fix the head of a phrase at the right (e.g. Japanese) or left (e.g. English) boundary of X'.

As I noted in my discussion of the proposals by Farmer (1980) and Hale (1981, 1982a,b), the result of context-free lexical insertion onto category-neutral lexical nodes is the superficial appearance of "scrambling." Now as Stowell (1982) notes, it may appear that while this approach to "scrambling" leads to a natural account of non-configurational languages, it makes counter-intuitive (if not descriptively inadequate) predictions for configurational languages.

Recall that under the proposals of Farmer (1980) and Hale (1981, 1982a,b) the PS rules make no contribution toward determining the linear ordering of constituents within a particular bar level, apart from fixing the

position of the head. It would therefore be incumbent on the proponents of a category-neutral base theory to provide independent explanations for the ordering restrictions on non-head terms in configurational languages.

In addition, since languages like English exhibit many idiosyncracies in the internal structure of different category types, it must also be shown that the category-neutral hypothesis is not too weak to account for asymmetries in categorial structure (i.e., that category-specific rules are not required). It is Stowell's (1981, 1982) contention that constituent order within a given bar level^{<6>} as well as asymmetries in the internal structure of different category types result not from constraints imposed by PS rules, but rather from the interaction of independently needed grammatical principles. In what follows, I recapitulate some of Stowell's arguments.

We turn first to the question of the order of subcategorized complements within X'. Stowell's (1981, 1982) category-neutral base hypothesis predicts that even in configurational languages, these are generated in random order by the PS rules. The constraints governing their surface order are determined by the interaction of the principles of the theories of Case and theta-role assignment. Since Stowell's arguments are more detailed than necessary for our present purposes, I will only summarize them here.

Let us first briefly review the essentials of Case and

theta-theories and certain principles which are associated with them. Chomsky (1980, 1981) proposes a Case filter which rules out any instance of a lexical NP which has not been assigned Case:

(8) The Case Filter

*NP if NP has phonetic content and has no Case.

(Chomsky 1981:49)

Normally, in order for an NP to be assigned Case, it must be governed by a lexical head containing the feature [-N] (i.e., verbs, prepositions and tense can assign Case).^{<7>} I assume the following as a definition of government:

(9)

In the configuration [$\beta \dots \gamma \dots \alpha \dots \gamma \dots$],

α governs γ , where

(i) $\alpha = X^0$

(ii) where ϕ is a maximal projection, if ϕ dominates γ then ϕ dominates α

(iii) α c-commands γ .^{<8>}

(cf. Chomsky 1981:165)

Finally, there is one additional condition on Case assignment. In order for an NP to be assigned Case, it must

be adjacent to its Case assigner (see Chomsky 1980:25, fn. 29; and 1981:94f).

Turning now to theta-theory, it was indicated in Chapter 2 that the Theta-Criterion (which I repeat here as (10)) is assumed to be a condition on representations at Logical Form:

- (10) Each argument bears one and only one theta-role, and each theta-role is assigned to one and only one argument.

As has already been stated, lexical heads are assumed to assign theta-roles to their subcategorized complements and, under some circumstances, to their subjects.

As Stowell (1981) observes, Chomsky (1981) attempts to integrate Case theory with theta-theory by proposing a condition on elements which are "visible" to the rules of theta-role assignment. Basically, Chomsky stipulates that in order for an element (and therefore the A-function chain⁹ associated with it) to be assigned a theta-role, it must either be PRO or, if it is phonetically realized, Case marked. Stowell (1981) proposes the following simplified version of this condition:

- (11) Theta-roles may only be assigned to A-positions which are associated with either PRO or Case.

(Stowell 1981:111)

For a more detailed discussion of this condition and related matters, see Chomsky (1981:178-179).

I will now consider how, according to Stowell's analysis, the principles of Case and theta-theories interact to predict the order of complements in configurational languages. First, Stowell (1981) observes that while NP complements of verbs and prepositions ([-N]'s) must immediately follow their heads, the NP complements of nouns and adjectives ([+N]'s) must be preceded by a preposition.

(12) a. Sue left [the car] in the driveway

b. *Sue left in the driveway [the car]<10>

(13) a. Bob talked quietly with [his friends]

b. *Bob talked with quietly [his friends]

(14) a. Joe's presentation yesterday of [the material] was impressive

b. *Joe's presentation yesterday [the material] was impressive

(15) a. Sally is proud of [her accomplishments]

b. *Sally is proud [her accomplishments]

Let us consider the sentences in (12) and (13). In (12a) the car is assigned both Case and theta-role by its governing verb, left. Similarly, in (13a), his friends is

assigned Case and theta-role by its governing preposition, with. In (12b) and (13b), however, the NP objects (the car and his friends, respectively) are not assigned Case, according to the adjacency condition on Case assignment. Now, by the "visibility" condition on theta-role assignment (11), the NP objects in (12b) and (13b) cannot be assigned theta-roles since they have no Case.

Turning now to (14) and (15), since derived nominals and adjectives both bear the feature [+N], they are not Case assigners. Therefore, by (11), they cannot assign theta-roles to their NP complements unless these complements have been assigned Case by some other means. The rule of of-Insertion permits Case assignment to the complements of [+N] categories by inserting the semantically empty 'dummy' Case assigner, of (for a formulation and discussion of the rule of of-Insertion, see Stowell 1981:126ff and his Appendix to Chapter 3). Since of is a preposition (i.e., it is specified [-N]), it can assign Case to the NP complements in (14a) and (15a). Since there is no adjacency condition on theta-role assignment, the derived nominal presentation in (14a) and the adjective proud in (15a) can theta-mark their complements. So, according to Stowell (1981, 1982), the linear order of subcategorized complements is determined not by PS rules, but rather by the interaction of the principles of Case and theta-theories.<11>

Let us now consider the problem of asymmetries in the internal structure of different category types. Recall that

under the proposal we have been examining, PS rules make no reference to category. Category labels are acquired only after lexical insertion, by upward percolation of the category features of lexical items. Since category-neutral PS rules cannot specify the internal structure of specific categories, the category-neutral base hypothesis entails that categorial structure is constant across categories. So, if this hypothesis is to be adopted, it must be shown that any instance of categorial asymmetry can be deduced by some device other than PS rules. It is Stowell's (1981, 1982) contention that the same principles which determine the linear order of complements also account for the appearance of categorial asymmetries.

Let us consider the relation of subject. It is proposed in Chomsky (1970) and Jackendoff (1977), for example that the relation of subject generalizes across NP and S, but not across other categories such as AP, PP, and passive participial phrases. Stowell, however, claims that the apparent lack of subject position in categories other than NP and S simply means that the subject position cannot be filled by lexical NP or PRO. The subject position can, however, be filled by trace, as is illustrated in the following examples (from Stowell 1982:243).

- (16) a. *John wants very much [AP Bill happy]
 b. *John wants very much [AP PRO happy]

- (17) a. John seems [AP t clever]
 b. John kept [PP t off the ship]
 c. John was believed [PrtP t kidnapped by pirates]

Stowell contends that the contrast in grammaticality between the sentences of (16) and those of (17) follows from the interaction of the principles of Case and theta-theories, given the "visibility" condition on theta-role assignment (11). Let us first consider (16). In (16a), Bill is governed by happy. It receives no Case, however, since adjectives are not Case assigners. Because Bill is not assigned Case, theta-role assignment is blocked, and the Theta-Criterion is violated.

In (16b) PRO is also governed by happy. The ill-formedness of this sentence results from the fact that it violates the Binding Theory theorem that PRO cannot be governed (see Chomsky 1981:188ff).

Turning now to (17), these examples show that categories other than NP and S do not necessarily lack the subject position. In each of the sentences of (17) trace (but not lexical NP or PRO) appears in subject position. These sentences are well-formed, since trace (unlike PRO) is governed, but (unlike lexical NP), need not be Case-marked. In each sentence John has moved to a position in which it can be assigned Case, thereby satisfying the "visibility" condition on theta-role assignment (11). The trace of John receives its theta-role within its "small clause." <12> The

theta-role assigned to the trace is then transmitted to John.

Thus, it is Stowell's (1981, 1982) contention that the subject position is not restricted to S and NP, but rather generalizes across major categories, as predicted by the category-neutral base hypothesis. The fact that trace but not lexical NP or PRO can appear in subject position in AP, PP and passive participial phrases follows not from stipulations in category-specific PS rules, but rather from the interaction of the principles of Case and theta-theories.<13>

In the preceding discussion I have reviewed the arguments advanced by Stowell (1981, 1982) to support his claim that the rules of the base component are universally category-neutral, specifying only hierarchical structure and the location of head terms. If this is correct, then the base components of configurational and non-configurational languages begin to look very similar, differing only in the depth of hierarchical structure introduced by the base rules.

Stowell's approach is consistent with a theory which incorporates the Projection Principle as proposed in Chomsky (1981). This principle can be informally stated as follows:

(18) 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.

(Chomsky 1981:29)

Chomsky (1981) argues that in a theory which incorporates the Projection Principle, the role of the categorial component is reduced to a minimum. Within such a theory, the base rules will simply stipulate those language-particular idiosyncracies which are not expressed in the lexicon. The base rules, for example, may have to stipulate "...such properties as order of major constituents, insofar as this is not determined by lexical properties and other principles of grammar" (emphasis mine--AG) (Chomsky 1981:31). The conception of the base component elaborated in Stowell (1981, 1982) is consistent with the theoretical goal, implicit in Chomsky (1981), of deriving from general grammatical principles information which would otherwise have to be stipulated in PS rules.

For our current purposes, this move enables us to go a step further toward developing a restrictive theory of configurational phenomena which imposes strong limits on the ways in which the categorial components of languages may differ. If linguistic theory were to permit both the category-neutral option and the category-specific option (as implicitly assumed, for example, by Farmer 1980), then a substantial burden would be placed on the language learner. It would be up to the child acquiring a language to

determine whether the rules of the base component are category-neutral or category-specific. Presumably, since the difference has empirical content, there would be observable evidence leading the child in one direction or the other. However, current approaches to the problem of acquisition (see, for example, Hornstein and Lightfoot 1981) have argued in favor of an enriched theory of Universal Grammar which minimizes the role of the child in constructing the grammar of his/her language. Stowell's category-neutral base hypothesis is consistent with this type of approach.

It is also worth noting that an analysis of configurational phenomena formulated in terms of an interaction between the rule systems of the base and grammatical principles such as Case and theta-theories enables us to account theoretically for the fact that entire languages do not always fall neatly at either end of the configurational/non-configurational dichotomy. If we view the distinction between configurational and non-configurational languages as a continuum rather than as an absolute disjunction, then it is possible to identify certain features of languages as either configurational or non-configurational.

Recall, for example, that as observed by Hale (1982a) and Stowell (1981), non-configurational languages do not observe the adjacency condition on Case assignment. Rather, verbs are lexically specified as taking nominal complements

which are intrinsically Case-marked. If verbs do not assign Case under adjacency, the result is freely ordered NP complements. Now, as noted by Stowell (1981:125), it is possible for a language to have a rich Case system while still recognizing a distinction between X' and X". Such a language would have distinct, structurally definable positions for both specifiers of X' and complements of X', although the constituents at each bar level would be unordered. The base structure of such a language would contrast with the 'flat,' multiple branching structures characteristic of "perfect" non-configurational languages, in which there is no structural distinction between specifiers and complements.

3.2 Ojibwa as a "Scrambling" Language<14>

I would like now to consider how the properties of Ojibwa can be accommodated within the framework outlined above. I try to show below that these properties follow from a particular analysis of its grammatical structure formulated within the general framework just outlined. I would first like to give a few examples illustrating the freedom of word order in Ojibwa. I will then discuss and provide examples of some of the constraints which do exist on word order.

As far as I have been able to ascertain, there are no

constraints on the relative ordering of major constituents (i.e., N' and V' within the framework I am assuming here) within a clause. The sentences in (19) and (20) illustrate this freedom of word order in Ojibwa. In both cases the (a) example represents what appears to be the preferred word order.

(19) a. mawi - w ĵi:ĵi:š

CRY AI 3 BABY

'the baby is crying'

b. ĵi:ĵi:š mawi - w

(20) a. ni - gosis o - gi: - ba:š:kizwa: - an mo:zw - an

1 SON 3 PAST SHOOT TA OBV MOOSE OBV

'my son shot a moose'

b. mo:zw - an o - gi: - ba:š:kizwa: - an ni - gosis

c. o - gi: - ba:š:kizwa: - an mo:zw - an ni - gosis

3.2.1 Some Constraints on "Scrambling"

It was noted in Chapter 1 (see section 1.2.3) that in most cases, thematic relations in clauses can be determined from the morphology of the nouns and verbs. It was also noted that the linear sequencing of constituents is usually quite flexible. However, word order in Ojibwa, while flexible, is not entirely free. Below I will consider some of the ways in which word order is constrained. It will become apparent from the following discussion that in most cases word order is constrained when thematic relations cannot be interpreted strictly from the morphology of the nouns and verbs in a string.

The first constraint I will look at concerns "scrambling" across clause boundaries. It has been observed (e.g. Ross 1967 and Pullum 1982) that even in "free word order" languages constituents may only "scramble" within--not across--clause boundaries. There is some evidence that this constraint is relevant to the grammar of Ojibwa. Consider, for example, the following sentences:

- (21) a. ni-ma:ma: gi:-ikido-w [S a:kozi-inid ininiw-an]
 1 MOTHER PAST SAY AI 3 SICK AI OBV MAN OBV
 'my mother said that the man is sick'

b. ni-ma:ma: gi:-ikido-w [S a:kozi-d ininiw]

1 MOTHER PAST SAY AI 3 SICK AI 3 MAN

'my mother said that the man is sick'

Since, as I indicated in Chapter 1 (section 1.3.2), obviation is optional across clause boundaries, both of the above sentences are grammatical. In (21a) the morphology indicates to which clause each of the third person arguments belongs. The matrix verb is marked for a proximate agent, since it has the affix -w, but not the obviative affix -an. The embedded verb is marked with the conjunct obviative affix -inid, indicating that it has an obviative argument. In (b), on the other hand, both arguments (ni-ma:ma: 'my mother' and ininiw 'man') are proximate; they are not distinguished from one another morphologically. Both the matrix verb and the embedded verb are marked for a proximate agent. If word order in Ojibwa were completely flexible--that is, if constituents were permitted to "scramble" across clause boundaries--then (21a) above should be unambiguous while (21b) should admit two possible interpretations. In one of these interpretations ni-ma:ma: would function as the argument of the matrix verb and ininiw as the argument of the embedded verb. Under the other interpretation ni-ma:ma: would function as the argument of the embedded verb and ininiw as the argument of the matrix verb. In fact, however, (21b) is not ambiguous; the only permissible interpretation is the one given in the gloss.

This suggests that there is a constraint against "scrambling" constituents outside of their clauses; or more specifically, an argument must appear in the same clause as the verb with which it is associated.

The next constraint on "scrambling" which I will consider involves a certain class of possessive expressions. It may be recalled from Chapter 1 (section 1.3.2) that in the Algonquin dialects a possessor is never marked obviative (and that it is optionally so-marked in Western Ojibwa). Let us look, for example, at the following sentence.

- (22) John o - gi: - wa:bama: - an ikwe:w o - gosis - an
 3 PAST SEE TA OBV WOMAN 3 SON OBV
 'John saw the woman's son'

Since neither John nor ikwe:w is marked obviative, there is no morphological indication of which one functions as the agent in the sentence and which one functions as the possessor of gosis-an 'son.' Nevertheless, this sentence is not ambiguous. The third person prefix o- which is attached to gosis-an can refer only to ikwe:w 'woman': it can have no other referent. So, it appears that in sentences containing a noun which is a third person proximate agent and a noun which is third person proximate possessor, the possessor must appear adjacent to the possessed noun. We will see below, however, that this constraint does not apply to all possessive expressions.

Another example of thematic relations being determined by the order of constituents rather than by their morphology can be found in sentences containing three third person arguments. Compare, for example, the sentences of (23) with those of (24).

(23) a. ni-gike:nda:n [S ininiw e:gi:-oĵi:m-a:ĵin ikwe:w-an]
 1 KNOW TI MAN PAST KISS TA OBV WOMAN OBV
 'I know that the man kissed the woman'

b. ni-gike:nda:n [S ikwe:w-an e:gi:-oĵi:m-a:ĵin ininiw]
 1 KNOW TI WOMAN OBV PAST KISS TA MAN
 'I know that the man kissed the woman'

(24) a. o-gike:nda:n [S ininiw-an e:gi:-oĵi:m-a:niĵin
 3 KNOW TI MAN OBV PAST KISS TA OBV
 ikwe:w-an]
 WOMAN OBV
 'he knows that the man kissed the woman' <15>

b. o-gike:nda:n [S ikwe:w-an e:gi:-oĵi:m-a:niĵin
 3 KNOW TI WOMAN OBV PAST KISS TA OBV
 ininiw-an]
 MAN OBV
 'he knows that the woman kissed the man'

In (23) we see that "scrambling" the arguments in the

embedded clause does not change the meaning. The matrix verb is marked for a first person agent. Since in both (23a,b) the embedded verb is marked for a proximate agent and an obviative theme, only the proximate noun (ininiw 'man') can be associated with the argument position corresponding to agent (theta-1) and only the obviative noun (ikwe:w-an 'woman') can be associated with the argument position corresponding to theme (theta-2).

In contrast, the difference in word order in the embedded clauses of (24) does correspond to a difference in meaning. The embedded verb is marked for an obviative acting on still another obviative. Now, since the matrix clause has a third person argument, there are two obviative arguments which are inflectionally non-distinct from one another in the embedded clause. Thus, either of them could be associated with either of the argument positions of the embedded verb. So, the word order here seems to perform the role of unambiguously identifying the thematic relations within the clause.

As a final example of word order constraints, let us consider the "double-object" verbs discussed in Chapter 1 (see (13) and (14) of Chapter 1). As I noted in somewhat different terms there, "double-object" verbs differ from other TA verbs in the following way. Non-"double-object" TA verbs are lexically specified for taking two arguments, while "double-object" verbs would appear to be lexically-specified for taking three. In Chapter 1 I

distinguished between the two "objects" of a "double-object" verb by referring to them as NP1 and NP2, where NP1 corresponds to the "indirect object" in an equivalent English construction and NP2 to the English "direct object." As was also noted in the first chapter, the affixes attached to "double-object" verbs make reference only to the agent NP and to NP1: NP2 is not represented morphologically.

I would now like to revise the terminology I use for referring to the arguments of a "double-object" verb so that it is consistent with the conception of Argument Structures as proposed in Chapter 2. "Double-object" verbs have the AS (x,y,z) , where x corresponds to the agent NP, y to the "indirect object" and z to the "direct object." From now on I will refer to the NP which is associated with the x argument position as NP1, the NP which is associated with the y argument position as NP2, and the NP which is associated with the z argument position as NP3.

Now, the preferred word order in "double-object" constructions in which NP2 and NP3 are both lexically-specified (i.e., non-pronominal) is for NP2 to immediately follow the verb, and for NP3 to either precede the verb or follow NP2. Word order, however, is flexible if NP1 is not a third person. Consider, for example, the sentences in (25), where (a) and (b) represent the preferred word orders.

- (25) a. gwi:zēs-an ni-gi:-ižiwidamawa: maškiki:wininiw
 BOY OBV 1 PAST TAKE TA DOCTOR (MEDICINE-MAN)
 'I took the boy to the doctor'
- b. ni-gi:-ižiwidamawa: maškiki:wininiw gwi:zēs-an
 1 PAST TAKE TA DOCTOR BOY OBV
 'I took the boy to the doctor'
- c. maškiki:wininiw ni-gi:-ižiwidamawa: gwi:zēs-an
 DOCTOR 1 PAST TAKE TA BOY OBV
 'I took the boy to the doctor'
- d. ni-gi:-ižiwidamawa: gwi:zēs-an maškiki:wininiw
 1 PAST TAKE TA BOY OBV DOCTOR
 'I took the boy to the doctor'

In each of the above sentences, the verb is marked with the prefix ni-. This indicates that a first person is associated with the x argument position. The verb form in each sentence is also marked with the theme-sign -a:, indicating that a proximate third person is associated with the y argument position. The only NP which can be associated with the y argument position, then, is the proximate maškiki:wininiw 'doctor.' The obviative gwi:zēs-an 'boy' will then be interpreted as being associated with the z argument position. The thematic relations in the sentences of (25) can therefore be determined from the

morphology alone.

Now let us consider the sentences of (26) in which NP1 is a third person.

(26) a. Mary gwi:zēs-an o-gi:-iziwidamawa:-an

BOY OBV 3 PAST TAKE TA OBV

mašiki:wininiw-an

DOCTOR OBV

'Mary took the boy to the doctor'

b. Mary o-gi:-ižiwidamawa:-an mašiki:wininiw-an

3 PAST TAKE TA OBV DOCTOR OBV

gwi:zēs-an

BOY OBV

'Mary took the boy to the doctor'

c. Mary mašiki:wininiw-an o-gi:-ižiwidamawa:-an

DOCTOR OBV 3 PAST TAKE TA OBV

gwi:zēs-an

BOY OBV

'Mary took the doctor to the boy'

d. Mary o-gi:-ižiwidamawa:-an gwi:zēs-an

3 PAST TAKE TA OBV BOY OBV

mašiki:wininiw-an

DOCTOR OBV

'Mary took the doctor to the boy'

In each of the sentences in (26) the verb is inflected for an obviative third person in the y argument position. Now, since both maškiki:wininiw-an 'doctor' and gwi:zēs-an 'boy' are obviative either one could be associated with this argument position. In these cases, it is always the noun which immediately follows the verb (maškiki:wininiw-an in (a) and (b) and gwi:zēs-an in (c) and (d)) which is interpreted as the y argument.

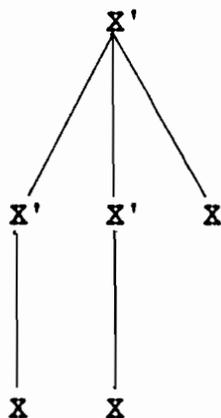
So, once again, we see that in cases in which thematic relations cannot be determined from the morphology alone, NP's are associated with particular argument positions on the basis of the linear positions they occupy. It appears then that word order is constrained when the morphology alone does not identify thematic relations.

3.3 Ojibwa Phrase Structure

In this section I try to show how the conception of a 'flat' category-neutral base can be applied to Ojibwa. I then try to show how nominals are linked with the argument positions specified in Argument Structures.

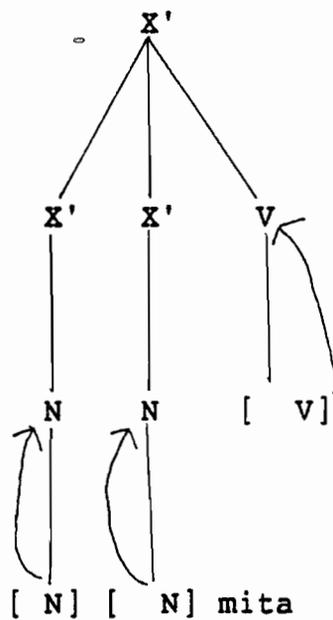
I mentioned above that the PS rule proposed by Farmer (1980) for Japanese (see (4) above) fixes the head (V) in final (rightmost) position with respect to its sisters. An example of a structure defined by this rule is (27).

(27)



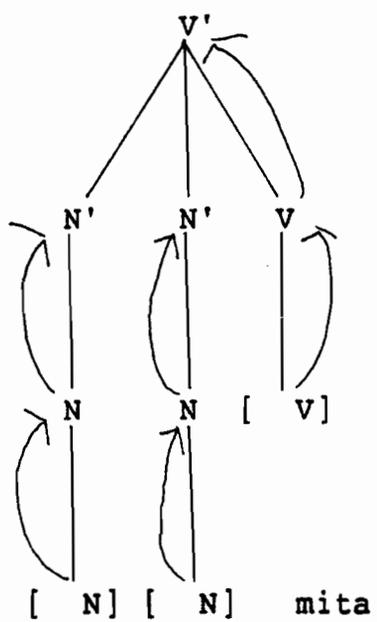
This would be the structure underlying the Japanese sentence Taroo wa Hanako o mita 'Taro saw Hanako.' Lexical items and the features associated with them are inserted under terminal nodes. According to Farmer, the features of the lexical items percolate up the tree, assigning categorial status first to the categorially-unspecified terminal nodes and then to the non-terminals. This feature percolation is accomplished in the manner illustrated in (28a,b).

(28) a.



Taroo-ga Hanako-o

b.



Taroo-ga Hanako-o

(Farmer 1980:74)

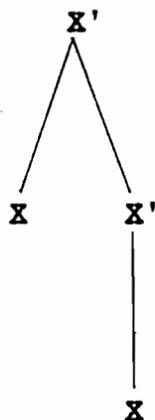
As noted by Farmer, within this theory, $S(=V')$ is the maximal expansion of V (see Farmer 1980:72ff for discussion).

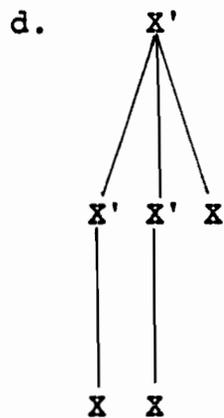
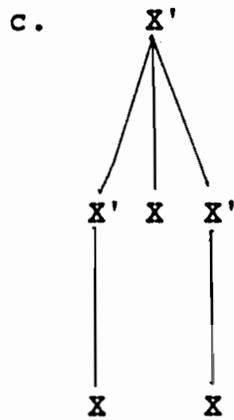
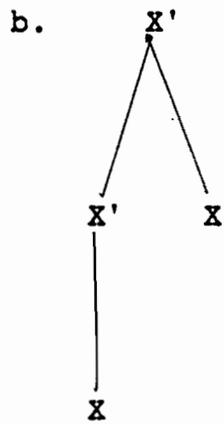
I assume along with Farmer that the 'root' of a clausal tree is V' . Ojibwa, however, unlike Japanese, does not fix the position of the head with respect to its sisters. The PS rule schema for Ojibwa, then, would be something like (29).

- (29) $X' \rightarrow X' * X X' *$,
 where X is the head

This rule allows the head to appear in any position with respect to its sisters. As already indicated, the star (*) notation indicates that an indefinite number (including 0) of constituents at the X' level may appear on either side of the head. Let us look at some of the structures this rule schema can define.

(30) a.





These structures would correspond to the following sentences, respectively.

- (31) a. a:koziw ĵi:ĵi:š
'the baby is sick'
- b. ĵi:ĵi:š a:koziw
'the baby is sick'
- c. gwi:zēs̃ oĵi:ba:š̃kizwa:n mo:zwan
'the boy shot a moose'
- d. gwi:zēs̃ mo:zwan oĵi:ba:š̃kizwa:n
'the boy shot a moose'

3.3.1 Associating Noun Forms with Argument Positions

As I indicated in Chapter 2 (section 2.1.3), each verb stem has as part of its lexical entry, an Argument Structure which specifies the number of arguments it takes. I have also noted that each argument position in the AS of a stem is linked with a particular theta-role. I would now like to consider how noun forms in a syntactic phrase marker are interpreted as being associated with particular argument positions in the AS's of stems. It should be noted that the process to be described here is similar in function to what Farmer (1980), Nash (1980) and Hale (1982a) call "Evaluation."<16>

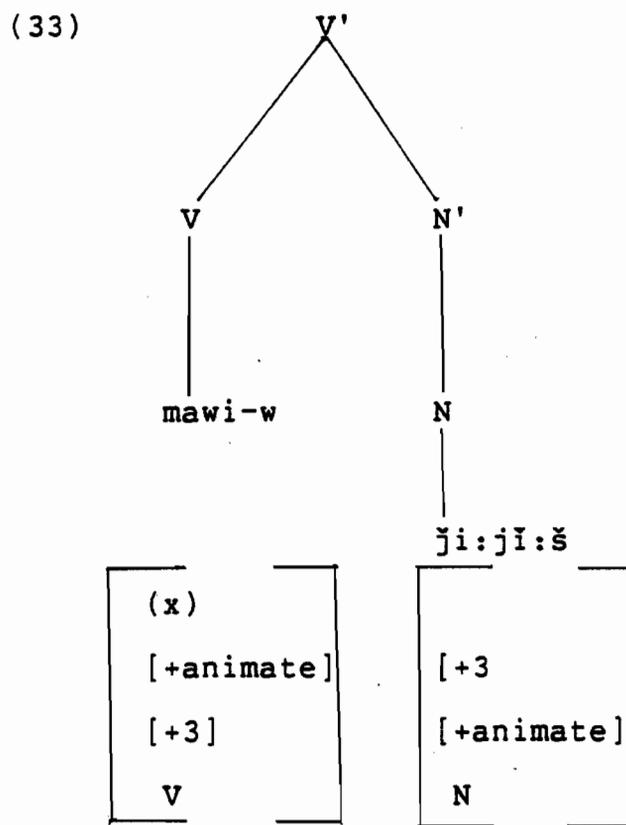
It is appropriate here to clarify the terminology I use in discussing nouns and verbs. I use the terms noun stem and verb stem to refer to nouns and verbs as they are listed in the lexicon (see Chapter 2, section 2.1.2). The fully inflected forms of nouns and verbs which appear in syntactic phrase markers I call noun forms and verb forms.

As has already been noted, thematic relations in Ojibwa sentences are interpreted primarily on the basis of the inflectional affixes which are attached to verb stems and, under some circumstances, to noun stems. I claimed in Chapter 2 (section 2.2) that inflections are affixes which encode properties of the particular arguments to which they refer. I would now like to propose that overt (i.e., lexically specified) noun forms are interpreted as being associated with verbal argument positions in the manner indicated in (32).

- (32) An overt noun form in a syntactic phrase marker is associated with a verbal argument position when its features "match" the requirements of that argument position.

As a first illustration of how thematic relations are interpreted in Ojibwa, let us consider the structure underlying the simple intransitive sentence mawi-w ji:ji:š

'the baby is crying.' The stem mawi- 'cry' is an AI verb stem. This means both that it has one argument position in its AS and that this argument position must be associated with an animate noun form. The inflectional ending -w is attached to the verb stem, which indicates that its argument must be associated with a noun form bearing the feature [+3]. The structure underlying this sentence, after lexical insertion and feature percolation, is the following categorially-specified phrase marker:



The information in brackets under the V node specifies the feature composition of a noun form which can be associated with the argument position of mawi-w. Since the feature

composition of ji:ji:š matches the features of the argument position of mawi-w, it is associated with the argument position (x) and receives the theta-role to which this argument position is linked. I use the expression "Argument Association" to refer to the process of associating noun forms in syntactic phrase markers with lexically specified argument positions. I will henceforth represent this process notationally by coindexing each noun form with the argument position with which it is associated. No theoretical significance should be attached to the way in which indices will be used in this study.

Let us now consider how thematic relations is interpreted in transitive sentences containing TA verb forms. Let us take as an example the sentence ni-wa:bam-a: ikwe:w 'I see the woman.' The verb from ni-wa:bam-a: consists of the prefix ni-, followed by the verb stem wa:bam-, followed by the theme-sign a:. As I indicated in Chapter 2, the AS of a TA verb stem like wa:bam- specifies that it takes two arguments; that is, it has two argument positions. The problem at hand is to determine how each argument position in a verbal AS is interpreted as being associated with a particular argument.

It may be recalled that the prefix ni- refers to a first person argument and the theme-sign -a: to a third person argument. What we do not know is which argument is associated with which argument position.

My proposal as to how noun forms are associated with

particular argument positions in TA constructions is as follows. Theme-signs encode the person features of one of the verb's arguments. Let us compare, for example, the sentences in (34) containing -a: with those in (35) containing -igw.

(34) a. ni-wa:bam-a: ikwe:w

1 SEE TA TS WOMAN

'I see the woman'

b. gi-wa:bam-a: ikwe:w

2 SEE TA TS WOMAN

'you see the woman'

c. John o-wa:bam-a:-an ikwe:w-an

3 SEE TA TS OBV WOMAN OBV

'John sees the woman'

(35) a. ikwe:w ni-wa:bam-igw

WOMAN 1 SEE TA TS

'the woman sees me'

b. ikwe:w gi-wa:bam-igw

WOMAN 2 SEE TA TS

'the woman sees you'

c. o-saye:z-an o-wa:bam-igw-an ikwe:w
 3 BROTHER OBV 3 SEE TA TS OBV WOMAN
 'the woman's brother saw her'

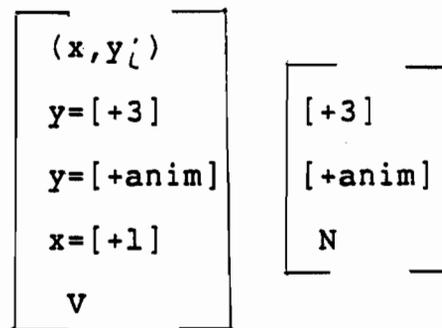
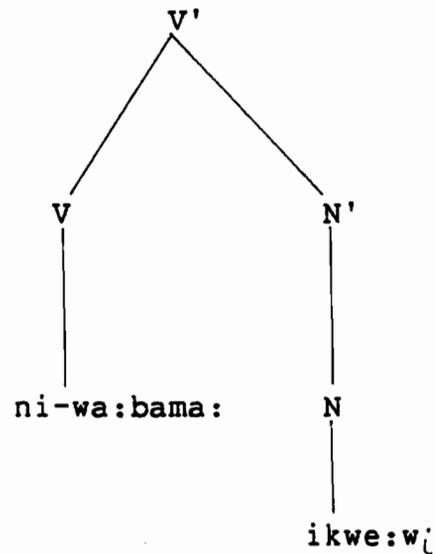
We can see from the glosses of each of the sentences of (34a,b), that the third person ikwe:w(-an) is associated with the argument position designated as y in the verbal AS (i.e., the one linked with theta-2 or theme). In the sentences of (35a.b), on the other hand, the third person argument in each case is associated with the argument position designated by x in the verbal AS (i.e., the one linked with theta-1 or agent). We can conclude then that when the theme-sign -a: is used it indicates that the y argument is specified [+3], and when the theme-sign -igw is used, it indicates that the x argument is specified [+3]. The affixes which follow the theme-sign, and which refer exclusively to person, refer to the argument which is referred to by the theme-sign. The prefix refers to the argument which is not referred to by the theme-sign. If the theme-sign is -a:, for example, the prefix refers to the x argument position. Correspondingly, if the theme-sign is -igw, the prefix refers to the y argument position.

The conclusions just stated are not obviously true with respect to (34c) and (35c), since, in each of these sentences, both arguments are third persons. On the basis of the clear cases ((34a,b) and (35a,b)), however, we can

extrapolate and say that in (34c), the theme-sign -a: refers to the y argument position, and that in (35c), the theme-sign -igw refers to the x argument position. In (34c), then, we can say that the obviative affix -an, which is attached to the theme-sign, indicates that the y argument is specified [+obviative]. Thus, the obviative noun form ikwe:w-an is associated with the y argument position. The prefix o- refers to John, which is associated with the x argument position. Similarly, in (35c), the obviative affix -an, which is attached to the theme-sign -igw, indicates that the argument which is associated with the x argument position is specified [+obviative]. The obviative noun form o-say:ez-an, then, is associated with the x argument position. The prefix o- on the verb form refers to ikwe:w, which is associated with the y argument position.

Given this analysis, the associated phrase marker underlying ni-wa:bama: ikwe:w will be something like (36).

(36)



In (36) ikwe:w 'woman' is associated with the argument position designated as y since its features match the feature specifications of the y argument position (i.e., [+3] and [+animate]).

Notice, however, that there is no noun form in the phrase marker which can be associated with the x argument position. Presumably, given the Theta-Criterion, (36) should be ill-formed, since the theta-role with which the x argument position is linked is not assigned to an overt noun form. However, the sentence represented by the phrase marker in (36) is perfectly well-formed. The question which

must be answered then is how thematic relations in a sentence such as ni-wa:bama: ikwe:w are interpreted. Specifically, I am concerned with how the argument position designated as x in (36) is associated with an argument.

As will be demonstrated in Chapter 4 (section 4.2.2), Ojibwa does not have a set of lexical pronouns corresponding to the English set consisting of I, you, he, etc. I argue there that when a lexically-specified argument position is not associated with an overt noun form, that argument position is interpreted as being associated with the feature complex attributed to it by the verbal affixes which refer to that argument position. I claim that there is no empty category present in the phrase marker to represent an argument position which is not associated with an overt noun form. I also argue in Chapter 4 that these feature complexes are interpreted as pronouns and that they exhibit some aspects of the behavior predicted of pronouns within the framework of the GB theory (see Chapter 4, section 4.2.2 for details).

Returning now to (36), I assume that the unassociated x argument position is interpreted as being associated with the feature [+1] which is encoded by the prefix ni- of the verb form. Its interpretation corresponds to that of the first person pronoun I in English.

So far, I have considered how noun forms are interpreted as being associated with the argument positions specified in verbal AS's. I would now like to turn to

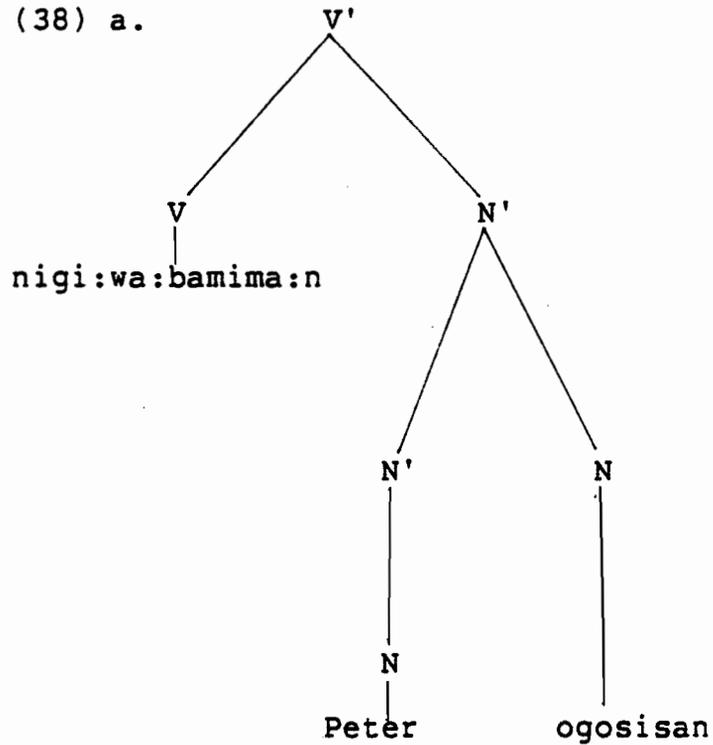
possessive expressions and consider how possession is indicated, and how a possessive expression is associated with a verbal argument position. Let us look, for example, at the sentences in (37).

(37) a. ni-gi:-wa:bamima:-an<17> Peter o-gosis-an
 1 PAST SEE TA OBV 3 SON OBV
 'I saw Peter's son'

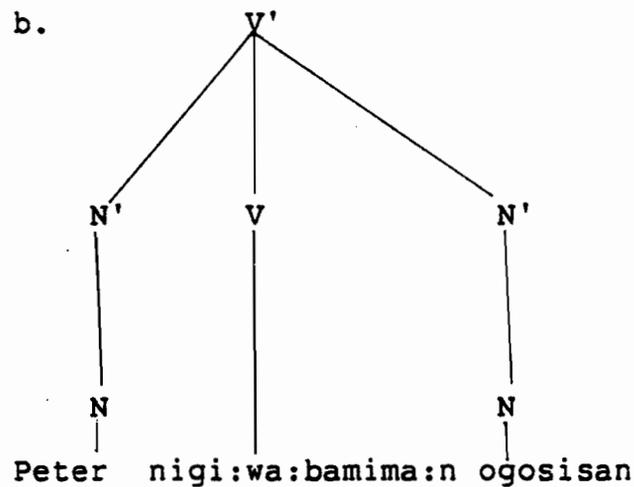
b. Peter ni-gi:-wa:bamima:-an o-gosis-an
 'I saw Peter's son'

We can see from (37) that the possessor can be either adjacent or non-adjacent to the possessed noun form. The structures in (38a) and (38b) can be said to characterize the sentences in (37a) and (37b), respectively.

(38) a.



b.



Now, it should be noted that a possessive expression functions as a single unit with respect to argument association. In each of the sentences of (37), for example, the verb form is marked for agreement with two arguments: a first person agent (indicated by the prefix ni-), and an

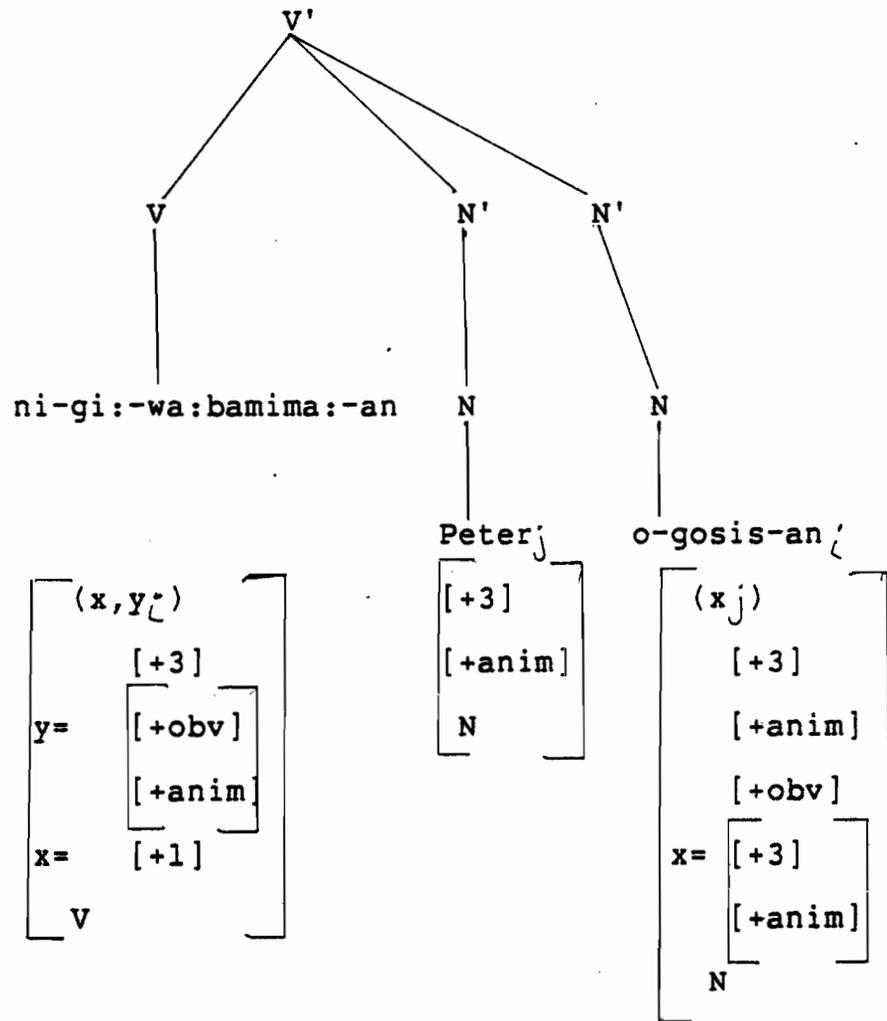
obviative theme (indicated by the affixes -im-a:-an). The only obviative noun form in (37) is, of course, o-gosis-an. Since the Theta-Criterion requires that each argument be associated with an argument position, Peter must be interpreted as an argument of o-gosis-an. The entire possessive expression--Peter oqosisan--then is associated with the y argument position of the verb form.

It may be recalled from Chapter 2 that I consider that nouns can potentially have argument structure. Thus, as we saw there, the AS of a dependent noun stem such as -gosis indicates that it takes an obligatory argument. A non-dependent noun stem such as abino:ǰi:š, on the other hand, is not specified as having an argument position. If, however, a lexical rule applies which adds a prefix to a noun stem, the rule also has the effect of adding an obligatory argument position to the AS of that noun stem. So, if a prefix is attached to a noun stem (either dependent or non-dependent), then an argument (either overt or pronominal) must be associated with its argument position.

In sentences such as those in (37), the prefix attached to the possessed noun form indicates the presence of an argument. The presence of a prefix means that the argument position must be associated with an argument. If the prefix is o- (indicating that the argument is a third person), the Argument Association operation "looks" for an overt noun form to associate with the argument position in the AS of the possessed noun form. If there is no such overt noun

form, the result is necessarily a pronominal interpretation (his/her, my, your, etc.). The associated argument structures of (37a) and (37b) are illustrated in (39a) and (39b), respectively.

(39) a.



its y argument position. Since the possessive expression, Peter o-gosis-an is obviative, it is associated with the y argument position of the verb form. Thus, the entire possessive expression--whether or not the possessor and the possessed noun forms are adjacent--is associated with the verb form's y argument position. The correct interpretation can then proceed by appealing only to the principle of Argument Association developed here.

3.3.2 Accounting for Constraints on "Scrambling"

In the previous section I tried to give an indication of how the phenomenon of "free word order" can follow naturally from a particular conception of the base. I also suggested a plausible analysis of how the interpretation of thematic relations can proceed in the absence of word order constraints. I proposed that noun forms are associated with the lexically-specified argument positions of verb stems and noun stems when their features match the features encoded by the inflections which refer to the relevant argument positions.

In illustrating the process by which noun forms are associated with argument positions specified in the AS of a verb or noun stem, I used examples in which the association was unambiguous; that is, in each case, only one noun form could be interpreted as being associated with any given

argument position. In each case, the linear order in which the noun forms happened to appear was not relevant to the interpretation of the sentence.<19>

In section 3.2.1 I noted that, under certain circumstances, the linear order in which noun forms appear does indeed affect the interpretation of the sentence. More specifically, in these cases, the linear position of noun forms relative to other noun forms determines which noun form is associated with which argument position.

I would now like to consider those instances in which word order contributes to the interpretation of sentences. I will show how the crucial use of word order under certain circumstances can be accommodated within a model in which lexical items are inserted under categorially-unspecified terminal nodes. If we look again at the examples in section 3.2.1 ((21)-(26)) we can see that each case in which the linear order of the noun forms in a sentence affects the interpretation of thematic relations involves the presence of two third persons which are inflectionally non-distinct from one another. That is, either neither one is marked obviative or both are marked obviative. Thus, each of the relevant argument positions can be associated with more than one noun form.

First, it was noted in section 3.2.1 (see example (21)) that constituents do not seem to be able to "scramble" across clause boundaries. In our terms, this means that the argument association operation can only operate within--not

across--clause boundaries. We need, then, to adopt the following convention:

- (40) An argument can only be associated with the argument position of a noun form or verb form which appears within the same clause.

Let us now consider the remaining examples in section 3.2.1. We saw there that "scrambling" is possible whenever each argument position can be associated with one and only one noun form, but not when an argument position can potentially be associated with more than one noun form. We saw that in these cases the noun forms were interpreted as being associated with argument positions on the basis of their linear position in the string.

In each of the examples given in section 3.2.1 arguments are associated with argument positions in an order which corresponds to what I have elsewhere identified as the preferred word order (see, for example, section 3.2 above). Now we have seen that preferred word order seems to play no role in the interpretation of thematic relations when thematic relations can be interpreted unambiguously on the basis of feature matching (see section 3.3.1). But what role does preferred word order assume when feature matching does not yield an unambiguous association between noun forms

and argument positions; i.e., when thematic relations cannot be interpreted on the basis of morphology alone?

It is likely that there are universal conditions on preferred word order. These universal conditions might incorporate some version of Jackendoff's (1972) Thematic Hierarchy, which specifies, for example, that agents will generally precede goals, which will generally precede themes, etc. It is possible that, in Ojibwa, preferred word order contributes to the interpretation of thematic relations when the morphology alone cannot unambiguously determine the correct interpretation.

Suppose that we assume, for example, that there is some empirical content to the order in which argument positions are listed in verbal AS's. Specifically, let us assume that the order in which argument positions are listed in AS reflects preferred word order, incorporating whatever universal conditions are found to govern this phenomenon. If, for example, we adopt Jackendoff's (1972) Thematic Hierarchy, then the order in which argument positions are listed in AS is, from left to right: the argument position which is linked with agent, followed by the argument position which is linked with goal, followed by the argument position which is linked with theme.

I propose that there is no necessary relationship between the order of argument positions in AS and the order of the noun forms associated with these positions in the syntactic phrase marker, as long as the morphology can

unambiguously associate each noun form in the phrase marker with one and only one argument position in AS. If the association is ambiguous (i.e., if an argument position can be associated with more than one overt noun form in the syntactic phrase marker) then the noun forms in question will be assigned to argument positions according to the order in which the argument positions are listed in AS. The first noun form in the string with the appropriate feature composition will, for example, be associated with the first argument position in AS. In what follows I will consider how this type of association occurs.

Let us first consider how argument association takes place in sentences such as (24), which I repeat here as (41).

(41) a. o-gike:nda:n [S ininiw-an e:gi:-oʃi:m-a:niʃin
 3 KNOW TI MAN OBV PAST KISS TA OBV
 ikwe:w-an]
 WOMAN OBV
 'he knows that the man kissed the woman'

b. o-gike:nda:n [S ikwe:w-an e:gi:-oʃi:m-a:niʃin
 3 KNOW TI WOMAN OBV PAST KISS TA OBV
 ininiw-an]
 MAN OBV
 'he knows that the woman kissed the man'

Recall that in each of these sentences, both noun forms in the embedded clause are obviative, and the embedded verb form is inflected (with the ending -a:nijin) for two obviative arguments. So, each obviative noun form could be associated with both verbal argument positions. Argument association, then, can be seen to take place as follows. In each sentence, the first noun form in the string is associated with the first (x=agent) argument position in the AS of o:ji:m- 'kiss,' and the second noun form is associated with the second (y=theme) argument position. If argument association proceeds in this manner, then in (41a) ininiwan 'man' is interpreted as agent and ikwe:wan 'woman' is interpreted as theme. In (41b), it is ikwe:wan which is interpreted as agent and ininiwan which is interpreted as theme.

The sentences in (26) (the "double-object" verbs involving three third person arguments) suggest that the use of word order in argument association is somewhat more complicated than just indicated. As we have already seen (section 3.2.1), there seem to be two equally preferred orderings for the arguments of "double-object" verb forms: one in which NP3 precedes the verb form, and the other in which it follows NP2. NP2 in the preferred word order immediately follows the verb form (see (25) above). Now, if there are two preferred word orderings for "double-object" constructions, then it is difficult to see how word order can decide between two possible argument associations. Let

us look again, for example, at (26), which I repeat here for convenience as (42).

(42) a. Mary gwi:zēs-an o-gi:-ižiwidamawa:-an

BOY OBV 3 PAST TAKE TA OBV

mašiki:wininiw-an

DOCTOR OBV

'Mary took the boy to the doctor'

b. Mary o-gi:-ižiwidamawa:-an mašiki:wininiw-an

3 PAST TAKE TA OBV DOCTOR OBV

gwi:zēs-an

BOY OBV

'Mary took the boy to the doctor'

c. Mary mašiki:wininiw-an o-gi:_ižiwidamawa:-an

DOCTOR OBV 3 PAST TAKE TA OBV

gwi:zēs-an

BOY OBV

'Mary took the doctor to the boy'

d. Mary o-gi:-ižiwidamawa:-an gwi:zēs-an

3 PAST TAKE TA OBV BOY OBV

mašiki:wininiw-an

DOCTOR OBV

'Mary took the doctor to the boy'

We can see that in each of the sentences above, the verb form is marked (with the affixes (a:-an) for an obviative noun form to be associated with the y argument position. Thus, in each case, this position could be associated with both gwi:zēs-an 'boy,' and maškiki:wininiw-an 'doctor.' We can also see from these sentences that the difference between the gloss of (42a,b) and that of (42b,c) is determined by which noun form immediately follows the verb form. The noun form which immediately follows the verb form is always interpreted as NP2 (the y argument). What argument association must do, then, is ensure that in "double-object" verb forms with two obviative arguments, the argument immediately to the right of the verb form is always associated with the y argument position.

I propose, then, that argument association proceeds as follows. When two noun forms can both be associated with the y argument position of a "double-object" verb form, the noun form which is adjacent and to the right of the verb form is associated with the y argument position. The proximate noun form (Mary in (42)) can only be associated with the x argument position.<20> This leaves the other obviative noun form to be associated with the z argument position, regardless of its linear position in the string.

It may seem odd that the position of NP3 (the noun form associated with the z argument position) is free in sentences like (42), as compared with the position of NP2

(the noun form associated with the y argument position). There is evidence, however, that the status of NP3 is not the same as that of the other two arguments of a "double-object" verb form. Specifically, I will present evidence directly which indicates that the z argument position is optional.

It may be recalled that a "double-object" verb form is inflected to agree with only two arguments: the one associated with the x argument position and the one associated with the y argument position. NP3, the one associated with the z argument position, need not appear in the phrase marker as an overt noun form, nor is it ever represented by verbal affixes. Consider, for example, the following sentences:

(43) a. mazine:gan-ini ni-gi:-mi:na: ininiw

BOOK OBV 1 PAST GIVE TA MAN

'I gave the man a book'

b. mazine:gan-ini ni-gi:-mi:na:

'I gave him the book'

c. ni-gi:-mi:na:

'I gave it to him'

Notice that although there is no overt noun form corresponding to the y argument position in (b) above, the

verb form has the theme-sign a: indicating that the y position is associated with a third person. No affix, however, indicates whether or not the z argument position is associated with an argument in (c).

The fact that properties of the z argument are not encoded by affixes indicates that the status of the z argument is not the same as that of the other two. In fact, the evidence points to the conclusion that this argument position should be considered optional.

We have already seen that when an obligatory argument position is not associated with an overt noun form, a pronominal interpretation is made based on the inflectional affixes which are attached to noun forms or verb forms. As we saw above (see (36)), for example, in a sentence such as niwa:bama: ikwe:w 'I see the woman,' the x argument position is not associated with an overt noun form. Rather, as we have seen, it is interpreted as if it were associated with a pronominal bearing the feature [+1], since the prefix ni- encodes this feature. Now, because a TA verb stem such as wa:bam- 'see someone,' requires two obligatory arguments, the Theta-Criterion would be violated if a pronominal interpretation were not made when no overt noun is present to associate with an obligatory argument position.

In the case of "double-object" verbs, on the other hand, there is no pronominal interpretation when the z argument position is not associated with an overt noun form. In fact, the z argument position can never be interpreted as

being associated with a pronominal. This is because pronominal interpretations are made strictly on the basis of the inflectional affixes which appear on a form and which refer to the argument position in question.

Consider the sentence (44), in which both the x and the y argument positions receive pronominal interpretations.

- (44) gi-gi:-mi:n-igw ĵi:ĵi:š-an
 2 PAST GIVE TA TS BABY OBV
 'he gave the baby to you'

In this sentence the theme-sign -igw indicates that the x argument position is associated with a third person, and the prefix gi- indicates that the y argument position is associated with a second person. There is, however, no Ojibwa equivalent for a sentence such as 'he gave you to your mother.' To obtain a sentence with such an interpretation, the z argument position would have to be interpreted as being associated with the pronominal feature [+2]. However, since no affix refers to this argument position, there can be no pronominal interpretation (see also Chapter 6 for discussion of this and related issues).

The inability of the z argument position to be associated with a pronominal is consistent only with the assumption that the z argument position is optional, given the version of the Theta-Criterion adopted here. If we assumed instead that the z argument position is obligatory,

then in a sentence such as (43c), the theta-role with which the z argument position is linked could not be assigned to an argument (either overt or non-overt). The sentence would thus violate the Theta-Criterion. The grammaticality of sentences such as (43c), in which the z argument position is neither associated with an overt noun form nor assigned a pronominal interpretation, suggests that this argument position is optional.

Let us now consider example (22) of section 3.2.1, repeated here as (45).

- (45) John o-gi:-wa:bama:-an ikwe:w o-gosis-an
 3 PAST SEE TA OBV WOMAN 3 SON OBV
 'John saw the woman's son'

As we saw earlier, the verb form is marked (with the affix -an) for an obviative y argument and for a third person x argument (with the prefix o-). Since o-gosis-an is the only obviative noun form in the sentence, it is the only argument which can be associated with the y argument position of the verb form. As we saw earlier, both John and ikwe:w 'woman' can be associated with either the x argument position of the verb form or the argument position of the possessed noun form. So, in this sentence, the two argument positions with which John and ikwe:w can be associated are argument positions of different lexical items. Since the argument positions of different lexical items are not

ordered with respect to one another in an AS, it is not entirely clear how argument association takes place in this type of sentence.

Let us assume that verbal argument structures are satisfied before nominal argument structures, by convention. We can then say that in a sentence such as (45), the argument association operation associates the first argument in the string which is specified for the appropriate morphological features (John) with the x argument position of the verb form. This leaves ikwe:w to be associated with the argument position of the noun form.

I believe that by postulating an order in which argument positions are listed in AS, we can account for the particular order in which noun forms appear in cases of ambiguity. I have argued that the order in which argument positions are listed in AS (i.e., agent, goal, theme, etc.) corresponds to the preferred word order.

In this section I have tried to indicate how the approach to Ojibwa syntax which I have outlined in this chapter can accommodate the crucial role of word order in interpreting thematic relations in a particular class of sentences. I think it should be noted, however, that in no case are thematic relations interpreted on the basis of word order alone. Even in those cases in which word order is crucial to the interpretation of thematic relations, the initial determination of which argument position(s) a given

noun form may be associated with is effected on the basis of feature matching. The sentences in (42) and the sentence in (45), I believe, provide evidence to support this claim.

In the sentences of (42), for example, the y argument position of the verb form must be associated with an obviative noun form. Thus, it can be associated with either of the two obviative noun forms in the string. It cannot, however, be associated with the proximate Mary.

In (45) (John ogi:wa:bama:an ikwe:w ogosisan 'John saw the woman's son'), there are three argument positions which must be associated with noun forms: the x and y argument positions of the verb stem and the single argument position of the noun stem. Now since the verb form is inflected for an obviative noun form to be associated with the y argument position, neither John nor ikwe:w 'woman' can be associated with this position, as they are both proximate. They can, however, both be associated with either the x argument position of the verb form or the single argument position of the noun form. Similarly, the y argument position of the verb form can only be associated with the possessed noun form, ogosisan 'her son.'

Examples (42) and (45) indicate that even where the morphology alone cannot identify thematic relations, word order does not take over by itself. It is still the morphology which determines that a given pair of noun forms can be associated with certain argument positions and not

others. In all cases, noun forms in phrase markers are associated with argument positions when their features match those specified by verbal affixes. When each argument position can be associated with one and only one noun form, noun forms can appear freely ordered in the phrase marker. When an argument position can be associated with more than one noun form in the phrase marker, the order in which noun forms are associated with argument positions reflects the order in which these argument positions are listed in AS.

3.4 Summary

In the first part of this chapter I reviewed the arguments in favor of a universal category-neutral base component in which the base rules do not have the power to either encode categorial information or to stipulate linear order, apart from the position of the head term. Constraints on word order are imposed not by base rules but by the operation of independent grammatical principles. Given this model of the base, the essential difference between configurational and non-configurational languages is in the depth of structure defined by the base rules: configurational languages define two levels of structure (X' and X'') while non-configurational languages define only one (X').

In the second part of this chapter I outlined a model

of Ojibwa phrase structure which is consistent with the view that Ojibwa belongs to the class of non-configurational languages. I have argued that the interpretation of Ojibwa argument structure involves the interaction of two levels of structure: the Argument Structure of noun and verb stems and the syntactic phrase marker defined by the single rule schema $X' \rightarrow X' X X'$. Noun forms which appear in syntactic phrase markers are associated with argument positions in the AS's of noun and verb stems when their features match the features encoded by the affixes which appear attached to verb forms and noun forms in phrase markers.

We have also seen in this chapter that the association of overt noun forms with argument positions is not always sufficient to produce a fully interpreted phrase marker. It is possible, for example, for there to be an argument position in AS but no overt noun form in the phrase marker to be associated with it. I have argued that in these cases the unassociated argument position is simply interpreted as if it were associated with a pronominal bearing the features attributed to it by the affixes attached to the verb form or noun form. It is also possible, as we have seen, for two noun forms to be capable of being associated with the same argument positions. I have contended that in these cases, there are actually two main steps involved in the process of associating noun forms with AS argument positions. First, overt noun forms are associated with

argument positions by the process of feature matching. Secondly, when feature matching results in a potentially ambiguous argument association, association proceeds according to the order in which argument positions are listed in AS.

Below I propose a formalization of the two steps involved in the operation of argument association. First, however, I think it is appropriate to make more precise what is meant here by the term "matching." I assume that the features of a noun form X match the features attributed to the argument position of a noun form or verb form Y iff the features of X are not distinct from the features of Y.

(46) Argument Association

(i) Associate a noun form with an AS argument position if the features of that noun form match the features attributed to that argument position.

(ii) If the features of each of two or more noun forms match the features attributed to the same argument position, (a) if that argument position is the y argument position, associate the noun form which is adjacent and to the right of the verb form with the y argument position, or (b) if that argument position is the x argument position, associate the leftmost such noun form with the x argument position.

The two steps formulated in (46) account for the ways in which an overt noun form can be associated with an argument position. Step (46i) accounts for those cases in which argument association is determined by the morphology alone. Step (46ii) accounts for the correct argument association when this cannot be determined by the morphology alone. It must be recalled that we have assumed that verbal argument structures are satisfied before nominal argument structures, by convention. In (45), for example, the x argument position of the verb form will be associated before the argument position of the noun form. John, then, being the leftmost noun form with the appropriate features, is associated with the x argument position of the verb form, by (46iib). This leaves ikwe:w 'woman' to be associated with the argument position of the noun form.

It should be noted that since noun forms are assigned theta-roles only by being associated with argument positions in AS, the Theta-Criterion functions as a well-formedness condition on fully associated phrase markers. Since an unassociated noun form will not be assigned a theta-role, a phrase marker which contains an unassociated noun form is ill-formed. For this reason, a sentence such as (47) is ill-formed, according to the Theta-Criterion.

- (47) *a:kozi-w John ĵi:ĵi:š-an
 SICK AI 3 BABY OBV
 'John is sick the baby,'

The AS of the AI verb stem a:kozi- indicates that it has only one argument position. Since this string has two noun forms, one of them will not be associated with an argument position, and, therefore, will not be assigned a theta-role.

An interesting question arises with respect to (47). Namely, which noun form (John or ĵi:ĵi:š-an) can be associated with the verbal argument position by the argument association process formulated in (46)? The affix -w on the verb form in (47) specifies that the argument which is associated with the verbal argument position has the feature [+3]. Since both John and ĵi:ĵi:š-an have the feature [+3], how do we know which one can be associated with the verbal argument position? It appears that in the unmarked case, any affix which encodes the feature [+3] (e.g., the prefix o- and the suffix -w in independent clauses) redundantly encodes the feature [-obv], unless there is an indication to the contrary. For example, in a sentence such as a:kozi-w-an o-saye:z-an 'his brother (obv) is sick,' the affix -an is attached to the verb form following the -w. This formally indicates that the argument of the verb form a:kozi-w-an must have the feature [+obv]. In (47), then, since the verb form is inflected only with the affix -w, only the non-obviative John can be associated with the

verbal argument position. The obviative noun form ǰi:ǰi:š-an will therefore not be associated with an argument position, in violation of the Theta-Criterion.

The second part of the Theta-Criterion (the requirement that each theta-role be assigned to an argument) is more difficult to illustrate, due to the existence of non-overt pronominal arguments. Theoretically, however, it would rule out sentences in which an argument position is associated neither with an overt noun form nor by an appropriate feature complex interpreted as a pronoun.

Notes for Chapter Three

1. For typographical convenience, I use the prime (') rather than the bar (-) notation.
2. I ignore here the question of whether the specifier position represents a linguistic category as is assumed in Chomsky (1970), or whether it is simply an "abbreviatory term for some concatenation of syntactic categories" as is suggested in Jackendoff (1977:37).
3. Note that (3b) represents the position of the complements of X' in English. As is indicated in the discussion below, in some languages the head element, X, appears after the complements, at the rightmost boundary of X'.
4. Note, however, that this account, unlike the W-Star account, attributes some phrase structure to non-configurational languages. Within the W-Star theory, no phrase structure is posited above the level of the word.
5. Hale (1982b) claims that a PS rule which does not fix the position of the head term is more costly than one which does (see also Stowell 1981, who claims that it

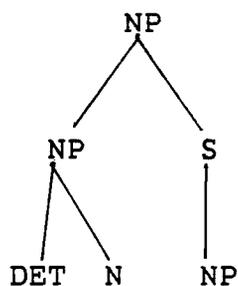
is a universal principle of X-bar theory that heads appear on one boundary of X'). As we shall see below, however, the base rule schema for Ojibwa does not fix the position of the head.

6. It should be noted that in configurational (Xⁿ) languages X-bar theory does provide a principled account of the relative ordering between specifiers and complements in terms of their hierarchical placement, even within the category-neutral base hypothesis. Thus, specifiers are dominated by Xⁿ, while subcategorized complements are dominated by X' (see Stowell 1981 for some discussion). There are, however, no ordering restrictions imposed by X-bar theory within a given bar level. Note that non-configurational (X') languages draw no hierarchical distinction between specifiers and complements.

7. Note that this does not cover the assignment of genitive Case to possessors in structures of the form [NP __ N'], as in Mary's kitten or her listening to music.

8. Reinhart (1976) initially defines c-command as follows: "Node A c-commands node B if neither A nor B dominate the other and the first branching node which dominates A dominates B" (Reinhart 1976:32). In the definition

In the definition Chomsky assumes reference is no longer made to branching nodes. A node A is said to c-command a node B if the maximal projection of A immediately dominating A dominates B, or if the highest maximal projection of A dominates B. Under this revised (but not the original) definition, N would c-command the rightmost NP in the following configuration:



See Chomsky (1981:166) for definition and discussion.

9. An A-function chain represents the derivational history of an element occupying an A(argument) position at S-structure. The subject position and the position of subcategorized complements are A-positions. An A-function chain is the sequence of A-positions which an element occupies during the course of a derivation, from its initial D-structure position through the intermediate and final positions to which it has occupied via the application of Move- α . See Chomsky (1981) for details and discussion.

10. Stowell in his discussion abstracts away from the effects of "Heavy NP Shift" constructions. For a

discussion of the relationship between this rule and the order of complements, see Stowell (1981:107f).

11. I ignore here questions of redundancy between the effects of the Case filter and the Theta-Criterion. See also Chomsky (1981:336ff), who argues that the Case filter can be derived from the Theta-Criterion, given the "visibility" condition on theta-role assignment.
12. See Stowell (1981:259) for an argument against considering all "small clauses" to be of the category S.
13. As noted by Stowell (1981:Chapter 4), lexical NP's are permitted in subject position in these categories under special circumstances. These special circumstances are the structures in which Exceptional Case-marking is permitted. Thus, in I consider [AP John stupid], consider exceptionally assigns Case to John across a phrasal boundary, just as it does in I consider [S' John to be stupid]. See Chomsky (1980, 1981) for a discussion of Exceptional Case-marking.
14. Although I do not believe that there is a rule of "scrambling" I sometimes use the term as a shorthand to refer to the phenomenon of flexible word order.

15. The -a:niĵin (most likely with the internal structure a:-ini-ĵ-in) conjunct ending indicates an obviative acting on still another obviative.
16. It should be noted that in Walbiri (Nash 1980 and Hale 1982a) and Japanese (Farmer 1980), Evaluation involves associating Case-marked nominals with verbal argument positions which which are lexically-specified as requiring that they be filled by nominals of a particular Case (see, for example, Farmer 1980:Chapter 4, section 3). Ojibwa, however, is not a rich Case language, As we will see below, the process of associating nominals with argument positions in Ojibwa operates on the combined basis of the lexical classification of the verb and the inflections which are attached both to nouns and to verbs.
17. The affix -im which is attached to the verb stem wa:bam- is used in TA constructions in which a first or second person is acting on an obviative third person.
18. Note that the distinction between (38a) and (38b) is relevant only in Western Ojibwa, which, unlike the Algonquin dialects, recognizes a further obviative.
19. I do not wish to imply here that word order is not at all relevant to the interpretation of sentences.

Presumably, deviations from preferred word order are not random and thus have some significance for the interpretation of sentences. However, in the examples of section 3.3.1, the linear sequence of noun forms does not determine which argument positions they are associated with.

20. This observation has yet to be motivated. It will be argued in Chapter 5 (see especially condition (12)) that in order for an obviative noun form to appear in a well-formed structure, there must be another non-obviative third person in its AS whose features are referred to by verbal affixes. If an obviative noun form were associated with the x argument position, then there would be no non-obviative third person within the same AS whose features are encoded by verbal affixes. This is because the z argument position of a "double-object" verb form is not referred to by verbal affixes.

CHAPTER FOUR - OBVIATION AND DISJOINT REFERENCE

4.0 Introduction

As mentioned in the Preface, the aim of this study is to provide an analysis of how thematic relations are interpreted in Ojibwa, with special emphasis on the role of obviation. The purpose of this chapter is to propose a principled account of the contexts of obligatory and optional obviation within the framework developed in Chapters 2 and 3.

I noted in Chapter 1 that in some contexts obviation is obligatory while in other contexts it is either optional or does not occur at all. In my discussion there I simply listed these contexts without offering an explanation for why the facts fall out as they do. I also observed in the first chapter (see section 1.4) that Algonquianists such as Bloomfield (1957, 1962), Hockett (1966) and Wolfart (1973, 1978) have traditionally viewed obviation as a principle of Algonquian discourse rather than a principle of Algonquian sentence grammar. According to this view within a stretch of discourse one third person is proximate and the rest are obviative. As I have already noted, it follows from this view that the optional absence of obviation within any

"close context" is an exception to this general principle of Algonquian discourse.

In this chapter I argue that the optionality of obviation in particular contexts is in fact not exceptional, but rather follows from a particular understanding of the role obviation plays within the grammar of Ojibwa. Specifically, I contend that obviation is one way in which the principle of Disjoint Reference (DR) is instantiated in Ojibwa.

Before proceeding I would like to make clear how I understand the notion of DR with respect to Ojibwa. I assume that for every language there is a principle (i.e., a principle of Disjoint Reference) which determines the conditions under which arguments are interpreted as disjoint in reference from other arguments. The particular way in which this principle is instantiated may vary to some extent across languages. In configurational languages like English, for example, the domain within which the principle of DR applies is characterized by the Binding Theory, as elaborated in Chomsky (1981, 1982) (see section 4.1 below for a discussion of the Binding Theory).

As will be shown in section 4.1, the Binding Theory is formulated in terms of the principle of government, which, as we saw in Chapter 3 does not apply in the grammars of non-configurational languages. I will argue later that for this reason, the domain within which the principle of DR applies in Ojibwa cannot be characterized by the Binding

Theory. Rather, I will try to show that the principle of DR in Ojibwa applies within the domains in which the argument structure requirements of noun forms and verb forms are satisfied. I then argue that the domains within which obviation is obligatory are just the domains within which the principle of DR holds obligatorily. Similarly, the domains within which obviation is optional are just the domains within which DR does not hold obligatorily.

I then propose a formulation of the principle of DR for Ojibwa. Consistent with claims made throughout this study concerning the primary role of the morphology in encoding thematic relations, this principle imposes a distinctness condition on the sets of features which can be attributed to arguments (by affixes) within a single AS. I will argue that this condition accounts not only for most instances of obligatory obviation (see also Chapter 5), but also for the fact that only intransitive and not transitive verb forms can receive a reflexive or reciprocal interpretation, as will be demonstrated below.

Because I am attempting to demonstrate a link between the contexts of obviation and the contexts of DR, it is appropriate at this point to present a review of the Binding Theory as formulated within the GB framework (see Chomsky 1981, 1982 and references cited there). Below I sketch those aspects of the Binding Theory which will be relevant to the discussion which follows.

4.1 Binding Theory

The Binding Theory is essentially concerned with characterizing the anaphoric properties of different classes of nominal expressions. There are three categories of nominal expressions whose properties are predicted by the Binding Theory: anaphors, pronominals and R-expressions.

Anaphors are NP's with no inherent reference. The class of anaphors is divided into two sub-classes: the trace of NP-movement and lexical anaphors such as reflexives (e.g., herself, themselves, etc.) and reciprocals (each other) (Chomsky 1981:188). The set of pronominals includes both pronouns and the phonetically empty PRO. PRO is considered a pronominal anaphor; that is, it shares properties with both pronouns and anaphors (see Chomsky 1981:102). R-expressions are considered to be referring expressions. The class of R-expressions consists of lexical NP's and variables, where a variable can be considered an NP which is bound by an operator (e.g., a wh-phrase in COMP)--see, for example, Chomsky (1981:102).

The essential property of anaphors is that they are bound to some antecedent within a particular domain, which will be made precise below. Pronouns, on the other hand, must be disjoint in reference from any other NP within this same domain. R-expressions, unlike anaphors and pronominals, are not subject to any binding conditions. An NP is bound if it is c-commanded (see Chapter 3, note 8) by

a coindexed argument. An NP not bound in this sense is free.

The properties of the three types of nominal expressions just discussed are predicted by the following conditions which make up the Binding Theory.

(1) Binding Theory

- (A) An anaphor is bound in its governing category
- (B) A pronominal is free in its governing category
- (C) An R-expression is free

(Chomsky 1981:188)

The notion of "government" has already been defined (see example (9), Chapter 3). The term "governing category" is defined as follows:

(2) Governing Category

α is the governing category for β if and only if α is the minimal category containing β and a governor of β , where α = NP or S

(Chomsky 1981:188)

It should be noted that it follows from the definition of government given in the last chapter that both the governed element and its governor must be dominated by the same

maximal projection. This means that all maximal projections (S', NP, VP, PP, etc.) are absolute barriers to government.

We can now consider how the GB theory accounts for the properties of anaphors and pronouns.<1> Let us begin with binding principle A. Consider the following sentences:

- (3) a. the children hit each other
 b. the men believed [S' each other to be liars]
 c. *the children believed [S' that each other would win]
 d. *the children believed [S' that I would like each other

In (3a) each other is governed by hit. It is coindexed with the children and is therefore bound in its governing category, S.

In (b) each other is coindexed to the men. Clearly, although the S' separating them is an absolute barrier to government, the sentence is grammatical. In order to account for the fact that certain verbs (e.g. believe, think, know, etc.) seem to be able to govern and assign Case across an S' boundary, Chomsky (1980, 1981) stipulates that some verbs exceptionally trigger deletion of the S' boundary. This S' deletion allows these verbs to govern and assign Case to an embedded subject. So, to return to (b), believe governs each other, and the governing category is the matrix S. Each other is therefore bound in its governing category.

In (c) each other is governed by INFL<2> and its

governing category is the embedded S. Each other, then, is not bound in its governing category and the sentence is therefore excluded by binding principle A. In (d) each other is governed by like and its governing category is again the embedded S. Since the antecedent of each other must be plural, there is no possible antecedent in the embedded S. The anaphor is therefore free in its governing category and the sentence is ruled out by principle A.

Binding principle B is intended to account for the fact that the essential property of pronouns is Disjoint Reference; that is, a pronoun cannot co-refer to an antecedent within its governing category. Let us consider the sentences in (4) as an illustration.

- (4) a. the boy kicked him
 b. John expected [S' the gangster to kill him]
 c. Mary believed [S' her to have solved the problem]

In (a) him is governed by kicked and its governing category is S. By principle B him cannot be coindexed to the boy and the two NP's are interpreted as disjoint in reference.

In (b) him is governed by kill and its governing category is the embedded S. Since by B, him must be free in its governing category, it cannot be coindexed with the gangster. Principle B, however, requires only that him be free in its governing category, the embedded S. It makes no predictions concerning the coreference or non-coreference

between him and John.

In (c) her is governed by believe (a verb which triggers S' deletion) and its governing category is the matrix S. By B, therefore, Mary and her must be disjoint in reference.

The distribution of the pronominal anaphor PRO is also readily accounted for by the Binding Theory. As a pronoun, PRO must be free in its governing category (principle B), while as an anaphor it must be bound in its governing category (principle A). Since it cannot be both bound and free in its governing category, Chomsky (1981:191) concludes that PRO is ungoverned and hence has no governing category. The distribution of PRO is thus restricted to ungoverned positions. The requirement that PRO be ungoverned permits sentences like (5a). At the same time, it excludes sentences like (5b) and (5c), where PRO is governed in (5b) by INFL and by believe in (5c).

- (5) a. John tried [PRO to win].
 b. *John denied [PRO is incompetent]
 c. *John believes [PRO to be incompetent]

Principle C applies to full NP's and variables. It is intended to capture the intuition that, under normal intonation, the essential property of R-expressions is DR.

4.2 "Binding" in Ojibwa

The crucial question which the Binding Theory addresses with respect to languages like English is one which must be addressed in constructing a grammar for any language: namely, what kinds of nominal expressions can be anaphorically related to other nominal expressions and under what circumstances? I would now like to explore the answer to these question with respect to Ojibwa.

As we saw in Chapter 3, the 'flat' multiple branching phrase structure which characterizes non-configurational languages does not allow for a non-trivial application of the principle of government. I referred to Hale's observation that while in configurational languages government can distinguish between two separate argument positions within a clause (the position of subject and the position of subcategorized complements, for example), it fails to distinguish between the sub-clausal arguments of a lexical head in non-configurational languages (see Hale 1982a:89). For this reason, Hale adopts the position that the principle of government simply does not apply in non-configurational languages.<3>

As we have seen, the Binding Theory defines the governing category as the domain within which anaphors must be bound and pronouns free. We have also seen that governing category is defined in terms of government. Now, presumably, languages in which the principle of government

does not operate must nevertheless define some domain within which binding principles operate; that is, a domain analogous to that of the governing category. In this chapter I claim that the domain within which the Argument Structures of noun forms and verb forms are satisfied constitutes just such a domain.

Let us now turn to the problem of developing an account of "binding" in Ojibwa. Before doing so, however, it is necessary to consider how the categories of nominal expressions which are subject to binding conditions (namely, anaphors and pronominals)⁴ are realized in Ojibwa.

4.2.1 Are There Anaphors in Ojibwa?

In this section I argue that there is no class of nominal expressions in Ojibwa which can be considered anaphors; that is, I claim that there are no nominal expressions which must be bound in a particular domain, as required of anaphors by principle A of the Binding Theory. As I stated earlier (section 4.1), the class of anaphors is considered to consist of reflexives and reciprocals (the lexical anaphors) and NP-trace. Let us first consider NP-trace.

Within the Extended Standard Theory the transformational component of the grammar consists of the single transformational rule, Move- α , where α is a

category. Each time an element is moved by the rule Move- α , it leaves a trace in the position from which it was moved. The trace and the moved element are coindexed by convention. Now, it was claimed in Chapter 3 that since movement transformations move elements from particular structurally defined positions to other such positions, the grammars of non-configurational languages cannot have the rule, Move- α . Since traces arise only as a result of movement, it follows that there are no traces in non-configurational languages. There is therefore no need to comment further on NP-trace.

Let us turn our attention then to the lexical anaphors. We have already seen that reflexives and reciprocals in English are of the category NP and are subject to principle A of the Binding Theory. As I show below, however, Ojibwa does not have a class of lexical anaphors. Although there are structures in Ojibwa which receive a reflexive or reciprocal interpretation, this interpretation does not arise as a result of a reciprocal or reflexive NP appearing in an argument position. Rather, as will be illustrated directly, certain verb stems are interpreted reciprocally, while others are interpreted reflexively because of their respective morphological properties.

Below are some examples of verb stems which are interpreted reflexively ((6)) and reciprocally ((7)).

- (6) a. ni-gizi:bi:gin-idi-min
 1 WASH REC 1PL
 'we are washing each other'
- b. gizi:bi:gin-idi-wag
 WASH REC 3PL
 'they are washing each other'
- (7) a. gizi:bi:gin-idizo-w
 WASH REFL 3
 'he is washing himself'
- b. ni-gizi:bi:gin-idizo-min
 1 WASH REFL 1PL
 'we are washing ourselves'

As we can see from (6), the reciprocal affix is -idi, and as (7) shows, the reflexive affix is -idizo<5>

If reciprocals and reflexives in Ojibwa were realized as lexical anaphors as they are in English, then the inflections which appear on the verb form in constructions such as (6) and (7) would presumably encode properties of two arguments: the anaphor and its antecedent. In fact, however, the verb forms in (6) and (7) are intransitive (AI) forms, which are derived from TA verb stems by the attachment of the AI finals -idi and -idizo, respectively.

Now, as we saw in Chapter 2 (section 2.1.3), AI verb stems are specified in the lexicon as taking only one obligatory argument. Furthermore, the inflectional affixes which are attached to an AI refer only to the properties of the argument which is associated with its one obligatory argument position.

In support of the claim that the forms in (6) and (7) are, in fact, based on AI verb stems, consider the following table which lists a set of inflectional endings found on verbs which are indisputably AI's.

(8) AI Inflectional Endings

1	0	11	-min
2	0	12	-min
3	-w	22	-m
obv.	-w-an	33	-w-ag

The reader should note that the double digits in the third column represent the first person plural (exclusive), first person plural (inclusive)<6>, second person plural, and third person plural, respectively.

Now let us compare these endings with those found on reflexive and reciprocal forms.

(9) <u>Reflexives</u>	<u>Reciprocals</u>
1 nigizi:bi:ginidizo<7>	-----
2 gigizi:bi:ginidizo	-----
3 gizi:bi:ginidizo-w	-----
obv. gizi:bi:ginidizo-w-an	-----
11 nigizi:bi:ginidizo- <u>min</u>	nigizi:bi:ginidi- <u>min</u>
12 gigizi:bi:ginidizo- <u>min</u>	gigizi:bi:ginidi- <u>min</u>
22 gigizi:bi:ginidizo- <u>m</u>	gigizi:bi:ginidi- <u>m</u>
33 gizi:bi:ginidizo-w- <u>ag</u>	gizi:bi:ginidi-w- <u>ag</u>

The endings attached to the verb stems in (9) are identical to those attached to verb stems which are indisputably AI's, such as those illustrated in (8).

There is one further indication that verb forms which are interpreted as reflexives and reciprocals pattern with intransitive (AI) verb forms rather than with transitive (TA's). Under the appropriate conditions, the prefix o- appears on transitive verb forms to indicate that one of its arguments must be a third person (e.g., o-gizi:bi:gina:-an 'he is washing him'). AI verb forms with third person arguments, on the other hand, never take prefixes. The AI verb form a:kozi-w, for example, means 'he is sick.' As we can see from the table in (9), no prefix appears on reflexive or reciprocal verb forms with third person arguments.

I have argued that reflexives and reciprocals in Ojibwa are not realized as anaphors which, by definition, are bound to antecedents. Rather, I have tried to show that there are particular AI verb stems, derived from TA verb stems, which receive a reflexive or reciprocal interpretation. The reflexive or reciprocal interpretation is indicated by the morphology (that is, the presence of -idi or -idizo) of the AI verb stem.

If these claims are correct then there is no formulation or interpretation of principle A of the Binding Theory which is relevant in determining the well-formedness of structures which are reflexively or reciprocally interpreted in Ojibwa. Later (section 4.4), I will formulate a principle of DR which provides a principled explanation for why reflexive and reciprocal interpretations in Ojibwa can only be derived from intransitive verb forms--verb forms in which inflections encode properties of only one argument.

4.2.2 "Pronominals" in Ojibwa

The set of pronominals is the other class of nominal expressions which is considered within the GB theory to be subject to binding conditions. In this section then I would like to discuss what may be considered to be the equivalent of pronouns in Ojibwa. Ojibwa does not have a set of

phonetically realized personal pronominal arguments. Rather, argument positions which are not associated with overt noun forms are interpreted as being associated with the features encoded by the affixes which refer to the argument position in question. I contend that these features receive an interpretation analogous to that of overt pronouns.

Ojibwa actually does have a set of personal pronouns, but they do not function as verbal arguments. Their occurrence is entirely optional: they are never required in order to produce well-formed strings. When they are used, they contribute additional semantic content to the sentence. Their primary function is to signal emphasis. This set of pronouns is listed below.

(9) <u>singular</u>	<u>plural</u>
ni:n 'I/me'	ni:nawind 'we/us' (exclusive)
gi:n 'you'	gi:nawind 'we/us' (inclusive)
wi:n 'he/him'	gi:nawa: 'you'
'she/her'	wi:nawa: 'they/them/'

The sentence wi:n a:koziw, for example, means something like 'him, he is sick.' I will have nothing further to say about this set of pronouns, since they are not relevant to the interpretation of thematic relations.

Although Ojibwa does not have a set of phonetically realized pronouns which are equivalent to the set of English

pronouns, we saw in Chapter 3 that verb forms which have no overt arguments nevertheless have affixes which are identical to those which occur when there are overt arguments. In the discussion which follows, I try to show how the features encoded by these affixes are interpreted analogously to the way in which overt pronouns are interpreted in languages which have them.

Let us consider, for example, the sentences in (10) through (13). Notice that the affixes attached to the (b) forms which do not have overt arguments parallel precisely the affixes attached to the (a) forms which do have overt arguments.

(11) a. gi:-bangišin-w abino:ǰi:š

PAST FALL AI 3 CHILD

'the child fell'

b. gi:-bangišin-w

PAST FALL AI 3

'he/she fell'

(12) a. gi:-bangišin-w-ag abino:ǰi:š-ag

PAST FALL AI 3 PL CHILD PL

'the children fell'

b. gi:-bangišin-w-ag
 PAST FALL AI 3 PL
 'they fell'

(13) a. gi:-bangisin-w ona:gan
 PAST FALL II 3 DISH
 'the dish fell'

b. gi:-bangisin-w
 PAST FALL II 3
 'it fell'

(14) a. gi:-bangisin-w-an ona:gan-an
 PAST FALL II 3 PL DISH PL
 'the dishes fell'

b. gi:-bangisin-w-an
 PAST FALL II 3 PL
 'they fell'

In (11) and (12) the verb stem bangišin- is an AI stem, which, like all AI verb stems, is lexically specified for taking an animate argument. Similarly, in (13) and (14) the verb stem bangisin- is an II stem, which, like all II verb stems, is lexically specified for taking an inanimate

argument. Looking first at the (a) forms of (11) through (14), we see that in (11a) and (12a) the argument position of the AI verb form is associated with an overt noun form which is animate. Similarly, the argument position of the II verb form in (13a) and (14a) is associated with an overt noun form which is inanimate.

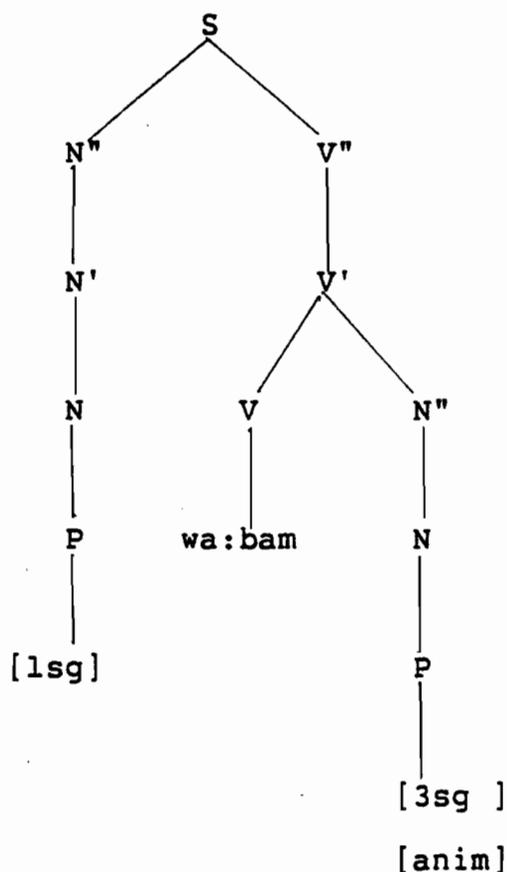
Let us now turn to the (b) forms of (11) through (14), in which the argument positions of the verb forms are not associated with overt noun forms. The argument position of the AI verb form in (11b) and (12b) must be interpreted as being associated with an animate argument, even though no overt animate argument is present. Similarly, the argument position of the II verb forms in (13b) and (14b) must be interpreted as being associated with an inanimate argument. The inflectional affix -w which is attached to the verb form in each example indicates in addition that the argument position is associated with a third person argument. In (12b) the verb form also contains the animate plural affix -aq, and the argument position must correspondingly be interpreted as being associated with a plural argument. Similarly, in (14b), the inanimate plural affix -an is attached to the verb form, indicating that the argument position must be interpreted as being associated with a plural argument.

So, the argument position of bangišin-w in (11b) is interpreted as being associated with an animate, third person singular argument, just as it is in (11a), which has

an overt noun form. In (12b) the argument position is interpreted as being associated with an animate, third person plural argument, just as it is in (12a). Similarly, the argument position of bangisin-w in (13b) is interpreted as being associated with an inanimate, third person singular argument, and in (14b), the argument position of bangisin-w-an is interpreted as being associated with an inanimate third person plural argument. We can see then that the features encoded by the affixes attached to a verb form which does not have an overt argument determine the interpretation of the unassociated argument position.

There are, I think, two ways of accounting for the interpretation of argument positions which are not associated with overt arguments. One way is to assume, following Pagotto (1980), that the N node can dominate the phonetically null element P (=pronoun). This phonetically null P is specified for features such as person, number, gender and obviation. Under this analysis, these phonetically empty feature matrices are actually inserted under the N node at D-structure. According to Pagotto (1980:99) the structure of a sentence such as ni-wa:bam-a: 'I see him' is as shown in (15). It should be noted that she is assuming a standard configurational analysis of Ojibwa phrase structure. It may also be noted that she assumes as well that only stems are inserted at D-structure.

(15)



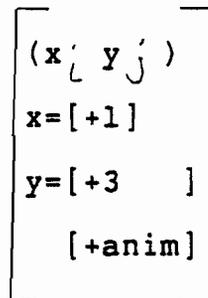
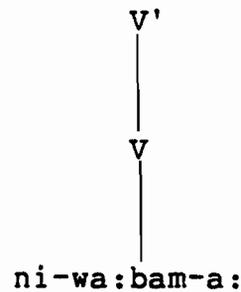
We can see that according to this proposal, the phonetically unrealized pronouns occupy particular positions in the phrase marker.

An alternative to the approach just described is to assume that there are no phonetically null feature matrices inserted at D-structure. As we saw in Chapter 3 (see example (36)), an argument position which is not associated with an overt argument is interpreted as being associated with a set features on the basis of the morphological properties of the verb form. So, for example, if an AI verb form has the inflectional endings -w-aq as in (12b), the argument position of the verb form is interpreted as being associated with an argument which has the features [+3,

+plural, +animate].

Given the framework developed here, I assume that the structure underlying a sentence such as ni-wa:bam-a: is as follows:

(16)



Under this approach to pronominal interpretation, an index is freely assigned to an argument position (cf. Hale 1981:33ff and Hale 1982a:90ff) if no overt nominal has been associated with that argument position (see Chapter 3, section 3.3.1) The Theta-Criterion is then satisfied since the theta-role with which the argument position is linked is assigned to the index, or to the pronominal features which are interpreted as being associated with that argument position. Note that under this analysis, "pronominals" do not occupy particular phrase structure positions: argument positions are simply associated with features which are

interpreted as pronominals.

In what follows I assume the second alternative, since, as I shall argue directly, it is more consistent with the general conception of Ojibwa grammar outlined in this work. First, as has already been indicated, within the framework of Pagotto (1980) only stems are inserted at D-structure. Inflections are attached by post-syntactic morphological rules on the basis of the feature matrices and configurational structure of the constituents at S-structure. Given Pagotto's assumptions, if feature matrices were not inserted at D-structure to represent phonetically null arguments, the morphological rules would not have access to the information contained in these feature matrices. Since within Pagotto's (1980) framework, morphological rules attach inflections by "reading" feature matrices, these feature matrices must be present in the phrase marker in order for the rules to attach the appropriate inflections.

As we have already seen, however, within the framework assumed in this work, fully inflected words are inserted at D-structure. These inflections encode the feature composition of noun forms which can be associated with the argument positions to which the inflections refer (see Chapter 3, section 3.3.1). There is no reason, then, to assume that feature matrices which represent phonetically null arguments are inserted at D-structure: the information contained in them can be derived from the morphology of the

verb form.

In addition to the fact that the insertion of feature matrices only adds information which is already present in the morphology of fully inflected forms, there is one further difficulty with the insertion option. As noted above, if we assume that phonetically empty feature matrices are inserted at D-structure then they must occupy particular positions in the phrase marker. Now, it is possible that such feature matrices could be assigned the category label N by convention. This category feature would then percolate up the tree in the fashion described in Chapter 3. Recall, however, that lexical items are freely inserted, yielding the superficial effects of "scrambling." The phrase structure positions occupied by the lexical items correspond to their surface linear order. Now, since these feature matrices have no phonetic content, there is no basis on which to assign them a position in the phrase marker. If, on the other hand, we assume that the features which are associated with argument positions in the absence of overt noun forms are interpreted rather than inserted, we avoid the artificiality of arbitrarily assigning them some position in a PS tree.

To recapitulate, Ojibwa does not have a set of personal (non-emphatic) pronouns with phonetic content. Instead, I have argued, features are attributed to argument positions not associated with overt noun forms in accordance with the morphology of verb forms. The features which are associated

with these argument positions are interpreted as lexical pronouns are interpreted in languages which have them. I will therefore use the term "pronominal" when referring to the features which are associated with argument positions not associated with overt noun forms.

4.3 Obviation and Disjoint Reference

I would now like to discuss the relationship between the principle of Disjoint Reference and obviation in Ojibwa. I will argue that obviation is one of the ways in which the principle of DR is instantiated in Ojibwa. If this contention is correct, then there should be a bi-unique relationship between the domains of obligatory DR and the domains of obligatory obviation. In what follows I argue that this is indeed the case.

Let us first consider the contexts of obligatory DR. As stated above, we know that in languages in which government is a grammatical principle, the governing category is the domain of obligatory DR. This means that DR is obligatory within S and within NP. If we assume, however, that government is not a grammatical principle in languages like Ojibwa, then the domain of obligatory DR will have to be formulated in different terms.

In Ojibwa, DR is obligatory within clauses and within possessive expressions. In order to demonstrate that this

is the case, we must first look again at the "pronominals" discussed in the last section. We must determine how we know whether or not a third person "pronominal" in Ojibwa can be interpreted as coreferential with some other argument.

It was noted in the last section that since there are no lexical pronouns in Ojibwa, the only way we know the feature composition of a "pronominal" is from the morphology of the verb form (or noun form) of which it is an argument. It follows from the way in which pronominal interpretation is effected in Ojibwa that there is no lexical entity which can be interpreted as either coreferential or non-coreferential with some other argument. In a language such as English, the sentence John sees him has two possible interpretations: the pronoun him can be interpreted as either coreferential or non-coreferential with John. Of course, as was noted earlier (section 4.1), the reading under which him is interpreted as coreferential with John is ruled out by principle B of the Binding Theory.

In Ojibwa, on the other hand, there is no such ambiguity as to the possible coreferentiality of a "pronominal" with respect to some other argument. The presence or absence of an obviative affix on a third person "pronominal" determines whether or not that "pronominal" can be interpreted as coreferential with a proximate third person argument in the string. If an affix indicates that a "pronominal" argument is obviative, then that "pronominal"

must be interpreted as non-coreferential with any proximate third person in the string. Consider, for example, the sentence in (17).

(17) John o-wa:bam-a:-an
 3 SEE TA TS OBV
 [+3]
 'John (sees him) '

In this sentence the -an affix which is attached to the TA verb form indicates that the "pronominal" argument is obviative, and therefore, cannot be interpreted as coreferential with the proximate third person, John. Conversely, if the obviative affix were not attached in (17), we would have the following string:

(18) *John o-wa:bam-a:
 3 SEE TA TS
 [+3]
 'John (sees him ('

In (18) the absence of the obviative affix on the TA verb form indicates that its "pronominal" argument is proximate; i.e., coreferential with the proximate, John. As will be shown in the discussion which follows, this string is ill-formed, since it violates the principle of Disjoint Reference, which is formulated in section 4.4 below.

Having illustrated how coreference and non-coreference are formally realized on third person "pronominals," we can now demonstrate that DR in Ojibwa is indeed obligatory within clauses and within possessive expressions. That DR is obligatory within clauses is illustrated by the contrast in grammaticality between (17) and (18). In (17), as we saw, the "pronominal" argument is marked obviative, indicating that it cannot be interpreted as coreferential with the proximate third person, John. The well-formedness of (17) contrasts with the ill-formedness of (18). In this sentence, the "pronominal" argument is proximate, indicating that it is coreferential with the proximate, John. That DR is obligatory within possessive expressions follows, I believe, from facts about the relationship of possession: the possessor and the possessed noun forms must refer to distinct entities.

Let us now turn to the contexts of obligatory obviation. In Chapter 1, I distinguished informally between the contexts of obligatory and optional obviation. In section 1.3.1 of Chapter 1, I identified two contexts of obligatory obviation: possessive expressions and clauses. In (19) and (20), for example, the (a) sentences are grammatical but the (b) sentences are not.

(19) a. John o-saye:z-an gi:-ma:ja:-w-an

3 BROTHER OBV PAST LEAVE AI 3 OBV

'John's brother left'

b. *John o-saye:z gi:-ma:ja:-w

3 BROTHER PAST LEAVE AI 3

(20) a. ininiw o-gi:-ba:škizwa:-an mo:zw-an

MAN 3 PAST SHOOT TA OBV MOOSE OBV

'the man shot a moose'

b. *ininiw o-gi:-ba:škizwa: mo:zw

MAN 3 PAST SHOOT TA MOOSE

We can see, then, that obviation and DR are obligatory within the same domains: clauses and possessive expressions. That obviation and DR are obligatory within the same contexts, suggests that obviation is the formal instantiation of DR in Ojibwa when both arguments are third persons.

Before proceeding, I would like to note that in claiming that obviation is a means of formally instantiating the principle of DR, I am not suggesting that we view obviation strictly in terms of its "functional" role within the grammar of Ojibwa. We saw just above (see (17) and (18)) that we know whether or not a third person "pronominal" can be interpreted as coreferential with another proximate argument in the string only by the presence or absence of an obviative affix on the verb form. However, since it is generally a property of R-expressions

that they are free, obviation is not "needed" to mark -saye:z as disjoint in reference from John in (19) or mo:zw disjoint in reference from ininiw in (20). My claim then is simply that the contexts in which obviation is obligatory are just the contexts in which DR is obligatory.

I would now like to address the question of why possessive expressions and clauses are the domains of obligatory DR and, hence, obligatory obviation. I propose that clauses and possessive expressions are the domains of obligatory DR (and obligatory obviation) in Ojibwa because these are precisely the domains within which the Argument Structure requirements of lexical items are realized.

I noted in Chapter 2 that the AS of a lexical item specifies the number of arguments which are later obligatorily and/or optionally associated with the argument positions of that lexical item. Since I take V to be the head of S, the verb form and the arguments which are associated with it constitute a clause. Similarly, the noun form and the argument which is associated with it constitute a possessive expression. So, if the relevant domain for the operation of the principle of DR is the unit within which the AS requirements of a form are realized, then DR in Ojibwa holds obligatorily within clauses and possessive expressions.

Since the domains for both obligatory DR and obligatory obviation are the domains within which the Argument Structure requirements of noun forms and verb forms are

realized, the claims I wish to make can, for the moment, be informally stated as follows:

- (21) (i) no two arguments within the AS of a noun form or verb form can be coreferential; and (ii) if two or more third persons are within the AS of a noun form or verb form, only one can be proximate.

If two third persons are not within the same AS, coreference is possible and obviation is optional.

4.3.1 Obviation Across Verbal AS's

I have tried to show that obviation is obligatory wherever DR is obligatory: in the domains within which the AS requirements of noun forms and verb forms are realized. I would now like to demonstrate the correlation between the contexts of optional obviation marking and the contexts in which DR does not necessarily hold.

Since, as I have argued, the AS's of noun forms and verb forms are the domains of obligatory DR, then coreference should be possible between nominals which are not arguments of the same noun form or verb form.<8> Let us first discuss obviation and DR when the two third persons

are arguments of different verb forms.

If it is correct that a one-to-one correspondence holds only between the contexts of obligatory obviation and obligatory DR, then we would expect to find well-formed structures with a third person argument of a verb form in the matrix clause and either a proximate or an obviative third person argument of a verb form in the embedded clause. As we have already seen (see Chapter 1, section 1.3.4), this is indeed the case. Because DR does not necessarily hold when two nominals are arguments of verb forms in different clauses, obviation is optional. The optionality of obviation in such contexts is illustrated in the sentences of (22) and (23), in which both (a) and (b) are possible.

(22) a. ininiw o-gike:nda:n [S oškinawe:-an
 MAN 3 KNOW TI BOY OBV
 e:-aye:kozi-iniĵin]
 PRES BE TIRED AI OBV
 'the man knows the boy is tired'

b. ininiw o-gike:nda:n [S oškinawe: e:-aye:kozi-ĵ]
 MAN 3 KNOW TI BOY PRES BE TIRED AI 3
 'the man knows the boy is tired'

(23) a. ininiw o-gike:nda:n [S e:-aye:kozi-ǰ]

MAN 3 KNOW TI PRES BE TIRED AI 3

'the man_i knows he_i is tired'

b. ininiw o-gike:nda:n [S e:-aye:kozi-iniǰin]

MAN 3 KNOW TI PRES BE TIRED AI OBV

'the man_i knows he_j is tired'

The sentences of (22) and (23) each have a TI verb form in the matrix clause. As we saw in Chapter 2, TI verb forms are derived from AI verb stems. The affix -n indicates the presence of a second argument, and, as we have seen, if a second argument is present, it must be inanimate. So, a TI verb form can have only one animate argument (ininiw in the sentences of (22) and (23)). Any other animate noun form (e.g., oškinawe:-(an) in (22) and (23)) must be an argument of another verb form. Because ininiw and oškinawe:-(an) are arguments of verb forms in different clauses, they are not in a context of obligatory DR. Obviation is therefore optional.

Now it is also possible for the matrix verb form in sentences like (22) or (23) to be a TA rather than a TI. It may be recalled from Chapter 2 that a TA verb stem is specified for taking an obligatory animate y argument. In (24a), we can see that the affixes attached to the TA verb form indicate that its y argument is obviative. The obviative oškinawe:-an is therefore associated with the y

argument position of the verb form. If we look at the embedded AI verb form of (24a), we can see that it is inflected for an obviative argument. Since there is no overt noun form in the embedded clause, the argument of the embedded AI is interpreted as a "pronominal." This obviative "pronominal" argument is interpreted as coreferential with the y argument of the matrix TA (see section 4.3.3 below).

(24) a. ininiw o-gike:nima:-an oškinawe:-an

MAN 3 KNOW TA OBV BOY OBV

[S e:-aye:kozi-iniŋin]

PRES BE TIRED AI OBV

'the man knows that the boy is tired'

b. *ininiw o-gike:nima: oškinawe: [S e:-aye:kozi-ŋ]

MAN 3 KNOW TA BOY PRES BE TIRED AI 3

'the man knows that the boy is tired'

Now, in each sentence of (24), the matrix clause within which the AS requirements of the TA verb form is realized is, as we have seen, a context of obligatory DR. Since obviation is obligatory whenever DR is obligatory, (24a) is well-formed but (24b) is not. If we compare (22) with (24), then, we can see that when the two third persons are arguments of the same verb form (as in (24)), DR is obligatory, and so is obviation. When the two third persons

are arguments of different verb forms (as in (22), on the other hand, DR does not necessarily hold, and obviation is optional.

4.3.2 Obviation On Arguments of N

I will now consider obviation marking in the second context in which DR does not necessarily hold; that is, obviation marking on arguments of N. As noted in the first chapter, there is a tendency in Ojibwa for a nominal which is a possessor not to be marked obviative. I also observed in Chapter 1 that in Algonquin, possessors never seem to be marked obviative, whereas in Western Ojibwa, a possessor can optionally be so marked. So, for example, in an Algonquin sentence such as (25), the possessor, John, is not marked obviative.

(25) Mary o-gi:-oĵi:ma:-an John o-gosis-an

3 PAST KISS TA OBV 3 SON

'Mary kissed John's son,'

In Western Ojibwa, on the other hand, (26) is well-formed.

(26) Mary o-gi:-oĵi:ma:-an John-an o-gosis-ini
 3 PAST KISS TA OBV OBV 3 SON FURTH
 OBV

'Mary kissed John's son'

In (26), the possessor, John-an is marked obviative. The -ini ending on the possessed noun form (o-gosis-ini) marks further obviation.

I am not concerned at the moment with the difference just noted between Algonquin and Western Ojibwa, <9> since it is not relevant to the topic at hand. Rather, I am interested in explaining why it is possible for a third person possessor not to be marked obviative when it appears in a clause with another third person argument. That possessors need not be marked obviative under such circumstances is, I believe, correlated with the fact that DR does not necessarily hold in these contexts.

First, it should be noted that the only possible relation between an N and its argument in Ojibwa is that of possessed/possessor. It has already been noted that DR holds obligatorily between an N and its argument (i.e., between a possessed noun form and a possessor). We have also seen (see (19) above) that obviation is obligatory when an animate third person is possessed by a third person. This follows from the claim that obviation is obligatory whenever DR is obligatory.

In strings of the type (25) and (26) above, however,

the relevant third persons are not both arguments of N; that is, they are not part of the same AS. In (25), for example, Mary is the x argument of the TA verb form and John is the argument of the possessed noun form. DR, then, should not hold obligatorily. The possibility of coreference in these contexts is illustrated by the Algonquin sentence (27) and the Western Ojibwa sentence (28).

(27) John o-za:giha:-an o-ma:ma:m-an
 3 LOVE TA OBV 3 MOTHER OBV
 'John_i loves his_i mother'

(28) a. John o-minwe:nima:-an o-ma:ma:y-an
 3 LOVE TA OBV 3 MOTHER OBV
 'John_i loves his_i mother'

b. John o-minwe:nima:-an o-ma:ma:y-ini
 3 LOVE TA OBV 3 MOTHER FURTH
 OBV
 'John_i loves his_j mother'

We can see from the examples above that there is no obligatory DR holding between the "pronominal" possessor and John; that is, the "pronominal" can co-refer to John in these contexts. The lack of obviation marking on overt possessors in Algonquin and its optionality in Western

Ojibwa are thus consistent with the claim that obviation is obligatory only in contexts of obligatory DR.

4.3.3 "Discourse" versus Sentential Obviation

I have tried to show so far in this chapter that obviation is the formal instantiation of obligatory DR between third persons in the domains within which the AS requirements of noun forms and verb forms are realized. We have seen that these domains are clauses (i.e., the arguments of V) and possessive expressions (i.e., N and its argument). I would now like to turn to what I have identified in the first chapter (section 1.3.4) as "discourse obviation." I will argue that contrary to claims often made in the literature on obviation in Algonquian languages (see Chapter 1, section 1.4.1), obviation is a property of Algonquian sentence grammar rather than a property of Algonquian discourse.

So far, I have limited the discussion of obviation in contexts in which DR does not hold obligatorily to cases in which a third person within the AS of N or V is marked obviative when there is another non-coreferential third person outside its AS. However, it is also possible for a "pronominal" argument in one AS to be marked obviative if it is coreferential with an obviative argument in another AS. So, for example, a "pronominal" argument of an embedded

clause which is coreferential with an obviative argument of a matrix clause will bear the feature [+obv].

The fact that a "pronominal" has the same specification for the obviation feature as a coreferential argument of another AS enables us to identify the anaphoric links holding between, say, a "pronominal" argument of an embedded verb form and another third person in the matrix clause. If we consider the following sentences, for example, we see that there are two possible antecedents in the matrix clause for the "pronominal" argument of the embedded verb form. Which matrix noun form is interpreted as the antecedent is indicated by the presence or absence of an obviative affix on the embedded verb form.

(29) a. Bill o-gi:-wa:bama:-an John-an [S e:-ma:ja:-inijin]
 3 PAST SEE TA OBV OBV PRES LEAVE AI OBV
 'Bill_i saw John_j as he_j was leaving'

b. Bill o-gi:-wa:bama:-an John-an [S e:-ma:ja:-j]
 3 PAST SEE TA OBV OBV PRES LEAVE AI 3
 'Bill_i saw John_j as he_i was leaving'

In (29a) the obviative "pronominal" argument of the embedded clause may be interpreted as coreferential with the obviative theme of the matrix clause (John-an).<10> In (29b), on the other hand, the proximate "pronominal" argument of the embedded clause is interpreted as

coreferential with the proximate agent of the matrix clause (Bill). The only way we can identify the anaphoric links in these sentences is by the presence or absence of the obviative affix -iniĵin on the embedded verb form. If -iniĵin is attached to the embedded verb form, it indicates that the "pronominal" argument is obviative, and, therefore, possibly coreferential with the obviative John-an. If -iniĵin is not attached to the embedded verb form, then the "pronominal" is proximate, and, therefore, coreferential with Bill.

Now, it may be recalled that in my discussion of what has been called "discourse" obviation (see Chapter 1, section 1.3.5), I observed that in order for a third person to be marked obviative, it is not sufficient that there be a non-coreferential third person in a preceding sentence. A "pronominal" may, however, optionally bear the same specification for the obviation feature as a coreferential third person in a preceding sentence. I also indicated that this type of agreement in obviation status across sentence boundaries seems to occur primarily in sentences in which both of the third persons involved are "pronominals."

As an example of this agreement we have been discussing, let us reconsider the sentences in (29b,c) of Chapter 1, section 1.3.5 (from Piggott and Kaye 1972), repeated here as (30a,b). Here, the proximate/obviative distinction established in the first sentence is retained in the subsequent one.

(30) a. giči-mo:koma:nan ogi:bi-odisigo:n, mi: taš ga:-igo:d
 He (the Englishman) was approached by an American
 and addressed as follows:

b. "ni:n igiwi gidanišina:be:mag niwi:-ganawe:nima:g"
 ogi:-igo:n

"I am going to take charge of those Indians of yours,"
 That is what he (the American) said to him
 (the Englishman).

The verb form in (b) ogi:-igo:n 'he (obv) said to him (prox)' is inflected for an obviative "pronominal" agent and a proximate "pronominal" theme. Now, all texts seem to employ some device for identifying the anaphoric links holding between nominals in different sentences. In this text, the only way we can identify the anaphoric links between the (a) sentence and the (b) sentence is if we understand the proximate "pronominal" argument in the (b) sentence to co-refer with the proximate "pronominal" argument in the (a) sentence (= 'the Englishman'). Correspondingly, we understand the obviative "pronominal" argument of the verb form in the (b) sentence to co-refer with obviative overt argument in the (a) sentence (= gičimo:koma:nan 'the American'). The "pronominal" arguments of the (b) sentence, then, have the same specification for the obviation feature as the arguments with which they co-refer in the (a) sentence.

Now, it may be recalled from Chapter 1 (section 1.4.1) that Algonquianists sometimes consider obviation to be a property of Algonquian discourse. As shown in the first chapter, for Algonquianists such as Bloomfield (1957, 1962), Hockett (1966), and Wolfart (1973, 1978), the domain within which obviation occurs is a unit of discourse; i.e., a "close context" or a "contextual span."

We have just seen, however, that the presence of a non-coreferential third person elsewhere in the discourse (i.e., in a preceding sentence) is not a sufficient condition for a third person to be marked obviative in a well-formed structure. Rather, in a well-formed structure, a third person is marked obviative under either of two conditions: (1) it bears a particular morpho-syntactic relationship (to be made precise in Chapter 5) to another non-coreferential third person within the same sentence; or (2) it is coreferential with an obviative third person mentioned earlier in the discourse. These facts suggest that the initial occurrence of obviation within a discourse is governed by principles of sentence-grammar.

The anaphoric links between a third person marked obviative within a sentence and other coreferential third persons which appear later in the discourse can then be indicated by the (optional) obviation marking of the third persons which occur later in the discourse. This optional agreement in obviation status between coreferential third persons in different sentences is simply one of the devices

available in Ojibwa for indicating an anaphoric relation between nominals in contexts in which coreference is possible (i.e., in contexts in which there is no obligatory DR).

The evidence suggests, then, that the domain for obviation marking is the sentence rather than the text or discourse. Thus, a third person can be marked obviative only if there is another third person within the same sentence (see Chapter 5 for discussion and explicit formulations of the necessary conditions for obviation marking), or if it is coreferential with another third person which has been marked obviative within a sentence. This view is consistent with the proposal developed in this chapter that obviation is the formal instantiation both of DR which holds obligatorily between two third persons which are part of the same AS, and of DR which holds optionally between two third persons which are not part of the same AS. Furthermore, as can be seen from the foregoing discussion, obviation also serves the function of indicating the anaphoric links between third persons across clause boundaries (see (29) above) and across sentence boundaries (see (30) above).

Because the initial obviation marking within a discourse can only occur when both third persons appear within the same sentence, the term "discourse obviation" can only be used to refer to the use of the proximate/obviative distinction (i.e., agreement in obviation status) as a

device for encoding anaphoric relations. Since, as we have seen, the same device is used across clause as well as across sentence boundaries, it is not at all clear that there is any sense in which obviation can be considered a discourse phenomenon.

I have tried to show in this chapter that if we view obviation in Ojibwa as the formal instantiation of the principle of DR in sentences containing more than one third person, then we can account in a principled way for the contexts of obligatory and optional obviation. Obviation is obligatory whenever DR holds obligatorily and optional whenever DR does not necessarily hold. This means that obviation is obligatory only when the third persons are part of the same AS.

I have also tried to show that, contrary to assumptions sometimes made in the literature, obviation cannot be considered to be essentially a discourse phenomenon. As we have seen, the initial proximate/obviative distinction is established within sentences. The role obviation plays within a discourse is the overt identification of anaphoric relations holding among third persons in different sentences.

4.4 The Principle of Disjoint Reference

Since I have established the contexts of obligatory DR and identified them with the contexts of obligatory obviation, I would now like to propose an appropriate formulation of the principle of DR in Ojibwa. I believe that the formulation I propose predicts not only obviation in contexts of obligatory DR but also the realization of reflexives and reciprocals as AI verb stems.

We have already seen (see section 4.2.1) that because there are no lexical anaphors in Ojibwa, condition A of the Binding Theory (see section 4.1) is not a well-formedness condition on structures interpreted reflexively and reciprocally. As was shown above (section 4.2.1), reflexive and reciprocal structures are realized as intransitive (AI) verb stems which are lexically derived from transitive (TA) verb stems. The reflexive or reciprocal interpretation then is not an instance of bound anaphora but part of the meaning of the derived verb stem. At no level of syntactic representation are there structures to which condition A could be said to apply--even if this condition were reformulated so as to operate within the domains in which the AS requirements of lexical items are realized.

Let us now consider the class of "pronominals" (see section 4.2.4). The evidence suggests that binding condition B (see section 4.1)--even if it were reformulated so as to operate within the domains in which the AS

requirements of lexical items are realized--does not express the way in which the property of DR is realized with respect to "pronominals" in Ojibwa. Recall that condition B of the Binding Theory rules strings such as *I see me as ill-formed and accounts for the fact that the only permissible interpretation of a string such as John sees him is the one in which John and him are interpreted as disjoint in reference. Now, we have seen that there are no lexical pronominal arguments in Ojibwa and that pronominal features are interpreted as being associated with argument positions on the basis of the morphology of the verb form. Thus, since there can be no N slot in an Ojibwa phrase marker which is occupied by a pronominal, there are no syntactic structures to which condition B can apply.

I tried to demonstrate above (see section 4.2.2) that the affixes attached to any transitive verb form with a "pronominal" argument obligatorily indicate that that argument is disjoint in reference from the verb form's other argument. I have also tried to show in this chapter that a reflexive or reciprocal interpretation can only be realized as an intransitive (AI) verb stem which has been lexically derived from a transitive (TA) verb stem. Taken together, these two facts suggest that there is a constraint on the argument structure of transitive verb forms such that no two arguments of a transitive verb stem may co-refer.<11>

This constraint on the argument structure of transitive verb forms is, I believe, essentially the principle of DR in

Ojibwa. I propose that the principle of DR in Ojibwa be formulated as follows:

- (31) Each argument which is associated with an obligatory argument position in the AS of a lexical item must be assigned distinct features for person.

The expression "features for person" applies to those features which indicate whether the argument referred to is a first person, second person, or third person. As I have argued above, this principle applies within the domains in which the AS requirements of noun stems and verb stems are realized: clauses and possessive expressions.

This constraint accounts for the fact that the form gi-wa:bam-in 'I see you' cannot be interpreted to mean *'you see you' and for the fact that there is no Ojibwa form *ni-wa:bam-ižina:m 'I see us' (cf. gi-wa:bam-ižina:m 'you see us'). It should be noted that in the putative Ojibwa form for *'I see us' the feature complexes which would be assigned by the affixes to each of the two verbal argument positions are, in fact, distinct: one argument position is assigned the feature [+1] and the other is assigned the features [+1, +pl]. Such a form is, nevertheless, ruled out by (31), since both argument positions would be assigned the person feature [+1]. Each

argument position would not, therefore, be assigned distinct features for person as required by (31).

The constraint formulated in (31) is also consistent with the fact that structures interpreted reflexively or reciprocally always surface as intransitive verb stems, which are specified for only one argument position. If such structures surfaced as transitive verb stems with two argument positions, then both argument positions would be assigned non-distinct features for person, in violation of (31).

Principle (31) also accounts for the ill-formedness of the form *o-wa:bama: 'he_i sees him_i,' since both argument positions are assigned the feature [+3]. For the same reason, forms such as o-wa:bama:-an 'he_i sees him_j' might appear to be erroneously ruled out by (31) since, again, both argument positions are assigned the feature [+3]. However, in this case, the verb form is further marked with the obviative affix -an, assigning to the y argument position the additional person feature [+obv].^{<13>} It was noted in Chapter 3 that in the absence of indications to the contrary, any affix which encodes the feature [+3] redundantly encodes the feature [-obv]. The x argument position (which is referred to by the third person prefix o-) is therefore specified [+3, -obv]. Each of the two argument positions, then, is assigned distinct features for person, in accordance with (31).

I would like to discuss the predictions of (31) with

respect to one more type of structure: "double object" verb forms with three third person arguments. I refer to sentences such as (32).

- (32) Mary o-gi:-mi:na:-an gwi:zēs-an bakwa:kadōs-an
 3 PAST GIVE TA OBV BOY OBV APPLE OBV
 'Mary gave the boy an apple'

Notice that gwi:zēs-an 'boy' and bakwa:kadōs-an 'apple' both bear the person features [+3, +obv]. Although at first glance, the non-distinctness of the features of the two obviative arguments may appear to be a violation of (31), in fact, it is not.

It may be recalled from Chapter 3 that the morphology of "double object" verb forms makes no formal reference to the noun form which is associated with the z argument position (the argument position bearing the role of theme = bakwa:kadōs-an). The affixes which are attached to "double object" verb stems make reference only to the noun form which is associated with the x argument position (agent = Mary) and to the one which is associated with the y argument position (goal = gwi:zēs-an). Since the z argument position need not be represented either morphologically or syntactically, I concluded in Chapter 3 that it should be listed as optional in the AS of mi:n-.

Now if we look again at (32) we see that the affixes which refer to the two obligatory argument positions do

indeed assign distinct features for person. The prefix o- designates one argument position as being associated with a [+3]: Mary. The combination of the theme-sign -a: and the obviative affix -an designates the second argument position as being associated with a [+3, +obv]. So, each obligatory argument position is indeed assigned distinct features for person, in accordance with (31).<14>

It must now be determined at what level of the grammar (31) applies. It is possible to state (31) as a condition on the attachment of inflections to transitive verb stems, blocking lexical derivations if the affixes attached to a transitive verb stem did not assign to each argument distinct features for person. I do not believe, however, that this is the best way to view the operation of (31).

Principle (31) is not essentially intended to capture a constraint on lexical derivations. Rather, it is intended to capture a constraint on the features of the arguments which can be associated with AS argument positions.

As we saw in Chapter 3, an overt noun form is associated with an AS argument position when the features of the noun form match the features encoded by the affixes which refer to that particular argument position. When no appropriate noun form is present in the phrase marker to be associated with an argument position, the argument position is assigned a "pronominal" interpretation in accordance with the features encoded by the affixes which refer to it. The

process of Argument Association, it may be recalled, operates on phrase markers (see Chapter 3). It is therefore reasonable to assume that (31) operates on fully associated phrase markers. If we make this assumption, then the rules which introduce inflections apply freely and (31) operates as a filter on fully interpreted phrase markers, ruling out inappropriate assignments of features to argument positions.

4.5 Conclusion

In this chapter I have argued that there is a relationship between obviation and a principle of Disjoint Reference in Ojibwa. I have argued that obviation is the formal instantiation of DR in structures involving two or more third person arguments. I have tried to show that the domains in which obviation is obligatory are just the domains in which DR is obligatory, and that the relevant domain in each case is the domain within which the Argument Structure requirements of noun forms and verb forms are realized. Finally, I have attempted to formulate the appropriate statement of the principle of DR. I have tried to show that this principle predicts not only the occurrence of obviation, but also the fact that structures which are interpreted reflexively or reciprocally surface as intransitive rather than transitive constructions.

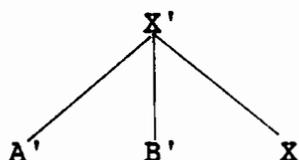
In Chapter 5 I turn to the problem of predicting which

of two third persons will be proximate in a given construction. I try to show that this task is considerably simplified if we assume the correspondence proposed in this chapter between the domains of obligatory and optional DR and the domains of obligatory and optional obviation.

Notes for Chapter Four

1. Each of the three principles of the Binding Theory will be illustrated with clear-cut examples--that is, examples in which the relevant governing category is S. Both the version of the Binding Theory proposed in Chomsky (1980) and the GB theory make some incorrect predictions concerning the binding properties of anaphors and pronouns when the governing category is NP. Since these problems are not relevant to Ojibwa, I will not address them here. For similar reasons, I will not consider Chomsky's modification of the GB theory in which the notion governing category is redefined in terms of accessible SUBJECT (see Chomsky 1981:Chapter 3).
2. Following Chomsky (1981) I assume that English has the base rule $S \rightarrow NP INFL VP$. The element INFL, which suggests "inflection," indicates whether the clause is finite or infinitival. See Chomsky (1981:18f).
3. Hale also notes that given his definition of government (see Hale 1982a:89 and Chapter 3, section 3.1.1 above) it is equally possible to say that in a configuration

such as



X governs both A' and B'. However, since government is crucially defined in terms of configurational structure, he adopts the position that government is not a grammatical principle in non-configurational languages.

4. Nothing needs to be said about R-expressions since, by principle C, they are simply free.
5. It is also possible to treat the reflexive affix as having internal structure; i.e., as consisting of the reciprocal affix -idi plus the affix -zo. See Bloomfield (1957:84), who analyzes the reflexive affix in this way.
6. There is a distinction in Ojibwa between a first person plural exclusive form (11) which excludes the addressee as a participant and a first person plural inclusive form (12) in which the addressee is included.
7. Phonetically, the first and second singular forms would

surface as gizi:bi:ginidiz and gigizi:bi:ginidiz, respectively. The word final lax vowel (o) is deleted by a phonological rule (see Chapter 1, note 3).

8. Note that in Ojibwa DR is always optional when the nominals in question are not part of the same AS. There are no Ojibwa equivalents to the English verbs which trigger S' deletion and hence can govern complements across clause boundaries. So, while in English, obligatory DR obtains between Bill and him in Bill believes [him to be incompetent], DR does not necessarily hold in Ojibwa when a pronominal and some other third person are separated by a clause boundary. See, for example, the sentences of (23) in the text.
9. This difference between the Algonquin dialects and Western Ojibwa will be discussed in Chapter 5.
10. It is also possible for the embedded obviative "pronominal" not to co-refer to either argument in the matrix clause; that is, it may be interpreted as free in reference.
11. It should be noted that this constraint applies vacuously to TI's. Since TI verb forms always have animate agents and inanimate themes, there is no question of the two arguments being coreferential.

12. Note that the fact that the Ojibwa equivalent of a form such as *I see us cannot surface indicates that the principle of DR might be somewhat stronger in Ojibwa than in English. In some contexts of obligatory DR in English, there is, nevertheless, sometimes a possibility of intersecting reference (though not coreference). Thus, it is possible to say I want us to be happy together (cf. *John ₁ wants him ₂ to be happy). That there are no Ojibwa equivalents of such sentences indicates that intersecting reference is not possible in contexts of obligatory DR. For a discussion of intersecting reference and related issues, see Lasnik (1980).
13. Note that I must assume that obviation is a person feature in order for (31) not to be violated. In so doing I am not claiming that the obviative is some kind of fourth person as has sometimes been claimed (see, for example, Frantz 1966, Law 1971, and Nida 1946; see also Delisle 1974 for a discussion of this point). I think that what justifies treating obviation as a person feature is that it functions in a similar way to other person features (e.g. first, second, and third) in distinguishing the referent of the argument to which it refers from the referents of other arguments in the same sentence. In this sense, it functions differently from the singular/plural distinction. I and us, for

example, differ only in that I is singular and us is plural. Their referents intersect (cf. note 12 above). When a sentence contains both a proximate and an obviative third person, on the other hand, the two third persons are disjoint in reference.

14. There is, however, one type of sentence in which the two obligatory arguments of a verb form both bear the features [+3, +obv]. I refer to sentences such as those discussed in Chapter 3, in which the thematic relations in the embedded clause must be determined on the basis of word order. An example of such a sentence is:

o-gike:nda:n [S ininiw-an e:gi:-oʃi:ma:-iniʃin ikwe:w-an]
 3 KNOW TI MAN OBV PAST KISS TAOBV WOMAN OBV
 'he knows that the man kissed the woman'

In this sentence, both arguments of the embedded verb form bear the features [+3, +obv]. Since the obligatory arguments do not bear distinct features for person, this sentence violates (31). It is, however, perfectly grammatical. I am not sure how to accommodate the grammaticality of this type of sentence, given (31). It should be noted, however, that this is the only relevant case of which I am aware which is problematic for (31). It is also the only

case in which word order is required to interpret the thematic relations of the obligatory arguments of a verb form.

CHAPTER 5 - PREDICTION OF PROXIMATE AND OBLIATIVE THIRD PERSONS

5.0 Introduction

In the last chapter I claimed that the contexts for both obligatory DR and obligatory obviation are the domains defined by the Argument Structures of verb forms and noun forms. In this chapter I claim that given this correspondence, in a context of obligatory obviation, the determination of which third person will be proximate and which obviative largely reduces to the problem of how arguments are associated with lexically-specified argument positions. In what follows I show how we can predict which third person will be proximate and which obviative in contexts of obligatory obviation. I then consider obviation in optional contexts.<1>

5.1 Obligatory Obviation

In Chapter 1, examples were given which illustrated the contexts of both obligatory and optional obviation. I would like now to reconsider some of these examples and propose a way of accounting for the choice of proximate and obviative

third persons.

I hope to show here that the framework already developed enables us to predict in most instances the proximate and obviative third persons in contexts of obligatory obviation. Specifically, I demonstrate that if it is correct that the AS of a noun form or verb form defines the domain of obligatory obviation (as claimed in Chapter 4), and that feature matching is the crucial basis for argument association (as proposed in Chapter 3), then the prediction of the proximate and obviative third persons in contexts of obligatory obviation follows directly from the process of associating arguments with the AS argument positions of lexical items.

Before proceeding with the analysis I would like to propose two conditions on the well-formedness of strings containing obviative third persons in contexts of obligatory obviation. Although these conditions have been implicit in earlier discussion, I would like to state them more explicitly here. It should be noted that in order to resolve certain difficulties in accounting for obviation within possessive expressions (which will be discussed below), (1a) will later be revised (as (12)).

- (1) a. A third person argument A is marked [+obv] only if
- (i) there is in the same AS another third person animate argument B marked [-obv]; or
 - (ii) A is

coindexed with an argument C which is marked [+obv].<2>

- b. In an AS containing more than one third person argument, at least one of which is animate, only one of these can be marked [-obv].

Conditions (1a) and (1b) are necessary and sufficient conditions, respectively, for the occurrence of obligatory obviation. These conditions, I believe, have the status of well-formedness conditions on fully associated phrase markers.

The condition formulated in (1a) is intended to account for the fact that a third person can only be marked obviative in a context of obligatory obviation if there is either another (animate) third person in its AS, or it is coindexed to another obviative noun form. It accounts, for example, for the ill-formedness of sentences such as *ni-da:nis-an a:koziw-an 'my daughter (obv.) is sick.'

It should be noted that while (1a) rules out strings of the type just mentioned, it permits such well-formed sentences as (2).

- (2) ininiw-an [Mary ga:-minwe:nim-a:d] a:kozi-w-an<3>
 MAN OBV REL LOVE TA OBV SICK AI 3 OBV
 'the man Mary loves is sick'

In this sentence ininiw-an is marked obviative even though the only other third person in the sentence appears in the embedded clause. Notice, however, that the embedded verb form is a TA, which, as we have seen, takes two obligatory arguments. The -a:d ending indicates that the x argument is a third person and the y argument is obviative. Mary, then, being proximate, is associated with the x argument position. Since there is no other overt noun form in the clause, the y argument position is interpreted as being associated with a "pronominal" bearing the features [+3. +obv]. Consistent with (1a, ii), then, the sentence is well-formed since the obviative noun form in the matrix clause is coindexed with the obviative argument of the embedded clause.

Let us now consider (1b). It may be noted that there is some redundancy between (1b) and the principle of DR formulated in (31) of Chapter 4. Recall that (31) stipulates that each argument which is associated with an obligatory argument position in an AS must bear distinct features for person. Thus, (31) only accounts for obligatory obviation when all arguments in question are obligatory. It will, for example, rule out instances in which both obligatory arguments of a TA verb form are third person proximate. An example of a sentence which would be ruled out by (31) is *John owa:bama: Bill 'John sees Bill,' where John and Bill are both proximate. Notice that this sentence would also be ruled out by (1b), since John and Bill are both within the same AS.

Principle (31) of Chapter 4, however, does not predict all instances of obligatory obviation. Since (31) accounts for obligatory obviation only when both arguments are obligatory, it does not predict the obligatory obviation of optional arguments. We turn now to instances of obligatory obviation which are predicted by (1b), but not by (31).

Let us first consider the case of "double-object" verb forms with three arguments, two of which are third persons. It may be recalled that the inflections attached to "double-object" verb forms encode only the properties of its two obligatory arguments. So, (31) of Chapter 4 does not predict the obviation of the optional third argument (bakwa:kadōs-an 'apple') in a sentence such as (3) below.

- (3) bakwa:kadōs-an ni-gi:-mi:na: gwi:zēs
 APPLE OBV 1 PAST GIVE TA BOY
 'I gave the boy an apple.'

The obligatory obviation of bakwa:kadōs-an in this context is, however, predicted by (1b), since bakwa:kadōs-an and gwi:zēs 'boy,' being both arguments of the same verb form, are thus part of the same AS.

Another instance of obligatory obviation on optional arguments is found in the Algonquin counterpart of the so-called "pseudo-transitive" constructions. As noted in Chapter 2, Bloomfield (1957) recognizes a sub-class of AI verb stems which are morphologically intransitive (i.e.,

they have AI finals) but which can function syntactically as transitive verb forms. He labels this class of verb stems "pseudo-transitives," since they can "...add anaphoric reference to a third person PSEUDO-OBJECT" (Bloomfield 1957:33). As was also noted in Chapter 2, these verb stems are lexically-specified for taking an optional second argument. Now, in some Ojibwa dialects (see, for example, Bloomfield 1957, Rogers 1961-2, and Piggott 1979) these verb forms are inflected differently when they function transitively from when they function intransitively: when they function transitively, the affixes attached to the verb stem encode some of the properties of the optional second argument (see Piggott 1979 for details). In Algonquin, however, the affixes attached to these AI's never make reference to more than one argument. Nevertheless, when the obligatory and optional argument positions are both associated with third persons, obviation is obligatory. Consider, for example, the sentences below.

(4) a. John gi:-gimo:di-w

PAST STEAL AI 3

'John stole'

b. John gi:-gimo:di-w animoš-an

PAST STEAL AI 3 DOG OBV

'John stole a dog'

In (4b), the theme (animoš-an) is obviative, although it is an optional argument. Since (31) of Chapter 4 only constrains the features of obligatory arguments, the obviation of animoš-an is not predicted by (31).

Now as we saw in Chapter 2, the AS of a pseudo-transitive verb stem indicates that that stem optionally takes a second argument. So, if the second argument is present in the syntactic phrase marker, the two verbal arguments would be part of the same AS. The condition formulated in (1b) is therefore needed to rule out instances of more than one proximate third person within the same AS when one of these arguments is optional.

5.1.1 Obviation Within the AS of Noun Stems

Next, I would like to consider obviation within possessive expressions. It was noted in Chapter 2 that the AS of a dependent noun stem⁴ indicates that it has an obligatory argument position, while other noun stems are not represented as having argument structure. I claimed in Chapter 3 that a prefix attached to a noun stem indicates that the resulting noun form has an obligatory argument position. If the prefix which appears on the noun form is o- the Argument Association operation "looks" for an overt noun form to associate with the argument position. If none is present, the argument position is interpreted as being

associated with a third person pronominal.

Given principle (31) of Chapter 4, we know that if a noun form is marked as possessed by a third person, then either the possessed noun form or the possessor must be obviative. As we saw in Chapter 1, however, it is always the possessed noun form which is marked obviative in such cases. So, for example, (5a) is well-formed but (5b) is not.

(5) a. Mary o-da:nis-an

3 DAUGHTER OBV

'Mary's daughter'

b. *Mary-an o-da:nis

OBV 3 DAUGHTER

What is not clear from (31) of Chapter 4 is why the possessed noun form is always the one to be marked obviative.

For the moment, the ill-formedness of strings such as (5b) cannot be accounted for. I will argue later, however, that the ill-formedness of strings containing possessive expressions in which the possessor is obviative and the possessed noun form proximate, is predicted by an independently necessary revision of condition (1a).

5.1.2 Obviation Within Clauses

Let us now turn to the other context of obligatory obviation: the AS of verb forms (i.e., clauses). It may be recalled that as predicted by (31) of Chapter 4, each obligatory argument of a verb form must bear distinct features for person. The sentence-types under consideration here involve verb forms with more than one third person argument.

I will first discuss obviation on obligatory arguments of transitive verb forms. I will then consider obviation on optional arguments, looking first at obviation on the optional arguments of AI verb forms (i.e., the Algonquin counterpart of pseudo-transitive constructions), and then, finally, at obviation on the optional arguments of "double-object" verb forms. I will try to show that within clauses the prediction of the proximate and obviative noun forms follows from either principle (31) of Chapter 4, or from (1b) above (depending on whether one of the third persons in question is associated with an optional or an obligatory argument position) and the process of Argument Association discussed in Chapter 3.

Let us begin by comparing the following simple transitive sentences in which the verb form contains the theme-sign, -a:.

(6) a. animoš o-nosine:w-a:-an wa:bo:zw-an
 DOG 3 CHASE TA TS OBV RABBIT OBV
 'the dog is chasing the rabbit'

b. *animoš-an o-nosine:w-a:-an wa:bo:zw
 DOG OBV 3 CHASE TA TS OBV RABBIT
 'the dog is chasing the rabbit'

Now given (31) of Chapter 4, we know that in a well-formed string containing a transitive verb form, only one third person argument can be proximate. So, (6a) and (6b) both conform to (31). What (31) does not tell us is which of the two third person arguments of a transitive verb form is proximate and which obviative. So, the question I wish to address here is why (a)--but not (b)--has the reading specified in the gloss.

In both (a) and (b) above, the theme-sign -a: is attached to the verb form. Now, it may be recalled from Chapter 3 that theme-signs refer to only one of the verbal arguments. We have seen, for instance, that the theme-sign -a: encodes properties of y arguments. It indicates that the argument which is associated with this argument position bears the feature [+3]. The obviative affix which appears after the theme-sign indicates that this argument also bears the feature [+obv] (see Chapter 3, section 3.3.1). So, the process of Argument Association by feature matching associates whichever noun form in the clause bears the

features [+3, +obv] with the y argument position. As we also saw in Chapter 3, the prefix attached to the verb stem refers to the argument position which is not referred to by the theme-sign. This means that in (6), the prefix o- indicates that the x argument is a [+3].

Now, if we look again at (6a), we see that since wa:bo:zw-an 'rabbit' bears the features [+3, +obv], _____ it is associated with the y argument position and is assigned the role of theta-2 or theme. Similarly, animoš, which bears the feature [+3], is associated with the x argument position.

I think we can now see why (6b) cannot have the reading specified in the gloss. As in (6a), the y argument position is specified as being associated with an argument with the features [+3, +obv]. Since animoš-an has the features [+3, +obv], it is associated with the y argument position and receives the theta role which is linked with this position: theta-2 or theme. Now, the prefix o- indicates that the x argument position (the one not referred to by the theme-sign -a:), bears the feature [+3]. Since wa:bo:zw bears the feature [+3], it is associated with the x _____ argument position and receives the theta role which is linked with that position: theta-1 or agent. The only possible interpretation of (6b), therefore, is 'the rabbit is chasing the dog.'

I would now like to look at obviation in clauses with verb forms containing the theme-sign -igw.

(7) a. mo:zw-an o-gižiga:bam-igw-an ininiw<5>

MOOSE OBV 3 WATCH TA TS OBV MAN

'the moose is watching the man'

b. *mo:zw o-gižiga:bam-igw-an ininiw-an

MOOSE 3 WATCH TA TS OBV MAN OBV

'the moose is watching the man'

It was observed in Chapter 3 that -igw encodes properties of x arguments. It indicates that the argument associated with this position bears the feature [+3]. Now, if we look at (7) we see that the obviative affix -an is attached to the verb form following the theme-sign. This means that the argument which is associated with the x argument position bears the features [+3, +obv]. The prefix o- which is attached to the verb stem indicates that the argument which is associated with the y argument position (the one not referred to by the theme-sign -igw) bears the feature [+3].

Turning first to (7a), we see that since mo:zw-an has the features [+3, +obv], it is associated with the x argument position and receives the theta-role which is linked with that position: theta-1 or agent. Similarly, ininiw, which has the feature [+3], is associated with the y argument position and receives the theta-role with which that position is linked: theta-2 or theme.

In (7b), on the other hand, ininiw-an has the features

[+3, +obv]. It is therefore associated with the x argument position, which is specified as being associated with an argument with these features. Since mo:zw has the feature [+3], it is associated with the y argument position, which is specified as being associated with an argument with this feature. The only possible interpretation of (7b), therefore, is 'the man is watching the moose.'

I would now like to consider the well-formed distribution of proximate and obviative noun forms in the Algonquin counterpart of pseudo-transitive constructions, illustrated in (4) above. Consider, for example, (4b), which I repeat here as (8).

(8) John gi:-gimo:di-w animoš-an
 PAST STEAL AI 3 DOG OBV
 'John stole a dog'

In this sentence, the argument (animoš-an) which is associated with the optional argument position is obviative. Recall that the w which is attached to the verb stem, gimo:di-, indicates that the argument which is associated with its obligatory (x) argument position is a third person. As we saw in Chapter 3, the absence of additional affixation indicates that this argument is proximate (cf. John o-saye:z-an gi:-gimo:di-w-an animoš-an 'John's brother stole a dog,' in which the verb form is marked with the affix -an for an obviative argument). Since John is a third person

proximate, it is associated with the verb form's obligatory argument position. Thus, the obviative noun form animoš-an can only be associated with the optional argument position.

As a final example of obligatory obviation marking on animate third persons, I would like to consider obviation marking on the arguments of "double-object" verb forms. In the sentences below, (a)--but not (b)--has the reading specified in the gloss.

(9) a. gwi:zes-an ni-gi:-ižiwidamawa: maškiki:wininiw
 BOY OBV 1 PAST TAKE TA DOCTOR
 'I took the boy to the doctor'

b. *gwizes ni-gi:ižiwidamawa: maškiki:wininiw-an
 BOY 1 PAST TAKE TA DOCTOR OBV
 'I took the boy to the doctor'

In both of the above sentences, the "double-object" verb form has three arguments, two of which are third persons. As we saw above, only one of these arguments can be proximate. We also saw that since one of the third persons in the AS of the "double-object" verb form is associated with an optional argument position, the fact that obviation is obligatory in this context is predicted by (1b), and not by (31) of Chapter 4. Recall that (1b) stipulates that if there is more than one third person in an AS, only one can be [-obv] or proximate. What (1b) does not tell us,

however, is why it is always NP3 (the "direct object") which is marked obviative.

Now, it may be recalled that "double-object" verb forms are inflected to agree with what I have earlier identified as NP2; that is, the argument which is associated with the y argument position. The y argument position is linked with theta-2 (or goal, for this type of verb form). If we look at (9a), we see that the verb form is marked for a first person to be associated with the x argument position and for a third person (proximate) to be associated with the y argument position. Since maškiki:wininiw is a third person proximate, it is associated with the y argument position and receives the theta-role with which the y argument position is linked (goal). This leaves qwi:žes-an to be associated with the optional z argument position (see Chapter 3, section 3.3.2 for arguments in support of treating this third argument position as optional). It will then be assigned the theta-role with which the z argument position is linked: theta-3 or theme.

So, the fact that one of the two third person arguments of the verb form in (9) must be obviative follows from (1b). The fact that NP3 is always the one to be marked obviative follows from the fact that the theme-signs on the verb form and the inflections attached to the theme-sign refer to properties of the argument which is associated with the y argument position. Since the verb form is marked for a proximate y argument, the obviative argument can only be

associated with the z argument position. For these reasons, then, (9b) cannot have the meaning specified in the gloss. The only interpretation of (9b) is 'I took the doctor to the boy.'

One may ask why the affixes attached to the verb form cannot specify an obviative argument to be associated with the y argument position, allowing the optional z argument position to be associated with a proximate argument. In (10) below, for example, the affixes on the verb form which refer to its y argument position encode the features [+3, +obv]. The analysis as developed so far would predict that this sentence is well-formed.

- (10) bakwa:kados ni-gi:-mi:nima:-an ininiw-an
 APPLE 1 PAST GIVE TA OBV MAN OBV
 'I gave an apple to the man'

Notice that this sentence conforms to all the well-formedness conditions discussed so far. It conforms to (31) of Chapter 4, since the affixes attached to the verb stem assign distinct features to each obligatory argument. It conforms to (1a), since there is a non-obviative animate third person in the same AS as the obviative noun form. Finally, it conforms to (1b), since only one third person within the AS of the verb stem mi:n- is proximate.

Now the sentence in (10) may be compared with the sentence in (11), in which the optional third argument is

absent.

(11) ni-gi:-mi:nima:-an ininiw-an
 1 PAST GIVE TA OBV MAN OBV
 'I gave (it) to the man'

Notice that (11) does not conform to all of the well-formedness conditions which have been discussed. Specifically, it violates (1a), since ininiwan is marked obviative, although there is no other animate third person in the same AS. The string is therefore ill-formed.

In fact, however, there is no difference in grammaticality between (10) and (11): they are both ungrammatical. We have just shown how the ungrammaticality of (11) could follow from condition (1a). But given the fact that (10) conforms to the well-formedness conditions as they have been formulated, what explains its ungrammaticality?

I think the answer to this question is that (1a) must be formulated so as to express a constraint on the sets of affixes which can be attached to a lexical item. That is, the affix or set of affixes attached to a stem must conform to such general well-formedness conditions as (1a), regardless of whether or not optional arguments are present in the phrase marker.

If this claim is correct, then (10) is ill-formed because the affixes attached to the verb stem violate (1a):

they specify that a first person is associated with the x argument position and that an obviative is associated with the y argument position. The fact that there is no distinction in grammaticality between (10) and (11), then, suggests that the affixes which are attached to lexical items must encode features which meet the requirements imposed by such well-formedness conditions as (1a).

If the arguments of the foregoing discussion are correct, then (1a) should be reformulated so as to refer to the affixes which encode the feature compositions of the arguments to which they refer. I would like, then, to propose the following reformulation of (1a).

- (12) A third person argument A is marked [+obv] only if (i) there is within the same AS another third person animate argument B which is marked [-obv], and B is referred to by an affix encoding the feature [+3]; or (ii) A is coindexed with an argument C which is marked [+obv].

With the reformulation of (1a) just proposed, we can now account for the ill-formedness of (10): ininiwan is marked obviative, although there is no other argument referred to by an affix encoding the feature [+3]. If, on the other hand, NP2 is proximate and NP3 is obviative (i.e.,

bakwa:kadós-an ni-gi:-mina: ininiw 'I gave an apple (obv) to the man'), the sentence conforms to the requirements of (12). The optional argument, bakwa:kadós-an is marked obviative, and there is another animate noun form within the same AS (ininiw) which is referred to by an affix encoding the feature [+3] (the theme-sign -a:).

The reformulation of (1a) proposed above has one further advantage: it predicts the ill-formedness of strings such as (5b) (*Mary-an o-da:nis 'Mary's (obv) daughter'). Recall that when the prefix o- is attached to a noun form, it indicates that its possessor is [+3]. So, if the possessed noun form is marked obviative as in (5a) (Mary o-da:nis-an 'Mary's daughter (obv)'), then there is a non-obviative third person within its AS (Mary) which is referred to by an affix encoding the feature [+3] (the prefix o-). If, on the other hand, the possessor is marked obviative, then there is no non-obviative within the same AS which is referred to by an affix that encodes the feature [+3]. The reformulation of (1a) as (12), then, predicts the ill-formedness of possessive expressions in which the possessor but not the possessed noun form is marked obviative; that is, it predicts the contrast in grammaticality between (5a) and (5b).

5.3 Obviation on Inanimate Noun Forms

I will now consider obviation marking on inanimate noun forms. I will argue that animate and inanimate noun forms are marked obviative in the same contexts and under the same conditions. More precisely, I will try to show that inanimate obviation is obligatory in just the same contexts in which animate obviation is obligatory. I will also argue that essentially the same principles underlie the well-formed distributions of proximate and obviative noun forms in the case of both animate and inanimate obviation.

I noted in Chapter 1 that in the Algonquin dialects, unlike in Western Ojibwa, the inanimate obviation marker -ini is attached under similar circumstances as the animate obviation marker -an. Thus, Algonquin has the following set of data:

(13) a. ni-no:nda:n oda:ba:n

1 HEAR TI CAR

'I hear a car'

b. ogima: o-no:nda:n oda:ba:n-ini

CHIEF 3 HEAR TI CAR OBV

'the chief hears a car'

c. *ogima: o-no:nda:n oda:ba:n

CHIEF 3 HEAR TI CAR

'the chief hears a car'

As we can see from the contrast between (13b) and (13c), obviation on the inanimate noun form is obligatory when the other verbal argument is a third person. If we look at (a) and (b) above, we can see that the verb form takes the same suffix in each case: n. Recall that principle (31) of Chapter 4 specifies only that obligatory arguments within the same AS must be assigned distinct features for person. Since the affix n only indicates the presence of a second argument and does not encode the person feature of that argument (see Chapter 2, section 2.1.3), the fact that obviation is obligatory in this context must follow from (1b) rather than from (31) of Chapter 4.

We can also see from the above sentences that it is the inanimate noun form which is marked obviative. It was noted in Chapter 1 that if a string contains both an animate third person and an inanimate noun form, it is always the inanimate noun form which is marked obviative. This observation has been made concerning other Algonquian languages (see, for example Voorhis 1974, who makes this observation with respect to Kickapoo). This fact follows from the formulation of (1a) (revised as (12)), which stipulates that in order for a noun form to be marked obviative, there must be another animate third person within

the same AS. If, in an AS containing an animate third person and an inanimate noun form, the animate noun form were marked obviative, (12) would be violated: there would be no other animate third person in its AS.

Now, as has already been indicated (see Chapter 1, section 1.3.3), not all Ojibwa dialects overtly mark obviation on inanimate noun forms. Since animate obviation does not show this kind of variation across dialects, this fact might appear to constitute counter-evidence to the claim that inanimate obviation is essentially the same phenomenon as animate obviation. There is, however, evidence that in those dialects which do not mark obviation on inanimate noun forms by affixation, inanimate noun forms nevertheless do bear the feature [+obv] under the appropriate circumstances. Consider, for example, the following sentences from Western Ojibwa, a dialect which does not in general overtly mark obviation on inanimate noun forms. Notice that in (14), but not (15), the embedded II verb form can optionally be marked for an obviative argument, even though the noun form (de:sabi:win) has no affix attached to it which encodes the feature [+obv].

- (14) a. ni-gi:-gagwe:ʒimigw [gi:špin ʒi-bi:nad-ini-g
 1 PAST ASK TA IF/WHETHER CLEAN II OBV 3
 de:sabi:win]
 CHAIR
 'she asked me if the chair was clean'

b. ni-gi:-gagwe:žimigw [gi:špin ži-bi:nad-g de:sabi:win]
 1 PAST ASK TA IF/WHETHER CLEAN II 3 CHAIR
 'she asked me if the chair was clean'

(15) a. gi-gi:-gagwe:žimin [gi:špin ži-bi:nad-g de:sabi:win]
 2 PAST ASK TA IF/WHETHER CLEAN II 3 CHAIR
 'you asked me if the chair was clean'

b. *gi-gi:-gagwe:žimin [gi:špin ži-bi:nad-ini-g
 2 PAST ASK TA IF/WHETHER CLEAN II OBV 3
 de:sabi:win]
 CHAIR
 'you asked me if the chair was clean'

The affix -ini when attached to an II verb form ((14a) and (15b)) indicates that the verb form has an obviative argument. If we compare (14) and (15), we see that an embedded II can optionally be marked for an obviative argument if there is a third person in the matrix clause. The optionality of obviation marking under these conditions is demonstrated by the well-formedness of both (a) and (b) of (14). If, on the other hand, there is no third person in the matrix clause, then -ini cannot be attached to the embedded II, as demonstrated by the ill-formedness of (15b). The fact that the verb form in (14)--but not (15)--can optionally be marked for an obviative argument suggests that

the feature matrix of the noun form, de:sabi:win can optionally have the feature [+obv] as part of its feature matrix, even though it has no affix encoding this feature; i.e., that the noun form can, under the appropriate conditions, be "covertly" marked obviative (see Chapter 1, note 12).

This "covert" obviation marking is also apparent in another context of inanimate obviation marking. If it is the case that inanimate noun forms are marked obviative under the same conditions as animate noun forms, then we would expect that an inanimate noun form would be obligatorily marked obviative when it has a third person argument; that is, when it is possessed by a third person. However, as we saw in Chapter 1, an inanimate noun form is never overtly marked obviative when it has a proximate third person argument either in the Algonquin dialects or in Western Ojibwa. Thus, in both Algonquin and Western Ojibwa, only (16a) yields the reading indicated in the gloss.

(16) a. ininiw o-wa:banda:n o-ʒi:ma:n

MAN 3 SEE TI 3 CANOE

'the man_i sees his_i canoe'

b. *ininiw o-wa:banda:n o-ʒi:ma:n-ini<6>

MAN 3 SEE IT 3 CANOE

'the man_i sees his_j canoe'

Once again, however, there is evidence that obviation is "covertly" marked in (16a). In both Algonquin and in Western Ojibwa, for example, if an inanimate noun form possessed by a third person is the argument of an II verb form, the verb form will be inflected for an obviative argument.

(17) a. winad-w ni-ǰi:ma:n

DIRTY II 3 1 CANOE

'my canoe is dirty'

b. wi:nad-ini-w ininiw o-ǰi:ma:n

DIRTY II OBV 3 MAN 3 CANOE

'the man's canoe is dirty'

c. *wi:nad-w ininiw o-ǰi:ma:n

DIRTY II 3 MAN 3 CANOE

The data presented in this section (examples (13) through (17)) suggest that inanimate as well as animate noun forms reflect the proximate/obviative distinction--whether or not this distinction is realized overtly by an affix on the noun form. These data (see (13c) and (17c)) support my contention that inanimate obviation is obligatory in the same contexts in which animate obviation is obligatory: in the domains within which the AS requirements of noun forms and verb forms are realized. The sentences in (13) and (17)

can be compared with those of (14), which illustrate that obviation is optional when the inanimate noun form (de:sabi:win 'chair') and the proximate third person are arguments of different verb forms. Thus, obviation on inanimate noun forms is optional in the same contexts in which obviation on animate noun forms is optional: when the two third persons are not part of the same AS.

I believe the evidence suggests that inanimate noun forms bear the feature [+obv]--whether or not this feature is overtly realized by an affix--under the same conditions as do animate noun forms. Let us now consider how such "covert" obviation can be accommodated within the framework assumed here. It appears that the feature [+obv], when it is part of the feature matrix of an animate noun form, is always realized by the affix -an (except in the case of further obviation, which will be discussed below). When the feature [+obv] is part of the feature matrix of an inanimate noun form, on the other hand, it may or may not be realized by the affix -ini. Nevertheless, the feature [+obv]--although not necessarily its morphological realization--is always present on inanimate noun forms when the appropriate conditions are met. The Argument Association operation then matches an inanimate noun form bearing the feature [+obv] with an II verb form whose argument position is specified as being associated with an obviative argument.

I have argued that the feature [+obv] can be part of

the feature matrix of an inanimate noun form whether or not the obviative affix -ini is attached to the noun form (see examples (14) and (17)). Now, it can also be the case that when the -ini affix is attached to an inanimate noun form, it has a function other than that of signalling the presence of the feature [+obv].

To illustrate this claim, let us consider the following sentences:

(18) a. John o-wa:banda:n o-ʒi:ma:n [e:-zakide:-ini-g]
 3 SEE TI 3 CANOE PRES BURN II OBV 3
 'John_ʃ sees his_ʃ canoe burning'

b. John o-wa:banda:n o-ʒi:ma:n-ini [e:-zakide:-ini-g]
 3 SEE TI 3 CANOE OBV PRES BURN II OBV 3
 'John_ʃ sees his_ʃ canoe burning'

In (18a), no affix is attached to the noun form o-ʒi:ma:n 'his canoe,' and the "pronominal" possessor is interpreted as coreferential with John. In (18b), on the other hand, the affix -ini is attached to the noun form. In this case, the "pronominal" possessor is interpreted as disjoint in reference from John. Notice that in both (18a) and (18b), the embedded II verb form, zakide:-ini-g, is inflected for an obviative argument. This suggests that o-ʒi:ma:n(-ini) 'his canoe' is obviative--whether or not the affix -ini is attached to the noun form. If this is the case, then the

affix -ini must have a function other than that of signalling the presence of the feature [+obv] on the noun form to which it is attached. The difference between the glosses of sentences such as (18a) and (18b) suggests that when -ini is attached to a noun form with a third person possessor, it has the function of signalling that the possessor is disjoint in reference from a proximate third person elsewhere in the clause.

I have tried to show that the presence or absence of the feature [+obv] does not necessarily coincide with the presence or absence of the affix -ini. Thus, we have seen both that an inanimate noun form bears the can, under the appropriate conditions, bear the feature [+obv] whether or not it is overtly marked with the affix -ini, and that the affix -ini can be attached to a noun form without necessarily indicating that the noun form is obviative. If this claim is correct, then the absence of overt obviation marking on inanimate noun forms with third person proximate possessors in Algonquin and the almost total absence of obviation marking on inanimate noun forms in Western Ojibwa should be ascribed to accidental properties of the inflectional morphology, rather than to an essential difference between animate and inanimate obviation.

To summarize, then, I have argued that the same principles govern obviation on both animate and inanimate noun forms. The only difference between the two types of obviation is that the feature [+obv] can be part of the

feature matrix of an inanimte noun form without being realized morphologically.

5.4 Optional Obviation

The discussion so far has focussed on obligatory obviation: obviation which occurs in the domains within which the AS requirements of noun forms and verb forms are realized. I have argued that if we accept the Argument Structure as the relevant domain for obligatory obviation, then the choice of which noun form is proximate follows from feature matching.

I would now like to consider optional obviation; that is, obviation which occurs when the two third persons are not part of the same AS. Now, as we saw in Chapter 4 (see section 4.3.1), obviation is optional when the third persons in question are not part of the same AS; that is, in contexts in which obligatory Disjoint Reference does not hold between two nominals. For this reason, the principles which predict obligatory obviation ((31) of Chapter 4 and (1b) above) were formulated so as to refer only to third persons which are within the same Argument Structure. Neither principle makes any predictions concerning the possibility of obviation when the relevant third persons are not within the same Argument Structure. Moreover, since Argument Association operates only within the domain of

Argument Structures, it is not immediately clear how it is determined which noun form will be proximate and which obviative in a context of optional obviation. Thus, a principle is needed which will (i) specify the conditions under which a third person may be marked obviative when it does not meet the requirements for obligatory obviation marking; and (ii) predict the well-formed distributions of proximate and obviative third persons in contexts of optional obviation.

I would like, then, to propose the following as a necessary condition for the occurrence of obviation when the noun forms in question are not part of the same AS.

- (19) A third person which does not meet the conditions for obligatory obviation marking may be marked [+obv] only if there is a third person animate argument either (i) in the same clause or (ii) in a dominating clause.

As will be shown in sections 5.4.1 and 5.4.2, (19i) predicts the possibility of obviation on arguments of noun forms (i.e., possessors), and (19ii) predicts the possibility of obviation marking when the relevant third persons are arguments of different verb forms.

I will first consider how (19) accounts for the optional obviation of arguments of noun forms. I will then

linear positions in the string. Recall that verbal AS's are satisfied before nominal AS's (see Chapter 3, section 3.3.2). John, then, being the leftmost [+3] in the string, will be associated with the x argument position of the verb form. This leaves Mary to be associated with the argument position of the noun form. Now, the verb form is inflected for an obviative y argument. So, since the entire possessive expression is obviative, it will be associated with the y argument position of the verb form.

Turning now to (20b), the -ini affix attached to o-misēh- indicates that the argument position of the noun form o-misēh-ini must be associated with an obviative noun form. Mary-an, then, is the only noun form in the string which can be associated with this argument position.<7> Because John, is proximate, it can be associated, by the process of Argument Association, only with the x argument position of the verb form. Similarly, in (20c), it is the obviative John-an which is associated with the argument position of the noun form and the proximate Mary which is associated with the x argument position of the verb form. The only reading of (20c), therefore, is 'Mary knows John's sister.'

To summarize, we have seen that the possibility of obviation in sentences containing both a third person argument of a noun stem (a possessor) and a third person verbal argument is predicted by (19). As we have also seen, the fact that it is the possessor rather than the verbal

argument which is marked obviative falls out from the process of Argument Association. This process associates noun forms with argument positions on the basis of feature matching alone (when the association is unambiguous) and feature matching along with linear order (when the association is ambiguous).

5.4.2 Obviation on Arguments of Different Verb Forms

Let us now turn to obviation which is marked when the relevant third persons are arguments of different verb forms. As noted in Chapter 4, sentences such as those in (21) illustrate the optionality of obviation when the relevant third persons are arguments of different verb forms.

(21) a. ininiw o-gike:nda:n [e:-gi:waškwe:bi-ini]jin
 MAN 3 KNOW TI PRES BE DRUNK AI OBV
 oškinawe:-an]
 BOY OBV
 'the man knows that the boy is drunk'

b. ininiw o-gike:nda:n [e:-gi:waškwe:bi-] oškinawe:]
 MAN 3 KNOW TI PRES BE DRUNK AI 3 BOY
 'the man knows that the boy is drunk'

In the above sentences, the third persons belong to different AS's. As we have seen, condition (19) stipulates that a noun form may be marked obviative if there is an animate third person either in the same clause or in a dominating clause. This condition, then, accounts both for the fact that obviation is possible in sentences such as (21) and for the fact that it is oškinawe:(-an) rather than ininiw which is marked obviative in (21a).

Notes for Chapter Five

1. There is one kind of structure which does not behave with respect to obviation, in the way predicted by the principles to be discussed in this chapter. Obviation never takes place within coordinate structures, as is demonstrated by the contrast in grammaticality between (a) and (b) below.

(a) oškinawe: ma:mawi: ikwe:si:s gi:-ma:ǰi:bato:-w-ag
 BOY TOGETHER-WITH GIRL PAST RUN AWAY AI 3 PL
 'the boy and girl ran away'

(b) *oškinawe: ma:mawi: ikwe:si:s-an gi:-ma:ǰi:bato:w-ag
 BOY TOGETHER-WITH GIRL OBV PAST RUN AWAY AI 3 PL

The non-occurrence of obviation in this type of context is not, I believe, an exception to the otherwise valid generalization that when there is more than one third person argument in a clause or a possessive expression, obviation is obligatory. The noun forms which comprise a coordinate structure are not distinct arguments in a verbal AS, but rather, combine to form a single plural argument which is associated with a single verbal argument position. This claim is supported by the fact that the animate third person plural affix (-ag) is

attached to the verb form, just as it is in a sentence such as a:koziwaq ikwe:wag 'the women are sick.'

Since the nominals which comprise a coordinate structure are treated by the syntax and the morphology as constituting a single verbal argument rather than two separate ones, our conditions concerning obligatory obviation (see (31) of Chapter 4 and (1b) below) do not apply.

2. There are certain circumstances under which two obviative third persons can appear within the same AS, in apparent violation of (1a). I refer to sentences such as:

John o-gike:nda:n [ikwe:w-an e:gi:-ba:škizw-a:jin mo:zw-an]
 3 KNOW TI WOMAN OBV PAST SHOOT TA OBV MOOSE OBV
 'John knows that the woman shot a moose'

In this sentence, both arguments of the embedded TA verb form are obviative. Such a situation, however, arises only in contexts of optional obviation. In this sentence, for example, ikwe:w-an 'woman' is (optionally) marked obviative because of the presence of John in the matrix clause. It would, of course, be possible to add a third subpart to condition (1a), stipulating that argument B may be marked obviative in relation to another animate third person outside its AS. For

reasons of simplicity, however, I prefer to treat obligatory and optional obviation separately. Condition (1a), then, accounts only for the circumstances under which obviation can occur in contexts of obligatory obviation. Optional obviation will be treated in section 5.4.

3. I have arbitrarily assumed that ininiwan 'man' is the argument of the matrix verb form a:koziwan 'he (obv) is sick,' and that the y argument of the embedded verb form is an obviative "pronominal." However, given the analysis of Ojibwa phrase structure developed in Chapter 3 and the conception of "pronominals" outlined in Chapter 4, it is also possible to consider ininiwan to be the y argument of the embedded verb form, and the argument of a:koziwan to be an obviative "pronominal." For convenience, only one of these possibilities is recognized in the text. In any event, the analysis of obviation in sentences such as (2) remains the same, regardless of which possibility is assumed.
4. It may be recalled that a dependent noun stem is one which must take a prefix; i.e., it is obligatorily possessed.
5. It should be noted that unless the agent noun form is marked for a third person possessor, a form with an

obviative agent generally occurs only if the agent noun form is coindexed with an obviative noun form in another clause or sentence. Consider, for example, the following sentence:

[gi:špin bakite:w-a:ǰin o-gosis-an [o-ga-gi:we:-
 IF HIT TA 3-OBV 3 SON OBV 3 FUT BACK
 bakite:w-igw-an]]
 HIT TA TS OBV

'if he_i hits his son_j he_j will hit him_i back'

The choice between the theme-signs -a: or -igw, then, seems to be affected by discourse factors. Thus, an agent is generally proximate unless it has been marked obviative within a possessive expression, or it is coindexed with another obviative argument.

6. The sentence in (16b) is only ill-formed on the reading specified in the gloss. It is well-formed on the reading 'the man_i sees his_j canoe.' The interpretation of sentences such as (16b) will be discussed later.
7. Note that since the verb form is inflected for an obviative *y* argument, Mary-an could also conceivably be associated with this argument position. However, such an association would result in a violation of the Theta-Criterion, since o-miseh-ini would not be

assigned to an argument position (see Chapter 3).

CHAPTER SIX - SUMMARY AND CONCLUSION

6.0 Introduction

In this chapter I would like to review some of the claims which have been made in this study. It may be recalled from the Preface that one of the main goals of this study was to understand the phenomenon of obviation. It was argued in Chapter 1 that the traditional view of obviation--namely, that the proximate/obviative contrast is a means of identifying the third person at the focus of a discourse--does not allow for either a precise formulation of the contexts in which obviation occurs, nor for the prediction of the proximate and obviative third persons within these contexts. It was claimed that in order to achieve the goal of providing a precise account of the phenomenon of obviation, it was first necessary to show how thematic relations are interpreted in Ojibwa. An understanding of how thematic relations are interpreted presupposes in turn an understanding of the interaction among the various components of the grammar of Ojibwa.

In Chapter 2 of this study, I attempted to delimit the scope of the lexicon and to explore some of its formal properties. I proposed a form for the lexical entries of

Ojibwa stems. I suggested that a lexical entry includes a specification of the Argument Structure requirements of each stem.

Chapter 3 explored the properties of the Phrase Structure component. There, it was demonstrated how overt noun forms which appear in random order in syntactic phrase markers come to be assigned thematic roles.

In Chapter 4 I tried to show that obviation is the formal instantiation of the principle of Disjoint Reference in sentences containing more than one third person. I argued that obviation is obligatory in just the contexts in which DR is obligatory, and optional in those contexts in which DR does not hold obligatorily.

Having established the contexts of obligatory and optional obviation in Chapter 4, I discussed in Chapter 5 the problem of predicting the proximate and obviative third persons within these contexts. I argued that the prediction of the proximate and obviative third persons within a particular context follows, in general, quite naturally from the correct specification of the mapping between the lexically-specified Argument Structure of a stem (its AS) and the overt noun forms which appear in random order in syntactic phrase markers.

6.1 An Overview of Ojibwa Grammar

It has been my contention throughout this work that an adequate grammar of Ojibwa must reflect the fundamental role of the morphology in encoding thematic relations. The analysis developed here has proceeded from the assumption that within the grammar of Ojibwa, there is no basis on which to posit a level of syntactically-definable grammatical functions (such as 'subject of' or 'object of') which is independent of the thematic roles which are assigned (on the basis of the morphological properties of noun forms and verb forms) to overt arguments in syntactic phrase markers.

For these reasons, I have adopted the model of phrase structure proposed by Hale (1982a,b) for Walbiri and Farmer (1980) for Japanese, in which the base is characterized by a category-neutral rule schema which defines phrasal structure to a maximum depth of one bar. Since lexical insertion is context-free, no underlying order is imposed on constituents. The minimally hierarchical tree structures which are generated by the base rules reflect the minimal contribution of syntactic configurations to the interpretation of thematic relations.

Since the task of encoding thematic relations is assumed primarily by the morphology, the role of the lexical item and the information associated with it in its lexical entry is crucial in this regard. Recall that part of the

lexical entry of each stem is an Argument Structure. The AS is a specification of the stem's argument structure requirements; that is, the number of arguments which are later obligatorily or optionally associated with the noun form or verb form in the syntactic phrase marker. Each argument position represented in the AS of a stem is linked with a thematic role. Also indicated in the lexical entry of a stem is information concerning properties of the argument(s) which can later be associated with the noun form or verb form in the phrase marker. The lexical entry of the TA verb stem wa:bam- 'see someone,' for example, stipulates that the second argument position of the verb form in the phrase marker must be associated with a [+animate] argument.

Recall that within the framework I assume the lexicon generates fully inflected words. It should also be noted that inflectional affixes specify the feature composition of each of the obligatory argument positions of a form. So, while the inflectional affixes which appear on a transitive form encode the feature composition of each of its arguments, the inflections which appear on an intransitive form encode only the feature composition of its one obligatory argument--even though, in some cases, an additional argument may optionally be present in the phrase marker. The sentence in (1), for example, is a

perfectly grammatical Ojibwa sentence. Notice that although there is an argument (mi:ʃim-ini 'food) associated with the verb form's optional argument position, the affix which appears on the AI verb

form (-w) refers only to the obligatory (theta-1 or agent) argument.

- (1) gi:-gi:špinadamaw:idizo-w mi:žim-ini
 PAST BUY FOR ONESELF AI 3 FOOD OBV
 'she bought herself some food'

The inflectional morphology of a verb form, then, reflects its obligatory argument structure. This explains why it is only possible for overt noun forms (which are all third persons) to be associated with optional argument positions, which are not referred to by inflectional affixes. As we saw in Chapter 4, there are no lexical pronouns in Ojibwa and an argument position is interpreted as being associated with a "pronominal" on the basis of the features encoded by the affixes which refer to that argument position. If no affixes refer to an argument position, there can be no pronominal interpretation.

The sentence in (2), for example, is a perfectly grammatical sentence containing a "double-object" verb form.

- (2) ni-gi:-ašam-a: bo:žes wa:bagano:žih-an
 1 PAST FEED TA TS CAT MOUSE OBV
 [+3]
 'I fed the mouse to the cat'

The theme-sign -a: which is attached to the verb form

indicates that the obligatory y argument is a [+3, -obv]. As in (1), no affix encodes the feature composition of wa:bagano:žihan 'mouse,' which is associated with the optional z argument position of the verb form. Because no affix encodes the feature composition of the z argument, there is no Ojibwa equivalent of a sentence such as 'I'll feed you to the lions,' in which the optional z argument position would have to be associated with a "pronominal" specified [+2].

Similarly, (3) is a grammatical sentence in Algonquin.

- (3) gi:-adawe:-w ži:žičš-an
 PAST SELL AI 3 BABY OBV
 'he sold the baby'

In this sentence, the affix -w which is attached to the AI ("pseudo-transitive") verb form gi:adawe:w, indicates that the argument which is associated with the obligatory x argument position must be specified [+3]. Again, no affix encodes the feature composition of žičš-an, which is associated with the optional y argument position. For this reason, then, there is no equivalent for a sentence such as 'they sold me to a slave trader,' in which the optional y argument position would have to be associated with a "pronominal" specified [+1] (see also Chapter 3, section 3.2.2).

The fully inflected words which are generated by the

lexicon are inserted under the categorially-unspecified terminal nodes of the phrase marker generated by the base rule schema. The labelling of categorially-unspecified nodes is effected by feature percolation: the category feature of the word percolates up to the terminal node immediately dominating it (X), and then to the phrasal category which dominates the terminal node (X').

The relationship between the argument structure requirements of a stem, as represented in its AS, and the overt noun forms which appear in random order in syntactic phrase markers is mediated by the process of Argument Association. This operation associates a noun form in a phrase marker with an argument position specified in an AS when the features of that noun form match the features specified by the affixes which refer to that argument position. Consider, for example, the sentence in (2).

- (4) animoš o-nosine:w-a:-an wa:bo:zw-an
 DOG 3 CHASE TA TS OBV RABBIT OBV
 'the dog is chasing the rabbit'

The AS of the TA verb stem nosine:w- indicates that it has two argument positions: an x argument position, which is linked with theta-1 (or agent), and a y argument position, which is linked with theta-2 (or theme). The theme-sign -a:, combined with the obviative affix -an indicate that the noun form which is associated with the y

argument position is [+3, +obviative]. The prefix o- indicates that the noun form which is associated with the x argument position is [+3]. Since wa:bo:zw-an has the features [+3, +obviative], it is associated with the y argument position; and since animoš is specified [+3], it is associated with the x argument position.

As we saw in Chapter 3, Argument Association is complete when each overt noun form in a phrase marker has been associated with an AS argument position and each AS argument position is associated with an argument. As was also seen in Chapter 3, the process of Argument Association does not necessarily end when all overt noun forms have been associated with argument positions. If each of the overt noun forms in the string has been associated with an argument position, and there remains an argument position which is not associated with a noun form, that unassociated argument position is interpreted as being associated with an argument bearing the features encoded by the affixes which refer to that argument position. These features receive a pronominal interpretation. Consider, for example, the following sentence.

- (5) animoš o-nosine:w-a:-an
 DOG 3 CHASE TA TS OBV
 'the dog is chasing him'

In the above sentence, animoš is associated with the x

argument position of the verb form, just as it was in (4). Unlike in (4), however, there is no overt noun form to be associated with the y argument position. The y argument position is therefore interpreted as being associated with the feature complex encoded by the affixes (the theme-sign -a: and the obviative affix -an) which refer to it; that is, the y argument position is interpreted as being associated with a "pronominal" bearing the features [+3, +obviative].

After the argument association process is complete, a number of well-formedness conditions apply to the fully associated phrase marker. Among these well-formedness conditions are the principle of Disjoint Reference, which is formulated as condition (31) of Chapter 4, and conditions (1b) and (12)--formerly (1a)-- of Chapter 5. Recall that condition (31) stipulates that the obligatory arguments of a form must be assigned distinct features for person. Thus, as we have seen, this principle correctly predicts, for example, that no transitive verb form can surface with two first person arguments, as in *I see us.' It also predicts the ill-formedness of a transitive verb form with two proximate arguments, as in *owa:bama: 'he sees him .' Condition (12), as we saw in Chapter 5, predicts the ill-formedness of a string such as *ininiwan a:koziwan 'the man (obv) is sick,' since there is no animate third person elsewhere in the string, and ininiwan 'man' is not coindexed with another obviative argument. Condition (1b) of Chapter 5 accounts for the obligatory obviation of optional

arguments. Thus, (1b) predicts the well-formedness of the sentence John qi:-qimo:di-w animoš-an 'John stole the dog (obv),' in which the obviative animošan 'dog' is associated with the optional y argument position of the AI ("pseudo-transitive") verb form qi:qimo:diw 'he stole.' The well-formedness of this sentence contrasts with the ill-formedness of the string *John qi:-qimo:di-w animoš, in which both arguments of the verb form (John and animoš 'dog') are proximate.

The organization of the grammar of Ojibwa, as conceived in this study, can be schematically depicted as follows.

(6)

LEXICON

consisting of: -all word-level processes
 -representation of argument structure (AS)



PHRASE STRUCTURE

$X'^* \text{ ----> } X'^* X X'^*$,
 where X is a category

generates categorially-unspecified PS trees

Lexical Insertion

Feature Percolation



INTERPRETATION

Argument Association: -associating noun forms with
 AS argument positions

feature matching

-assignment of pronominal features to
 unassociated AS argument positions

word order (in
 case of ambiguity)

WELL-FORMEDNESS CONDITIONS

Theta-Criterion: condition on fully associated phrase markers:
 implies that each noun form must be associated
 with an AS argument position and each AS argument
 position must be associated with an argument

Disjoint Reference: condition (31) of Chapter 4

Obviation Conditions: conditions (1b), (12), and
 (20) of Chapter 5

·
 ·
 ·

It may be noted that both the principle of DR ((31) of Chapter 4) and the obviation condition (1b) of Chapter 5 impose conditions on the possible combinations of feature complexes of the arguments (i.e., overt noun forms or "pronominals") which can be associated with the argument positions of a particular form (see Chapter 4, section 4.5 and Chapter 5, section 5.1 for details). Notice that these principles are both formulated so as to operate within the domain of the AS's of noun forms and verb forms. I would like at this point to make a few comments concerning the AS as a unit of analysis in Ojibwa.

The analysis developed in this work has proceeded on the assumption that the crucial information required for interpreting the thematic relations of an Ojibwa clause is essentially represented in the morphology of the verb form. The interpretation of thematic relations in a sentence, then, is primarily a process of "plugging" noun forms into "slots" of a verbal AS on the basis of the information provided by verbal affixes.

As we have seen, in a language such as English, the relationship between a verb and its arguments is expressible in configurational terms. We can say, for example, that a verb governs its (non-subject) arguments. It follows from the minimally hierarchical nature of Ojibwa phrase structure, however, that the relationship between a verb and its argument is not expressible in configurational terms. Thus, as we saw in Chapter 3, for example, no non-trivial

definition of government can be formulated for Ojibwa (see Chapter 3, section 3.1 and Hale 1982a for discussion). So, in a configurational language such as English, restrictions on the distribution or interpretation of arguments (i.e., conditions A and B of the Binding Theory) apply within the domain of the governing category. In a language such as Ojibwa, however, such restrictions (i.e., the principle of DR and the obviation condition (1b)) are formulated so as to operate within the domain of the AS of a lexical item.

It appears, then, that the function of the AS in languages like Ojibwa parallels the function of the governing category in languages like English: both units constitute the domains within which the well-formed distributions of different types of nominal expressions are determined. Both the governing category and the AS are the domains within which the argument structure requirements of lexical items are satisfied (except that a subject is not within the governing category of a lexical item). The difference is that in configurational languages, arguments are realized within specific syntactic configurations, whereas in languages like Ojibwa, the noun forms which are associated with AS argument positions are not subject to syntactic constraints (apart, of course, from the constraint that an argument can only be associated with an argument position of a lexical item which is within the same clause--see (40) of Chapter 3). Thus, to say that a condition operates within the domains of an AS is to say

that the condition imposes constraints on the feature compositions of the noun forms which are associated with the argument positions of lexical items.

6.2 Overgeneration

The grammar of Ojibwa as conceived in this work, is, to a large extent, overgenerating. Thus, both the lexicon and the phrase structure component generate ill-formed outputs. The claim I wish to make is that such outputs are not ill-formed either morphologically or syntactically, but rather that they are ill-formed on more general grounds, which in some cases, have little to do with the language-particular grammar of Ojibwa.

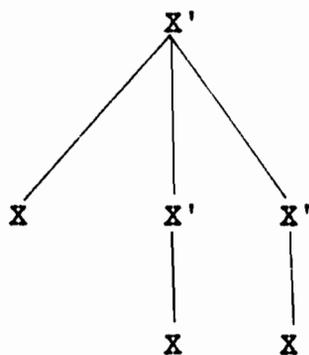
It was assumed in Chapter 4 (see section 4.4), for example, that inflections are attached freely and that the principle of DR (31) applies to fully associated phrase markers. It rules out inappropriate combinations of features on the arguments of noun forms and verb forms. Thus, the lexicon would produce such verb forms as *ni-wa:bam-ižina:m 'I see us' and *owa:bama: 'he_i sees him_i .' The analysis put forward there presumes that such verb forms would actually be available for lexical insertion. In the first case, the x argument position would be interpreted as being associated with a [+1], and the y argument position would be interpreted as being associated with a [+1, +pl].

In the second case, both argument positions would be interpreted as being associated with a [+3]. Under the analysis assumed here, the phrase marker would not be starred until the application of principle (31), the principle of DR.

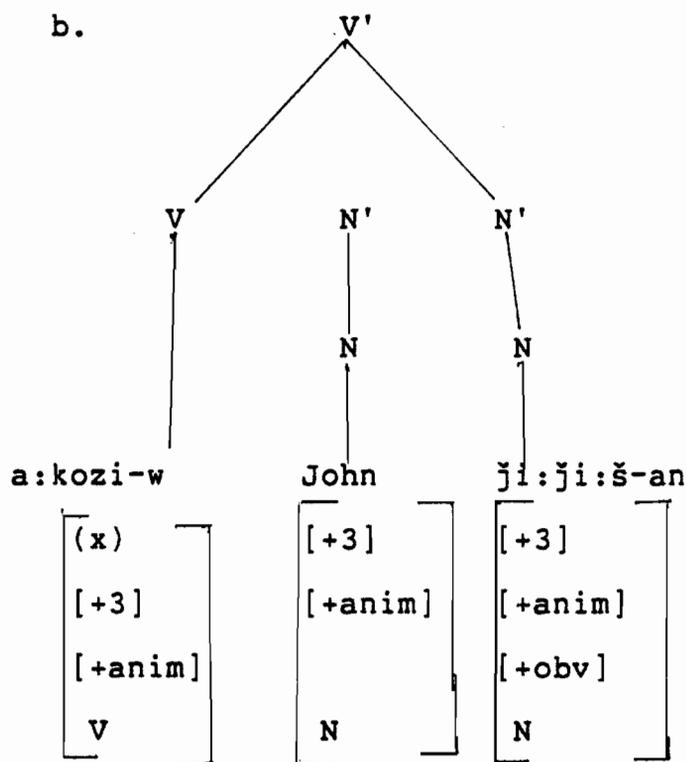
I think it is important to stress that the ill-formed outputs of the lexicon are indeed ruled out at later points in the derivation. In this sense, the claim made here that the lexical component is overgenerating is substantively different from a similar claim made by Allen (1978:Chapter 4, esp. pgs. 185-203). Walsh (1981) observes that the model proposed by Allen (1978) permits the derivation of non-occurring words, but does not provide a principled means of ruling them out (see Walsh 1981:109ff). The claim put forward here is simply that the ill-formed words under discussion are not morphologically ill-formed, but rather that they violate a general principle of interpretation; namely the principle of Disjoint Reference ((31) of Chapter 4).

Let us now turn to the phrase structure component. The category-neutral rule schema-- $X' \rightarrow X' X X'$ --together with context-free lexical insertion allow for the generation of many ill-formed strings. As indicated in Chapter 3, for example, the base rule schema can generate the categorially-unspecified tree structure in (7a). Lexical insertion and feature percolation may then produce the phrase marker of (7b).

(7) a.

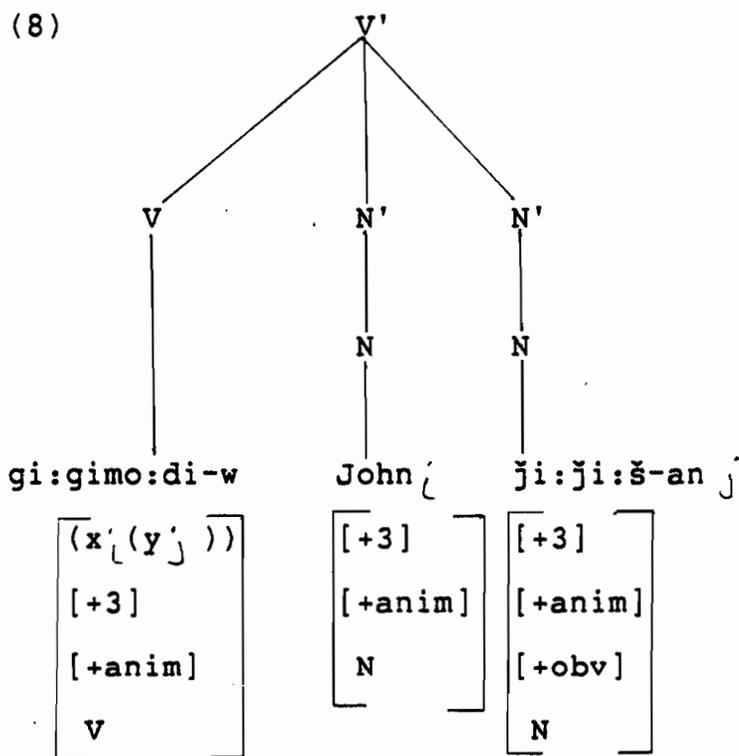


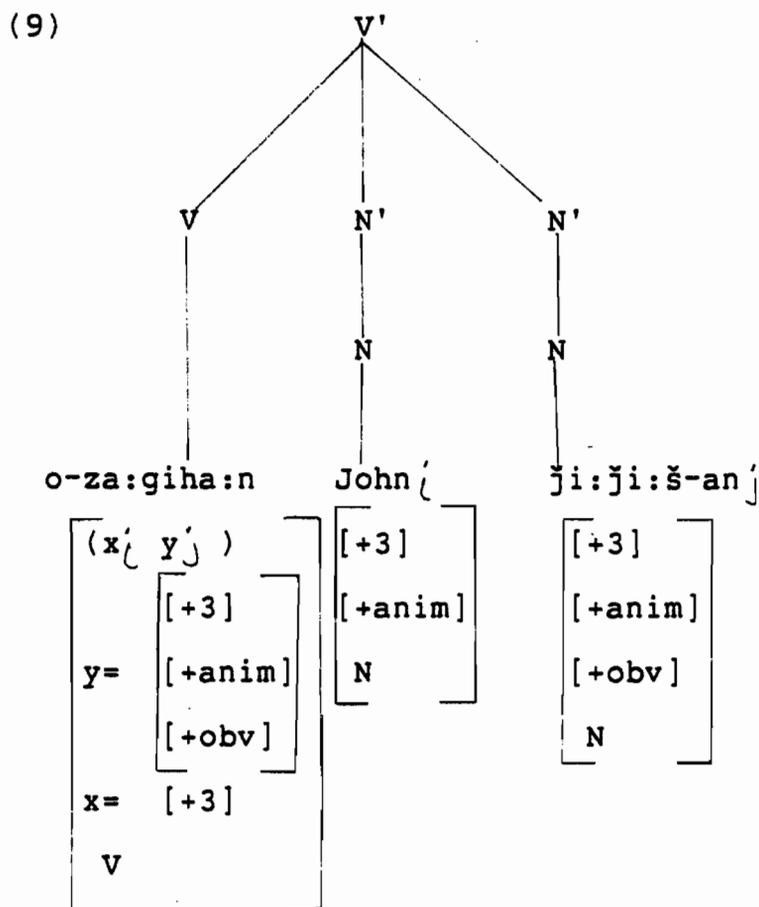
b.



The structure (7b) underlies the ill-formed string *a:kozi-w John ǰi:ǰi:š-an 'John is sick the baby.' Assuming that syntactic well-formedness is determined by the correct operation of the PS rule schema and the feature percolation convention, it is my contention that this string is ill-formed not on syntactic grounds, but rather because it

violates the Theta-Criterion. Support for the contention that the ill-formedness of this string is not syntactic comes from the fact that the phrase marker in (7b) also underlies such well-formed sentences as gi:-gimo:di-w John ji:ji:š-an 'John stole the baby' and o-za:gih-a:-an John ji:ji:š-an 'John loves the baby,' as illustrated in (8) and (9) below.





Recall that the Theta-Criterion requires that each overt noun form in a phrase marker be associated with an AS argument position and that each obligatory AS argument position be associated with an argument. Now, the AS of the verb stem a:kozi- 'be sick' in (7b) specifies that it has only one argument position. As we have already seen, the -w which is attached to the verb stem indicates that its single argument position is associated with a noun form which is specified [+3]. We have also seen that unless there are indications to the contrary (i.e., the presence of an obviative affix), an affix which encodes the feature [+3] redundantly encodes the feature [-obv]. The argument

association operation, then, can only associate John with the argument position of a:kozi-w. Since the verb form is not inflected for an obviative argument, the obviative ji:ji:š-an 'baby' cannot be associated with this argument position. Because there is only one argument position in the AS of a:kozi-w, ji:ji:š-an 'baby' cannot be associated with an argument position, in violation of the Theta-Criterion.

The ill-formed string which (7b) underlies may be compared with the well-formed strings which (8) and (9) underlie. Let us first consider (8). It was claimed in Chapter 2 that the AS of the verb stem in (8), qimo:di- 'steal' indicates that it has an optional y argument position. Once again, the argument association operation will associate the proximate John with the obligatory x argument position, since the affix -w indicates that this position must be associated with an argument specified [+3, -obv]. Since the features of optional arguments are not encoded by affixes, there is nothing to prevent any overt noun form in the phrase marker from being associated with an optional argument position. So, the obviative ji:i:š-an in (8) can be associated with the optional y argument position. The fact that the y argument in (8) must be obviative follows, as we have seen, from condition (1b) of Chapter 5. Since each noun form in (8) is associated with an argument position, the Theta-Criterion is satisfied and the string is well-formed.

Turning now to (9), the TA verb form oza:giha:n 'he loves him (obv)' requires two arguments. Thus, o-za:gih-a:-an John ji:ji:š-an 'John loves the baby' is well-formed, according to the Theta-Criterion. Both of the verb form's argument positions are associated with arguments, and each overt noun form in the phrase marker is associated with an argument position. The noun form ji:ji:š-an is associated with the y argument position since it is obviative, and John is associated with the x argument position since it is a non-obviative third person.

It is interesting to note that if the inflections attached to za:gih- in (9) did not specify the feature composition of both of its obligatory arguments, an ill-formed string would result. If, for example, only the inflections which refer to the y argument position were attached, the resulting string, *za:gih-a:-an, would be ill-formed. Such an ill-formed string would be a violation of the Theta-Criterion. In contrast to the features of optional arguments which, as we have seen, are never specified morphologically, the features of obligatory arguments are always specified morphologically. Since the feature composition of the obligatory x argument of *za:gih-a:-an is not specified by affixes, the argument position can neither be associated with an overt noun form, nor assigned a pronominal interpretation.

Actually, it may be the case that an ill-formed string such as *za:gih-a:-an violates the Theta-Criterion only

indirectly. I have claimed that while the features of optional arguments are not specified morphologically, the features of obligatory arguments always are. In order to ensure that noun forms are not associated with obligatory argument positions which are not specified morphologically, we must assume that this claim captures an independent principle of Ojibwa grammar. An interesting consequence of this assumption would be that no well-formedness condition is required in the lexicon to ensure that (uninflected) verb stems are not available for lexical insertion. If the rules which attach the appropriate inflections did not apply, the resulting string would violate the principle just referred to. It would also indirectly violate the Theta-Criterion, since the obligatory argument positions could not be associated with arguments.

6.2 Residual Problems

In this study I have attempted to sketch the basic underpinnings of a grammatical model which can accommodate the properties of a non-configurational language such as Ojibwa. I have presented a proposal for how thematic relations can be interpreted in the absence of structurally definable theta-positions or constraints on word order. Needless to say, however, the account presented here is far

from complete.

As we have seen, the mechanism I have proposed for the interpretation of argument structure works well for simple sentences and for complex sentences containing the equivalent of that-clauses (i.e., nigike:nda:n a:kozi John 'I know that John is sick'). Interesting problems arise, however, when we look at sentences containing the equivalent of relative clauses. Consider, for example, the following sentences.

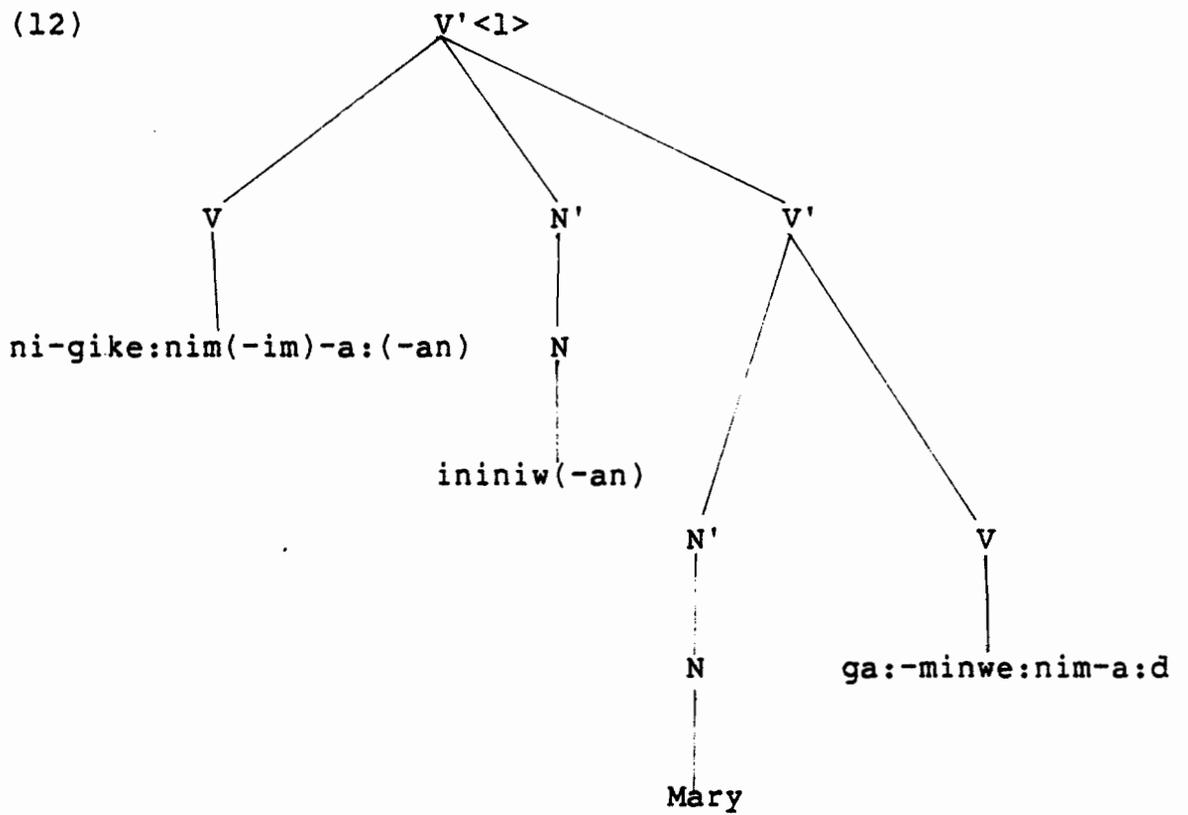
(10) a. ni-gike:nim-im-a:-an ininiw-an Mary ga:-minwe:nim-a:d
 1 KNOW TA 1-OBV TS OBV MAN OBV REL LOVE TA 3-OB'
 'I know the man Mary loves'

b. ni-gike:nima: ininiw Mary ga:-minwe:nim-a:d
 1 KNOW TA MAN REL LOVE TA 3-OBV
 'I know the man Mary loves'

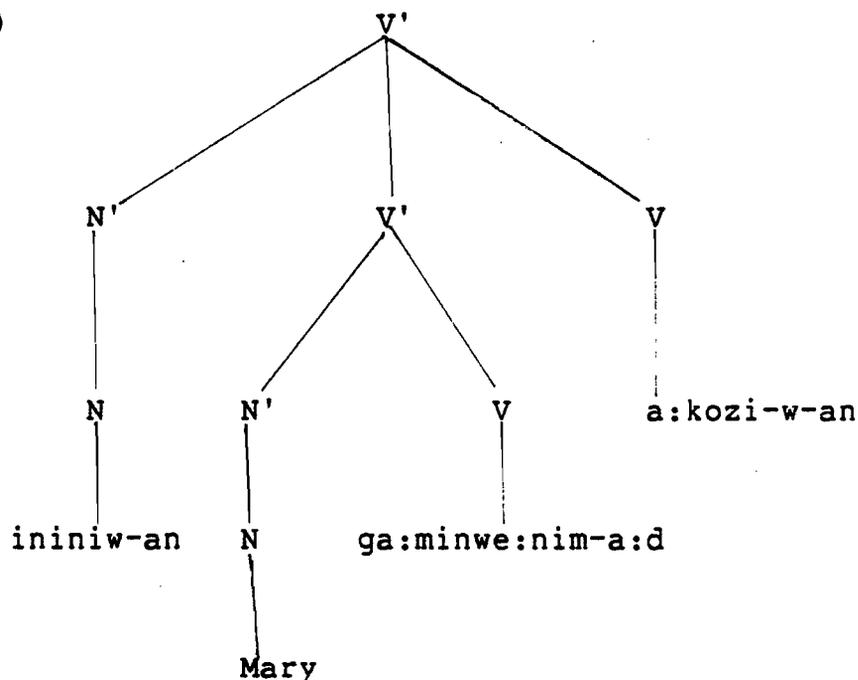
(11) a. ininiw-an Mary ga:-minwe:nim-a:d a:kozi-w-an
 MAN OBV REL LOVE TA 3-OBV SICK AI 3 OBV
 'the man Mary loves is sick'

b. *ininiw Mary ga:-minwe:nim-a:d a:kozi-w
 MAN REL LOVE TA 3-OBV SICK AI 3
 'the man Mary loves is sick'

The structures underlying (10) and (11) would appear to be as shown in (12) and (13), respectively.



(13)



In both (10a) and (10b) the *y* argument of the matrix verb form (ininiw-an in (10a) and ininiw in (10b)) is interpreted as coreferential with the "pronominal" argument which is associated with the *y* argument position of the embedded verb form. This "pronominal" is assigned the features [+3, +obv]. Notice, however, that in both (10a) and (10b) the *y* argument of the matrix verb form must be interpreted as coreferential with the "pronominal" whether or not it is marked obviative. Now, we have seen that "pronominals" agree in obviation status with the overt noun forms to which they co-refer. We have also seen that this agreement is the only way the anaphoric links between "pronominals" and overt noun forms can be identified. How, then, is the "pronominal" argument of the embedded verb form interpreted as coreferential with ininiw in (10b)? It is

also curious that the apparent optionality of obviation in sentences such as (10) does not extend to sentences such as (11). It is not at all clear why, although (10a) and (10b) are well-formed, (11b) is not. This difference with respect to the optionality of obviation between sentences such as (10), on the one hand, and sentences such as (11), on the other, raises interesting questions concerning the interpretation of sentences containing relative clauses. I leave the investigation of these questions to further research.

Note for Chapter Six

1. As noted in Chapter 5, note 3, it is also possible to assume that ininiwan 'man' is the y argument of the embedded verb form, and that the argument of the matrix verb form is an obviative "pronominal." Again, since nothing hinges on the difference between these two possibilities, I recognize only one possibility in the text.

APPENDIX

List of Abbreviations

AI	Animate Intransitive
AS	Argument Structure
DR	Disjoint Reference
II	Inanimate Intransitive
PT	Pseudo-transitive
TA	Transitive Animate
TI	Transitive Inanimate
TS	theme-sign

REFERENCES

- Allen, Margaret R. (1978) Morphological Investigations.
Unpublished Ph.D. dissertation, University of
Connecticut.
- Anderson, Stephen R. (1977) "On the Formal Description of
Inflections", in Papers from the Thirteenth Regional
Meeting of the Chicago Linguistics Society.
Chicago:University of Chicago Press.
- _____ (1982) "Where's Morphology?" Linguistic Inquiry
13:571-612.
- Aronoff, M. (1976) Word Formation in Generative Grammar.
Linguistic Inquiry Monograph I. Cambridge, Mass.:MIT
Press.
- Baker, C.L. (1973) "Syntactic Theory and the Projection
Problem". Linguistic Inquiry 10:533-582.
- Bloomfield, L. (1933) Language. New York:Holt, Rinehart
and Winston.
- _____ (1946) "Algonquian", in H. Hoijer et. al., Linguistic

Structures of Native America, Viking Fund Publications
in Anthropology. No. 6, 85-129.

_____ (1957) Eastern Ojibwa: Grammatical Sketch, Texts and
Word List. Ann Arbor:University of Michigan Press.

_____ (1962) The Menomini Language. New Haven and
London:Yale University Press.

Bresnan, J. (1978) "A Realistic Transformational Grammar",
in M. Halle, J. Bresnan and G. Miller, eds., Linguistic
Theory and Psychological Reality. Cambridge, Mass.:The
MIT Press.

_____ (1982a) "The Passive in Lexical Theory". In J.
Bresnan, ed., The Mental Representation of Grammatical
Relations. Cambridge, Mass.:The MIT Press.

_____ (1982b) "Polyadicity". In J. Bresnan, ed. The
Mental Representation of Grammatical Relations.
Cambridge, Mass.:The MIT Press.

Chomsky, N. (1965) Aspects of the Theory of Syntax.
Cambridge, Mass.:MIT Press.

_____. (1970) "Remarks on Nominalizations", in R. Jacobs
and P. Rosenbaum eds., Readings in English

Transformational Grammar. Waltham, Mass.:Grimm and Co.

_____. (1976) "Conditions on Rules of Grammar". Linguistic Analysis 2:303-351.

_____. (1980) "On Binding". Linguistic Inquiry 11:1-46.

_____. (1981) Lectures on Government and Binding: the Pisa Lectures. Dordrecht:Foris Publications.

_____. (1982) Some Concepts and Consequences of the Theory of Government and Binding. Linguistic Inquiry Monograph Six. Cambridge, Mass.:The MIT Press.

_____ and M. Halle. (1968) The Sound Pattern of English. New York:Harper and Row.

Cuoq, J.A. (1891-92) Grammaire de la langue algonquine. Proceedings and Transactions of the Royal Society of Canada, 1st series; vol. 9, pp. 85-114 and vol. 10 pp. 41-119.

Delisle, G. (1974) "The Fourth Person Fiction in Algonkian". Linguistics 131:19-32.

Dunnigan, T., P. O'Malley and L. Schwartz (1978) "A Functional Analysis of the Algonquian Obviative".

Minnesota Papers in Linguistics and Philosophy of Language 5:7-22.

Ellis, C.D. (1971) "Cree Verb Paradigms". IJAL 37:76-95.

Farmer, A. (1980) On the Interaction of Morphology and Syntax. Unpublished Ph.D. dissertation, M.I.T.

Frantz, D. (1966) "Person Indexing in Blackfoot". IJAL 32:50-58.

Goddard, I. (1967) "The Algonquian Independent Indicative". National Museum of Canada Bulletin 214. Contributions to Anthropology: Linguistics I. Pp. 66-106.

Grafstein, A. (1980) "Some Properties of Ojibwa Verb Stem Formation: A Lexical Analysis", in W. Cowan ed., Papers of the Eleventh Algonquian Conference. Ottawa:Carleton University.

Gruber, J. (1976) Lexical Structures in Syntax and Semantics. Amsterdam, New York, Oxford:North Holland Publishing Co.

Hale, K. (1981) "On the Position of Walbiri in a Typology of the Base". Reproduced by the Indiana University Linguistics Club.

_____. (1982a) "Preliminary Remarks on Configurationality",
in J. Pustejovsky and P. Sells eds., Proceedings of
NELS 12.

_____. (1982b) "Remarks on Configurationality". Paper
presented at McGill University, March, 1982.

Halle, M. (1973) "Prolegomena to a Theory of Word
Formation". Linguistic Inquiry 4:3-16.

Heath, J. (1975) "Some Functional Relationships in
Grammar". Language 51:89-104.

Henderson, T.S.T. (1971) "Participant-Reference in
Algonkin". Cahiers linguistiques d'Ottawa. I:27-49.

Hockett, C. (1939) "Potawatami Syntax". Language
15:235-248.

_____. (1966) "What Algonquian is Really Like". IJAL
32:59-73.

Hornstein, N. and D. Lightfoot. (1981) "Introduction", in
N. Hornstein and D. Lightfoot eds., Explanation in
Linguistics. London and New York:Longman Group
Limited.

Jackendoff, R. (1972) Semantic Interpretation in Generative Grammar. Cambridge, Mass.: MIT Press.

_____. (1975) "Morphological and Semantic Regularities in the Lexicon". Language 51:639-71

_____. (1977) X' Syntax: A Study of Phrase Structure. Linguistic Inquiry Monograph Two. Cambridge, Mass.:MIT Press.

Joseph, B. (1980) "Locatives and Obviation in Cree". IJAL 46:168-169.

Kaye, J.D. and G.L. Piggott. (1973). "On the Cyclical Nature of Ojibwa t-Palatalization". Linguistic Inquiry 3:345-362.

Lasnik, H. (1976) "Remarks on Coreference". Linguistic Analysis 2:1-22.

_____. (1980) "On Two Recent Treatments of Disjoint Reference". Journal of Linguistic Research 1:48-48.

Law, H. (1971) "Rank, Fused Person Morphemes and Matrix Methodology in Arapaho (Algonkin)". Linguistics 75:5-30.

Lieber, R. (1980) On the Organization of the Lexicon.
Unpublished Ph.D.dissertation, MIT.

Matthews, P.H. (1974) Morphology: An Introduction to the Theory of Word-Structure. Cambridge:Cambridge University Press.

Mohanan, K.P. (1982) "Grammatical Relations and Clause Structure in Malayalam", in J. Bresnan, ed., The Mental Representation of Grammatical Relations. Cambridge, Mass.:The MIT Press.

Nash, D. (1980). Topics in Walpiri Grammar. Unpublished Ph.D. dissertation, M.I.T.

Nida, E. (1946) Morphology: The Descriptive Analysis of Words. Ann Arbor:The University of Michigan Press.

Pagotto, L. (1980) Embedded Clauses in Ojibwa. M.A. thesis, McGill University.

Piggott, G.L. (1978) "Algonquin and Other Ojibwa Dialects: A Preliminary Report", in W. Cowan, ed., Papers of the Ninth Algonquian Conference. Ottawa:Carleton University.

_____ (1979) "Verb Classification in Ojibwa". Recherches

Linguistiques à Montréal/Montreal Working Papers in Linguistics. Vol. 12, 149-186.

_____ (1980) Aspects of Odawa Morphophonemics. New York and London:Garland Publishing, Inc.

----- and J.D. Kaye eds. (1973) Odawa Language Project. Second Report. Linguistics Series No. 1. Centre for Linguistic Studies. University of Toronto.

Platero, P. (1982) "Missing Noun Phrases and Grammatical Relations in Navajo". IJAL

Pullum, G. (1982) "Free Word Order and Phrase Structure Rules," in J. Pustejovsky and P. Sells, eds., Proceedings of NELS 12.

Reinhart, T. (1976) The Syntactic Domain of Anaphora. Unpublished Ph.D. dissertation, M.I.T.

Rhodes, R. (1976) The Morphosyntax of the Central Ojibwa Verb. Unpublished Ph.D. dissertation, University of Michigan.

Rogers, J. (1961) "Survey of Round Lake Ojibwa Phonology and Morphology". National Museum of Canada, Bulletin 194. Contributions to Anthropology.

_____ (1975) "Prediction of Transitive Animate Verbs in an Ojibwa Dialect". IJAL 41:114-139.

Ross, J.R. (1967) Constraints on Variables in Syntax. Unpublished Ph.D. dissertation, M.I.T.

Selkirk, E.O. (1982) The Syntax of Words. Linguistic Inquiry Monograph Seven. Cambridge, Mass.:The MIT Press.

Siegel, D. (1977) "The Adjacency Constraint on the Theory of Morphology". Unpublished ms.

Stowell, T. (1981) Origins of Phrase Structure. Unpublished Ph.D. dissertation, M.I.T.

_____. (1982) "A Formal Theory of Configurational Phenomena", in J. Pustejovsky and P. Sells, eds., Proceedings of NELS 12.

Todd, E. (1970) A Grammar of the Ojibwa Language: The Severn Dialect. Unpublished Ph.D. dissertation, University of North Carolina.

Voorhis, P.H. (1967) Kickapoo Grammar. Unpublished Ph.D. dissertation, Yale University.

Walsh, L. (1981) The Outline of a Theory of Morphology.
M.A. thesis, McGill University.

Whitman, J. (1979) "Scrambled, Over Easy, or Sunny Side
Up?" Papers from the Chicago Linguistic Society
15:342-352.

Williams, E. (1981a) "On the Notions 'Lexically Related'
and 'Head of a Word'". Linguistic Inquiry 12:245-274.

_____ (1981b) "Argument Structure and Morphology." The
Linguistic Review 1:81-114.

Wolfart, H.C. (1973) Plains Cree: A Grammatical Study.
Transactions of the American Philosophical Society.
New Series - Volume 63, part 5.

_____ (1978) "How Many Obviatives: Sense and Reference in
a Cree Verb Paradigm", in E. Cook and J.D. Kaye, eds.,
Linguistic Studies of Native Canada. Vancouver:UBC
Press.