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RELATIVE CLAUSES AND RELATED PHENOMENA

IN OJIBWAY

by

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Thesis submitted to the School of Graduate Studies in
partial fulfillment of the requirements for the
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An expression of thanks must also be extended to the Department of Linguistics at the University of Ottawa and to the Museum of Man, Ethnology Division. Both these institutions provided me with the opportunity to make myself familiar with the Ojibway language and to specialize in a particular area of Algonquian linguistics.

ABSTRACT

This thesis is based on the premise that only by working within a theoretical framework can the linguist arrive at a general and explanatory description of a grammar of a language. With this in mind, the Extended Standard Theory of Generative Grammar has been adopted as a model to describe relative clause construction in Rainy River Ojibway, an Algonquian Indian language.

In the first part of the thesis, certain aspects of Algonquian linguistics are reviewed. Relative clauses then receive a traditional analysis, including a rule of WH-movement. An argument is advanced that the morphemes which commonly have been termed "complementizers" are in fact relative pronouns. The implication of such an analysis is that Ojibway question formation is exactly like that of the relative clause, except that the antecedent of a question construction contains an interrogative morpheme. It is then demonstrated that focus constructions are identical to direct questions.

The latter part of this thesis involves a description of indirect questions, free relatives and interrogative determiners. It is shown that all these constructions are easily explained under the previously developed analysis. An additional argument is made for allowing the indexing of relative pronouns through the notion of COMP accessibility. It is proposed that the containing category be permitted to assign an

index to COMP when the antecedent of a relative clause, or indirect question, is lexically empty. There is also a suggestion that the inflection of the verb in a higher sentence may in fact initiate the indexing.

The conclusion of this thesis is that the Extended Standard Theory suffices as a theoretical framework with which to study Ojibway inasmuch as the analysis as presented describes the related constructions in a general and satisfactory manner.

TABLE OF CONTENTS

ACKNOWLEDGEMENTS..... 6

ABSTRACT..... iii

INTRODUCTION..... 1

CHAPTER I RELATIVE CLAUSES IN OJIBWAY

1.1 Structure of the Relative..... 9

1.2 Elements of Relative Clauses..... 11

1.2.1 The Conjunct Order..... 11

1.2.2 Theme Suffixes..... 14

1.2.3 "Complementizers"..... 19

1.3 The Obviative Marker..... 24

1.4 Animacy..... 26

1.5 Distribution of the Relative Clause..... 29

1.5.1 Types of Antecedents..... 29

1.5.2 Functions of Antecedents..... 30

CHAPTER II THE ANALYSIS

2.1 Movement or Deletion?..... 34

2.2 Another Look at Ojibway "Complementizers"..... 38

2.3 Direct Questions..... 42

CHAPTER III RELATED CONSTRUCTIONS

3.1 Indirect Questions.....52
3.2 Free Relatives.....55
3.3 Interrogative Determiners.....59

CHAPTER IV CONCLUSION.....63

BIBLIOGRAPHY.....66

INTRODUCTION

Studies in American Indian languages have generally been relegated to the realm of the exotic. The result is that the small amount of work that has been accomplished (in contrast to Indo-European languages) has, for the most part, been of a descriptive nature, with the aim of providing a groundwork analysis which at times amounts to little more than a taxonomy. Even so, there exist surprisingly few linguists working in this area, especially when one considers that some of these languages are well along the road to extinction due to the socio-economic factors of their modern-day context.

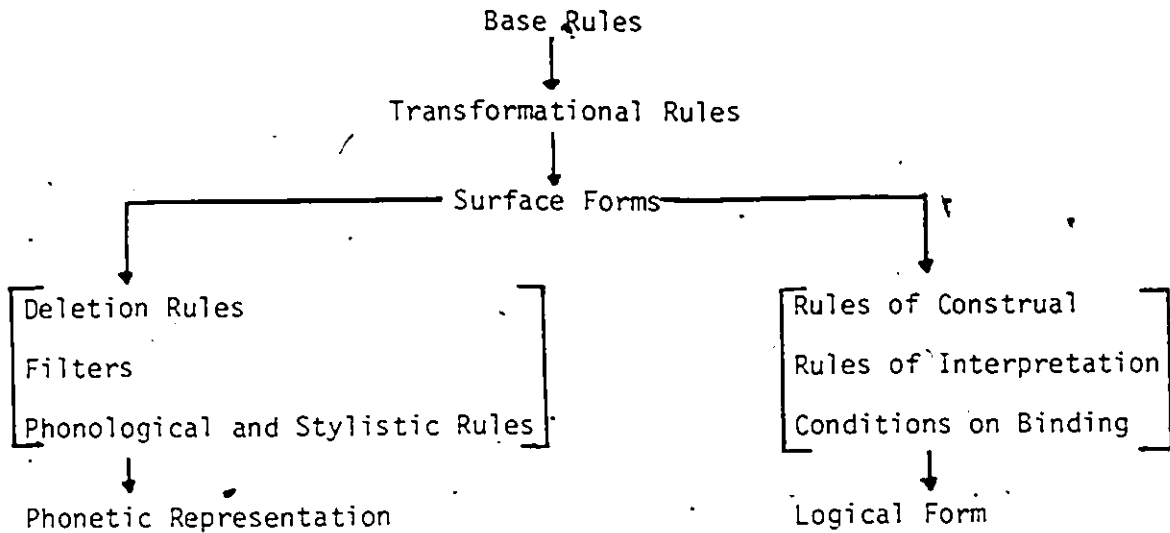
Recently there has been an effort begun by some Amerindian linguists to incorporate the data they are collecting into current theories of linguistics. Both relational grammar and the Extended Standard Theory of generative grammar are being utilized, with interesting results, to provide a theoretical framework for the study of native American languages.

In the area of Algonquian linguistics, linguists in Quebec (Alan Ford, Jonathan Kaye, Jim Lees and others) have been using the Extended Standard Theory as a basis of analysis for Cree and Montagnais.

One of the crucial provisions of Chomsky's linguistic theory is that only by providing a principled theory of human language in general can the linguist expect to make general and explanatory statements about a specific language. In other words, a theory of this nature will enable the linguist to choose between possible descriptions (or grammars) of the language in question. At the same time, the data obtained from the study of a particular language will provide for an analysis which will serve to further the study of language in general (i.e. universal grammar).

This thesis has been constructed with the above goals in mind. I have chosen, as a theoretical framework, the Extended Standard Theory (EST). This theory is developed in Chomsky (1973; 1977; 1980a) and in Chomsky and Lasnik (1977). I will give a brief outline of the framework.

The Extended Standard Theory involves the concept of a universal grammar from which the core grammar of a language is selected. Constructions within the core grammar are said to be "unmarked". "Marked" constructions, on the other hand, are dealt with by means of peripheral rules. The core grammar involves the generation of base structures to which transformational rules apply, resulting in surface forms. Surface forms then undergo various rules which allow them a phonetic representation and a logical form.



Base rules derive from some version of the X-bar theory as developed in Jackendoff (1977). A transformational rule involves a rule Move α where α is a category. This category may be NP or WH. The surface form, under this theory, is a rich level containing those elements to be deleted as well as traces. Traces result from movement rules that leave behind a coindexed element in the original site of the moved category. All rules of the grammar are unordered and optional. They must also be subject to subjacency and some form of the A/A condition and similar conditions. The framework adopted here does not employ more recent developments. There is no argument within this thesis that the model selected is the only one that can be used to study a language, only that a language must be studied with the aid of some theory. I feel that the analysis to be presented is a more

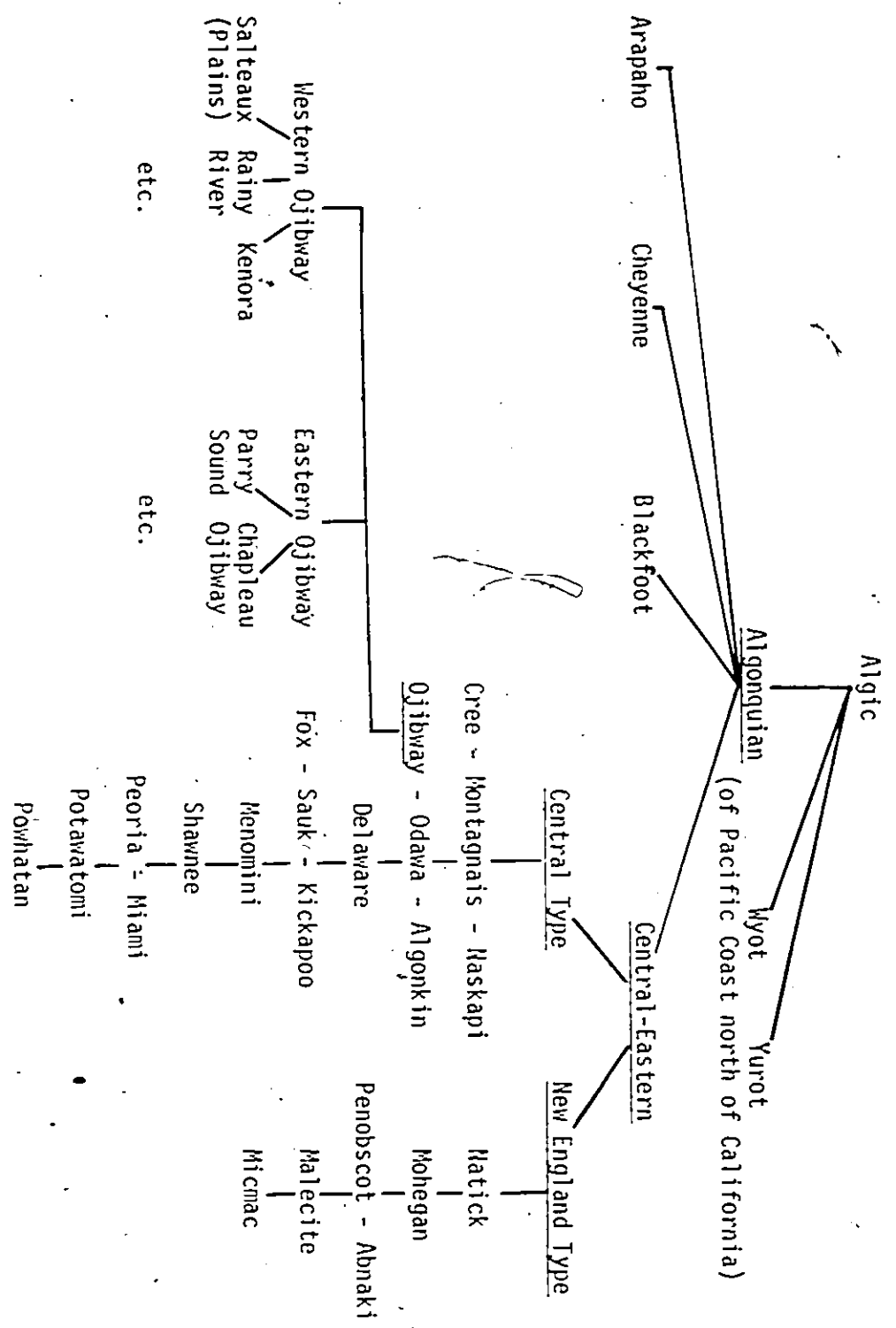
explanatory and general account of the material involved than has hitherto appeared, and these factors are directly attributable to the application of a strict methodology.

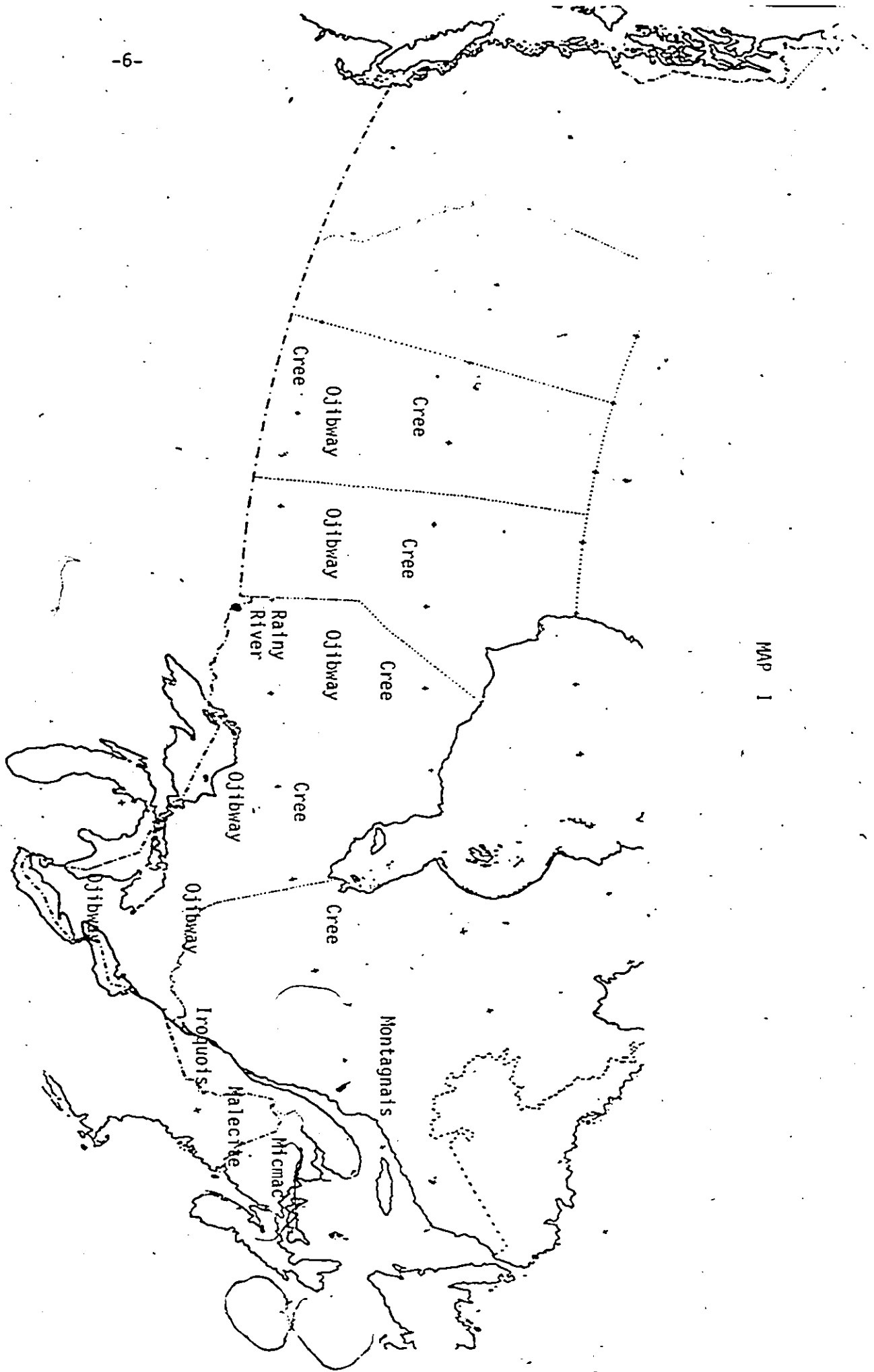
The language studied here is Ojibway, a member of the Algonquian language family. The dialect is that of Western Ojibway, specifically, that spoken in Rainy River, Ontario (see Chart I and Map I).

The data contained in this thesis was obtained from one informant who is an adult speaker of the language and who originates from Rainy River. She has, for the past ten years, been living in Ottawa with her family who communicate with each other in their native language. This informant has worked on various linguistic projects (including those I was involved with for the Museum of Man) and therefore should not be considered linguistically naive. She has a not insignificant knowledge of linguistics, in particular where it concerns her own language. As an informant she has enough motivation and interest to ensure that her data is correct. Needless to say, I am confident that the data presented here is accurate. The data was obtained through translation sessions in which I transcribed the material directly rather than using a tape recorder. For my own purposes, I have found that this is the better method since pertinent details may be immediately noticed and questioned further. All data was verified at a later date by reverse translation.

The topic of this thesis is the relative clause and related phenomena. Relative clauses in Algonquian languages have been studied

Algonquian Language Family Tree





MAP 1

in detail only by Alan Ford and Jim Lees in a paper entitled "Cree Relative Clauses" (1979). This paper provided a general outline of the structure of relative clauses in Cree and noted that there was a resemblance between relative clauses, questions and focus constructions. This fact was also observed by Kenneth Truitner and Timothy Dunnigan in the paper "WH-Questions in Ojibway" (1972). However, since their analysis remains so incomplete, I will not have occasion to refer to it.

My purpose in writing this thesis was to further explore the structure of relative clauses in an Algonquian language and explain their similarity to questions. The first chapter of this thesis is a general introduction to relative clause structures in Ojibway as well as explanations of certain grammatical aspects of the language. While the Algonquian linguist may view these explanations as somewhat redundant, I wish to avoid the general confusion that may result when the reader, unfamiliar with Algonquian linguistics, is faced with an argument involving a barrage of highly specific terminology necessary for the description of the language.

In the second chapter an analysis of relative clauses is developed and then extended to direct questions, showing how the same proposal accounts for both sets of data. This analysis is then used to explain focus constructions. Finally, in the third chapter the analysis will be applied to indirect questions and the phenomenon of headless or

free relatives as well as interrogative determiners.

This thesis, although not an extensive treatment of the data of Ojibway, provides a working basis for at least some aspects of a possible grammar of that language. While I am not altogether familiar with the data of other Algonquian languages, I think that the analysis provided here will lend itself to provide a grammar for all.

CHAPTER I

RELATIVE CLAUSES IN OJIBWAY

1.0 In this chapter I will discuss the Ojibway relative clause in terms of its structure, and those grammatical aspects of the language that will be necessary for the analysis.

1.1 Structure of the Relative

As the relative construction in Ojibway functions as a noun phrase (NP), I will assume the phrase structure rule:

$$R.1 \quad NP \rightarrow NP \bar{S}$$

This rule is found in Ross (1967) where it is stated that the antecedent of the relative is generated at the base level to the left of the embedded sentence in the form of NP rather than N (see also Lakoff and Ross, 1968). This rule serves to indicate that a noun phrase node may be filled by a noun phrase as in (1), or by a headed relative clause (i.e. a relative clause with a lexically filled antecedent) as in (2), or finally, by a headless or free relative (i.e. a relative clause with an empty antecedent) as in (3).

- (1) inini obakkite?on kwizēssan
inini o-bakkite?-on kwizēss-an
man he-hit -(3-obv.) boy-obv.
 'The man hits the boy'

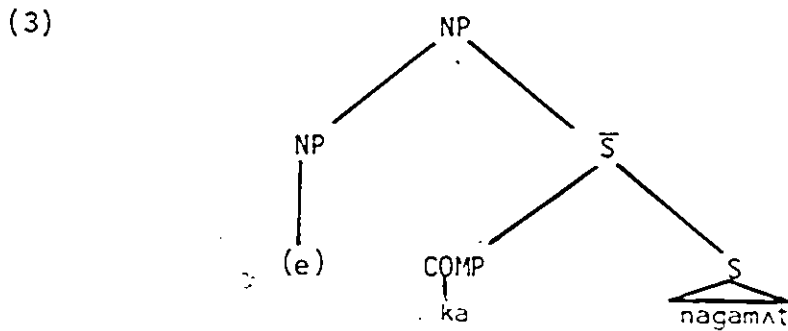
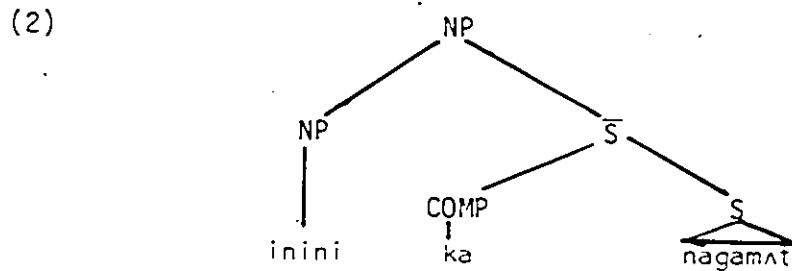
(2) inini kanaqamΛt obakkite?on kwizēssan
inini ka-naqamΛ-t o-bakkite?-on kwizēss-an
 man COMP-sing-3c he-hit-(3-obv.) boy-obv.
 'The man who sings hits the boy'

(3) kanaqamΛt obakkite?on kwizēssan
ka-naqamΛ-t o-bakkite?-on kwizēss-an
 Comp-sing-3c he-hit-(3-obv.) boy-obv.
 'The one who sings hits the boy'
 He who....

An additional rule is required, expanding the embedded sentence:

$$R.2 \bar{S} \rightarrow \text{COMP } S$$

This rule is based on Bresnan (1970), and implies, in effect, that the underlined portions of examples (2) and (3) will have the structure:



In example (3), e indicates a node which does not undergo further expansion in the base.

The complementizer node here is that category generated in the base (R.2) which serves the function of introducing an embedded clause as well as providing an "escape-hatch" for WH-movement (see Bresnan, 1970 and Chomsky, 1977). A more detailed analysis of the Ojibway COMP node will be provided in chapter two.

1.2 Elements of Relative Clauses

Before proceeding with an analysis of relative clauses in Ojibway, it would be useful to briefly discuss some grammatical elements of the Ojibway language in order to help a reader, unfamiliar with the Algonquian language family, to understand the examples given in this work.

1.2.1 The Conjunct Order

The embedded clause in Ojibway is marked through the use of the conjunct order. The conjunct order is a system of verbal inflections which occur at the end of the verb and indicate not only the subordination or dependency of the sentence but also the thematic relationship of the person or persons involved in the action. Some examples of the use of the conjunct order follow. Note that small 'c'

here signifies conjunct order such that '3c' means 'third person, conjunct order'.

- (4) ngikenima iža-t ottenung
n-gikemima iža--t otten-ung
I-know go-3c town-loc.
'I know that he goes to town'

In example (4) the sentence 'he goes to town' is embedded within the matrix sentence and is marked as such by -t which also signifies that the sentence is intransitive with a third person singular subject.

- (5) nino-ndawa ikkwe bappit
ni-no-ndaw-a ikkwe bappi-t
I-hear-(1-3) woman laugh-3c
'I hear the woman laughing'

Again, in example (5), -t indicates that the phrase 'laughing' refers to a third person subject of an intransitive verb which is subordinate to the main sentence. Note that there is no complementizer in examples (4) and (5). However, if R.2 is correct, that is, if all embedded sentences in Ojibway are generated with a COMP node plus a sentence, then it will be necessary to assume that the COMP node remains unexpanded in these forms. I will again refrain from a detailed discussion of this problem until chapter two.

It should be noted that the conjunct order is distinct from the independent (or matrix) order in that there are no personal pronouns to be found in the conjunct order. Personal pronouns occur in the independent order to the left of the verb:

(6) mbimippato·
m-bimippato·
I-run
'I run'

(7) kibimippato·
ki-bimippato·
you-run
'You run'

(8) bimippato·
ø-bimippato·
he-run
'He runs'

This can be contrasted with the conjunct order in which person is reflected by the appropriate conjunct inflections:

(9) kigikendan bimippato·n
ki-gikend-an bimippat-o·n
you-know-it run-1c
'You know that I run'

(10) nikendan bimippattowin
ni-kend-an bimipattow-in
I-know-it run-2c
'I know that you run'

(11) ngikendan bimippato·t
ŋ-gikend-an bimippato·-t
I-know-it run-3c
'I know that he runs'

1.2.2 Theme Suffixes

Theme suffixes in Ojibway are the set of verbal inflections that occur to the right of the verb stem and indicate the person or persons involved in the action. They are to be distinguished from personal pronouns, which were mentioned above. They are sometimes referred to as theme signs. The word 'sign' in this case is particularly appropriate as the theme sign is a non-divisible unit which signifies many things.

In intransitive independent verbs the personal pronouns suffice to

indicate person (see examples 6, 7 and 8). In transitive verbs the theme sign carries the burden of subject/object relations. The pronominal system, when attached to transitive verbs, is constrained by a factor of precedence. Precedence defines a hierarchical system of persons, each member of the hierarchy taking precedence over all lower members. The order of precedence runs 2nd-1st-3rd-obviative. The following examples illustrate the precedence system of pronouns and how it works in conjunction with theme signs:

(12) kiwabam
ki-wabam-_s
you-see-(2-1)
'You see me'

(13) kiwabamin
ki-wabam-in
you-see-(1-2)
'I see you'

(14) kiwabama
ki-wabam-a
you-see-(2-3)
'You see him'

- (15) kiwabamik
ki-wabam-ik
you-see-(3-2)
'He sees you'



From the above examples it can be seen that the theme signs to the right of the verb express the syntactic relationship within the verb phrase. In example (14) the second person takes precedence over the third person and the theme marker -a indicates that the action involves a) third person, lower than other person (i.e. the other person involved must be first or second person) and b) direct order (i.e. the person which takes precedence is the subject of the verb or agent).

In example (15) the second person pronoun, again taking precedence, is affixed to the left of the verb. The theme marker -ik signifies that a) the action involves third person lower than other person (same as a above) and b) inverse order (i.e. the person taking precedence is the direct object or patient of the action).

As mentioned above, the conjunct order does not take personal pronouns, and as such, only the theme signs reflect persons and relationships. Charts II and III depict theme signs of the conjunct order (as this work deals primarily with relative clauses, the independent order will not be discussed further). It should also be noted that these theme signs are different if the verb is negative.

CHART II*

Animate and Inanimate Intransitive Conjunct Endings

	<u>Singular</u>		<u>Plural</u>
I	-a·n	we (excl.)	-a·ng
		we (incl.)	-ang
you	-an	you (pl.)	-e·k
he	-t	they	-(a)wa·t
it	-k	they (inanimate)	-gin
obviative	-(i)nit	they (obviative)	-(i)nit (same as sing.)

(The Ojibway verb is more complicated than can be described in this work since it potentially contains transitive markers and concrete and abstract finals.)

*Both Charts II and III have been abstracted from An Introduction to Rainy River Ojibway, Johns, et.al., University of Ottawa, 1979 (unpublished).

CHART 111*

Transitive Animate and Inanimate Conjunct Endings

OBJECT SUBJECT	me	you	him	it	us(excl.)	us(inkl.)	you(pl.)	them (an.)	them (inan.)
I		-Inan	-ak	-ama'n			-Inagok	-agwa·	same as sing.
you	-Iyan		-at	-aman	-iyang			-attwa·	
he	-It	-Ik	-a't	-ang	-iyangit	-Inang	-Ine·k	-a't	
^{we} (exclusive)		-e·gowin	-angit	-ama'ng			^N -Igo·we·k	-angitwa·	
^{we} (inclusive)			-a'ngit	-amang				-a'ng(it)wa·	
you(pl.)	-Iye·k		-o·k	-ame·k	-Iya'ng			-e·gwa·	
they ^s	-Iwa·t	-Igwa	-a·wa·t	-amo·wat	-Iyangitwa	-Inangitwa	-Ine·gwa·	-a·wa·t	

1.2.3 "Complementizers"

In Ojibway the COMP position can be filled by either ka- or the changed form, or left empty. As can be seen in examples (4) and (5), the COMP position is not filled when the embedded sentence (\bar{S}) is non-interrogative (or -WH). The only indication that the sentence is other than a matrix clause is the use of the conjunct. However, Pagotto (1980, p.238) found that the Rapid Lake dialect of Algonquin contains a complementizer in these constructions:

nigikenima ē-bibānicānōžič *
I know COMP-he is looking for me
'I know that he is looking for me'
* /ē/ here is a phonological segment

Though my data differs from that of Pagotto, I will withhold a discussion of its implications until later. Suffice to say, Pagotto's data serves as support for the generation of a COMP node.

COMP must be filled in structures containing WH-phrases, i.e. relative clauses and questions. Examples (2) and (3) illustrate the structure of relative clauses. Example (16) shows the use of COMP in a question. I will adopt, for the moment, the term complementizer when referring to ka- and the changed form. This precedent was set by Lees (1979) and Pagotto (1980).

- (16) ogonen kaonjimawit
ogonen ka-onji-mawit-t
what COMP-reason-cry-3c
'Why is he crying'

The ka- complementizer appears when the WH-phrase is specific or definite as can be seen in examples (17), (18) and (19).

- (17) ngikenima inini kabimosset
ŋ-gikenima inini ka-bimosset-t
I-know man COMP-walk-3c
'I know the man who is walking'

- (18) wenen kabimosset
wenen ka-bimosset-t
who COMP-walk-3c
'Who is (that) walking?'

- (19) ngikenima kabimosset
ŋ-gikenima ka-bimosset-t
I-know COMP-walk-3c
'I know (that one) who is walking'

Regular tense markings (i.e. those found in matrix verbs) are

positioned between the complementizer and verb stem (regular present tense is null).

(20) ngikenima inini kagibimosset
 n-gikenima inini ka-gi-bimosse-t
 I-know man COMP-past-walk-3c
 'I know the man who walked'

(21) ngikenima inini kawi?bimosset
 n-gikenima inini ka-wi?-bimosse-t
 I-know man COMP-fut.-walk-3c
 'I know the man who will walk'

The changed form complementizer refers to a process that changes the first vowel of the verb stem or [#](C)V when the verb phrase is in the present tense. This rule is symbolic in Sapir's term (Sapir, 1921). The alternations involved in this rule are:

a·	}	→	e·
i·			
i	→	ε	
o	→	we	
a	remains the same		

Thus in the present, this complementizer manifests itself not as a morpheme but as an effect on the verb stem. The changed form is used

when the WH-phrase is non-specific or indeterminate. This can be seen in example (22).

- }
(22) ngikenima inini bmosset
n-gikenima iniŋi bemosse-t
I-know man COMP-walk-3c
Ch.
'I know a man who is walking'

It should be mentioned here that there are no articles in Ojibway to express determinate/indeterminate. The use of the changed form complementizer is thus the only means (that I have found) to express this distinction outside of the use of demonstrative pronouns.

- (23) ngikenima awe bemosset
n-gikenima awɛ bemosse-t
I-know that one COMP-walk-3c
Ch.
'I know (that one) who is walking'

The changed form may also be used in relative clauses with lexically empty antecedents.

- (24) ngikenima bmosset
n-gikenima Ch.-bimosse-t
I-know COMP-walk-3c
'I know who is walking' (compare (3) and (19))

It may also be used in questions:

- (25) wenen b_emosset
wenen Ch.-bimosse-t
who COMP-walk-3c
'Who is walking?' (compare with (18))

Tense is an integral feature of the changed form complementizer, that is, just as the vowel change of the stem indicates the combined forms of the complementizer and the present tense, the forms ka?-, wa?- and ke- indicate the past and future tenses of that same complementizer (as contrasted with the complementizer ka-, to which regular tense morphemes are attached).

- (26) ngikenima inini ka?bimosset
ng-ikenima inini ka?-bimosse-t
I-know man COMP-walk-3c
Ch.
past
'I know a man who walked'

- (27) ngikenima inini wa?bimosset
ng-ikenima inini wa?-bimosse-t
I-know man COMP-walk-3c
Ch.
fut.
'I know a man who will walk'

or

ngikenima inini ke-bimosset

ŋ-gikenima inini ke--bimosse-t

I-know man COMP-walk-3c

Ch.

fut.

'I know a man who will walk'

The following is a chart illustrating the system:

CHART IV

	<u>Determinate</u>	<u>Indeterminate</u>
Present	ka-	changed form
Past	ka-gi?-	ka?-
Future	ka-wi?-	{ wa?- ke--

1.3 The Obviative Marker

Third person in Ojibway is sub-divided into proximate (3) and obviative (obv. or 3'). The proximate is the unmarked third person. The obviative is only used when there are two third person forms. It in effect distinguishes between two third persons. While in English the sentence "He knows that you like him" is ambiguous, Ojibway avoids this ambiguity through the use of the obviative.

(28) ogikendan minwenimat
o-gikend-an minwenim-at
he-know-it like-(2-3)c
'He knows that you like him' ('him' being the same as 'he')

(29) ogikendan minwenimimat
o-gikend-an minwenim-im-at
he-know-it like-obv.-(2-3)c
'He knows that you like him' ('him' being different from 'he')

The obviative is also involved in the manner in which Ojibway expresses the active/passive distinction.

(30) animoʃ ottakkoman kwizēssan
animoʃ o-ttakkom-an kwizēss-an
dog he-bite-obv. boy-obv.
'The dog bites the boy'

Here the subject 'dog' is proximate and the object 'boy' is marked by the obviative. (Note that the obviative is also marked in the verb.) Word order is not important. We can find:

kwizēssan ottakkoman animoʃ

or

kwizēssan animoʃ ottakkoman

or

animoʃ kwizēssan ottakkoman

In a sentence where the role is reversed, e.g. 'The boy bites the dog', one finds that the obviative marker appears on 'dog' rather than 'boy'.

(31) kwizēss ottakkoman animoʃan

Again, word order is not important.

In the above example the logical subject is the subject of the verb. In the case where the logical object is the subject of the verb, the Ojibway construction corresponds to the English notion of passive.

(32) kwizēss ottakkomigon animoʃan
kwizēss o-ttakkom-ig-on animoʃ-an
boy he-bite-Inv.-obv. dog-obv.
'The boy is bit by the dog'

In point of fact, the inverse marker (Inv.) here is the same as (3'-3) which is a notation (similar to that in example (15).) meaning that two persons are involved in the action, of which one is a third person and the other a higher person. It therefore indicates that the lower person in the precedence hierarchy (in this case the obviative or 3') is the logical subject or agent of the action.

1.4 Animacy

While the NP node to the right of the arrow of R.1 may be empty,

it obviously must refer to a noun within the context of the discourse and must therefore reflect the number and animacy of that entity.

Animacy in Ojibway functions as does gender in many other languages. There is no syntactic distinction in Ojibway to express male/female (i.e. one cannot say 'he runs' versus 'she runs'). Syntactic animacy reflects whether or not the noun in question is animate (humans, animals, plants and some elements of nature, e.g. rock), or inanimate (objects, substances). There are some areas where the classification is not based on pragmatic but on cultural factors, e.g. elements of nature. In these cases the situation always concerns an object that we would view as inanimate being classified as animate, never vice-versa (that is, a commonly viewed animate object being classified as inanimate). In this respect, animate may therefore be thought of as the marked feature.

Animacy is a primary distinction in Ojibway such that the meaning of a noun may depend solely on it, e.g.:

mittg(ok)*	'tree'
mittig(an)	'stick'
bakwakkatōss(ak)	'apple' or 'round fruit'
bakwakkatōss(an)	'ball'

* the bracketed forms here indicate the plural affix

Animacy is not marked in the singular but only in the plural form of the noun. As can be seen in the above examples, the plural animate marker is -ak and the plural inanimate is -an. The verb form reflects the animacy of the subject, in the case of intransitive verbs:

(33) ozawizi miſtattim
ozaw-izi miſtattim
brown-an. horse
'The horse is brown'

(34) ozawa ona-gās
ozaw-a onā-gās
brown-inan. cup
'The cup is brown'

In the case of transitive verbs it is the animacy of the object which is marked (all transitive verbs must have an animate subject).

(35) owabaman animoſan
o-wabam-an animoſ-an
he-see-obv. dog-obv.
'He sees the dog'

(36) owabandan makkak
o-waband-an makkak
he-see-it box
'He sees the box'

The animacy of the object of the transitive verb is also reflected in the verb finals which are here included in the verb stem.

A relative clause must therefore reflect the animacy of the NP antecedent, whether the NP node is empty or not, eg.:

(37) (inini) kagitangi]kawak nisayē awε.
(inini) ka-gi-tangi]kaw-ak ni-sayē awε.
(man) COMP-past-kick-(1-3)c I-brother that one
'(The man) who I kicked is my brother'

(38) (bakwakkatōss) kagitangi]kaman nisayē ottibenda·n
(bakwakkatōss) ka-gi-tangi]ka-man ni-sayē o-ttibend-a·n
(ball) COMP-past-kick-(1-it)c I-brother he-own-it
'(The ball that) I kicked is my brother's'
What,...

The use of brackets here indicates that the noun phrase is optionally filled.

1.5.0 Distribution of the Relative Clause

In this section I will discuss types of antecedents of relative clauses, and then show the possible functions of the head noun with regard to its function in the matrix clause and in the relative clause itself.

1.5.1 Types of Antecedents

The head NP of a relative clause may be a noun, as in example (2),

an empty node, as in example (3), or an emphatic pronoun, eg.:

- (39) nin kagi?wabaminan pakkite?at animo] ngawindamoa kimama
nin ka-gi?-wabam-inan pakkite?-at animo] ŋ-ga-windam-oa
I COMP-past-see-(1-2)c hit-(2-3)c dog I-fut.-tell-(1-3)Ind.
ki-mama
you-mother

'I, who saw you hitting the dog, will tell your mother'
(Ind. here means "indirect", that is, the object of the verb is
indirect or what Algonquian linguists traditionally term
"benefactive")

There is no reason in Ojibway to make a distinction between appositive
and restrictive relative clauses (see Ford and Lees, 1979).

1.5.2 Functions of Antecedents

In Ojibway the head noun of a relative clause can be the subject
of both the matrix and the relative clause. I will designate this
configuration S(S) where the element outside the brackets indicates
the function of the antecedent within the matrix sentence, and the
element in the brackets indicates the function of the antecedent with-
in the relative clause (i.e. the position of WH before WH-movement, see
chapter 2.1). In the following examples of the functioning of antecedents,
S will stand for subject, O for object, and P for prepositional
phrase.

- (40) S(S)
(animof) kagittakkomit mittigong čige?iaya.
(animof) ka-gi-ttakkom-it mittig-ong čige?i-aya.
(dog) COMP-past-bit-(3-1)c tree-loc. near-is
'The dog that bit me is by the tree'
- (41) S(O)
(inini) kaojimat obakkite?on wiwan
(inini) ka-ojim-at o-bakkite?-on wiw-an
(man) COMP-kiss-(2-3)c he-hit-obv. wife-obv.
'The man that you are kissing beats his wife'
- (42) O(S)
niwabama (ikkwe) kanibat
ni-wabam-a (ikkwe) ka-niba-t
I-see-(1-3) (woman) COMP-sleep-3c
'I see the woman who is sleeping'
- (43) O(O)
nga·ndoma (inini) kagi?andomat
ŋ-ga-andom-a (inini) ka-gi?-andom-at
I-will-invite-(1-3) (man) COMP-past-invite-(2-3)c
'I will invite the man that you have invited'
- (44) S(P)
(inini) kawidžibimosse·mangit ominwendan amwa-t kigo-wan

(44) continued....

(inini) ka-widži-bimosse·m-angit o-minwend-an amw-a·t
(man) COMP-with-walk-(1pl.-3) he-like-it eat-(3-3')c
kigo·w-an
fish-obv.

'The man with whom we walk likes to eat fish'

(45) O(P)

ngi?wabama (inini) kagi?wittosse·mat
ŋ-gi?-wabam-a (inini) ka-gi?-witt-osse·m-at
I-past-see-(1-3) (man) COMP-past-with-walk-(2-3)c

'I saw the man you walked with'

(46) P(S)

ngi?wičiotaminoma (animof) kagittakkoma·t kwizëssan
ŋ-gi?-wiči-ottaminom-a (animof) ka-gi-ttakkom-a·t kwizëss-an
I-past-with-play-(1-3) (dog) COMP-past-bite-(3-3')c boy-obv.

'I played with the dog that bit the boy'

(47) P(O)

ngi?wičibimosse·man (kwizëssan) kagittakkomingtonit animofan
o-gi?-wiči-bimosse·m-an (kwizëss-an) ka-gi-ttakkom-ing-oni-t
he-past-with-walk-(3-3') (boy-obv.) COMP-past-bite-Inv.-obv.-3c
animof-an
dog-obv.

'He walked with the boy that was bit by the dog'

(48) $P_i(P_i)$
niwittosse·ma (inini) wa?wittosse·mat
ni-witt-osse·m-a (inini) wa?-witt-osse·m-at
I-with-walk-(1-3) (man) COMP-with-walk-(2-3)c
Ch.
past
'I walk with the man you walked with'

(49) $P_i(P_j)$
niṇačigabowittawa (inini) wa?wittosse·mat
ni-na-čiga-bowittaw-a (inini) wa?-witt-osse·m-at
I-towards-near-stand-(1-3) (man) COMP-with-walk-(2-3)c
Ch.
past
'I go and stand by the man you walked with'

Note that all the above constructions may appear without the bracketed NPs. The English translations would be adjusted accordingly.

CHAPTER II

THE ANALYSIS

2.0 In this chapter I will analyse in detail the relative clause construction in Ojibway, and demonstrate that this analysis can be used to explain other constructions in that language.

2.1 Movement or Deletion?

Having assumed Bresnan's rule (R.2) of COMP node generation, I will also assume that relative clause formation in Ojibway involves a rule of WH-movement in keeping with the analysis provided in Chomsky (1977). In that paper Chomsky argued that WH-movement may be presumed when the following phenomena appear:

i) There is a gap. That this is the case can be seen in examples (40) through (49). Note that Ojibway does not have resumptive pronouns as do some languages, notably Irish (see McCloskey, 1978), and Tok Pisin (see Woolford, 1978). This fact may be used to support a movement analysis.

ii) That there occur apparent violations of:

a) Subjacency. Subjacency, as formulated by Chomsky (1973 and 1977) entails that no rule can move an item from position Y to position X in the structure,

...X... \square_{β} ... \square_{α} ...Y... \square ... \square ...X...

where α and β are cyclic nodes.

(50) ngikenima inini $\left[\begin{array}{c} \bar{S} \\ \text{ka} \end{array} \right] \text{gi?inendaman} \left[\begin{array}{c} \bar{S} \\ \text{Jim andawenimik} \end{array} \right]$
 $\left[\begin{array}{c} \bar{S} \\ \text{čimegwa} \end{array} \right] \text{f} \left[\begin{array}{c} \bar{S} \\ \text{kawimat} \end{array} \right] \left[\begin{array}{c} \bar{S} \\ \end{array} \right] \left[\begin{array}{c} \bar{S} \\ \end{array} \right] \left[\begin{array}{c} \bar{S} \\ \end{array} \right]$

ŋ-gikenima inini ka-gi?-inend-aman Jim andawenim-ik
 I-know man COMP-past-think-(2-it)c want-(3-2)c
 či-megwa f kawim-at
 fut.-meet-(2-3)c

'I know the man that you thought that Jim wanted you to meet'

In example (50) the underlined constituent originates from a position which is two \bar{S} s below. Thus subjacency appears to be violated if \bar{S} is a cyclic node.

b) The Propositional-island condition. (I will ignore the subsequent evolution that this and other conditions have undergone, as it is not pertinent here.) The Propositional-island condition, (Chomsky, 1977), states that in the structure,

...X... $\left[\begin{array}{c} \alpha \\ \bar{S} \end{array} \right] \dots Y \dots \left[\begin{array}{c} \bar{S} \\ \end{array} \right] \dots X \dots$

no rule can involve X and Y where α is a finite clause (or tensed S).

(51) John awe inini $\left[\begin{array}{c} \bar{S} \\ \text{ka} \end{array} \right] \text{kikendaman} \left[\begin{array}{c} \bar{S} \\ \text{no ndemegwa} \end{array} \right] \text{f} \left[\begin{array}{c} \bar{S} \\ \text{kawak} \end{array} \right] \left[\begin{array}{c} \bar{S} \\ \end{array} \right] \left[\begin{array}{c} \bar{S} \\ \end{array} \right]$

John awe inini ka-kikend-aman no nde-megwa f kaw-ak
 that man COMP-know-(2-it)c wish-meet-(1-3)c

'John is the man that you know I want to meet'

In example (51) the underlined phrase is extracted from the lower \bar{S} which is a finite clause, thus appearing to violate the Propositional-island condition.

c) The Specified subject condition. This condition (see Chomsky, 1977) also refers to the structure

...X... $\boxed{\alpha \dots Y \dots}$...X...

and states that no rule may involve X and Y where α contains a specified subject, i.e. that only the subject of α be accessible to the rule.

(52) John awé inini $\boxed{\bar{S} \text{ kaqi?inendaman} \boxed{\bar{S} \text{ Bill wi?nisa}\cdot\text{t}} \boxed{\quad}}$

John awé inini ka-gi?-inend-aman Bill wi?-nis-a\cdot t
that man COMP-past-think-(2-it)c fut.-kill-(3-3')c

'John is the man that you thought Bill was going to kill'

Example (52) demonstrates an apparent violation of the Specified subject condition in that the underlined phrase is extracted from the lower \bar{S} which contains the specified subject "Bill".

iii) It observes the Complex Noun Phrase Constraint (CNPC). This constraint is found in Ross (1967, p. 70), where it is stated: "No element contained in a sentence dominated by a noun-phrase with a lexical noun may be moved out of that noun-phrase by a transformation".

Thus evidence indicates that there is a rule of WH-movement in Ojibway which moves an embedded WH-phrase into COMP position, leaving a coindexed trace at the original site. From COMP position the WH-phrase may then "escape" into higher COMP nodes; which accounts for the apparent violations of the conditions of part ii).

The question remains, however, as to whether there is evidence to support an alternative analysis. As mentioned above, both Irish and Tok Pisin may have resumptive pronouns in embedded sentences. McCloskey (1978) argues that in these cases where there are no gaps, there is no rule of extraction. He maintains that there is no evidence of WH-movement to COMP as the complementizers of Irish are base-generated in that position. He concludes that Irish contains a rule of pronoun deletion which is subject to certain conditions. As stated above, Ojibway does not have resumptive pronouns and is subject to CNPC. In 2.2 below, it will be shown that only a rule of WH-movement can explain the system of Ojibway "complementizers".

Another possible analysis is the raising analysis (see Schacter, 1973). This would involve the promotion of an NP from the embedded sentence into an empty antecedent position. While this analysis is possibly tenable, it will not be pursued here.

2.2 Another Look at Ojibway "Complementizers"

Having assumed a rule of WH-movement, the question arises as to

the true status of the morphemes ka- and the changed form. As was mentioned in section 1.2.3, these elements are considered by Algonquian linguists to be complementizers. If this were true, our rule of WH-movement for relative clauses must move a WH-phrase into the COMP node and then obligatorily delete it. Since rules of grammar must be optional, such a deletion rule would not be attractive. It also remains to be explained under such an analysis why the complementizers ka- and the changed form should occur only in constructions that have undergone WH-movement.

True complementizers should be found in sentential complements. In this dialect there are the forms:

(55) ngikenima $\left[\begin{array}{c} \bar{S} \\ \text{ikkwe iža-t} \end{array} \right]$

ŋ-gikenima ikkwe iža--t
 I-know woman go-3c
 'I know that the woman goes'

(56) ngikenima $\left[\begin{array}{c} \left[\begin{array}{c} \text{NP} \\ \text{ikkwe} \end{array} \right] \left[\begin{array}{c} \bar{S} \\ \text{kaiža-t} \end{array} \right] \\ \text{NP} \end{array} \right]$

ŋ-gikenima ikkwe ka-iža--t
 I-know woman ?-go-3c
 'I know the woman who goes'

An analysis of ka- and the changed form as complementizers would

require that a complementizer be base-generated in COMP but deleted, should there be no WH-movement to COMP. Alternatively, the complementizer could be lexically inserted in COMP, but such a rule of lexical insertion would not be allowed to apply if there has not been WH-movement.

→

This already awkward state of affairs would be further complicated by the fact that successive WH-movement involves only one complementizer.

- (57) ngikenima iniñi [S Bill kagi?andawenima-t Maryan
 [S čimegwaʃkawanit]]
- ng-ikenima inini Bill ka-gi?andawenim-a-t Mary-an
 I-know man ?-past-want-(3-3')c -obv.
 či-megwaʃkawa-ni-t
 fut.-meet-obv.-3c
- 'I know the man that Bill wanted Mary to meet'

Thus, this analysis would require that there be no complementizers generated in lower COMP nodes, only in the highest. If not, then complementizer deletion must occur ~~where~~ there is a trace of WH-movement. A rule of complementizer insertion, on the other hand, would require that insertion not take place at intermediate levels.

As the reader has probably surmised, there exists a simple solution to this problematic analysis, that is, that the ka- and the changed form are themselves the moved WH-phrase. They are in fact relative pronouns

that have been moved into COMP by WH-movement. This explains why these morphemes occur only when WH-movement has applied, and why successive WH-movement results in only one instance of these forms. That ka- and the changed form have been thought of as complementizers presumably resulted from the fact that they occur in direct questions. A proper analysis of questions in Ojibway (see 2.3) will account for the appearance of these morphemes in such constructions.

- (58) wenen ka?wabamat
wenen ka?-wabam-at
who Ch.-see-(2-3)c
past
rel. pro.
'Who did you see?'

Considering ka- and the changed form to be relative pronouns also accounts for why the selection of one form over the other is contingent on a factor of specificity of the moved WH-phrase (see 1.2.3). A relative pronoun would be a more likely candidate than a complementizer to carry such a feature.

In summary, Ojibway relative clause construction involves a rule of WH-movement which moves a relative pronoun carrying the feature \pm specific into COMP position, from which it may move into higher COMP nodes. That complementizers are not to be found in these constructions is not surprising given that they do not occur in sentential complements. In fact, complementizers, as they exist in other languages, are not

required in this dialect of Ojibway to mark subordination since the inflection of the conjunct form already is marked as such (see 1.2.1). There exists another "complementizer" in Ojibway, ki-, but this form appears to occur only when the tenses of the matrix and the subordinate clause differ in a certain respect. Although I am not entirely familiar with the exact nature of this morpheme, I suspect that it too does not deserve the label "complementizer". As mentioned in 1.2.3, there appear to be true complementizers in other languages of the Algonquian family that occur in sentential complements. However, the distribution of these morphemes has yet to be determined under the analysis presented here.

The WH-phrase or relative pronoun will be bound through co-indexing with its trace or traces and there will be a rule of WH-interpretation that will interpret this relationship (as in Chomsky, 1977).

2.3 Direct Questions

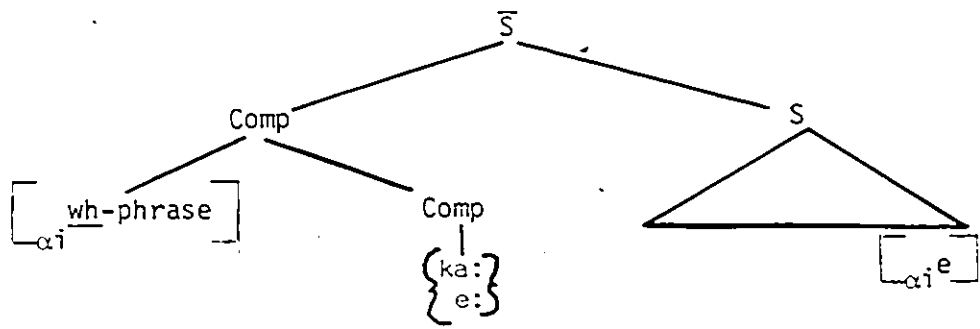
Questions in Ojibway bear close resemblance to relative clauses.

- (59) wenen ennokit
 wenen Ch.-annoki-t
 who rel. pro.-work-3c
 'Who is working?'

As mentioned in 2.2, the fact that relative pronouns occur in

question forms has presumably led Algonquian linguists to call them complementizers (see Lees, 1979 and Pagotto, 1980). I would like to propose here that an analysis which involves the generation of a question morpheme in antecedent position (for a similar analysis, see McCloskey, 1978), along with an embedded sentence which undergoes WH-movement, will explain the facts of Ojibway question construction in a more general and clear fashion. In other words, I wish to say that Ojibway questions are constructed exactly the same as relative clauses, except that questions have an interrogative lexical item in antecedent position.

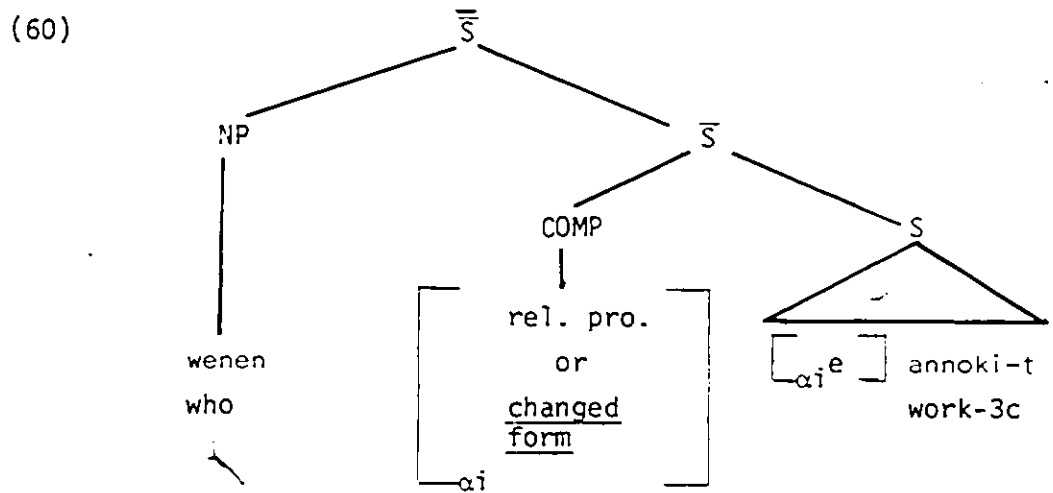
Consider the following. Given that ka- and the changed form are relative pronouns and may be taken to be the WH-phrase that has been moved to COMP, an analysis of question formation as given in Lees (1979) will have difficulty in explaining the appearance of two WH-phrases in COMP. Lees correctly assumes a rule of WH-movement. However, he considers the ka- and the changed form to be complementizers, and the interrogative morpheme to be the moved WH-phrase (see Lees, Montreal Working Papers in Linguistics, Vol. 12, 1979, p. 117):



The above diagram depicts the structure of example (59) as Lees would analyze it. Since the analysis I wish to propose entails that questions involve the generation of antecedents, I will assume the following phrase structure rule for direct questions:

$$R.3 \bar{S} \rightarrow NP \bar{S}$$

This rule is very similar to R.1. It allows the grammar to generate relative clauses as main sentences. This is a necessary consequence of a correct analysis of direct questions in Ojibway. Example (59), after having undergone WH-movement, will be depicted in the following manner:



When the changed form is assimilated into the verb, the correct sentence (59) results. It will be necessary at some point to provide a condition such that the node NP under \bar{S} must be lexically filled. If it were empty, an ungrammatical sentence would result:

- (61) * $\left[\begin{array}{c} e \\ \text{NP} \end{array} \right]$ ennòkit
 φ Ch.-annoki-t
 φ rel.pro.-work-3c
 *'The one who works'



Rule 3 also predicts the generation of such questions as (62).

- (62) ininiwan kawabama-t Jim
 ininiw-an ka-wabam-a-t Jim
 man-obv. rel. pro.-see-(3-3')c
 'It's the man who sees Jim'
 (as opposed to someone else seeing Jim)

This sentence has the same construction as that shown in (60), except in this case the antecedent node is filled by a non-interrogative item. The generalization afforded by R.3 accounts for the observation of Alan Ford and Jim Lees (1979) that focus, relative clause and question constructions appear to be closely related in Cree. This observation has also been made of language in general by Paul Schacter (1973).

Again, there must be a condition preventing the generation of empty antecedent nodes in these constructions.

- (63) * $\left[\begin{array}{c} e \\ \text{NP} \end{array} \right]$ kawabama-t



(63) continued....

ø ka-wabam-a·t

ø rel. pro.-see-(3-3')

*'The one who sees Jim'

That direct questions usually involve the changed form (non-specific) relative pronoun is not surprising considering the nature of questions in general.

(64) wenen bemipato·t

wenen Ch.-bimipato·t

who rel. pro.-walk-3c

'Who is walking?'

However, the ka- form may also be used in direct questions with the resulting change in meaning:

(65) wenen kabimipato·t

wenen ka-bimipato·-t

who rel. pro.-walk-3c

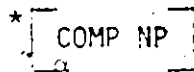
'Who is the one walking?'

Lees noted that it is necessary to devise some means of attaching the "complementizer" to the verb since NPs may occur

within S to the left of the ka- and the changed form.

- (66) ogonen inini bakkite?ang
ogonen inini Ch.-bakkite?-ang
what man rel. pro.-hit-(3-it)c
'What does the man hit?'

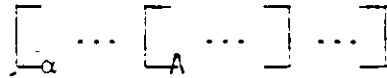
Lees first suggests a filter which would accomplish this:



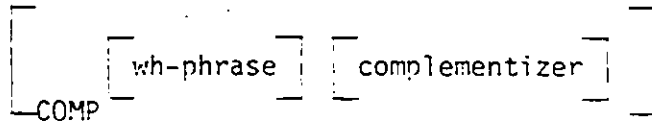
One major problem with his analysis, however, is that it should move the question morpheme (which he places in COMP) along with the "complementizer". This would allow sentences such as:

- (67) ? inini ogonen bakkite?ang
inini ogonen Ch.-ba-kite?-ang
man what rel. pro.-hit-(3-it)c
'The man what hits?'

This last sentence was judged by my informant to be at the very least awkward. If Lees' analysis allowed the interrogative morpheme to be left behind in COMP as in example (66), it would violate the A/A condition as formulated in Chomsky (1973). This condition states that when a transformation applies to a structure of the form:



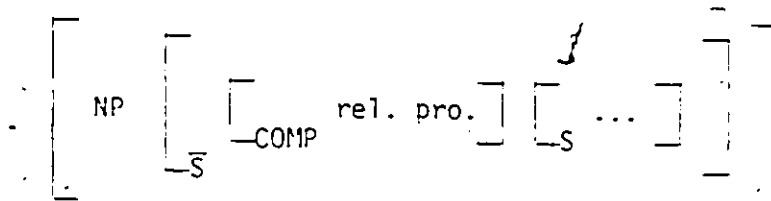
where α is a cyclic node, then it must be interpreted so as to apply to the maximal phrase of the type A. As mentioned above, Lees' COMP node involves the structure:



The A/A condition entails that any movement which affects the COMP node must affect the maximal COMP node. In Chomsky and Lasnik (1977, p. 463), it was stated that: "...if a filter can apply to a string φ or a substring of φ , then we only consider the larger category, φ itself." This would mean that only sentences such as (67) would be grammatical. Sentences such as (66) would be a violation of the A/A condition. These results obviously are not desirable.

Later in his paper, Lees attempts to make a distinction between the COMP node, into which he moves the interrogative morpheme, and "complementizers". To do this he posits a node 'compz' under the COMP node. This distinction, while avoiding a violation of the A/A condition, is obviously ad hoc.

It should be evident to the reader that my analysis avoids this problem entirely. Lees' filter would not create a violation under this analysis since the filter would be applied to the structure:



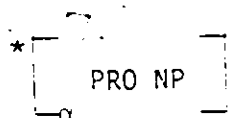
In this case the filter would be applied to the maximal category of COMP giving the correct results. Only the relative pronouns in COMP (ka- and the changed form) would be affected since the interrogative morpheme is within another category (NP).

Another possible means of attaching relative pronouns to verbs is to make a general statement concerning pronoun attachment in Ojibway. (I will leave aside the question of Algonquian languages that contain "true" complementizers.) In matrix sentences, personal pronouns are always found attached to the verb (with the exception of emphatic pronouns that require personal pronouns as well).

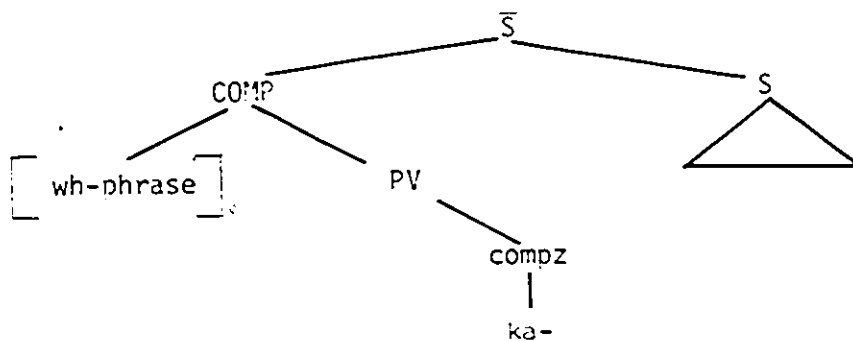
- (68) niwabama animo[an
ni-wabam-a animo[-an
I-see-(1-3)c dog-obv.
'I see the dog'

As was stated in 1.2.1, subordinate clauses in Ojibway do not contain personal pronouns. Person is reflected in the conjunct inflection. However, if COMP is taken to be the only means of "escape" for

WH-movement, and R.2 requires that COMP precede S, then the fact that relative pronouns are the only pronouns to appear in subordinate clauses is not altogether unexpected. Thus there may be some general device in Ojibway grammar that ensures that all pronouns to the left of the verb are attached to the verb phrase. Ojibway word order is fairly free, but this condition of pronoun-attachment is inviolable (except in the case of emphatic pronouns). One could therefore propose a general filter preventing pronouns from appearing in surface form before noun-phrases:



Lees (1979) attempts to generalize his complementizer filter to a filter which prevents preverbs (or PVs) of the language (i.e. complementizers, tense markers, etc.) from appearing before noun-phrases. He does not, however, include pronouns in his analysis, so I will no longer be making a comparison. As far as I can make out, his final analysis of the COMP node in Ojibway may be depicted as:



This appears to be a more complicated and less explanatory version than that which is proposed in this thesis.

In summary, this chapter has shown that there is evidence to support an analysis of relative clause and direct question construction in terms of a rule of WH-movement. It was then shown that the morphemes ka- and the changed form are really relative pronouns rather than complementizers. A happy consequence of this analysis is that it enables the grammar to provide a more explanatory description of direct questions, and, at the same time, account for their similarity to relative clauses.

CHAPTER III

RELATED CONSTRUCTIONS

3.0 In this chapter I will use the analysis as proposed in chapters I and II to describe related constructions in Ojibway.

3.1 Indirect Questions

Chomsky (1977) notes that in English, relative clauses and indirect questions are similar.

I know $\left[\begin{array}{c} \text{the man} \\ \text{NP} \end{array} \left[\begin{array}{c} \text{who hit the girl} \\ \text{S} \end{array} \right] \right]$

* I wonder $\left[\begin{array}{c} \text{who hit the girl} \\ \text{S} \end{array} \right]$

The analysis of chapters I and II predicts that in Ojibway, indirect questions and relative clauses will have exactly the same structure.

This appears to be the case as can be seen in examples (69) and (70).

- (69) ngikenima (inini) eža-t zibng
ng-gikenima inini Ch.-iža--t zibi-ng
I-know man rel. pro.-go-3c river-loc.
'I know a man who is going to the river'

- (70) ngikenima (wenen) eža-t zibing
ng-gikenima wenen Ch.-iža--t zibi-ng
I-know who rel. pro.-go-3c river-loc.
'I know who is going to the river'

Notice that both examples (69) and (70) involve an antecedent followed by an \bar{S} which has undergone Wh-movement. One interesting feature of these constructions is that they do not require the antecedent to be lexically filled. Examples (71), (72) and (73) exhibit the same phenomenon.

- (71) ngikendan (ogonen) inini ka?wabandang
ng-gikend-an ogonen inini ka?-waband-ang
I-know-it what man Ch.-see-(3-it)c
past
rel. pro.
'I know what the man saw'

- (72) ngikenima (andi) bəmipato-t
ng-gikenima andi Ch.-bimipato--t
I-know where rel. pro.-walk-3c
or
which
'I know where he walks'

- (73) John kikagwetwe (wenenan) ka?piža-nit

(73) continued....

John ki-ka-gwetwe wenen-an ka?-piža--ni-t
past-ask-dubitive who-obv. Ch.-come-obv.-3c
past
rel. pro.

'John asked who came'

Relative clauses also do not require lexical antecedents (see examples (40) through (49)). Therefore the only constructions which require that the antecedent position be filled are focus and direct question constructions (see 2.3). The distribution of this requirement may be summarized as follows:

Direct Questions	must have lexical antecedents
Focus Constructions	
Relative Clauses	optional lexical antecedents
Indirect Questions	

The question yet remains as to how one might explain both these groups without sacrificing the generality of the rules that generate them. In the case of direct questions and focus constructions, it appears obvious from a semantic viewpoint that the antecedent position must be lexically filled. This is the case because a question or a focus must be about something. The more problematic case is that of the indirect questions and relative clauses which allow for a lexically empty antecedent. When this occurs, it is impossible to say

whether or not the construction is a relative clause or indirect question. The only means of distinguishing the two constructions is on the basis of whether or not the antecedent is a non-WH NP or an interrogative morpheme. When the antecedent position is empty, this distinction is lost. These empty-antecedent constructions (described briefly in 1.1) are called headless or free relatives. Problematic as they are in most languages, an analysis of Ojibway relative clauses would not be complete without some sort of explanation for them.

3.2 Free Relatives

Chomsky (1977, p. 81) briefly outlined a predication rule for relative clauses:

The rule of interpretation for relatives requires that the relative be taken as an open sentence satisfied by the entity referred to by the NP in which it appears; hence there must be an NP in the relative that is interpreted as having no independent reference - i.e. a pronoun with the appropriate inflections that can be given the "anaphoric" interpretation.

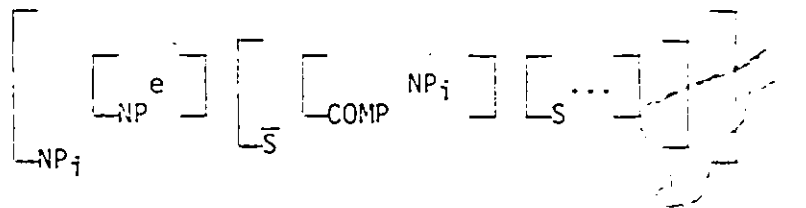
This description of a rule of interpretation suffices to explain all constructions with lexical antecedents. Free relatives remain unexplained under this rule since they do not contain a lexical NP to satisfy the reference of the pronoun in the relative.

One possibility for solving this problem is to allow the containing category of a relative pronoun to bind the pronoun in COMP, should

the antecedent NP be lexically empty. This binding rule would be contingent on the condition that the containing category be identical to the category type of the pronoun (i.e. NP). The end result would be, in a sense, a matching effect.¹

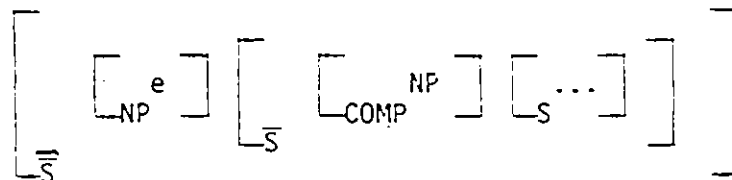
I therefore wish to propose that the COMP node be accessible such that an index may "percolate" from the containing category of a relative clause to the relative pronoun (if there is no lexical antecedent). Thus a rule of interpretation will correctly interpret a free relative.

That the COMP node be accessible is not a new concept. Groos and van Riemsdijk (1979) argue for allowing the subcategorization features of a verb to have access to the COMP node when there is no lexical NP in antecedent position to satisfy the requirements of the verb. It therefore seems plausible that the containing category of a phrase is allowed to reach into COMP and assign an index to a pronoun in COMP, should there be no lexical item in antecedent position. This would seem to be a useful extension of the notion of accessibility to COMP. Such a binding rule would entail the following structure at the level of logical form:



1. Koster (1980), in his summary of Chomsky's Pisa Lectures, remarks that "percolation" is possibly a description of matching, but that the notion of government is a separate issue.

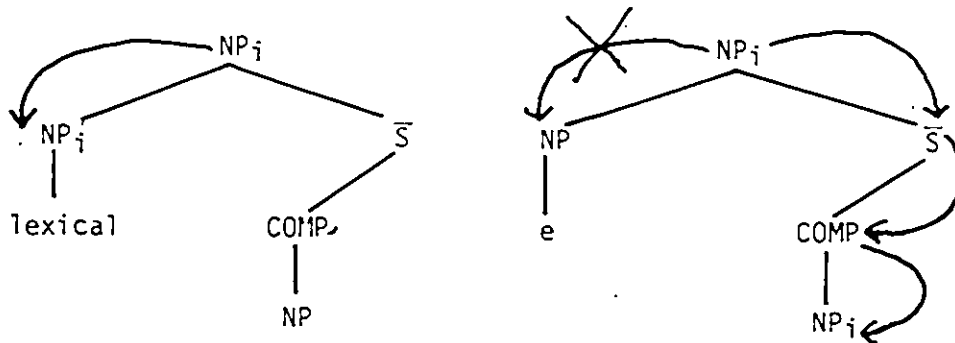
An alternative to this hypothesis is that the relative pronoun itself binds the empty node NP (see Chomsky, 1980a, and Groos and van Riemsdijk, 1979). This would entail that a relative pronoun be index-assigning where it has no lexical antecedent, and thus satisfy a rule of interpretation. This does not seem to be an attractive proposal in that the inherent "anaphoric" quality of the pronoun would be lost. Pronouns should not be index-assigning. They should be (as they are in all other cases) bound by an antecedent when used anaphorically. An analysis which allows them to bind empty positions does so at a cost. On the other hand, since justification exists for allowing the COMP node to be accessible to subcategorization features of the verb, the anaphoric quality of relative pronouns can be preserved. A welcome prediction of this analysis is that where the containing category of the free relative is not identical to the pronoun, it may not assign an index. In other words, there is no matching effect. Another way of putting this would be to say that percolation of the index into COMP can only occur between elements of the same category type. Index percolation would therefore be prohibited in direct questions and focus constructions.



Where $\bar{S} \neq \text{NP}$, there can be no binding of the pronoun.

Although semantic features of these constructions would seem to prevent such occurrences, it is also gratifying that a rule of interpretation, under this analysis, would not allow them. This in effect means that such constructions are not interpretable at the level of logical form.

A rule of interpretation of free relatives would presumably be operating on the basis of the minimal distance principle as proposed in Rosenbaum (1967). This principle would entail that index percolation selects, or stops at, the node which dominates lexical material and is close to the dominating NP:



A tentative extension of this proposal is that the inflection of the higher VP performs the binding. Note that all matrix verbs contain a thematic inflection (see 1.2.2) which refers to the subject and object of the verb. Thus the possibility exists that these inflections may assign an index to the containing category, which in turn assigns the index to the pronoun in COMP. This would also account for why, in some constructions, the antecedent must be lexically filled, and why,

in others, it is optional.

In summary, I have proposed here that relative clauses, focus constructions, and direct and indirect questions all involve the same construction - $\square \text{ NP } \square \square \bar{\text{S}} \square$, and that the well-formedness of these constructions is dependent on rules of binding and interpretation.

3.3 Interrogative Determiners

The last construction that I will look at are noun-phrases involving interrogative determiners such as the following:

(74) andi awe inini wabandang čiman
andi awe inini Ch.-waband-ang čiman
which that man rel. pro.-see-(3-it)c boat
'Which man sees the boat?'

(75) andi iwe čiman wabandang inini
andi iwe čiman Ch.-waband-ang inini
which that boat rel. pro.-see-(3-it)c man
'Which boat does the man see?'

These constructions may also involve the use of interrogative morphemes so that (76) and (77) can be alternative translations for (74) and (75).

(76) wenen inini wabandang čiman

(77) ogonen čiman wabandang inini

I do not propose to make a complete analysis of these constructions here. I only wish to point out that the analysis as presented in chapters I and II predicts the correct results insofar as it avoids a problem encountered in Lees' (1979) analysis. Lees assumes that the interrogative lexical items have been moved into COMP position as a result of WH-movement. However, he finds that he must explain sentences such as (78), (79) and (80).

- (78) ogonen mazana?igan ka?mikaman
ogonen mazana?igan ka?-mik-aman
what book Ch.-find-(2-it)c
past
rel. pro.

'What book did you find?'

This sentence can also be phrased in the following manner:

- (79) ogonen ka?mikaman mazana?igan

However there are no occurrences of:

- (80) *mazana?igan ka?mikaman ogonen

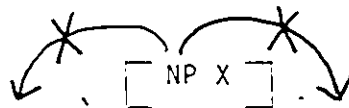
To avoid the ungrammatical sentence (80), Lees first proposes a Right Branch Condition which prohibits the extraction of an NP without moving the interrogative determiner. He later generalizes this condition by means of a Head Condition which requires that the head of a larger constituent (be it NP, PP or Adv.P) be immune to reordering. I will not

concern myself with an explanation of adverbial or prepositional phrases. I will instead confine my argument to the noun-phrases that appear to have interrogative determiners.

In the first place, it is difficult to understand why Lees thinks that it is necessary to provide a condition to prevent sentences such as (80). He has already assumed a rule of WH-movement which by its nature will move only WH-phrases. By this definition it would be impossible to move a noun in isolation, leaving the WH-element behind. However, I wish to show that the analysis of chapters I and II can easily account for these examples.

In chapter II it was proposed that interrogative phrases are generated in antecedent position with a subordinate sentence containing a relative pronoun which is moved into COMP by WH-movement. If we apply this analysis to sentences (78), (79) and (80), it can be seen that there is no need to constrain the rule of WH-movement, since the interrogative phrase must always be the first item in the sentence because it is in antecedent position. Therefore, our analysis predicts that sentence (80) will be ungrammatical, and there is no need for either a Right Branch Condition or a Head Condition for these constructions.

Lees compares the Right Branch Condition with the Left Branch Condition of Ross (1967, p. 114). This condition states that: No NP which is the leftmost constituent of a larger NP can be reordered out of this NP by a transformational rule, or:



This prevents such sentences in English as:

*Which_i did the man see t_i boy

Ross notes that this condition is not usually operative in languages that have a scrambling rule (scrambling, as defined by Ross, allows constituents to appear in any order within the same clause). Russian is an example of such a language. Ojibway also appears to have some sort of scrambling rule, therefore one would not expect the Left Branch Condition to apply. That this is the case can be seen in example (79). In this example the interrogative morpheme has been generated in antecedent position and the rule of WH-movement has moved the WH-phrase within \bar{S} into COMP position, leaving the NP behind. This demonstrates that the Left Branch Condition is not operative in Ojibway. Sentence (78) presumably generates the entire NP in antecedent position such that there is only a WH-phrase in \bar{S} which moves to COMP. There is no need to consider a Left Branch Condition for this example.

Once again, it has been shown that the grammar of Ojibway developed in chapters I and II is a productive one in that it easily accounts for related constructions in a satisfactory manner.

CHAPTER IV

CONCLUSION

In the Introduction of this thesis it was assumed that by examining relative clauses in Ojibway within a theoretical framework, a more general and explanatory description would result. I think that it has been shown that this is indeed the case.

Chapter I provided some basic phrase structure rules and an introduction to Algonquian terminology. Chapter II described a rule of WH-movement for Ojibway and showed how this rule could be used to correctly identify the morphemes ka- and the changed form as relative pronouns rather than complementizers. This in turn led to a more general description of direct questions and to a demonstration of how focus constructions were related to both relative clauses and questions. The conclusion of that chapter is that relative clauses, focus constructions, and direct questions are essentially the same construction in that they are all composed of an antecedent followed by a relative clause containing a relative pronoun which underwent WH-movement.

Chapter III took the above conclusion and extended it to explain indirect questions in the same terms. This led to a discussion of free relatives, where it was proposed that a relative pronoun may be bound by its containing category (or possibly by a higher VP), thus achieving a matching effect. The binding of the relative pronoun was accomplished by means of the notion of COMP accessibility. COMP accessibility has been argued for (on independent grounds) by Groos and van Riemsdijk (1979).

Chapter III went on to show that the analysis of chapters I and II avoided a problematic instance concerning interrogative determiners.

The rules of the grammar presented may be summarized as follows:

1. Phrase Structure Rules

R.1 $NP \rightarrow NP \bar{S}$

R.2 $\bar{S} \rightarrow \text{Comp } S$

R.3 $\bar{S} \rightarrow NP \bar{S}$

2. Transformation

Move WH

3. Filter

* $\left[\begin{array}{c} \alpha \\ \text{PRO NP} \end{array} \right]$

4. a)

i) A rule of construal which relates an antecedent to a relative pronoun, or, in the case where there is no antecedent, relates an identical containing category to a relative pronoun.

ii) A rule of construal which binds a relative pronoun to its trace.

b) A rule of interpretation which will interpret coindexed elements.

It is to be hoped that this analysis will be applicable to all Algonquian languages. It has been shown that the above grammar satisfactorily explains all the data given in this thesis without recourse to conditions or constraints on application, and that it does so in a better manner than any other analysis so far proposed. This is the goal of any linguistic model, and it has been demonstrated that the Extended Standard Theory model has, in this case, met that requirement.

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