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THE MORPHOSYNTAX OF THE CENTRAL OJIBWA VERB

by

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A dissertation submitted in partial fulfillment
of the requirements for the degree of
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For Mary

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To Him who made both man and language and in Whose service I am, what I have of value is really all His. To Hap McCue who taught me my first Indian and is still a source of strength. To Tom Storer who opened to me what it means to be an Indian and to see the world through different eyes. To Reta Sands whose time and patience in teaching me Indian is exceeded only by her boundless hospitality and friendship. To Francis Fox who suffered through the outrageous questions I asked and is still my friend. To the other people of Walpole and Wicky especially Nora Soney who taught me both about Indian and about being a Christian. To the students in my Ojibwa class who taught me more Ojibwa than I taught them. To Ken Hill who got me doing Indian in the first place and who has greatly encouraged me throughout my academic career at Michigan. To David Perlmutter who started me writing this thesis. To my typists, Jim Huntley, Larry Krieg, and Mabel Lewis, who treated me and the manuscript better than either deserves. And lastly and most especially to Mary, my wife, whose selflessness and love in caring for me while I wrote this are unrepayable. To all these people I can only acknowledge a debt that I cannot repay; I am indeed grateful.

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LIST OF ABBREVIATIONS

A/ABS	absolutive	PL/pl	plural
abl	ablative	POSS	possessor
ACC/acc	accusative	PPL	participle
ADV	adverb(ial)	PREP	preposition
AI	animate intransitive	PRES	present
AN	(grammatically) animate	PRET	preterite
ANIM	logically animate	PRO	indefinite index
BEN/BENEF	benefactive	PT	pseudo-transitive
C	consonant	R	result (clause)
CH	chomeur	REDUP	reduplication
CL	classifier	REFL	reflexive
COM	comitative	SG/sg	singular
comp	complement	SUBJ/subj	subject/subjunctive
CU	clause union	T	term
D	dependent (conjunct) context/downstairs (clause)	TA	transitive animate
dat	dative	TI	transitive inanimate
DD	dead dependent	TSA	transitive stem agreement (marker)
DUB	dubitative	U	upstairs (clause)
DV	dead verb	V	verb (complex)/vowel
E/ERG	ergative		
EXC/exc	exclusive		
FEM/fem	feminine		
FUT	future		
GEN/gen	genitive		
II	inanimate intransi- tive		
INAN/inan	inanimate		
INC/inc	inclusive		
INF	infinitive		
INS/INSTR	instrument(al)		
ISA	intransitive stem agreement (marker)		
LOC/loc	locative		
MASC/masc	masculine		
N	noun		
NEG	negative		
NOM/nom	nominative		
NP	noun phrase		
NT	non-term		
OA I/OAI	object agreement I (marker)		
OA II/OAII	object agreement II (marker)		
OBJ/obj	object		
OBV/obv	obviative		
PASS	passive		
PERF	perfect		

CHAPTER I
INTRODUCTION

1.0. Introduction. Central Ojibwa is a dialect of the Central Algonkian language known variously as Ojibwa, Chippewa, Salteaux, Algonquin, and Ottawa. The different dialects of this language are spoken in the states of Michigan, Wisconsin, and Minnesota, and in the provinces of Ontario, Manitoba, and Saskatchewan. The dialect that forms the topic of this work is spoken in the lower peninsula of Michigan and in the adjacent area of southern Ontario by people of Ojibwa (or Chippewa), Ottawa and Potawatomi descent. The dialect itself is the same one recorded by Bloomfield (1957), but recent research (Rhodes 1976) has shown that this dialect is the historical development of the dialect Baraga (1878) called Ottawa. We will call it Central Ojibwa because many speakers are of Ojibwa descent and say they speak Ojibwa (or Chippewa), while most speakers of Ottawa descent say they speak a "mixture" of Ottawa and Ojibwa. We do not use Bloomfield's term Eastern Ojibwa because further to the east there is another dialect of the same language for which we reserve the name Eastern Ojibwa.

1.0.1. Estimates on the number of speakers of this dialect are difficult to make. We suspect that there may be as many as 7,000 speakers and 200 monolinguals.¹ The language is strongest on the Wikwemikong reserve on Manitoulin Island which (with the Bruce peninsula)

separates Georgian Bay from Lake Huron. There the language is spoken regularly at home and on the street. Our data indicate that the dialect is unified. For example, as much variation can be found going from speaker to speaker on the same reserve as can be found in going from one reserve to another, with the exception of very minor localisms.

1.0.2 Data for this thesis comes from numerous speakers from Walpole Island, Ontario and from Wikwemikong, Ontario. Our principal language consultants are Reta Sands of Walpole Island and Francis Fox, originally from Wikwemikong. We have also elicited and checked significant amounts of data from Nora Soney, Lavina Day, and Gerald Osage, all of Walpole Island. We have used some of Bloomfield's (1957) data in addition, but we have rechecked it against current usage and have retranscribed it according to current pronunciation and our representation. Irving "Hap" McCue, originally from Curve Lake, Ontario, supplied the data from the eastern dialect.

1.1 The sound system. The phonemes² of Central Ojibwa will be represented as follows:

(1) Consonants:

lenis:	b	d	g	g ^w	j	z	ž
fortis:	p	t	k	k ^w	c	s	š
glides	w	y	h	h ^w			
nasals:	m	n	ŋ				
nasalization:		~					

(2) Vowels

long:	i:	e:	a:	o:
short:	i	a	o	

For a close description of the positional variants of these sounds we refer the reader to Bloomfield (1957), and we will limit the discussion here to the differences of notation.

We have chosen to write fortis obstruents with unit symbols to emphasize the unit character of these entities. Notice that in this we agree with Bloomfield at the heart of the matter (1957:vi, 3, 8-9), but not with his transcription. We use voiceless symbols to represent fortis obstruents, and voiced symbols to represent lenis obstruents. In addition we have chosen to write h for glottal stop, mostly for convenience sake.

We do not consider y and w positional variants of i and o.

Because the vowels that were written as reduced e and u are no longer pronounced, or can be accounted for equally as well by a rule inserting open transitions (Rhodes 1974), we omit them from our representation. This brings about four new contrasts in preconsonantal position: g^w , k^w , h^w , and η .³

(2) (a) g^w

wa:gzi	It (anim.) is crooked.
na:g ^w zi	He is visible.

(b) k^w

no:kbi:do:n	Soften it!
bo:k ^w bi:do:n	Break it!

(c) h^w

ngi:-w [~] zi:hmawa:	I wrote to him.
nba:bi:h ^w mi	We (exc.) are waiting.

(d) η

nniso-bbo:ngiz	I am three years old.
gzo:ngiz	You are strong.

1.1.1 The following contrasts are not uniformly maintained throughout the dialect.

- (3) (a) $g^w/k^w/h^w$ vs. $g/k/h$
- (b) word initial clusters of identical lenes (bb, dd, gg, zz, žž)
 vs. corresponding single lenes (b, d, g, z, ž)
 or vs. corresponding fortes (p, t, k, s, š)
- (c) wa vs. o
- (d) bm vs. m and dn vs. n
- (e) h vs. \emptyset before a consonant
- (f) w vs. \emptyset before a consonant
- (g) word final fortes vs. word final lenes
- (h) h^w vs. w

Nonetheless we will write all these contrasts consistently, even when the speaker from whom the form/sentence was elicited does not make the contrast.

1.1.2 Finally we represent verb forms with a hyphen to mark the location of a major phonological break between the stem and certain kinds of prefixes. This is in keeping with the usage of Bloomfield and other Algonkianists.

- (4) bo:zi He embarks.
 gi:-bo:zi He embarked.
 wi:-bo:zi He wants to embark./He will embark.
 da-bo:zi He shall embark.
 da:-bo:zi He should embark.
 etc.

1.2 Morphophonemics. The total system of Ojibwa morphophonemics is quite complex. In this section we will outline some of the more obvious morphophonemic processes to aid the reader in dealing with the

morphemic analysis of examples in this and later chapters.

1.2.1 Vowel Deletions. Central and Eastern Ojibwa are characterized from other dialects by a system of vowel reduction/deletion. In addition to these deletions, there are deletions of word final vowels and glides which all dialects share. Let us first look at this latter deletion process.

(5) A word final short vowel or glide is deleted.

While the exact process is somewhat more complicated than (5) suggests, this is sufficient for our purposes. Some examples of its operation are given in (6).

(6) (a)	bo:zin	/bo:zi-n/ ⁴	Embark!
	nbo:z	/n-bo:zi/	I am embarking.
(b)	ga:sknozon	/ga:skanozo-n/	Whisper!
	nga:sknoz	/n-ga:skanozo/	I am whispering.
(c)	kwe:	/akwe:w/	woman
	kwe:wag	/akwe:w-ag/	women
(d)	mdimo:yě:	/midimo:ye:ny/	old woman
	mdimo:yě:yag	/midimo:ye:ny-ag/	old women

The second vowel deletion rule is very complex, probably consisting of two processes. Basically, alternate short vowels are deleted. One mechanism for doing this is given in Kaye (1973) involving an abstract stress system and the deletion of unstressed vowels. We are highly skeptical of such an approach in spite of its similarity to the overt stress patterns of other dialects. Instead we feel that the evidence from the restructuring of morphemes and from the reactions of native

speakers indicates that the vowels are deleted directly via abstract rules. Informal versions of these rules are given in (7).

- (7) (a) If the first vowel of a word is short, it is deleted unless a consonant cluster precedes.
- (b) If a vowel follows in the word, a short vowel is deleted unless the vowel of the preceding syllable has been deleted.

Some examples of the operation of (7) and its interaction with (5) are given in (8).

(8) (a)	bwi	/abwi/ ⁵	paddle	((7a) applies)
	ndabwi	/n(d)-abwi/ ⁶	my paddle	
(b)	kik	/akikw/	kettle	((5) and (7) apply)
	ndakik	/n(d)-akikw/	my kettle	((5) only)
(c)	mkizin	/makizin/	shoe	((7a) applies)
	nmakzin	/n-makizin/	my shoe	((7b) applies)
	mkiznan	/makizin-an/	shoes	((7a) and (7b) apply)
(d)	wi:snin	/wi:sini-n/	Eat!	((7b) applies)
	nwi:sin	/n-wi:sini/	I eat.	((5) applies so (7b) can't)
(e)	mwi	/mawi-w/	He is crying.	((5) and (7a) apply)
	nmaw	/n-mawi/	I am crying.	((5) only applies)

In addition to these rules deleting vowels there is also a rule (9).

- (13) (a) Postconsonantal w contracts with epenthetic i to give o.
 (b) Postconsonantal w contracts with underlying i to give o within stems.
 (c) Postconsonantal w contracts irregularly with inflectional a to give o:.
 (d) Postconsonantal w contracts irregularly with e: to give o:.
- (14) (a) Postconsonantal i contracts with a or i to give i:. (But the morphemes i 'particle' and na:ni '1st plural' are exceptions to this rule. Instead, a following a deletes by (9).)
 (b) Postconsonantal i contracts with e: to give i:.

Examples of these contractions are given in (15).

(15) (a) (i) ndakik

/n(d)-akikw/ my kettle

ndakko:g

/n(d)-akikw-ag/ my kettles (13c)

ndakkona:

/n(d)-akikw-(i)na:ni/ our (exc) kettle (13a)

(ii) nninj

/n-ninji/ my hand

nninji:n

/n-ninji-an/ my hands (14a)

nninjna:nin

/n-ninji-na:ni-an/ our (exc) hands
 (exception to 14a)

nninji:ng

/n-ninji-ing/ on my hand (14a)

- (b) nminta:go:g
 /n-minw-(i)t-aw-igw-ag/ I sound good to them.
 (13c)
- nminta:goz
 /n-minw-(i)t-aw-igw-izi/ I sound good. (13b)
- (c) nbi:mskobtwa:da:n
 /n-bi:miskw-(i)bah-dwe:-d-am-n/ I run around it. (13a,
 exception to 13d)
- nbi:mskobto:
 /n-bi:miskw-(i)bah-dwe:/ I run around. (13a,d)
- (d) nzakwa:da:n /n-zakwe:-d-am-n/ I spit on it.
 (exception to 13d)
- nzakwe: /n-zakwe:/ I spit. (exception to
 13d)
- (e) gzi:bi:gna:gne:
 /gizi:-bi:g-(i)na:gan-e:-w/ He washes the dishes.
- gzi:bi:g ninji:
 /gizi:-bi:g-(i)ninji-e:-w/ He washes (his) hands.
 (14b)

In addition to the contractions of (13) and (14), there are the contractions of (16) and (17).

(16) The sequence awi contracts to

- (a) a: before velars,
 (b) o: elsewhere.

- (17) (a) gno:nda:g /g-no:nd-aw-igw/ He hears you.
 (b) gno:ndo:n /g-no:nd-aw-ini/ I hear you.
 gno:ndo:sno:n /g-no:nd-aw-isino:ni/ I don't hear you.

1.2.3 Consonant Deletions. One very characteristic rule of Central Ojibwa that does not appear in other dialects is the rule that deletes n off the end of several morphemes word finally.

- (8) (a) N is deleted word finally off of -min '1st plural', -na:ni '1st plural', and -bani 'preterite' leaving no trace.
- (b) Word final n is optionally (but normally) deleted off of -a:n '1st person' and -e:n 'dubitative' and -ke:n 'prohibitive' leaving nasalization.

- (9) (a) nwa:bmina:dig /n-wa:bi-min-(a:)dig/ We (exc.) supposedly see.
- nwa:bmi /n-wa:bi-min/ We (exc.) see.
- nwa:bma:na:nig /n-wa:bam-a:-na:ni-ag/ We (exc.) see them.
- nwa:bma:na: /n-wa:bam-a:-na:ni/ We (exc.) see him.
- nwa:bma:bni:g /n-wa:bam-a:-bani-ag/ I used to see them.
- nwa:bma:ba /n-wa:bam-a:-bani/ I used to see him.
- (b) wa:bminna:n /wa:bam-inin-a:n/ (that) I see you
- wa:bminnã:
- wa:bminna:ne:n /wa:bam-inin-a:n-e:n/ (that) I supposedly see you
- wa:bminna:rẽ
- wi:snike:n /wi:sini-ke:n/ (Don't) eat!
- wi:snikẽ:

Clusters of resonants simplify.

- (20) (a) Before n non-stem m and n delete, before m non-stem m deletes.
- (b) Clusters of ww simplify to w.
- (21) (a) bzindam /bizind-am-w/ He's listening.
- bzindan /bizind-am-n/ Listen!
- (Stem: /bizind/)

nbi:do:n	/n-bi:d-o:-n/	I bring it.
nbi:do:na:	/n-bi:d-o:-n-na:ni/	We (exc.) bring it.
but		
nkanna:nin	/n-kan-(i)na:ni-an/	our (exc.) bones (stem: /kan/)
dgošnon	/dagos-in-(o)n/	Arrive! (stem: /dagos-in/)
(b) ngi:-bzindam	/n-bi:-bizind-am/	I listened
ngi:-bzinda:mi	/n-gi:-lizind-am-min/ ⁹	We (exc.) listened.
(c) (i) wa:bma:wngwě:		
	/wa:bam-a:-(w)angw-e:n/	(that) we (inc.) supposedly see him
wa:bma:wgě:		
	/wa:bam-a:-(w)ag-e:n/	(that) I supposedly see him
wa:bmagwa:		
	/wa:bam-a:-ag-wa:/	(that) I see them
wa:bma:wngwa:yě:		
	/wa:bam-a:-(w)angw-wa:-e:n/	(that) we (inc.) supposedly see them
(ii) mskwi	/mskwi/	blood
mskwi:wi	/miskwi-w-i-w/ ¹⁰	He is bloody/bleeding.
nini:	/niniw/	man
ninwag	/niniw-ag/	men
nini:wi	/niniw-w-i-w/	He is a man.

1.2.4 Consonant Assimilations. Consonants with oral closure and h assimilate to the point of articulation of following consonants, irregularly. Obstruent clusters become fortis obstruents. Obstruents

following nasals become lenis. Examples are given in (22).

- (22) (a) wa:bma:d /wa:bam-a:-d/ (that) he sees him
 wa:bma:pa /wa:bam-a:-d-bani/ (that) he used to
 see him
 nda:bjiha: /n(d)-a:bid-(i)h-a:/ I make use of him.
 nda:bjito:n /n(d)-a:bid-(i)h-d-o:-n/ I make use of it.
 gi:gdo /REDUPLICATION-gido-w/ He speaks.
 kido /iñ-gido-w/¹¹ He speaks thus.
- (b) wi:sniyã: /wi:sini-a:n/ (that) I eat
 wi:sniya:mba: /wi:sini-a:n-bani/ (that) I used to
 eat
 nbimo:ma: /n-bino:m-a:/ I carry him (on
 my back).
 nbimo:nda:n /n-bimo:m-d-am-n/ I carry it (on
 my back).
 gniwan /gimiwan-w/ It is raining.
 gniwaŋg /gimiwan-g/ (that) it is
 raining
- (c) gnawa:bndamã: /gana-wa:bam-d-am-a:n/ (that) I look at
 it
 gnawa:bndaŋgë: /gana-wa:bam-d-am-ke:n/ (Don't) look at
 it!

1.2.5 Epenthesis. There are several rules of epenthesis in Ojibwa. Some insert vowels, others consonants.

- (23) i is inserted between the final consonant of a stem morpheme and the initial consonant of the following morpheme. (After verb stems ending in nasals o is used instead of i.)

Some examples are given in (24).

- (24) (a) nmiš^hi:min /n-miš^hi:min/ my apple
 nmiš^hi:mnina: /n-miš^hi:min-(i)na:ni/ our (exc.) apple
 but
 nwa:bnda:n /n-wa:bam-d-am-n/ I see it.
 nwa:bnda:na: /n-wa:bam-d-am-n-na:ni/ We (exc.) see it.
 (stem: /wa:bam-d-/)

 (b) ngi:-dgoš^hin /n-gi:-dagos-in/ I arrived.
 ngi:-dgoš^hnomi /n-gi:-dagos-in-(o)min/ We (exc.) arrived.
 (stem: /dagos-in/)

There is a partly irregular rule which inserts a:.

- (25) In independent verbs a: is inserted between the suffixes -bani 'preterite' and -dig 'dubitative' and a preceding nasal or nasal plus w.

Examples are given in (26).

- (26) (a) nwa:bnda:n /n-wa:bam-d-am-n/ I see it.
 wa:bwiba /wa:bi-w-(i)bani/ He used to (be able to) see.
 nwa:bnda:na:ba /n-wa:bam-d-am-n-(a:)bani/ I used to see it.

 (b) wa:bwidig /wa:bi-w-dig/ He supposedly (can) see.
 nwa:bnda:na:dig /w-wa:bam-d-am-n-(a:)dig/ He supposedly sees it.

There is a rule inserting d between vowels and preceding person markers.

- (27) d is inserted before a vowel that immediately follows the person markers n '1st person', g '2nd person', and w '3rd person'.

A few obligatorily possessed nouns beginning with o: and i: are exempt from (27). Some examples are given in (28)

- (28) (a) o:de:to: /o:de:to:-w/ He goes to town.
 ndo:de:to: /n(d)-o:de:to:/ I go to town.
 ngi:-o:de:to: /n-gi:-o:de:to:/ I went to town.
- (b) nmakzin /n-makizin/ my shoe
 ndo:ski-mkizin /n(d)-oski-makizin/ my new shoe
 but
 no:s /n-o:s/ my father

(29) A y is epenthesized between vowels.

Examples of (29) are given in (30), including examples of the two morphemes which begin with short vowels but which are exceptionally exempt from deletion by (7), given in (30b).

- (30) (a) o:de:to:yã: /o:de:to:-a:n/ (that) I go to town
 wi:sniye:g /wi:sini-e:gw/ (that) you (pl.) eat
 wa:bma:wgwa:yẽ: /wa:bam-a-(w)ag-wa:-e:n/ (that) I supposedly see them
- (b) o:de:to:yan /o:de:to:-an/ (that) you go to town
 wi:sniyaŋg /wi:sini-angw/ (that) we (inc.) eat

There are two more highly restricted rules inserting consonants in grammatical environments.

(31) An n inserted between the modal suffixes -bani 'preterite' and -dig 'dubitative' and a preceding vowel in

- (a) intransitive verbs
 (b) transitive verbs involving interactions of 1st and 2nd person.

Examples of (31), which feeds (25) are given in (32).

- (32) (a) *ngi:we:* /*n-gi:we:/* I used to go home.
ngi:we:na:ba /*n-gi:we:(n)-(a:)bani/* I used to go home.
ngi:we:na:dig /*n-gi:we:(n)-(a:)dig/* I supposedly go home.
- (b) (i) *gwa:bam* /*g-wa:bam-i/* You see me.
gwa:bmina:ba /*g-wa:bam-i(n)-(a:)bani/* You used to see me.
gwa:bmina:dig /*g-wa:bam-i(n)-(a:)dig/* You supposedly see me.
- (ii) *gwa:bmin* /*g-wa:bam-ini/* I see you.
gwa:bminna:ba /*g-wa:bam-ini(n)-(a:)bani/* I used to see you.
gwa:bminna:dig /*g-wa:bam-ini(n)-(a:)dig/* I supposedly see you.

(33) A w is inserted in conjunct verbs after the object marker in dubitative forms if the following marker begins with a vowel. (These w's are normally deleted after -in(in)- '2nd person object'.)

- (34) *wa:bma:wagẽ:* /*wa:bam-a:-(w)ag-e:n/* (that) I supposedly see him
wa:bmag /*wa:bam-a:-ag/* (that) I see him
wa:bmiyan /*wa:bam-i-an/* (that) you see me
wa:bmiwnẽ: /*wa:bam-i-(w)an-e:n/* (that) you supposedly see me

1.2.6 Palatalization. There are three rules of palatalization. All are somewhat irregular.

(35) t and d become s and z respectively before certain morphemes

(many of which begin with w).

Examples follow.

- (36) gtizi /git-izi-w/ He is old.
 gsina:g^wzi /git-wina:gw-izi-w/ He look old.
 ngi:-g^wdina: /n-gi:-god-(i)n-a:/ I tried him.
 ngi:-g^wzikwa: /n-gi:-god-(i)k-aw-a:/ I tested him.
- (37) t and d become c and j respectively before certain i's.
- (38) a:bdad /a:bid-ad-w/ It is useful.
 nda:bjito:n /n(d)-a:bid-(i)h-t-o:-n/ I make use of it.
 but
 a:bdizi /a:bid-izi-w/ It (anim.) is useful.
 ngi:-bi:nto:n /n-gi:-bi:n-(i)h-d-o:-n/ I cleaned it.
 ngi:-bi:ncige: /n-gi:-bi:n-(i)h-d-ige:/ I cleaned up.
 gtizi /git-izi-w/ He's old.
 gci- /git-i-/ big
- (39) s and ñ become š and ž before certain i's.
- (40) gmi:na: /g-mi:ñ-a:/ You give it to him.
 gmi:ž /g-mi:ñ-i/ You give it to me.
 but
 gmi:nig /g-mi:ñ-igw/ He gives it to you.
 gmi:nin /g-mi:ñ-ini/ I give it to you.
 gdasa: /g(d)-as-a:/ You put him down.
 gdaši /g(d)-as-i/ You put me down.
 but
 gdasig /g(d)-as-igw/ He puts you down.
 gdasin /g(d)-as-ini/ I put you down.
 cf. also
 gdo:da:pna: /g(d)-oda:pin-a:/ You pick him up.

gdo:da:pin /g(d)-oda:pin-i/ You pick me up.

1.2.7 Nasalization.

(41) The sequence vowel-nasal-fricative becomes nasalized vowel-fricative.

- (42) nbi:do:n /n-bi:d-o:-n/ I bring it.
 nbi:do:si:n /n-bi:d-o:-si:-n/ I don't bring it.
 nwa:bnda:n /n-wa:bam-d-am-n/ I see it.
 nwa:bndāzi:n /n-wa:bam-d-am-si:-n/ I don't see it.

1.2.8 Lengthening. Vowels are lengthened irregularly in morphemic environments.

(43) Vowels are lengthened before certain morphemes.

(44) (a) -magad 'inanimate (singular) subject'

ngamo /nagamo-w/ He's singing.
 ngamo:mgad /nagamo-magad-w/ It's singing.

(b) -ka:zo 'pretend'

wi:sni /wi:sini-w/ He's eating.
 wi:sni:ka:zo /wi:sini-ka:zo-w/ He's pretending to eat.

(c) -ns 'diminutive'

na:gan /ona:gan/ dish
 na:gā:s /ona:gan-ns/¹² cup
 ji:ma:n /ji:me:-n/ boat, canoe
 ji:ma:nē:ns /ji:me:-n-(i)ns/¹³ little boat

(45) The a of the morpheme am 'inanimate object; intransitive stem augment' is lengthened before certain inflectional affixes.

- (46) wa:bndamā: /wa:bam-d-am-a:n/ (that) I see it
 wa:bndan /wa:bam-d-am-n/ See it!

nwa:bnda:n	/n-wa:bam-d-am-n/	I see it.
bzindmā:	/bizind-am-a:n/	(that) I listen
nbiznda:mi	/n-bizind-am-min/	We (exc.) listen.
gbiznda:m	/g-bizind-am-mw/	You (pl.) listen.

(47) If o is the first vowel of a word (after the vowel deletions), it lengthens.

ški-mkiznan	/oški-makizin-an/	new shoes
ndo:ški-mkiznan	/n(d)-oški-makizin-an/	my new shoes
mbi:gzi	/ombi:g-izi-w/	He makes noise.
ndo:mbi:giz	/n(d)-ombi:g-izi/	I make noise.

1.2.9 W-Deletion. The morpheme initial w of some morphemes deletes after a stem consonant.

(48) nwa:bma:	/n-wa:bam-a:/	I see him.
nde:ba:bma:	/n-de:b-wa:bam-a:/	I see him in the distance.
nda:bna:bma:	/n(d)-a:ban-wa:bam-a:/	I look back at him.
gka:wna:g ^w zi	/gika:-wina:gw-izi-w/	He looks old.
no:kna:g ^w zi	/no:k-wina:gw-izi-w/	It (anim.) looks soft.
na:bmina:g ^w zi	/iñ-wa:bam-wina:gw-izi-w/	He looks like (so).
namhe:wgamig	/anamihe:-wigamigw/	church (pray-house)
a:smigmig	/a:sam-wigamigw/	on (the side of) the house
ji:ggamig	/ji:g-wigamigw/	near the house

1.2.10 E:-Mutation. The vowel e becomes a: before certain morphemes.

(49) gtige:	/gitige:-w/	He's planting/gardening.
-------------	-------------	--------------------------

gtige:n	/gitige:-n/	Plant!
gtiga:n	/gitige:-n/	(a) garden
wgi:-gtiga:na:n	/w-gi:-gitige:-n-a:-an/	He planted it (anim.)
wgi:-gtiga:da:n	/w-gi:-gitige:-d-am-n/	He planted it.
ji:me:	/ji:me:-w/	He's paddling.
ji:ma:n	/ji:me:-n/	canoe
bmose:	/bimose:-w/	He's walking (along).
gi:-mko-bmosa:ma:	/gi:-makw-i-bimose:-m-a:/	He got bear- walked. (He was put under a spell.)

1.2.11 Change. There is a morpheme change which affects the first vowel of a word according to the table given in (50).

(50) plain	changed
i	e:
a	e:
o	we:
i:	a:
e:	ye:
a:	ya:
o:	wa:

Some examples are given in (51).

(51) (a) ndižcige:	/n(d)-iñ-(i)h-t-ige:/	I do (thus)./I cause things (to be) thus.
žicge:d	/iñ-(i)h-ige:-d/	(that) he does (thus)
e:žcige:d	/change-iñ-(i)h-ige:-d/	(the one) who does (thus)

(b)	ndasbi:ke:	/n(d)-asabi-ike:/	I make nets.
	sabi:ke:d	/asabi-ike:-d/	(that) he makes nets
	e:sbi:ke:d	/change-asabi-ike:-d/	(one) who makes nets
	e:sbi:kē:	/change-asabi-ike:-ny/	spider (lit. net-maker)
(c)	ndo:nji-ba:	/n(d)-ond-i-ba:/	I come from (there).
	we:nji-ba:yā:	/change-ond-i-ba:-a:n/	where I come from
(d)	mi:jid	/mi:ji-d/	(that) he eats it
	ma:jid	/change-mi:ji-d/	(one) who eats it/ (that) which he eats
(e)	ne:se:d	/ne:se:-d/	(that) he breathes
	nye:se:d	/change-ne:se:-d/	(one) who breathes
(f)	o:de:to:d	/o:de:to:-d/	(that) he goes to town
	wa:de:to:d	/change-o:de:to:-d/	(one) who goes to town

1.2.12 Miscellaneous comments. This section on morphophonemics is both informal and incomplete. The purpose of it is to introduce the reader to some of the more common and to some of the less obvious morphophonemic alternations that appear in Ojibwa. We have avoided discussion of some of the more controversial parts of our analysis, lists of exceptions, refinements of the rules, and rule ordering because these would serve only to distract the reader. There is enough here so that the reader can see approximately what is going

on in the examples in the rest of the work.

1.3 Categories of inflection. There are five surface classes of words, i.e. parts of speech: noun, verb, pronoun, adverb, and particle. Of these only nouns, pronouns, and verbs are inflected.

The categories for which nouns and verbs are inflected include: person, number, gender, and obviation.

There are two numbers: singular and plural.

There are three persons: first (speaker), second (addressee) and third. In the plural a distinction is made between exclusive and inclusive for first person. In subject agreement for person the first person inclusive plural is treated like a second person, the first person exclusive like a first person. This fact is probably related to the person ranking system in which second person ranks higher than first person and both rank above third person. This system will become important for certain aspects of verb marking in later chapters.

There are two genders: animate and inanimate.

Finally there is an opposition of third person nouns of proximate versus obviative. Only animate nouns are marked overtly as obviatives, although verbal agreement shows that inanimate nouns may also be obviated. Obviation marks non-coreferentiality of third persons. Nouns marked for obviation are unmarked for number.

1.3.1 Noun inflection. Nouns belong to one of two genders, animate or inanimate. The gender of most nouns follows from their meaning. Those things that grow or are self-propelling (including energized vehicles and heavenly bodies) are animate; all others are inanimate with the exception of a few household items, some items of

cultural importance and some body parts as well as some foods. Nouns are inflected for number, obviation, location, and possessor. Obviatives and locatives are unmarked for number.

Some examples of nouns inflected for number, obviation, and location are given in (52).

(52) (a) animates

singular	plural	obviative	locative	stem	gloss
e:sban	e:sbanag	e:sbanan	e:sbaning	/e:saban/	raccoon
mik	mikwag	mikwan	mikong	/amikw/	beaver
mtig	mtigo:g	mtigo:n	mtigo:ng	/mitigw/	tree
sab	sabi:g	sabi:n	sabi:ng	/asabi/	net
nini	ninwag	ninwan	nini:ng	/niniw/	man

(b) inanimates

ji:ma:n	ji:ma:nan	ji:ma:n ¹⁴	ji:ma:ning	/ji:ma:n/	canoe, boat
mtig	mtigo:n	mtig	mtigo:ng	/mitigw/	wood, stick
mškiki	mškikwan	mškiki	mškiki:ng	/maškikiw/	medicine
sin	sini:n	sin	sini:ng	/asini/	stone

Noun inflections for possessor are the same as those used in the verb agreement system.

(53)	ji:ma:n 'canoe'	ji:ma:nan 'canoes'
your	gji:ma:n /g-ji:ma:n/	gji:ma:nan /g-ji:ma:n-an/
my	nji:ma:n /n-ji:ma:n/	nji:ma:nan /n-ji:ma:n-an/
his	wji:ma:n /w-ji:ma:n/	wji:ma:nan /w-ji:ma:n-an/
your (pl)	gji:ma:nwa: /g-ji:ma:n-(i)wa:/	gji:ma:nwa:n /g-ji:ma:n-(i)wa:-an/
our (inc)	gji:ma:nna: /g-ji:ma:n-(i)na:ni/	gji:ma:nna:nin /g-ji:ma:n-(i)na:ni-an/
our (exc)	nji:ma:nna: /n-ji:ma:n-(i)na:ni/	nji:ma:nna:nin /n-ji:ma:n-(i)na:ni-an/
their	wji:ma:nwa: /w-ji:ma:n-(i)wa:/	wji:ma:nwa:n /w-ji:ma:n-(i)wa:-an/

Animate nouns with third person possessors are marked for obviation.

Many nouns (mostly animate) take a possessed suffix im.

(54)	go:ko:š 'pig'	go:ko:šag 'pigs'
your	ggo:ko:šim /g-go:ko:š-im/	ggo:ko:šmag /g-go:ko:š-im-ag/
my	ngo:ko:šim /n-go:ko:š-im/	ngo:ko:šmag /n-go:ko:š-im-ag/
his	wgo:ko:šman /w-go:ko:š-im-an/	wgo:ko:šman /w-go:ko:š-im-an/
your (pl)	ggo:ko:šmiwa: /g-go:ko:š-im-(i)wa:/	ggo:ko:šmiwa:g /g-go:ko:š-im-(i)wa:-ag/
our (inc)	ggo:ko:šmina: /g-go:ko:š-im-(i)na:ni/	ggo:ko:šmina:nig /g-go:ko:š-im-(i)na:ni-ag/
our (exc)	ngo:ko:šmina: /n-go:ko:š-im-(i)na:ni/	ngo:ko:šmina:nig /n-go:ko:š-im-(i)na:ni-ag/
their	wgo:ko:šmiwa:n /w-go:ko:š-im-(i)wa:-an/	wgo:ko:šmiwa:n /w-go:ko:š-im-(i)wa:-an/

In addition to these inflectional forms, most nouns have diminutive and derogatory forms that can be inflected themselves. Finally, a few nouns have vocative forms.

1.3.2 Pronoun inflection. Pronouns are inflected for person, number, gender, and, in demonstrative pronouns, deictic reference.

The personal pronouns are: ni:n 'I', gi:n 'you', wi:n 'he', ni:nwi 'we (exc.)', gi:nwi 'we (inc.)', gi:nwa: 'you (pl.)', and wi:nwa: 'they'. The singular forms all have unstressed variants without the final n. The third person forms wi:n and wi:nwa: are used only in emphatic contexts. Normally, demonstratives are used as third person pronouns.

The demonstrative pronouns are given in (55). Three deictic distinctions are made by some speakers, although the system seems to be breaking down for most.

(55) (a) animates:	this	that	that over there
singular	ma:ba	aw (wa) ¹⁵	we:di
plural	gonda	giw (giwi)	giwe:di
obviative	ninda	niw (niwi)	niwe:di

(b) inanimates:

singular	ma:nda	iw (wi)	we:di
plural	ninda	niw (niwi)	niwe:di
	here	there	over there
locative	ma:mpi:	ma:	widi

The interrogative pronouns are: we:ne:n 'who, what?' and a:ni:n 'which, how?'. Only the most conservative speakers still use we:g^wne:n 'what? (inan.)' in contrast to we:ne:n 'who, what? (anim.)'. All of these contract with daš 'so, then' as we:ne:š, a:ni:š, and we:g^wne:š. All are often heard without their final n.

The indefinite pronouns are: waya 'someone' and ge:go:n 'something'. Both are uninflected.

1.3.3 Verb inflection. Verbs are of two types, transitive and intransitive. Transitive verbs are inflected to agree with their subjects and objects in person, number, gender, and obviation. Intransitive verbs are inflected to agree with their subjects in person, number, obviation, and gender. In addition, there are a few morphologically intransitive verbs that are used transitively and have some special inflections for object. We will call these pseudo-transitive verbs (henceforth PT) after Bloomfield (1957).¹⁶ Intransitive verb stems are marked for agreement with their subjects. Those stems that have animate subjects are called animate intransitive stems (henceforth AI). Those that have inanimate subjects are called inanimate intransitive stems (henceforth II). Transitive stems are marked for agreement

with their objects. Those with animate objects are called transitive animate stems (henceforth TA). Those with inanimate objects are called transitive inanimate stems (henceforth TI). All PT verbs have AI stems.

Verbs are inflected for order and mode.

There are three orders: independent, conjunct, and imperative. Independent verb forms are used in independent clauses, conjunct verbs in dependent clauses, and imperative verbs in commands.

There are three modes: preterite, dubitative, and negative. The three modes are independent of one another. All or none may be present in any verb. Preterite verbs refer to actions or states in the remote past, or in the past but not extending into the present. Dubitative verbs form part of an evidential system indicating how direct the speaker considers his evidence to be for making an assertion. Verbs in negative clauses are inflected as negative whether or not the negation is marked elsewhere in the clause. In conjunct verbs, the preverb bwa:- 'lest' is now in normal use in place of the negative inflection in the verb, although all speakers are able to produce the negative forms on request.

Conjunct verbs may be inflected as iterative and participial. Iterative forms are exceedingly rare. Participles are used as relative clauses.

Examples of the different types of verbal inflection will be given as we develop our analysis of the verbal morphology in the following chapters.

CHAPTER I

FOOTNOTES

¹Simple surveys and interviews do not, in my experience, ever give accurate indications of the situation. For example, I worked on Walpole visiting often over a period of three years before I discovered that there were still monolinguals there. My experience has been that a field worker doesn't really find out the situation until he has started to establish relationships with the people on other than a working basis. Then one discovers that many estimates and observations of the "untrained" people with whom one works are precise and accurate.

²These units are in fact what Daniel Jones (1962) calls dia-phones. No single speaker maintains all the contrasts that we write in all the relevant environments, but within the dialect there are some speakers who maintain each of the contrasts we write.

³The fact that the reduction/deletion of o leaves no trace except when g or k precedes in underlying form is crucial in leading us to the conclusion that the vowels are phonemically absent. This is all the more convincing when we notice that there is an independently needed rule rounding g, k, and h before o:, o, and w.

go:n	[g ^W o:n]	snow
nda:koz	[nda:k ^W oz]	I'm sick
ji:ba:kwe:	[j ^h i:ba:k ^W we:]	He is cooking.
ba:bi:ho	[ba:bi:h ^W o]	He is waiting.

⁴We enclose underlying forms with their morphemic analysis where relevant in slashes.

⁵Rule (5) does not generally apply to two syllable nouns.

⁶The d that appears in this form is due to a regular rule of consonant epenthesis which we will discuss below in 1.2.5. We

indicate epenthesis in the underlying form by the use of parentheses. They mean that the enclosed segment will be added during the course of the derivation. We include them for the convenience of the reader. Their location relative to the hyphen separating morphemes is absolutely meaningless.

⁷Our analysis agrees neither with the historical approach of Bloomfield (1957) nor with the patterning approach of Daniel Jones (1971). In particular we find neither the historical evidence nor the synchronic patterning sufficient to postulate an abstract y and (for Jones) an abstract o.

⁸Our definition of stem is different from traditional definition. Our definition involves the stem agreement markers. We will discuss the problem in Chapter IX.

⁹We will discuss the lengthening process in 1.2.8.

¹⁰We will discuss the lengthening process in 1.2.8.

¹¹Historically ñ was an obstruent, probably a lateral affricate *ɲ (not a *θ as is traditionally assumed). Morphophonemically it acts as an obstruent.

¹²The first n deletes (irregularly) by (20) and the vowel nasalizes by (41).

¹³Epenthetic i lengthens to e:. Historically epenthetic i was *e.

¹⁴We will argue in Chapter VIII that inanimates have obviative forms, but that no mark is put on the noun. It only appears in the verb agreement. The same thing happens with regard to plural in English in the class of nouns referring to (mostly) game animals: fish, deer, moose, elk, etc.

¹⁵The parenthesized forms are heard in Wikwemikong.

¹⁶Not all verbs that Bloomfield called pseudo-transitive are in this group. Some of the verbs he treated as pseudo-transitive are regular transitive verbs. The differences will become clear in later chapters.

CHAPTER II
THEORETICAL BACKGROUND

2.0 In this work we will need to draw on two bodies of theory, neither of which is well represented in the literature. The first is a theory of morphology, the second a theory of relational grammar.

The theory of morphology touches on issues regarding the meaning of morphemes, the nature of morpheme concatenation and morpheme insertion, and the nature of rules spelling morphemes out in morphophonemes. To the best of our knowledge there has been no attempt to build a unified generative theory which deals with all these questions.¹

The theory of relational grammar is a generative theory of clause structure which takes the grammatical relations, subject of, direct object of, indirect object of, and possessor of, as well as structural relations like dominate, as basic. Our approach to this theory will be essentially that of Postal and Perlmutter (n.d.). This theory distinguishes between rules that adjust grammatical relations and those that simply reorder words/morphemes. The focus of relational grammar is on rules of the former type.

2.1 Theory of Morphology. In this work we will be taking the view that if a word is polymorphemic, it got to be that way through one or more syntactic processes. This seems to us to be a reasonable assumption because crosslinguistically one can find examples of languages that treat as separate words every kind of morpheme that can appear as bound, even things like plural (1a) and tense (1b).

- (1) (a) (i) Korean
 cip tul houses
 HOUSE PL
- (ii) Vietnamese
 những người people
 PL PERSON
- (b) (i) Samoan
 sa sogi cut (past)
 PAST CUT'
- (ii) Vietnamese
 đã lại came
 PAST COME

Our second assumption is that there are no syntactic rules that reorder morphemes within words. This is equivalent to the structural morphologist's assumption that the same morpheme may not appear in two different morpheme slots. We take this to be the crucial assumption of morphology. The one soft spot in this assumption has to do with the term word which we will not attempt to define. Nonetheless it seems clear to us that there are such units as words which are identifiable (if only fuzzily) by syntactic, morphological, phonological, and psycholinguistic criteria.

Our last assumption has two parts to it. The assumption is that morphology is concrete. The two aspects of this are: first, that we will treat morphemes as simple strings of morphophonemes, unless there is reason to do otherwise, and second, that if a morpheme is associated with the operation of a rule, we will treat the rule as including both the creation and attachment of that morpheme. In more straightforward terms we will assume that morpheme order equals rule order.^{2,3}

2.1.1 Morphosyntax. There are four kinds of morphosyntactic process, those that attach morphemes to other morphemes, those that

create (and attach) morphemes, those that delete morphemes, and those that change morphemes.

2.1.1.1 Attachment processes. One way in which polymorphemic constructions arise is through a kind of syntactic process which takes two syntactic units and joins them as a single word.⁴ We do not mean by this those simple cliticization processes which are only phonological in nature. Rather we are referring to abstract syntactic processes, possibly cyclical, which attach morphemes to one another to form words. An example of what we mean is given by Turkish potential verbs which show that the order of morphemes reflects the scope of the morphemes.

(2)	gelirim	/gel - ir - im/	I come
	gelebilirim	/gel -yebil - ir - im/	I can come, I may come
	gelmem	/gel - mez - im/ ⁵	I do not come
	gelemem	/gel - ye - mez - im/ ⁶	I am unable to come
	gelmiyebilirim	/gel - me - yebil - ir - im/	I am able not to come, I may not come
	gelemiyebilirim	/gel - ye - me - yebil - ir - im/	I may not be able to come

The fact that the scope is reflected in the relative order of the morphemes we take as evidence that the processes attaching the negative and the potential to verbal constructions are cyclic.

We will write attachments in notation such as that in (3), where V represents the verbal construction and the hyphen represents the attachment.

(3) Negative Attachment (Turkish)

V me ==> V-me

2.1.1.2 Morpheme Creating processes. The second way in which polymorphemic constructions arise is through a kind of syntactic process which creates morphemes. There are three kinds of such

processes: agreement rules, marked rules, and linking rules. While we are aware of the fact that there are rules, especially marked rules, which create morphemes but do not attach them, we will remain with our assumption that if a created morpheme is attached, the attachment is an integral part of the rule which created the morpheme.

Agreement rules are the best known of this type. They copy some pragmatic, semantic, or morphological feature of one syntactic unit as a morpheme added to some other syntactic unit. For example the data in (4) show that the third person singular agreement marker in Latin is t.

(4) amat	/am-a:-t/	he loves
ama:bat	/am-a:-ba:-t/	he was loving
ama:bit	/am-a:-b-t/	he will love
ama:werat	/am-a:-w-era:-t/	he had loved
ama:werit	/am-a:-w-er-t/	he will have loved

We will write this and other such rules as in (5).

(5) Subject Agreement - 3rd Person Clause (Latin)

$$V \Rightarrow V-t / \text{ ___ } 1:[3]^7$$

We also consider case marking rules as a type of agreement rule.

Case markers are not only sensitive to the properties of the noun to which they are attached, but may also be governed by properties of the verb which the noun they mark bears a grammatical relation to. An example of this in Latin is given in (6). Verbs like those in (6a) govern the accusative for marking their direct object. This is the normal case. But there are also verbs that govern the dative, as in (6b), and the genitive, as in (6c).

(6) (a) puer puellam amat The boy loves the girl.
 BOY-nom GIRL-acc LOVE-3

(b) kaesar puellae peperkit Caesar spared the girl.
 GIRL-dat SPARE-perf-3

- (c) praeterito:rum meminit He remembers the past.
PAST-(THINGS)-gen REMEMBER-3

The second type of rule that creates morphemes we call marked rules. These are rules whose operation leaves a mark in the sentence. Most rules of passive are of this sort.

(7) (a) Turkish

iŝi yapıyor He is doing the work.
WORK-acc /yap - iyor/
DO PROG

iŝ yapılıyor The work is being done.
WORK /yap - il - iyor/
DO PASS PROG

(b) Indonesian

ali memberikan buku itu kepada jono Ali gave the
ALI /men - ber - i - kan/ BOOK THE TO JOHN book to John.
trans GIVE suff suff

buku itu diberikan kepada jono The book was
/di - ber - i - kan/ given to
PASS GIVE suff suff John.

(c) Latin

ro:mam winket. He will conquer Rome.
ROME-acc /wik - n - e: - t/
CONQUER PRES FUT 3
STEM

ro:ma winke:tur. Rome will be conquered.
ROME-nom /wik - n - e: - tur/
CONQUER PRES FUT 3-PASS
STEM

Also there are languages which mark the advancement of indirect objects to direct object, or the advancement of benefactives, locatives, etc. to direct object.

(8) (a) Yokuts (benefactive becomes direct object)

xipwiyk'a Make a rubbing motion!
/xip' - wiy - k'a/
RUB DO IMPERATIVE

xipwiy^hsitk^a nan Make a rubbing motion for me!
 /xip^h - wiy - sit - k^a/ nan
 RUB DO BENEF IMPER ME-acc

(b) Sayula Popoluca (instrument becomes direct object)

t^hu:k^h mit popote I drink with a straw.
 /t^h - u:k - p/ mit popote
 1 DRINK PRES WITH STRAW

t^hintu^hu:k^h popote I drink with a straw
 /t^hin- tu - u:k - p/
 1-3 WITH DRINK PRES

We will write such rules in a notation such as that for the Yokuts rule given in (9).

(9) Yokuts Benefactive Advancement

V BEN: NP ==> V-sit 2:NP

The last type of rule which creates morphemes we call linking rules. A linking rule creates and attaches a morpheme which has no semantic function of any kind but only a structure filling function. This is a systematic exception to the principle that morpheme order equals rule order. Linking rules insert morphemes into points in morphemic constructions, where the new morpheme is needed as a link. The created morpheme may be either a morpheme that has a meaning when used elsewhere as in the Ojibwa example in (10a), or it may be unique to the construction as in the Latin example in (10b).

(10) (a) ndanki:twa: I work for him.
 /n(d) - anoki: - h - d-aw - a:/
 I WORK (CAUSE) BEN 3
 link

(b) moneo: I warn
 /mon - e: - o:/
 WARN (?) 1
 link

cf. monui: I have warned (no link vowel)
 /mon - w - i:/
 WARN PERF 1

The argument that these morphemes are inserted rather than being simply added in order is complex. The basic form of argument is that link morphemes are associated with whole constructions but not with individual morphemes. But a strongly suggestive piece of evidence is given by Latin. In Latin there are three allomorphs representing first person singular: -i: follows the PERFECT morpheme, elsewhere -o: follows consonants and -m follows vowels with the sole exception of the vowels we call link vowels, which -o: follows. If we treat the rule inserting the link vowels as following the agreement rule that supplies the person/number suffixes, and following the spelling of the first person singular suffix, then the distribution of the allomorphs -o: and -m follows since there are no verb roots that end in vowels.⁸

2.1.1.3 Morpheme Deletion. Morphemes may be deleted out of polymorphemic constructions. While this is somewhat rare and often controversial, we feel that it is a real type of process. An example of this is the Turkish potential exemplified in (2) above. There we claimed in a footnote that the potential morpheme had two allomorphs: -ye- before negative and -yebil- elsewhere. However this is probably not the correct analysis. The correct analysis treats bil as a separate morpheme. In other constructions bil means 'know (how)'; here it means 'possible'. This analysis is supported by the fact that bil in the sequence -yebil- does not undergo vowel harmony, its vowel always remains i. If we accept this analysis, then the negative construction is a case of morpheme deletion. The derivation of the form gelemez 'he cannot come' includes the stages in (11).

(11) UF ⁹	((gel) bil) me)
	COME ABLE NOT
Gerund Formation	((gel-ye bil) me)
Potential Attachment	((gel-ye-bil) me)
Clause Union ¹⁰	(gel-ye-bil me)
Negative Attachment	(gel-ye-bil-me)
<u>bil</u> -Deletion	(gel-ye- \emptyset -me)

We will write deletions in a notation such as that in (12).

(12) bil-Deletion

bil ==> \emptyset / ye-___-me

2.1.1.4 Morpheme Changing Processes. Morphemes may be changed in certain contexts. By this we mean that one morpheme can be replaced by another morpheme under limited circumstances. The only examples we know about involve the replacement of one agreement marker with another, or the replacement of one case marker with another. For example, in Latin the rule of passive has the effect of both making the logical direct object the subject and (by a universal principle we will discuss later) leaving the logical subject bearing no grammatical relation to the verb. When this happens the logical subject appears in the ablative (with the preposition a: if the logical subject is human).

- (13) (a) puer puellam amat The boy loves the girl.
 BOY-nom GIRL-acc LOVE-3
 subject object
- (b) puella ama:tur a: puero:
 GIRL-nom LOVE-3-PASS BY BOY-abl
 subject

Now it looks like we could simply wait to assign case marks until after the rule of passive has applied. But consider what happens when a direct object is replaced by an indirect object (by a rule of dative advancement). The deposed object appears in the accusative.

(14) (a) doke:bam grammatikam pueri:s I taught grammar to
TEACH-PAST-1 GRAMMAR-acc BOY-pl-dat the boys:
 direct object indirect
 object

(b) doke:bam puero:s grammatikam I taught the boys
TEACH-PAST-1 BOY-pl-acc GRAMMAR-acc grammar.
 direct object

Thus if we assigned case after rules like passive and dative advancement we would have to make case marking global to determine where the deposited NP (called chomeurs) came from. Instead we propose that there are two kinds of case marking in Latin. Case is assigned to underlying (actually cycle initial) NP's by one process,¹¹ and then is reassigned cycle finally (or postcyclically). A sketch of the derivation of (13b) is given in (15).

(15) UF¹²

	1:puer BOY	2:puell GIRL	am- LOVE
Semantic case assign.	1:puer-abl	2:puell-acc	am-
Passive	puer-abl	1:puell-acc	am-PASSIVE
Syntactic case ¹³	a: puer-abl	1:puell-nom	am-PASSIVE
Agreement	a: puer-abl	1:puell-nom	am-PASSIVE-3
Spellings	a: puero:	puella	am-tur
Link Vowel	a: puero:	puella	ama:tur

Word Order & puella ama:tur a: puero:
Morphophonemics

We will write morpheme changing processes in a notation like that in (16), using an abstract symbol (in this example CASE) to stand for the class of morphemes to be replaced.

(16) Nominative Assignment (Latin)

CASE ==> nom / 1:N-___

2.1.2 Morpheme spelling. In spite of the fact that we have chosen to do our morphology concretely, there are still many instances in which we need to consider that an abstract morpheme exists and

needs to be spelled. The major reason for positing an abstract morpheme is that a particular morpheme has suppletive allomorphs. We included in the term suppletion the case where a morpheme has a zero realization that does not arise either from the action of phonological rules or from morphemic deletion (§2.1.1.3).

There are two aspects to the spelling of morphemes. First there are the issues relating to how the morpheme is spelled out, and second there are the issues relating to the kinds of conditioning that can affect the spelling of different allomorphs.

2.1.2.1 Spelling. There are four ways that a morpheme can be realized. It can appear as a string of morphophonemes. It can appear as a phonological mutation of another morpheme. It can appear as both a string of morphemes and a phonological mutation of an adjacent morpheme. Or it can "appear" as nothing, its presence being known by what semantically should have been at a point in a structure where nothing appears. German plurals provide an excellent example of all four types. The spelled plural in these examples is -e, the rule fronts a to ä.

(17) (a) spelling & rule

sing	plu	
Fall	Fälle	case
Schlag	Schläge	strokes

(b) spelling only

Jahr	Jahre	year
Tag	Tage	day

(c) rule only

Schaden	Schäden	damage
Garten	Gärten	garden

(d) neither spelling nor rule

Wagen	Wagen	car
Schatten	Schatten	shadow

We will treat these four types of spelling as the simple product of the interaction of two independent modes of morpheme realization:

- 1) a morpheme is spelled as a string of morphophonemes, or not, and
- 2) the morpheme triggers a phonological rule or not. In all cases where a triggered rule applies we will assume that the morpheme remains and is not "eaten" by the phonological rule. Therefore if there are other allomorphs, a clause must be added to specify zero allomorphy in those cases where the rule applies but no spelling appears. While it appears that this assumption should lead to ad hoc rules specifying zero allomorphs, our experience has been consistently the opposite. Even if there appear at first to be cases in which the only realization of a morpheme is the triggering of a rule, closer inspection of the data has consistently shown otherwise.

There is one instance of the application of triggered phonological rules that is not widely recognized as such. This has to do with languages that have different stem forms used in different contexts. For example Yokuts has several different stem forms for each root depending, in part, on the construction it appears in as shown in (18). (Not all root classes are exemplified.)

(18)	aorist	desiderative aorist	agentive
	(he)...ed	(he) wanted to...	one who ...s
(a) eat	xat-hin	xat-hatin-hin	xata:-ʔicʰ
care for	gop-hin	gop-hotin-hin	gopo:-ʔicʰ
touch	giyʰ-hin	giyʰ-hatin-hin	giye:-ʔicʰ
swear	muṭ-hin	muṭ-hatin-hin	muṭo:-ʔucʰ

	aorist	desiderative aorist	agentive
	(he)...ed	(he) wanted to...	one who ...s
(b) arrive	pana:-hin	pan-hatin-hin	pana:-'ic'
name	hoyo:-hin	hoy-hotin-hin	hoyo:-'ic'
fan	'ile:-hin	'il-hatin-hin	'ile:-'ic'
urinate	čuyo:-hun	čuy-hatin-hin	čuyo:-'uc'
(c) fight	pa'it-hin	pa't-atin-hin	pa'a:t-ic'
pulverize	logiw-hin	logw-otin-hin	logo:w-ic'
sing	'ilik-hin	'ilk-atin-hin	'ile:k-ic'
choose	hubuṣ-hun	hubṣ-atin-hin	hubo:ṣ-uc'
(d) mourn	paxat ² -hin	paxt ² -atin-hin	paxa:t ² -ic'
get up	'opot-hin	'opt-otin-hin	'opo:t-ic'
get water	hibey-hin	hiby-atin-hin	hibe:y-ic'
remove	ṣudok ² -hun	ṣudk ² -atin-hin	ṣudo:k ² -uc'

The roots in (18a) have two stem forms, one in the aorist and desiderative, and the other in the agentive. The forms in (18b) have two stems too, but the one used in the aorist is the same as the one in the agentive, the desiderative stem being the different one. We analyze these stems as all being of the form CVC underlying. Before "neutral" suffixes like the aorist one class of these (those in (18b)) undergoes a rule of Echo (19).

(19) Echo

$$\emptyset \Rightarrow V: / \# C V C \text{ ____ } 1^4$$

[αF] [αF]

The other class remains unaffected (those in (18a)). Before certain other affixes like the desiderative, Echo does not apply regardless of the stem class. And finally before the agentive all stem classes undergo Echo (19). The stems in (18c) and (18d) all have the form CVCC basically. The forms in (18c) are like the forms in (18a); only because of a rule that epenthesizes an i between the first two consonants of a consonant cluster the basic similarity is a little harder to see. The forms in (18d) are like the forms in (18b), but

because of a rule shortening long vowels in closed syllables that similarity is also not so immediately apparent.

The point of this example, however, is that we analyze Echo (and other rules that generate stem forms) as the same type of phonological rule as the rule that changes a to ä in the German examples in (17), even though such stem formation rules may be triggered by the morpheme class of the morpheme they affect. We will call all phonological rules that have morphemic contexts stem formation rules.¹⁵

Now let us look at some examples of spelling rules to give some instances of the notation that we will be using. First let us look at the Latin perfect morpheme which will supply us with an example of all but one type of spelling rule. The Latin perfect morpheme may be realized in five different ways, as w, as s, as vowel length, as reduplication, or as a zero morpheme. Examples of each type of realization are given in (20). Link morphemes are enclosed in parentheses.

(20)	present		perfect	
	I ...		I have ...ed	
(a)	amo: /am-(a:)-o:/	ama:wi:	/am-(a:)-w-i:/	love
	moneo: /mon-(e:)-o:/	monui:	/mon-w-i:/	warn
	audio: /aud-(i:)-o:/	audi:wi:	/aud-(i:)-w-i:/	hear
(b)	lu:keo: /lu:k-(e:)-o:/	lu:kxi:	/lu:k-s-i:/	be light
	karpō: /karp-o:/	karpsi:	/karp-s-i:/	pluck
	saepio: /saep-(i:)-o:/	saepsi:	/saep-s-i:/	hedge in
(c)	sedeo: /sed-(e:)-o:/	se:di:	/sed-PERF-i:/	sit
	emo: /em-o:/	e:mi:	/em-PERF-i:/	buy
	wenio: /wen-(i:)-o:/	we:ni:	/wen-PERF-i:/	come
(d)	pendeo: /pend-(e:)-o:/	pependi:	/REDUP-pend-PERF-i:/	hang
	kano: /kan-o:/	kekini: ¹⁶	/REDUP-kan-PERF-i:/	fall
	pario: /par-(i)-o:/	peperi:	/REDUP-per-PERF-i:/	bring forth

(e) prandeo:	/prand-(e:)-o:/	prandi:	/prand-PERF-i:/	lunch
findo:	/fid-(n)-o:/	fidi:	/fid-PERF-i:/	split
askendo:	/askend-o:/	askendi:	/askend-PERF-i:/	climb

The phonological rule that is involved in the derivation of the forms in (30c) is given in (21).

(21) Perfect Lengthening

$$V \Rightarrow [+long] / \left[\begin{array}{c} \text{C}_o \\ \text{Lengthening} \end{array} \right] \text{-PERF}$$

The rule that interchanges the perfect morpheme for reduplication is given in (22).

(22) Perfect Reduplication

$$V \Rightarrow \text{REDUP-V} / \left[\text{Reduplicating} \right] \text{-PERF}$$

We will not formulate the rule of reduplication here because it is complex and those complexities are irrelevant to the point of the example. Finally the rule that spells the perfect morpheme out in morphophonemes is given in (23).

(23) Perfect Spelling

$$\begin{array}{l} \text{PERF} \Rightarrow w / [\underline{w}\text{-Perfect}]\text{-} \\ \quad \quad \quad s / [\underline{s}\text{-Perfect}]\text{-} \\ \quad \quad \quad \emptyset \end{array}$$

The last clause of (23) applies in the forms in (20c-e).

There is one further type of spelling rule that we have not yet mentioned. This involves cases in which two (or more) morphemes are spelled as one indivisible string of morphophonemes. We call this portmanteau spelling. An example of this in Latin is given in (24).

(24) present	perfect
I ...	I have ...ed
fero: /fer-o:/	tuli: /fer+PERF-i:/ bear
affero: /ad-fer-o:/	attuli: /ad-fer+PERF-i:/ bring toward
aufero: /ab-fer-o:/	abtuli: /ab-fer+PERF-i:/ take away
konfero: /kon-fer-o:/	kontuli: /kon-fer+PERF-i:/ compare
etc.	

We will write such portmanteau spelling rules as in (25).

(25) tul-Spelling

fer-PERF ==> tul

2.1.2.2 Conditions affecting the spelling of morphemes. There are five kinds of conditions that can affect the spelling of morphemes or the triggering of stem formation rules. These conditions can be semantic/pragmatic, syntactic, morphemic, constructional, or phonological.

In order to write rules involving certain kinds of conditioning it will be necessary to resort to the device of marking with features. There are features corresponding to each sort of conditioning except syntactic, but in each case the status of the feature is different. Except in the case of phonological features all other features occur only in rules. In the case of semantic/pragmatic features, like [1] (i.e. first person) or [PL] (plural) the rule refers to the referential situation of the crucial index to establish whether it is applicable. In the case of morphemic or constructional features like [a:-Class] or [s-Perfect] the reference is to the lexical properties of the morphemes or constructions involved. We will write features into rules freely with the understanding that such features do not exist in the syntactic structures to which those rules apply.¹⁷

Semantic/pragmatic conditioning of a spelling rule is illustrated

by the Luiseño data in (26). A different allomorph of the morpheme meaning 'run' is used when the subject is plural.

(26)	sg. subj.		pl. subj.	
	(a) he:laq	/he:la-q/	he:la:n	/he:la-an/ sing
	ʔowoʔaq	/ʔowoʔa-q/	ʔowoʔa:n	/ʔowoʔa-an/ work
	(b) pokwaq	/pokwa-q/	ŋo:ra:n	/ŋo:ra-an/ run

We will write the spelling rule as in (27).

(27) RUN ==>	ŋo:ra	/	l:[PPL]	_____
	pokwa			

Syntactic conditioning of a spelling rule is illustrated by the English allomorphs I and me. For speakers that have no trouble with this morpheme after conjunctions, the rule is:

(28) ME ==>	ay	/	l:_____
	mi:		

Morphemic conditioning of a spelling rule may be of two types. Either a morpheme is spelled in a certain way in a certain context because of the morpheme class of an adjacent morpheme, or they are spelled a certain way because of the interaction of their own morpheme class properties with an external context. The former situation is more common with inflectional and derivational morphemes, the latter with lexical morphemes. An example of the former situation is given by the Latin perfect morpheme in (20) above. The spelling rule is given in (23). Examples of the latter situation in which class properties of the morpheme itself are involved most commonly relate to the application of stem formation rules. Such a case is given in (18) where the forms in (18b) and (18d) are marked to undergo Echo (19) except in certain morphemic contexts, desider-

ative being the example given.

Construction conditioning of a spelling rule is somewhat rare and problematic but nonetheless exists. An example of a complex of morphemes determining the spelling of a morpheme is given in the Latin forms in (29) where the spelling of the perfect morpheme is different for different constructions involving the same lexical morpheme.

(29)	present		perfect	
	I ...		I have ...ed	
(a)	lego: /leg-o:/		le:gi: /leg-PERF-i:/	gather, read
	kolligo: /kon-leg-o:/		kolle:gi: /kon-leg-PERF-i:/	collect
	de:ligo: /de:-leg-o:/		de:le:gi: /de:-leg-PERF-i:/	choose
	perlego: /per-leg-o:/		perle:gi: /per-leg-PERF-i:/	read
(b)	di:ligo: /di:-leg-o:/		di:le:ksi: /di:-leg-s-i:/	love
	intellego: /inter-leg-o:/		intelle:ksi: /inter-leg-s-i:/	under-
				stand
	neglego: /neg-leg-o:/		negle:ksi: /neg-leg-s-i:/	neglect

It is possible that these constructions could be considered lexical units, but the rule that is responsible for the i that appears in place of the e in the present forms crucially refers to the morpheme boundary before the root.

Finally we come to the phonological conditioning of allomorphs. Examples of this are easy to come by, even excluding all those instances that structural morphologists called phonologically conditioned allomorphy but which are actually instances of the operation of phonological rules. An example of what we mean is given by the allomorphs of Yawelmani Yokuts future morpheme, illustrated in (30). There are two allomorphs -ʔ after vowels and -i:n after consonants.

(30) (a)	lageʔ	/laga: - ʔ/ ¹⁸	will spend the night
	yoʔkiʔ	/yoʔki: - ʔ/	will return
	kʔo:loʔ	/kʔ - a:la: - ʔ/	will cause to throw
	ʔohyoxoʔ	/ʔohyo: - xo: - ʔ/	(will) be searching
	ʔohemtaʔ	/ʔohi:m - ta: - ʔ/	will make vanish (lit. become not)
(b)	xaten	/xat - i:n/	will eat
	pʔaxa:tən	/pʔaxa:t - i:n/	will mourn
	doshotnen	/dos - hatn - i:n/	will want/try to tell
	tansiten	/tan - sit - i:n/	will go to
	ʔoxwisen	/ʔox - wis - i:n/	will exterminate one another

We will write the rule spelling Yawelmani future as in (31).

(31) FUT ==> i:n / C _____

ʔ

To the best of our knowledge it has not been previously noticed that the existence of phonological conditioning of suppletive allomorphs implies that spelling (or lexical insertion, to use a more traditional but less descriptive term) happens in stages. The morpheme in these cases that precedes the future must be spelled before the future is spelled. Most interesting are forms like lageʔ which are spelled without the second vowel, then undergo Echo (19), before the future is spelled.

Generally phonological conditioning works from the stem out. But there is the interesting Latin case mentioned above in §2.1.1.2 regarding link vowels in Latin. A look at that case in detail would be worthwhile at this point. The case regards the spelling of the morpheme meaning '1st person singular' which is supplied by the rule of subject agreement, 1ST-SG. The examples in (32) show the complete distribution of allomorphs except for the passive, but one can easily show that the passive distribution is exactly parallel to that of the active. Link vowels are in parentheses.

(32) present stem forms

(a) present

moneo:	/mon-(e:)-o:/ ¹⁹	I warn
di:ko:	/di:k-o:/	I say
wenio:	/wen-(i:)-o:/	I come
werto:	/wert-o:/	I turn
tango:	/tag-n-o:/ ²⁰	I touch

(b) past

mone:bam	/mon-(e:)-e:ba:-m/ ²¹	I warned
di:ke:bam	/di:k-e:ba:-m/	I said
wenie:bam	/wen-(i:)-e:ba:-m/	I came
werte:bam	/wert-e:ba:-m/	I turned
tange:bam	/tag-n-e:ba:-m/	I touched

(c) future

mone:bo:	/mon-(e:)-b-o:/	I will warn
di:kam	/di:k-a:-m/	I will say
weniam	/wen-(i:)-a:-m/	I will come
wertam	/wert-a:-m/	I will turn
tangam	/tag-n-a:-m/	I will touch

(d) subjunctive

moneam	/mon-(e:)-a:-m/	I may warn
di:kam	/di:k-a:-m/	I may say
weniam	/wen-(i:)-a:-m/	I may come
wertam	/wert-a:-m/	I may turn
tangam	/tag-n-a:-m/	I may touch

(e) past subjunctive

mone:rem	/mon-(e:)-se:-m/	I would warn
di:kerem	/di:k-se:-m/ ²²	I would say
weni:rem	/wen-(i:)-se:-m/	I would come
werterem	/wert-se:-m/	I would turn
tangerem	/tag-n-se:-m/	I would touch

perfect stem forms

(f) present perfect

monui:	/mon-w-i:/	I have warned
di:ksi:	/di:k-s-i:/	I have said
we:ni:	/wen-PERF-i:/	I have come
werti:	/wert-PERF-i:/	I have turned
tetigi:	/REDUP-tag-PERF-i:/	I have touched

(g) past perfect

monueram	/mon-w-era:-m/	I had warned
di:kseram	/di:k-s-era:-m/	I had come
we:neram	/wen-PERF-era:-m/	I had come

werteram	/wert-PERF-era;-m/	I had turned
tetigeram	/REDUP-tag-PERF-era;-m/	I had touched

(h) future perfect

monuero:	/mon-w-is-o:/	I will have warned
di:ksero:	/di:k-s-is-o:/	I will have said
we:nero:	/wen-PERF-is-o:/	I will have come
wertero:	/wert-PERF-is-o:/	I will have turned
tetigero:	/REDUP-tag-PERF-is-o:/	I will have touched

(i) perfect subjunctive

monuerim	/mon-w-is-i:-m/	I may have warned
di:kserim	/di:k-s-is-i:-m/	I may have said
we:nerim	/wen-PERF-is-i:-m/	I may have come
werterim	/wert-PERF-is-i:-m/	I may have turned
tetigerim	/REDUP-tag-PERF-is-i:-m/	I may have touched

(j) past perfect subjunctive

monuissem	/mon-w-is-se:-m/	I would have warned
di:ksissem	/di:k-s-is-se:-m/	I would have said
we:nissem	/wen-PERF-is-se:-m/	I would have come
wertissem	/wert-PERF-is-se:-m/	I would have turned
tetigissem	/REDUP-tag-PERF-is-se:-m/	I would have touched

Notice that except in the present perfect and in the present of the two forms with link vowels, moneo: and wenio:, the distribution of o: and m is straightforward: o: follows consonants, m follows vowels. This includes the place in the future where, based on stem class, different allomorphs spell the future. Further along that line, the future can be spelled in four ways: -b- after a certain class of morphemes, -is- after the morpheme PERF (even when it appears as a link morpheme itself in the subjunctive), -a:- before 1ST-SG, and -e:- elsewhere (not exemplified here). But the spelling of 1ST-SG following the future morpheme depends on the spelling of the future morpheme. We take this as strong evidence that these are phonologically conditioned allomorphs. But there remains the problem of the allomorph following link vowels. Either we can complicate the phonological statement by saying that m follows non-link vowels, or we can simply

order link vowel insertion after the spelling of 1ST-SG, which is what we chose to do. Finally there is the problem of the spelling of 1ST-SG in the present perfect (f). Notice that the ending is the same regardless of how the morpheme PERF is spelled, even when it has no realization as in verti: 'I have turned'. We take this to mean that the rule spelling 1ST-SG precedes the rule spelling PERF

(23). Now we are ready to write the rule.

(33) 1ST-SG Spelling

1ST-SG ==> i: / PERF _____
 o: / C _____
 m

Notice that we have used an ordering convention, the subparts of (33) must apply in the order they are given. This is for convenience, although we suspect that it will turn out to be theoretically necessary.

To conclude this section we will write out the morphology of the examples in (32) and give the rules necessary for their realization to show what we conceive a morphology to look like.

(34) (a) present	ROOT \$ 1ST-SG ²³
(b) past	ROOT \$ PAST - 1ST-SG
(c) future	ROOT \$ FUT - 1ST-SG
(d) subjunctive	ROOT \$ SUBJ - 1ST-SG
(e) past subjunctive	ROOT \$ SUBJ - PAST - 1ST-SG
(f) present perfect	ROOT - PERF \$ 1ST-SG
(g) past perfect	ROOT - PERF \$ PAST - 1ST-SG
(h) future perfect	ROOT - PERF \$ FUT - 1ST-SG
(i) perfect subjunctive	ROOT - PERF \$ SUBJ - 1ST-SG
(j) past perfect subjunctive	ROOT - PERF \$ SUBJ - PAST - 1ST-SG

(35) (a) Future link

∅ ==> FUT / PERF-_____-SUBJ

(b) Past Subjunctive

SUBJ-PAST ==> se:

(c) Subjunctive Spelling

SUBJ ==> i: / FUT-____
 e: / [a: class]-____
 a:

(d) PAST Spelling

PAST ==> era: / PERF-____
 e:ba:

(e) FUT Spelling

FUT ==> is / PERF-____
 b / [b Future]-____
 a: / ____-1ST-SG
 e:

(f) 1ST-SG Spelling (= (33))

1ST-SG ==> i: / PERF-____
 o: / C____
 m

(g) Link Vowel²⁴

(i) Ø ==> LV / ROOT-____\$
 (ii) LV ==> e: / [e: Class]-____
 i: / [e: Class]-____
 i / [i Class]-____
 a:

(h) PERF Spelling

(i) V ==> [+long] / [____ C_o]-PERF (= (21))
 [Lengthening]
 (ii) V ==> REDUP-V / [____]-PERF (= (22))
 [Reduplicating]

(iii) PERF ==> w / [w-Perfect]-_____ (= {23})
 s / [s-Perfect]-_____
 ∅

2.1.3 The Semantics of Morphology. We would like to conclude this section on morphology with a brief, informal discussion on the topic of the relationship between morphology and semantics. We feel that a complete theory of morphology should include a portion that delimits what possible "meanings" a morpheme can have. So for example the theory should be able to predict certain things about how morphemes can change meaning diachronically.

To talk about this we need to distinguish two aspects of the meaning of morphemes. One is the literal meaning(s), the other the implied meaning(s). For example there are synonyms like face and mug (in the intended sense) which have the same literal meaning but whose implied meanings are different. Another example (involving complex lexicalizations) would be illegible versus unreadable. Both mean that the text (or whatever) cannot be read, but illegible implies unintelligibility because of form. Unreadable is general, but often implies unintelligibility because of content or style. While this discussion of the difference between literal and implied meanings is very informal we hope that the reader can see the distinction we are driving at.

We feel that the theory of morpho-semantics should be addressed primarily to the issue of what can constitute the literal meaning of a morpheme. We feel that it is impossible in principle to define the potential implied meanings because such meanings arise from the competition of other morphemes in the same semantic field (in the

sense of Pike (1959). Or from even historical accidents as in the case of French face which came to have tabu implications because it was used in the punchline of a risqué joke, and was replaced by visage for normal use.

Having outlined to some extent the things we wish to consider in the theory of morpho-semantics, let us turn to presenting a brief typology of morphemes according to the type of literal meaning they have. Morphemes may be either referential or metacommunicative. Referential morphemes carry the content of the message. Metacommunicative morphemes convey information about the structure of the message, the speaker's attitudes towards the message, his intentions in conveying the message, and possibly other such things.

Referential morphemes are of two types--indexical and lexical. Indexical morphemes are pronouns, deictic morphemes, and the like. Lexical morphemes are ordinary verbs and nouns. (It is important to notice that though nouns are frequently used indexically, they only have such meanings as a result of their use. This is the point of McCawley (1970).)

Metacommunicative morphemes have a richer typology. There are two basic types--structural and attitudinal. Structural morphemes are of four subtypes--rule morphemes (the morphemes created by marked rules §2.1.1.2), agreement morphemes, function morphemes (which mark dependency, mood, illocutionary force), and discourse morphemes (which mark paragraphing, topicalization, focus, contrast, coordination). Attitudinal morphemes include interjections, evidentials (in languages which have them), most intonational morphemes (but not question intonation, listing intonation, or contrastive stress), and

many discourse level morphemes (marking such things as the counter-expectancy of the content of the linguistic unit with which they are associated, and emphasis).

At this point it appears that the theory should severely limit the number of literal meanings associated with single morphemes. This is clearest in the case of structural morphemes which may have only one literal meaning up to the point that the language distinguishes between the structures involved. So, for example, in some languages three different rules may advance NP's to direct object and all mark the verb with the same morpheme, but that does not mean that that morpheme has three meanings. Another problem that arises in this line has to do with morphemes that have different spellings in different contexts. For example in the case of Latin 1ST-SG in (33) above, all three allomorphs mean simply 'first person singular' even where the allomorphy is the sole sign of some other contrast (as in werto: 'I turn' versus werti: 'I have turned') we still say that the literal meaning of each is 'first person singular'. In a case where conditioned allomorphy is the thing that bears the surface contrast for that condition, we recognize that that "meaning" of that allomorph is an implied meaning in that context. This notion regarding the limitation on the semantics of structural morphemes is very important because it distinguishes among possible solutions to morphological problems.

2.2 Relational Grammar. In this work we will use a version of the theory of relational grammar being developed by Postal and Perlmutter (n.d.). Basically this is a theory of clause structure which takes the relations subject of, direct object of, indirect object of,

and possessor of as theoretical primes.²⁵ This enables us to write rules by direct reference to these primes. The obvious place to want to do this is in rules of subject and object agreement, and rules of case assignment. So, for example, Latin verbs agree with their subjects in person and number as shown in (36).

(36) ego te: video:	/vid-(e:)-o:/	<u>I</u> see you.
tu: me: vide:s	/vid-(e:)-s/	<u>You</u> see me.
is no:s videt	/vid-(e:)-t/	<u>He</u> sees us.
no:s eum vide:mus	/vid-(e:)-mus/	<u>We</u> see him.
vo:s eo:s vide:tis	/vid-(e:)-tis/	<u>You</u> (pl) see them.
ei: vo:s vident	/vid-(e:)-unt/	<u>They</u> see you (pl).
ego curro:	/curr-o:/	<u>I</u> am running.
tu: curris	/curr-s/	<u>You</u> are running.
is currit	/curr-t/	<u>He</u> is running.
no:s currimus	/curr-mus/	<u>We</u> are running.
vo:s curritis	/curr-tis/	<u>You</u> (pl) are running.
ei: currunt	/curr-unt/	<u>They</u> are running.

Having as a grammatical prime the relation subject, we can write the six rules of person/number agreement directly, without reference to an arbitrary structural condition.²⁶ The first person singular rule would look like (37). The notation l: means subject of.

(37) Subject Agreement (first person clause)

$$V \Rightarrow V\text{-1ST-SG} / \text{ ______ } l: [l, \text{SG}]^{27}$$

What (37) says is that if the referent of the subject of a verb is first person singular, create and attach the morpheme 1ST-SG to the right of the verb.

As an example of object agreement consider the Sayula Popoluca data in (38).

(38) (a) t̥ineʔpw aye hayaw	/t̥in-ʔeʔp-w/	I saw the man.
t̥iʔeʔpw(mi:h)	/t̥iʔeʔp-w/	I saw you.
(b) ineʔpw aye hayaw	/in-ʔeʔp-w/	You saw the man.
išeʔpw ð:h	/iš-ʔeʔp-w/	You saw me.

- (c) t̥šeʔpw aye hayaw /t̥š-ʔeʔp-w/ The man saw me.
 išeʔpw aye hayaw /iš-ʔeʔp-w/ The man saw you

Here the agreement markers are portmanteau marking both the subject and the object. While there is some neutralization of forms (išeʔpw means either 'you saw me' or 'he saw you'), the fact of object agreement is clear. Once again we write this agreement by referring directly to the objecthood of the direct object index, and combine the subject and object agreement markers by a later complex of portmanteau spelling rules.

(39) Object Agreement - first person clause (exclusive)

V ==> 1ST-V / _____ 2:[1]

As an example of case marking we refer the reader to the Latin rule given in (16) above.

The rest of the system of relational grammar is based on empirically derived generalizations, called laws, which are statements of limitations on the form that a rule in a human language can take, using these grammatical relations mentioned above: subject of, object of, indirect object of, and possessor of.

In the following sections we will discuss and exemplify different aspects of the theory of relational grammar more by way of laying it out than of arguing in detail for the various points in it.

2.2.1 Ergativity. There are some languages which treat the subject of an intransitive clause and the object of a transitive clause in the same way, in opposition to languages that treat subjects uniformly regardless of the transitivity of the clause. Languages of the former type are called ergative languages, the others accusative. Some examples of ergative languages are given in (40).

(40) (a) Hindi (past tense)

mē: samajha: I understood.
I UNDERSTAND-PAST-MA3C-SG

mē: ne a:p ki: ba:t samajhi: I understood you.
I ERG YOU OF MATTER UNDERSTAND-FEM-SG
(fem)

(b) Copainalá Zoque

huan kenba Juan sees (= can see).
JUAN SEE-PRES

huanʔis kyenba teʔ libru Juan sees the book.
JUAN-GEN 3-SEE-PRES 'THE BOOK

We will treat ergativity as a secondary phenomenon, i.e. we will define the relations of ergativity in terms of the grammatical relations subject of, object of. The relations of ergativity are ergative and absolutive. Ergative is the subject in a transitive clause. Absolutive is the object in a transitive clause or the subject in an intransitive clause. Notice carefully that we are not saying that accusative constructions are turned into ergative constructions. In fact, as we will see in a later chapter Ojibwa has agreements of both ergative and accusative nature intertwined, first agreement with the absolutive, then subject and object person agreement, and finally ergative and absolutive number agreement. To make matters worse, some of the internal structure of Ojibwa stems arises from accusative type syntax. An example is given in (41). (BENEF marks the advancement of a benefactive to object.)

(41) ndanki:twa:na:nig We (exc) work for them.
/n(d)-anoki:-h - d-aw - a: - na:ni - ag/
I(subj)WORK link 3(abs)BENEF 3(obj) 1PL(subj) 3PL(abs)

2.2.2 Hierarchy of Grammatical Relations. The grammatical relations subject of, direct object of, and indirect object of are the

central notions of relational grammar. The NP's in a clause bearing these relations are called terms. All other NP's appearing in a clause are non-terms. All terms and non-terms in a clause are called dependents of the verb of the clause. In this work we will use dependency trees with relationally labeled nodes to represent abstract syntactic structures. Often we will reduce these to equivalent one dimensional bracketed strings.

There exists a syntactic hierarchy among dependents with subject having the highest rank.

- (42) Subject
 Direct Object
 Indirect Object
 Non-terms

This hierarchy is empirically determined on the basis of cross linguistic evidence regarding how rules that are sensitive to termhood operate. Keenan and Comrie (1972) argue that relative clause formation follows the hierarchy in (42). If a language can relativize a non-term, then it can also relativize all terms. If a language can relativize an indirect object then it can relativize direct objects and subjects. If it can relativize a direct object, then it can relativize subjects. Similarly Johnson (to appear) presents evidence that rules making NP's into direct objects also follow the hierarchy (except that subjects cannot be "demoted" to objects as we will discuss below). Finally he argues that reflexivization and probably coreferential deletion also follow the hierarchy.

Therefore we will label subjects 1, direct objects 2, and indirect objects 3.

In addition there appears to be a hierarchy based in ergativity.

For example the -ee nominalization in English operates on absolutes only (Swinburn (1974)).

(43) (a) from intransitive clauses

retiree
returnee
escapee

(b) from transitive clauses

addressee
employee
draftee

Similarly -ing nominalizations can have incorporated absolutes only (Swinburn (1974)).

(44) (a) from intransitive clauses

dog barking
bird chirping
baby crying

(b) from transitive clauses

lion hunting
people watching
wife swapping

Notice in particular that on semantic grounds only it appears that the forms in (44b) should be ambiguous between a subject reading for the incorporated noun and an object reading, but they have only object readings. Whereas the forms in (44a) show that subject incorporations are possible (if somewhat unusual), therefore the correct generalization is that absolutes are incorporated. Thus there appears to be a hierarchy of ergativity:

(45) absolute
ergative

Notice in particular that this hierarchy runs against the hierarchy of (42). What the meaning of this is is unclear at this point; however we will see below in the section on clause union that there

is another place where this conflict of the hierarchies appears.

We will label absolutes A and ergatives E, remembering that an E is simultaneously a 1, and that an A is simultaneously either a 1 or a 2 depending upon the transitivity of the clause it appears in.

Now let us lay out a summary of nominal dependents, with the labels we will use to refer to them. The label will express the grammatical function of the dependent. In addition we will group them by two non-congruent classifications: termhood and syntacticity. Termhood we have mentioned above. Syntacticity refers to whether the function of a dependent is purely syntactic or not. All terms are purely syntactic entities, their grammatical function being determined by the semantics of the verb and a set of universal function assignment principles. For example if a verb refers to an agent acting on a goal, the agent will be assigned subjecthood and the goal objecthood. Most non-terms, however, have their function assigned by "internal" semantic properties. For example, instrumentals are instrumental because they refer to instruments, not because the verb they appear with assigns them instrumentality. However, there are three types of non-terms which arise solely through syntactic means. These are chomeurs, dead dependents, and dead verbs. These entities are crucial to the theory, but we are not yet in a position to discuss them. The summary is given in (46). Notice that relational grammar makes no claim about the source of semantic dependents. They could either be derived from higher predicates or could be present in place in underlying forms; neither would affect the theory.

2.2.3 Rules. Rules in natural languages fall into two distinct groups with respect to grammatical relations. There are those that

(46) Subject (1)	}	Terms	}	Pure Syntactic Dependents		
Direct Object (2)						
Indirect Object (3)						
Chomeur (CH)	}	Non-terms (NT)			}	Semantic Dependents ²⁸
Dead Dependent (DD)						
Dead Verb (DV)						
Instrument (INS)	}	Non-terms (NT)	}	Semantic Dependents ²⁸		
Benefactive (BEN)						
Comitative (COM)						
Locative (LOC)						
Adverb (ADV)						
etc.						

affect the grammatical relations of the clause(s) involved and those that, while they may refer to grammatical relations, do not change them. For example the rules of English fall into these two groups:

(47) A. relation changing rules B. other rules

passive (2 becomes 1)	Question/relative word movement
dative (3 becomes 2)	Topicalization
subject to subject raising	Relative clause extraposition
subject to object raising	Heavy NP shift
<u>there</u> insertion	Particle movement
<u>it</u> insertion (extraposition)	Subject-auxiliary inversion
et al.	et al.

Rules in group A interact freely with rules in both groups. That is, they both feed and bleed rules in both group A and group B. But rules in group B never affect rules in group A; they neither feed nor bleed them. In relational grammar we are primarily concerned with relation changing rules, although we will refer to the action of other rules when such rules are sensitive to termhood.

Relation changing rules are of three types: promotions, deletions, and clause unions. Let us give some examples of each.

(48) Promotions

(a) passive (2 becomes 1)

- (i) People grow oranges in Florida.
- (ii) Oranges are grown in Florida.

(b) subject to object raising (downstairs clause 1 becomes upstairs 2)

- (i) I found that literature was a bore.
- (ii) I found literature to be a bore.

(c) it insertion (it becomes 1)

- (i) For Max to lose his job would be a shame.
- (ii) It would be a shame for Max to lose his job.

(49) Deletions

(a) Equi (downstairs 1 deletes)

- (i) He_i wants him_j to leave
- (ii) He_i wants \emptyset _i to leave.

(b) Indefinite object deletion (indefinite 2 deletes)

- (i) Francis drinks \emptyset .
- (ii) George smokes \emptyset .

(50) Clause Unions (clause boundaries are erased)²⁹

(a) Downstairs intransitive

- (i) I saw that he left.
- (ii) I saw him leave.

(b) Downstairs transitive

- (i) (no ununited form)
- (ii) I let him eat mangoes.

We will discuss promotions and deletions in the remainder of this section, but we will deal with the theory of clause unions in a separate section.

There are three types of promotions: advancements, ascensions, and insertions. The three examples of (48) represent each of these: (48a) exemplifies an advancement, (48b) exemplifies an ascension, and (48c) exemplifies an insertion. Advancements take a dependent and raise its rank in the hierarchy, e.g. passive takes a 2 and makes it a 1, dative takes a 3 and makes it a 2. Other languages have rules

advancing non-terms to 1 or to 2. English rather freely advances BEN to 2. Some English examples are given in (51).

(51) (a) passive (2 becomes 1)

- (i) Alicia rejected Ferdinand's advances.
- (ii) Ferdinand's advances were rejected by Alicia.

(b) psych movement (a kind of passive, 2 becomes 1)

- (i) Oscar tasted Felix's quiche.
- (ii) Felix's quiche tasted awful to Oscar.

(c) dative (3 becomes 2)

- (i) Laverne gave a parakeet to Shirley.
- (ii) Laverne gave Shirley a parakeet.

(d) benefactive (BEN becomes 2)

- (i) Lebeau baked a pie for Schultz.
- (ii) Lebeau baked Schultz a pie.

Ascensions promote a part of a structure out of that structure.

(52) (a) possessor ascension

- (i) Irene pinched Archie's tush.
- (ii) Irene pinched Archie on the tush.

(b) subject to subject raising

- (i) It seems Frank is visiting Margaret (it insertion has applied here)
- (ii) Frank seems to be visiting Margaret.

(c) subject to object raising

- (i) Jake knows that Quint is a bully.
- (ii) Jake knows Quint to be a bully.

(d) non-subject raising

- (i) It's expensive to repair Rocky's truck. (it insertion has applied here)
- (ii) Rocky's truck is expensive to repair.

Insertions place a dummy (in English there and it) in a clause as a term.

(53) (a) there insertion

- (i) A dozen girls are waiting for the Fonz outside of Arnold's.
- (ii) There are a dozen girls waiting for the Fonz outside of Arnold's.

(b) it insertion

- (i) For Ed to call Ann again would bother David.
- (ii) It would bother David for Ed to call Ann again.

Deletions are fairly straightforward. The examples in (49) are representative. However there are two cases of apparent deletions that are not so immediately clear. Occasionally dummies appear to be deleted; in English this is common after fronted adverbs.

- (54) (a) (i) Outside of Arnold's there are a dozen girls waiting for the Fonz. (cf. (53a))
 (ii) Outside of Arnold's are a dozen girls waiting for the Fonz.
- (b) (i) My birthday is today.
 (ii) It's my birthday today. (it insertion)
 (iii) Today it's my birthday
 (iv) Today is my birthday.

A similar kind of thing happens in languages with zero pronominalization. For example in Latin pronouns need not be spelled. In fact, they normally are not. Nonetheless they trigger verb agreement and coreferential deletion as in (55), and other rules.

- (55) (a) (i) ea te: vi:sit She saw you
 SHE YOU-acc SEE-PERF-3
 (ii) te: vi:sit He/She saw you.
 YOU-acc SEE-PERF-3
- (b) (i) is opo:rtuit veni:re He ought to have come.
 HE OUGHT-PERF-3 COME-INF
 (ii) opo:rtuit veni:re He/She ought to have come.
 OUGHT-PERF-3 COME-INF

We will treat these two cases (zero dummies and zero pronouns) as syntactically or pragmatically conditioned zero spelling (§2.1.2.1), not as cases of deletion at all.

2.2.4 Laws. There are three basic laws governing the form of

possible rules in relational grammar. These laws are empirically derived entities. A clear counterexample to any of them would show that relational grammar as it is now done is unworkable.

(56) The Reranking Law

A rule that alters the status of an NP with respect to termhood must increase the rank of that NP.

This law uses the hierarchy given in (42).³⁰ It says that there can be rules like passive which make 2's into 1's or dative which make 3's into 2's, etc. but there can't be any rules that demote 1's or 2's or 3's. As we shall see below, a rule can have a secondary effect of demoting a term, but that effect is limited and automatic-- it may only be the consequence of the promotion of some other term. One of the subtler claims implicit in the Reranking Law is that the only way a clause can lose its subject is via deletion.

(57) The Relational Annihilation Law

When one NP, NP_i , assumes the grammatical relation borne by another NP, NP_j ($i \neq j$), then NP_j becomes a non-term of the sort called chomeur.

This law boils down to a statement that no clause can have two NP's in the same grammatical relation to the verb. Some examples of the effect of (57) are given in (58).

(58) (a) passive (2 becomes 1)

- (i) Lt. Diehl arrested Jimbo.
- (ii) Jimbo was arrested by Lt. Diehl. (Lt. Diehl is a chomeur)

(b) dative (3 becomes 2)

- (i) Fonzie gave some good advice to Joanie.
- (ii) Fonzie gave Joanie some good advice. (some good advice is a chomeur)

Notice that there may be clauses with multiple instances of non-terms

money is a chomeur.)

(b) subject to object raising

- (i) Mike knows that Archie is an imbecile
- (ii) Mike knows Archie to be an imbecile. (Archie is object and to be an imbecile is a chomeur.)

(63) The Cyclicity Law

If a rule creates or destroys termhood, it is a cyclic rule. This law is based on the observation made at the beginning of §2.2.3 that relation changing rules interact freely with themselves and other rules, while other rules do not interact freely with relation changing rules.³¹

(64) The Agreement Law

Only terms can trigger verbal agreement. There are several related laws specifying further limitations on agreements, and further refinements, but we will not go into them here.

(65) The Reflexivization Law

Only terms can trigger reflexivization.

(66) The Coreferential Deletion Law

Only terms can trigger coreferential deletion.

2.2.5 Clause Unions. Clause unions (henceforth CU's) are the relational grammar correspondent of predicate raising, but they have a much stricter form and their effect is not always to produce morphemically complex verbs. Basically a CU erases the boundary between clauses. This means in structural terms that a clause that is in a complement relation with another clause loses that relationship and has its verb and the nominal dependents of its verb reassigned as dependents of the verb of the matrix clause. In general CU's

are not optional, so many of the preliminary examples depend on their semantic reading as an indication of their underlying structure. Some examples of clause unions are given in (67).

(67) (a) English

- (i) He left.
- (ii) I saw that he left. (Without CU)
- (iii) I saw him leave. (With CU)

(b) Turkish

- (i) Hasan öldü. Hasan died.
/öl - di - ø/
DIE PAST 3
- (ii) Ahmet Hasanı öldürdü. Ahmet killed Hasan. (With CU)
HASAN-acc /öl - dir - di - ø/
DIE CAUSE PAST 3

(c) French

- (i) Claude boira le vin. Claude will drink the wine.
- (ii) Je laisserai Claude boire le vin. I will let Claude drink the wine (Without CU)
- (iii) Je laisserai boire le vin à Claude. I will let Claude drink the wine (With CU)

(d) Sayula Popoluca

- (i) minw He came.
/ø - miʔn - w/
3 COME PAST
- (ii) tɨnakminw I made him come.
/tɨn - ak - miʔn - w /
1→3 CAUSE COME PAST

To talk about CU's let us define some terms. First we will call the embedded clause the downstairs clause. Similarly we will call the matrix clause the upstairs clause. And the clause we end up with we will call the result clause. Secondly the effect of clause union on the downstairs verb is to render it a dead verb. Similarly any downstairs dependents which are not reassigned termhood by the process

of CU are called dead dependents. Notice that like chomeurs dead verbs and other dead dependents are non-terms but are pure syntactic entiries. However, unlike chomeurs, their syntactic interaction is almost nil. The only rules that we know of which apply to dead dependents are rules that attach dead verbs to live verbs.³²

There are four cases of simple clause unions: two in which the upstairs clause is intransitive and the downstairs clause is the subject complement of the upstairs verb, the first involving a downstairs intransitive and the second involving a downstairs transitive; and two in which the upstairs clause is transitive and the downstairs clause is the object complement, the first involving a downstairs intransitive and the second involving a downstairs transitive. The following table lays out the reassignment of termhood.

(68)	Upstairs clause	Downstairs clause	Reassignment
Case I	intransitive	intransitive	D subject becomes R subject
Case II	intransitive	transitive	D subject becomes R subject D direct becomes R direct object object
Case III	transitive	intransitive	U subject becomes R subject D subject becomes R object
Case IV	transitive	transitive	U subject becomes R subject D subject becomes R indirect object object D direct becomes R direct object object

The following are examples of each of these cases in Turkish. Verbs agree with their subjects, which are themselves unmarked. Definite direct objects are marked accusative. Indirect objects are marked dative.

(69) (a) Case I

- (i) geldim I came.
/gel - di - m/
COME PAST 1
- (ii) gelmedim I didn't come
/gel - me - di - m/
COME NOT PAST 1

(b) Case II

- (i) kitabı okudum I read the book.
BOOK-acc /oku - di - m/
READ PAST 1
- (ii) kitabı okumadım I didn't read the book.
BOOK-acc /oku - me - di - m/
READ NOT PAST 1

(c) Case III

- (i) rakibi öldü His rival died.
RIVAL-3 /öl - di - ø/
DIE PAST 3
- (ii) Ahmet rakibini öldürdü Ahmet killed his rival.
RIVAL-3-acc /öl - dir - di - ø/
DIE CAUSE PAST 3

(d) Case IV

- (i) daktilo mektubu yazdı The typist wrote the
TYPIST LETTER-acc /yaz - di - ø/ letter.
WRITE PAST 3
- (ii) ben daktiloya mektubu yazdırdım I got the typist
I TYPIST-dat LETTER-acc to write the
/yaz - dir - di - m/ letter.
WRITE CAUSE PAST 1

The pattern for reassignment is universal, even where the superficial form is different. For example in Yokuts the superficial pattern appears to be different. The downstairs subject appears as the result object (in the accusative) and the downstairs object appears marked with the indirect object case.

- (70) *čomla? na? ʔan hi? xata:ni* I'll make him devour the food.
 /*ču:m- la: - ʔ/* I-nom THAT-ONE-acc FUTURE /*xat - ni/*
 DEVOUR CAUSE FUT FOOD dat

But as it turns out, Yokuts obligatorily advances indirect objects and marks object chomeurs with -ni 'dative', leaving the verb unmarked. In (71a) is an example of an advanced indirect object, while (71b) has evidence concerning object chomeurs.

- (71) (a) *ʔama? ʔan kayiw wana:ʔan he:xa:ni ʔamin*
 AND THAT-ONE-acc COYOTE-nom /*war - ʔan/ /he:xa: - ni/* HIS-gen
 GIVE DURATIVE FAT dat
 And (then) Coyote gives him his fat.

- (b) (i) *diʔiʃhin ʔala:pa yow ʔuyo:su*
 /*diʔʃ - hin/* BOW-acc AND ARROW-acc
 MAKE PAST
 (He) made a bow and arrows.

- (ii) *diʔiʃsithin nan ʔalapni yow ʔuyosnu*
 /*diʔʃ - sit - hin/* ME-acc BOW-dat AND ARROW-dat
 MAKE BEN PAST
 (He) made me a bow and arrows.

At this point we would like to comment briefly on the pattern of reassignment of termhood. The result of a CU is always a dead verb (the downstairs verb) and normally other dependents which are assigned termhood according to (68). In addition there may be dependents that become dead dependents. But the pattern in (68) is the heart of the theory of CU's. Superficially it appears not to relate clearly to the rest of the theory, especially to the hierarchy from subject to non-term. We would like to note, however, that the pattern of (68) can easily be given an ergative explanation. The table in (72) lays out the pattern of (68) in terms of ergativity. (E = ergative, A = absolutive, IO = indirect object; DA = downstairs absolutive, RE = result ergative, etc.) Here it becomes clearer that the pattern of (69) is not arbitrary. Absolutives remain abso-

(72)	Case I	Case II	Case III	Case IV		
	DA	DA	DA	DA	becomes	RA
		DE	UE	UE	becomes	RE
				DE	becomes	RIO

lutive, ergatives remain ergative, except where there are too many, and then the lowest ranking ergative does the only thing it can do to remain a term, it becomes an indirect object.

In addition to simple clause unions there are more complicated cases. In Frantz (1976) arguments are presented to the effect that there are clause unions which in addition to reassigning termhood delete terms on the basis of coreferentiality. For example in Yokuts there are no rules deleting subjects out of embedded clauses but when an upstairs and a downstairs clause with coreferential subjects unite, there is only one instance of the index in the result clause.

(73)	li [?] hatin [?] hin na [?]	I wanted to sink.
	/li [?] - hatn - hin/ I	
	SINK WANT' PAST'	

A clause with two instances of the same index is reflexivized.

(74)	[?] ilewsa:hin moxlo [?]	The old one fanned himself.
	/ [?] il - wsa: - hin/ OLD-ONE	
	FAN REFL PAST	

In the clearest instances the non-subject term is simply missing in the output. Frantz (1976) claims that there are also instances in which the clause union renders the upstairs rather than the downstairs verb dead.

In the chapter on Clause Union we will discuss instances of CU's involving non-term complements.

2.2.6 Word Order. There are three basically different ways that grammatical function can be expressed in a language: by marks on verbs,

marks on nouns, and by word order. There appear to be strict limitations on verb marking which we express by the Agreement Law (64). Verb marking can only mark the function of terms (underlying or derived). Of course verbs may come to be marked by rules that change grammatical relations and thus come to bear marks that imply the function of underlying non-terms. Nonetheless verbal marking is limited. Nominal marking is much freer. Either case marks or prepositions or both may be used to indicate grammatical function. Cases of nominal and verbal markings are quite familiar. However, word order is often used to mark grammatical function also. This is less true of languages with more nominal and/or verbal marking, but even for these languages those describing the language give a basic or unmarked order.

In relational grammar we treat word order as a derivative fact about language. Abstract syntactic structures are viewed as dependency trees with nodes labeled by grammatical function but without order. At some relatively late (certainly postcyclic) stage of derivation word order is assigned on the basis of grammatical function. For example the English pattern is given in (75).³³ Notice that dead verbs (DV) and chomeurs (CH) have a place in the word order.

(75) (a) 1 V 2 DV 3 2-CH 1-CH NT³⁴

(b) John saw Max leave yesterday. (Clause Union)
 1 V 2 DV NT

Zelda proved herself clever to me yesterday. (Clause Union)
 1 V 2 DV 3 NT

A book was given to me by Darryl yesterday. (Passive)
 1 V 3 1-CH NT

I was given a book by Darryl yesterday. (Dative, Passive)
 1 V 2-CH 1-CH NT

Patterns like those in (75) are common in descriptions of languages. But there is evidence that such simple patterns are not the correct mechanism for given word order. The following Czech sentences involving CU's show that a simple pattern cannot be laid out.³⁵

- (76) (a) Karel dal Petrovi knihu. Karl gave Peter a book.
 1 V 3 2
- (b) Karel musel pracovat. Karl had to work.
 1 V DV
- (c) Karel musel Petra udat. Karl had to denounce
 1 V 2 DV Peter.
- (d) Karel musel Petrovi přinést pivo.
 1 V 3 DV 2 Karl had to bring beer
 to Peter.

The conflict in (76) between the order 2 DV in (c) and DV 2 is clear. This shows that a simple pattern giving the word order is not workable. Present thinking is that ordering rules discussing only terms and rules treating other entities may be separate. The rules for the Czech example are given in (77).

- (77) (a) Terms are ordered 1 3 2
- (b) The verb follows the first term.
- (c) A dead verb follows the second term.

It has been suggested (Swinburn (1974)) that there are only two possible rules ordering chomeurs relative to terms. They must either precede all terms or follow all terms. Ojibwa is an example of the former type, English an example of the latter type.

The fact that word order depends on grammatical function makes it a valuable tool in determining grammatical function in cases where that function is otherwise not evident. In particular since chomeurs and especially dead verbs have little syntactic activity, word order is often the main tool for arguing that one exists in a construction.

2.2.7 Notation of Rules. The operation of a rule may have as many as six syntactic reflexes. These are listed in (78).

- (78) (a) The change in termhood of the promoted NP or the appearance of a dummy.
- (b) The appearance of a mark on the verb.
- (c) The demotion of an NP.
- (d) The appearance of a mark on the demoted NP.
- (e) A change in word order.
- (f) A change in verb agreement.

For example consider the English pair of active and passive sentences in (79).

- (79) (a) I am watching Harry.
- (b) Harry is being watched by me.

Assuming that the same structure underlies both of the sentences in (79), we can say that (79b) differs from (79a) in all of the ways listed in (78). In (79b) Harry has been promoted (= (78a)). A mark, be -ed, has appeared on the verb (= (78b)). Me is no longer a subject (= (78c)). Me, the demoted subject, is marked with by (= (78d)). The order of me and Harry and the verb has changed (= (78e)). And the verb now shows third person agreement instead of first (= (78f)).

So the question arises: which of the things listed in (78) is the defining part of a rule? Almost immediately we see that the changes listed in (78) fall into two groups. The changes of (78a) and 78b) are peculiar to the rule, while the other changes (78c-f) follow from general properties of the language, or, in the case of (78c) from a universal characteristic of human language (given as the Relational Annihilation Law (57)). Since not all rules that promote NP's mark

the verb, (78b) cannot be the defining characteristic of the rule. Therefore we will treat the change in termhood, or the insertion of a dummy as the defining characteristic of a rule. However because of the fact that a mark appearing on the verb is an ad hoc characteristic of a rule, we will write both the change in termhood and the marking of the verb as a part of the rule. Thus we write English Passive as (80), including only the termhood change and the marking of the verb.

(80) Passive (English)

V 2 ==> be V-EN 1

In fact, relational grammar allows us to write rules even more simply. It appears that languages fall into one of two kinds: ones that advance dependents to direct object (English, Ojibwa, Indonesian, etc.) and those that advance dependents directly to subject (Cebuano, Japanese, etc.). Languages of the former type may also have rules advancing direct objects to subject, but in such languages anything that appears as a subject as a result of advancement would have been advanced to direct object first (if it was not an initial direct object) and then advanced to subject.³⁶ Thus defining which of these two types of languages we are describing, we need only specify which dependent is advancing and we know to what it advances.

Therefore passive could be written for English as in (81),

(81) Advance 2, mark verb be V-EN

or Dative as in (82).

(82) Advance 3

However, for clarity's sake we will notate advancements as in (80) with the redundancy to aid the reader.

We will write insertions as in the example in (83), which is

English there-insertion.

(83) there ==> 1

Because of the Relational Succession Law (61), we will write ascensions as in (84), which is English Subject Raising.

(84) Raise 1

Finally we will write doubling rules like the one that accounts for the difference between (85a) and (85b) as in (86). Doubling rules look like raising but leave a copy behind.

(85) (a) It looks like Jack is still on the wagon.

(b) Jack looks like he's still on the wagon.

(86) Double 1

The form of (86) works for a reason that is not immediately clear. Sentence (85a) has undergone it insertion, hiding the fact that the embedded clause is the initial subject. Double means copy and raise. The result of that is in (85b). In Ojibwa there are no ascension rules, only doubling rules.

FOOTNOTES

CHAPTER II

¹Matthews (1971) is a possible exception. We feel, however, that his scope, in dealing only with inflection, is too narrow.

²We are aware of one difficult analysis with respect to this assumption. In Latin passives it looks possible to divide the endings, given in (1a) into person endings, given in (1b), plus -r/-ur with portmanteau morphemes in the second person only.

(1) (a)		sg.		pl.
	1	-or/-r		-mur
	2	-ris		-mini:
	3	-tur		-(u)ntur
(b)	1	-o:/-m		-mus
	2	-s		-tis
	3	-t		-(u)nt

This is especially tempting because in the first person singular the -or allomorph of the passive has exactly the same distribution as the -o: allomorph of the active. But our assumption makes this analysis impossible, because that would make the morpheme order PERSON/NUMBER plus PASSIVE, but since the subject came to be the subject as a result of the operation of passive the logical order must be PASSIVE plus PERSON/NUMBER. This means that all the morphemes in (1a) must be treated as portmanteaus.

Even if it turns out that there is further evidence in favor of the analysis of (1a) into PERSON/NUMBER plus PASSIVE, it seems clear to us that this is a very unusual case and that cases like it will be highly constrained. Therefore we will stick to our assumption as it stands until such a time as it is shown to be totally untenable.

³The one systematic exception involves linking rules which insert nonce morphemes in the middle of structures to satisfy demands of structural patterns. See §2.1.1.2.

⁴We realize that such attachment could be viewed as a phonological process "degrading" a word boundary to a morpheme boundary. However, we agree with Pyle (1972) that phonological boundaries are all derivative from syntactic structures, so we treat these processes as syntactic.

⁵The form -mez- is a portmanteau for -me- 'negative' plus -ir- 'aorist'.

⁶The potential has two allomorphs: -ye- before the negative and -yebil- elsewhere.

⁷The notation 1:[3], which will be explained later, means 3rd singular subject.

⁸There are seven verb stems in the class that take e: as a link

vowel that look like they might end in e: rather than in a consonant. Three are compounds of the same root. All except one (whose compounds act like they are consonant final) admit easily of a consonant final interpretation.

⁹We have left out the NP's and tense because they are irrelevant to the point we are making.

¹⁰We will explain the process of Clause Union in §2.2.5. Basically it has the effect of erasing clause boundaries, although the effect on the NP's involved is more intricate.

¹¹In this we agree with the traditional Latin grammarian's approach. For example, Bennett (1918) tried to assign case on semantic grounds; however, his system seems inappropriate because of his failure to distinguish between underlying case which is assigned on semantic grounds, and superficial case which is assigned on syntactic grounds.

¹²The notation 1: means subject, 2: means direct object.

¹³Human (and occasionally animate) nouns in the ablative normally add the preposition a:/ab.

¹⁴There is a later rule which lowers i: and u: to e: and o: respectively.

¹⁵Anderson (1974) calls such rules morpholexical rules, a term we find misleading.

¹⁶The vowel changes from a to e or i are due to the action of an independent pair of rules.

¹⁷A similar thing happens in phonology. Pyle (1972) showed that boundary markers +, morpheme boundary; #, word boundary; &, phrase boundary; etc., do not exist in phonological strings. But the need for them in phonological rules is easily demonstrated. What such markers mean in phonological rules is that the rule refers to syntactic structure.

¹⁸Some stem formation rules have applied.

¹⁹Long vowels are shortened before vowels.

²⁰There is a rule of metathesis that moves the n into the stem. The n is a stem marking morpheme.

²¹Long vowels are shortened before word final resonants.

²²There is an epenthesis rule.

(2) $\emptyset \rightarrow i / C + \underline{C}$

There are some restrictions on (2). Either the first C must be a stem consonant, or the last C must be word final (or part of a word final

cluster). (2) only operates in verbs, and follows metathesis (fn. 20).

¹There are also two other rules.

(3) s → r / Vy

(4) i → e / r

²³The § represents the stem boundary. It is important for describing, among other things, link vowels.

²⁴There is more to the Link Vowel rule complex than is shown here, but this is sufficient for our purposes.

²⁵The relation possessor of is our addition. Postal and Perlmutter do not, to the best of our knowledge, use it.

²⁶It is possible that there is only one rule of subject agreement which creates all six morphemes from the pragmatic and semantic content of the referent of the subject index. At this point we think that this is a notational variant of the approach we are using.

²⁷We remind our reader that features like [1] 'first person' and [SG] 'singular' are only devices in rules to enable the rule to refer to the pragmatic/semantic situation. These features do not exist in the index itself. Thus 1:[1,SG] is satisfied if the index which bears the relation subject of to the verb refers to the speaker (first person) alone (singular).

²⁸Postal and Perlmutter use the term impure syntactic dependents which we do not like.

²⁹A certain amount of controversy exists regarding English clause unions. In particular there are a number of complications with even the more straightforward cases. Nonetheless we will use English examples here because of their immediate accessibility.

³⁰The hierarchy in (42) does not mention the terms of clauses other than the clause under consideration. The terms of such clauses have zero rank in the clause in hand, i.e. they are the same as non-terms in rank.

³¹This statement is not quite accurate. There are occasional rules of agreement, reflexivization, and the like that do not change grammatical relations, but are cyclic and do interact with relation changing rules.

³²See §2.1.1.1 for a discussion of such rules, and an argument that such rules may be cyclic. What is left unsaid in that argument is that CU is involved in the derivation of the crucial forms.

³³Notice that dead verbs (DV) and chomeurs (CH) have a place in the word order. The symbols represent the functions summarized in (46). 1-CH means subject chomeur. 2-CH means object chomeur.

³⁴There is an alternate word order with the dead verb preceding

the direct object. The rule that accounts for this is the familiar Particle Shift (not to be confused with the separate rule Heavy NP Shift which moves non-subjects rightward). There is also a poorly understood rule that moves subject chomeurs rightward.

³⁵The data are from Perlmutter (1975).

³⁶For a sentence like I was given a book, I was an initial indirect object, and became a subject by two steps, first advancing to direct object and then passivizing.

CHAPTER III

VERB AGREEMENT I

3.0 The inflection of verbs in Ojibwa is very complex. Verbs are inflected in three orders: independent, conjunct, and imperative. For every independent form there is a corresponding conjunct form that is used in dependent clauses and in construction with certain adverbs. In this chapter we will begin to examine the inflection of the independent order verb.

As we discussed in Chapter I, 1.1.3, verbs are of two morphological types, transitive and intransitive. Transitive verbs appear in transitive clauses, and are inflected to agree with their subjects and objects in person, number, gender, and obviation. Intransitive verbs appear in intransitive clauses and are inflected to agree with their subject in person, number, gender, and obviation. In addition there are a few morphologically intransitive verbs that appear in transitive clauses and show only part of the inflection for agreement with their object. We will call these verbs pseudo-transitive (henceforth PT) after Bloomfield (1957)¹.

Verbs show several layers of agreement. The innermost layer is stem agreement. The stem agrees (sometimes suppletively) with the absolutive of the clause in gender. Traditionally stems are divided into four types according their transitivity and whether they show the animate or inanimate stem agreement marker. The four types are:

- | | | | |
|-----|------------------------|------|---|
| (1) | Inanimate Intransitive | (II) | an intransitive verb marked for inanimate agreement |
| | Animate Intransitive | (AI) | an intransitive verb marked for animate agreement |
| | Transitive Inanimate | (TI) | a transitive verb marked for inanimate agreement |
| | Transitive Animate | (TA) | a transitive verb marked for animate agreement |

Henceforth we will refer to these stems by the abbreviations given in (1). We will call a verbal construction that ends with the stem agreement marker (minus any prefixes) a stem. PT verbs all have AI stems.

3.1 The Traditional Analysis. In this section we will outline briefly a traditional analysis of Ojibwa, similar to the one presented in Bloomfield (1957). The reader should realize that the traditional analysis of an Algonkian language is aimed only at identifying morphemes and grouping them into orders of mutually exclusive occurrence. Little attempt is made to relate the morphology of the verb to the syntax of the sentence in which it occurs except where that is necessary to identify the meaning of a morpheme. While it is this morphosyntax of the Ojibwa verb that we will focus on ultimately, we present a traditional analysis here to give the reader an overview of the agreement morphology of the verb.

3.1.1 II Verbs. II stems show conditional inflection for number and obviation. The example in (2) gives the independent forms of the II stem wi:nad- 'dirty' which is comprised of the root wi:n- 'dirty' plus the inanimate stem agreement marker -ad-.

- | | | | |
|-----|----------|---------------------|------------------------------|
| (2) | wi:nad | /wi:n-ad - w/ | It is dirty. |
| | wi:ndo:n | /wi:n-ad - w - an/ | They (inan.) are dirty. |
| | wi:ndini | /wi:n-ad - ini - w/ | It/they (obv.) is/are dirty. |

A chart summarizing the morphology of the II verb is given in (3).

(3)	Stem	Position 1	Position 2	Position 3
		-ini-	-w	-an
		'obviative'	'3'	'plural'

In addition stems that end in vowels show augments as in (4).

(4)	Stem: miskwa:-	Root: miskw-	Stem Agreement Marker: -ya:-
	mskwa:	/miskw-ya: - w/	It is red.
	mskwa:mgad	/miskw-ya: -magad - w/	
	mskwa:no:n	/miskw-ya: - n - w - an/	They (inan.) are red.
	mskwa:ni	/miskw-ya: - ini - w/	It/they (obv) are red.
	mskwamgadni	/miskw-ya: - magad - ini - w/	

The augment -magad- in the singular only is optional (in this dialect).

The augment -n- in the plural only is obligatory (in this dialect).

3.1.2 AI Verbs. AI verbs show additional inflection for person, number, and obviation. The example in (5) gives the independent forms of the AI stem wi:nizi 'dirty' which is comprised of the root wi:n- 'dirty' plus the animate stem agreement marker -izi.

(5)	gwi:niz	/g - wi:n-izi/	You are dirty.
	nwi:niz	/n - wi:n-izi/	I am dirty.
	wi:nzi	/ wi:n-izi - w/	He is dirty. ²
	gwi:nzi	/g - wi:n-izi - mw/	You (pl.) are dirty.
	gwi:nzimi	/g - wi:n-izi - min/	We (inc.) are dirty.
	nwi:nzimi	/n - wi:n-izi - min/	We (exc.) are dirty.
	wi:nziwag	/ wi:n-izi - w - ag/	They are dirty.
	wi:nziwan	/ wi:n-izi - w - an/	He/they (obv.) is/are dirty.

A chart summarizing the morphology of the AI verbs is given in (6).

(6)	Prefix	Stem Position 1	Position 2
	g-	-w	-ag
	'2'	'3'	'3 plural'
	n-	-min	-an
	'1'	'1 plural'	'obviative'
		-mw	
		'2 plural'	

Because the point of this section is to expose the reader to an overview of Ojibwa verb morphology, we will make no attempt to line up suffix positions among the various stem types (as Bloomfield did) or to give indications on the cooccurrence restrictions between morphemes.

3.1.3 TI Verbs. TI stems show additional inflection for person, number, and optionally for obviation of their subjects. In addition TI stems show inflection for person and number of their objects. Their example in (7) gives the independent forms of the TI stem bi:d- 'bring' which is comprised of the root bi:- 'bring' plus the inanimate stem agreement marker -d-. The person of the object of a TI stem is always 3, as there are no linguistically inanimate speakers or addressees in Ojibwa. The independent forms of TI verbs are unusual in that they show two markers for object agreement.

(7)	gbi:do:n	/g - bi:-d - o: - n/	You bring it.
	nbi:do:n	/n - bi:-d - o: - n/	I bring it.
	wbi:do:n	/w - bi:-d - o: - n/	He brings it.
	gbi:do:na:wa:	/g - bi:-d - o: - n - (a:)wa:/	You (pl.) bring it.
	gbi:do:na:	/g - bi:-d - o: - n - na:ni/	We (inc.) bring it.
	nbi:do:na:	/n - bi:-d - o: - n - na:ni/	We (exc.) bring it.
	wbi:do:na:wa:	/w - bi:-d - o: - n - (a;)wa:/	They bring it.
	wbi:do:nni	/w - bi:-d - o: - n - ini/ ³	He/they (obv.) bring it them.
	gbi:do:nan	/g - bi:-d - o: - n - an/	You bring them (inan.).
	nbi:do:nan	/n - bi:-d - o: - n - an/	I bring them (inan.).
	wbi:do:nan	/w - bi:-d - o: - n - an/	He brings them (inan.).

gbi:do:na:wa:n	/g - bi:-d - o: - n - (a:)wa: -an/	You (pl.) bring them (inan.).
gbi:bo:na:nin	/g - bi:-d - o: - n - na:ni - an/	We (inc.) bring them (inan.).
nbi:do:na:nin	/n - bi:-d - o: - n - na:ni - an/	We (exc.) bring them (inan.).
wbi:do:na:wa:n	/w - bi:-d - o: - n - (a:)wa: - an/	They bring them (inan.).

A chart summarizing the morphology of the TI verb is given in (8).

(8) Prefix	Stem	Position 1	Position 2	Position 3	Position 4
g-		-o:-	-n	-na:ni	-an
'2'		'inan.'	'inan.'	'1 plural'	'plural'
		(object)	(object)		
n-				-wa:	
'1'				'2 plural/	
				3 plural'	
w-				-ini	
'3'				'obviative'	

The morpheme 'inanimate (object)' represented by -o:- in (7) and (8) has three allomorphs: -o:-, -am-, and -i-. Examples of the latter two allomorphs are given in (9).

(9) (a)	nwa:bnda:n	/n - wa:bam-d - am - n/	I see it.
	ngitga:da:n	/n - gitige:-d - am - n/	I plant it.
	ngiža:da:n	/n - giža:-d - am - n/	I take care of it.
(b)	nna:din	/n - na:-d - i - n/	I fetch it.
	nmi:jin	/n - mi:j-∅ - i - n/	I eat it.

3.1.4 TA Verbs. TA stems show additional inflection for person, number, and obviation of both subject and object. This inflection is carried in a complex system involving four subparadigms each of which is characterized by its own theme sign. The four theme signs are: a:, igw, i, and ini. The subparadigms may be divided into two groups of two according to whether or not a third person is involved. Those forms in which a third person is not involved are called local forms.

The two local theme signs are i and ini. Those forms in which a third person is involved are called non-local forms. The two non-local theme signs are a: and igw. The four subparadigms may also be divided into two groups of two according to whether the person prefix on the forms in that paradigm represents the logical subject of the verb or the logical object. The forms in which the person prefix represents the logical subject of the verb are called direct forms. The two direct theme signs are i and a:. The forms in which the person prefix represents the logical object of the verbs are called inverse forms. The two inverse theme signs are ini and igw. The choice between direct and inverse is not optional but is based on a hierarchy of person. The hierarchy is given in (10), with second person having the highest rank, and third person the lowest.⁴

(10) 2
1
3

The verb forms are marked in such a way that if the object is of higher rank than the subject, the inverse form is used. Otherwise, the direct form is used. The four subparadigms are: direct local, theme sign: i; inverse local, theme sign: ini; direct non-local, theme sign: a:; and inverse non-local, theme sign: igw. The example in (11) gives the independent forms of the TA stem bi:n- 'bring' which is comprised of the root bi:- 'bring' plus the animate stem agreement marker -n-.

(11) (a) Direct Local forms

gbi:ž	/g - bi:-n - i/	You bring me.
gbi:žim	/g - bi:-n - i - mw/	You (pl.) bring me.
gbi:žmi	/g - bi:-n - i - min/	You (sg./pl.) bring me.

(b) Inverse Local forms

gbi:nin	/g - bi:-n - ini/	I bring you.
gbi:nnim	/g - bi:-n - ini - mw/	I bring you (pl.).
gbi:ngo:	/g - bi:-n - igw - i/	We bring you. ⁵
gbi:ngo:m	/g - bi:-n - igw - i - mw/	We bring you (pl.).

(c) Direct Non-local forms

gbi:na:	/g - bi:-n - a:/	You bring him.
nbi:na:	/n - bi:-n - a:/	I bring him.
wbi:na:n	/w - bi:-n - a: - an/	He brings him (obv.).
gbi:na:wa:	/g - bi:-n - a: - wa:/	You (pl.) bring him.
gbi:na:na:	/g - bi:-n - a: - na:ni/	We (inc.) bring him.
nbi:na:na:	/n - bi:-n - a: - na:ni/	We (exc.) bring him.
wbi:na:wa:n	/w - bi:-n - a: - wa: - an/	They bring him/them (obv.)
gbi:na:g	/g - bi:-n - a: - ag/	You bring them.
nbi:na:g	/n - bi:-n - a: - ag/	I bring them.
wbi:na:n	/w - bi:-n - a: - an/	He brings him/them (obv.)
gbi:na:wa:g	/g - bi:-n - a: - wa: - ag/	You (pl.) bring them.
gbi:na:na:nig	/g - bi:-n - a: - na:ni - ag/	We (exc.) bring them.
wbi:na:wa:n	/w - bi:-n - a: - wa: - an/	They bring him/them (obv.)

(d) Inverse Non-local forms

gbi:nig	/g - bi:-n - igw/	He brings you
nbi:nig	/n - bi:-n - igw/	He brings me.
wbi:ngo:n	/w - bi:-n - igw - an/	He (obv.) brings him.
gbi:ngowa:	/g - bi:-n - igw - (i)wa:/	He brings you (pl.).
gbi:ngona:	/g - bi:-n - igw - (i)na:ni/	He brings us (inc.).
nbi:ngona:	/n - bi:-n - igw - (i)na:ni/	He brings us (exc.)
wbi:ngowa:n	/w - bi:-n - igw - (i)wa:/	He (obv.) brings them.

gbi:ngowa:g	/g - bi:-n - igw - (i)wa: - ag/	They bring you (pl.).
gbi:ngona:nig	/g - bi:-n - igw - (i)na:ni - ag/	They bring us (inc.).
nbi:ngona:nig	/n - bi:-n - igw - (i)na:ni - ag/	They bring us (exc.).
wbi:ngowa:g	/w - bi:-n - igw - (i)wa: - ag/	He/they (obv.) bring them.

A chart summarizing the morphology of the TA verb is given in (12).

(12) Prefix	Stem	Position 1	Position 2	Position 3
g-		-i	-mw	-ag
'2'		'direct local'	'2 plural'	'3 plural'
n-		-ini	-min	-an
'1'		'inverse local'	'1 plural'	'obviative'
w-		-a:	-wa:	
'3'		'direct local'	'2 plural/ 3 plural'	
		-igw		
		'inverse non-local'		

There are two more paradigms built on TA stems. The first are the forms with indefinite logical subject. This paradigm is given in (13).

(13) gbi:ngo:	/g - bi:-n - igw - i/	You are brought.
nbi:ngo:	/n - bi:-n - igw - i/	I am brought.
bi:na:	/ bi:-n - a: - w /	He is brought.
gbi:ngo:m	/g - bi:-n - igw - i - mw /	You (pl.) are brought.
gbi:ngo:mi	/g - bi:-n - igw - i - min/	We (inc.) are brought.
nbi:ngo:mi	/n - bi:-n - igw - i - min/	We (exc.) are brought.
bi:na:wag	/ bi:-n - a: - w - ag /	They are brought.
bi:na:wa:n	/ bi:-n - a: - w - an /	He/they (obv.) are brought.

This is clearly an intransitive paradigm (cf. 15), with an unusual allomorphy involving theme signs igw and a:.

The last paradigm built on TA stems comprise the forms with inanimate logical subject and animate logical object. An example paradigm is given in (14).

(14) gbiska:gon	/g - bisik-aw - igw - (i)n/ It strikes you.
nbiska:gon	/n - bisik-aw - igw - (i)n/ It strikes me.
wbiska:gon	/w - bisik-aw - igw - (i)n/ It strikes him.
gbiska:g ^W na:wa:	/g - bisik-aw - igw - (i)n - (a:)wa:/ It strikes you (pl.)
gbiska:g ^W na:	/g - bisik-aw - igw - (i)n - na:ni/ It strikes us (inc.).
nbiska:g ^W na:	/n - bisik-aw - igw - (i)n - na:ni/ It strikes us (exc.).
wbiska:g ^W na:wa:	/w - bisik-aw - igw - (i)n - (a:)wa:/ It strikes them.
wbiska:g ^W nini	/w - bisik-aw - igw - (i)n - ini/ It strikes him (obv.).
gbiska:g ^W nan	/g - bisik-aw - igw - (i)n - an/ They (inan.) strike you.
nbiska:g ^W nan	/n - bisik-aw - igw - (i)n - an They (inan.) strike me.
wbiska:g ^W nan	/w - bisik-aw - igw - (i)n - an/ They (inan.) strike him.
gbiska:g ^W na:wa:n	/g- bisik-aw - igw - (i)n - (a:)wa: - an/ They (inan.) strike you (pl.)
gbiska:g ^W na:nin	/g - bisik-aw - igw - (i)n - na:ni - an/ They (inan.) strike us (inc.).
nbiska:g ^W na:nin	/n - bisik-aw - igw - (i)n - na:ni - an/ They (inan.) strike us (exc.).
wbiska:g ^W na:wa:n	/w - bisik-aw - igw - (i)n - (a:)wa: - an/ They (inan.) strike them.

In addition to the morphemes displayed in the paradigms shown above there are four more morphemes that we would like to exemplify here. These are the negative -si:, the preterite -bani, and the two dubitative morphemes -dig and -e:n. We give forms that show where in

the structure these morphemes fall.

(15) (a) AI

wi:nziwag	/wi:n-izi - w - ag/ They are dirty.
wi:nzisi:wag	/wi:n-izi - si: - w - ag/ They are(n't) dirty.
wi:nzibani:g ⁶	/wi:n-izi - w - (i)bani - ag/ They were dirty.
wi:nzidige:nag	/wi:n-izi - w - (i)dig - e:n - ag/ They are supposedly dirty.

(b) TI

wbi:do:na:wa:n	/w - bi:-d - o: - n - (a:)wa: - an/ They bring them.
wbi:do:si:na:wa:n	/w - bi:-d - o: - si: - n - (a:)wa: - an/ They (don't) bring them.
wbi:do:na:wa:bni:n	/w - bi:-d - o: - n - (a:)wa: - bani - an/ They brought them.
wbi:do:na:wa:dge:nan	/w - bi:-d - o: - n - (a:)wa: - dig - e:n - an/ They supposedly bring them.

(c) TA

gbi:na:wa:g	/g - bi:-n - a: - wa: - ag/ You bring them.
gbi:na:si:wa:g	/g - bi:-n - a: - si: - wa: - ag/ You (don't) bring them.
bi:na:wa:bni:g	/g - bi:-n - a: - wa: - bani - ag/ You brought them.
gbi:na:wa:dge:nag	/g - bi:-n - a: - wa: - dig - e:n - ag/ You supposedly bring them.
gbi:ngowa:g	/g - bi:-n - igw - (i)wa: - ag/ They bring you (pl.).
gbi:ngosi:wa:g	/g - bi:-n - igw - (i)si: - wa: - ag/ They (don't) bring you.
gbi:ngowa:bni:g	/g - bi:-n - igw - (i)wa: - bani - ag/ They brought you.
gbi:ngowa:dge:nag	/g - bi:-n - igw - (i)wa: - dig - e:n - ag/ They supposedly bring you (pl.).

These morphemes will be discussed in later sections, in detail. They will be important for helping to group morphemes as allomorphs, and for showing the relative order morphemes.

To end this brief introduction to the inflectional morphology of the independent verb, we would like to point out several facts that will serve as a spring board into the analysis we will be proposing here.

First, the analysis presented above reflects a type of focus on the morphology of the verb that makes it somewhat difficult to view the verb as a syntactic unit in a larger construction which itself imposes the morphology on the verb, by agreements of various sorts. But looked at from the point of view that we will be taking from now on in this work, each of the forms listed above represents a kind of field stripped clause, a full clause minus overt arguments.

Secondly, traditional type analyses are little more than a description of verbal inflections. What little they do to relate the structure of the verb to its meaning derives solely from the assignment of meaning to the morphemes. There is no attempt to relate facts about morpheme order or similarities in paradigmatic construction like the striking resemblance between (14) and (7). In our analysis we will relate the morphologies of the different paradigms to one another by developing a rule system for describing the agreement processes. We will show that only one unified rule system is all that is necessary for the description of all verb forms. The explanatory power of our analysis derives from the fact that it shows that the numerous paradigms of the Ojibwa verb form a unified system rather than several disjoint systems.

3.2 Intransitive Verbs. We will start our analysis of the Ojibwa verb system by looking at the intransitive verbs.

3.2.1 Person-number Agreement. Person and number agreements in intransitive verbs are quite straightforward. A summary of the morphemes involved is given in (3) and (6), which we repeat here as a unified chart in (16).

(16) Prefix	Stem	Position 1	Position 2	Position 3
g-		-ini	-w	-ag
'2'		'obviative' (inanimate)	'3'	'3 plural' (animate)
n-			-min	
'1'			'1 plural'	-an
				'3 plural' (inanimate)/
			-mw	
			'2 plural'	'obviative' (animate)

We have given no evidence yet for our grouping of -min '1 plural' and -mw '2 plural' in Position 2 rather than Position 3. That evidence is given in (17) the plural part of the preterite paradigm of wi:nizi 'dirty (AI)'.

(17)	gwi:nzimwa:ba	/g - wi:n-izi - mw - (a:)bani/	You (pl.) were dirty.
	gwi:nzimna:ba	/g - wi:n-izi - min - (a:)bani/	We (inc.) were dirty.
	nwi:nzimna:ba	/n - wi:n-izi - min - (a:)bani/	We (exc.) were dirty.
	wi:nzibani:g ⁷	/ wi:n-izi - w - (i)bani - ag/	They were dirty.

We can now write our own person and number agreement rules.

(18) Inanimate Obviation

V ==> V-ini / ____1: [INAN, OBV]

(19) Person Agreement

(a) V ==> g-V / ____1:[2/21]⁸

(b) V ==> n-V / ____1:[1]

(c) V ==> V-w / ____1:[3]

(20) Non-third Plural Agreement

(a) V ==> V-min / ____1:[1 PL]

(b) V ==> V-mw / ____1:[2 PL]

(21) Third Plural Agreement

(a) V ==> V-ag / ____1:[3 PL, AN]

- (b) $V \Rightarrow V\text{-}\epsilon n$ / $\underline{\quad}$ 1:[3 PL, INAN]
 $\underline{\quad}$ 1:[AN, OBV]

Some comments on these rules are in order. The rule of modal attachment which attaches the preterite and/or the dubitative morphemes applies in the middle of these rules. Thus the last form in (17), *wi:nzibani:g* /*wi:n-izi - w - (i)bani - ag/*, reflects the order modal attachment precedes Third Plural Agreement (21). We will write the modal attachment rules as in (22) and (23). [Note the evidence in (15).]

(22) Modal Attachment

- (a) $V \text{ bani} \Rightarrow V\text{-bani}$
 (b) $V \Rightarrow V\text{-dig}$ / $\underline{\quad}$ e:n

(23) Dubitative Attachment

- $V \text{ e:n} \Rightarrow V\text{-e:n}$

The exact form of these rules has not been argued for here. It is beside the point. We only need these rules to give the order of rules correctly. The order of the rules is given in (24).

- (24) Inanimate Obviation (18)
 Person Agreement (19)
 Non-Third Plural Agreement (20)
 Modal Attachment (22)
 Dubitative Attachment (23)
 Third Plural Agreement (21)

The evidence for this order is scattered among the various paradigms given above, therefore we will give derivations that show the ordering. We will derive *wi:ndini* [from (2)], *nwi:nzimna:ba* [from (17)], and *wi:nzidige:nag* [from (15a)] in (25) [on the next page]. There is one further comment. As pointed out by Delisle (1973), the animate obviation marking is exactly the same as the inanimate plural both in nouns

(25)

Input to Agreements	wi:nad DIRTY	1:[OBV]	wi:nizi bani DIRTY PRETERITE	1:[11] WE(E)	wi:nizi DIRTY	e:n 1:[3PL] DUBITATIVE THEY
Inanimate Obivation (18)	wi:nadini	1:[OBV]	--	1:[11]	--	e:n 1:[3PL]
Person Agreement (19)	wi:nadiniw	1:[OBV]	nwi:nizi bani	1:[11]	wi:niziw	
Non-third Plural Agr. (20)	--		nwi:nizimin bani	1:[11]	--	e:n 1:[3PL]
Modal Attachment (23)	--		nwi:niziminbani	1:[11]	wi:niziwɗig	1:[3PL]
Dubitative Attachment (23)	--		--		wi:niziwɗige:nag	1:[3PL]
Third Plural Agreement (21)	--		--		wi:niziwɗige:nag	
Morphophonemics	wi:ndini		nwi:nzimna:ba		wi:nzidige:nag	

and in verbs. Therefore we will treat [AN, OBV] as [INAN, PL] with no further note to that effect. This means that we will simply drop the second environment of (21b).

3.2.2 Stem Agreement. As mentioned in 3.0, the final morpheme of a stem is an agreement marker which reflects the gender of the absolutive of the stem. Thus the stem agreement markers on intransitive verbs reflect the gender of the subject of the verb. There are several sets of stem agreement markers. Which set is used is determined by the ad hoc class of the preceding morpheme. Six of the more productive sets of intransitive stem agreement markers are given in (26).

(26)	Inanimate (subject)	Animate (subject)
Set I	-ya:	-izi
Set II	-ad	-izi
Set III	-an	-izi
Set IV	-de:	-izi
Set V	-in	-i
Set VI	-∅	-∅

Examples of these are given in (27).

(27) (a) Set I

špa:	/ašp-ya:-w/	špizi	/ašp-izi-w/ is high
bgone:ya:	/bagone:-ya:-w/	bgone:zi	/bagone:-izi-w/ has a hole

(b) Set II

wi:nað	/wi:n-ad-w/	wi:nzi	/wi:n-izi-w/ is dirty
ma:na:dað	/ma:na:d-ad-w/ ^g	ma:na:dzi	/ma:na:d-izi-w/ is ugly
mnogwad	/minopogw-ad-w/	mnopgozi	/minopogw-izi-w/ is good tasting

(c) Set III

wi:sgan	/wi:sag-an-w/	wi:sgizi	/wi:sag-izi-w/ is bitter
na:ŋgan	/na:ng-an-w/	na:ŋgzi	/na:ng-izi-w/ is light (weight)

(d) Set IV

bmide:	/bimibi-de:-w/	bmibzo	/bimibi-zo-w/ flies
ba:te:	/ba:h-de:-w/	ba:so	/ba:h-zo-w/ is dry

(e) Set V

mškawdin	/miškawad-ni-w/	mškawji	/miškawad-i-w/ is frozen
škigin	/oškig-in-w/	škigi	/oškig-i-w/ is a new growth

(f) Set VI

ja:gse:	/ja:gise:-∅-w/	ja:gse:	/ja:gise:-∅-w/ runs out
bskane:	/biskane:-∅-w/	bskane:	/biskane:-∅-w/ catches fire

Because of the ad hoc allomorphy of these markers we will write the intransitive stem agreement rule using an abstract agreement morpheme ISA (for intransitive stem agreement), ISA[I] marks inanimate agreement, and ISA[A] marks animate agreement. In glosses we will only use ISA. The rule is given in (28).

(28) Intransitive Stem Agreement

- (a) $V \Rightarrow V\text{-ISA[A]} / \text{___(A)1:[AN]}^{10}$
 (b) $V \Rightarrow V\text{-ISA[I]} / \text{___(A)1:[INAN]}$

The spelling of the ISA morphemes is done by reference to the ad hoc stem class of the preceding morpheme. For our purposes the content of that spelling rule is given by the chart in (26), although (26) does not give all the morphemes involved. Since our interest here is in describing the morphology of the verb and not giving a detailed description of all the allomorphies we will let (26) suffice.

Now we are ready to show that Intransitive Stem Agreement (28) is ordered before all other agreement rules that we have examined. The crucial form is wi:ndini which we derive in (29).

(29) Input to Agreements	wi:n	1:[INAN, OBV]
ISA (28)	wi:n-ISA[I]	1:[INAN, OBV]
Spelling (26)	wi:nad	I:[INAN, OBV]
Inanimate Obviation (18)	wi:nadini	1:[INAN, OBV]
Person Agreement (19)	wi:nadiniw	1:[INAN, OEV]
Mophophonemics	wi:ndini	1:[INAN, OBV]

At this point there is an issue of morpheme classification that must be faced. Bloomfield grouped the morphemes presented in (26) with another class of morphemes called finals (e.g. [1957] §13.8, 13.40, 13.42, 13.44, et al.). We distinguish between agreement markers and finals. Finals arise as part of a verbal construction through Clause Union. Agreement markers arise through agreement rules. This means that finals are lexical morphemes, i.e. they have an underlying representation, while agreement markers are created morphemes, i.e. they have no underlying representation. The recognition of this distinction totally dispenses with the need to set up a class of pre-finals. A further point must be added. One of the reasons that agreement markers have been confused with finals is that there are a number of finals which take Sct VI agreement markers, i.e. \emptyset for both animate and inanimate agreement, and therefore it is not obvious that two morphemes are present. In addition there are some finals that show suppletive allomorphy in association with agreement markers.

3.2.3 Negation. Thus far we have established five rules which describe the agreements of intransitive verbs. In addition we have presented two rules attaching modals. We will close this section on intransitive morphology with a brief examination of negative marking.

In sentences containing negatives Ojibwa verbs show negative concord.

- (30) ga: wi: n̄ska:dzisi:wag They're not angry.
 NOT /niška:d - izi - si: - w - ag/
 BE ANGRY ISA NEG 3 3PL
- ga: wi: gi:na:sno:n̄ni bi:ye:n wmo:kma:n Peter's knife isn't sharp.
 NOT /gi:n - ya: - isino:n - ini - w/ PETER HIS-KNIFE
 SHARP ISA NEG OBV 3
- ga: msi ngi:-ni-ma:ja:si:mi We (exc.) haven't left yet.
 NOT YET /n - gi: - ni-ma:ja: - ∅ - si: - min/
 1 PAST LEAVE ISA NEG 1PL
- ga: waya gi:-gi:gdo:si: No one spoke.
 NOT SOMEONE /gi: - gi:gido - ∅ - si: - w/
 PAST SPEAK ISA NEG 3

We write the rule for negative concord as in (31).

(31) Negative Concord

V ==> V-NEG / _____ [NEG]

(32) Negative Spelling

NEG ==> isino:n / ISA[I]-_____
 si:

The order of (31) is established by the form gi:na:sno:n̄ni /gi:n-ya:-
 isino:n-ini-w/ given in (30) which we derive in (33).

- (33) Input to Agreements NEG gi:n 1:[INAN, OBV]
- ISA (28) NEG gi:n-ISA[I] 1:[INAN, OBV]
- ISA Spelling (26) NEG gi:nya: 1:[INAN, OBV]
- Negative Concord (31) NEG gi:nya:isino:n 1:[INAN, OBV]
- Inanimate Obviation (18) NEG gi:nya:isino:n̄ni 1:[INAN, OBV]
- Person Agreement (19) NEG gi:nya:isino:n̄niw 1:[INAN, OBV]

Morphophonemics gi:na:sno:n̄ni

Now we summarize the order of the rules thus far established..

- (34) ISA (28)
 ISA Spelling (26)
 Negative Concord (31)
 Negative Spelling (32)
 Inanimate Obviation (18)
 Person Agreement (19)
 Non-third Plural Agreement (20)
 Modal Attachment (22)
 Dubitative Attachment (23)
 Third Plural Agreement (21)

3.3 Transitive Verbs. Transitive verbs are inflected for agreement with their object as well as for agreement with their subject. In this section we will develop our analysis further to account for these agreements. Because of the complexities of TA verbs we will examine TI verbs and TA verbs separately.

3.3.1 TI Verbs. In this section we will develop an analysis of TI verbs. The TI paradigm given in (7) is repeated here for convenient reference.

(7) gbi:do:n	/g - bi:-d - o: - n/	You bring it.
nbi:do:n	/n - bi:-d - o: - n/	I bring it.
wbi:do:n	/w - bi:-d - o: - n/	He brings it
gbi:do:na:wa:	/g - bi:-d - o: - n - (a:)wa:/	You (pl.) bring it.
gbi:do:na:	/g - bi:-d - o: - n - na:ni/	We (inc.) bring it.
nbi:do:na:	/n - bi:-d - o: - n - na:ni/	We (exc.) bring it.
wbi:do:na:wa:	/w - bi:-d - o: - n - (a:)wa:/	They bring it.
wbi:do:nni	/w - bi:-d - o: - n - ini/	He/they (obv.) bring it/them.
gbi:do:nan	/g - bi:-d - o: - n - an/	You bring them (inan.).
gni:do:nan	/n - bi:-d - o: - n - an/	I bring them (inan.).
wbi:do:nan	/w - bi:-d - o: - n - an/	He brings them (obv.).
gbi:do:na:wa:n	/g - bi:-d - o: - n - (a:)wa: - an/	You (pl.) bring them (inan.).
gbi:do:na:nin	/g - bi:-d - o: - n - na:ni - an/	We (inc.) bring them (inan.).
nbi:do:na:nin	/n - bi:-d - o: - n - na:ni - an/	We (exc.) bring them (inan.).
wbi:do:na:wa:n	/w - bi:-d - o: - n - (a:)wa: - an/	They bring them (inan.).

3.3.1.1 Person-number Agreement of Subject. In the paradigm in

(7) we notice that we will need to revise our agreement rules to get the correct allomorphies. First we will revise Person Agreement (19) to account for the prefixal allomorph of third person which appears in intransitive verbs [cf. (11)].

(35) Person Agreement (revised)

- (a) V ==> g-V / ____1:[2/21]
 (b) V ==> n-V / ____1:[1]
 (c) V ==> w-V / ____E:[3]
 V-w / ____1:[3]

Second we will revise Non-third Plural Agreement (20) to account for all the allomorphs that appear in transitive verbs [cf. (11)].

(36) Non-Third Plural Agreement (revised)

- (a) V ==> V-MIN / ____1:[1 PL]
 (b) V ==> V-MW / ____1:[2 PL]
 (c) MIN ==> na:ni / ____E
 min
 (d) MW ==> wa: / ____E
 mw

Now let us consider the third person plural and obviative. The forms of (7) with plural object show that an which is supplied by Third Plural Agreement (21) is used to mark plurality of object. Similarly ini and not an is used to mark obviation of the subject, and wa: not ag is used to mark plurality of the third person subject. Therefore we will analyze third person plural marking as an ergative system. The morphemes wa: and ini mark the ergative plural and obviative respectively. The morphemes ag and an mark the absolutive plural and obviative respectively. Therefore the rule of Third Plural Agreement (21) is revised as (38) and (39).

(38) Ergative Third Plural Agreement

(a) V ==> V-ini / ___E:[OBV]

(b) V ==> V-wa / ___E:[3PL]

(39) Absolutive Third Plural Agreement

(a) V ==> V-an / ___A:[INAN, PL]

(b) V ==> V-ag / ___A:[3PL]

The last form in (7), wbi:do:na:wa:n /w-bi:-d-o:-n-(a:)wa:-an/, shows that Ergative Plural Agreement (38) is ordered before Absolutive Plural Agreement (39).

A comment about the mechanics of the rules (35) through (39) is in order. In Chapter II we mentioned, but did not emphasize, that we would use a disjunctive ordering convention in formulating our rules. All the above rules use that convention. For example (35c) uses the convention to avoid putting w's on both ends of a verb. But most importantly we use disjunctive ordering to account for the fact that obviatives do not show number agreement. By setting up (38) and (39) the way we have the obviative clause (a) in each bleeds the plural clause (b). (Remember that [AN, OBV] = [INAN, PL].) Disjunctive ordering will also be important in Non-third Plural Agreement (36) but we are not yet to the point of the analysis where that becomes clear.

3.3.1.2 Person-number Agreement of Object. In the paradigm in (7) we see that two markers, o: and n, have been isolated following the stem, bi:d-, and preceding the subject number markers, na:ni and wa:. These can be shown to be separate markers by the negative morpheme which appears between them.

(40) gbi:do:si:n /g - bi:-d - o: - si: - n/ You (didn't) bring it.

In traditional analyses the marker o: has been treated as part of the stem agreement marker for various reasons of allomorphy, but we treat it as a separate morpheme because of the existence of forms that show the stem agreement marker d but do not show object agreement markers.

- (41) (a) *ngi:škbo:do:n* /n - gi:škibo:-d - o: - n/
I saw it./I cut it with a saw.
ngi:škbo:jge: /n - gi:škibo:-d - ige:/
I saw./I cut with a saw.
- (b) *nge:sbisdo:n* /n - ge:sibisi-d - o: - n/
I tidy it up.
nge:sbisjige: /n - ge:sibisi-d - ige:/
I tidy up.
- (c) *nda:te:bdo:n* /n(d) - a:te:bi-d - o: - n/
I put it out./I extinguish it.
nda:te:bjige: /n(d) - a:te:bi-d - ige:/
I put out (the lights).

The object agreement marker o: has an allomorph am which appears in a large number of TI verbs, and an allomorph i which appears in two verbs. Examples were given in (9) which we repeat here.

- (9) (a) *nwa:bnda:n* /n-wa:bam-d-am-n/ I see it.
ngitga:da:n /n-gitige:-d-am-n/ I plant it.
ngiža:da:n /n-giža:-d-am-n/ I take care of it.
- (b) *nna:in* /n-nə:-d-i-n/ I fetch it.
nmi:jn /n-mi:j-Ø-i-n/ I eat it.

We formulate the rules of Object Agreement I (42) and Object Agreement II (43) as follows.

(42) Object Agreement I (OA I)

V ==> V-OAI / ____2:[INAW]

(43) Object Agreement II (OA II)

V ==> V-n / ____2:[INAN]

We will discuss the rule spelling the morpheme OAI when we discuss transitive stem agreements.

The rule Absolutive Third Plural Agreement (39) accounts for the

plural -an which marks the number of the object in the TI paradigm.

We are now ready to summarize the order of the rules developed thus far in this chapter. The forms gbi:do:si:n /g-bi:-d-o:-si:-n/ in (40) and wbi:do:na:wa:dge:nan /w-bi:-d-o:-n-(a:)wa:-dig-e:n-an/ in (15b) given the new crucial orderings. We derive them in (44) [on the next page].

A summary of the order of the rules is given in (45)

- (45) ISA (28)
 ISA Spelling (26)
 OA I (42)
 Negative Concord (31)
 Negative Spelling (32)
 OA II (43)
 Inanimate Obviation (18)
 Person Agreement (35)
 Non-Third Plural (36)
 Ergative Plural (38)
 Modal Attachment (22)
 Dubitative Attachment (23)
 Absolutive Plural (39)

3.3.2 Transitive Stem Agreement. In this section we will discuss transitive stem agreement. We will treat both TI and TA stems agreements together. As with the intransitive stem the final morpheme of the transitive stem is an agreement marker which reflects the gender of the absolutive. Thus the stem agreement markers on transitive verbs reflect the gender of the object of the verb. As with the intransitive stem agreement markers, there are several sets of transitive stem agreement markers. Which set is used is determined by the class of the preceding markers. Which set is used is determined by the class of the preceding morpheme. In TI verbs that class also determines which allomorph of OAI, the first object agreement markers, appears. The seven productive sets are given in (46).

(44)

Input to Agreements	NEG	bi:d	2:[INAN]	1:[2]	bi:d	e:n	2:[INAN,PL]	1:[3PL]
	NOT	BRING	IT	YOU	BRING	DUBITATIVE	THEM(inan.)	THEY
Object Agreement I (42)	NEG	bi:do:	2:[INAN]	1:[2]	bi:do:	e:n	2:[INAN,PL]	1:[3PL]
Negative Concord (31)	NEG	bi:do:-NEG	2:[INAN]	1:[2]	--			
Negative Spelling (32)	NEG	bi:do:si:	2:[INAN]	1:[2]	--			
Object Agreement II (43)	NEG	bi:do:si:n	2:[INAN]	1:[2]	bi:do:n	e:n	2:[INAN,PL]	1:[3PL]
Person Agreement (35)	NEG	gbi:do:si:n	2:[INAN]	1:[2]	wbi:do:n	e:n	2:[INAN,PL]	1:[3PL]
Ergative Plural (38)		--			wbi:do:nwa:	e:n	2:[INAN,PL]	1:[3PL]
Modal Attachment (22)		--			wbi:do:nwa:di g	e:n	2:[INAN,PL]	1:[3PL]
Dubitative Attachment (23)		--			wbi:do:nwa:di ge:n		2:[INAN,PL]	1:[3PL]
Absolutive Plural (39)		--			wbi:do:nwa:di ge:nan		2:[INAN,PL]	1:[3PL]
Morphophonemics		gbi:do:si:n			wbi:do:na:wa:dge:nan			

(46)	Inanimate (object) (with OAI)	Animate (object)
Set I	d(o:)	n
Set II	d(am)	n
Set III	d(o:)	∅
Set IV	d(am)	∅
Set V	∅(am)	aw
Set VI	∅(am)	w
Set VII	∅(am)	∅

Examples of these are given in (47)

(47) (a) Set I

ngi:ṣ̌kbo:do:n	/n-gi:ṣ̌kibo:-d-o:-n/	
I cut it with a saw.	ngi:ṣ̌kbo:na:	/n-gi:ṣ̌kibo:-n-a:/
		I cut him with a saw.
nbimwido:n	/n-bimiwi-d-o:-n/	
I carry it around.	nbimwina:	/n-bimiwi-n-a:/
		I carry him around.

(b) Set II

nbimda:ba:da:n	/n-bimida:bye:-d-am-n/	
I drag it along.	nbimda:ba:na:	/n-bimida:bye:-n-a:/
		I drag him along.
ndap̣gida:n	/n(d)-ap̣agi-d-am-n/	
I throw it.	ndap̣gina:	/n(d)-ap̣agi-n-a:/
		I throw him.

(c) Set III

nba:bi:to:n	/n-ba:bi:h-d-o:-n/	
I wait for it.	nba:bi:ha:	/n-ba:bi:h-∅-a:/
		I wait for him.

(d) Set IV

nbimo:nda:n	/n-bimo:m-d-am-n/	
I carry it on my back.	nbimo:ma:	/n-bimo:m-∅-a:/
		I carry it on my back.
nwa:bnda:n	/n-wa:bam-d-am-n/	
I see it.	nwa:bma:	/n-wa:bam-∅-a:/
		I see him

(e) Set V

nno:nda:n	/n-no:nd-∅-am-n/	
I hear it.	nno:ndwa:	/n-no:nd-aw-a:/
		I hear him.
ndaŋg̣ška:n	/n-dangišk-∅-am-n/	
I kick it.	ndaŋg̣škawa:	/n-dangišk-aw-a:/
		I kick him.

(f) Set VI

nminza:n	/n-minoz- \emptyset -am-n/		
I cook it.		nminzwa:	/n-minoz-w-a:/
		I cook him.	
ndibha:n	/n-dibah- \emptyset -am-n/		
I pay for it.		ndibwa:	/n-dibah-w-a:/
		I pay for him.	

(g) Set VI

nwe:bna:n	/n-we:bin- \emptyset -am-n/		
I abandon it.		nwe:bna:	/n-we:bin- \emptyset -a:/
		I abandon him.	
ndinna:n	/n(d)-inin- \emptyset -am-n/		
I pass it along.		ndinna:	/n(d)-inin- \emptyset -a:/
		I pass him along.	

The allomorphy of the transitive stem agreement marker (henceforth TSA) is partly determined by phonological considerations and partly determined by ad hoc classification of the preceding morpheme. Set II appears after roots ending in e: and rarely elsewhere. Set III appears after some roots ending in h and s. Set IV appears after roots ending in m, and Set VII appears after stems ending in n. Because the allomorphy of TSA is so complex we will again leave (46) stand as the TSA spelling rule and also as the OAI spelling rule. TSA[I] marks inanimate agreement; TSA[A] marks animate agreement. In glosses we will use only TSA. Before giving the rule supplying TSA, we will give evidence that TSA is not the same rule as ISA. This evidence comes from passive forms. There are three passive constructions (although no verb shows more than two). All these constructions show both a TSA and an ISA.

(49) (a)

ngaška:bkah ^w go:	/n - gaška:bikah - w - igw - i/	I am locked up.
	1 LOCK-UP TSA ISA	

(b)

mnopgozi	/minop - w - igw - izi - w/	He tastes good.
	TASTE- TSA ISA 3	
	GOOD	

(c)

žicga:de: /ižih - d_ige: - de: - w/ It is made thus.
 MAKE- TSA ISA 3
 THUS

Now we are ready to write the rule of TSA.

(50) Transitive Stem Agreement

(a) V ==> V-TSA[A] / ____2:[AN]

(b) V ==> V-TSA[I] / ____2:[INAN]

The forms in (49) show that TSA (50) is ordered before ISA (28).

3.3.3. TA Verbs. In this section we will begin to develop our analysis of TA verbs. Because of the complexity of TA inflection we will only analyze the non-local paradigms.

3.3.3.1 Direct Non-local Forms. The direct non-local forms given in (11c) are presented again here for convenience.

(11c)	gbi:n	/g-bi:-n-a:/	You bring them.
	nbi:na:	/n-bi:-n-a:/	I bring him.
	wbi:na:n	/w-bi:-n-a:-an/	He brings him/them (obv.).
	gbi:na:wa:	/g-bi:-n-a:-wa:/	You (pl.) bring him.
	gbi:na:na:	/g-bi:-n-a:-na:ni/	We (inc.) bring him.
	nbi:na:na:	/n-bi:-n-a:-na:ni/	We (exc.) bring him.
	wbi:na:wa:n	/w-bi:-n-a:-wa:-an/	They bring him/them (obv.).
	gbi:na:g	/g-bi:-n-a:-ag/	You bring them.
	nbi:na:g	/n-bi:-n-a:-ag/	I bring them.
	wbi:na:n	/w-bi:-n-a:-an/	He bring him/them (obv.).
	gbi:na:wa:g	/g-bi:-n-a:-wa:-ag/	You (pl.) bring them.
	gbi:na:na:nig	/g-bi:-n-a:-na:ni-ag/	We (inc.) bring them.
	nbi:na:na:nig	/n-bi:-n-a:-na:ni-ag/	We (exc.) bring them.
	wbi:na:wa:n	/w-bi:-n-a:-wa:-an/	They bring him/them (obv.).

A comparison of these forms with the forms in (7) (given again in

§3.3.1) shows that we need only identify which of the two object agree-

ment rules supplies a: to extend our existing analysis to account for the direct non-local paradigm. The appearance of obviative markings in the third person verb forms follows from a general syntactic process assigning obviation which will be discussed in Chapter VIII and does not have to be accounted for in this paradigm. The forms in (51) give evidence that a: is supplied by Object Agreement I as shown by the relative order of the morphemes involved.

- (51) (a) gbi:na:si:wa: /g - bi: - n - a: - si: - wa:/
 You (pl) (don't) bring him.
 gbi:do:si:na:wa: /g - bi: - d - o: - si: - n - (a:)wa:/
 TSA OAS NEG OAI
 You (pl.) (don't) bring it.

Now we are ready to revise Object Agreement I.

- (52) Object Agreement I (revised)

- (a) V ==> V-a: / ____2:[AN]
 (b) V ==> V-OAI / ____2:[INAN]

3.3.3.2 Inverse Non-local Forms. The inverse non-local forms given in (1ld) are presented again here for convenience.

- (1ld) gbi:nig /g-bi:-n-igw/ He brings you.
 nbi:nig /n-bi:-n-igw/ He brings me.
 wbi:ngo:n /w-bi:-n-igw-an/ He/they (obv.) bring(s) him.
- gbi:ngowa: /g-bi:-n-igw-wa:/ He brings you (pl.).
 gbi:ngona: /g-bi:-n-igw-na:ni/ He brings us (inc.).
 nbi:ngona: /n-bi:-n-igw-na:ni/ He brings us (exc.).
 wbi:ngowa:n /w-bi:-n-igw-wa:-an/ He/they (obv.) bring(s) him.
- gbi:ngo:g /g-bi:-n-igw-ag/ They bring you.
 nbi:ngo:g /n-bi:-n-igw-ag/ They bring me.
 wbi:ngo:n /w-bi:-n-igw-an/ He/they (obv.) bring(s) him.

gbi:ngowa:g	/g-bi:-n-igw-wa:-ag/	They bring you (pl.).
gbi:ngona:nig	/g-bi:-n-igw-na:ni-ag/	They bring us (inc.).
nbi:ngona:nig	/n-bi:-n-igw-na:ni-ag/	They bring us (exc.).
wbi:ngowa:n	/w-bi:-n-igw-wa:-an/	He/they (obv.) bring(s) them.

These forms at first appear to be problematic in that the prefixes signal agreement with the logical object. Similarly the plural agreements are exactly backwards. The logical subject triggers absolutive plural marking. The logical object triggers non-third plural marking and ergative plural marking. However, there are two further kinds of evidence that show that the logical object of inverse non-local forms is the superficial subject. The first evidence has to do with obviation. Many speakers optionally obviate the inanimate subject of dependent clauses (marked by *-ini*) when the subject of the main clause is third person animate.

- (53) (a) (i) na:gš*ǎ*(*ni)g nwi:-gi:we:
I'll go home in the evening.
(ii) na:gš*ǎ*(ni)g wi:-gi:we:
He'll go home in the evening.
- (b) (i) na:gš*ǎ*(*ni)g nwi:-mnoza:n
I'll cook it in the evening.
(ii) na:gš*ǎ*(ni)g wi:-mnoza:n
He'll cook it in the evening.
- (c) (i) na:gš*ǎ*(*ni)g nwi:-nkwe:š*ǎ*ka:
I'll meet him in the evening.
(ii) na:gš*ǎ*(ni)g wwi:-nkwe:š*ǎ*ka:n
He'll meet him in the evening.

Notice especially that third person objects do not trigger this obviation, as (53c (i)) shows. The examples in (54) show that the inverse forms only have a third person subject when they have a third person logical subject.

- (54) (a) na:gš*ǎ*(*ni)g nwi:-nkwe:š*ǎ*ka:g
He'll meet me in the evening.

- (b) na:gš̥i(*ni)g gwi:-nkwe:š̥ka:g
He'll meet you in the evening.
- (c) na:gš̥i(ni)g wwi:-nkwe:š̥ka:go:n
He'll (obv.) meet him in the evening.

Like the agreement evidence this evidence indicates that the superficial subject of inverse forms is the logical object. The second evidence is more indirect. The marker -igw- which appears in inverse non-local forms also appears in two kinds of indefinite subject constructions which it can be argued are passive constructions. Examples are given in (55).

- (55) (a) ngi:-wa:bmigo: /n-gi:-wa:bam-∅-igw-i/
I was seen.
ngi:-ba:š̥kzogo: /n-gi:ba:š̥kiz-w-igw-i/
I was shot.
ngi:-bsika:go:mi /n-gi:bisik-aw-igw-i-min/
We (exc.) got run over.
- (b) gdiba:jmigoz /g-diba:jim-∅-igw-izi/
You are notorious./You are talked about.
mnopgozi /minop-w-igw-izi-w/¹¹
He tastes good.
gi:-de:bta:g^wziwag/ /gi:-de:bit-aw-igw-izi-w-ag/
They were heard in the distance.

These forms have their logical objects as subject as can be shown by the raising evidence. In Ojibwa only subjects can be raised.¹²

- (56) (a)
- (i) ggike:nda:n na gi:-gno:nag? Do you know that I spoke to him?
2-KNOW-IT (THAT)-PAST-SPEAK-TO-1-3
- (ii) ggike:nim na gi:-gno:nag? Do you know that I spoke to him?
2-KNOW-1 (THAT)-PAST-SPEAK-TO-1-3
- (iii) *ggike:nma: na gi:-gno:nag? Do you know that I spoke to him?
2-KNOW-HIM (THAT)-PAST-SPEAK-TO-1-3
- (b)
- (i) ggike:nda:n na gi:-gno:ž̥id/¹³ Do you know that he spoke to me?
2-KNOW-IT (THAT)-PAST-SPEAK-TO-3-1
- (ii) *ggike:nim na gi:-gno:ž̥id? Do you know that he spoke to me?
2-KNOW-1 (THAT)-PAST-SPEAK-TO-3-1
- (iii) ggike:nma: na gi:-gno:ž̥id? Do you know that he spoke to me?
2-KNOW-HIM (THAT)-PAST-SPEAK-TO-3-1

The logical object of the forms in (55) also raise, showing that they

are superficial subjects.

(57) (a)

- (i) ggike:nda:n na gi:-wa:bmigo:ya:n?
 2-KNOW-IT (THAT)-SHE-PASSIVE-1
 Do you know that I was seen?
- (ii) ggike:nim na gi:-wa:bmigo:ya:n?
 2-KNOW-1 (THAT)-SEE-PASSIVE-1
 Do you know that I was seen?
- (b)
- (i) ggike:nda:n na gi:-mnopgozid aw gi:gõ:?
 2-KNOW-IT (THAT)-TASTE-GOOD-PASSIVE-3
 Do you know that the fish tastes good?
- (ii) ggike:nma: na gi:-mnopgozid aw gi:gõ:?¹⁴
 2-KNOW-HIM (THAT)-TASTE-GOOD-PASSIVE-3
 Do you know that the fish tastes good?

Frantz (1976) gives more evidence for considering the forms in (55a) passives, but we consider the evidence given sufficient.

Now since -igw- marks passivization in the forms of (55), and there is reason to suspect that inverse forms have their logical object as their subject, then the presence of -igw- in inverse forms certainly marks passivization there too.

While there remain a number of syntactic and morphological problems with the passive analysis of inverse forms we will not be able to solve those problems until we have examined more of the syntax of Ojibwa in the following chapters, but we will give here a tentative formulation of the rule of passive

(58) Passive

V 2 ==> V-igw 1

One of the problems that arise is the failure of ISA (28), which supplies ISA markers in the forms of (55), to operate in inverse forms. Ignoring this problem which will be solved by a general syntactic process of Ojibwa discussed in Chapter V we can outline the derivations of the

forms nbi:na: /n-bi:-n-a:/ and nbi:nig /n-bi:-n-igw/ to show the interaction of Passive (58) with other rules. The derivation is given in (59) [on the next page]. Notice that Passive bleeds OAI, and feeds Person Agreement. Similarly TSA markers precede the passive marker, therefore TSA precedes Passive. Now we can summarize the order of rules developed in this chapter [cf. (45)].

- (60) TSA (50)
 Passive (58)
 ISA (28)
 ISA Spelling (26)
 OA I (52)
 TSA Spelling (46)
 Negative Concord (31)
 Negative Spelling (32)
 OA II (43)
 Inanimate Obviation (18)
 Person Agreement (35)
 Non-third Plural (36)
 Ergative Plural (38)
 Modal Attachment (22)
 Dubitative Attachment (23)
 Absolutive Plural (39)

3.3.3.3 Passivization. There are two important kinds of objections that could be raised against the analysis of inverse TA verb forms as passives. While one of these potential objections has to do with linguistic theory and the other with issues that have to do with Algonkian languages, both have this in common: inverse forms are, in general, not optional variants of some other form, but are the only possible expression of the meaning they encode in the syntactic environments in which they appear. The determining factor in the choice between direct and inverse forms is the person hierarchy: $2 > 1 > 3$. In our analysis passive is governed by this person hierarchy. If the object is of higher rank than the subject, passive must apply. The theoretical objection is: can passive be a non-optional rule? Our

(59) Input to Rules	bi:	1:[1]	2:[3]	bi:	1:[3]	2:[1]
	BRING	I	HE	BRING	HE	I
TSA (50)	bi:n	1:[1]	2:[3]	bi:n	1:[3]	2:[:]
Passive (58)	--			bi:nigw	CH:[3]	1:[1]
ISA (28)	--			--		
OA I (52)	bi:na:	1:[1]	2:[3]	--		
Person Agreement (35)	nbi:na:	1:[1]	2:[3]	nbi:nigw	CH:[3]	1:[1]
Morphophonemics	nbi:na:			nbi:nig		

answer is, of course, yes. In §2.2.7 we argued that the advancement of direct object to subject was the defining syntactic characteristic of passive. We feel that it is totally reasonable to use the term pas-sive to any rule advancing direct object to subject regardless of what syntactic, semantic, or pragmatic factors are involved. That is to say, we feel it appropriate to use the term passive to name rule (58) because rule (58) has what we consider to be the defining characteristic of passive. The conditions for its application, its frequency of application, the fact that it is obligatory are all irrelevant. Passive is syntactically defined.

The Algonkianist's objection to our analysis is that it oversimplifies the situations in which forms containing the marker -igw- are used. The hierarchy we have used (2 > 1 > 3) is too simple. While that objection may at first appear to be correct, it turns out to be specious. There are six kinds of conditions that we can isolate which affect the appearance of forms containing -igw-. Only one of these refers to the hierarchy at all. The six conditions are outlined in (61).

- (61) (a) If a clause has a grammatically animate object and a grammatically inanimate subject, passive must apply.
- (b) If a transitive clause has an indefinite (PRO) subject, passive must apply.
- (c) If a clause has an object of higher rank in the person hierarchy than its subject, passive must apply.
- (d) If a clause has a logically animate object and a logically inanimate subject, passive must apply.
- (e) In any clause containing a logically animate subject and a logically animate object, both third persons, passive is governed by discourse conditions regardless of the obviation of the terms EXCEPT. . .

- (f) In any clause containing a logically animate third person subject and a logically animate third person object, if the subject is also possessor of the object passive may not apply, but if the object is possessor of the subject passive must apply.

Examples of each case follow.

- (62) (a) (i) ?? (non-passive) Apple juice
 (ii) ẉža:bka:gon ṃši:mna:bo: bino:jĩ:s gives the baby
 /w-ẓ̌a:bok-aw-igw-n/ diarrhea.
 3-CAUSE-DIARRHEA-PASSIVE
- (b) (i) ?? (non-passive) They spoke In-
 (ii) ngi:-nišna:be:mta:go: dian to me.
 /n-gi:-anišina:be:mot-aw-igw-i/
 1-PAST-SPEAK-INDIAN-TO-PASSIVE
- (c) (i) **ẉwa:bam /w-wa:bam-∅-i/¹⁵ He sees me.
 (ii) ṇwa:bmig /n-wa:bam-∅-igw/
 1-SEE-PASSIVE
- (d) (i) *aw ṃši:min ẉgi:-a:k^wzi:ṣ̌kwa:n ẓ̌a:bdi:san The apple made
 (ii) ẓ̌a:bdi:s ẉgi:-a:k^wzi:ṣ̌ka:go:n niw ṃši:mnan JOHN sick.
 JOHN /w-gi:-a:kozi:ṣ̌k-aw-igw-an/ THAT APPLE (obv.)
 3-PAST-CAUSE-BE-SICK-PASSIVE
- (e) (i) ẓ̌a:bdi:s ẉgi:-na:dmawa:n ma:ni:yan John helped
 (ii) ma:niỵwgi:-na:dma:go:n ẓ̌a:bdi:san Mary.
 (iii) ẓ̌a:bdi:s ẉgi:-na:dmawa:n ma:nị:yan ẉgwisan John helped
 (iv) ma:nị ẉgwisan ẉgi:-na:dma:go:n ẓ̌a:bdi:san Mary's son.
 MARY HER-SON /w-gi:-na:dama-aw-igw-an/ JOHN (obv.)
 3-PAST-HELP-PASSIVE
- (f) (i) bi:ye:n ẉgi:-wi:dbima:n ẉgwisan Peter_i sat with
 (ii) *bi:ye:n ẉgwisan ẉgi:-wi:dbingo:n his_i son.
 (iii) *bi:ye:n ẉgwisan ẉgi:-wi:dbima:n¹⁶ Peter's_i son
 (iv) bi:ye:n ẉgi:-wi:dbingo:n ẉgwisan sat with him_i.
 /w-gi:-wi:dabim-∅-igw-an/
 3-PAST-SIT-WITH-PASSIVE

Of the conditions on Passive (58) listed in (61), only (61c) refers to the person hierarchy. Furthermore condition (61c) is different from all the other conditions in that all the others operate identically in both constructions involving independent and conjunct verb forms, but condition (61c) holds ONLY for independent constructions. We will dis-

cuss this at length in a later chapter on agreement. What is important here is that the uses of passive are complex and disjoint. Therefore it would be incorrect to try to treat passive as being triggered by a single complex hierarchy. But more importantly, the existence of this disjoint set of uses for passive strengthens our claim that we should treat passive as a syntactic phenomenon.

FOOTNOTES

CHAPTER III

¹There are also some verbs that Bloomfield analyzed as being morphologically transitive which occur in intransitive clauses. We have reanalyzed these cases as a simple subclass of morphological intransitives.

²Third person forms refer equally to masculine or feminine. Because older speakers consistently use only the forms of he in English, we will translate using the forms of he unless there is reason to do otherwise.

³The morpheme ini is exempt from final vowel deletion §1.2.1, (4).

⁴This hierarchy may appear to be oversimplified to the Algonkianist. We will discuss it in §3.3.3.3 below.

⁵The forms gbi:ngo: and gbi:ngo:m are borrowed from another paradigm. They are strictly speaking ambiguous between their literal meanings 'You are brought.' and 'You (pl.) are brought.', respectively, and their meanings as part of the inverse local paradigm. The expected form gbi:nnimin is found in eastern dialects.

⁶There is a late rule deleting the w from this form which we would expect to be *wi:nziwbani:g.

⁷See footnote 6.

⁸We will use 2l and 1l to indicate inclusive and exclusive first plural respectively.

⁹The morphemic structure of roots is not indicated in these examples.

¹⁰We use the notation (A)l: to indicate absolutive subject, i.e. subject of an intransitive clause. It is not clear whether this amounts to a notational "trick" to enable us to isolate intransitive subjects.

¹¹The basic verb mnopwa:d means 'taste good to s.o.', e.g. nminpwa: /n-minop-w-a:/ 'He tastes good to me.' (lit. I taste him good). Ojibwa does not have Psyche Advancement (nee Psyche Movement).

¹²Raising in Ojibwa is in fact a doubling rule which generates a copy of the victim and raises the copy leaving the "victim" behind. It is also not exactly true that only subjects may be raised. There is one class of constructions that raise objects.

¹³Conjunct verbs do not show inverse forms in these meanings. We will discuss this in Chapter 10.

¹⁴The word order is Ver₁ - Chomeur - Object - Subject so that the raising does not cause any change in word order.

¹⁵Compare the form gwa:bam /g-wa:bam-Ø-i/ 'You see me.'

¹⁶This is only bad in the intended reading. It means only 'Peter's_i son sat with him_j.'

CHAPTER IV
INTRANSITIVIZATION

4.0 In this chapter we will discuss three rules that have the effect of rendering a transitive clause intransitive. These rules are passive, noun incorporation, and medialization. We will look only briefly at noun incorporation here, deferring a fuller discussion of it until Chapter IX, but it is important here because the reflexive/reciprocal morpheme -idi and the indefinite object morpheme -ige: represent productively incorporated objects. We examine these incorporations here because they interact with a number of other interesting syntactic processes that we need to look at before we are ready to examine noun incorporation in detail.

4.1 Passive. There are two forms of agent deleting passives. They are exemplified in (1).

- (1) (a) (i) dba:jmig^wzi He is notorious./He is talked about.
 /diba:jim - ∅ - igw - izi - w/
 TALK-ABOUT TSA PASSIVE ISA 3
- (ii) mnopgozi He tastes good. (e.g. a fish)
 /minop - w - igw - izi - w/
 TASTE-GOOD TSA PASSIVE ISA 3
- (iii) de:bta:g^wzi He is heard in the distance.
 /de:bit - aw - igw - izi - w/
 HEAR-AFAR TSA PASSIVE ISA 3
- (b) (i) nganwa:bmigo: I am being watched.
 /n - ganawa:bam - ∅ - igw - i/
 1 WATCH TSA PASSIVE ISA

(ii) $\text{ngi:-ba:}\check{\text{v}}\text{skzogo:}$ I got shot.
 /n - gi: -ba:}\check{\text{v}}\text{skiz} - w - igw - i/
 1 PAST SHOOT TSA PASSIVE ISA

(iii) $\text{ngi:-d}\check{\text{v}}\text{ngi}\check{\text{v}}\text{ška:go:}$ I got kicked.
 /n - gi: - dangi}\check{\text{v}}\text{šk} - aw - igw - i/
 1 PAST KICK TSA PASSIVE ISA

The difference between these two types of passives is that they select different spellings of ISA. There are several other differences. The class of verbs that form passives adding the ISA marker izi (henceforth izi passives) is limited mostly to verbs of perception including no:nd- 'hear' and verbs ending in the morphemes -p- 'taste,' -t- 'hear,' -m- 'smell,' -n- 'resemble,' -a:jim- 'talk about,' and -e:nd- 'think of as.'¹ Other verbs form passives freely adding the ISA marker i (henceforth i passives).² Another difference between izi passives and i passives is that there are izi passives from clauses with logical inanimate objects, but nothing like that is possible with i passives.

- (2) (a) mnopgwad It tastes good.
 /minop - w - igw - ad - w/
 TASTE-GOOD TSA PASSIVE ISA 3
- (b) mnoma:gwad It smells good.
 /minom - aw - igw - ad - w/
 SMELL-GOOD TSA PASSIVE ISA 3

These forms of (2), however, are morphologically anomalous. They show animate TSA markings (w and aw) while they have logical inanimate objects which appear as superficial subjects and trigger inanimate ISA marking (ad). We will analyze this by positing a rule of morpheme substitution which changes the morpheme TSA[I] to TSA[A] before the passive marker.

(3) TSA Neutralization

$\text{TSA[I]} \Rightarrow \text{TSA[A]} / \text{ ____ -igw}$

While at this point this approach may seem a bit ad hoc, it turns out

that there are a number of complex constructions which neutralize the animacy contrast of their TSA markings. It seems to us that this is a reasonable thing to be happening with markers that are buried several layers deep.

Now there is one final quirk regarding the morphology of i passives. The third person forms of i passives show an irregular allomorphy in both the independent and conjunct forms.

(4) gwo:bmigo:	/g-wa:bam-∅-igw-i/	you are seen
wa:bmigo:yan	/ wa:bam-∅-igw-i-an/	(that) you are seen
nwa:bmigo:	/n-wa:bam-∅-igw-i/	I am seen
wa:bmigo:ya:n	/ wa:bam-∅-igw-i-a:n/	(that) I am seen
wa:bma:	/ wa:ham-∅-a:-w/	he is seen
wa:bmind	/ wa:bam-∅-ind/	(that) he is seen
gwa:bmigo:m	/g-wa:bam-∅-igw-i-mw/	you (pl.) are seen
wa:bmigo:m	/ wa:bam-∅-igw-i-e:gw	(that) you (pl.) are seen
gwa:bmigo:mi	/g-wa:bam-∅-igw-i-min/	we (inc.) are seen
wa:bmigo:yang	/ wa:bam-∅-igw-i-a:ng/	(that) we (inc.) are seen
nwa:bmigo:mi	/n-wa:bam-∅-igw-i-min/	we (exc.) are seen
wa:bmigo:ya:ng	/ wa:bam-∅-igw-i-a:ng/	(that) we (exc.) are seen
wa:bma:wag	/ wa:bam-∅-a:-w-a:g/	they are seen
wa:bmindwa:	/ wa:bam-∅-ind-wa:/	(that) they are seen

While we will not discuss the analysis of the conjunct marker here, we will analyze the marker a: as a portmanteau of igw+i in the context of third person subject.

(5) a: spelling

$$\text{igw-i} \Rightarrow \text{a:} / \text{_____} \text{-w} \\ \text{[3]}$$

At this point the only thing that we are lacking to complete the analysis of agent deleting passives is the rule deleting a PRO chomeur.

(6) PRO Deletion

$$\text{NT:PRO} \Rightarrow \emptyset$$

Now we will give the derivations of the forms mnopɔwɔd /minop-w-igw-ad/ and wa:bmɔ: /wa:bam-∅-a:-w/ to show the orderings and interactions of the rules established in this chapter with each other and with the rules previously established. The derivation is given in (7) [on the next page].

4.2 Noun Incorporation. There are two basically different ways in which nouns get incorporated into verbs. In this chapter we will be concerned only with one type, and of that type we will be concerned only with instances in which the objects of verbs are incorporated. Examples of this type of incorporation are given in (8).

- (8) (a) ngi:-na:da:bkwe: I went and got money.
 /n - gi: - na: - d - a:bikw - e: - ∅/
 1 PAST' FETCH TSA MONEY MEDIAL ISA
- (b) bba:-mo:nhaʃkikiwe: He's out digging up medicinal herbs.
 /baba: - mo:nah - ∅ - aʃkikiw - e: - ∅ - w/
 AROUND DIG TSA MEDICINE MEDIAL ISA 3
- (c) ngi:-gindu:bkwe: I counted my money.
 /n - gi: - agim - d - a:bikw - e: - ∅/
 1 PAST COUNT TSA MONEY MEDIAL ISA
- (d) gi:-na:jmi:jme: He went and got food.
 /gi: - na: - d - mi:jim - e: - ∅ - w/
 PAST' FETCH TSA FOOD MEDIAL ISA 3
- (e) ngi:-bmo:ma:was I carried the child on my back.
 /n - gi: - bimo:m - ∅ - a:wah - ∅ - zo/
 1 PAST CARRY TSA CHILD MEDIAL ISA

The forms in (8) show that the incorporation of objects follows TSA.

Furthermore the forms in (8) show that incorporated nouns generally take an ending -e:- which we call medial. We will discuss the rule in more detail in Chapter X but we formulate it here on the basis of the evidence just presented.

(9) Object Incorporation

V 2:N ==> V-N-MEDIAL

(7)

Input to rules	minop TASTE GOOD	2:[INAN] IT	1:[PRO]	wa:bam SEE	2:[3] HE	1:[PRO]
TSA (50)(III) ³	minop-TSA[II]	2:[INAN]	1:[PRO]	wa:bam-TSA[A]	2:[3]	1:[PRO]
Passive (58)(III)	minop-TSA[II]-igw	1:[INAN]	CH:[PRO]	wa:bam-TSA[A]-igw	1:[3]	CH:[PRO]
PRO Deletion (6)	minop-TSA[II]-igw	1:[INAN]	∅	wa:bam-TSA[A]-igw	1:[3]	∅
TSA Neutral- ization (3)	minop-TSA[A]-igw	1:[INAN]		--		
ISA (28)(III)	minop-TSA[A]-igw-ISA[II]	1:[INAN]		wa:bam-TSA[A]-igw-ISA[A]	1:[3]	
ISA Spelling (26)(III)	minop-TSA[A]-igwad	1:[INAN]		wa:bam-TSA[A]-igwi	1:[3]	
TSA Spelling (46)(III)	minopwigwad	1:[INAN]		wa:bmigwi	1:[3]	
Person Agreement (35)(III)	minopwigwadw	1:[INAN]		wa:bmigwiw	1:[3]	
<u>a:</u> Spelling (5)	--			wa:bma:w	1:[3]	
Morphophonemics	mnopgwad			wa:bma:		

(10) Medial Spelling

MEDIAL ==> \emptyset / h _____
 e:

The rule of Object Incorporation (9) is highly irregular in that only a few nouns and a few verbs undergo it. However, there are two productive constructions that we analyze as containing morphemes which represent incorporated nouns. These two constructions are exemplified in (11). The construction in (11a) shows an incorporated reflexive. The construction in (11b) shows an incorporated indefinite object (PRO).

(11) (a) (i) ngi:-ba:zɡobnidiz I scratched myself.
 /n - gi: - ba:zɡobi - n - idi - zo/
 1 PAST SCRATCH TSA SELF ISA

(ii) gi:-ba:škozodzo He shot himself.
 /gi: - ba:škiz - w - idi - zo - w/
 PAST SHOOT TSA SELF ISA 3

(iii) gi:-gžika:dzo He wounded himself.
 /gi: - gižik - aw - idi - zo - w/
 PAST WOUND TSA SELF ISA 3

(b) (i) bi:ncige: He's cleaning up.
 /bi:nih - d - ig - e: - \emptyset - w/
 CLEAN TSA PRO MEDIAL ISA 3

(ii) dkoŋge: He bites
 /dakom - \emptyset - ig - e: - \emptyset - w/
 BITE TSA PRO MEDIAL ISA 3

(iii) gi:-na:dma:ge: He helped.
 /gi: - na:dam - aw - ig - e: - \emptyset - w/
 PAST HELP TSA PRO MEDIAL ISA 3

(iv) gi:-ba:škozowe: He shot someone.
 /gi: - ba:škiz - w - iw - e: - \emptyset - w/
 PAST SHOOT TSA PRO MEDIAL ISA 3

(v) gi:-gjibhiwe: He ran away.
 /gi: - gjibah - \emptyset - iw - e: - \emptyset - w/
 PAST RUN-FROM TSA PRO MEDIAL ISA 3

(vi) ginda:so He (can) read.
 /agim - d - a:h - \emptyset - zo - w/
 COUNT TSA PRO MEDIAL ISA 3

- (vii) gi:-bi:da:so He brought (a lot of) stuff.
 /gi: - bi: - d - a:h - ø - zo - w/
 PAST BRING TSA PRO MEDIAL ISA 3

The first construction exemplified in (11) shows an incorporated reflexive. Irregularly it contains no medial. We will derive the reflexive construction by reflexivizing an object coreferential with the subject and then incorporating the reflexive and deleting the medial. Two new rules are necessary to do this. They are given in (12) and (13).

- (12) Reflexivization

NP_i ==> idi / 2:___ 1:NP_i

- (13) Medial Deletion

MEDIAL ==> ø / idi-_____

Using these rules we give the derivation of gi:-ba:š^ˇkzodzo /gi:-ba:š^ˇkiz-w-idi-zo-w/.

(14) Input to Rules	gi:-ba:š ^ˇ kiz	2:[3] _i	1:[3] _i
	PAST SHOOT	HE	HE
TSA (50)	gi:-ba:š ^ˇ kizw	2:[3] _i	1:[3] _i
Reflexivization (12)	gi:-ba:š ^ˇ kizw	2:idi	1:[3]
Object Incorporation (9)	gi:-ba:š ^ˇ kizwidi-MEDIAL		1:[3]
Medial Deletion (13)	gi:-ba:š ^ˇ kizwidi		1:[3]
ISA (28) (III)	gi:-ba:š ^ˇ kizwidi-ISA[A]		1:[3]
ISA Spelling (26) (III)	gi:-ba:š ^ˇ kizwidizo		1:[3]
Person Agreement (35) (III)	gi:-ba:š ^ˇ kizwidizow		1:[3]
Morphophonemics	gi:-ba:š ^ˇ kzodzo		

A construction closely related to the reflexive is the reciprocal.

Examples are given in (15).

- (15) (a) ngi:-ba:zgobnidmi We (exc.) scratched each other.
 /n - gi: - ba:zagobi - n - idi - ø - min/
 1 PAST SCRATCHED TSA SELF ISA 1PL
- (b) gi:-ba:š^ˇkzodwag They shot each other.
 /gi: - ba:š^ˇkiz - w - idi - ø - w - ag/
 PAST SHOOT TSA SELF ISA 3 3PL

(c) gi:-g^ˇzika:dwaḡ They wounded each other.
 /gi: - gi^ˇzik - aw - idi - ∅ - w - ag/
 PAST WOUND TSA SELF ISA 3 3PL

The only difference between the reflexive and the reciprocal is the allomorph of ISA that the construction conditions. This means that the allomorphy of ISA must, in part, be conditioned by the semantics of a construction as well as by the morphemes involved.

The second construction exemplified in (11) shows an incorporated indefinite object (PRO). The only thing needed to make our analysis handle these forms is a rule to specify the spelling of PRO when incorporated. The rule is given in (16).

(16) PRO Spelling

PRO ==> a:h / [a:h Class]-TSA-____
 ig / aw-____
 ig / m-____
 iw / TSA[A]-____
 ig

Now we derive the form bi:ncige: /bi:nih-d-ig-e:-∅-w/.

(17) Input to rules	bi:nih CLEAN	2:[PRO] HE	1:[3] HE
TSA (50)	bi:nihd	2:[PRO]	1:[3]
Object Incorporation (9)	bi:nihd-PRO-MEDIAL		1:[3]
PRO Spelling (16)	bi:nihdig-MEDIAL		1:[3]
Medial Spelling (10)	bi:nihdige:		1:[3]
ISA (28)	bi:nihdige:-ISA		1:[3]
ISA Spelling (26)	bi:nihdige:		1:[3]
Person Agreement (35)	bi:nihdige:w		1:[3]
Morphophonemics	bi:ncige:		

4.3 Medialization. In addition to reflexivization there is another process in Ojibwa that affects objects coreferential with clausemate subjects. This process deletes the object thus rendering the clause intransitive. We will call the process Middling. It happens

only in complex verbal constructions such as those in (18).

- (18) (a) *mma:dkwe:ni* He's moving his head.
 /*mama:d - ikw- e: - n - Ø - i - w/*
 MOVE HEAD MEDIAL CAUSE TSA ISA 3
- (b) *gi:-be:ng^wže:ho* He dried himself off.
 /*gi: - be:ngw - waž - e: - ah - w - i - w/*
 PAST BE-DRY BODY MEDIAL CAUSE TSA ISA 3
- (c) *gi:-bi:g^wška:* It broke./It tore.⁴
 /*gi: - bi:gw - (i)šk - aw - i - w/*
 PAST BE-TORN CAUSE TSA ISA 3

Because Middling is restricted to causative constructions often with incorporated nouns, we defer formalization of the process until we have handled causatives and noun incorporation. What we need to note here is that we are treating forms like those in (18) as middles, not as reflexives as Bloomfield (1957:86) did.

4.4 Summary of Rules. We would like to summarize the order of the rules that we have established up to this point. Not all the rules we list are crucially ordered with respect to every other rule, but we will list them in an order that is consistent with all crucial orderings. Because the number of rules is so great we have taken the liberty of splitting the rules into three blocks: the main block in (19a), the agreement block in (19b), and the spelling block in (19c). For the spelling rules this means a deviation from the order laid out in the derivations in this chapter. We can show in some cases that separating the spelling rule from the rule inserting the morpheme is necessary. For example we have shown that TSA (50) (III) precedes Passive (58) (III) which in turn feeds TSA Neutralization (3). But TSA Neutralization (3) affects the operation of TSA Spelling (46) (III), and therefore precedes it. Because of the existence of such ordering chains we will simply assume that we can take all the spelling rules and order

them as a block at the end of the syntactic derivation. In fact we know that such orderings are not always possible, but it seems that for Ojibwa it is possible to do so, and so we will use it for convenience. Within the block of spelling rules we will spell from the stem out.

- (19) (a) TSA (50) (III)
 Passive (58) (III)
 Reflexivization (12)
 Object Incorporation (9)
 TSA Neutralization (3)
 PRO Deletion (6)
 Medial Deletion (13)
 ISA (28) (III)
 OA I (52) (III)
 Negative Concord (31) (III)
 OA II (43) (III)

(b) Person/number Agreement Block

- Inanimate Obviation (18) (III)
 Person Agreement (35) (III)
 Non-third Plural (36) (III)
 Ergative Plural (38) (III)
 Modal Attachment (22) (III)
 Dubitative Attachment (23) (III)
 Absolutive Plural (39) (III)

(c) Spelling Block

- TSA Spelling (46) (III)
 PRO Spelling (16)
 Medial Spelling (10)
 ISA Spelling (26) (III)
 OA I Spelling (46) (III)
 Negative Spelling (32) (III)
a: Spelling (5)

In derivations we will refer to the blocks of rules when their operation is not crucial to the derivation of the forms under examination.

FOOTNOTES

CHAPTER IV

¹The last two examples in this list are morpheme complexes.

²This is not strictly true there is a class of causative verbs that do not form passives this way. We will discuss those cases in Chapter VIII.

³The second set of parentheses indicates the chapter in which the current version of the rule is found.

⁴Forms that end in the morpheme sequence -ška: are often virtually impossible to translate in any straightforward way. It means that the state being caused comes about independent of contact with an external agent or instrument. (18c) could be said by a child trying to avoid responsibility for damaging an object. Roosen-Runge and Kaye (1973) consistently mistranslate such forms. Translating such forms as reflexive while often awkward, captures this aspect of the meaning more clearly.

CHAPTER V

ADVANCEMENT TO OBJECT

5.0 Ojibwa has a number of rules which advance dependents to direct object. In this chapter we will examine these rules. Included here are two controversial rules, one of which advances indirect objects and one of which advances chomeurs.

5.1 Benefactive Advancement. Benefactives are obligatorily advanced to direct object in Ojibwa. As we discussed in Chapter III, Ojibwa verbs agree with their (superficial) objects in person, number, gender, and obviation. The examples in (1) show gender and number agreement.

- | | | |
|-------------|--|---|
| (1) (a) (i) | ngi:-bi:do:n mzinhigan
/n - gi: - bi: - d - 0: - n/
1 PAST BRING TSA OAI OAI | I brought a book.
(inanimate object) |
| (ii) | ngi:-bi:do:nan mzinhigan
/n - gi: - bi: - d - o: - n - an/
1 PAST BRING TSA OAI OAI PL | I brought some books.
(inanimate plural) |
| (b) (i) | ngi:-bi:na: kik
/n - gi: - bi: - n - a:/
1 PAST BRING TSA OAI | I brought a kettle
(animate object) |
| (ii) | ngi:-bi:na:g kiko:g
/n - gi: - bi: - n - a: - ag/
1 PAST BRING TSA OAI PL | I brought some kettles. |

However, benefactive verbs agree in number with their benefactive but do not agree with their logical object.

- | | | |
|-------------|---|-----------------------|
| (2) (a) (i) | ngi:-bi:dmawa: mzinhigan
/n - gi: - bi: - d - amaw - a:/
1 PAST BRING TSA BEN OAI | I brought him a book. |
|-------------|---|-----------------------|

- (ii) *ngi:-bi:dmawa: mzinhighnan* I brought him some books.
- (b) (i) *ngi:-bi:dmawa:g mzinhighnan* I brought them a book.
 /n - gi: - bi: - d - amaw - a: - ag/
 1 PAST BRING TSA BEN OAI PL
- (ii) *ngi:-bi:dmawa:g mzinhighnan* I brought them some books.

Since it is not possible in Ojibwa to have an inanimate benefactive we cannot show gender agreement with benefactives, but we can show that benefactive verbs do not agree with their logical objects in gender.

The TSA that appears in benefactive verbs is always TSA[I].

- (3) (a) *ngi:-bi:dmawa: mzinhighnan* I brought him a book.
 /n - gi: - bi: - d - amaw - a:/
 1 PAST BRING TSA BEN OAI
- (b) *ngi:-bi:dmawa: kiko:n¹* I brought him a kettle (obv.).

We take these facts as evidence that the benefactives advance to object.

Before formulating the rule we will need to look at the allomorphs of the benefactive marker. There are two allomorphs, amaw and aw. The second allomorph is optionally used after stems that take Set I and Set III TSA-OAI markings, i.e. the markings d-o:. Some example forms are listed in (4). The citations are given in third singular conjunct.

(4)

TI form	Benefactive form	
(a) Set I		
<i>bi:do:d</i>	<i>bi:dwa:d</i>	bring s.t. (for s.o.)
	<i>bi:dmawa:d</i>	
<i>go:do:d</i>	<i>go:dwa:d</i>	hang s.t. (for s.o.)
	<i>go:dmawa:d</i>	
(b) Set III		
<i>wʒito:d</i>	<i>wʒitwa:d</i>	make s.t. (for s.o.)
	<i>wʒitmawa:d</i>	
<i>za:gjito:d</i>	<i>za:gjitwa:d</i>	take s.t. out (for s.o.)

(c) Irregular

na:did	na:dwa:d	fetch s.t. (for s.o.)
	na:dmawa:d	idiom: help s.o.
to:d	tawa:d	idiom: bet/challenge s.o.
	tamwa:d	put s.t. down (for s.o.)

(d) Other Verbs

škonang	škonmawa:d	leave s.t. (for s.o.)
wžibi:hang	wžibi:hmawa:d	write s.t. (to/for s.o.)
gindang	gindmawa:d	read s.t. (to/for s.o.)
bmida:ba:dang	bmida:ba:dmawa:d	haul s.t. (for s.o.)

We will formulate the rule of benefactive advancement as in (5).

(5) Benefactive Advancement

V BEN: ==> V-BEN 2:

We will spell the marker BEN by rule (6).

(6) Benefactive Spelling

BEN ==> aw / [Set I/III]-_____ (optional)

amaw

In order to get the order of morphemes that we find in benefactive verbs, as exemplified in (2) and (3), TSA (50) (III) must precede Benefactive Advancement (5). But then to wipe out the contrast between TSA[I] and TSA[A], we must invoke another clause of TSA Neutralization (3) (IV). We revise that rule as in (7).

(7) TSA Neutralization (revised)

(a) TSA[I] ==> TSA[A] / _____-igw

(b) TSA[A] ==> TSA[I] / _____-BEN

We are now ready to derive the sentence ngi:-bi:dmawa: kiko:n (3b).

The derivation is given in (8) [on the next page].

At this point it is necessary to note that an alternative analysis of benefactive forms is possible. The sequence TSA[I]-amaw which appears in benefactive verbs may be analyzed as TSA[I]-am-TSA[A], because

(8)

Input to rules	gi:-bi:	BEN:[3]	2:akikw	1:[1]
	PAST BRING	FOR HIM	KETTLE	I
TSA (50) (III)	gi:-bi:-TSA[A]	BEN:[3]	w:akikw	1:[1]
Benefactive (5)	gi:-bi:-TSA[A]-BEN	2:[3]	CH:akikw	1:[1]
TSA Neutralization (7)	gi:-bi:-TSA[I]-BEN	2:[3]	CH:akikw	1:[1]
Obviation ²	gi:-bi:-TSA[I]-BEN	2:[3]	CH:akikwan	1:[1]
Agreements	ngi:-bi:-TSA[I]-BEN-a:	2:[3]	CH:akikwan	1:[1]
Spelling	ngi:-bi:damawa:		akikwan	
Morphophonemics	ngi:-bi:dmawa:	kiko:n		

there is a TSA[A] aw. Similarly the sequence TSA[I]-aw could be analyzed as TSA[I]-TSA[A]. If we do this then the TSA[I] in the construction is a link morpheme. Thus the choice between these two analyses is the choice between a link morpheme and TSA Neutralization. We have picked the latter solution for two reasons. First we feel that there is motivation for neutralization but none for a link. Second there is a proposed law of agreement which limits agreements to being cycle initial and cycle final. While we have not yet discussed the cycle, we can see that TSA is the earliest ordered rule under our analysis, and is thus consistent with the proposed law. In view of the somewhat open choice between the two analyses we favor the one which is consistent with the proposed law.

Finally we take up the problem of the morphology of the benefactive with basically intransitive verbs. The productive pattern is to base the benefactive on a formation that has a link morpheme, h and sometimes also an ISA link morpheme. Some examples are given in (9).

(9) AI forms Benefactive forms

noki:d	noki:twɑ:d	/anoki: - h-d-aw/	work (for s.o.)
ngamod	ngamtawɑ:d	/nagamo - h-d-aw/	sing (to/for s.o.)
nška:dzid	nška:dzi:twɑ:d	/nška:d-izi-h-d-aw/	be angry (at s.o.)
		ISA TSA BEN	

However, there is quite a bit of irregularity associated with the benefactive forms arising from intransitive verbs.

(10) AI forms Benefactive forms

(a) wžige:d	wžigwɑ:d	/ožige:-aw-a:d/	build a house (for s.o.)
ji:ba:kwe:d	ji:ba:kwwɑ:d	/ji:ba:kwe:-aw-a:d/	cook (for s.o.)
žonya:ke:d	žo:nya:kwɑ:d	/žo:niya:ke:-aw-a:d/	make money (for/from s.o.)

(b) wa:se:njge:d	wa:se:njgamwa:d	/wa:se:njige:-amaw-a:d/
		shine a light (for s.o.)
ni:mid	ni:mkawa:d	/ni:mi-k-aw-a:d/
		dance (for s.o.)

We will not formalize rules to account for these forms. Such details of ad hoc morphology are beyond the scope of this work.

There are a number of other rules promoting dependents to object which are also marked with the BEN morpheme. These include a number of animate non-terms and possessors.

5.2 Animate Advancements. A number of animate non-terms are obligatorily advanced to object.

5.2.1 ABOUT Advancement. There are a few examples of the logical complements of ABOUT advancing to object obligatorily if they are human.

- (11) (a) (i) ngike:n̄d:n mzinhigan I know (about) the book.
 /n - gike:n - d - am - n/
 1 KNOW TSA OAI OAI
- (b) (i) ngike:nma: ʒa:bdi:s I know John.
 /n - gike:nim - ∅ - a:/
 1 KNOW TSA OAI
- (ii) ngike:ndmawa: ʒa:bdi:s I know about John.
 /n - gike:n - d - amaw - a:/
 1 KNOW TSA BEN OAI
- (c) (i) ngi:-niga:hwe: I made people sad.
 / n - gi: - aniga:h - ∅ - iw - e: - ∅/
 1 PAST CAUSE-BE-SAD PRO MEDIAL ISA
 TSA
- (ii) ngi:-niga:twa: ma:nī: I told a sad story about Mary.
 /n - gi: - aniga:h - d - aw - a:/ (lit. I made people
 1 PAST CAUSE-BE-SAD TSA BEN OAI sad about Mary.)

As far as we know this advancement is only possible if the object of the verb at the time of the advancement is PRO.

5.2.2 Recipient Advancement. The recipient of the object of a verb is obligatorily advanced to object.

- (12) (a) (i) *ngi:-nina:n mo:kma:n* I handed the knife along.
 /n - gi: - inin - ∅ - am - n/
 1 PAST PASS TSA OAI OAI
- (ii) *ngi:-ninmawa: mo:kma:n ža:bdi:s* I handed John the
 /n - gi: - inin - ∅ - amaw - a:/ knife.
 1 PAST PASS TSA BEN OAI
- (b) (i) *ngi:-paŋda:n bkwa:kwad* I threw the ball.
 /n - gi: - apagi - d - am - n/
 1 PAST THROW TSA OAI OAI
- (ii) *ngi:-pagdamwa: bkwa:kwad bi:ye:n* I threw the ball to
 /n - gi: - apagi - d - amaw - a:/ Peter.
 1 PAST THROW TSA BEN OAI
- (c) (i) *ngi:-dbaha:n zi:sba:kwad* I paid for the sugar.
 /n - gi: - dibah - ∅ - am - n/
 1 PAST PAY-FOR TSA OAI OAI
- (ii) *ngi:-dbahmawa: zi:sba:kwad be:ni:k* I paid Veronica for
 /n - gi: - dibah - ∅ - amaw - a:/ the sugar.
 1 PAST PAY-FOR TSA BEN OAI

5.2.3 Affectee Advancement. Affectees are obligatorily advanced to object.

- (13) (a) *wgi:-ma:ji:wdo:n nmaznahgan* He took my book.
 /w - gi: - ma:ji:ni - d - o: - n/
 3 PAST TAKE TSA OAI OAI
- (b) *ngi:-ma:ji:wdma:g nmaznahgan* He took my book from me.
 /n - gi: - ma:ji:wi - d - amaw - igw/
 1 PAST TAKE TSA BEN PASSIVE

All these advancement rules can be collapsed with benefactive advancement.

(14) Non-term Advancement

V NT:[ANIM] ==> V-BEN 2:[ANIM]

This rule is sensitive to logical animacy, not grammatical animacy.

This rule precedes the application of Passive (58) (III) as shown by the order of morphemes in (13b)

5.3 Possessor Ascension. While not an advancement rule, posses-

essor ascension is marked by the same morphology as the benefactive. The possessor of a logical object may ascend to object.

(15) (a) *ngi:-wa:bnda:n ža:bdi:s wmo:kma:n* I saw John's knife.
 /n - gi: - wa:bam - d - am - n/
 1 PAST SEE TSA OAI OAI

(b) *ngi:-wa:bndamwa: ža:bdi:s wmo:kma:n* I saw John's knife.
 /n - gi: - wa:bam - d - amaw - a:/
 1 PAST SEE TSA BEN OAI

For many speakers (15a) is ungrammatical, i.e. for such speakers possessor ascension is obligatory. The exact conditions on possessor ascension are unknown, although it is known that there is a hierarchy of ascendability that runs from full NP possessor through third person pronoun possessor to first and second person possessor. For most speakers ascension of full NP possessors is obligatory. Ascension of pronominal third person possessors is optional. But non-third person possessors do not ascend. Thus we can distinguish between Affectee Advancement §5.2.3, and Possessor Ascension.

(16) (a) (i) *wgi:-wa:bnda:n nmo:kma:n* He saw my knife.
 /w - gi: - wa:bam - d - am - n/
 3 PAST SEE TSA OAI OAI

(ii) **ngi:-wa:bndama:g nmo:kma:n* He saw my knife.
 /n - gi: - wa:bam - d - amaw - igw/
 1 PAST SEE TSA BEN PASSIVE

(b) (i) *wgi:-ma:ji:wdo:n nmo:kma:n* He took away my book.
 /w - gi: - ma:ji:wi - d - o: - n/
 3 PAST TAKE-AWAY TSA OAI OAI

(ii) *ngi:-ma:ji:wdama:g nmo:kma:n* He took my book away from me.
 /n - gi: - ma:ji:wi - d - amaw - igw/
 1 PAST TAKE-AWAY TSA BEN PASSIVE

The examples in (16a) show that non-third person possessors do not ascend. The examples of (16b) show that non-third person affectees advance.

Before we formalize the rule we will give evidence that posses-

sors of subjects do not ascend.

(17) (a) wi:nzi ža:bdi:s John is dirty.
 /wi:n - izi - w/
 DIRTY ISA 3

(b) wi:ndini ža:bdi:s wmo:kma:n John's knife is dirty.
 /wi:n - ad - ini - w/
 DIRTY ISA OBV 3

While (17b) shows obviation, the agreement is still inanimate, showing that possessors of subjects do not ascend.

Now we are ready to formalize possessor ascension.

(18) Possessor Ascension

A [3] POSS of 2 ascends, marking the verb V-BEN 3

Like Non-term Advancement (14), Possessor Ascension (18) precedes Passive (58) (III).

(19) bi:ye:n wgi:-wa:bndama:go:n wmo:kma:n wgwisan. Peter's_j son saw
 /w - gi: - wa:bam - d - amaw - igw - an/ his_iknife.
 3 PAST SEE TSA BEN PASSIVE OBV

Because of the obviation involved we will not derive this form here but rely on the morpheme order as the indicator of rule order.

5.4 Chomeur Advancement. The rules that we have discussed thus far in this chapter all have the property of creating chomeurs by the Relational Annihilation Law (57) (III).

(20) (a) Non-term Advancement

(i) ngi:-bi:dmawa: mzinhigan ža:bdi:s I brought John a book.
 1-PAST-BRING-FOR-3 BOOK JOHN
 CH 2

(ii) ngi:-dbahmawa: mzinhigan ža:bdi:s I paid John for the book.
 1-PAST-PAY-FOR-TO-3 BOOK JOHN
 CH 2

(iii) ngi:-ma:ji:dmawa: mzinhigan ža:bdi:s I took the book from
 1-PAST-TAKE-FROM-3 BOOK JOHN John.
 CH 2

(b) Possessor Ascension⁴

ngi:-wa:bndamwa: ža:bdi:s wmaznahgan I saw John's book.
 1-PAST-SEE-OF-3 JOHN HIS-BOOK
 2 CH

If these chomeurs end up in a sentence that is intransitive they advance to direct object. The resulting verbs show only OA II (43) (III) agreement markers. The sentences in (21) become intransitive by processes described in Chapter IV.

(21) (a) ngi:-gindma:ge:n mzinhigan I read the book aloud. (lit. I
 /n - gi: - agim - d - amaw - ig - e: - ø - n/ read-for-PRO
 1 PAST READ TSA BEN PRO MEDIAL ISA OAI book.)

(b) ngi:-bi:da:dzon žkode:wa:bo: I brought my own booze. (lit.
 /n - gi: - bi: - d - aw - idi - zo - n/ I brought-for-self
 1 PAST BRING TSA BEN SELF ISA OAI liquor.)

(c) ngi:-gža:dma:ge:nan wji:ma:nan I looked after somebody's boats.
 /n - gi: - giža: - d - amaw - ig - e: - ø - n - an/
 1 PAST CARE-FOR TSA BEN PRO MEDIAL ISA OAI PL

In addition to these situations where chomeurs come to be in intransitive clauses, there is a rule that ascends possessors (generally inalienable) out of the subject of intransitive verbs under very limited circumstances. The chomeurs generated by those ascensions are also in intransitive clauses and advance to direct object.

(21) (a) (i) ?nžo:nya:m gi:-ja:gse: My money ran out.
 MY-MONEY PAST-RUN-OUT

(ii) ngi:-ja:gse:n žo:nya: I ran out of money
 /n - gi: - ja:gise: - ø - n/
 1 PAST RUN-OUT ISA OAI

(b) nda:k^Wzin nik I have a pain in (my) arm.
 /n(d) -a:kw - izi - n/
 1 BE-SICK ISA OAI ARM

We formalize the rule of chomeur advancement as in (23).

(23) Chomeur Advancement

CH ==> 2 / ____A(1)

As an example of the operation and ordering of (23) we derive the sentence (21a) in (24) [on the next page]. This rule is significant because it was thought that chomeurs could not advance except to indirect object [Postal and Perlmutter (n.d.)]. This rule will also have interesting ramifications for the rest of our analysis.

Now let us show that this advancement is peculiar to chomeurs. Non-terms may appear overtly in intransitive sentences as non-terms and may not be advanced.

- (25) (a) gbaba: gdižna:goz You look like your father.
 YOUR-DAD 2-LOOK-LIKE
- (b) gi:-dkamse: mi:kna:ŋg He crossed the road.
 PAST-CROSS-3 ROAD-loc.
- (c) ngi:-bo:z ndo:da:ba:niŋg I got in my car.
 1-PAST-GET-IN MY-CAR-loc.
- (d) gwi:dbiwniŋg gi:-nmadbi He sat on the chair.
 CHAIR-loc. PAST-SIT-3
- (e) gi:-bmose: namhe:wgamig He walked to church.
 PAST-WALK-3 CHURCH

Only chomeurs are advanced in intransitive clauses.

5.5 Indirect Object Advancement. Logical indirect objects advance to direct object. The verb is left unmarked.

- (26) (a) ngi:-mi:na: mzinhigan ža:bdi:s I gave John a book.
 /n - gi: - mi:n - Ø - a:/ BOOK JOHN
 1 PAST GIVE TSA OAI
- (b) ngi:-šama: wi:ya:s nday I fed my dog meat.
 /n - gi: - ašam - 0 - a:/ MEAT MY-DOG
 1 PAST FEED TSA OAI

This advancement is obligatory and unmarked. For this reason various analysts [e.g. Rogers (1975b)] have treated these verbs as a special type of verb which has a basic direct object in a semantically dative relation. More simply they treat these verbs as undergoing no derivation. In

(24)

Input to Rules	gi:-agim	BEN:PRO	2:mazinahigan	1:[1]
	PAST READ		BOOK	I
TSA (50) (III)	gi:-agim-TSA[I]	BEN:PRO	2:mazinahigan	1:[1]
Non-term Advancement (14)	gi:-agim-TSA[I]-BEN	2:PRO	CH:mazinahigan	1:[1]
Object Incorporation (6) (IV)	gi:-agim-TSA[I]-BEN-PRO-MEDIAL		CH:mazinahigan	1:[1]
Chomeur Advancement (22)	gi:-agim-TSA[I]-BEN-PRO-MEDIAL		2:mazinahigan	1:[1]
OA II (43) (III)	gi:-agim-TSA[I]-BEN-PRO-MEDIAL-n		2:mazinahigan	1:[1]
Agreements	ngi:-agim-TSA[I]-BEN-PRO-MEDIAL-n		2:mazinahigan	1:[1]
Spellings	ngi:-agimdamawige:n		mazinahigan	
Morphophonemics	ngi:-gindma:ge:n mzinhigan			

this section we will present evidence for analyzing these verbs as involving the application of a rule which has no morphological effect. What is at stake here is an important facet of relational grammar. In order to make relational grammar work, it is necessary to have principles assigning termhood independent of syntactic considerations, i.e. the assignment must be on the basis of the semantic character of the verb. The system is not unlike that of case grammar. The term assignment runs approximately like this. Semantic cases like agent, experiencer, goal, instrument, etc. are defined. A verb that takes an agent and a goal has the agent assigned as a subject and the goal as an object, where the pairings of agent to subject and goal to object are made on the basis of universal principles, probably by the matching of hierarchies, the term hierarchy with a hierarchy of subject eligibility for various semantic cases. What all this means to us here is that if we could argue that indirect object is assigned differently in Ojibwa than it is in English, then this would be a problem for relational grammar. So we will now turn to the syntactic evidence for positing a rule advancing indirect object.

First there is evidence from chomeur advancement. If the indirect object is PRO the NP we want to say is the logical object ends up as the superficial object, with the verb marked only with OA II. This is the characteristic of chomeur advancement. The same thing happens with reflexivized and other noun incorporated constructions where an indirect object is present.

(27) (a) *ngi:-mi:gwe:n mzinhigan* I gave away the book.
 /n - gi: - mi:g - \emptyset - iw - e: - \emptyset - n/
 1 PAST GIVE TSA PRO MEDIAL ISA OAI

- (b) *ngi:-mi:ndizon mzinhigan* I gave myself a book.
 /n - gi: - mi:n - \emptyset - idi - zo - n/
 1 PAST GIVE TSA SELF ISA OAI
- (c) *ngi:-šange:n nbo:b* I fed people soup.
 /n - gi: - ašam - \emptyset - ig - e: - \emptyset - n/
 1 PAST FEED TSA PRO MEDIAL ISA OAI
- (d) *ngi:-šama:wson wi:ya:s* I fed (my) children meat.
 /n - gi: - ašam - \emptyset - a:wah - zo - n/
 1 PAST FEED TSA CHILD ISA OAI

We derive (27b) as an example in (28)[on the next page]. Some comments about this derivation are in order. Unless the word mzinhigan 'book' is a chomeur at some time during the derivation there is no independently motivated way to get it to advance. In order to have it be a chomeur, it must have been a term at some time and have had something advanced to its relation. This is consistent only with the object that treats the direct objecthood of the semantic object as derived.

The second kind of evidence is the evidence from clause union. As discussed in Chapter II §2.2.5, clause unions involving transitive clauses both upstairs and downstairs bring the subject of the downstairs clause up as indirect object. While such clause unions are rare in Ojibwa they do occur and they show the same properties as the verbs which take semantic indirect objects.

- (29) (a) *ngi:-ba:knamo:ha:* I made him open the box.
 /n - gi:' - ba:kinam(o) - h - \emptyset - a:/
 1 PAST OPEN CAUSE TSA OAI
- (b) *ngi:-mnikwe:cge:n nbi:š* I made (my animals) drink water.
 /n - gi: - minikwe: - h - d - ig - e: - \emptyset - n/
 1 PAST DRINK CAUSE TSA PRO MEDIAL ISA OAI

Notice in particular that (29b) is exactly parallel to (27c). If we say that clause union works in the universal way and have a rule advancing indirect objects then the parallelism is explained straightforwardly. Any other solution seems to us unreasonably ad hoc. There-

(28)

Input to rules	gi:-mi:n	3:[1]	2:mazinahigan	1:[1]
	PAST GIVE	I	BOCK	I
Indirect Object Advancement	gi:-mi:n	2:[1]	CH:mazinahigan	1:[1]
TSA (50) (III)	gi:-mi:n-TSA[A]	2:[1]	CH:mazinahigan	1:[1]
Reflexivization (12) (IV)	gi:-mi:n-TSA[A]	2:idi	CH:mazinahigan	1:[1]
Object Incorporation (9) (IV)	gi:-mi:n-TSA[A]-idi-MEDIAL		CH:mazinahigan	1:[1]
Medial Deletion (13) (IV)	gi:-mi:n-TSA[A]-idi		CH:mazinahigan	1:[1]
ISA (28) (III)	gi:-mi:n-TSA[A]-idi-ISA[A]		CH:mazinahigan	1:[1]
Chomeur Advancement (23)	gi:-mi:n-TSA[A]-idi-ISA[A]		2:mazinahigan	1:[1]
OA II (43) (III)	gi:-mi:n-TSA[A]-idi-ISA[A]-n		2:mazinahigan	1:[1]
Agreements	ngi:-mi:n-TSA[A]-idi-ISA[A]-n		2:mazinahigan	1:[1]
Spelling	ngi:-mi:nidizon		mazinahigan	
Morphophonemics	ngi:-mi:ndizon mzinhigan			

fore we formalize the rule of indirect object advancement.

(30) Indirect Object Advancement

3 ==> 2

5.6 Summary of Rules. We summarize the new rules here in their place in the rule order. Only the main block of rules is listed.

(31) Indirect Object Advancement (30)

TSA (50)(III)
 Non-term Advancement (14)
 Possessor Ascension (18)
 Passive (58)(III)
 Reflexivization (12)(IV)
 Object Incorporation (9)(IV)
 Medial Deletion (13)(IV)
 TSA Neutralization (3)(IV)
 PRO Deletion (6)(IV)
 ISA (28)(III)
 OA I (52)(III)
 Chomeur Advancement (23)
 Negative Concord (31)(III)
 OA II (43)(III)

The most interesting thing about this ordering is that Indirect Object Advancement (30) precedes TSA (50)(III). One of the clauses of the proposed agreement law in relational grammar limits agreements to cycle initial and/or cycle final. The Ojibwa data indicates that such a limitation is not possible. Perhaps the best direction in revising the proposed laws would be, given cycle initial or cycle final (including postcyclic) agreements, agreements in mid-cycle are also possible.⁵

FOOTNOTES

CHAPTER V

¹The obviation of the logical object is another indication that the benefactive has become the superficial object.

²We will discuss the rule(s) of obviation in Chapter VII.

³The effects of this rule are summarized in:

$$V \quad 2:(\text{POSS}:[3]) \quad ==> \quad V\text{-BEN CH } 2:[3].$$

a b c a b c

⁴The normal order of dependents is Chomeur - Direct Object - Subject, that order is violated here because of the pronoun possessor in the chomeur and antecedent problems. Consider the examples

- (1) (a) *ngi:-ma:ji:wdmawa: mzinhigan ža:bdi:s*
I took the book from John.
(b) *?ngi:-ma:ji:wdmawa: ža:bdi:s mzinhigan*
I took the book from John.
- (2) (a) **ngi:-ma:ji:wdmawa: wmaznahgan ža:bdi:s*
I took John's_i book from him_i.
(b) *ngi:-ma:ji:wdmawa: ža:bdi:s wmaznahgan*
I took John's_i book from him_i.

⁵The recognition that TSA(50)(III) is not cycle initial opens the benefactive marker *-(am)aw-* to possible reanalysis. This morpheme always follows a TSA marker, but the *aw* of the benefactive morpheme itself could be considered a TSA marker. Thus the benefactive could be analyzed

- (3) TSA[II] - (am)aw - (our analysis) OR
 TSA BEN
- (4) TSA[II]-(am) - aw -
 BEN TSA

This would change the rule order to

- (5) Indirect Object Advancement (30)
Non-term Advancement (14)
Possessor Ascension (18)
TSA (50)(III)
Passive (58)(III)
etc.

We know of no evidence which would require us to change our analysis, so we leave it.

CHAPTER VI
VERB AGREEMENT II

6.0 In this chapter we will discuss the forms of the independent TA paradigm that we did not treat in Chapter III.

6.1 Chomeur Advancement. In analyzing the inflection of the TA inverse forms in Chapter III, we argued that Passive (58) (III) applies in the derivation of these forms. By the Relational Annihilation Law (57) (II), chomeurs arise in passivized sentences, from the logical subject and by advancing the object, passivization at the same time creates intransitive clauses. But in the last chapter we argued that there is a rule advancing chomeurs in intransitive clauses. Putting these things together we see that our analysis predicts that passivization should have the ultimate effect of inverting the subject and object. We will argue in this chapter that this is exactly what happens in the case of inverse verb forms. It is easiest to see in the forms that have inanimate logical subjects. Such forms, by our analysis should have animate subjects (from their logical object) and inanimate objects (from their logical subject). Thus these forms should have the same agreement inflection as TI verbs. The paradigm in (1) giving the forms of bsika:god 'it hits s.o.' and bi:do:d 'bring s.t.' side by side, shows that the agreement inflection for both types of verbs is identical.

(1) (a) gbiskɑ:gon	/g - bisik-aw-igw-i - n/ ¹	it hits you
gbi:do:n	/g - bi:-d-o: - n/	you bring it
nbiska:gon	/n - bisik-aw-igw-i - n/	it hits me
nbi:do:n	/n - bi:-d-o: - n/	I bring it
wbiska:gon	/w - bisik-aw-igw-i - n/	it hits him
wbi:d:n	/w - bi:-d-o: - n/	he brings it
gbiska:g ^W na:wa:	/g - bisik-aw-igw-i - n - (a:)wa:/	it hits you (pl.)
gbi:do:na:wa:	/g - bi:-d-o: - n - (a:)wa:/	you (pl.) bring it
gbiska:g ^W na:	/g - bisik-aw-igw-i - n - na:ni/	it hits us (inc.)
gbi:do:na:	/g - bi:-d-o: - n - na:ni/	we (inc.) bring it
nbiska:g ^W na:	/n - bisik-aw-igw-i - n - na:ni/	it hits us (exc.)
nbi:do:na:	/n - bi:-d-o: - n - na:ni/	we (exc.) bring it
wbiska:g ^W na:wa:	/w - bisik-aw-igw-i - n - (a:)wa:/	it hits them
wbi:do:na:wa:	/w - bi:-d-o: - n - (a:)wa:/	they bring it
(b) gbiska:g ^W nan	/g - bisik-aw-igw-i - n - an/	they hit you
gbi:do:nan	/g - bi:-d-o: - n - an/	you bring them
nbiska:g ^W nan	/n - bisik-aw-igw-i - n - an/	they hit me
nbi:do:nan	/n - bi:-d-o: - n - an/	I bring them
wbiska:g ^W nan	/w - bisik-aw-igw-i - n - an/	they hit him
wbi:do:nan	/w - bi:-d-o: - n - an/	he brings them
gbiska:g ^W na:wa:n	/g - bisik-aw-igw-i - n - (a:)wa: - an/	they hit you (pl.)

gbi:do:na:wa:n	/g - bi:-d-o:	- n - (a:)wa: - an/ you (pl.) bring them
gbiska:g ^W na:nin	/g - bisik-aw-igw-i	- n - na:ni - an/ they hit us (inc.)
gbi:do:na:nin	/g - bi:-d-o:	- n - na:ni - an/ we (inc.) bring them .
nbiska:g ^W na:nin	/n - bisik-aw-igw-i	- n - na:ni - an. they hit us (exc.)
nbi:do:na:nin	/n - bi:-d-o:	- n - na:ni - an/ we (exc.) bring them
wbiska:g ^W na:wa:n	/w - bisik-aw-igw-i	- n - (a:)wa: - an/ they hit them
wbi:do:na:wa:n	/w - bi:-d-o:	- n - (a:)wa: - an/ they bring them
(c) gbiska:g ^W si:n	/g - bisik-aw-igw-i	- si: - n/ it (doesn't) hit you
gbi:do:si:n	/g - bi:-d-o:	- si: - n/ you (don't) bring it

Chomeur advancement also has the effect of drawing inverse TA verbs into our analysis of number marking. The examples in (2) show the parallelism between the plural marking of direct and inverse TA verbs, which is the expected result of inverting the subject and object of inverse forms by passive plus chomeur advancement.

(2) (a) gwa:bma:wa:	/g - wa:bam-a:	- wa:/ you (pl.) see him
gwa:bmigwa:	/g - wa:bam-igw-i	- wa:/ he sees you (pl.)
gwa:bma:na:	/g - wa:bam-a:	- na:ni/ we (inc.) see him
gwa:bmig ^W na:	/g - wa:bam-igw-i	- na:ni/ he sees us (inc.)
nwa:bma:na:	/n - wa:bam-a:	- na:ni/ we (exc.) see him
nwa:bmig ^W na:	/n - wa:bam-igw-i	- na:ni/ he sees us (exc.)
wwa:bma:wa:n	/w - wa:bam-a:	- wa: - an/ they see him/them (obv.)
wwa:bmigwa:n	/w - wa:bam-igw-i	- wa: - an/ he/they (obv.) see(s) them

(b) gwa:bma:g	/g - wa:bam-a: - ag/	you see them
gwa:bmigo:g	/g - wa:bam-igw-i - ag/	they see you
nwa:bma:g	/n - wa:bam-a: - ag/	I see them
nwa:bmigo:g	/n - wa:bam-igw-i - ag/	they see you
wwa:bma:n	/w - wa:bam-a: - an/	he sees him/them (obv.)
wwa:bmigo:n	/w - wa:bam-igw-i - an/	he/they (obv.) see(s) him
(c) gwa:bma:wa:g	/g - wa:bam-a: - wa: - ag/	you (pl.) see them
gwa:bmigwa:g	/g - wa:bam-igw-i - wa: - ag/	they see you (pl.)
gwa:bma:na:nig	/g - wa:bam-a: - na:ni - ag/	we (inc.) see them
gwa:bmig ^w na:nig	/g - wa:bam-igw-i - na:ni - ag/	they see us (inc.)
nwa:bma:na:nig	/n - wa:bam-a: - na:ni - ag/	we (exc.) see them
nwa:bmig ^w na:nig	/n - wa:bam-igw-i - na:ni - ag/	they see us (exc.)

The analysis that we are proposing claims that both of the members of the pairs of inverse and direct verbs in (2) have the same surface term relationships. Thus the plural markings are the same.

Now we are ready to explain what the i is that appears in our morphemic analysis in the examples in (1) and (2). It is the ISA marker. Our analysis requires that there be an ISA marker in the construction because ISA (28) (III) precedes Chomeur Advancement (23) (V) and so the clause is still intransitive at the time ISA (28) (III) applies. Let us illustrate this by deriving gbiska:gon /g-bisik-aw-igw-i-n/ 'it hits you' in (3) [on the next page].

There are two apparent problems with this extension of our analysis. The first is a morphophonemic problem. Our analysis has two con-

(28)

Input to rules	bisik	2:[2]	1:[INAN]
	STRIKE	YOU	IT
TSA (50) (III)	bisik-TSA[A]	2:[2]	1:[INAN]
Passive (58) (III)	bisik-TSA[A]-igw	1:[2]	CH:[INAN]
ISA (28) (III)	bisik-TSA[A]-igw-ISA[A]	1:[2]	CH:[INAN]
Chomeur Advancement (23) (V)	bisik-TSA[A]-igw-ISA[A]	1:[2]	2:[INAN]
OA II (43) (III)	bisik-TSA[A]-igw-ISA[A]-n	1:[2]	2:[INAN]
Agreements	gbisik-TSA[A]-igw-ISA[A]-n	1:[2]	2:[INAN]
Spelling	gbisikawigwin		
Morphophonemics	gbiska:gon		

tractions of igw 'passive' and 'i' ISA, but one of them gives a long vowel output, the other a short vowel output. The forms in (4) illustrate the situation.

- (4) (a) gwa:bmig /g-wa:bam-Ø-igw-i/ he sees you
 gwa:bmigo: /g-wa:bam-Ø-igw-i/ you are seen
- (b) nwa:bmig /n-wa:bam-Ø-igw-i/ he sees me
 nwa:bmigo: /n-wa:bam-Ø-igw-i/ I am seen
- (c) gwa:bmigwa: /g-wa:bam-Ø-igw-i-wa:/ they see you (pl.)
 gwa:bmigo:m /g-wa:bam-Ø-igw-i-mw/ you (pl.) are seen
- (d) gwa:bmig^wna: /g-wa:bam-Ø-igw-i-na:ni/ they see us (inc.)
 gwa:bmigo:mi /g-wa:bam-Ø-igw-i-min/ we (inc.) are seen
- (e) nwa:bmig^wna: /n-wa:bam-Ø-igw-i-na:ni/ they see us (exc.)
 nwa:bmigo:mi /n-wa:bam-Ø-igw-i-min/ we (exc.) are seen

We do not think that this is a particular problem however, because we already have situations in which contractions of the same vowel sequences give different outputs. Some examples are given in (5).

- (5) (a) w + i
- (i) mtigo:ŋg /mitigw-ing/ in the tree
 ga:goŋg /ga:gw-ing/ like a porcupine
- (ii) gne:bgo:ŋg /gine:bigw-ing/ like a snake
 da:we:wgamgoŋg /ada:we:wigamigw-ing/ at/in the store
- (iii) kiko:ŋg /akikw-ing/ in the kettle (different
 kikoŋg speakers)
- (i) nbi:na:na:nig /n-bi:na:-na:ni-ag/ we (exc.) bring them
 nbi:na:bni:g /n-bi:na:-bani-ag/ I brought them
- (ii) bwi:n /abwi-an/ paddles
 e:nki:njin /e:noki:-ini-d-i-an/ he (obv.) who works

Furthermore the contraction of igw with the ISA marker izi gives a short vowel,

- (6) mnopgozi /minop-w-igw-izi-w/ He tastes good.

which tells us that it is the contraction of the uncontroversial passive form that needs explaining, not the contraction of the inverse

form, which we are concerned with here. Since we distinguish the long and short contractions by ad hoc marking anyway, we will simply give the lengthening mark to the agent deleted passive construction.

On the opposite side of the ledger, our analysis of inverse forms solves a morphophonemic problem of the they inverse forms, e.g.

wbi:ngowa:n 'he (obv.) brings them'. Compare the difference in the treatment of the third person plural marker wa: after suffixes ending in gw.

- | | |
|------------------------|--|
| (7) (a) (i) bi:na:wgē: | /bi:na:-wag-e:n/
(that) I supposedly bring him |
| (ii) bi:na:wngwē: | /bi:na:-wangw-e:n/
(that) we (inc.) supposedly bring him |
| (b) (i) bi:na:wgwa:yē: | /bi:na:-wag-wa:-e:n/
(that) I supposedly bring them |
| (ii) b̄i:na:wngwa:yē: | /bi:na:-wangw-wa:-e:n/
(that) we (inc.) supposedly bring them |
| (c) (i) bi:ngowa:d | /bi:n-igw-i-wa:-d/
(that) he (obv.) brings them |
| (ii) wbi:ngowa:n | /w-bi:n-igw-i-wa:-na/
he (obv.) brings them |

The forms in (7a) show that the marker (w)angw does in fact end in a w. The form (7b) (i) shows that the third person plural marker begins with a w, and the form in (7b) (ii) shows that adjacent w's contract. But the forms of (7c) show that there must be something between the w's to prevent the contraction. This is right where our analysis predicts there should be an ISA marker, i.

Now let us return to the second apparent problem with our analysis. This has to do with the fact that there is no marking in the inverse forms for the objecthood of the derived object except in the case of forms with inanimate subjects [i.e. those exemplified in (1)]. This boils down to a simple matter of ordering Passive (58) (III) before OA I (52) (III) (which supplies the only other mark of objecthood

besides TSA (50) (III) in verbs with animate objects) and ordering Chomeur Advancement after OA I (52) (III). The plural marking clearly reflects the objecthood of the derived object anyway, so there can be no doubt that Chomeur Advancement has applied. There is a quirk however. In pseudo-transitive verbs markers appear indicating animate objects. Consider the paradigm of the PT verb bwe:d 'roast s.t./s.o.' displaying these markings.

(8) (a) inanimate object

gdabwe:n	/g(d)-abwe:-∅-n/	You roast it
ndabwe:n	/n(d)-abwe:-∅-n/	I roast it
wdabwe:n	/w(d)-abwe:-∅-n/	he roasts it
gdabwe:na:wa:	/g(d)-abwe:-∅-n-(a:)wa:/	You (pl.) roast it
gdabwe:na:	/g(d)-abwe:-∅-n-na:ni/	we (inc.) roast it
ndabwe:na:	/n(d)-abwe:-∅-n-na:ni/	we (exc.) roast it
wdabwe:na:wa:	/w(d)-abwe:-∅-n-(a:)wa:/	they roast it
gdabwe:nan	/g(d)-abwe:-∅-n-an/	you roast them
ndabwe:nan	/n(d)-abwe:-∅-n-an/	I roast them
wdabwe:nan	/w(d)-abwe:-∅-n-an/	he roasts them
gdabwe:na:wa:n	/g(d)-abwe:-∅-n-(a:)wa:-an/	you (pl.) roast them
gdabwe:na:nin	/g(d)-abwe:-∅-n-na:ni-an/	we (inc.) roast them
ndabwe:na:nin	/n(d)-abwe:-∅-n-na:ni-an/	we (exc.) roast them
wdabwe:na:wa:n	/w(d)-abwe:-∅-n-(a:)wa:-an/	they roast them

(b) animate object

gdabwe:nan	/g(d)-abwe:-∅-n-an/	you roast him
ndabwe:nan	/n(d)-abwe:-∅-n-an/	I roast him
wdabwe:nan	/w(d)-abwe:-∅-n-an/	he roasts him (obv.)
gdabwe:na:wa:	/g(d)-abwe:-∅-n-(a:)wa:/	you (pl.) roast him
gdabwe:na:	/g(d)-abwe:-∅-n-na:ni/	we (inc.) roast him
ndabwe:na:	/n(d)-abwe:-∅-n-na:ni/	we (exc.) roast him
wdabwe:na:wa:n	/w(d)-abwe:-∅-n-(a:)wa:-an/	they roast him (obv.)
gdabwe:nag	/g(d)-abwe:-∅-n-ag/	you roast them
ndabwe:nag	/n(d)-abwe:-∅-n-ag/	I roast them
wdabwe:nan	/w(d)-abwe:-∅-n-an/	he roasts them (obv.)
gdabwe:na:wa:g	/g(d)-abwe:-∅-n-(a:)wa:-ag/	you (pl.) roast them
gdabwe:na:nig	/g(d)-abwe:-∅-n-na:ni-ag/	we (inc.) roast them
ndabwe:na:nig	/n(d)-abwe:-∅-n-na:ni-ag/	we (exc.) roast them
wdabwe:na:wa:n	/w(d)-abwe:-∅-n-(a:)wa:-an/	they roast them (obv.)

We will treat this paradigm as containing the OAI marker in the cases involving inanimate objects (8a), but in the cases involving animate objects (8b) there is another option open to us which we will take. There is an n that appears in intransitive verbs as a link morpheme when certain suffixes follow a morpheme with a final vowel. Some examples are given in (9). Those in (9a) show the link, those in (9b) do not.

(9) (a)	nda:k ^W zina:ba:	/n(d)-a:kw-izi-n-(a:)bani/	I was sick
	nda:k ^W zina:dig	/n(d)-a:kw-izi-n-(a:)dig/	I am supposedly sick
(b) (i)	n(d)a:k ^W zimna:ba	/n(d)-a:kw-izi-min-(a:)bani/	we (exc.) were sick
	n(d)a:k ^W zimna:dig	/n(d)-a:kw-izi-min-(a:)dig/	We (exc.) are supposedly sick
(ii)	a:k ^W ziba	/ a:kw-izi-w-(i)bani/	he was sick
	a:k ^W zidig	/ a:kw-izi-w-(i)dig/	he is supposedly sick

In fact, intransitive verbs are not the only ones that contain this link; local TA forms also show it.

(10)	gwa:bam	/g-wa:bam- \emptyset -i/	you see me
	gwa:bmina:ba	/g-wa:bam- \emptyset -i-n-(a:)bani/	you saw me
	gwa:bmina:dig	/g-wa:bam- \emptyset -i-n-(a:)dig/	you supposedly see me
	gwa:bmin	/g-wa:bam- \emptyset -in-i/	I see you
	gwa:bminna:ba	/g-wa:bam- \emptyset -in-i-n-(a:)bani/	I saw you
	gwa:bminna:dig	/g-wa:bam- \emptyset -in-i-n-(a:)dig/	I supposedly see you

Of the different paradigms of verbs it is only the non-local TA verb forms that do not show the link. (Because TI verb forms already have an n, the link cannot be added.)

(11) nwa:bma:	/n-wa:bam- \emptyset -a:/	I see him
nwa:bma:ba	/n-wa:bam- \emptyset -a:-bani/	I saw him
nwa:bma:dig	/n-wa:bam- \emptyset -a:-dig/	I supposedly see him
nwa:bmig	/n-wa:bam- \emptyset -igw-i/	he sees me
nwa:bmig ^w ba	/n-wa:bam- \emptyset -igw-i-bani/	he saw me
nwa:bmig ^w dig	/n-wa:bam- \emptyset -igw-i-dig/	he supposedly sees me

So the problem is not one that has to do with our analysis of inverse verb forms as passives, but is a general problem in the morphology of non-local TA forms. This leaves us only with the problem of why forms like the first and second person singular forms of (8b), gdabwe:nan and ndabwe:nan, contain the morpheme an, while the corresponding forms of the inverse non-local, e.g. gwa:bmig and nwa:bmig, do not. If this fact is a peculiarity of non-local forms then it is a problem for our analysis. But consider the fact that this morpheme does not appear in PT verbs if any other morpheme follows the stem as the examples in (12) show.

(12) (a) gdabwe:nan	/g(d)-abwe:- \emptyset -n-an/	you roast him
(b) gdabwe:na:wa:	/g(d)-abwe:- \emptyset -n-(a:)wa:/	you (pl.) roast him
gdabwe:na:	/g(d)-abwe:- \emptyset -na:ni/	we (inc.) roast him
gdabwe:nag	/g(d)-abwe:- \emptyset -n-ag/	you roast them
gdabwe:na:ba	/g(d)-abwe:- \emptyset -n-(a:)bani/	you roasted him
gdabwe:na:dig	/g(d)-abwe:- \emptyset -n-(a:)dig/	you supposedly roast him

This is in contrast to the an which marks obviation in this paradigm.

(13) wdabwe:nan	/w(d)-abwe:- \emptyset -n-an/	he roasts him (obv.)
wdabwe:na:bni:n	/w(d)-abwe:- \emptyset -n-(a:)bani-an/	he roasted him (obv.)

wdabwe:na:dge:nan /w(d)-abwe:-Ø-n-(a:)dig-e:n-an/
 he supposedly roasts him (obv.)

We therefore feel that the peculiarity of the disappearing an belongs to PT verbs, and does not, in fact, pose any problem for our analysis.

Having argued that without any modification our analysis handles inverse non-local forms as well as direct non-local forms, let us turn to consider the local paradigms.

6.2 The Local TA Paradigm. We give the local TA paradigm in (14).

(14) (a) Direct forms

gbi:ž	/g - bi:-n - i/	you bring me
gbi:žim	/g - bi:-n - i - mw/	you (pl.) bring me
gbi:žmi	/g - bi:-n - i min/	you (sg./pl.) bring us

(b) Inverse forms

gbi:nin	/g - bi:-n - in - i/	I bring you
gbi:nnim	/g - bi:-n - in - i - mw/	I bring you (pl.)
gbi:ngo:	/g - bi:-n - igw - i/	we bring you
gbi:ngo:m	/g - bi:-n - igw - i - mw/	we bring you (pl.)

6.2.1 Direct Local Forms. The first thing that we notice about the direct local forms is the appearance of the object marker i. This marker appears in exactly the same position in the construction as the object markers am/o: and a: between the TSA markers [w in (15a), n and d in (15b)] and the negative si: as shown by the examples in (15).

(15) (a) gba:škwisi: /g-ba:škiz-w-i-si:/
 you (don't) shoot me
 gba:škwasi: /g-ba:škiz-w-a:-si:/
 you (don't)shoot him
 (b) ggi:we:wžisi: /g-gi:we:wi-n-i-si:/
 you (don't) take me home
 ggi:we:wdo:si:n /g-gi:we:wi-d-o:-si:-n/
 you (don't) take it home

We therefore revise OA I (52) (III) as (16).

(16) Object Agreement I (revised)

(a) V \Rightarrow V-i / _____ 2:[1]
 V-a: / _____ 2:[AN]

(b) V \Rightarrow V-OAI / _____ 2:[INAN]

The second thing we notice about the direct local paradigm is the number agreement markers. Our current formulation of Non-third Plural Spelling (37) (III) will supply min as a non-ergative first person plural marker, but will not supply mw as the ergative second person plural marker. But we notice that the allomorphs na:ni and wa: appear only where there are third person objects. Therefore we revise Non-third Plural Spelling as (17).

(17) Non-third Plural Spelling (revised)

(a) Min \Rightarrow na:ni / _____ 2:[3]
 min

(b) MW \Rightarrow wa: / _____ 2:[3]
 mw

We also notice that the form gbi:žmi is marked only for the plurality of the first person. This is why we formulated the rule of Non-third plural Agreement (36) (III) as we did. But we have to revise the rule to get the first plural object to trigger agreement.

(18) Non-third Plural Agreement

(a) V \Rightarrow V-MIN / _____ T:[1PL]

(b) V \Rightarrow V-MW / _____ 1:[2PL]

Using the disjunctive ordering convention forms showing both first and second person plural will end up being marked only for first person plural.

6.2.1.1 A Historical Note. It may not be clear at this point why we choose to revise Non-third Plural Spelling (17) the way we did.

In particular the MIN clause of the original (37) (III) worked, and yet we changed it. The reason that we did is basically comparative. Therefore let us look at the development of the system in two closely related dialects.

The historical situation as reconstructed by Goddard (1967, personal communication) involves a contrast of two paradigms in transitive verbs, one used when the object is definite--the absolute, and one used when the object is indefinite--the objective.

- (19) *newa:pama:hmena elenyiwa 'We look at the man.' (absolute)
 *newa:pama:na:na elenyiwa 'We look at a man.' (objective)

For whatever reason the system collapsed and unified into a single paradigm, but the way that happened differs from language to language and even from dialect to dialect of the same language as we shall see.

The relevant parts of the transitive paradigms are given below.

- (20) (a) IT 'see it'

	absolute	objective
we (exc.)	*newa:panta:hmena	*newa:pante:na:ni
we (inc.)	*kewa:panta:hmena	*kewa:pante:nawi
you (pl.)	*kewa:panta:hmwa	*kewa:pante:na:wi

- (21) (b) TA 'see him' non-local

	absolute	objective
we (exc.)	*newa:pama:hmena	*newa:pama:na:na
we (inc.)	*kewa:pama:hmena	*kewa:pama:nawa
you (pl.)	*kewa:pama:hmwa	*kewa:pama:wa:wa

- (c) TA local (no objective form)

- (i) direct 'see me/us'

*kewa:pami
 *kewa:pamihmwa
 *kewa:pamihmena

(ii) inverse 'see you'

*kewa:pame²te

*kewa:pame²ehmwa

*kewa:pame²ehmena

Now let us look at how three very closely related dialects treated these forms. The dialects we will look at are the Central dialect which is the main topic of this work, the Eastern dialect, spoken east of the Bruce peninsula, and the dialect spoken on Parry Island (data from Rogers 1975a, 1975b), which is essentially on the border between the two dialects.³

(22) (a) TI 'see it'

	Central	Parry Island	Eastern
we (exc.)	nwa:bnda:na	nwa:bənda:na:n/-min	nwa:bnda:min
we (inc.)	gwa:bnda:na:	gwa:bənda:na:n/-min	gwa:bnda:min
you (pl.)	gwa:bnda:na:wa:	gwa:bənda:na:wa:	gwa:bnda:na:wa:

(b) TA non-local (see him)

we (exc.)	nwa:bma:na:	nwa:bma:na:n/ nwa:bma:min	nwa:bma:na:n
we (inc.)	gwa:bma:na:	gwa:bma:na:n/ gwa:bma:min	gwa:bma:na:n
you (pl.)	gwa:bma:wa:	gwa:bma:wa:	gwa:bma:wa:

(c) TA local

(i) direct

gwa:bam	gwa:bam	gwa:bam
gwa:bmim	gwa:bmim	gwa:hmim
gwa:bmimi	gwa:bmimin	gwa:bmimin

(ii) inverse

gwa:bmin	gwa:bmin	gwa:bmin
gwa:bminim	gwa:bminim	gwa:bminim
gwa:bmigo:	gwa:bmigo:	}gwi:bminmin
gwa:bmigo:m	gwa:bmigo:m	

Now notice what the Non-third Plural Spelling rule must be for each of these dialects.

(23) (a) Central [= (17)]

(i) MIN \Rightarrow na:ni / ____ 2:[3]
min

(ii) MW \Rightarrow wa: / ____ 2:[3]
mw

(b) Parry Island

(i) MIN \Rightarrow na:ni / ____ 2:[3] (optional)
min

(ii) MW \Rightarrow wa: / ____ 2:[3]
mw

(c) Eastern

(i) MIN \Rightarrow na:ni / ____ 2:[3, AN]
min

(ii) MW \Rightarrow wa: / ____ 2:[3]
mw

This cross dialectal data supports our treatment of the allomorphy of the non-first plural morphemes as being conditioned by the person of the object, an unusual conditioning factor.

6.2.1.2 Modal Environment. There is one more quirk that involves Non-third Plural Spelling (17). When a modal morpheme, bani or dig, follows MIN, it is spelled min, regardless of the person of the object.

- (24) (a) nwa:bma:nə: /n-wa:bam- \emptyset -a:-na:ni/
we (exc.) see him
nwa:bma:mna:ba /n-wa:bam- \emptyset -a:-min-(a:)bani/
we (exc.) saw him
nwa:bma:mna:dig /n-wa:bam- \emptyset -a:-min-(a:)dig
we (exc.) supposedly see him
- (b) nwa:bmig^wna: /n-wa:bam- \emptyset -igw-i-na:ni/
he sees us (exc.)
nwa:bmig^wmina:ba /n-wa:bam- \emptyset -igw-i-min-(a:)bani/
he saw us (exc.)

nwa:bmig ^W mina:dig	/n-wa:bam-∅-igw-i-min-(a:)dig/ he supposedly sees us (exc.)
(c) nwa:bnda:na:	/n-wa:bam-d-am-n-na:ni/ we (exc.) see it
nwa:bnda:mna:ba	/n-wa:bam-d-am-n-min-(a:)bani/ we (exc.) see it
nwa:bnda:mna:dig	/n-wa:bam-d-am-n-min-(a:)dig/ we (exc.) supposedly see it

Therefore we revise (17) as (25).

(25) Non-third Plural Spelling

(a) MIN	=>	min /	_____	bani
				dig
		na:ni	/	_____ 2:[3]
		min		
(b) MW	=>	wa: /	_____	2:[3]
		mw		

6.2.2 Inverse Local Forms. The inverse local forms appear to be somewhat problematic. First there is the matter of the substitution of the forms gbi:ngo: 'you are seen' and gbi:ngo:m 'you (pl.) are seen' for the expected form *gbi:nnimi /g-bi:-n-in-i-min/ (a form which is retained in dialects to the east of the dialect under discussion). We feel that the appearance of these forms in this place in the paradigm is no accident. We would like to suggest that the morpheme in that appears in the forms gbi:nin and gbi:nnim is an allomorph of the passive igw, and that the i is the ISA i that we have discussed above in relation to the non-local inverse forms. If this is correct then the appearance of the substitute forms strengthens our position considerably, because it means that the allomorphy of in and igw has broken down at a weak point. The basic allomorph igw has reappeared and taken on a lengthened form, which we claimed was only different for the short contraction by an ad hoc mark. So in fact we are saying that the

forms aren't so much borrowed as "rectified".

In order to get this last part of the TA paradigm we add a rule of morpheme substitution which puts in in place of igw when the object is first person singular. We will treat this rule as a spelling rule.

(26) in Substitution

$igw \Rightarrow in / \text{ ____ } 2:[1SG]$

Finally we need to get rid of the first person plural morpheme MIN in the inverse forms which we do by an ad hoc morpheme deletion rule because the contrast is lost in the form allowing the second person plural to appear.

(27) MIN Deletion

$MIN \Rightarrow \emptyset / igw-i- \text{ ____ } -MW$

This approach has one drawback. We now have to split Non-third Plural Agreement (18) into two rules to mark the verb with both MIN and MW and let the disjunctive ordering of the spelling rule (25) take care of eliminating (by not spelling) the second person morpheme MW. The second revision of Non-third Plural Agreement is given in (28) and (29).

(28) First Plural Agreement

$V \Rightarrow V-MIN / \text{ ____ } T:[1PL]$

(29) Second Plural Agreement

$V \Rightarrow V-MW / \text{ ____ } 1:[2PL]$

The derivations of the forms gbi:nnim 'I bring you (pl.)' and gbi:ngo:m 'we bring you (pl.)' are given in (30) [on the next page] and the derivation of gbi:žmi 'you (pl.) bring us' is given in (31) [on the following page]. These derivations show how the system works.

(30)				
Input to Rules	bi: BRING	1:[1] 2:[2PL] I YOU(PL)	bi: BRING	1:[1PL] 2:[2PL] WE(E) YOU(PL)
TSA (50)(III)	bi:-TSAC[A]	1:[1] 2:[2PL]	bi:-TSAC[A]	1:[1PL] 2:[2PL]
Passive (58)(III)	bi:-TSAC[A]-igw	CH:[1] 1:[2PL]	bi:-TSAC[A]-igw	CH:[1PL] 1:[2PL]
ISA (28)(III)	bi:-TSAC[A]-igw-ISAC[A]	CH:[1] 1:[2PL]	bi:-TSAC[A]-igw-ISAC[A]	CH:[1PL] 1:[2PL]
Chomeur Advancement (23)(III)	bi:-TSAC[A]-igw-ISAC[A]	2:[1] 1:[2PL]	bi:-TSAC[A]-igw-ISAC[A]	2:[1PL] 1:[2PL]
Person Agreement (35)(III)	gbi:-TSAC[A]-igw-ISAC[A]	2:[1] 1:[2PL]	gbi:-TSAC[A]-igw-ISAC[A]	2:[1PL] 1:[2PL]
First Plural Agreement (28)	---		gbi:-TSAC[A]-igw-ISAC[A]-MIN	2:[1PL] 1:[2PL]
Second Plural Agreement (29)	gbi:-TSAC[A]-igw-ISAC[A]-MW	2:[1] 1:[2PL]	gbi:-TSAC[A]-igw-ISAC[A]-MIN-MW	2:[1PL] 1:[2PL]
TSA Spelling (46 (46)(III)	gbi:nigw-ISAC[A]-MW	2:[1] 1:[2PL]	gbi:nigw-ISAC[A]-MIN-MW	2:[1PL] 1:[2PL]
ISA Spelling (26)(III)	gbi:nigwi-MW	2:[1] 1:[2PL]	gbi:nigwi-MIN-MW	2:[1PL] 1:[2PL]
MIN Deletion (27)	---		gbi:nigwi-MW	2:[1PL] 1:[2PL]
Non-third Plural Spelling (25)	gbi:nigwimw	2:[1] 1:[2PL]	gbi:nigwimw	2:[1PL] 1:[2PL]
<u>in</u> Substitution (26)	gbi:ninimw	2:[1] 1:[2PL]	---	
Morphophonemics	gbi:nnim		gbi:ngo:m	

(31)

Input to Rules	bi:	1:[2PL]	2:[1PL]
	BRING	YOU(PL)	WE(E)
TSA (50)(III)	bi:-TSA[A]	1:[2PL]	2:[1PL]
OA I (16)	bi:-TSA[A]-i	1:[2PL]	2:[1PL]
Person Agreement (35)(III)	gbi:-TSA[A]-i	1:[2PL]	2:[1PL]
First Plural Agreement (28)	gbi:-TSA[A]-i-MIN	1:[2PL]	2:[1PL]
Second Plural Agreement (29)	gbi:-TSA[A]-i-MIN-MW	1:[2PL]	2:[1PL]
TSA Spelling (46)(III)	gbi:ni-MIN-MW	1:[2PL]	2:[1PL]
Non-third Plural Spelling (25)	gbi:nimin-MW	1:[2PL]	2:[1PL]
Morphophonemics	gbi:žmi		

FOOTNOTES

CHAPTER VI

¹The morphemic analysis represented here is slightly different from that given in Chapter III. The reasons for this new analysis will be taken up below.

²We depart from the usual reconstruction of the protosegment normally represented as *θ, and give *ɬ, a lateral affricate, because we feel that *ɬ makes more phonetic sense in terms of the reflexes of this protosegment than *θ does. For example, *ɬ accounts for both the lateral character of some of the reflexes and for the obstruent character (sometimes only morphophonemically obstruent) of other reflexes.

³It may be worth noting the Eastern dialect compares very closely in many of the following respects with western and northern dialects such as those reported by Baraga (1878) and Piggott and Moosup (1973).

CHAPTER VII

VERB AGREEMENT III

7.0 In this chapter we will examine and analyze the inflectional morphology of the conjunct verb system of Ojibwa. Ojibwa, like other Algonkian languages, is unusual among the languages of the world in having a dual inflectional system. One set of forms is used in independent clauses and the other used in dependent and other complex constructions. The verb inflection used in the dependent contexts is called conjunct.

In this chapter we will propose an analysis that is a radical departure from traditional analyses of Algonkian conjunct inflection. Traditionally independent and conjunct verbs have been viewed as comprising two distinct systems. This was necessary because the distribution of inverse forms in the TA paradigm is radically different for independent and conjunct conjugation. However with our discovery of a well motivated passive analysis for inverse forms, we have opened the way to treating the difference between independent and conjunct forms as allomorphy, leaving the distribution of inverse forms as a problem relating to the conditions under which passivization takes place. We will call our analysis the allomorphy hypothesis. Its claims are that the independent and conjunct verb systems of Ojibwa represent a unified system. The differences between corresponding independent and con-

conjunct verbs arise either from differing conditions on passivization or from allomorphic differences or both.

7.1 Conjunct Environment. The specification of the environment that triggers conjunct inflection is not simple, because while the most common use of the conjunct is in plainly embedded clauses like those in (1), there are contexts in which embedded clauses (mostly direct quote forms) have independent verb forms, as those in (2), and there are contexts in which apparently independent clauses have dependent verbs, as those in (3).

- | | | |
|---------|---|--|
| (1) (a) | ngike:nma: gi:-ni-ma:ja:d
1-KNOW-3 PAST-LEAVE-3 (conjunct) | I know that he
left. |
| (b) | e:pi:ci-wi:sniya:ŋg, gi:-bi-dgošno:g
WHILE-EAT-1PL (conjunct) ARRIVE-COMING-3-PL | They arrived
while we were
eating. |
| (c) | ngi:-ža:mi e:nda:d
1-PAST-GO-PL (WHERE)-LIVE-3 (conjunct) | We went to his
place. |
| (d) | gci-wa:ga:kwad me:njminanŋ aw nini
BIG-AXE (WHICH)-HOLD-3 THAT MAN
(conjunct) | (That's) a big
axe that man
is holding. |
| (2) (a) | "gga-wi-wi:snimi," gi:-kido gi:wē:
12 FUT-GO-EAT-PL PAST-SAY SO-THE-STORY-GOES
(independent) | "Let's go eat,"
he said.
(speaker did
not personally hear him say it) |
| (b) | bji:nag go gi:-ni-ma:ja: ndine:ndam.
EPMH PAST-LEAVE-3 1-THINK
A-SHORT-TIME-AGO (independent) | I think he just
left. |
| (3) (a) | we:ne:š ga:-gi:špnado:yan?
WHAT-THEN (WHICH)-PAST-BUY-2 (conjunct) | What did you
buy? |
| (b) | a:ni:š e:nnoki:d?
WHICH-THEN (WHICH)-WAY-WORK-3 (conjunct) | What's his job? |
| (c) | mi: sa wa:baŋg ji-ma:ja:yaŋg
TRULY EMPH TOMORROW FUT-MOVE-12 (conjunct) | We'll (inc.) go
tomorrow. |
| (d) | gi:špin daš nini da:ŋgnaŋg iw, a:bdig wi:-nbod.
IF MAN TOUCH-IT-3 THAT NECESSARILY
FUT-DIE-3 | If (any) man [not
woman] touches
it, he shall die. |
| (e) | be:giš na:ji-bo:ni-gmiwaŋg.
HOPEFULLY EMPH FUT-STOP-RAIN 3 (conjunct) | I hope it stops
raining. |

cedes the conjunct subject agreement rule, and the allomorphs of ISA are not affected by its operation as the examples of (6) show.

(6)	independent		dependent	
Set I	špa:	/ašp-ya:-w/	špa:g	/ašp-ya:-g/ it is high
Set II	ginde:	/agim-de:-w/	ginde:g	/agim-de:-g/ it is counted
Set III	wi:nad	/wi:n-ad-w/	wi:nak	/wi:n-ad-g/ it is dirty
Set IV	mškawdin	/miškawad-in-w/	mškawdiŋg	/miškawad-in-g/ it is frozen
Set V	na:ŋan	/na:ng-an-w/	na:ŋaŋg	/na:ng-an-g/ It is light (of weight)

This fact allows us to treat the difference in the subject agreement rule as a simple allomorphy, in line with our hypothesis.

(7) Person Agreement (third person clause) (revised) [cf. (35) (III)]

V ==> V-g /D ____ 1:[INAN]
 w-V / ____ E:[3]
 V-w / ____ 1:[3]

Furthermore we can restrict the Absolutive Plural Agreement rule (39) (III) from operating in the context of D. This move will turn out to have nice consequences later in the analysis.

7.3 AI Verbs. Below in (8) are given the independent and conjunct paradigms of gi:we:d 'go home, return.' They exemplify the morphology of the conjunct allomorphs.

(8)	independent		dependent	
ggi:we:	/g-gi:we:/ 2	gi:we:yan	/gi:we:-an/ 2	you go home
ngi:we:	/n-gi:we:/ 1	gi:we:ya:n	/gi:we:-a:n/ 1	I go home.
gi:we:	/gi:we:-w/ 3	gi:we:d	/gi:we:-d/ 3	he goes home

ggi:we:m	/g-gi:we-mw/ 2	gi:we:ye:g	/gi:we:-e:gw/ 2PL	you (pl.) go home
ggi:we:mi	/g-gi:we:-min/ 1	gi:we:yaŋg	/gi:we:-angw/ 1(I)PL	we (inc.) go home
ngi:we:mi	/n-gi:we:-min/ 1	gi:we:ya:ŋg	/gi:we:-a:ŋg/ 1(E)PL	we (exc.) go home
gi:we:wag	/gi:we:-w-ag/ 1	gi:we:wa:d	/gi:we:-wa:-d/ 1	they go home

The analysis of these forms seems rather straightforward if the non-third plural suffixes are treated as portmanteau morphemes including both the subject and the number marker in one indivisible morpheme. However, while this can be made consistent with the allomorphy hypothesis, there is another possible hypothesis regarding the plural marking.

(9) Subject Omission

In conjunct environments and in the presence of non-third person plural markers, subject markers do not appear.

In fact an examination of TA verbs, which we will undertake below, will show that (9) is an important principle of Ojibwa conjunct inflection.¹

Now let us look at the third person plural forms. These forms appear at first to be for the allomorphy hypothesis, because in the independent form the order of morphemes is w 'third subject' followed by ag 'animate plural,' but in the conjunct form the order is wa: 'third plural' followed by d 'third subject.' Clearly either the allomorphy hypothesis is wrong or one of these pairs are not allomorphs. There are several kinds of evidence independent of the allomorphy hypothesis that suggest that ag and wa: are not allomorphs. First there are more complex inflectional forms which show that d and w can

be considered to fall in the same slot, and that wa: and ag do not.

(10) (a) negative

gi:we:si:wag	/gi:we:-si:-w-ag/	They (don't) go home.
gi:we:swa:d	/gi:we:-siw-wa:-d/ ²	(that) they don't go home

(b) preterite

gi:we:bani:g	/gi:we:-w-bani-ag/	They went home.
gi:we:wa:pa	/gi:we:-wa:-d-bani/	(that) they went home

Second we noted in the treatment of II verbs above that the marker an 'inanimate plural' does not appear in any conjunct forms, nor does anything else appear to mark plurality. At that time we simply brushed over that fact by stating that we would ad hocly constraint the relevant part of the Absolutive Plural rule (39) (III) from applying. But now remember that both an and ag are allomorphs, assigned by the Absolutive Plural (39) (III). Thus the treatment of ag and wa: as independent of one another allows us to say that the whole rule (39) (III) which assigns third plurals in independent forms does not operate in conjunct environments. Instead, there is a special, independent (and independently ordered) rule which assigns wa: as '3rd plural' in the context of D.^{3,4}

(11) Third Plural Conjunct Agreement

V ==> V-wa: / D ____ 1:[3PL, AN]

Now we can revise Person Agreement (35) (III) and (7) as (12).

(12) Person Agreement (revised)

(a) V ==> V-an / D ____ 1:[2]⁵

g-V / ____ 1:[2]

(b) V ==> V-a:n / D ____ 1:[1]

n-V / ____ 1:[1]

- (c) V ==> V-g / D _____ 1:[INAN]
 V-d / D _____ 1:[3]
 w-V / _____ E:[3]
 V-w / _____ 1:[3]

We can still use First Plural (28) (VI) and Second Plural (29) (VI) as they stand by simply revising Non-third Plural Spelling (25) (VI) as (13).

(13) Non-third Plural Spelling (revised)

- (a) MIN ==> angw / / D _____ T:[21]⁶
 a:ng / D _____
 min / _____ bani
 dig
 na:ni / _____ 2:[3]
 min
 (b) MW ==> e:gw / D _____
 wa: / _____ 2:[3]
 mw

Finally we attempt a preliminary formalization of Subject Omission (9).

(14) Subject Omission

- an } ==> ∅ / _____ 1:[1/2 PL]
 a:n }

Now let us recap the order in the block of agreement rules adding the new rules and new versions of old rules [cf. (19c) (IV)].

- (15) Inanimate Obviation (18) (III)
 Third Plural Conjunct (11)
 Person Agreement (12)
 First Plural (28) (VI)
 Second Plural (29) (VI)
 Ergative Plural (38) (III)
 Modal Attachment (22) (III)
 Dubitative Attachment (23) (III)
 Absolutive Plural (39) (III)

The rule Third Plural conjunct must precede Person Agreement (12) to get the morpheme order wa:-d which we see in gi:we:wa:d in (8).

7.4 TI Verbs. In (16) are given the independent and conjunct paradigms of wa:bndang 'see s.t.'. They exemplify the morphology of the conjunct allomorphs.

(16) independent

gwa:bnda:n	/g-wa:bam-d-am-n/ 2 OAI OAI	you see it
nwa:bnda:n	/n-wa:bam-d-am-n/ 2 OAI OAI	I see it
wwa:bnda:n	/w-wa:bam-d-am-n/ 3 OAI OAI	he sees it
gwa:bnda:na:wa:	/g-wa:bam-d-am-n-(a:)wa:/ 2 OAI OAI 2PL	you (pl.) see it
gwa:bnda:na:	/g-wa:bam-d-am-n-na:ni/ 2 OAI OAI 1PL	we (inc.) see it
nwa:bnda:na:	/n-wa:bam-d-am-n-na:ni/ 1 OAI OAI 1PL	we (exc.) see it
wwa:bnda:na:wa:	/w-wa:bam-d-am-n-(a:)wa:/ 3 OAI OAI 3PL	they see it

conjunct

wa:bndaman	/wa:bam-d-am-an/ OAI 2	(that)you see it
wa:bndama:n	/wa:bam-d-am-a:n/ OAI 1	(that)I see it
wa:bndang	/wa:bam-d-am-d/ OAI 3	(that)he sees it
wa:bndame:g	/wa:bam-d-am-e:gw/ OAI 2PL	(that)you (pl.) see it
wa:bndamang	/wa:bam-d-am-angw/ OAI 1(I)PL	(that)we (inc.) see it
wa:bndama:ng	/wa:bam-d-am-a:ng/ OAI 1(E)PL	(that)we (exc.) see it

wa:bndamwa:d /wa:bam-d-am-(i)wa:-d/ (that) they see it
OAI 3PL 3

The only modification of our system necessary to handle these forms is to limit OA II (43) (III) not to apply in conjunct environments. In addition we note that the allomorph d supplied by Person Agreement (12) marking third person subject has a variant g when it appears in the phonological environment of a preceding consonant. Therefore we propose a rule of g substitution (17).

(17) g substitution

d ==> g / C _____

It seems like this is a reasonable thing to do as opposed to writing the allomorphy into Person Agreement (12) because some speakers alternate d and g freely in the context of the negative plus obviative.

(18) nba:swinid /niba:-siw-ini-d/ (that) he (obv.) is not asleep
nba:swinig /niba:-siw-ini-g/

Finally we note from the forms in (19) that there is no marker in the conjunct to indicate the plurality of the object. This follows from the restriction we placed on Absolutive Plural in §7.2 where we limited the application of the rule to non-conjunct environments to account for the neutralization of plurality in conjunct forms of II verbs.

(19) independent

gwa:bnda:nan
/g-wa:bam-d-am-n-an/
2 OAI OAI 3PL

nwa:bnda:nan
/n-wa:bam-d-am-n-an/
1 OAI OAI 3PL

wwa:bnda:nan
/w-wa:bam-d-am-n-an/
33 OAI OAI 3PL

conjunct

wa:bndaman
/wa:bam-d-am-an/
OAI 2
you see them (inan.)

wa:bndama:n
/wa:bam-d-am-a:n/
OAI 1

I see them (inan.)
wa:bndaŋg
/wa:bam-d-am-d/
OAI 3
he sees them (inan.)

gwa:bnda:na:wa:n	wa:bndame:g
/g-wa:bam-d-am-n-(a:)wa:-an/	/wa:bam-d-am-e:gw/
2 OAI OAI 2PL 3PL	OAI 2PL
	you (pl.) see them (inan.)
gwa:bnda:na:nin	wa:bndamaŋg
/g-wa:bam-d-am-n-na:ni-an/	/wa:bam-d-am-angw/
2 OAI OAI 1PL 3PL	OAI 1(I)PL
	we (inc.) see them (inan.)
nwa:bnda:na:nin	wa:badama:ŋg
/n-wa:bam-d-am-n-na:ni-an/	/wa:bam-d-am-a:ng/
1 OAI OAI 1PL 3PL	OAI 1(E)PL
	we (exc.) see them (inan.)
wwa:bnda:na:wa:n	wa:bndamwa:d
/w-wa:bam-d-am-n-(a:)wa:-an/	/wa:bam-d-am-(i)wa:-d/
3 OAI OAI 3PL 3PL	OAI 3PL 3
	they see them (inan.)

7.5 TA Verbs. In this section we will work our way through the conjunct paradigm of an example TA verb wa:bma:d 'see s.o.', examining it part by part to see that TA conjunct morphology is also analyzable in an insightful way using the allomorphy hypothesis.

7.5.1 Third Person Object Forms. The forms involving third person singular objects are given in (20).

(20) independent

gwa:bma:	/g-wa:bam- \emptyset -a:/	you see him
	2 OAI	
nwa:bma:	/n-wa:bam- \emptyset -a:/	I see him
	1 OAI	
wwa:bma:n	/w-wa:bam- \emptyset -a:-an/	he sees him (obv.)
	3 OAI OBV	
gwa:bma:wa:	/g-wa:bam- \emptyset -a:-wa:/	you (pl.) see him
	2 OAI 1PL	
gwa:bma:na:	/g-wa:bam- \emptyset -a:-na:ni/	we (inc.) see him
	2 OAI 1PL	
nwa:bma:na:	/n-wa:bam- \emptyset -a:-na:ni/	we (exc.) see him
	1 OAI 1PL	
wwa:bma:wa:n	/w-wa:bam- \emptyset -a:-wa:-an/	they see him (obv.)
	3 OAI 3PL OBV	

conjunct

wa:bmad	/wa:bam- \emptyset -a:-ad/ OAI 2	(that) you see him
wa:bmad	/wa:bam- \emptyset -a:-ag/ OAI	(that) I see him
wa:bma:d	/wa:bam- \emptyset -a:-d/ OAI 3	(that) he sees him
wa:bme:g	/wa:bam- \emptyset -a:-e:gw/ OAI 2PL	(that) you (pl.) see him
wa:bmaŋg	/wa:bam- \emptyset -a:-angw/ OAI 1(I)PL	(that) we (inc.) see him
wa:bmaŋgid	/wa:bam- \emptyset -a:-angid/ OAI 1(E)PL	(that) we (exc.) see him
wa:bma:wa:d	/wa:bam- \emptyset -a:-wa:-d/ OAI 3PL 3	(that) they see him

The analysis of these forms requires only two minor revisions of our current analysis. The first is the recognition of a hitherto unnoticed morphophonemic process which deletes the a: marking third person object when the following morpheme starts with a vowel. The evidence that this is phonological comes from the negative and dubitative versions of the relevant forms. (In the dubitative a w is inserted before vowel initial person/number suffixes.)

- (21) (a) wa:bmag /wa:bam- \emptyset -a:-ag/
(that) I see him
wa:bma:wgẽ: /wa:bam- \emptyset -a:-(w)ag-e:n/
(that) I supposedly see him
wa:bma:swag /wa:bam- \emptyset -a:-siw-ag/
(that) I don't see him
- (b) wa:bmad /wa:bam- \emptyset -a:-ad/
(that) you see him
wa:bma:wdẽ: /wa:bam- \emptyset -a:-(w)ad-e:n/
(that) you supposedly see him
wa:bma:swad /wa:bam- \emptyset -a:-siw-ad/
(that) you don't see him
- (c) wa:bmaŋg /wa:bam- \emptyset -a:-angw/
(that) we (inc.) see him

wa:bma:wŋgidẽ:	/wa:bam-∅-a:-(w)angid-e:n/ (that) we (exc.) supposedly see him
wa:bma:swaŋg	/wa:bam-∅-a:-siw-angw/ (that) we (exc.) don't see him
(d) wa:bmaŋgid	/wa:bam-∅-a:-angid/ (that) we (exc.) see him
wa:bma:wŋgidẽ:	/wa:bam-∅-a:-(w)angid-e:n/ (that) we (exc.) supposedly see him
wa:bma:swaŋgid	/wa:bam-∅-a:-siw-angid/ (that) we (exc.) don't see him
(e) wa:bme:g	/wa:bam-∅-a:-e:gw/ (that) you (pl.) see him
wa:bma:we:gwẽ:	/wa:bam-∅-a:-(w)e:gw-e:n/ (that) you (pl.) supposedly see him
wa:bma:swe:g	/wa:bam-∅-a:-siw-e:gw/ (that) you (pl.) don't see him

The second revision of our analysis involves the allomorphy of a:n/ag 'first person (subject)', an/ad 'second person (subject)', and a:ng/angid 'first person (exc.) plural'.⁷ We postpone until a later section the revision of the affected rules until we have discussed all the instances of each allomorph.

Finally we note that in this paradigm two regularities of the conjunct that we have noted before reappear. First there is no mark for the obviation of objects in the conjunct. This mark in independent forms is an which is supplied by Absolutive Plural (39) (III). We have twice noticed that (39)(III) does not operate in conjunct environments. Here again that restriction explains another difference between independent and conjunct verbs. The second regularity here is that subjects are unmarked in the we (inc.) and we (exc.) forms and in the you (pl.) form in accordance with Subject Omission (14).

The forms involving third person plural objects are given in (22).

(22) independent

gwa:bma:g	/g-wa:bam-∅-a:-ag/ 2 OAI 3PL	you see them
-----------	---------------------------------	--------------

nwa:bma:g	/n-wa:bam-∅-a:-ag/ 1 OAI 3PL	I see them
wwa:bma:n	/w-wa:bam-∅-a:-an/ 3 OAI OBV	he sees them (obv.)
gwa:bma:wa:g	/g-wa:bam-∅-a:-wa:-ag/ 2 OAI ?PL 3PL	you (pl.) see them
gwa:bma:na:nig	/g-wa:bam-∅-a:-na:ni-ag/ 2 OAI 1PL 3PL	we (inc.) see them
nwa:bma:na:nig	/n-wa:bam-∅-a:-na:ni-ag/ 1 OAI 1PL 3PL	we (exc.) see them
wwa:bma:wa:n	/w-wa:bam-∅-a:-wa:-an/ 3 OAI 3PL OBV	they see them (obv.)

conjunct

wa:bmadwa:	/wa:bam-∅-a:-ad-wa:/ OAI 2 3PL	(that) you see them
wa:bmagwa:	/wa:bam-∅-a:-ag-wa:/ OAI 1 3PL	(that) I see them
wa:bma:wa:d	/wa:bam-∅-a:-wa:-d/ OAI 3PL 3	(that) he sees them
wa:bme:gwa:	/wa:bam-∅-a:-e:gw-wa:/ OAI 2PL 3PL	(that) you (pl.) see them
wa:bmaŋgwa:	/wa:bam-∅-a:-angw-wa:/ OAI 1(I)PL 3PL	(that) we (inc.) see them
wa:bmaŋgdwa:	/wa:bam-∅-a:-angid-wa:/ OAI 1(E)PL 3PL	(that) we (exc.) see them
wa:bma:wa:d	/wa:bam-∅-a:-wa:-d/ OAI 3PL 3	(that) they see them

At this point a substantial revision of the rule of Person Agreement (12) is necessary. In the present version the agreements of first, second, and third person are all clauses of the same rule. But the forms in (22) show that while the first and second person markers appear before the wa: marking third plural, the third person marker appears after the wa:. Thus we have to split Person Agreement (12) into

two rules one ordered before the rule(s) supplying wa: and one afterwards. Before modifying Person Agreement, we will revise the rules supplying wa:. We currently have two rules, Third Plural Conjunct (11) and Ergative Plural (38) (III). We will revise Third Plural Conjunct so that it supplies wa: in the presence of both third plural subjects and third plural objects. This is the same thing that we did to account for the marking of first plural in First Plural (28) (VI).⁸

(23) Third Plural Conjunct (revised)

$$V \Rightarrow V\text{-wa:} / D \text{ ____ } T:[3PL, AN]$$

Now we are ready to revise and reorder Person Agreement. The revision is given in (24) and (25). In addition we will propose a version of a spelling rule to account for the new allomorphs.

(24) Non-third Person Agreement

$$(a) V \Rightarrow V\text{-AN} / D \text{ ____ } 1:[2]$$

$$g\text{-V} / \text{ ____ } 1:[2]$$

$$(b) V \Rightarrow V\text{-A:N} / D \text{ ____ } 1:[1]$$

$$n\text{-V} / \text{ ____ } 1:[1]$$

(25) Third Person Agreement

$$V \Rightarrow V\text{-g} / D \text{ ____ } 1:[INAN]$$

$$v\text{-d} / D \text{ ____ } 1:[3]$$

$$w\text{-V} / \text{ ____ } E:[3]$$

$$v\text{-w} / \text{ ____ } 1:[3]$$

(26) Non-third Person Spelling

$$(a) AN \Rightarrow ad / \text{ ____ } 2:[3 AN]$$

an

$$(b) A:N \Rightarrow ag / \text{ ____ } 2:[3 AN]$$

a:n

It is worth mentioning at this point that Non-third Plural Spelling (13) also has clauses sensitive to third person objects. Even more to the point the version of Non-third Plural Spelling (23c) which appears in the Eastern dialect is also sensitive to the (grammatical) animacy of the object.

Now we are ready to order the rules. The crucial forms for showing the ordering of the new agreement rules contain the morpheme bani attached by Modal Agreement (22) (III).

- | | | | |
|----------|--------------|---------------------------------------|--|
| (27) (a) | wa:bmagwa:ba | /wa:bam- \emptyset -a:-ag-wa:-bani/ | (that) I saw them
{ (that) he saw them
(that) they saw him
(that) they saw them |
| | | OAI 1 3PL | |
| (b) | wa:bma:wa:pa | /wa:bam- \emptyset -a:-wa:-d-bani/ | (that) they saw him
(that) they saw them |
| | | OAI 3PL 3 | |

These forms show that the order of the agreement rules must be as in

(28) [cf. (15)].

- (28) Inanimate Obviation (18) (III)
 Non-third Person Agreement (24)
 First Plural (28) (VI)
 Second Plural (29) (VI)
 Third Plural Conjunct (23)
 Ergative Plural (38) (III)
 Third Person Agreement (25)
 Modal Attachment (22) (III)
 Dubitative Attachment (23) (III)
 Absolutive Plural (39) (III)

Finally notice that our formulation of Third Plural Conjunct (23) accounts for the fact that forms like wa:bma:wa:d /wa:bam- \emptyset -a:-wa:-d/ are three ways ambiguous. Such forms refer equally to plural subjects and singular objects, plural objects and singular subjects, and to plural object and plural subjects. By having only one rule we get the effect of having only one mark appear in the case where both subject and object are plural. In the conjunct forms with plural objects the absolutive plural marker ag does not appear, again due to the restriction on Absolutive Plural (39) (III) that it does not operate in conjunct

environments.

At this point there is a construction that we are ready to examine which will be further evidence for the treatment of d and suffixal w as allomorphs. This construction is called the participle and functions as a kind of relative clause. In this construction plurality and obviation are marked by Absolutive Plural (39) (III) rather than by Third Plural Conjunct (23). Examples are given in (29).

(29) (a) changed conjunct

ga:-wa:bma:wa:d	the ones who saw him
/change - gi: - wa:bam - ∅ - a: - wa: - d/	
(WHO) PAST SEE TSA 3 3PL 3	
	obj subj

(b) ga:-wa:bma:jig	the ones who saw him
/change - gi: - wa:bam - ∅ - a: - d - i - ag/	
(WHO) PAST SEE TSA 3 3 PPL 3PL	
	obj subj

The three final morphemes of (29b) exactly parallel the three final morphemes of (30).

(30)	gi:-go:zwibni:g	They were hanging/sitting.
	/gi: - ago:zo - w - (i)bani - ag/	
	PAST HANG 3 PRET 3PL	
	subj	

Some speakers also get forms like (31) which prove beyond a shadow of a doubt that wa: and ag are not allomorphs.

(31)	ga:-wa:bma:wa:jig	the ones who saw them
	/change - gi: - wa:bam - ∅ - a: - wa: - d - i - ag/	
	(WHO) PAST SEE TSA 3 3PL 3 PPL 3PL	
	obj subj	

In addition most speakers get forms like (32) with explicit obviatives more easily. These show essentially the same thing, assuming that an and ag are supplied by the same rule.

(32)	ga:-wa:bma:wa:jin	the one(s) (obv.) who saw them
	/change - gi: - wa:bam - ∅ - a: - wa: - d - i - an/	
	(WHO) PAST SEE TSA 3 3PL 3 PPL OBV	
	obj subj	

In this study we will not explore the semantic differences between changed conjuncts and participles, both of which may be used in relative clauses of most types.

7.5.2 First Person Object Forms. Now let us turn to the portion of the TA conjunct paradigm that has first person singular objects.

(33)	independent		conjunct	
	<i>gwa:bam</i>	<i>/g-wa:bam-∅-i/</i> 2 OAI	<i>wa:bmiyan</i>	<i>/wa:bam-∅-i-an/</i> OAI 2 you see me
	<i>nwa:bmig</i>	<i>/n-wa:bam-∅-igw-i/</i> 1 PASS ISA	<i>wa:bmid</i>	<i>/wa:bam-∅-i-d/</i> OAI 3 he sees me
	<i>gwa:bmim</i>	<i>/g-wa:bam-∅-i-mw/</i> 2 OAI 2PL	<i>wa:bmiye:g</i>	<i>/wa:bam-∅-i-e:gw/</i> OAI 2PL you (pl.) see me
	<i>nwa:bmigo:g</i>	<i>/n-wa:bam-∅-igw-i-ag/</i> 1 PASS ISA 3PL	<i>wa:bmiwa:d</i>	<i>/wa:bam-∅-i-wa:-d/</i> OAI 3PL 3 they see me

The major difference between the independent and conjunct forms in this paradigm is that in the independent forms passive must apply as we discussed in Chapter VI but in the conjunct passivization in such forms is impossible as the forms in (34) show.

(34) (a)

(i)	<i>*wa:bmig^wyag</i>	<i>*/wa:bam-∅-igw-i-ag/</i> PASS ISA 1	(that) I am seen by him
(ii)	<i>wa:bmag</i>	<i>/wa:bam-∅-a:-ag/</i> OAI 1	(that) I see him
(iii)	<i>nwa:bmig</i>	<i>/n-wa:bam-∅-igw-i/</i> 1 PASS ISA	I am seen by him (=he sees me)
(iv)	<i>nwa:bma:</i>	<i>/n-wa:bam-∅-a:/</i> 1 OAI	I see him
(b)			
(i)	<i>*wa:bmig^wyagwa:</i>	<i>*/wa:bam-∅-igw-i-ag-wa:/</i> PASS ISA 1 3PL	(that) I am seen by them
(ii)	<i>wa:bmagwa:</i>	<i>/wa:bam-∅-a:-ag-wa:/</i> OAI 1 3PL	(that) I see them

(iii) nwa:bmigo:g	/n-wa:bam- \emptyset -igw-i-ag/ 1 PASS ISA 3PL	I am seen by them (=they see me)
(iv) nwa:bma:g	/n-wa:bam- \emptyset -a:-ag/ 1 OAI 3PL	I see them

The ungrammatical conjunct passives in (34) are constructed on a parallel with their independent counterparts but are hopelessly ungrammatical. This difference in passivizability is the only difference between the independent and conjunct forms of (33) outside of the allomorphies which we have already discussed. The agreement morphemes in the conjunct forms in (33) are all supplied straightforwardly by the current versions of the agreement and spelling rules we have. This is shown by the derivations of these forms in (35) [on the next page].

The forms involving first person exclusive plural are given in (36). The forms in parentheses are used on Walpole.

(36) independent

gwa:bmimi	/g-wa:bam- \emptyset -i-min/ 2 OAI 1PL	you see us
nwa:bmig ^W na:	/n-wa:bam- \emptyset -igw-i-na:ni/ 1 PASS ISA 1PL	he sees us (exc.)
gwa:bmimi	/g-wa:bam- \emptyset -i-min/ 2 OAI 1PL	you (pl.) see us
nwa:bmig ^W na:nig	/n-wa:bam- \emptyset -igw-i-na:ni-ag/ 1 PASS ISA 1PL 3PL	they see us (exc.)

conjunct

wa:bmiya:ŋg	/wa:bam- \emptyset -i-a:ng/ OAI 1(E)PL (that) you see us (exc.)
wa:bmiyŋgid	/wa:bam- \emptyset -i-angid/ OAI 1(E)PL
(wa:bmiy ^m iŋgid	/wa:bam- \emptyset -i-amingid/ OAI 1(E)PL (that) he sees us (exc.)

(35)

(a)

Input to rules	wa:bam	2:[1]	1:[2]	wa:bam	2:[1]	1:[2PL]
	SEE	I	YOU	SEE	I	YOU(PL)
TSA (50) (III)	wa:bam-TSA[A]	2:[1]	1:[2]	wa:bam-TSA[A]	2:[1]	1:[2PL]
OA I (16) (VI)	wa:bam-TSA[A]-i	2:[1]	1:[2]	wa:bam-TSA[A]-i	2:[1]	1:[2PL]
Non-third Person (24)	wa:bam-TSA[A]-i-AN	2:[1]	1:[2]	wa:bam-TSA[A]-i-AN	2:[1]	1:[2PL]
Second Plural (29) (VI)	--			wa:bam-TSA[A]-i-AN-MW	2:[1]	1:[2PL]
TSA Spelling (36) (III)	wa:bami-AN	2:[1]	1:[2]	wa:bami-AN-MW	2:[1]	1:[2PL]
Subject Omission (14)	--			wa:bami-MW	2:[1]	1:[2PL]
Non-third Person Spelling (26)	wa:bamian	2:[1]	1:[2]	--		
Non-third Plural Spelling (13)	--			wa:bamie:gw	2:[1]	1:[2PL]
Morphophonemics	wa:bmiyan			wa:bmiye:g		

(b)

Input to rules	wa:bam	2:[1]	1:[3]	wa:bam	2:[1]	1:[3PL]
	SEE	I	HE	SEE	I	THEY
TSA (50) (III)	wa:bam-TSA[A]	2:[1]	1:[3]	wa:bam-TSA[A]	2:[1]	1:[2PL]
OA I (16) (VI)	wa:bam-TSA[A]-i	2:[1]	1:[3]	wa:bam-TSA[A]-i	2:[1]	1:[2PL]
Third Plural Conjunct (23)	--			wa:bam-TSA[A]-iwa:	2:[1]	1:[2PL]
Third Person (25)	wa:bam-TSA[A]-id	2:[1]	1:[3]	wa:bam-TSA[A]-iwa:d	2:[1]	1:[2PL]
TSA Spelling (46) (III)	wa:bamid			wa:bamiwa:d		
Morphophonemics	wa:bmid			wa:bmiwa:d		

wa:bmiya:ŋg	/wa:bam-∅-i-a:ng/ OAI 1(E)PL (that)you (pl.) see us (exc.)
wa:bmiyŋgidwa:	/wa:bam-∅-i-angid-wa:/ OAI 1(E)PL 3PL
(wa:bmiyminŋgdwa:	/wa:bam-∅-i-amingid-wa:/ OAI 1(E)PL 3PL (that)they see us (exc.)

Again our analysis accounts for all the forms in this paradigm with the exception of the allomorphs of the first (exc.) plural morpheme. We are finally ready to revise Non-third Plural Spelling (13) as (37') for Walpole speakers and (37) for other speakers.

(37) Non-third Plural Spelling

(a) MIN ==>	angw / D ____ T:[21]
	angid / D ____ T:[3 AN]
	a:ng / D ____
	min / ____ bani dig
	na:ni / ____ 2:[3]
	min

(b) MW ==>	e:gw / D ____
	wa: / ____ 2:[3]
	mw

(37') Non-third Spelling (Walpole version)

(a) MIN ==>	angw / D ____ T:[21]
	amingid / D ____ 1:[3 AN]
	angid / D ____ 2:[3 AN]
	min / ____ gani dig
	na:ni / ____ 2:[3]
	min

(b) same as (37b)

The most notable thing about this paradigm in (36) is the application of Subject Omission (14). Until we saw this paradigm we had no crucial evidence for deciding between an analysis of the markers e:gw 'second plural', angw 'first (inc.) plural', a:ng and angid 'first (exc.) plural' as portmanteau morphemes including the subject marker versus an analysis involving the deletion of the subject marker. Looking ahead to this data we proposed a deletion analysis from the outset, now we have the first evidence for the correctness of this choice. Consider the derivation of the forms wa:bmaŋgid 'we (exc.) see him' and wa:bmiyŋgid 'he sees us (exc.)' in (38) [on the next page]. Only an analysis involving the deletion of the subject marker will account for the form wa:bmiyŋgid.

7.5.3 Second Person Object Forms. Now let us examine the portion of the TA conjunct paradigm involving second person singular objects. As we saw with the conjunct forms involving first person objects, passivization triggered by the person hierarchy does not apply in conjunct environments. Therefore the forms given in (39) are the only forms that have superficial second person objects. Again the forms that are used on Walpole are given in parentheses.

(39)	independent		
	<u>gwa:bmin</u>	/g-wa:bam- \emptyset -in-i/ 2 PASS ISA	I see you
	<u>gwa:bmig</u>	/g-wa:bam- \emptyset -igw-i/ 2 PASS ISA	he sees you
	<u>gwa:bmigo:</u>	/g-wa:bam- \emptyset -igw-i/ 2 PASS ISA	we see you

(38)

Input to rules	wa:bam	1:[1PL]	2:[3]	wa:bam	1:[3]	2:[1PL]
	SEE	WE(E)	HE	SEE	HE	WE(E)
TSA (50) (III)	wa:bam-TSA[A]	1:[1PL]	2:[3]	wa:bam-TSA[A]	1:[3]	2:[1PL]
Object Agreement I (16) (VI)	wa:bam-TSA[A]-a:	1:[1PL]	2:[3]	wa:bam-TSA[A]-i	1:[3]	2:[1PL]
Non-third Agreement (24)	wa:bam-TSA[A]-a:-A:N	1:[1PL]	2:[3]	--		
First Plural (28) (VI)	wa:bam-TSA[A]-a:-A:N-MIN	1:[1PL]	2:[3]	wa:bam-TSA[A]-i-MIN	1:[3]	2:[1PL]
Third Person Agreement (25)	--			wa:bam-TSA[A]-i-MIN-d	1:[3]	2:[1PL]
TSA Spelling (46) (III)	wa:bama:-A:N-MIN	1:[1PL]	2:[3]	wa:bami-MIN-d	1:[3]	2:[1PL]
Subject Omission (14)	wa:bama:-MIN	1:[1PL]	2:[3]	wa:bami-MIN	1:[3]	2:[1PL]
Non-third Plural Spelling (37)	wa:bama:angid	1:[1PL]	2:[3]	wa:bamiangid	1:[3]	2:[1PL]
Morphonemics	wa:bmangid			wa:bmiyngid		

gwa:bmigo:g /g-wa:bam- \emptyset -igw-i-ag/ they see you
 2 PASS ISA 3PL

conjunct

wa:bminna:n /wa:bam- \emptyset -inin-a:n/ (that) I see you
 OAI 1
 (wa:bmina:n /wa:bam- \emptyset -in-a:n/) OAI 1
 wa:bmik /wa:bam- \emptyset -ik/ (that) he sees you
 OAI
 wa:bmigo:yan /wa:bam- \emptyset -igw-i-an/ (that) we see you
 PASS ISA 2
 wa:bmikwa: /wa:bam- \emptyset -ik-wa:/ (that) they see you
 OAI 3PL

The fact that these forms have second person objects requires us to revise Object Agreement I (16) (VI) to provide the marks of this that we find in the forms of (39). The marking is done by two allomorphs inin and ik. (On Walpole the allomorphs are in and ik.) The allomorph ik is used when there is a third person subject.⁹ What is unusual with this is that when ik is used the third person subject marker d does not appear. Rather than delete it by an ad hoc rule we will resort to an abstract morpheme D and bring it in as a zero spelling. In addition we will include the g spelling we had accounted for by g substitution (17). Thus we revise Third Person Agreement (25) slightly as (40), and give the spelling rule (41).

(40) Third Person Agreement (revised)

V ==> V-g / D ____ 1:[INAN]
 V-D / D ____ 1:[3]
 w-V / ____ E:[3]
 V-w / ____ 1:[3]

(41) Third Person Spelling

$$D \Rightarrow \begin{array}{l} \emptyset \\ g \\ d \end{array} / D \underline{\quad} 2:[2 \text{ SG}]^{10}$$

$$\qquad \qquad \qquad / C \underline{\quad}$$

Our revision of Object Agreement I (16) (VI) to include second person object is given in (42).

(42) Object Agreement I (revised)

$$V \Rightarrow \begin{array}{l} V\text{-OAI} \\ V\text{-ININ} \\ V\text{-i} \\ V\text{-a:} \end{array} / \underline{\quad} 2:[\text{INAN}]$$

$$\qquad \qquad \qquad / \underline{\quad} 2:[2]$$

$$\qquad \qquad \qquad / \underline{\quad} 2:[1]$$

$$\qquad \qquad \qquad / \underline{\quad} 2:[3]$$

To get the allomorphy of ININ we give the spelling rule (43) [(43') for Walpole].

(43) ININ Spelling

$$\text{ININ} \Rightarrow \begin{array}{l} \text{inin} \\ \text{ik} \\ \text{inin} \end{array} / \underline{\quad} 2:[2 \text{ PL}]^{11}$$

$$\qquad \qquad \qquad / \underline{\quad} 1:[3]$$

(43') ININ Spelling (Walpole)

$$\text{ININ} \Rightarrow \begin{array}{l} \text{inin} \\ \text{ik} \\ \text{in} \end{array} / \underline{\quad} 2:[21]^{12}$$

Little more need be said regarding the substituted form wa:bmigo:yan. Even if the independent form arose by morphemic pressure to reduce allomorphy as we suspect, synchronically this form functions as a simple intransitive verb and forms its conjunct accordingly. But let us at least look at the eastern dialect forms which do not have the substitution.

(44) independent

gwa:bminmin /g-wa:bam- \emptyset -in-i-min/ we see you (sg./pl.)
 2 PASS ISA 1PL

conjunct
 wa:bmina:ng /wa:bam- \emptyset -in-a:ng/ (that) we see you (sg./pl.)
 OAI 1PL

These forms are exactly what our analysis predicts for these points in the paradigm.

One comment about the morpheme ININ is in order. Bloomfield (1957) and others have treated the morphemes in 'passive' and in(in) 'second person (object)' as allomorphs of the same morpheme. They are almost certainly historically related, but trying to join them synchronically would complicate the analysis considerably. In addition, we would like to point out that in the subdialect which has inin throughout the conjunct, there is no independent form (or variant form) showing inin.

The final part of the TA paradigm left to examine involves those forms with second person plural object. This includes both simple second person plural forms given in (45a(i),b(i)) and first inclusive plural forms given in (45a(ii),b(ii)) which Ojibwa treats as second person forms in many respects. Again the Walpole data is in parentheses.

(45) (a) independent

(i) gwa:bminim	/g-wa:bam- \emptyset -in-i-mw/ 2 PASS ISA 2PL	I see you (pl.)
gwa:bmigwa:	/g-wa:bam- \emptyset -igw-i-wa/ 2 PASS ISA 2PL	he sees you (pl.)
gwa:bmigo:m	/g-wa:bam- \emptyset -igw-i-mw/ 2 PASS ISA 2PL	we see you (pl.)
gwa:bmigwa:g	/g-wa:bam- \emptyset -igw-i-wa:-ag/ 2 PASS ISA 2PL 3PL	they see you (pl.)

- (ii) gwa:bmig^Wna: /g-wa:bam-∅-igw-i-na:ni/ he see us
2 PASS ISA 1PL (inc.)
- gwa:bmig^Wna:nig /g-wa:bam-∅-igw-i-na:ni-ag/ they see us
2 PASS ISA 1PL 3PL (inc.)
- (b) conjunct
- (i) wa:bminnagog /wa:bam-∅-inin-agogw/
OAI 2PL
- (wa:bmingog /wa:bam-∅-in-agogw/
OAI 2PL
(that)I see you (pl.)
- wa:bminne:g /wa:bam-∅-inin-e:gw/
OAI 2PL
- (wa:bmine:g /wa:bam-∅-in-e:gw/
OAI 2PL
(that)he sees you (pl.)
- wa:bmigo:ye:g /wa:bam-∅-igw-i-e:gw/
PASS ISA 2PL
(that)we (exc.) see you (pl.)
- wa:bminne:gwa: /wa:bam-∅-inin-e:gw-wa:/
OAI 2PL 3PL
- (wa:bmine:gwa: /wa:bam-∅-in-e:gw-wa:/
OAI 2PL 3PL
(that)they see you (pl.)
- (ii) wa:bminnang /wa:bam-∅-inin-angw/
OAI 1(I)PL
(that)he sees us (inc.)
- wa:bminnangwa: /wa:bam-∅-inin-angw-wa:/
OAI 1(I)PL 3PL
(that)they see us (inc.)

These forms require us to modify our analysis slightly in two ways. First these forms have e:gw marking the plurality of the object. This means that we will have to revise Second Plural Agreement (29) (VI) to be sensitive to both subjects and objects.

(46) Second Plural Agreement (revised)

V ==> V-MW / ____ T:[2PL]

This draw Second Plural Agreement (46) in line with First Plural (28) (VI) and Third Plural Conjunct (23), both of which are triggered by

the plurality of subjects or objects equally.

The second revision involves the allomorph agogw. Rogers (1975b) analyzes it as consisting of two morphemes, ag 'first person (subject)' plus an allomorph of e:gw 'second plural'. This analysis at first seems reasonable until we realize that that would make this the only exception to Subject Omission (14). Since we in any case need to resort to an ad hoc allomorphy to account for the form there is no sense in making it an exception to a well motivated rule too. Therefore we revise Non-third Plural Spelling (37) as (47).

(47) Non-third Plural Spelling

- (a) MIN clause same as (37a)
- (b) MW ==> agogw / D _____ 1:[1 SG]
 e:gw / D _____
 wa: / _____ 2:[3]
 mw

Finally to tie up the last loose ends our current formalization of Subject Omission (14) does not include the fact that we have revised our analysis in favor of abstract morphemes as the created markers of subject agreement in conjunct verbs. We revise (14) as (48) taking this into account.

(48) Subject Omission (revised)

AN
 A:N } ==> ∅ / _____ T:[1/2 PL]
 D

7.6 Passive Forms. The final paradigm left to consider is the passive paradigm, which we give in (49).

(49) independent

gwa:bmigo: /g-wa:bam-∅-igw-i/ you are seen
 2 PASS ISA

nwa:bmigo:	/n-wa:bam- \emptyset -igw-i/ 1 PASS ISA	I am seen
wa:bma:	/ wa:bam- \emptyset -a:-w/ 3	he is seen
gwa:bmigo:m	/g-wa:bam- \emptyset -igw-i-mw/ 2 PASS ISA 2PL	
gwa:bmigo:mi	/g-wa:bam- \emptyset -igw-i-min/ 2 PASS ISA 1PL	we (inc.) are seen
nwa:bmigo:mi	/n-wa:bam- \emptyset -igw-i-min/ 1 PASS ISA 1PL	we (exc.) are seen
wa:ba:wag	/ wa:bam- \emptyset -a:-w-ag/ 3 3PL	they are seen

conjunct

wa:bmigo:yan	/wa:bam- \emptyset -igw-i-an/ PASS ISA 2	(that) you are seen
wa:bmigo:ya:n	/wa:bam- \emptyset -igw-i-a:n/ PASS ISA 1	(that) I am seen
wa:bmind	/wa:bam- \emptyset -ind/ 	(that) he is seen
wa:bmigo:ye:g	/wa:bam- \emptyset -igw-i-e:gw/ PASS ISA 2PL	(that) you (pl.) are seen
wa:bmigo:yang	/wa:bam- \emptyset -igw-i-angw/ PASS ISA 1(I)PL	(that) we (inc.) are seen
wa:bmigo:ya:ng	/wa:bam- \emptyset -igw-i-a:ng/ PASS ISA 1(E)PL	(that) we (exc.) are seen
wa:bmindwa:	/wa:bam- \emptyset -ind-wa:/ 3PL	(that) they are seen

These forms are inflected like simple intransitive verbs with the exception of the third person forms which show an unusual allomorphy.

The independent allomorphy we handled with a spelling rule a: Spelling (5) (IV). We extend that rule to get the conjunct allomorphy also.

(50) a: Spelling (revised)

(a) igw-i ==> ind / D _____ A(1):[3]

(b) igw-i ==> a: / ____ A(1):[3]

We specify the environment A(1) to guarantee that the clause is intransitive. This respelling does not happen in transitive clauses.

7.7 Summary. We list the agreement and spelling rules in an order compatible with their order of application in (51).

(51) Agreements

Inanimate Obviation (18)(III)
 Non-third Person Agreement (24)
 First Plural Agreement (28)(VI)
 Second Plural Agreement (46)
 Third Plural Conjunct Agreement (23)
 Ergative Plural Agreement (38)(III)
 Third Person Agreement (40)
 Modal Attachment (22)(III)
 Dubitative Attachment (23)(III)
 Absolutive Plural Agreement (39)(III)

Spelling

TSA Spelling (46)(III)
 Benefactive Spelling (6)(V)
 PRO Spelling (16)(IV)
 Medial Spelling (10)(IV)
 ISA Spelling (26)(III)
 OA I Spelling (46)(III)
 ININ Spelling (43)
 Subject Omission (48)
 Non-third Person Spelling (26)
 Non-third Plural Spelling (47)
a: Spelling (50)
in Substitution (26)(VI)
 Third Person Spelling (41)

Herewith we have exhausted all the agreement morphology of the independent and conjunct order verbs, except for the matter of obviation.

We hope to have shown in these chapters that the inflectional structure of the Ojibwa verb is a highly systematic and tightly knit phenomenon. In particular we hope to have shown that the allomorphy hypothesis is valid--that there is only one pattern for the construction of the agreement forms of both independent and conjunct verb forms.

We hope to have shown that the structure of the verbal agreement system

follows from the syntax of Ojibwa, especially in respect to rules like Passive (58) (III). In fact it was the discovery of the applicability of Passive in the agreement system that made it possible for us to cut through the apparent dissimilarity between the so-called inverse forms and their conjunct counterparts.

FOOTNOTES

CHAPTER VII

¹In the TA paradigm there is one apparent exception to (9), but that one exception (if it is an exception) is motivated in that it is in the only place where homophonous forms would arise as the result of (9).

²The negative has two allomorphs si: in independent constructions, and siw in conjunct constructions. Some subdialects have si:w, since in the dialect under consideration there is need for an ad hoc rule deleting the w off of the dependent form in the context / C just to account for forms ending in si(:)w+d which sound as si(:)g.

³This point of analysis has long been a problem. Bloomfield (1957) set up two wa:'s (§4.10, position 4 and position 6). Our solution is similar to his. We have a wa: marking third plural supplied by Ergative Plural (38) (III), (= Bloomfield's position 4 wa:) and one supplied in conjuncts by (11) below (= Bloomfield's position 6 wa:). In addition we have a third wa: arising as an allomorph of MW by Non-third Plural Spelling (25) (VI).

⁴Some cross linguistic evidence that strongly suggests the correctness of this approach is found in Menominee wa:ʔ the cognate of Ojibwa wa: occurs in the correct order to be treated as an allomorph of ak 'animate plural', the cognate of Ojibwa ag.

Menominee		Ojibwa	
po:sewak	/po:se-w-ak/	bo:zwag	/bo:zi-w-ag/ they embark
po:setuaʔ	/po:se-t-wa:ʔ/	bo:zwa:d	/bo:zi-wa:-d/ (that) they embark

In addition Menominee marks the plurality of II verbs in the conjunct, which our analysis links to the allomorphic treatment of third plural markers wa:ʔ and ak for animates.

Menominee		Ojibwa	
aʔtɛk	/aʔtɛ:-k/	te:g	/ate:-g/ it is there
aʔtɛken	/aʔtɛ:-k-en/	te:g	/ate:-g/ they (inan.) are

What makes this even more striking is the fact that this marking of plurality is an innovation of Menominee from PCA.

⁵By using disjunctive ordering we can get the effect that [21] is a kind of [2] without special mention. Subject Omission (9) will take care of eliminating an in this circumstance.

⁶We use the function label T (term) because it will turn out that this allomorph of MIN is governed both by subjects and objects [as is the creation of MIN (28) (III)]. We anticipate the evidence which shows us that to avoid a minor revision of a long rule.

⁷Other analysts [including Bloomfield (1957) and Rogers (1975b)] have treated angid as being composed of two morphemes ang 'first (exc.) plural' plus d 'third person'. We reject this analysis on several grounds. In this form there is no motivated source to trigger the appearance of the d, except perhaps the third person that is implicit in the concept of third person (exc.) plural. Secondly if this d were in fact a separate morpheme, it could not be the same as the d marking third person (subject), because as the following forms show, the d in angid PRECEDES the third person plural marker wa: while the d marking third person FOLLOWS the marker wa:.

wa:bmaŋgdwa: /wa:bam-∅-a:-angid-wa:/ (that) we (exc.) see them
 wa:bma:wa:d /wa:bam-∅-a: -wa:/ (that) he sees them (obv.)

Finally the d marking third person (subject) undergoes an irregular contraction with the following marker bani 'preterite'. The d in angid does not.

wa:bma:pa /wa:bam-∅-a:-d-bani/ (that) he saw him (obv.)
 wa:bmaŋgdiba /wa:bam-∅-a:-angid-(i)bani/
 (that) we (exc.) saw him

Thus we feel it is highly unlikely that we should identify the d of angid with the third person subject agreement marker d.

⁸This revision was made in the version of the rule given in (18) (VI).

⁹With ik, as with angid, other analysts have separated out a d third subject marker. This seems somewhat attractive because all the phonological rules for contracting in+d to ik are independently available. [The route is in-d to in-g by (17) to ik.] However, we reject this analysis as having synchronic validity on the same kind of grounds that we rejected the division of angid. First if ik were really composed of in + d the third plural marker should intercede giving *wa:bminwa:d */wa:bam-∅-in-(i)wa:-d/ '(that) they see you'. Secondly, in those dialects which have innovated the long form of the second person (object) agreement marker inin, there is no innovated form *wa:bminik or *wa:bmining */wa:bam-∅-inin-d/ next to the actual form wa:bmik '(that) he sees you'. This makes it highly unlikely that ik is still produced productively from in + d. The unfortunate consequence of this unit analysis is that we must posit an ad hoc rule whose effect is to delete the third person morpheme d in the presence of a second person object, but we consider the evidence in favor of a unit analysis very strong, especially the evidence regarding morpheme order.

¹⁰The restriction of this to second person singular is important

to avoid problems with first (inc.) plural which is triggered by [2].

¹¹We haven't seen the crucial data for this clause yet. We provide it here to avoid yet another minor revision.

¹²We have not discussed the crucial data yet, but the Walpole rule gives us the insight into the proper way to characterize (43).

CHAPTER VIII

OBVIATION

8.0 One of the more unique and distinguishing facets of Algonkian languages is the appearance of a so-called fourth person in addition to the normal first, second, and third persons. This fourth person is referred to as obviative, in contrast to the normal third person, which is called proximate. Delisle (1973) argues that fourth persons are syntactically derived from third persons. We agree with his approach. Fourth person forms trigger agreements like third persons, and in many contexts they trigger additional obviative agreements.

Ojibwa uses two markers to signal obviative agreement, an and ini. An is used to mark agreement with animate obviatives bearing an absolute relationship to an independent verb. Ini is used elsewhere. On nouns, an is used to mark obviation of animates. The obviation of inanimates is left unmarked. Ini is used to mark the obviation of the possessor of a noun. An and ini are never used together. If both are called for, only ini appears.

8.1 The Process of Obviation. Obviation occurs in Ojibwa when two third persons appear in the same sentence. There are three basic situations in which third person nouns become obviative. First, any third person noun possessed by a third person is obviated.

(1) <i>wgwisan</i>	/w - gwis - an/ 3 SON OBV	his son (obv.)
<i>ngwis</i>	/n - gwis/ 1 SON	my son

Second, any third person that appears in a sentence with a third person

subject becomes obviative.

- (2) ʒa:bdi:s wgi:-wa:bma:n bi:ye:nan John saw Peter (obv.).
 JOHN 3-PAST-SFE-3-OBV PETER-OBV

Third a third person noun becomes obviated if it is not logically animate but appears in a stretch of discourse that is organized around a third person topic.¹

- (3) mi:nwa: gi:-we:bi-wi:sni Again he started eating.
 mi:nwa: gi:-mdwe:ška:wan niw mtigo:n Again the tree (obv) made
 AGAIN PAST-MAKE-NOISE-3-OBV THAT TREE-OBV noise. (Bl T35)²

Since this third situation in which Ojibwa nouns appear as obviatives is hard to talk about in the absence of a more complete understanding both of the process of sentence level obviation and of the structure of Ojibwa discourse, we will not discuss this type of obviation further.

In this chapter we will concentrate on the process of obviation in the speech of the most conservative speakers, because the range of environments in which obviation takes place is becoming more and more restricted in the speech of younger people.

8.2 Obviation of Possessed Nouns. Third person nouns possessed by third persons are obviated. This is true both of animate nouns, on which the obviation is directly marked, and of inanimate nouns, which though unmarked, trigger obviative agreement on verbs whose subject they are.

- (4) (a) animate obviative

wi:nnowan wo:san His father is fat.
 /wi:nino-w-an/ /w-o:s-an/
 FAT 3 OBV 3 FATHER OBV

- (b) inanimate obviative

gi:na:ni wmo:kma:n His knife is sharp.
 /gi:nə:-ini-w/ /w-mo:koma:n/
 SHARP OBV 3 3 KNIFE

In (4a) the obviation is marked on both the noun and the verb. In (4b)

the obviation is only marked on the verb by the agreement marker ini.

To make it clear that it is the third person possessor which triggers the obviation, let us look at the possessive paradigm of gwis 'son'.

(5) ggwis	/g-gwis/	your son
ngwis	/n-gwis/	my son
wgwisan	/w-gwis-an/	his son (obv.)
ggwiswa:	/g-gwis-(i)wa:/	your (pl.) son
ggwisna:	/g-gwis-(i)na:ni/	our (inc.) son
ngwisna:	/n-gwis-(i)na:ni/	our (exc.) son
wgwiswa:n	/w-gwis-(i)wa:-an/	their son (obv.)
*wggwis	/w-gwis/	his son
*wggwiswa:	/w-gwis-(i)wa:/	their son

In (5) we see that first and second persons do not require obviation (although such forms may be obviated under other circumstances like any unpossessed third person noun). But when the possessor is third person, obviation is required. A similar paradigm can be constructed for an inanimate noun, but since the obviation of inanimate nouns is only apparent in the verb agreement the obviated noun triggers, we have to deal in whole clauses. The possessive paradigm of mo:kma:n 'knife' follows.

(6) gmo:kma:n gi:na:	Your knife is sharp.
nmo:kma:n gi:na:	My knife is sharp.
wmo:kma:n gi:na:ni	His knife (obv.) is sharp.
gmo:kma:nwa: gi:na:	Your (pl.) knife is sharp.
gmo:kma:nna: gi:na:	Our (inc.) knife is sharp.
nmo:kma:nna: gi:na:	Our (exc.) knife is sharp.
wmo:kma:nwa: gi:na:ni	Their knife (obv.) is sharp.
*wmo:kma:n gi:na:	His knife is sharp.
*wmo:kma:nwa: gi:na:	Their knife is sharp.

The examples in (6) show that the situation with inanimates is identical to the situation with animates. Nouns possessed by first and second person possessors remain unobviated. Nouns possessed by third persons on the other hand must be obviated. To account for this we write (7).

(7) Obviation of Possessee

[3] ==> [OBV] / (POSS:[3])_____

It appears to us that because of the parallelism in the obviation of inanimates and animates, we should account for obviation with the same rule for both.

8.3 Obviation of Clausemates. The second condition under which nouns are obviated is if they appear in a sentence with a third person subject. In this section we will look at instances of obviatives appearing within the clause containing a third person subject or object.

- (8) (a) (i) aw nini wgi:-wa:bma:n niw kwe:wan The man saw the
 THAT MAN 3-PAST-SEE-3-OBV THAT WOMAN-OBV woman (obv.).
 (ii) aw kwe: wgi:-wa:bmigo:n niw ninwan The woman was seen
 THAT WOMAN 3-PAST-SEE-PASS-OBV THAT MAN-OBV by the man (obv.).
 (b) žina:g^wzi no:san He looks like my father (obv.).
 LOOK-LIKE-3 1-FATHER-OBV
 (c) ža:bdi:s wgi:-wa:bnda:n bi:ye:nan wji:ma:nni John saw Peter's
 JOHN 3-PAST-SEE-IT PETER-OBV 3-CANOE-OBV (obv.) canoe.

These examples show obviation appearing on the superficial object (8a), on non-terms (8b), and on possessors of clausemates (8c).

Closely related to the situation in which subjects trigger obviation in dependents of lower rank is the situation in which objects trigger obviation in dependents of lower rank.

- (9) (a) ngi:-mi:na: se:ma:n nmišo:mis I gave my grandfather
 1-PAST-GIVE-3 TOBACCO-OBV 1-GRANDFATHER tobacco (obv.).
 (b) ngi:-ma:ji:dwa: wmaznahganni bi:ye:n I took his_i (obv.) book
 1-PAST-TAKE-FROM-3 3-BOOK-OBV PETER from Peter_j.

It seems certain that the facts of (8) and (9) are not independent.

Therefore using the term hierarchy, subject outranks direct object outranks indirect object outranks non-terms, we can write a rule of obviation (10).

(10) Clausemate Obviation

[3] ==> [OBV] / B: _____ A:[3] Condition: A outranks B.

In the case of inanimates the operation of (10) is harder to see because

there is no agreement marker on the verb indicating the obviation. But by associating a relative clause with an inanimate noun we can see where it is obviated. (The ini marking obviation is underlined.)

- (11) (a) \check{z} a:bdi:s wdiya:n mo:kma:n ga:na:nig John has a sharp knife
 JOHN 3-HAVE-IT KNIFE WHICH-SHARP-OBV-3 (obv.).
- (b) ngi:-mi:na: mo:kma:n ga:na:nig nmišo:miš I gave my grandfather
 1-PAST-GIVE-3 KNIFE WHICH-SHARP-OBV-3 a sharp knife(obv.).
 1-GRANDFATHER

The sentences in (11) show that a third person subject triggers the obviation of an inanimate object (11a) and that a third person object triggers the obviation of an inanimate non-term (11b).

8.4 Obviation of Non-clausemates. In the speech of conservative speakers, third person dependents in subordinate clauses are obviated. The examples in (12) show this happening in several different types of subordinate clauses.

(12) (a) object complement

wgike:nda:n wi:-bi-dgošninid bi:ye:nan He knows that Peter
 3-KNOW-IT FUT-COME-ARRIVE-OBV-3 PETER-OBV (obv.) will come.

(b) non-term complement

gi:-goski:wag wi:-za:gdo:de:nid They were afraid he
 PAST-AFRAID-3-PL FUT-CRAWL-OUT-OBV-3 (obv.) would crawl
 out. (E1 T37)

(c) relative clause

wgi:-a:bjito:n iw ga:-wžito:nid mo:kma:n He put to use the
 3-PAST-USE-IT THAT WHICH-PAST-MAKE-IT-OBV-3 knife which he_j
 KNIFE (obv.) made.

(d) adverbial clause

(i) na:g^wsinig wi:-gi:we: He will go home in
 EVENING-OBV-3 FUT-GO-HOME-3 the evening. (lit.
 when it (obv.) is evening.)

(ii) gi:-bo:ni: daš ma: dbe:w mtigō:ska:nig So she landed in the
 PAST-LAND-3 THEN THERE SHORE BUSHY-OBV-3 the bushes by the
 shore. (lit. where there (obv.) are bushes.) (E1 T35)

These facts can be accounted for by Clausemate Obviation (10) if we count

the dependents of dependents as equal to non-terms.

8.4 Obviative Weight. The obviatives produced by the two different rules (7) and (10) have different "weights". While both are marked identically on the noun, they trigger different verbal agreements. In particular nouns functioning as objects only trigger obviative agreements if they are obviated by Clausemate Obviation (10). Consider the following pairs of forms. One of each pair has a simple animate object, the other an animate object obviated by Obviation of Possessee (7). The agreement pattern is identical.

(13) ggi:-wa:bma: nini	You saw a man.
ggi:-wa:bma: wgwisan	You saw his son (obv.).
2-PAST-SEE-3	
ngi:-wa:bma: nini	I saw a man.
ngi:-wa:bma: wgwisan	I saw his son (obv.).
1-PAST-SEE-3	
wgi:-wa:bma:n ninwan	He saw a man (obv.).
wgi:-wa:bma:n wgwisni	He _i saw his _j (obv.) son.
3-PAST-SEE-3-OBV	
ggi:-wa:bma:wa: nini	You (pl.) saw a man.
ggi:-wa:bma:wa: wgwisan	You (pl.) saw his son (obv.).
2-PAST-SEE-3-?PL	
ggi:-wa:bma:na: nini	We (inc.) saw a man.
ggi:-wa:bma:na: wgwisan	We (inc.) saw his son.(obv.).
2-PAST-SEE-3-1PL	
ngi:-wa:bma:na: nini	We (exc.) saw a man.
ngi:-wa:bma:na: wgwisan	We (exc.) saw his son (obv.).
1-PAST-SEE-3-1PL	
wgi:-wa:bma:wa:n ninwan	They saw a man (obv.).
wgi:-wa:bma:wa:n wgwisni	They saw his (obv.) son.
3-PAST-SEE-3-3PL-OPV	

In fact the forms that contain the obviative an with first and second person subjects are hopelessly ungrammatical.

(14) *ngi:-wa:bma:n	*/n-gi:-wa:bam-∅-a:-an/	I saw him (obv.).
*ggi:-wa:bma:n	*/g-gi:-wa:bam-∅-a:-an/	You saw him (obv.).
*ggi:-wa:bma:wa:n	*/g-gi:-wa:bam-∅-a:-an/	You (pl.) saw him (obv.).
*ggi:-wa:bma:na:nin	*/g-gi:-wa:bam-∅-a:-na:ni-an/	We (inc.) saw him (obv.).

Furthermore obviation usually wipes out the contrast of singular/plural, as in (15), but nouns obviated by Obviation of Possessee (7) still trigger normal number agreement, as the forms in (16) show.

- (15) (a) be:žig ŋgi:-wa:bma: nini I saw one man.
 ONE 1-PAST-SEE-3 MAN
 ni:ž ŋgi:-wa:bma:g ninwag I saw two men.
 TWO 1-PAST-SEE-3-PL MAN-PL
- (b) be:žig wgi:-wa:bma:n ninwan He saw one man (obv.).
 ONE 3-PAST-SEE-3-OBV MAN-OBV
 ni:ž wgi:-wa:bma:n ninwan He saw two men (obv.).
 TWO 3-PAST-SEE-3-OBV MAN-OBV
- (16) (a) be:be:žig ŋgi:-wa:bma: wgwisan I saw one of his sons
 ONE-OF 1-PAST-SEE-3 3-SON-OBV (obv.).
- (b) ne:ni:ž ŋgi:-wa:bma:g wgwisan I saw two of his sons
 TWO-OF 1-PAST-SEE-3-PL 3-SON-OBV (obv.).

Finally a noun obviated by (7) does not count as an obviative when it is a possessor.

- (17) (a) ža:bdi:s wgwisan wdayan John's son's dog
 JOHN 3-SON-OBV 3-PET-OBV
 (b) *ža:bdi:s wgwisan wdayni John's son's dog
 JOHN 3-SON-OBV 3-OBV-PET

We take this data regarding Obviation of Possessee (7) to mean that that rule follows every rule with which it could interact, except the rule spelling an and ini. In particular the crucial ordering is

- (18) Clausemate Obviation (10)
 Absolutive Plural (39)(III)
 Obviation of Possessee (7)

to get the forms in (15) and (16). But an important problem arises in the case of absolutive subjects. For example the sentence (4a) can only be gotten if Obviation of Possessee (7) applies BEFORE Absolutive Plural (39)(III). Even worse to get the obviative agreement marker ini before the person agreement marker w in (4b), Obviation of Possessee (7) must precede Inanimate Obviation (18)(III) which precedes Third Person Agreement (40)(VII) which in turn precedes Absolutive Plural (39)(III).

This dilemma suggests to us that rule ordering is the wrong device to use for accounting for the behavior of forms obviated by (7). Instead we will make Absolutive Plural (39)(III) globally sensitive to the source of the obviation on the noun in its structural description. So Absolutive Plural (39)(III) will only apply if the noun has been obviated by Clausemate Obviation (10) (or is plural).

8.5 Obviative Marking. Obviation is marked on verbs by an and ini. The following table lays out the environments in which obviation triggers an obviative agreement marker on the verb.

(19)	Independent	Conjunct
Animate Absolutive Subject	-an	-ini
Animate Absolutive Object	unmarked <u>or</u> -an (with third subject)	unmarked
Animate Ergative (Subject)	-ini	-ini
Inanimate Absolutive Subject	-ini	-ini
Inanimate Absolutive Object	unmarked	unmarked
Inanimate Ergative (Subject)	unmarked	unmarked

In our present system both instances of an are supplied by Absolutive Plural (39)(III) with the global restriction. Inanimate obviation is supplied by Inanimate Obviation (18)(III) and animate ergative obviation by Ergative Plural (38)(III). But we do not currently have a rule which supplies ini to mark animate absolutive subject in conjunct verbs.

Therefore we propose (20).

(20) Conjunct Obviation

V ==> V-ini / D ___ A(1):[AN,OBV]

In order to get the correct morpheme order, (20) is ordered adjacent to Inanimate Obviation (18)(III). We formulated (20) with the environment A(1) (absolute subject) to avoid getting two markers ini on verbs in conjunct environments with ergative subjects--one ini from Conjunct Obviation (20) and a second ini from Ergative Plural (38)(III). In support of our general approach, we note that there are younger speakers who do not have forms showing agreement with obviated animate ergatives.

(21) (a) conservative speakers

(i) ǰa:bdi:s wgwisan wgi:-wa:bma:ni bi:ye:nan
 JOHN 3-SON-OBV 3-OBV-PAST-SEE-3 PETER-OBV
 John's son (obv.) saw Peter (obv.).

(ii) ǰa:bdi:s wgwisan wgi:-wa:bnda:nni mo:kma:n
 JOHN 3-SON-OBV 3-OBV-PAST-SEE-IT KNIFE
 John's son (obv.) saw a knife.

(b) younger speakers

(i) ǰa:bdi:s wgwisan wgi:-wa:bma:n bi:ye:nan
 JOHN 3-SON-OBV 3-PAST-SEE-3-OBV PETER-OBV
 John's son (obv.) saw Peter (obv.).

(ii) ǰa:bdi:s wgwisan wgi:-wa:bnda:n mo:kma:n
 JOHN 3-SON-OBV 3-PAST-SEE-IT KNIFE
 John's son (obv.) saw a knife.

Younger speakers find the sentences in (21a) ungrammatical. In our analysis this amounts to deleting the ini clause from Ergative Plural (38)(III). But such speakers still mark obviative agreement with ergatives in conjunct environments. In our analysis this means that they have simply loosened the environment of Conjunct Obviation (20) to apply to all subjects, not just absolute subjects.

8.6 Obviation of Possessors. In the preceding sections we have brought forth evidence which indicates that Clausemate Obviation (10)

supplies the obviative mark appearing on the possessor of a low ranking dependent. While we believe that this is the correct way to account for the facts, there are some subtleties that bear mentioning. First, for even the most conservative speakers, the obviation of a possessor triggered by a subject is optional.³

- (22) wgi:-wa:bnda:n wji:man(ni) He_i saw his_j canoe.
 3-PAST-SEE-IT 3-(OBV)-CANOE

But only when both the subject and the object are potential triggers is the obviation obligatory, so one gets paradigms like that in (23).

- (23) (a) wgi:-ma:ji:dwa:n wmaznahgan He_i took his_i book from
 3-PAST-TAKE-FROM-3-OBV 3-BOOK i_ihim_j.
 (b) wgi:-ma:ji:dwa:n wmaznahgan(ni) He_i took his_j book from
 3-PAST-TAKE-FROM-3-OBV 3-(OBV)-BOOK i_ihim_j.
 (c) wgi:-ma:ji:dwa:n wmaznahganni He_i took his_j book from
 3-PAST-TAKE-FROM-3-OBV 3-OBV-BOOK i_ihim_k.

In (23a) the possessor of mzinhigan 'book' cannot be obviated because it is coreferential with the subject of the clause. In (23b) the obviation of the possessor of mzinhigan 'book' is only optionally obviated in spite of the fact that it is coreferential with the object which is obligatorily obviated by Clausemate Obviation (10). Here only the subject is a potential obviation trigger. But in (23c) neither the subject nor the object is coreferential with the possessor of mzinhigan 'book' so both are potential triggers and the obviation is obligatory.

8.7 Passive and Obviation. In §3.3.3.3 of Chapter III we discussed the fact that the application of passive in sentences containing third person objects and third person subjects is controlled by discourse considerations. This fact interacts with the facts of obviation in two ways. First Passive (58)(III) must apply before Clausemate Obviation (10) because it is the superficial object of a clause that is obviated.

(This fact was first pointed out by Delisle (1973).)

- (24) (a) $\check{z}a:bdi:s$ $wgi:-wa:bma:n$ $bi:ye:nan$ John saw Peter (obv.).
 JOHN 3-PAST-SEE-3-OBV PETER-OBV
- (b) $bi:ye:n$ $wgi:-wa:bmigo:n$ $\check{z}a:bdi:san$ Peter was seen by John
 PETER 3-PAST-SEE-PASS-OBV JOHN-OBV (obv.).

Second, contrary to the apparent opinion of many Algonkianists, e.g. Rogers (1976), obviation by Obviation of Possessee (7) has no effect on the applicability of Passive (58)(III) as shown in (25).

- (25) (a) $\check{z}a:bdi:s$ $wgwisan$ $wgi:-wa:bma:ni$ $bi:ye:nan$
 JOHN 3-SON-OBV 3-OBV-PAST-SEE-3 PETER-OBV
 John's son (obv.) saw Peter (obv.).
- (b) $bi:ye:n$ $wgi:-wa:bmigo:n$ $\check{z}a:bdi:s$ $wgwisan$
 PETER 3-PAST-SEE-PASS-OBV JOHN 3-SON-OBV
 Peter was seen by John's son (obv.).

The one place where there is some effect involving possessors and passive is in the case in which the possessor of one term is coreferential with the other term. This was mentioned above in §3.3.3.3. Examples are given in (26) and (27).

- (26) (a) $\check{z}a:bdi:s$ $wgi:-wa:bma:n$ $wgwisan$ John_i saw his_i son (obv.).
 JOHN 3-PAST-SEE-3-OBV 3-SON-OBV
- (b) * $\check{z}a:bdi:s$ $wgwisan$ $wgi:-wa:bmig^w ni^4$ John's_i son (obv.) was
 JOHN 3-SON-OBV 3-OBV-PAST-SEE-PASS seen by him_i
 (obv.).
- (27) (a) * $\check{z}a:bdi:s$ $wgwisan$ $wgi:-wa:bma:ni^5$ John's_i son (obv.) saw
 JOHN 3-SON-OBV 3-OBV-PAST-SEE-3 him_i (obv.).
- (b) $\check{z}a:bdi:s$ $wgi:-wa:bmigo:n$ $wgwisan$ John_i was seen by his_i
 JOHN 3-PAST-SEE-PASS-OBV 3-SON-OBV son (obv.).

We feel at this point that this restriction on passivization has to do with pronominalization and obviation, not passive and obviation. In the two starred sentences (26b) and (27a) there is a conflict between the obviation of the superficial object and the coreferent possessor of the subject. We are not yet ready to offer a full explanation because there are two potential difficulties with an obviation conflict approach.

First, this conflict "counts" only when it happens within a single clause. Speakers have no trouble getting (28) as ambiguous.⁶

(28) ža:bdi:s wgwisan ngi:-mi:na: iw mo:kma:n ga:-wžito:nid
JOHN 3-SON-OBV 1-PAST-GIVE-3 THAT KNIFE WHICH-PAST-MAKE-OBV-3

I gave John's_i son_j (obv.) the knife that he_i (obv.) had made.
or I gave John's_i son_j (obv.) the knife that he_k (obv.) had made.

And speakers find (29) unambiguous.

(29) ža:bdi:s wgwisan ngi:-mi:na: iw mo:kma:n ga:-wžito:d
JOHN 3-SON-OBV 1-PAST-GIVE-3 THAT KNIFE WHICH-PAST-MAKE-3

I gave John's_i son_j (obv.) the knife that he_j had made.

A similar argument can be made for the case in which the possessor is associated with the subject of the main clause, as the examples in (30) show.

(30) (a) ža:bdi:s wgwisan wgi:-wa:bnda:nni iw mo:kma:n ga:-wžito:nid
JOHN 3-SON-OBV 3-OBV-PAST-SEE-IT THAT KNIFE WHICH-PAST-MAKE-
OBV-3

John's_i son_j (obv.) saw the knife that he_i (obv.) had made.
or John's_i son_j (obv.) saw the knife that he_k (obv.) had made.

(b) ža:bdi:s wgwisan wgi:-wa:bnda:nni iw mo:kma:n ga:-wžito:d
JOHN 3-SON-OBV 3-OBV-PAST-SEE-IT THAT KNIFE WHICH-PAST-MAKE-
3

John's_i son_j (obv.) saw the knife that he_j had made.

The second problem is that speakers can drop the obviation off of the possessors of non-terms even if there is a coreferential obviated noun in the same clause. An example of this is (23b). We will not attempt to solve the problem of (26) and (27) here. What we hope to have shown is that obviation plays only a minor role, if any, in conditioning passivization, and that obviative has no place on the person hierarchy that triggers Passive (58)(III) as we argued in Chapter III.

FOOTNOTES

CHAPTER VIII

¹While topic is a poorly defined notion, it seems useful in describing certain aspects of Ojibwa discourse structure.

²Citations of sentences from Bloomfield (1957) are labelled. (Bl T35) means Bloomfield (1957), text 35. (Bl S359) means Bloomfield (1957), examples sentence 359.

³However, obviation in locative possessed nouns is not optional.

- (1) (a) wgi:-wa:bnda:n wji:ma:n(ni) He_i saw his_j canoe.
 3-PAST-SEE-IT 3-(OBV)-CANOE
- (b) wgi:-wa:bnda:n wji:ma:nning He_i saw it in his_j canoe.
 3-OBV-CANOE-LOC

⁴This sentence is grammatical in the meaning 'John's_i son (obv.) was seen by him_j (obv.).'

⁵As in the case of (26b), this sentence is grammatical in another meaning: 'John's son (obv.) saw him_j (obv.).'

⁶This class of sentences was first pointed out in Rogers (1975b). She used inverse forms in the main clause, but as we have argued, direct and inverse forms mark the same superficial grammatical relations for any two persons.

CHAPTER IX

CLAUSE UNION AND STEM STRUCTURE

9.0 In preceding chapters we have discussed, either directly or incidentally, the inflectional morphology of Ojibwa verbs. In addition we have examined rules which add certain markers indicating various advancements. However, we have not so far looked at the internal structure of verb stem. Since many of the advancement markers follow stem agreement markers, let us call a verb stem the portion of a verb which follows (or potentially follows) the tense marker and which precedes the stem agreement marker.

In Ojibwa there are simple stems, as in (1)

- | | | |
|-----|--|--|
| (1) | mskozi
/miskw - izi - w/
ISA 3 | He's red.
stem: /miskw-/ 'be red' |
| | wgie-bi:do:n
/w - gi: - bi: - d - 0: - n/
3 PAST TSA OAI OAI | He brought it.
stem: /bi:-/ 'bring' |
| | wgi:-šama:n
/w - gi:- ašam - ∅ - a: - an/
3 PAST TSA OAI OBV | He fed him.
stem: /ašam-/ 'feed' |

but far more common are complex stems, as in (2).

- | | | |
|---------|---|---|
| (2) (a) | mskoji:zi
/miskw - (i)ji: - izi - w/
RED BODY ISA 3 | He's red all over.
stem: /miskw-iji:-/ |
| | nde:wkwe:
/n - de:w - (i)kwe: - ∅/
1 THROB HEAD ISA | I've got a headache.
stem: /de:w-ikwe:-/ |

- (b) *ngi:-bo:kbido:n* I broke it (off.)
 /n - gi: - bo:kw - (i)bi - d - o: - n/ stem: /bo:kw-ibi-/
 1 PAST BREAK CAUSE TSA OAI OAI
- ma:da:dga:* He's starting to swim.
 /ma:d - a:daga: - ∅ - w/ stem: /ma:d-a:daga:-/
 START SWIM ISA 3
- wgi:-bskigwa:da:n* She hemmed it.
 /w - gi: - bisk - (i)gwa: - d - am - n/ stem: /bisk-igwa:-/
 3 PAST FOLDED SEW TSA OAI OAI
- (c) *wgi:-zginke:na:n* He held her hand.
 /w - gi: - zag - (i)nike: - n - ∅ - a: - an/ stem: /zag-inike:
 3 PAST ATTACHED ARM CAUSE TSA OAI OBV. -n-/
- wgi:-bkwa:ndbe:bna:n* He scalped him,
 /w - gi: - bakwe: - ndibe: - bi - n - a: - an/ stem: /bakwe:
 3 PAST PARTIALLY HEAD CAUSE TSA OAI OBV. -ndibe:-bi-/
 GONE

In traditional analyses of Algonkian Languages these stem types have been summarized in formulae like

- (3) (a) Initial Medial [= forms in (2a)]
 (b) Initial Final [= forms in (2b)]
 (c) Initial Medial Final [= forms in (2c)]

where the terms initial, medial, and final are names for classes of morphemes. The particular version of (3) that appears in any traditional analysis depends on the details of that analysis. For example Bloomfield (1957) confused true finals with stem agreement markers which has led to overly complex formulations, including positing a class of prefinals, all of which is unnecessary, as we will see.

In our analysis initials and finals arise from verbal sources by various derivational routes. But the vast majority of medials are nominal in origin. In this chapter we will concentrate on stems of the form summarized by the formula of (3b), exemplified in (2b). We will discuss medials in Chapter X.

The stems which we will be looking at in this chapter fall into three basic classes: (1) verbal initials - causative inchoative finals, (2) non-verbal initials - verbal finals, and (3) verbal initials - verbal finals. These different types of verb stem constructions are exemplified in (4).

(4) (a) verbal initials - causative/inchoative finals

ngi:-gi:we:ha /n - gi: - gi:we: - h - Ø - a:/ 1 PAST GO-HOME CAUSE TSA OAI	I sent him home. stem: /gi:we:-h-/
zi:wsin /zi: - (i)s - in - w/ SOUR FALL ISA 3	It is sour. ¹ /It is turning. ¹ stem: /ziw-is-/
wgi:-bi:g ^w koda:n /w - gi: - bi:gw - (i)ko - d - am - n/ 3 PAST BE-IN- CAUSE- TSA OAI OAI PIECES BY- CUTTING	He cut it in pieces. stem: /bi:gw-iko-/

(b) non-verbal initials - verbal finals

ngi:-za:mŋgwa:m /n - gi: - oza:m - ingwa:m - Ø/ 1 PAST 'TOO-MUCH SLEEP ISA	I overslept. stem: /oza:m-ingwa:m-/
gi:-ma:də:dga: /gi: - ma:d - a:daga: - Ø - w/ PAST START SWIM ISA 3	He started to swim. stem: /ma:d-a:daga:-/
gi:bi:jbato: /gi: - bi:d - (i)bato: - Ø - w/ PAST HITHER RUN ISA 3	He came running. stem: /bi:d-ibato:-/
ngi:-ziw ^v na: e:nda:nid /n - gi: - in - (i)wi - n - a:/ 1 PAST TO TAKE TSA OAI	I took her to his place. stem: /in-iwi-/

(c) verbal initials - verbal finals

ngi:-gi:we:bto: /n - gi: - gi:we: - bato: - Ø/ 1 PAST GO-HOME RUN ISA	I ran home. stem: /gi:we:-bato:-/
wgi:bskigwa:da:n /w - gi: - bisk - (i)gwa: - d - am - n/ 3 PAST FOLDED SEW TSA OAI OAI	She hemmed it. stem: /bisk-igwa:-/

9.0.1 Clause Union. Now let us review the process of clause union in relational grammar. Clause unions may only apply to sentences with absolutive complements. (That is intransitive sentences with subject complements, and transitive sentences with object complements.) Clause union erases the complement relation leaving a dead verb and reassigns termhood to the dependents of the downstairs verb. This happens by a strict pattern which is summarized in (5).

(5)	Upstairs clause	Downstairs clause Reassignments
Case I	intransitive	intransitive D subject -- R subject
Case II	intransitive	transitive D subject -- R subject D direct object -- R direct object
Case III	transitive	intransitive U subject -- R subject D subject -- R direct object
Case IV	transitive	transitive U subject -- R subject D direct object -- R direct object D subject -- R indirect object

In Ojibwa there is a general restriction on the transitivity of the downstairs clause. Only downstairs intransitive clauses may undergo clause union in general. We will discuss the few exceptions at the end of this section. But for the time being we will concentrate on Case I and Case III clause unions.

In addition to the process of clause union there is a process of dead verb attachment which obligatorily attaches the dead verbs created by clause union to the left of the live verb. We write the rule as (6).

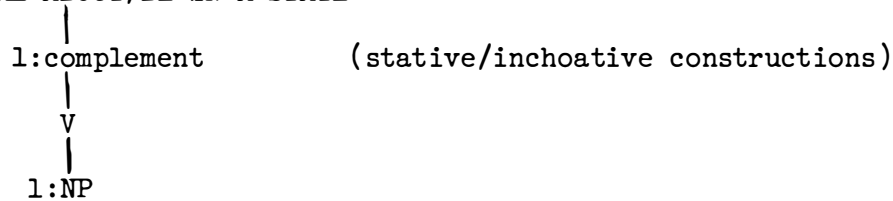
(6) Dead Verb Attachment

$$\begin{array}{ccc} V & DV:V & ==> V-V \\ a & b & b a \end{array}$$

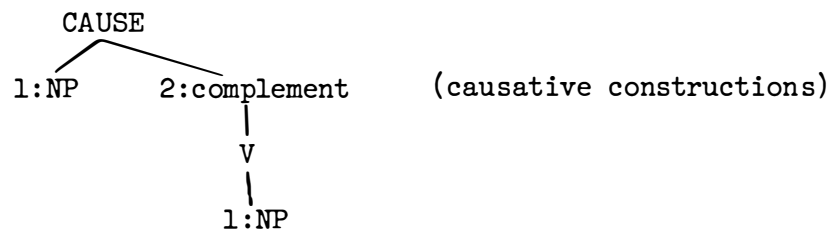
In addition to attaching dead verbs from clause union, a number of other entities are attached to the left of the live verb. We will treat all such entities as dead verbs and use (6) to attach them. Such entities include tense markers and adverbs. There are two degrees of attachment of dead verbs. These two kinds of attached dead verbs are called preverbs and initials in traditional analyses of Ojibwa. The difference between them has to do with their abstract phonological behavior. We will discuss the difference in detail in §9.2. For now suffice it say that all dead verbs from clause union are attached as initials. Live verbs constitute the class of finals.

9.1 Causative/Inchoative Stems. In this first section we will propose an analysis of the causative/inchoative constructions. The analyses involves positing underlying structures of a form like those in (7), which undergo clause union to give structures like those exemplified in (4a).

(7) (a) COME-ABOUT/BE-IN-A-STATE



(b)



There is a restriction in Ojibwa that clause union may not, in general, apply if the complement clause is transitive. This restriction provides us with a semantic argument for proposing this type of underlying structure. The forms in (8) are close paraphrases of one another.

- (8) (a) *ngi:-gi:we:ha:* I senⁱ him home.
 /n - gi: - gi:we: - h - ∅ - a:/
 1 PAST GO-HOME CAUSE TSA OAI
- (b) *ngi:-žiha: wi:-gi:we:d* I made him go home.
 /n - gi: - in - (i)h - ∅ - a: / /wi: - gi:we: - ∅ - ā/
 1 PAST THUS CAUSE TSA OAI FUT GO-HOME ISA 3

But the second is much stronger in implication. For example, if I had threatened him, I could only say (8b), not (8a). Similarly (8b) is a little strange if I had simply asked him to go home, but (8a) is not. The difference between English have causatives (I had him go home) and make causatives (I made him go home.) is somewhat similar. But when the downstairs clause is transitive there is no clause united form [corresponding to (8a)]. There is only a two clause form (corresponding to (8b)).

- (9) *ngi:-žiha: wi:-mwa:d nimšan.* I made him eat dog.
 /n - gi: - in - h - ∅ - a: / /wi: - am - w - a: - d/
 1 PAST THUS CAUSE TSA OAI FUT EAT TSA OAI 3
- /animw - iš - an/
 DOG DEROG OBV

But the sentence in (9) can mean either I made him eat dog. or I had him eat dog. Therefore it seems likely that sentences (8a) and (8b) are derived from the same underlying structure, but clause union is blocked and/or triggered both by a condition on the transitivity of the downstairs clause and by a condition on the implication about the forcefulness of the causation.²

9.1.1 Stative/inchoative constructions. There are two morphemes in Ojibwa which mean 'be come to be in a state'. These morphemes appear in constructions which undergo Case I clause unions. So sentences like those in (9) are derived as in (10).

(10) (a) zi:wsin. It is turning sour.
 /zi:w - (i)s - in - w/
 SOUR FALL ISA 3

(b) gi:-gba:kwse: It closed.
 /gi: - giba:kw - (i)se: - ∅ - w/
 PAST CLOSE MOVE ISA 3

(11) (a) Underlying Form s 1:comp(zi:w 1:iw)
 FALL SOUR IT
 Clause Union (5) s 1:iw
 Dead Verb Attachment (6) zi:wa 1:iw
 ISA (28) (III) zi:wa-ISA[I] 1:iw
 Agreements zi:wa-ISA[I]-w 1:iw
 Spelling zi:wsinw 1:iw

Morphophonemics zi:wsin

(b) Underlying Form gi: se: 1:comp(giba:kw 1:[INAN])
 PAST MOVE CLOSED IT
 Clause Union (5) gi:se: DV:giba:kw 1:[INAN]
 Dead Verb Attachment (6) gi:-giba:kwse: 1:[INAN]
 ISA (28) (III) gi:-giba:kwse:-ISA[I] 1:[INAN]
 Agreements gi:-giba:kwse:-ISA[I]-w 1:[INAN]
 Spelling gi:-giba:kwse:w

Morphophonemics gi:-gba:k^wse:

9.1.2 Causative Constructions. There are two kinds of causative constructions in Ojibwa--simple causatives and instrumental causatives. There are a relatively large number of morphemes involved in these constructions. The causative morphemes themselves have been traditionally referred to as finals. The dead verbs that arise as the result of the clause union with a causative are traditionally referred to as initials. A list of the most common causative finals (cited with both animate and inanimate TSA markers and inanimate OAI) is given in (12).

(12) (a) simple causative finals

root	TA form	TI form	Gloss
-h-	-h-	-to:-	cause
-in-	-in-	-inam-	cause
-bi-	-bin-	-bido:-	cause
-sah-	-sah-	-sato:-	cause

-s-	-šim-	-sido:-	cause (to lie/be in a state)/ cause to fall/cause (by accident)
-šk-	-škaw-	-škam-	cause (in the body)
-k-	-kaw-	-kam-	cause (in the body)

(b) instrumental causative finals

-bi-	-bin-	-bido:-	cause using force/using the hand
-ai-	-ahw-	-aham-	cause using an instrument
-gah-	-gahw-	-gaham-	cause using an axe/instrument
-šk-	-škaw-	-škam-	cause using foot/body
-k-	-kaw-	-kam-	cause using body
-iz-	-izw-	-izam-	cause using heat
-a:kiz-	-a:kizw-	-a:kizam-	cause using fire
-m-	-m-	-ndam-	cause using speech
-am-	-am-	-andam-	cause using the mouth/teeth
-agana:m-	-agana:m-	-agana:ndam-	cause using violent action
-bo:-	-bo:n-	-bo:do:-	cause using a sawing motion
-ko-	-kon-	-kodam-	cause using a cutting action
-iž-	-ižw-	-ižam-	cause using a cutting edge

A few examples follow.

(13) (a) simple causatives

(i) Causative: ngi:-ze:gha: I frightened him.
/n - gi: - ze:g - (i)h - ø - a:/
1 PAST AFRAID CAUSE TSA OAI

stative: gi:-ze:gzi He was frightened.
/ze:g - izi - w/
AFRAID ISA 3

(ii) Causative: ngi:-no:kbido:n I softened it.
/n - gi: - no:k - (i)bi - d - o: - n/
1 PAST SOFT CAUSE TSA OAI OAI

Stative: no:ka: It is soft.
/no:k - ya: - w/
SOFT ISA 3

(iii) Causative: ngi:-špina:n I raised it up.
/n - gi: - ašp - in - ø - am - n/
1 PAST HIGH CAUSE TSA OAI OAI

Stative: špa: It is high up.
/ašp - ya: - w/
HIGH ISA 3

(iv) Causative: ngi:-nbagsido:n I flattened it.
/n - gi: - nabag - (i)s - (i)d - o: - n/
1 PAST FLAT CAUSE TSA OAI OAI

Stative: nbaga: It is flat.
 /nabag - ya: - w/
 FLAT ISA 3

(v) Causative: ngi:-a:k^wzi:ška:gon It made me sick.
 /n - gi: - a:kozi - šk - aw - igo - n/
 1 PAST SICK CAUSE TSA PASS OAI

Stative: ngi:-a:koz I was sick.
 /n - gi: - a:kw - izi/
 1 PAST SICK ISA

(vi) Causative: nmogska:ji:ka:g He bothers me.
 /n - mogosk - a:d - (i)k - aw - igo/
 1 BOTHER BE CAUSE TSA PASS

Stative: nmogska:diz I am unsettled.
 /n - mogosk - a:d - izi/
 1 BOTHER BE ISA

(b) Instrumental Causatives

(i) Simple: ngi:-a:žgidna:n I turned it face up.
 /n - gi: - a:žigid - in - ø - am - n/
 1 PAST FACE-UP CAUSE TSA OAI OAI

Instrumentals

ngi:-a:žgijbido:n I turned it over (with my
 hand).
 /n - gi: - a:žigid - (i)bi - d - o: - n/
 1 PAST FACE-UP CAUSE TSA OAI OAI
 WITH-HANDS

ngi:-a:žgizka:n I turned it over (with
 my foot).
 /n - gi: - a:žigid - (i)k - ø - am - n/
 1 PAST FACE-UP CAUSE TSA OAI OAI
 WITH-FOOT

(ii) Simple: ngi:-dko:na:n I shortened it.
 /n - gi: - dakw - in - ø - am - n/³
 1 PAST SHORT CAUSE TSA OAI OAI

Instrumentals

ngi:-dko:k^wda:n I cut it shorter.
 /n - gi: - dakw - (i)ko - d - am - n/
 1 PAST SHORT CAUSE TSA OAI OAI
 BY-CUTTING

ngi:-dko:bo:do:n I sawed it off shorter.
 /n - gi: - dakw - (i)bo: - d - o: - n/
 1 PAST SHORT CAUSE-BY TSA OAI OAI
 SAWING

(iii) Simple: ngi:-nbagsido:n I flattened it.
 /n - gi: - nabag - (i)s - (i)d - o: - n/
 1 PAST FLAT CAUSE TSA OAI OAI

Instrumentals

ngi:-nbaghan I flattened it (with an
 instrument).
 /n - gi: - nabag - ah - Ø - am - n/
 1 PAST FLAT CAUSE TSA OAI OAI
 WITH-INSTR

ngi:-nbaggana:nda:n I pounded it flat.
 /n - gi: - nabag - agana:m - d - am - n/
 1 PAST FLAT CAUSE- TSA OAI OAI
 WITH-VIOLENCE

(iv) Simple: ngi:-da:škna:n I divided it.
 /n - gi: da:šk - in - Ø - am - n/
 1 PAST IN-TWO CAUSE TSA OAI OAI

Instrumentals

ngi:-da:škgaha:n I split it (with an axe).
 /n - gi: - da:šk - (i)gah - Ø - am - n/
 1 PAST IN-TWO CAUSE TSA OAI OAI
 WITH-AXE

ngi:-da:škška:n I split it (with my body).
 /n - gi: - da:šk - (i)šk - Ø - am - n/
 1 PAST IN-TWO CAUSE TSA OAI OAI
 WITH-BODY

(v) Simple: ngi:-bkwe:na:n I removed part of it.
 /n - gi: - bakwe: - in - Ø - am - n/
 1 PAST PAST- CAUSE TSA OAI OAI
 GONE

Instrumentals

ngi:-bkwe:ža:n I sliced a piece off of it.
 /n - gi: - bakwe: - iž - Ø - am - n/
 1 PAST PAST- CAUSE TSA OAI OAI
 GONE BY-CUTTING

ngi:-bkwe:nda:n I bit a piece off of it.
 /n - gi: - bakwe: - am - d - am - n/
 1 PAST PAST- CAUSE TSA OAI OAI
 GONE WITH-TEETH

Chapter IV. This process is used widely with two morphemes, ška 'cause (in/with the body)' and k 'cause (in/with the body)', yielding morpheme complexes ending in -ška: /-š^vka-aw-i/ and -ka: /-k-aw-i/ respectively. Some examples of such constructions are given in (15).

- (15) (a) (i) bgone:š^vka: It has a hole in it.
 /bagone: - š^vka - aw - i - w/
 HAVE-HOLE CAUSE TSA ISA 3
- (ii) zswe:š^vka: It is scattered.
 /zaswe: - š^vka - aw - i - w/
 SCATTERED CAUSE TSA ISA 3
- (iii) da:pš^vka: He has/is having convulsions.
 /oda:p - (i)š^vka - aw - i - w/
 PICKED-UP CAUSE TSA ISA 3
- (b) (i) bskika: It is bent.
 /bisk - (i)k - aw - i - w/
 FOLDED CAUSE TSA ISA 3
- (ii) gi:wa:zka: It is off schedule (e.g. a bus)
 /gi:wa:d - (i)k - aw - i - w/
 WANDER CAUSE TSA ISA 3

Constructions involving ška: and ka: show two peculiarities, one semantic the other syntactic. The semantic peculiarity is that the meanings of the causative morpheme complexes are often somewhat specialized as -ška: 'be/come to be (in/with the body)' and -ka: 'be (in the body) move (oneself)'. The syntactic peculiarity is that these morpheme complexes are constructed on the basis of animate objects (i.e. the marker aw is an animate TSA marker) regardless of whether the object is animate or inanimate. This is reminiscent of the syntactic property of igw discussed in Chapter IV. Almost certainly these two facts indicate that the complexes -ška: and -ka: are lexicalized as units, and are treated as inchoatives as per §9.1.1.

The second interesting feature of the clause union analysis is that there is implicit in it the claim that all morphemes that function

as initials in this type of construction are logically intransitive i.e. medio-passive. This follows from the restriction against clause union when the downstairs clause is transitive. To the best of my knowledge all previous analysts of Ojibwa, and for that matter of Algonkian, have treated some initials as transitive, e.g. Bloomfield (1944) treats PA *kiišk- as 'cut through, sever' citing the form *kiiškahamwa which gives Ojibwa wgi:škha:n 'he cuts it down off' /w-gi:šk-ah-Ø-am-n/ (with inflectional restructuring). But in this analysis ah means 'cause using an instrument' thus gi:šk- must mean 'be cut through, be severed'. But even in his own work (1944) he lists *kiiškaapeθkyaawi 'it is a cut-off rock.' which requires the medio-passive (intransitive) meaning.⁴ If it is not at this point totally clear why such a form requires an intransitive meaning for the initial, it is because the medial *-aapeθk- represents the subject as will be explained in Chapter X on noun incorporation.

As regards the claim that all verbal initials are intransitive, there are three groups of initials according to the obviousness of logical intransitivity. In the first group are those which have simple intransitive forms. Examples of this sort have been given in (12a) (i-v). It is on the basis of the direct evidence from this group that the analysis is developed. The second group are those initials which do not have simple intransitive forms, but for which there is indirect evidence, either in the form of a stative construction as those initials in (16) have,

- (16) (a) ja:g- 'be used up'
 no simple intransitive: *ja:ga:, *ja:gad, *ja:gan, etc.
 stative/inchoative: ja:gse: It is used up./It runs out.
 /ja:g - (i)se: - \emptyset - w/
 USED-UP MOVE ISA 3
- (b) zi:g- 'pour out (intransitive)'
 no simple intransitive: *zi:ga:, ⁵*zi:gad, *zi:gan, etc.
 stative/inchoative: zi:gse: It pours out.
 /zi:g - (i)se: - \emptyset - w/
 POUR-OUT MOVE ISA 3
- (c) bi:gw- 'be in pieces'
 no simple intransitive: *bi:gwa:, *bi:gwad, *bi:gwan, etc.
 stative/inchoative: bi:g^wška: It is broken in pieces.
 /bi:gw - (i)šk - aw - i - w/
 IN-PIECES CAUSE TSA ISA 3
- or in the form of medial constructions where the medial represents all or part of an incorporated subject, as in (17).
- (17) (a) gi:šk- 'be cut through'
 no simple intransitive: *gi:ška:, *gi:škad, etc.; *gi:škzi, etc.
 medial construction: gi:šknike: He has his arm cut off.
 /gi:šk - (i)nik - e: - \emptyset - w/ (from: His
 CUT-OFF ARM MEDIAL ISA 3 arm is cut
 off.)
- (b) bakwe:n- 'choke (intransitive)'
 no simple intransitive: *bkwe:nzi, *bkwe:ni, etc.
 medial construction: bkwe:nbi: He's choking on water.
 /bakwe:n - (i)bi:g - \emptyset - w/ (from: Water
 CHOKE WATER ISA 3 chokes him.)

The last group of initials are those for which there is neither evidence for considering them intransitive nor against considering them intransitive. Because the analysis of initials as intransitive works in other cases, and the analysis of the last group as transitive would severely complicate the analysis as a whole, we take the null hypothesis. Lacking evidence, we assume this group of verbal initials works like the other two groups. Examples of this group are given in (18).

- (18) (a) *zi:n-* 'be squeezed'
- causative only: *wgi:-zi:nbido:n* He squeezed it.
 /w - gi: - zi:n - (i)bi - d - o: - n/
 HE PAST SQUEEZED CAUSE TSA OAI OAI
- (b) *bakwe:-* 'be part gone'
- causative only: *wgi:-bkwe:na:n* He took away part of it.
 /w - gi: - bakwe: - in - ∅ - am - n/
 3 PAST PART-GONE CAUSE TSA OAI OAI
- (c) *nawad-* 'be grabbed'
- causative only: *wgi:-nwadna:n* He grabbed it.
 /w - gi: - nawad - in - ∅ - am - n/
 3 PAST GRABBED CAUSE TSA OAI OAI

Members of this last group of initials are very hard to render in English, most are probably inchoatives in their root meaning, rather than statives so for example *nawad-* (18c) probably means more like 'come to be grabbed', than simply 'be grabbed'. The inherent rarity of appropriate non-causative contexts for expressing such ideas may be, in part, responsible for the initials expressing those ideas appearing in the third group. Nonetheless it seems that there is a lexical (ad hoc) aspect to the grouping, because *ja:g-* 'be used up', and *bakwe:-* 'be part gone' seem to be in the same semantic area, the former being, however, in the second group, and the latter in the third group.

There are a number of semantic regularities among these different groups of initials. We will mention a few here, before turning to the next topic.

At present we only have some tentative generalizations regarding initials in the second and third group. Morphemes in the second group include most, if not all, morphemes which refer to orientations in space, as in (19a) and many that refer to positions relative to implied points of reference, as in (19b). All of these appear embedded under s

'fall, lie' or se: 'move', or both. In addition there are a number of morphemes which refer to the interruption of the structural integrity of objects, as in (19c). All of these appear embedded under ška: or ka: or occasionally in medial constructions.

- (19) (a) /a:žigid-/ be face up
 /a:tawa:-/ be right side up
 /animiko:-/ be faced away
 /bisk-/ be folded (over)
 /ašawe:-/ be tilted
 /gwe:k-/ be turned around
 /gaw-/ be fallen (over)
- (b) /zag-/ be attached
 /a:niko:-/ be linked
 /agwa:-/ be outside of water/fire
 /na:b-/ fit in/on
 /ne:gw-/ be in/on
 /gč:b-/ be fallen off
 /za:bw-/ penetrate
- (c) /bo:kw-/ be broken (stick-like things)
 /bak-/ be broken (string-like things)
 /ba.s-/ be broken/cracked
 /ba:k-/ be (broken) open
 /ba:šk-/ be burst
 /da:šk-/ be (split) (in two)
 /bakwe:-/ be partly gone
 /bi:gw-/ be in pieces
 /gi:šk-/ be cut off

Morphemes in the third group for which there is no direct evidence of intransitivity include many morphemes which mean be in (temporary) contact with (s.t.), as those in (20).

- (20) /da:ng-/ touch
 /zanigw-/ be rubbed
 /ga:nd-/ be met
 /ji:b-/ be nudged
 /gizi:-/ be wiped
 /ba:zagw-/ be scratched
 /ga:šk-/ be scraped
 /zi:n-/ be squeezed
 /dakw-/ be siezed
 /nawad-/ be grabbed

9.1.3. We:b-. There is a very interesting initial we:b- that

refers to motion through air. The peculiarity associated with this morpheme is that it is used as a kind of final as well as an initial. Some examples of its use are given in (21). Since it is not a true causative itself the whole construction involving we:b as a final must appear embedded under a causative.

- (21) (a) we:we:bzo He is swinging.
 /REDUP - we:b - (i)zo - w/
 FLY ISA 3
- (b) (i) wgi:-bgijwe:bna:n He dropped it.
 /w - gi: - bagid - (i)we:b - in - ∅ - am - n/
 3 PAST RELEASED FLY CAUSE TSA OAI OAI
- (ii) wgi:-bgidna:n He released it./He put it down.
 /w - gi: - bagid - in - ∅ - am - n/
 3 PAST RELEASED CAUSE TSA OAI OAI
- (c) (i) ngi:-ga:njwe:bha:n I pushed it (with an instrument).
 /n - gi: - ga:nd - (i)we:b - ah - ∅ - am - n/
 1 PAST PUSH FLY CAUSE TSA OAI OAI
 W/INSTR
- (ii) ngi:-ga:ndha:n I pushed against it (with an instrument).
 /n - gi: - ga:nd - ah - ∅ - am - n/
 1 PAST PUSH CAUSE TSA OAI OAI
 W/INSTR
- (d) (i) ngi:-bke:we:bška:n I knocked it aside (with my foot/body).
 /n - gi: - bke: - we:b - (i)šk - ∅ - am - n/
 1 PAST ASIDE FLY CAUSE TSA OAI OAI
 W/FOOT/BODY
- (ii) ngi:-bke:ška:n I left it aside./I abandoned it.
 /n - gi: - bke: - šk - ∅ - am - n/
 1 PAST ASIDE CAUSE TSA OAI OAI
 IN BODY

The derivation of (21b(i)) is given to illustrate [on the next page]. The forms containing the morpheme we:b were problematic in traditional analysis because they represented one of the few instances of constructions containing two finals. In the clause union analysis we:b is an interesting morpheme but not problematic.

(22)

Underlying Form	gi: in PAST CAUSE	2:comp(we:b FLY	1:comp(bagid RELEASED	1:[INAN]) IT	1:[1] I
Clause Union (5)		(we:b	DV:bagid	1:[INAN])	
Dead Verb Attachment (6)		(bagidwe:b		1:[INAN])	
Clause Union (5)	gi: in	DV:bagidwe:b		2:[INAN]	1:[1]
Dead Verb Attachment (6)	gi:-bagidwe:bin			2:[INAN]	1:[1]
TSA (50)(III)	gi:-bagidwe:bin-TSA[1]			2:[INAN]	1:[1]
OA I (42)(VII)	gi:-bagidwe:bin-TSA[1]-OAI			2:[INAN]	1:[1]
Agreements	ngi:-bagidwe:bin-TSA[1]-OAI-n			2:[INAN]	1:[1]
Spelling	ngi:-bagidwe:binamn				
Morphophonemics	ngi:-bgijwe:bna:n				

9.1.3 Causative of Transitives. As we have mentioned above there is a general ban in Ojibwa against clause unions involving downstairs transitive clauses. The normal realization of causatives of transitive clauses is a two clause structure with a copy of the subject of the downstairs clause as the superficial object of the causative verb.

- (23) *ngi:-žiha: wi:-ba:knaŋg mkak* I made him open the box.
 /n - gi: - in - (i)h - ø - a:/ /wi: - ba:k - in - ø - am - d/
 1 PAST LIKE⁶ CAUSE TSA OAI FUT OPEN CAUSE TSA OAI 3

However some speakers allow clause union of downstairs transitive clause with a few verbs (most of them causative constructions themselves).

- (24) (a) *ngi:-ba:knamo:ha: mkak* I made him open the box.
 /n - gi: - ba:k - in - ø - am - (o)h - ø - a:/ BOX
 1 PAST OPEN CAUSE TSA OAI CAUSE TSA OAI
- (b) *ngi:-da:pnamo:ha: mo:šwe:nan* I made him pick up the scarf.
 /n - gi: - oda:p - in - ø - am - (o)h - ø - a:/ SCARF-obv
 1 PAST PICKED-UP CAUSE TSA OAI CAUSE TSA OAI

The TSA and OAI markers of the downstairs transitive verb are both neutralized to inanimate as the example in (24b), with the animate mo:šwe:n 'scarf' as the initial object of the downstairs transitive clause. Notice too that the derivation of forms such as those in (24) involves an application to Indirect Object Advancement (30) (V) as discussed in §5.5.

9.1.4 Weather Causatives. There are several causative morphemes that refer to ambient conditions as agents of causation. Some examples are given in (25).

- (25) (a) *gža:te:* It's hot (out).
 /giž - a:h - de: - w/
 HOT CAUSE ISA 3
 BY-SUN

gi:-bo:na:dga: He stopped wading/swimming.
 /gi: - bo:n - a:daga: - Ø - w/
 PAST STOP WADE/ ISA 3
 SWIM

(ii) preverbs

gi:-ma:ji:-gmiwan It started to rain.
 /gi: - ma:d - i - gimiwan - w/
 PAST START ADV RAIN 3

gi:-bo:ni-noki: He stopped work.
 /gi: - bo:n - i - anoki: - Ø - w/
 PAST STOP ADV WORK ISA 3

(b) adverbial constructions

(i) initials

gi:-bba:mse: He went for a walk.
 /gi: - baba:m - ose: - Ø - w/
 PAST AROUND WALK ISA 3

ngi:-a:pda:p I laughed and laughed.
 /n - gi: - a:pid - a:pi - Ø/
 1 PAST REALLY LAUGH ISA

(ii) preverbs

gi:-bba:-ndawe:njige:wag
 They went off hunting
 /gi: - baba: - andawe:ndige: - Ø - w - ag/
 PAST AROUND HUNT ISA 3 3PL

ngi:-a:pji-g^vskoz I (finally) woke up completely.
 /n - gi: - a:pid - i - goškw - izi - w/
 1 PAST REALLY ADV WAKE ISA 3

(c) quantifier constructions

(i) initials

gi:-ni:wo:bhidwag There were four of them running
 together.
 /gi: - ni:wo - bah - idi - Ø - w - ag/
 PAST' FOUR RUN SELF' ISA 3 3PL

be:žgo:ga:bwi He's standing alone.
 /be:žigw - (i)ga:bawi - Ø - w/
 ONE STAND ISA 3

(ii) preverb

ni:wo-bbo:ngizi He's four years old.
 /ni:wo - bibo:n - ag - izi - w/
 FOUR WINTER OLD ISA 3

9.2.1 Modal Initials. We will start by examining modal constructions involving both initials and preverbs. The modal morphemes of Ojibwa include those in (27).

(27)	/ma:d-/	start, begin
	/we:b-/	start, begin
	/bo:n-/	stop
	/a ^š kwa:-/	finish (rare as initial, used to mean 'after')
	/gi: ^ž -/	finish
	/ga ^š k-/	be possible (preverb very rare)
	/a:naw-/	be unable
	/god-/	try, test
	/api:t-/	be in the process of, continue
	/gagwe:d-/	try (preverb form /gagwe:-/)
	/da:-/	can, may; should (preverb only)

Some of these have full verb forms, as in (28).

(28)	ma:jta:d	start, begin
	we:bta:d	start, begin
	bo:nta:d	stop
	škwa:ta:d	finish, quit
	gi: ^ž i:ta:d	finish, be ready
	g ^š kiha:d	control, manage (TA)
	g ^š kito:d	control, manage (TI), be able to (AI)
	a:nwiha:d	be unable to manage (TA)
	a:nwito:d	be unable to manage (TI), be unable to (AI)
	g ^w jiha:d	test, try to get s.o. to (TA)
	g ^w jito:d	test, try to get s.t. to (TI), try to (TI)

We will discuss constructions involving full modal verbs in detail later. For now let us consider the following sentences involving /ma:d-/ 'start'.

- (29) (a) ngi:-ma:jta: gi:-noki:ya:n I started working.
 /n - gi: - ma:d - (i)ta: - ø/ /gi: - anoki: - ø - a:n/
 1 PAST START HAPPEN ISA PAST WORK ISA 1
- (b) gi:-ma:ji:-gmiwan It started to rain.
 /gi: - ma:d - i - gmiwan - w/
 PAST START ADV RAIN 3

gests that there is a second type of clause union process besides the causative/inchoative Clause Union (5). The evidence from Ojibwa is not sufficient to fill out a clear picture of how this type of clause union works. All the Ojibwa examples involve upstairs intransitives and amount simply to rendering the upstairs verb dead. Frantz (1976) suggests that there is a type of clause union which deletes subjects under coreference and renders the upstairs verbs dead.⁷ This may be another case of this type of union, but we cannot tell at present. Our formulation for this clause union is written as (32).

(32) Lowering Union

$$\begin{array}{cccc} V & 1:\text{comp} & (V) & \Rightarrow \text{DV:V } v \\ a & & b & a \quad b \end{array}$$

It is not totally clear to us at this point, but we consider it possible that (32) is the basic form for a rule of adverb lowering. We will discuss that possibility more in the next section.

For now we will derive the sentence of (31b) to show the application of (32).

(33) Underlying Form	gi:	ma:d	1:comp(ba:pi 1:[1])
	PAST	START	LAUGH I
Lowering Union (32)	gi:	DV:ma:d	ba:pi 1:[1]
Dead Verb Attachment (6)	gi:-ma:dba:pi		1:[1]
ISA (28) (III)	gi:-ma:dba:pi-ISA[A]		1:[1]
Agreements	ngi.-ma:dba:pi-ISA[A]		1:[1]
Spelling	ngi:-ma:da:pi		
Morphophonemics	ngi:-ma:da:p		

Now let us turn to the analysis of the surface two clause forms like that in (31a). More examples are given in (34).

(34)⁸ (a) /ma:d/ start

(i) ngi:-ma:jta: wi:-noki:ya:n.⁹ I started working (e.g. a new job).

/n - gi: - ma:d - (i)ta: - Ø / /wi: - anoki: - Ø - a:n/
1 PAST START HAPPEN ISA FUT WORK ISA 1

(ii) gi:-ma:jta:mgad wi:-ni:mhidiŋg. The dance started./There is going to be start dances.

/gi: - ma:d - (i)ta: - magad - w / /wi: - ni:mi - h - idi - m - g /
PAST START HAPPEN ISA 3 FUT DANCE CAUSE SELF 3
INDEF
ACTOR

(iii) gi:-ma:jta:mgad wi:-bimijwaŋg. It started to flow (unexpectedly).

/wi: - bim - (i)jiw - an - g /
FUT ALONG FLOW ISA 3

(b)

(i) ngi:-bo:nta: wi:-noki:ya:n I (suddenly) stopped working.

/n - gi: - bo:n - (i)ta: - Ø /
1 PAST STOP HAPPEN ISA

(ii) gi:-bo:nta:mgad wi:-ni:mhidiŋg There are going to be any more dances.

/gi: - bo:n - (i)ta: - magad - w /
PAST STOP HAPPEN ISA 3

(iii) gi:-bo:nta:mgad wi:-ba:piŋg. The laughter (suddenly) stopped.

/wi: - ba:pi - Ø - m - g /
PUT LAUGH ISA INDEF 3
ACTOR

The problem in these forms is where does the ta: 'happen' (consistently mistranslated as 'do', 'work', or 'act') come from? At this point it appears that the most consistent way of dealing with ta: is to posit it as an underlying higher predicate in those clauses in which it appears. The derivation of (34a(i)) is given in (35) [on the next page].

9.2.2 Adverbial Initials. Now let us turn to a discussion of adverbial initials. We have seen a few examples in (26b) above. Fur-

(35)

Underlying Form ¹⁰	gi: ma:d l:comp(ta:	l:comp(anoki:	1:[1])
	PAST START HAPPEN		I
Raising		(ta: 1:[1] CH:comp(anoki:	1:[1])
Lowering Union (32)	gi: DV:ma:d ta: 1:[1]	CH:comp(anoki:	1:[1])
Dead Verb Attachment (6)	gi:-ma:dta: 1:[1]	CH:comp(anoki:	1:[1])
ISA (28)(III)	gi:-ma:dta:-ISA[A] 1:[1]	CH:comp(anoki:-ISA[A]	1:[1])
Agreements	ngi:-ma:dta:-ISA[A] 1:[1]	CH:comp(anoki:-ISA[A]-a:n	1:[1])
Spelling	ngi:-ma:dta:	wi:-anoki:a:n	
Morphophonemics	ngi:-ma:jta: wi:-noki:ya:n		

ther examples are given in (36). Exemplified are the three types of adverbial initial constructions: those involving simple adverbs, those involving directional adverbials, and those involving prepositions.

(36) (a) simple adverbs

- (i) mno-gi:žgad It's a nice day.
 /minw - i - gi:žig - ad - w/
 GOOD ADV DAY ISA 3
- ngi:-a:pji-g^wskož I (finally) woke up completely.
 /n - gi: - a:pid - i - goškw - izi/-
 1 PAST REALLY ADV WAKE ISA

(ii) initial

- mnwa:bi He has good eyesight.
 /minw - wa:bi - ø - w/
 GOOD SEE ISA 3
- ngi:-a:pda:p I laughed and laughed.
 /n - gi: - a:pid - a:pi - ø/
 1 PAST REALLY LAUGH ISA
- gzi:h^wse: He walks fast.
 /gizi: - hose: - ø - w/
 FAST WALK ISA 3

(b) directional adverbials

(i) preverbs

- gi:-ni-ma:ja: He left.
 /gi: - ni - ma:ja: - ø - w/
 PAST AWAY MOVE ISA 3
- gi:-bi-dgošin He came.
 /gi: - bi - dagoš - in - w/
 PAST COME ARRIVE ISA 3

(ii) initials

- ngi:-bi:jbi:hma:g He wrote me a letter.
 /n - gi: - bi:d - (i)bi:h - ø - amaw - igw - i/
 1 PAST COME WRITE TSA BEN PASS ISA

gi:-nimbato: He ran off.
 /gi: - nim - bato: - Ø - w/
 PAST AWAY RUN ISA 3

(c) prepositions

(i) preverbs

a:pi:š e:-wnji-ba:yan? Where do you come from?
 WHERE/CHANGE - a - wnd - i - ba: - Ø - an/
 WHICH FROM ADV COME ISA 2

a:ni:š e:žī-ya:yan? What's the matter with you?
 HOW /CHANGE - in - i - aya: - Ø - an/
 WHICH LIKE ADV BE ISA 2

mi: e:ndžī-noki:ya:n That's where I work.
 TRULY /CHANGE - a - ndan - i - anoki: - Ø - a:n/
 WHICH AT ADV WORK ISA 1

nwi:ji-noki:ma: I work with him.
 /n - wi:d - i - anoki: - m - Ø - a:/
 1 WITH ADV WORK TSA OAI

(ii) initials

gi:-wndago:jin He fell off.
 /gi: - wnd - ago:d - in - w/
 PAST FROM FALL ISA 3

ngi:-žīwna: o:de:na:ŋg I took him to town.
 /n - gi: - in - (i)wi - n - a: / TOWN-loc
 1 PAST TO TAKE TSA OAI

wwi:dbima:n He's sitting with her.
 /w - wi:d - abi - m - Ø - a: - an/
 3 WITH SIT TSA OAI OBV

gi:-dningwa:m ma:mpi: Washington
 Washington slept here.
 /gi: - ndan - ingwa:m - Ø - w/
 PAST AT SLEEP ISA 3

9.2.2.1 Simple Adverbs. While most adverbs appear either totally unincorporated or as preverb/initials exclusively, there are a number of adverbs that occur in all forms. Some examples are given in (37).

(37) (a) /oza:m/ 'too (much)'

(i) za:m g^vza:te: goji:ŋg It's too hot out.
TOO BE-HOT-3 OUTSIDE

(ii) za:mi-mŋgide:zi It's too wide.
TOO BE-WIDE-3

(iii) ndo:za:m^vskine: I too full. (= I overate.)
/n(d) - oza:m - o^vskine: - ø/
1 TOO FULL ISA

(b) /a:pid/ 'very (much), completely'

(i) a:pji go nde:wkwe: I have a bad headache.
VERY EMP 1-HEADACHE

(ii) ngi:-a:pji-g^wskoz I (finally) woke up completely.
/n - gi: - a:pid - i - go^wkw - izi/
1 PAST REALLY ADV WAKE ISA

(iii) gi:-a:pde:ndi He was gone a long time.
/gi: - a:pid - e:ndi - ø - w/
PAST REALLY BE-AWAY ISA 3

For most adverbs there are only unincorporated forms, like ne:ya:b 'back (again)', ge:ya:bi 'still', be:giš/a:mbe:giš 'hopefully', no:j 'variously', po:j ;surely', we:we:ni 'carefully', etc. Some examples are given in (38).

(38) (a) ge:ya:bi nama:mpi: gbiba:-ya:? Are you still hanging around here?

STILL HERE 2-BE-AROUND

(b) ne:ya:b ngi:-gi:we:wna: I took him back home.
BACK 1-TOOK-HOME-3

(c) no:j go na: gi:-bmite: All sorts (of things) were there.
VARIOUSLY BE-ALONG-THERE
EMP

(d) ga: wi: we:we:ni gdikdosi: You didn't say it right.
(B1 S429)
NOT CAREFULLY 2-SAY-THUS

In addition there are some adverbs (sometimes varying from locale to locale) that may occur only as preverbs of initials, like minw- 'good, well', git- 'big, very (much)', wi:ŋge: 'thoroughly', (may occur unin-

corporated on Walpole), and a few others. Some examples are given in (39).

(39) (a) nmino-bma:diz. I'm fine. (answer to a:ni:š na: e:ži-bma: dziyan? How are you doing?)

/n - minw - i - bim-a:d - izi/
1 WELL ADV LIVE ISA

mnwa:bi. He's got good eyesight.
/minw - wa:bi - ø - w/
WELL SEE ISA 2

(b) za:m ggici-noki: You work too hard.

TOO /g - git - i - anoki: - ø/
2 VERY ADV WORK ISA
MUCH

(c) wgi:-wi:ŋge:-ggwe:jma:wa:n

They questioned him closely. (Odawa use)
/w - gi: - wi:ŋge: - gagwe:d-m - ø - a: - wa: - an/
3 PAST THOROUGHLY ASK 'ISA OAI 3PL OBV

The syntax of adverbs is not well understood at this point. We suspect that there are semantic conditions on the incorporation of adverbs as preverbs (and initials) but the conditions are not well understood. Most interestingly, there are sometimes slightly meaning differences between incorporated and unincorporated adverbs, e.g. a:pid 'very, completely', seems to have only the meaning 'completely' when incorporated. Nonetheless we can talk in a rough way about the mechanisms of incorporation. We choose to account for adverb incorporation via Dead Verb Attachment (6). The basic rule setting up incorporation adverbs is given as (40).

(40) Adverb Deadening

ADV ==> DV:ADV

This rule labels adverbs as dead verbs, and since there is already a rule of Dead Verb Attachment (6), this will have the desired effect. In fact this rule alone is sufficient to account for both the preverb and initial forms of adverbs, because the choice of preverb versus ini-

tial is made largely on the basis of the morphological properties of the following morpheme.¹¹ Some examples of morphemes having both root and final forms are given in (41).

(41) (a) 'laugh' root form /ba:pi/ final form /-a:pi/

- (i) ba:pi He's laughing.
 (ii) a:pda:pi He's laughing very hard.
 /a:pid - a:pi - Ø - w/
 REALLY ISA 3

(b) 'see' root form /wa:bi/ final form /-wa:bi/

- (i) wa:bi He (can) see.
 (ii) mnwa:bi He (can) see well./He has good eyes.
 /minw - wa:bi - Ø - w/
 GOOD ISA 3

(c) 'stand' root form /(ná:)ni:bawi/ final form /-ga:bawi/

- (i) na:ni:bwi He's standing up.
 (ii) ntamga:bwi He's standing first (in line).
 /nitam - (i)ga:bawi - Ø - w/
 FIRST ISA 3

But many verbal morphemes do not have final forms, in these cases the preverb form of the adverb appears. Some examples are given in (42).

(42) (a) 'start/wake up' /goškw/

- (i) ngi:-g^wškoz I woke up.
 (ii) ngi:-a:-ji-g^wškoz I (finally) woke up completely.

(b) 'work' /anoki/

- (i) noki: He's working.
 (ii) gci-noki: He's working hard.
 VERY

(c) 'be (in a place)' 'be (in a state)' /iya:/

- (i) gi:-ya: wadi He was there.
 (ii) gi:-bza:ni-ya: He kept quiet.
 QUIETLY

In addition there are a number of adverbial morphemes that do not have initial forms, these of course only appear as preverbs. Some examples

are given in (43).

(43) (a) 'often' (by implication 'be good at/know how') /nita:/

(i) wa:bi-mno:min nnita:-mnoza:n I know how to cook rice.
I often cook rice.
WHITE RICE /n - nita: - mincz - \emptyset - am - n/
1 OFTEN COOK TSA OAI OAI

(ii) wa:bi-mno:min ngi:-za:mza:n I burnt the rice.
WHITE RICE /n - gi: - oza:m - z - \emptyset - am - n/¹²
1 PAST TOO COOK TSA OAI OAI

(b) 'that not' /bwa:/

(i) e:-bwa:-wi:snijig the ones who do not eat
/CHANGE - a - bwa: - wi:sini - \emptyset - d - i - ag/
WHICH EAT ISA 3 PPL 3PL

(ii) ngi:-de:bsini: I ate my fill.
/n - gi: - de:b - isini - i/
1 PAST ENOUGH EAT ISA

9.2.2.1 Adverb Lowering. We feel that there is an affinity in Ojibwa between modals and adverbs. In fact there are a number of superficial adverbs in Ojibwa that have meanings that one would classify as modal. Some examples are given in (44).

- (44) (a) nama: da-bi-dgošin Maybe he'll come./
POSSIBLY FUT-COME-ARRIVE-3 He might come.
- (b) abdigi gi:-wa-noki: He had to go to work.
NECESSARILY PAST-GO-WORK-3
- (c) na:bwi na: ni-ma:ja:yan You might as well leave.
PREFERABLY EMP LEAVE-2

Although a clear argument cannot be made on the basis of the Ojibwa data alone, we feel that the data suggest that Lowering Union (32) is an appropriate mechanism for accounting for some of the adverbial phenomena of Ojibwa. Thus we are suggesting that (45a) and (45b) have the same underlying construction, a one place modal verb upstairs. And that they are different only in that (45a) undergoes Adverb Deadening (40) while (45b) does not.

- (45) (a) nda:-noki: I should work./ I can work.
 /n - da: - anoki: - \emptyset /
 1 SHOULD WORK ISA
- (b) a:bdig nga-noki: I have to work.
 NECESSARILY /n - ga - anoki: - \emptyset /
 1 FUT WORK ISA

This type of analysis will require a minor revision of Lowering Union (32) so that it generates adverbs, rather than dead verbs. While we are in favor of such a revision, we have neither an appropriate idea of what it means syntactically to be an adverb, not a motivated mechanism for notating the conversion of a verb to an adverb. Therefore, we let our rule (32) stand as is.

9.2.2.3 Directional Adverbs. Directional adverbs are syntactically very similar to simple adverbs. However there are interesting semantic (and as a consequence morphological) facts that regard directional adverbs. There are four basic directional adverbs in Ojibwa: bi:d- 'come', anim- 'away', bim- 'along', and biba:m- 'around'. They are exemplified in (46).

- (46) (a) bi:jbato: He's coming running.
 /bi:d - (i)bato: - \emptyset - w/
 COME RUN ISA 3
- (b) nimbato: He's running off.
 /anim - (i)bato: - \emptyset - w/
 AWAY RUN ISA 3
- (c) bmibto: He's running (along).
 /bim - (i)bato: - \emptyset - w/
 ALONG RUN ISA 3
- (d) bba:mbato: He's running around./He's (out) running.
 /biba:m - (i)bato: - \emptyset - w/
 AROUND RUN ISA 3

There are a relatively large number of morphemes which express some basic notion of movement or motion that must cooccur with at least some incorporated adverb. The most semantically neutral adverbs for

motion verbs are directionals. A partial list of the motion morphemes involved is given in (47).

(47) (a) intransitive

-(h)ose:	walk
-a:daga:	wade, swim, move through water
-akožiwe:	paddle
-ška:	move, canoe
-bizo/-bide:	fly, speed
-kawe:	make tracks
-se:	move
-a:ndawe:	climb
-o:de:	crawl
-a:ši/-a:sin	be blown (by the wind), sail
-jiwan	flow
etc.	

(b) transitive

-win-/-wido:-	transport
-na:škaw-	chase
-o:m-/-o:ndam-	carry on the back
-da:ba:n-/-da:ba:dam-	drag
-da:bi:	drag (intr.)
-bo:n-/-bo:do:-	plow (idiom from: cause by sawing motion)
-bah-	run from
-bato:	run (/bah-d-we:/)

None of the morphemes in (47) have root forms, i.e. none of them can be used alone. They must be used as a part of a complex construction involving some sort of initial. The generalization that "explains" this fact seems to be the following.

(48) No underlying structure containing a reference to motion is a well formed structure of Ojibwa, unless it also contains an adverbial element specifying the path, or manner of the action.

Thus one can say any of the following

(49) (a) bmibto: He's running (along).
 /bim - (i)bato: - Ø - w/
 ALONG RUN ISA 3

(b) bba:mbato: He's running around.
 /baba:m - (i)bato: - Ø - w/
 AROUND RUN ISA 3

- (c) pato: He runs to (somewhere)./He's running like (so).
/in - bato - \emptyset - w/
LIKE/TO RUN ISA 3
- (d) bi:jbato: He's running this way.
/bi:d - bato: - \emptyset - w/
COME RUN ISA 3
- (e) wa:nnibto: He's running in circles.
/wa:nin-bato: - \emptyset - w/
CIRCLE RUN ISA 3
- (f) \check{z} e:btō: He's running backwards.
/aze: - bato: - \emptyset - w/
BACKWARDS RUN ISA 3

and many others but one cannot simply say

- (50) *bto: He's running.
/bato: - \emptyset - w/
RUN ISA 3

The same can be said for the other morphemes listed in (47). The generalization in (48) gets additional support from the fact that morphemes like bim- 'along (passing) be' and biba:m- 'around' also occur with verbs that only secondarily imply motion as in (51) and in situations that imply motion, even though the verb doesn't as in (52).

- (51) (a) gi:-bba:-ndawe:njge:
/gi - biba:m - andawe:ndige: - \emptyset - w/
PAST AROUND HUNT ISA 3
He went out hunting.
- (b) ??gi:-ndawe:ngje:
- (52) (a)
- (i) me:gwa: bmina:žhige:ya:n, ge:ga: go na: ngi:-bmi-nba:.
WHILE DRIVE-1 ALMOST EMPH/n - gi: - bim - niba: - \emptyset /
1 PAST AROUND ADV SLEEP
ISA
- (ii) ??me:gwa: bmina:žhige:ya:n, ge:ga: go na: ngi:-nba:.

While driving home, I almost fell asleep.

- (b) (i) škini:š^ˇan wgi:-bba:-wi:ji:wgo:n bba:-ndane:wa:wa:d niwi mkon.
 YOUNG-MAN /w - gi: - biba: - wi:ji:w - ∅ - igw - i - an/
 3 PAST AROUND ACCOMPANY TSA PASS ISA OBV
 AROUND-LOOK-FOR-3-3PL
 THAT-OBV BEAR-OBV
- (ii) ??škini:š^ˇan wgi:-wi:ji:wgo:n bba:-ndane:wa:wa:d niwi mkon
 His young men joined him in hunting for that bear.

Now the formulation of the principle governing underlying structures in Ojibwa given in (48) is not yet sufficiently refined, both in regard to the fact that the defining terms (like "reference to motion") are not adequately defined themselves, and in regard to the fact that there are a few (but very few) counterexamples. The three that are known are listed in (53).

- (53) iža:- go (AI)
 ma:ma:- move (AI, II)
 a:w^han-/a:wado:- haul (T^h, TI)

Of these the first two are historically not counterexamples being made up of in- 'to' and ma:d- 'away' plus a now defunct final -ya: 'move'. Even so, these words are rarely used with out a morpheme indicating path, usually bi- 'come' or ni- 'away' or a locative indicating the goal of the action. Thus sentences like

- (54) (a) ža: He's going.
 (b) ma:ja: He's moving.

are strange, although it is worth noting the semi-idiomatic use of ma:ja: in

- (55) ma:ja:n Come here.

The final resolution of these problems is beside the point of this work, and I therefore leave them aside with this mention for later investigation.

9.2.2.4 Prepositional Initials. Let us now turn to a discussion of initials that represent prepositions. Some examples are given

in (56).

(56) (a) /in-/ 'to, like'

(i) nini:ng ʒ go na: wgi:-na:bma:n niwi mnido:n¹³
 MAN-LOC THEN EMP THAT-OBV SPIRIT-OBV
 /w - gi: - in - wa:bam - Ø - a: - an/
 3 PAST LIKE SEE TSA OAI OBV
 Then the (evil) spirit appeared to her in the form of
 of a man.

(ii) gida:ki gi:-ni-pato: He ran up the hill.
 HILL /gi: - ni - in - bato: - Ø/ - w/
 PAST AWAY TO RUN ISA 3

(b) /wnd-/ 'from, because of'

(i) ga: wi: ngike:nma:si: ma: e:-wnji-ya:d
 NOT 1-NOT-KNOW-3 THERE /CHANGE - a - wnd - i - iya: - Ø - d/
 I don't know why she's there. WHICH BECAUSE BE ISA 3
 OF/ADV

(ii) gi:-wndago:de: nmaznahgan do:pwinig
 MY-BOOK TABLE-LOC
 /gi: - wnd - ago:d - e: - w/
 PAST FROM FALL ISA 3

(c) /ndan-/ 'at'

gi:-dnigwa:m ma:mpi: Washington
 /gi: - ndan - ingwa:m - Ø - w/ HERE
 PAST AT SLEEP ISA 3
 Washington slept here.

(d) /wi:d-/ 'with (animate logical object)'

ngi:-wi:dse:ma:
 /n - gi: - wi:d - ose: - m - Ø - a: /
 1 PAST WITH WALK TSA OAI
 I walked with him.

In traditional analysis verbs containing these prepositional morphemes are called relative roots.¹⁴ In our analysis we will treat these constructions as consisting of a preposition floated off its logical object attached to the verb. We choose to write this float as (57), in which we are claiming that a preposition takes on the status of an adverb.

(57) Preposition Float PREP ==> ADV

Then incorporation of the resultant prepositional adverb occurs through Adverb Deadening (40) and Dead Verb Attachment (6). We derive (56b, ii) in (58) to show the mechanism.

One further comment on the syntax of prepositions is in order. Very commonly the logical object of a preposition which is left stranded by Preposition Float (57) is marked with the locative /-ing/. The clearest examples of this in (56) are (56a, i) and (56b, ii).¹⁵ However with /wi:d-/ 'with' the logical object of the preposition is obligatorily advanced to direct object. (56d) is an example of this. The marker of advancement is m. We did not discuss this rule of advancement in Chapter V.

Finally if the logical object of a preposition is pronominal it is deleted.

- (59) (a) gi:-ni-pato: He ran there.
 /gi: - ni - in - bato: - Ø - w/
 PAST AWAY TO RUN ISA 3
- (b) pato: He runs like so.
 /in - bato: - Ø - w/
 LIKE RUN ISA 3
- (c) gi:-wndago:de: It fell from there./It fell off.
 /gi: - wnd - ago:d - e: - w/
 PAST FROM FALL ISA 3
- (d) bi-wi:dbin Come sit with (me).
 /bi - wi:d - abi - Ø - n/
 COME WITH SIT ISA IMPER

9.2.2.5 Comments on Adverbs. The preceding analysis of the syntax of Ojibwa adverbials is very sketchy. It is intended to be suggestive of the kind of analysis we think will ultimately be shown to be correct. But the amount of work that needs to be done in this area warrants a thesis or two of its own. There is a significant amount of semantic/pragmatic interaction here and possibly it will take a

(58)

Underlying Form	gi: ago:d	1:(POSS:[1]) mazinahigan	LOC:(wnd) do:piwin
	PAST FALL	MY BOOK	FROM TABLE
Preposition Float (57)	gi: ago:d	1:(POSS:[1]) mazinahigan	wnd LOC:do:piwin
Adverb Deadening (40)	gi: ago:d	1:(POSS:[1]) mazinahigan	DV:wnd LOC:do:piwin
Dead Verb Attachment (6)	gi:-wndago:d	1:(POSS:[1]) mazinahigan	LOC:do:piwin
ISA (28)(III)	gi:-wndago:d-ISA[I]	1:(POSS:[1]) mazinahigan	LOC:do:piwin
Agreements	gi:-wndago:d-ISA[I]-w	1:(POSS:[1]) mazinahigan	LOC:do:piwining
Spelling	gi:-wndago:de:w	nmazinahigan	do:piwining
Morphophonemics	gi:wndago:de:	nmaznahgan	do:pwiniŋ

native speaking linguist to sort all the factors out. We hope, on our part, to have indicated some of the basic mechanisms by which we feel adverbial morphemes come to appear in verb stems.

9.3 Non-causative Constructions with Verbal Initials. In this section we will argue that there is a third source of initials (and preverbs) that arise as the result of a clause union type process which affects non-term clauses. Some examples are given in (60).

- (60) (a) (i) dkami: He goes across. (usually a bridge)
 /dakami - i - w/
 CROSS ISA 3
- (ii) dkamse: He walks across. (name of the Shawnee
 /dakami - ose: - ∅ - w/ leader spelled in
 CROSS WALK ISA 3 English Tecumseh)
- (iii) dkama:dga: He swims across.
 /dakami - a:daga: - ∅ - w/
 CROSS SWIM ISA 3
- (b) (i) bi:ndge: He enters (usually a room or house).
 /bi:ndige: - ∅ - w/
 ENTER ISA 3
- (ii) bi:ndge:bto: He runs inside.
 /bi:ndige: - bato: - ∅ - w/
 ENTER RUN ISA 3
- (iii) bi:ndge:ya:de: He crawls inside.
 /bi:ndige: - o:de: - ∅ - w/
 ENTER CRAWL ISA 3
- (c) (i) ye:k^wzi He's tired.
 /iye:kw - izi - w/
 TIRED ISA 3
- (ii) ye:k^wga:bwi He's tired from standing.
 /iye:kw - (i) ga:bawi - ∅ - w/
 TIRED STAND ISA 3
- (iii) ye:k^wgwa:so He's tired of sewing.
 /iye:kw - (i)gwa:h - zo - w/
 TIRED SEW ISA 3
- (d) (i) za:gji:tam He goes out.
 /za:gid - (i)h-d-am - ∅ - w/
 EXIT ISA 3

(ii) za:gjiga:bwi He's standing outside.
 /za:gid - (i)ga:bawi - ∅ - w/
 EXIT STAND ISA 3

(iii) gi:-za:gdo:de:bto: He crawled out and ran.
 /gi: - za:gid - o:de: - bato: - ∅ - w/
 PAST EXIT CRAWL RUN ISA 3

The variety of semantic relationships between the two (or more) verbal ideas expressed in the constructions of (60) is rather wide. The most common relationship expressed is simultaneity, e.g. bi:ndge:bto: 'he enters running.' In addition there are three morphemes that participate in this type of clause union but often express a relationship of purpose. Examples of these are given in (61).

(61) (a) /wa-/ (dialectal wi-, owa-) 'go (in order) to, go and...'

gi:-wi-wi:sni He went to eat./He went and ate.
 /gi: - wi - wi:sini - ∅ - w/
 PAST GO EAT ISA 3

wgi:-wa-šama:n wdayan. He went to feed his dog.
 /w - gi: - wa - ašam - ∅ - a: - an/
 3 PAST GO FEED TSA OAI OBV

(b) /bi-/ Come (in order) to, come and...¹⁶

gi:-bi-wi:sni. He came to eat.
 /gi: - bi - wi:sini - ∅ - w/
 PAST COME EAT ISA 3

ngi:-bi-wa:bma: bino:jĩ:s
 I came to see the baby.
 /n - gi: - bi - wa:bam - ∅ - a:/
 1 PAST COME SEE TSA OAI

(c) /anda-/ 'look for (something) to... (it)'

wbiba:-ndawa:bma:n mškiki:wainwan.
 He's looking for a doctor.
 /w - biba: - nda - wa:bam - ∅ - a: - an/
 3 AROUND SEEK SEE TSA OAI OBV

ngi:-bi-nda-wi:sin. I came looking (for something) to eat.
 /n - gi: - bi - nda - wi:sini - ∅/
 1 PAST COME SEEK EAT ISA

The clearest evidence we have regarding the underlying structure of the various complex verb constructions exemplified in (60) and (61) is semantic. Speakers accept paraphrases of some of the constructions in (60) and (61) as exemplified in (62).

(62) (a) (i) gi:-bi:ndge:bto: He ran inside.

/gi: - bi:ndige: - bato: - \emptyset - w/
PAST ENTER RUN ISA 3

(ii) gi:-bi:ndge: bmibto:d

He entered running. [= a(i)]

/gi: - bi:ndige: - \emptyset - w/ /bim - (i)bato: - \emptyset - d/
PAST ENTERS ISA 3 ALONG RUN ISA 3

(b) (i) gi:-wi-wi:sni He went to eat.

/gi: - wi - wi:sini - \emptyset - w/
PAST GO EAT ISA 3

(ii) gi:-ẓ̌a: wi:-wi:snid

He went in order to eat. [has one sense
= b(i)]

/gi: - ẓ̌a: - \emptyset - w/ /wi: - wi:sini - \emptyset - d/
PAST GO ISA 3 FUT EAT ISA 3

Consistently such paraphrases have the dead verb of the complex construction as the upstairs verb in the paraphrase. Attempts to find paraphrases with the live verb of the complex construction upstairs have uniformly failed. We take this to mean that the complex constructions like those of (60) and (61) derive from structures with the dead verb upstairs as their paraphrases (and translations) suggest. To handle the clause union we will draw on Frantz's (1976) observation that there are clause unions which simultaneously delete the subject of the verb that shows up dead. We formalize the rule as in (63).

(63). Equi Subject Union

$$\begin{array}{ccccccc} V & 1:NP_i & NT:comp(V & 1:NP_i) & ==> & DV:V & \emptyset & V & 1:NP_i \\ a & b & & c & & a & b & c & d \end{array}$$

This is particularly interesting because (63) looks very much like Low-

ering Union (32).

(32) Lowering Union

$$\begin{array}{ccc} V & 1:\text{comp} & (V) \Rightarrow DV:V & V \\ a & & b & a & b \end{array}$$

But because of the lack of clear internal evidence in Ojibwa on the analysis of adverbs, particularly regarding the structures underlying them and the conditions that trigger the various rules which affect them, we can only speculate on the potential relatedness between (63) and (32). While we suggested that (32) might be crucially involved in the derivation of one place adverbs, something like (63) would be necessary to account for the derivation of manner adverbs which are logically two place in some sense. For example gi:mo:j 'sneakily' (related to the verb gmo:did 'steal') probably undergoes a derivation that involves something like (63) in going from a structure that would be equivalent to x was sneaky in x's Ving to a structure with a simple adverb x Ved sneakily.

9.4 Morphology of Finals. In this last section of this chapter, we will discuss briefly some very puzzling facts of Ojibwa morphology that have a non-morphological explanation. There are no small number of verbal concepts that are expressed in Ojibwa by morphemes that have only a final form. This means that such morphemes may appear only in complex constructions, either being adverbially modified, or with some sort of complement. While an in depth study of the facts relating to such morphemes is material enough for another thesis, we will point out some regularities that have gone totally unnoticed to the best of our knowledge.

There are two general kinds of morphemes that appear only as

finals: motion morphemes and causative morphemes. We discussed motion morphemes in §9.2.2.3 above, but while working with causative morphemes we have not discussed the fact that for all the wide variety of causative morphemes there is no simple morpheme which means 'cause'. Ojibwa requires that if causative is mentioned there must be a specification of the nature of the action that has been caused. In addition, because of the variety of instrumental causatives available the nature or means of the causation must also be specified in most cases. However, there is one very problematic class of constructions involving causative morphemes that seem to be missing morphemes. Examples are given in (64).

- (64) (a) a:pi:š ma:nda ga:-wndinman? Where did you get this from?
 WHERE THIS /CHANGE - gi: - wnd - - in - Ø - am - an/
 WHICH PAST FROM ? CAUSE TSA OAI 2
- (b) a:ni:š e:šcige:yan? What are you doing?
 WHICH /CHANGE - in - - (i)h - d - ig - e: - Ø - an/
 LIKE ? CAUSE TSA PRO MEDIAL ISA 2

The two constructions here have somewhat different explanations. Let us review each briefly. First the construction of (64a). The expression wndinang 'get from' is very unusual semantically. It should be ambiguous between 'cause [be] from' and 'cause [be] because of' (using [be] as the verb to fill the empty spot in the construction). However, the form is not ambiguous. A sentence like (65a) is impossible. To express the idea 'Why did you get that?' one must use a form like one of those in (65b) which are explicit as regards the manner in which the object was gotten.

- (65) (a) *a:ni:š iw ga:-wndinman? Why did you get that?
 WHICH THAT /CHANGE - gi: - wnd - - in - Ø - am - an/
 WHICH PAST BECAUSE ? CAUSE TSA OAI 2
 OF

- (b) (i) a:ni:š iw ga:-wnji-da:pnaman?
 Why did you take that?/pick that up?
 WHICH THAT /CHANGE - gi: - wnd - i - oda:p - in - ∅ - am - an/
 WHICH PAST BECAUSE ADV PICKED CAUSE OAI 2
 OF UP TSA
- (ii) a:ni:š iw ga:-wnji-na:dyan?
 Why did you fetch that (one)?
 WHICH THAT /CHANGE - gi: - wnd - i - na: - d - i - an/
 WHICH PAST BECAUSE ADV FETCH TSA OAI 2
 OF
- (iii) a:ni:š iw ga:-wnji-ya:man?
 Why did you buy that (one)?
 WHICH THAT /CHANGE - gi: - wnd - i aya: - ∅ - am - an/
 WHICH PAST BECAUSE ADV HAVE TSA OAI @
 OF

Although we are not certain of the mechanism, it looks like there is an optional elipsis of the complement clause of a causative in where? questions. This is not so ad hoc as it might sound at first. Consider --if one does not know where a person got something from, he could not have seen him do it. Therefore it would be unreasonable to expect the questioner to know a priori the manner in which the thing was gotten. Thus where? questions are exactly the place in which one would expect the elipsis of the complement of a causative, if any where.

Now let us consider the construction in (74b). The explanation of this type of construction will require a somewhat closer look at the two clause causative construction. Examples of this are given in (66).

- (66) (a) (i) ngi:-žiha:wi:-gi:we:d I made him go home.
 /n - gi: - in - h - ∅ - a:/ /wi: - gi:we: - ∅ - d/
 1 PAST LIKE CAUSE TSA OAI FUT GO-HOME ISA 3
- (ii) *ngi:-žito:n wi:-gi:we:d I made him go home.
 /n - gi: - in - h - d - o: - n/ /wi: - gi:we: - ∅ - d/
 1 PAST LIKE CAUSE TSA OAI OAI FUT GO-HOME ISA 3
- (b) (i) ngi:-žito:n wi:-gtig^wse:g I made it roll.
 /n - gi: - in - h - d - o: - n/ /wi: - gitigw - (i)se:-∅ - g/
 1 PAST LIKE CAUSE TSA OAI OAI FUT ROLL MOVE ISA 3

- (ii) *ngi:-ʒito:nan wi:-gtig^wse:g* I made them roll.
 /n- gi: - in- (i)h- d- o: - n - an/ /wi: - gitigw- (i)se: - ø- g/
 1 PAST LIKE CAUSE TSA OAI OAI 3PL FUT ROLL MOVE ISA 3

These constructions require the raising of a copy of the subject of the downstairs clause, as the sentences in (66a, ii) and (66b, ii) indicate. This makes the logical object of the causative a chomeur. This chomeur is marked ad hocly with in- 'like', which is then incorporated into the verb by the process discussed in §9.2.2.4 above. The sentence in (64b) is derived in essentially the same way, but with the incorporation of a PRO object which arises as the "raised" subject of a PRO clause. The PRO clause is then questioned using a:nin? 'which, how?' which questions non-terms (in this case a chomeur clause).

FOOTNOTES

CHAPTER IX

¹There is a systematic ambiguity in Ojibwa between stative and inchoative readings for most non-active verb forms. Thus miskozi may mean either 'He is red.' or 'He is turning red.' In particular the morpheme of interest -s- means either 'fall' or 'lie' in its most concrete meaning(s). If necessary, the forms may be disambiguated by using the morpheme daš 'then, so' with them in a sentence. Gi:-miskozi daš. 'Then he turned red.', or 'And so he turned red.'

²It is not immediately obvious what the route of derivation of sentences like (8b) and (9) is. In a later section I will discuss forms that traditional analysts have called relative words and show that the in- 'thus' which appears in these sentences is in fact a kind of preposition that marks the chomage of the initial object clause after subject copying.

³The lengthened o is an ad hoc lengthening that several morphemes show: dkonaŋg /dakw-in-am-d/ 'sieze' vs. dko:nəŋg 'shorten'

⁴Bloomfield (1944) claims there is an Ojibwa cognate gi:ška:bka: but it is not found in the dialect under study.

⁵zi:ga: is a form of another (possibly historically related) stem, 'It is wrinkled, dried out.'

⁶We will discuss the morpheme /in-/ 'like' in §9.2.2.4. It is in part the result of the chomage of the logical object complement.

⁷Frantz's formulation is somewhat different. He is concerned more with the fact that one of two coreferential indices is lost in the process of the union.

⁸All the forms in (34) have corresponding preverb or initial constructions. The basic semantic difference between the two constructions is that the two clause construction "focuses" on the modal concept, especially where that aspect is more unusual, unnatural, or unexpected. An especially clear example is the contrast between (34b, iii) and gi:-bo:na:pim, 'People stopped laughing'. One is appropriate in describing the course of events after a joke, but the other is appropriate to describe what happened in the theater after the comedian told a joke, a shot rang out and comedian fell dead.

⁹We have not discussed complementation in detail. Older speakers copy the tense of the upstairs clause into the downstairs clause. Younger speakers cannot, and must use wi: as the complementizer. Older speakers also use wi: forms occasionally but it is not known if there is any distinction in meaning expressed by doing so.

¹⁰Notice that we are not positing identical underlying forms for the one clause and two clause modal constructions.

¹¹This is not strictly true. Occasionally in- 'to, like' is attached as an initial to morphemes that start with a, even though the form should otherwise require a preverb, e.g. /inanoki:-/, 'work-like'; /inagim-/ 'count-like'; /inašp-/, 'high-like'; and even /inaškwa:-/, 'finish-like'. Occasionally semantic factors influence the choice of preverbs over initials.

¹²There are a number of morphemes that have specialized meanings in certain contexts, -iz-, which normally means 'cause using heat', also stands as the final forms of minoz- 'cook'.

¹³This sentence is taken from the text "How a woman helped the Thunderers" in Piggot and Kaye (1973).

¹⁴There are other types of relative words, both nouns and verbs. These contain quantificational morphemes like ndasw- '(so) many', akw- '(so) long/far', api:t- 'to (such) an extent', etc. We will not discuss these constructions in this work.

¹⁵Some words do not add any suffix to form their locative. The word gida:ki 'hill' is an examples. Thus (56a(ii)) is also an example of a stranded NP being in the locative.

¹⁶There is a homophonous morpheme bi-, a directional adverb, which means 'come' whose opposite is ni-. The opposite of this bi- is wa-. The adverbial bi- has an initial form bi:d-. Thus (1a) and (1b) are opposites, as are (2a) and (2b).

- | | | |
|---------|-------------------------------|------------------------|
| (1) (a) | gi:-bi-wi:sni | He came to eat. |
| | (b) gi:-wa-wi:sni | He went to eat. |
| (2) (a) | za:m wi:ka: gi:-bi-dgošin | He got here too late. |
| | TOO LATE PAST-COME-ARRIVE-3 | |
| | (b) za:m wi:ka: gi:-ni-dgošin | He got there too late. |

- (2) (a) (continued)
 ŝkihi:wan It is a new thing.
 /oŝkihi: - w - an - w/
 NEW-THING BE ISA 3
- (b) no:sna: He is our father. (lit. We
 /n - o - o:s - ø - ø - na:ni/ have his as a father.)(PT
 1 aug FATHER HAVE ISA 1PL construction)
- žo:nya:mi He has money.
 /o - žo:niya: - m - ø - i - w/
 aug MONEY POSS HAVE ISA 3
- (c) nbo:bi:ke: He's making soup.
 /nibo:bi - ke: - ø - w/
 SOUP GET ISA 3
- mno:mnike:wag They're gathering rice.
 /mano:min - (i)ke: - ø - w - ag/
 RICE GET ISA 3 3PL
- (d) nso-bbo:ngizi He's three years old.
 /nisw - i - bibo:n - ag - izi - w/
 THREE ADV WINTER BE-OLD ISA 3
- na:no-gi:zswagzi He's five months old.
 /na:nw - i - gi:zsw - ag - izi - w/
 FIVE ADV MOON BE-OLD ISA 3

In this chapter we will discuss the several rules which account for the incorporation of the various kinds of nominal elements into verbal constructions.

10.1 Medials. In this section we will look at the derivation of constructions involving that class of morphemes which are called medials. There are two distinct kinds of medial constructions, based on whether an entire noun has been incorporated or not. Examples of constructions in which an entire noun has been incorporated are given in (3).

- (3) (a) ndakninji: My hands are cold.
 /n - dak - (i)ninji - e: - ø/ (lit. I am cold-handed.)
 1 COLD HAND MEDIAL ISA
 medial

(3) (b) *ngi:-be:ng^Wna:gne:* I dried the dishes.
 /n - gi: - be:ngw - (i)na:gan - e: - ø/
 1 PAST DRY DISH MEDIAL ISA
 medial

(c) *ngi:-bo:k^Wnike:wa:* I broke his arm.
 /n - gi: - bo:kw - (i)nik - e: - ah - w - a:/
 1 PAST BREAK ARM MEDIAL CAUSE TSA OAI
 medial W/INSTR

We will call these medials body part medials after the semantic class which provides the most productive and wide spread source for whole noun incorporations. Note however, that there are numerous other nouns which also, under limited circumstances, undergo this type of incorporation.

The second type of medial construction is that in which only a "copy" of the noun is incorporated into the verbal construction. These "copies" are the remnants of a near defunct classifier system, so we will refer to these medials as classificatory medials. Examples of verbal constructions containing classificatory medials are given in (4).

(4) (a) *gnw:bi:gad saba:b* The rope is long.
 /ginw - a:bi:g - ad - w/
 LONG ROPE ISA 3

(b) *ngi:-dkwe:gkoda:n mzinhigan* I cut the paper shorter.
 /n - gi: - dakw - e:g - (i)ko - d - am - n/
 1 PAST SHORT SHEET CAUSE TSA OAI OAI
 W/CUTTING

(c) (i) *ngi:-gzi:bi:gna:nan ndagwan* I washed my clothes. (lit. I wiped
 /n - gi: - gizi: - bi:g - in - ø - am - n - an/ I wiped
 1 PAST BE-WIPED LIQUID CAUSE TSA OAI OAI PL my clothes with
 water.)

(ii) *ngi:-wmba:bi:gna:n* I hoisted it up. (lit. I raised it
 /n - gi: - wmb - a:bi:g - in - ø - am - n/ raised it
 1 PAST RISE ROPE CAUSE TAS OAI OAI on a rope.)

(iii) *kajgabi:sin* It reflects on the water.
 /akajiga - bi:g - (i)s - in - w/
 REFLECT/ LIQUID LIE ISA 3
 CAST-A-SHADOW

The forms in (4c) do not have corresponding versions that have an explicit noun in the clause from which the medial comes, but we treat these types of medials the same as those in which a full noun phrase may be left behind for two reasons. First they use the same morphemes, and second they show the same (potential) ambiguities, thus bi:g LIQUID means water in the examples of (4c), but in other constructions it can mean liquor, e.g. gi:wškwē:bi: 'he's drunk' (lit. he's dizzy from liquor).

10.1.1 Body Part Medials. First let us examine the syntax of body part medials in detail. Body part medials may represent either incorporated subject, as in (3a), or incorporated objects, as in (3b) and (3c). Also the incorporation may be launched from a noun phrase containing a possessor, leaving the possessee behind bearing the grammatical relation of the original noun phrase, as in (3a) and (3c). However, the noun incorporated undergoes a process of medialization by which a suffix e: is added to the noun as shown in (6). In addition some nouns lose initial m's and w's as the examples in (6) show.

- (5) (a) na:gan 'dish'
 ngi:-be:ng^wna:gne: I dried the dishes.
 /n - gi: - be:ngw - (i)na:gan - e: - ø/
 1 PAST DRY DISH MEDIAL ISA
- (b) pin 'potato'
 ngi:-mo:nhapni: I harvested potatoes.
 /n - gi: - mo:nah - ø - apini - e: - ø/
 1 PAST DIG TSA POTATO MEDIAL ISA
- (c) mi:jim 'food'
 ngi:-na:jmi:jme: I went and got food
 /n - gi: - na: - d - (i)mi:jim - e: - ø/
 1 PAST FETCH TSA FOOD MEDIAL ISA

- (6) (a) wi:wkwa:n 'hat'
 ngi:-gi:ci:wkwa:ne: I took off my hat.
 /n - gi: - gi:t - wi:wikwa:n - e: - Ø/
 1 PAST REMOVE HAT MEDIAL ISA
 (CLOTHES)
- (b) mkizin 'shoe'
 ngi:-ba:pi:wkizne:šin I brushed off my shoes.
 /n - gi: - REDUP - bi:w - makizin - e: - š - in/
 1 PAST BRUSH SHOE MEDIAL FALL ISA
- (c) mskiki 'medicine'
 ngi:-mo:nhaškiwe: I dug up some medicinal
 /n - gi: - mo:nah - Ø - maškiw - e: - Ø/ herbs.
 1 PAST DIG TSA MEDICINE MEDIAL ISA

Then finally there are a few nouns which have special allomorphs when they appear as medials. Some of these are listed in (7).

(7) Citation form	Underlying form Citation	Underlying form Medial	
žo:nya:	žo:niya:	-a:bikw-e:	money
mi:žškō:s	mi:žaškwe:ns	-aškw-e:/	grass, hay; herbs
		-iškw-e:	
jā:ž	ja:nž	-ja:n-e:	nose
ndib	ndib	-ndib-e:/-ikw-e:	head
ški:žig	ški:nžigw	-ški:nžigw-e:/	eye(s)
		-i:ngw-e:	
de:ngway	de:ngway	-de:ngw-e:/	face
		-i:ngw-e:	
tawag	tawag	-tawag-e:/-š-e:	ear(s)
wi:yaw	wi:yaw	-waž-e:	body
ka:d	ka:d	-ga:d-e:	leg(s)
ni:ja:nis	ni:ja:nis	-a:waso	(one's own) child(ren)
msan(an)	masan(an)	-nis-e:	(fire)wood

10.1.1.1 Object Incorporation. Now let us turn to an examination of the syntactic mechanism of incorporation. In the simplest cases, incorporation simply attaches the object of a verb plus the morpheme MEDIAL to the right end of a verb stem plus TSA marker, as the examples in (8) show.

- (8) (a) (i) ngi:-na:din žo:nya: I went and got money.
 /n - gi: - na: - d - i - n/
 1 PAST FETCH TSA OAI OAI

- (8) (a) (ii) *ngi:-na:da:bkwe:* I went and got money./I
 /n - gi: - na: - d - a:bikw - e: - Ø/ picked up my
 1 PAST FETCH TSA MONEY MEDIAL ISA pay.
- (b) (i) *wbiba:-mo:nha:n mškiki* He's (out) gathering
 /w - biba: - mo:nah - Ø - am - n/ medicinal herbs.
 3 AROUND DIG TSA OAI OAI
- (ii) *bba:-mo:nhaškiwe:* He's (out) gathering
 /biba: - mo:nah - Ø - maškikiw - e: - Ø - w/ medicinal
 AROUND DIG TSA MEDICINE MEDIAL ISA 3 herbs
- (c) (i) *ngi:-bmo:ma: nni:ja:nis* I carried my child on
 /n - gi: - bimo:m - Ø - a:/ MY-CHILD my back.
 1 PAST CARRY ALONG TSA OAI
 (ON-THE-BACK)
- (ii) *ngi:-bmo:ma:was* I carried the child on
 /n - gi: - bimo:m - Ø - a:wah - Ø - zo/ my back.
 1 PAST CARRY-ALONG TSA CHILD MEDIAL ISA
 (ON-THE-BACK)

In §4.2 we discussed the process by which objects get incorporated.

We repeat the rule here as (9).

(9) Object Incorporation (= (9)(IV))

V 2:N ==> V-N-MEDIAL

The morpheme MEDIAL is spelled by (10).

(10) Medial Spelling² (= (10)(IV))

MEDIAL ==> Ø / h _____

e:

As we discussed in §4.2 Object Incorporation (9) follows TSA (50)(III). The evidence is given in (8) where the (i) examples show the unincorporated versions of the verb stem plus TSA marker.

The constructions involving Object Incorporation (9) are somewhat rare. There are limitations both on which verbs may incorporate their objects and on which objects can be incorporated. It is not clear to us whether the nature of the limitations are semantic or lexical or both.

(11) (a) verb limitation

- (i) *ngi:-mo:nhapni:* I harvested potatoes.
 /n - gi: - mo:nah - \emptyset - apini - e: - \emptyset /
 1 PAST DIG TSA POTATO MEDIAL ISA
- (ii) **ngi:-mwapni:* I ate potatoes.
 /n - gi: - am - w - apini - e: - \emptyset /
 1 PAST EAT TSA POTATO MEDIAL ISA

(b) noun limitation

- (i) *ngi:-na:jmi:jme:* I went and got food.
 /n - gi: - na: - d - (i)mi:jim - e: - \emptyset /
 1 PAST FETCH TSA FOOD MEDIAL ISA
- (ii) **ngi:-na:jbimde:we:* I went and got oil
 /n - gi: - na: - d - (i)bimide:(w) - e: - \emptyset /
 1 PAST FETCH TSA OIL MEDIAL ISA

(c) futher restricted

- (i) *ngi:-mo:nhaškkiwe:* I dug up medicinal herbs.
 /n - gi: - mo:nah - \emptyset - maškikiw - e: - \emptyset /
 1 PAST DIG TSA MEDICINE MEDIAL ISA
- (ii) *ngi:-na:jmi:jme:* I went and got food.
 (=b(i))
- (iii) **ngi:-na:dškikwe:* I went and got medicine.
 /n - gi: - na: - d - maškikiw - e: - \emptyset /
 1 PAST FETCH TSA MEDICINE MEDIAL ISA

A further complication is that some verbs have TSA Neutralization

(3)(IV) to inanimate TSA marking.

- (12) (a) (i) *ngi:-gža:na:nni:ja:nis* I took care of my child.
 /n - gi: - giža: - n - a:/
 1 PAST CARE TSA OAI
- (ii) *ngi:-gža:da:was* I babysat.
 /n - gi: - giža: - d - a:wah - \emptyset - zo/
 1 PAST CARE TSA CHILD MEDIAL ISA
- (b) (i) *wgi:-na:na:n sabi:n* He went and got (his)
 /w - gi: - na: - n - a: - an/ net(s).
 3 PAST FETCH TSA OAI OBV
- (ii) *gi:-na:dsabi:* He went and checked his
 /gi: - na: - d - asabi - e: - \emptyset - w/ nets.
 PAST FETCH TSA NET MEDIAL ISA 3

There is a second case in which possessed nouns are incorporated into verbal constructions. These cases at first appear to involve the incorporation of the object of a verb leaving the possessor behind. Some examples of this are given in (17).

- (17) (a) *ngi:-ga:njga:de:na:* I pushed his leg.
 /n - gi: - ga:nd - (i)ga:d - e: - in - \emptyset - a:/
 1 PAST PUSH LEG MEDIAL CAUSE TSA OAI
- (b) *ngi:-bgone:šə:wa:* I pierced his ears.
 /n - gi: - bagone: - š - e: - h - w - a:/
 1 PAST HAVE-A-HOLE MEDIAL TSA OAI
 EAR CAUSE
- (c) *ngi:-bo:k^wnike:bna:* I broke his arm.
 /n - gi: - bo:kw - (i)nik - e: - bi - n - a:/
 1 PAST BREAK ARM MEDIAL CAUSE TSA OAI

All objects that appear incorporated stranding a possessor appear in causative constructions like those in (17). All such constructions arise as the result of Clause Union (5)(IX). This means that the superficial object of the construction began as subject of the downstairs verb and became the object as a result of the reassignment of termhood in the process of clause union. That leaves us the analytic option of incorporating the possessed noun in the cycle of the downstairs clause using Subject Incorporation (16) and then allowing Clause Union (5) to operate normally. This will give the correct morpheme order and term relationships as the derivation of (17c) given in (18) shows.

There are several further facts in favor of this analysis. First there is at least one morphemically complex verb that triggers Object Incorporation (9).

- (19) *ngi:-mo:nhapni:* I harvested potatoes.
 /n - gi: - mo:n - an - \emptyset - apini - e: - \emptyset /
 1 PAST DUG CAUSE TSA POTATO MEDIAL ISA
 W/INSTR

(18)

Underlying Form	gi: bi	2:comp(bo:kw	1:(POSS:[3])nik)	1:[1]
	PAST CAUSE	BREAK	HIS ARM I	
Subject Incorporation (16)		bo:kwnik-MEDIAL	1:[3]	
Clause Union (5)(IX)	gi: bi	DV:bo:kwnik-MEDIAL	2:[3]	1:[1]
TSA (50)(III)	gi: bi-TSAC[A]	DV:bo:kwnik-MEDIAL	2:[3]	1:[1]
Dead Verb Attachment (6)(IX)	gi:-bo:kwnik-MEDIAL-bi-TSAC[A]		2:[3]	1:[1]
Object Agreement I (42)(VII)	gi:-bo:kwnik-MEDIAL-bi-TSAC[A]-a:		2:[3]	1:[1]
Agreements	ngi:-bo:kwnik-MEDIAL-bi-TSAC[A]-a:		2:[3]	1:[1]
Spelling	ngi:-bo:kwnike:bina:			
Morphophonemics	ngi:-bo:k ^w nike:bna:			

Finally there is a class of forms that look like they should contain causative morphemes but don't. These forms are limited in number, but cannot be proved to be irregular.

- (26) *ngi:-gzi:na:gne:* I washed the dishes.
 /n - gi: - gizi: - na:gan - e: - \emptyset /
 1 PAST WIPED DISH MEDIAL ISA
- ngi:-be:ŋg^wna:gane:* I dried the dishes.
 /n - gi: - be:ngw - (i)na:gan - e: - \emptyset /
 1 PAST DRY DISH MEDIAL ISA

At this stage the analysis of these forms is still in doubt. To the best of our knowledge it is only the morpheme na:gan 'dish' that is involved in this anomaly. However, there is a further irregularity involving a non-productive morpheme -sag- which means 'wood'. This morpheme seems to undergo a derivation involving a subject incorporation like (16) rather than an object incorporation.

- (27) (a) *ngi:-zso:sgaha:n* I painted it.
 /n - gi: - zazo: - sag - ah - \emptyset - am - n/
 1 PAST RUBBED WOOD TSA OAI OAI
 CAUSE W/INSTR
- (b) *ngi:-gzi:sgahge:* I washed the floor.
 /n - gi: - gizi: - sag - ah - \emptyset - ige: - \emptyset /
 1 PAST WIPED WOOD TSA PRO-MEDIAL ISA
 CAUSE W/INSTR

Only the subject derivation route will account for the observed order of morphemes (Medial preceding Final). Apparently there was a time when only subject incorporation was possible, and forms of this sort are lexicalized remnants of that. This suggests that the forms of (26) might also be lexicalized remnants which have undergone a further elipsis of a final causative morpheme. Such a suggestion may seem a little ad hoc at this point, but in the following sections of this chapter we shall see more examples of this elipsis, also non-productive.

10.1.2 Classificatory Medials. In this section we shall look

- (29) (b) niswe:g bapagiwaya:nan three shirts
THREE-CLOTH SHIRTS
- (c) ni:wa:tig abwi:n four paddles
FOUR-STICK PADDLES
- (d) na:nominag opini:g five potatoes
FIVE-BERRY POTATOES
- (e) nisimidana daswa:bik žo:niya: aši ni:ž thirty-two dollars
THIRTY SO-MANY-METAL MONEY AND TWO

Today all these expressions are ungrammatical; one says instead

- (30) (a) ni:žwa:bik two dollars
TWO-METAL
- (b) nso-bbagwaya:nan three shirts
THREE SHIRTS
- (c) ni:wo-bwi:n four paddles
FOUR PADDLES
- (d) na:no-pini:g five potatoes
FIVE POTATOES
- (e) nsimdana ši ni:ž thirty-two (dollars)
THIRTY AND TWO

The classifiers are used today as an elaborate pronomial system.

- (31) (a) a:ni:š mnik ma:nda? How much is this?
HOW MUCH THIS
- ni:wa:bik. Four dollars.
FOUR-METAL
- (b) wžibi:hgan na gdaya:n? Do you have a pencil? (= Could
PENCIL 2-HAVE-IT you please loan me a pencil?)
- be:žgwa:tig go e:ta go ndaya:n I only have one.
ONE-STICK ONLY 1-HAVE-IT
- (c) ni:ždana nagne: It costs twenty (dollars).
TWENTY LIKE-COST-3 (Classifiers with /dasw-/
have been totally lost.)

However the classification system is still active in verbal constructions, in particular in intransitive constructions.

- (32) (a) ža:ša:k^W zi bsaga:k The board is slippery.
/ža:š - a:kw - izi - w/
SLIPPERY WOOD ISA 3

(32) (a) continued

*ža:šzi bsaga:k but ža:šzi go:ko:š
The pig is slippery.

(b) gnwa:bi:gzi sab The net is long.
/ginw - a:bi:g - izi - w/
LONG ROPE ISA 3

*gno:zi sab but gno:zi nini The man is tall

(c) nbi:we:gzi mo:žwe:n The handkerchief is wet.
/nibi:w - e:g - izi - w/
WET CLOTH ISA 3

*nbi:wzi mo:žwe:n but nnibi:wiz I'm wet.

We will account for this by positing a rule of subject copy, which puts a pronoun copy of the subject in the verb.

(33) Classifier Incorporation

$$V \Rightarrow V-CL_i / \text{---} 1:NP_i$$

where CL_i is the classifier of NP_i

This rule only operates if there exists an "active" classifier for the NP subject. The following are the active and inactive classifiers.

(34) (a) active

a:kw WOOD, SOLID
a:bi:g ROPE
a:bik METAL, STONE
a:gani LIQUID, WATER
bi:g WATER, LIQUID
e:g CLOTH, PAPER

(b) inactive

minag⁵ BERRY, ROUND-THING (semi-
active)
o:nag CANOE, BOAT
a:tigw STICK

In addition the rule only operates consistently with certain predicates most of which are listed in (35).

(35) (a) strongest

akw- BE (SO) LONG
dakw- BE SHORT
ginw- BE LONG
ža:š- BE SLIPPERY

(b) weaker

miskw- BE RED
makade:w- BE BLACK
wa:b(išk)- BE PALE (WHITE)
dak- BE COLD
giž- BE HOT

(35) (c) weakest

aga:c- BE SMALL
 mang- BE BIG
 et al.

The data however are not totally clear. More investigation is needed. The system is falling into disuse, so younger speakers only consistently incorporate the most active classifiers with the stronger predicates.

In transitive constructions, the use of medials marking the superficial object is limited to constructions involving the predicates listed in (35). This result can be gotten by employing Classifier Incorporation (33) in the way we used Subject Incorporation (16) to get causative constructions involving body part medials. This way the restrictions on Classifier Incorporation will be reflected in the causative medial constructions. Thus the forms in (36) undergo Classifier Incorporation (33) and then Clause Union (5)(IX).

- (36) (a) *ngi:-gnwa:bi:gna:n iw saba:b* I lengthened that rope.
 /n - gi: - ginw - a:bi:g - in - \emptyset - am - n/ (=25b(i))
 1 PAST LONG ROPE CAUSE RSA OAI OAI
- (b) *ngi:-dkwa:k^wbo:na: aw bsaga:k* I cut the board shorter.
 /n - gi: - dakw - a:kw - (i)bo: - n - a:/ (=25b(ii))
 1 PAST SHORT WOOD CAUSE-BY-SAWING
 TSA OAI

10.1.2.1 Adverbial Medials. Medials may be used adverbially. Adverbial medials are of three kinds, simulative, locative, and instrumental. Looking at the various examples of these constructions, one notices that simulative constructions are rare. All contain e:g 'cloth'. Locative constructions are the most common. They contain a:kw 'solid', and, rarely a:bi:g 'rope' and bi:g 'water'. Instrumental constructions contain a:bi:g 'rope' and bi:g 'water'. Examples of each

kind of adverbial medial are given in (37).

(37) (a) simulative

- (i) *ngi:-ži:bi:gbido:n saba:b* I stretched the rope.
 /n - gi: - ži:b - e:g - (i)bi - d - o: - n/
 1 PAST STRETCH CLOTH CAUSE TSA OAI OAI
- (ii) *ngi:-ge:zbi:gna: ndasab* I folded my net.
 /n - gi: - ge:zib - e:g - in - ∅ - a:/
 1 PAST TIDY CLOTH CAUSE TSA OAI

(b) locative

- (i) *ngi:-na:ža:bi:gnige:* I played the violin.
 /n - gi: - na:ž - a:bi:g - in - ∅ - ige: - ∅/
 1 PAST RUBBED STRING CAUSE TSA ISA
 PRO-MEDIAL
- (ii) *ngi:-zga:k^wha:n mzinhigan* I nailed up the poster.
 /n - gi: - zag - a:kw - ah - ∅ - am - n/
 1 PAST ATTACHED SOLID TSA OAI OAI
 CAUSE W/INSTR
- (iii) *kajgabi:sin* It (the scenery) reflects on the
 /akajiga - bi:g - (i)s - in - w/ water.
 REFLECT WATER LIE ISA 3

(c) instrumental

- (i) *ngi:-gba:bi:gna:nan gbo:jgan* I closed the curtains.
 /n - gi: - gib - a:bi:g - in - ∅ - am - n - an/
 1 PAST CLOSED ROPE CAUSE TSA OAI OAI 3PL
- (ii) *ngi:-gzi:bi:gna:nan ndagwman.* I washed my clothes.
 /n - gi: - gizi: - bi:g - in - ∅ - am - n - an/
 1 PAST WIPED WATER CAUSE TSA OAI OAI 3PL

The examples in (37) also show that the medials in the constructions cited are not simply copied in from the NP's that appear ultimately as objects; if they were copied from the NP's that ultimately appear as the objects they would give the ungrammatical sentences of (38).

- (38) (a) (i) **ngi:-zi:ba:bi:gbido:n saba:b* I stretched the rope
 */n - gi: - zi:b - a:bi:g - (i)bi - d - o: - n/
 1 PAST STRETCH ROPE CAUSE TSA OAI OAI

- (38) (a) (ii) *ngi:-ge:zba:bi:gna: ndasab I folded my net.
 */n - gi: - ge:zibi - a:bi:g - in - ∅ - a:/
 1 PAST TIDY ROPE CAUSE TSA 3
- (b) (ii) *ngi:-zgi:gha:n mzinhigan I nailed up the poster.
 */n - gi: - zag - e:g - ah - ∅ - am - n/
 1 PAST ATTACHED CLOTH TSA OAI OAI
 CAUSE W/INSTR
- (c) (i) *ngi:-gbi:gna:nan gbo:jgana I closed the curtains.
 */n - gi: - gib - e:g - in - ∅ - am - n - an/
 1 PAST CLOSE CLOTH CAUSE TSA OAI OAI PL
- (ii) *ngi:-gzi:we:gna:nan ndagwnan I washed my clothes.
 */n - gi: - gizi: - e:g - in - ∅ - am - n - an/
 1 PAST WIPED CLOTH CAUSE TSA OAI OAI PL

Instead there is a rule (39) which copies the classifiers of locatives and simulatives into the verbs of intransitive clauses (We will discuss instrumentals below.)

(39) Non-term Incorporation

$$V \text{ NT:CL} \Rightarrow V\text{-CL} / \text{ ______ }A(1)$$

where NT is simulative or locative

This analysis follows from the logic of the sentences, i.e. the simulative and the locative modify the action on the ultimate object, not the causation of that action. For example, (37b(ii)) means (CAUSE 1:I 2:(BE-ATTACHED 1:PAPER NT:ON-A-SOLID)), not (CAUSE 1:I 2:(BE-ATTACHED 1:PAPER) NT:ON-A-SOLID). Given this analysis the observed morpheme order follows by the same kind of derivation that gave us the forms of (17) and (36). The most questionable point of this analysis involves the use of PRO, i.e. underlying classificatory medials. However, this is not so strange when we consider that classificatory medials appear on the surface in a number of non-term constructions in place of full NP's (40).

This leaves us with only the instrumental constructions to

(40)	noun		prepositional expression
	mtig	branch	gida:tig on the branch /agid - a:tiḡw - i/ ON WOOD ADV
	nbi	water	ji:gbi:g near the water /ji:g - (i)bi:g - i/ NEAR WATER ADV
	sin	rock	na:ma:bik under the rock /ana:m - a:bik - i/ UNDER METAL/STONE ADV

explain. These are a problem in that the logic seems to demand that the instrumental be associated with the causative rather than with the action, e.g. (37c(i)) appears to have the logic (CAUSE 1:I 2:(CLOSE 1:CURTAINS NT:WITH-ROPE)), in which case one would expect the classificatory medial after the causative, as in *(41).

(41) *ngi:-gbina:big...⁶

However, if we look carefully we notice that there are two types of instrumental medial constructions: those that have a possible locative analysis, like (37c(i)), and those that have a possible downstairs instrumental analysis like (37c(ii)). (37c(i)) can have a logical analysis (CAUSE 1:I 2:(CLOSE 1:CURTAINS NT:ON-ROPE)) because curtains "ride" on the cord which opens and closes them. (37c(ii)) really does not have an upstairs instrument reading, but only the reading (CAUSE 1:I 2:(WIPED 1:CLOTHES NT:WITH-WATER)) or possibly the reading (CAUSE 1:I 2:(BE-WIPED 1:CLOTHES NT:IN-WATER)). Given these analyses of the logic of instrumental sentences only a slight revision of (39) to include instruments as well as locatives and simulatives as incorporable CL's is necessary. The morpheme order will then follow as before.

At this point it is possible to raise the question of lexical-

ization. Are the forms involving adverbial medials simply complex lexical items? Or perhaps idioms? We have no way of telling if that is the case. The system seems to be moderately productive in terms of the number of forms involving such medials that exist. The closest thing to clear evidence that is available is the recent appearance of the morpheme -a:kw- 'solid/wood' as an intensifier.

- (42) (a) (i) gga:no:ga:de:⁷ He has long legs
 /REDUP - ginw - (i)ga:d - e: - ∅ - w/
 LONG LEG MEDIAL ISA 3
- (ii) gga:nwa:k^wga:de: His legs are really long.
 /REDUP - ginw - a:kw - (i)ga:d - e: - ∅ - w/
 LONG SOLID LEG MEDIAL ISA 3
- (b) (i) ndakninji:waj My hands are cold.
 /n - dak - (i)ninji - e: - wad - i/
 1 COLD HAND MEDIAL ISA
 BY-COLD
- (ii) ndaka:k^wninji:waj My hands are freezing.(figurative)
 /n - dak - a:kw - (i)ninji - e: - wad - i/
 1 COLD SOLID HAND MEDIAL BY-COLD ISA

The logic behind this probably follows a route like: LIKE-A-SOLID > SOLIDLY > THOROUGHLY > VERY, but the mechanism of incorporation is almost certainly that of a simulative non-term, which would indicate that (39) is still a live rule.

There are a few constructions which involve the incorporation of both adverbial classificatory medials and the incorporation of body part medials in the same form. In addition to the forms in (42a(i)) and (42b(ii)) there are forms like those in (43).

- (43) (a) ngi:-gzi:bi:gⁿninji I washed my hands.
 /n - gi: - gizi: - bi:g - (i)ninji - e: - ∅/
 1 PAST WIPED WATER HAND MEDIAL ISA
- (b) ngi:-bdagwa:k^wninji: I clenched my fists.
 /n - gi: - badagw - a:kw - (i)ninji - e: - ∅/
 1 PAST COVERED SOLID HAND MEDIAL ISA

All these forms indicate that the order of application of (16) and (39) is (39) first followed by (16) as the derivation of (42a(ii)) shows.⁸

(44) Underlying Form	ginw LONG	NT:a:kw VERY	1:(POSS:[3])ga:d[PL] HIS LEGS
Reduplication Non-term	REDUP-ginw		1:(POSS:[3])ga:d[PL]
Incorporation (39) Subject	REDUP-ginwa:kw		1:(POSS:[3])ga:d[PL]
Incorporation (16) ISA (28)(IV)	REDUP-ginwa:kwga:d-MEDIAL		1:[3]
Agreements	REDUP-ginwa:kwga:d-MEDIAL-ISA[A]		1:[3]
Spelling	REDUP-ginwa:kwga:d-MEDIAL-ISA[A]-w		1:[3]
Morphophonemics	giga:nwa:kwga:de:w		
	gga:nwa:k ^w ga:de:		

We would like to conclude this section by mentioning again the rule of causative deletion that was mentioned above in §10.1.1.3. Notice that this rule operates in the following forms involving gizi:bi:g-.

- (45) (a) ngi:-gzi:bi:gi: I washed.
/n - gi: - gizi: - bi:g - i: - Ø/
1 PAST WIPED WATER ? ISA
- (b) ngi:-gzi:bi:gjinji: I washed my hands.
/n - gi: - gizi: - bi:g - (i)njinji - e: - Ø/
1 PAST WIPED WATER HAND MEDIAL ISA
- (c) ngi:-gzi:bi:gna:gne: I washed the dishes.
/n - gi: - gizi: - bi:g - na:gan - e: - Ø/
1 PAST WIPED WATER DISH MEDIAL ISA

This indicates that the rule is not totally ad hoc, but the infrequency of its application and its highly restricted nature make it a rule that we will simply note here and not discuss in detail.

10.2 Non-medial Incorporation. There is a second type of noun incorporation besides that which yields medials. Some examples are given in (46). The syntax of this type of incorporation is poorly understood at this point. The clearer examples such as (46b-d)

- (46) (a) *ngi:bino:jī:hiw* I was a child
 /n - gi: - abino:ji:nh - (i)w - i/
 1 PAST CHILD BE ISA
- (b) *ndo:žo:nya:m* I have money.
 /n(d) - o - žo:niya: - m - ø - i/
 1 aug MONEY POSS HAVE ISA
- (c) *zi:sba:k^wdoke:* He's making sugar.
 /zi:siba:kwadw - (i)ke: - ø - w/
 SUGAR GET ISA 3
- (d) *ža:gnaši:mo* He speaks English.
 /ža:gana:ši - mo - ø - w/
 ENGLISH SPEAK ISA 3
- (e) *nwi:-bbo:niš Florida* I'm going to spend the winter in
 /n - wi: - bibo:n - iš - i/ Florida.
 1 FUT WINTER SPEND ISA
- (f) *nso-bbo:ngizi* He's three years old.
 /nisw - i - bibo:n - ag - izi - w/
 THREE ADV WINTER OLD ISA 3

suggest that the mechanism is a type of object incorporation. However, (46a) especially does not seem to be susceptible to such a treatment. In addition the incorporation of (46f) is limited to the three nouns *gi:žgad* 'day', *gi:zis* 'moon, month', and *bbo:n* 'winter, year'. Similarly the incorporation of (46e) is limited to the names of the seasons. Of the remaining incorporations only those of (46c) and (46d) are really productive. Because of these complications and the fact that we can find no motivated mechanism for relating and accounting for these incorporations, we will simply leave this area open for further investigation.

CHAPTER XI

CONCLUSION

11.0 Because of the complexity of the morphology of the Ojibwa verb, we review here in a brief way the things that we have covered in this work, and what we feel we have accomplished.

We have presented an analysis of the Ojibwa verb based on the syntax of the language. We have used rules to create and/or attach morphemes to verbs to build up the complex verbal constructions that appear on the surface. These morphemes reflect the syntactic processes of the language and the nature of the terms involved in particular clauses. We feel that we have presented a viable analysis of an Algonkian language in a relational grammar model which shows that the verbal morphology of such a language can be insightfully accounted for in a single, unified pattern. The heart of our analysis can be summed up in structuralist's terms in a chart like that in (1) which lays out the pattern of all the verbal suffixes in one pattern regardless of transitivity or order. But we can propose a chart like (1) only because we have used an abstract, rule oriented analysis which writes the cooccurrence restrictions among morphemes into the rules as conditions on their application. In addition, two important principles, Passive (58)(III), which gives inverse forms, and Subject Omission (48)(VII), are necessary to complete the analysis.

11.1 Loose ends. In presenting our analysis of the verbal morphology of Central Ojibwa, we have systematically omitted from our discussion

Position 1	Position 2	Position 3	Position 4	Position 5	Position 6	Position 7	Position 8	Position 9	Position 10	Position 11	Position 12
<u>TSA</u>	amaw~ aw 'ben.'	<u>Object</u> <u>Markers</u> inin~ ik '2nd person' i '1st person' a: '3rd person (anim.)' am~ o:~ i 'inan.'	<u>ISA</u> izi~ i~ in~ zo~ ∅ 'anim.' ya:~ ad~ an~ in~ de:~ e:~ ∅ 'inan.'	siw~ si:~ isino:n 'neg.'	n 'inan. object'	<u>Subject</u> <u>Markers</u> ad~ an '2nd person' ag~ a:n '1st person' <u>Plural</u> <u>Markers</u> angw~ angid~ a:ng~ na:ni~ min '1st plural' agogw~ e:gw~ wa:~ mw '2nd plural'	<u>Plural/</u> <u>Obviative</u> <u>Markers</u> wa: '3rd plural' ini 'obv.'	<u>Subject</u> <u>Markers</u> gw~ g~ d~ ∅~ w '3rd person'	<u>Modal</u> bani 'pret.' dig 'dub.'	<u>Modal</u> e:n 'dub.'	<u>Plural/</u> <u>Obviative</u> <u>Markers</u> ag '3rd plural (anim.)' an 'inan. plural/ (anim.) obv.'
n~ aw~ w~ ∅ 'anim.'											
d~ ∅ 'inan.'											
		<u>Passive</u> igw~ in									
		<u>Incorpor-</u> <u>ations</u> idi 'refl/ recip.'	ige:~ iwe: 'indef.'								

several areas of potential interest and importance. These include areas of syntactic and semantic analysis that have no direct bearing on the morphological structure of the verb. In the following sections we mention briefly and open-endedly some of these topics that we are aware may be of interest and which deserve study in themselves.

11.1.1 Semantics. There are two semantic areas that may be of some interest. First there is the question of the modals, bani 'preterite' and dig/e:n 'dubitative'. While we presented the morphosyntax of these, we did not discuss the use of them. This is mostly because their use is but poorly understood. For example, it is known that preterite forms are used to refer to situations of action continuing in the past, as that in (2).

(2) gmiwniba ngi:-ni-ma:ja:mi It was raining when we left.
 RAIN-3-PRET 1-PAST-LEAVE-1PL

But little more than that is known. We understand the dubitative somewhat better. It is part of a well developed system of evidentials. A paradigm of these is given in (3).

(3) (a) gi:-gi:we: He went home.
 PAST-GO-HOME-3 (direct evidence)

 (b) gi:-gi:we: i:dig He went home.
 SUPPOSEDLY (indirect evidence)

 (c) gi:-gi:we:dig He went home. [dubitative]
 PAST-GO-HOME-3-DUB (There is reason to suppose so.)

 (d) gi:-gi:we: gi:wě: He went home.
 IT-IS-SAID (hearsay)

The form i:dig and the suffixes dig and e:n are usually translated 'supposedly'. The form gi:wě: is usually translated 'so they say, so the story goes'.

The second area of potential interest has to do with the semantic conditioning of the rule of raising, which doubles subject out of complement clauses. In certain modal constructions (including those mention-

ed in §9.2.1) the operation of raising is obligatory.

- (4) (a) *ngi:-ma:jta: wi:-noki:ya:n* I started working.
 1-PAST-START-HAPPEN FUT-WORK-1
 **gi:-ma:jta:(mgad) wi:-noki:ya:n*
 PAST-START-HAPPEN-3
- (b) *ngaškto: wi:-bmose:ya:n* I can walk./It is possible for
 1-POSSIBLE FUT-WALK-1 me to walk.
 **gškito:(mgad) wi:-bmose:ya:n*
 POSSIBLE-3
- (c) *ngi:-g^wjha: wi:-ni:mid* I tried to get him to dance.
 1-PAST-TRY-3 FUT-DANCE-3
 **ngi:-g^wjito:n wi:-ni:mid* I tried to get him to dance.
 1-PAST-TRY-IT

But with many verbs containing the morpheme e:n(im) 'think/use the mind' raising is optional.

- (5) (a) *ngike:nda:n ma:mpi: gi:-ya:d* I know he was here.
 1-KNOW-THINK-IT HERE PAST-BE-AT-3
 (b) *ngike:nma: ma:mpi: gi:-ya:d* I know he was here.
 1-KNOW-THINK-3 HERE PAST-BE-AT-3

Linguistically sensitive speakers say that the saised form indicates a more personal involvement in the knowing. We do not yet totally understand what they intend by that, especially because the unraised form is rare in normal usage.

Closely related to this problem is the startling construction in which both subjects and objects are obligatorily raising (doubled).

- (6) (a) *ngaškto:n wi:-wmbinma:n* I can lift it./It is possible
 1-POSSIBLE-IT FUT-LIFT-IT-1 for me to lift
 it.
 **ngaškto: wi:-wmbinma:n* (cf.(4b))
 1-POSSIBLE
- (b) *ngaškha: wi:-wmbinag* I can lift him./It is possible
 1-POSSIBLE-3 FUT-LIFT-3-1 for me to lift
 him.
 **ngaškto:(n) wi:-wmbinag*
 1-POSSIBLE(-IT)

We have little more to say about this here except to report that it happens. It does appear to be a potential problem for the laws of

relational grammar relating to ascensions. Such constructions are underlyingly intransitive and there does not seem to be any motivated way to get the embedded clause to be an object at any stage of the derivation. So the question then is how to get a downstairs object to be an upstairs object in the forms in (6). The hope of invoking chomeur advancement to get the chomeur clause to be an object is dashed when we notice that not only is the rule ordering wrong, but that chomeur clauses are systematically exempt from chomeur advancement.

- (7) (a) ngāškto: wi:-bmose:ya:n I can walk.
 1-POSSIBLE FUT-WALK-1
 (b) *ngāškto:n wi:-bmose:ya:n [chomeur advanced]
 1-POSSIBLE-IT

We will not attempt to solve the problem of object raising here. We merely raise it.

A final semantic quirk of raising is that raising is not possible when the downstairs subject is identical to the upstairs subject.

- (8) (a) ngike:nda:n a:k^Wziya:n I know that I am sick.
 1-KNOW-THINK-IT SICK-1
 *ngike:nndiz a:k^Wziya:n
 1-KNOW-THINK-SELF
 (b) ngi:-g^Wjto:n wi:-ngamya:n I tried to sing.
 1-PAST-TRY-IT FUT-SING-1
 *ngi:-g^Wjhdiz wi:-ngamya:n
 1-PAST-TRY-SELF

Why this restriction should exist, and how it should be enforced, we do not know.

11.1.2 Syntax. There are two areas of syntax that we have not touched upon in this work and which deserve some mention. First, there are numerous rules of Ojibwa which reorder words without changing grammatical relations. They include adverb fronting, stressed pronoun fronting, rules that place particles following the first major constituent of a clause, etc.

Most of these rules function to move new or contrastive information to the left. (This is the opposite of English in which new or contrastive information is moved right.) Consider the relative order of old and new information in the examples in (9) and in their translations.

- (9) (a) Q: we:ne:š̃ ma:nda? What's this?
 A: (i) mo:kma:n iw *A knife is that.
 KNIFE THAT
 (ii) *iw mo:kma:n That's a knife.
 THAT KNIFE
- (b) Q: a:ni:š̃ pi: ɢa:-ni-ma:ja:d? When did he leave?
 A: (i) bji:na:go gi:-ni-ma:ja: ??Yesterday he left.
 YESTERDAY PAST-LEAVE-3
 (ii) ??gi:-ni-ma:ja: bji:na:go He left yesterday.
 PAST-LEAVE-3 YESTERDAY

We consider the rules reordering words to be more properly in the study of discourse. So, having noted that Ojibwa handles information flow in a way different from that of English, we move on to the other significant syntactic area which we have not dealt with in this work.

This area is the cycle. It is relatively difficult to argue about the cycle in Ojibwa without making several very strong assumptions about the non-existence of precyclic and last-cyclic rules. To the best of our knowledge only six rules can be shown to be cyclic directly, Passive (58) (III), Raising, Clause Union (5)(IX), TSA (50)(III), OAI (42)(VII), and ISA (28)(III). The crucial sentences are given in (10) for the reader who wishes to work them out.

(10) (a) Passive - Raising - Passive

ž̃a:bdi:s wgike:nmig wgwisan gi:-bsika:god mtigo:n
 JOHN_i 3_i-SON_j-OBV TREE_k-OBV
 3_i-KNOW-THINK-PASS-(3_j) PAST-HIT-PASS-(3_k)-3_i
 subj. obj. obj. subj.

John's_i son_j knows that a tree_k fell on him_i.

(lit. John is known by his son to have been hit by a tree.)

(b) Raising - Passive - Raising

ngike:nma: ža:bdi:s bgose:nmigod wgwisan wi:-mno-ya:d
 1-KNOW-THINK-3_i JOHN_i 3_i-SON_j-OBV
 HOPE-THINK-PASS-(3_j)-3_i FUT-GOOD-BE-AT-3_i
 obj. subj.

I know that John's_i son_j hopes that he_i will be better.

(lit. I know of John that he is hoped by his son to be better.)

(c) Clause Union - TSA - OAI - Clause Union - TSA - OAI

ngi:-ba:knamo:ha: mkak I made him open the box.
 /n - gi: - ba:k - in - ∅ - am - (o)h - ∅ - a:/
 1 PAST OPEN CAUSE TSA OAI CAUSE TSA OAI

(d) ISA - Clause Union - ISA

ngi:-a:k^Wzi:ška:gon It made me sick.
 /n - gi: - a:kw - izi - šk - aw - igw - i - n/
 1 PAST SICK ISA CAUSE TSA PASS ISA OAI

Our opinion is that there are no pre-cyclic rules nor any last-cyclic rules and the last of the cyclic rules is Chomeur Advancement (23)(V). All rules preceding that are cyclic and all following are post-cyclic.

11.2 Theoretical Implications. As our final section we summarize some areas mentioned in the text in which our analysis touches on things relevant to the theory of relational grammar. First there is the issue of whether it is useful to study languages using a model which treats syntactic mechanisms as independent of the semantic and pragmatic factors which motivate the syntactic change. Relational grammar is clearly such a model. Our analysis involves a rule of passive, which is put to several clearly independent uses, both semantic and pragmatic. This suggests strongly that it is not only useful but correct to study syntactic mechanisms independently. Secondly, there is the issue of obligatory rules, both regarding passivization and indirect object advancement. Our analysis has shown that such things are possible and

provide motivated analyses. In the case of indirect object advancement, we have shown that Ojibwa does not constitute a counterexample to the claim that termhood can be assigned by universal principles. Thirdly our analysis points to some weaknesses in the laws of agreement. While all agreements in Ojibwa are triggered by terms, some of the agreement rules are ordered midway in the cycle, most noticeably TSA (50)(III). Therefore the law limiting agreement to referencing only cycle initial or cycle final structure will have to have an added wrinkle that given such agreements, cycle medial agreements are possible. One thing related to the agreement laws that our analysis raises, but which was not mentioned in the text, is that there are numerous spellings of morphemes in Ojibwa which are sensitive to the presence of morphemes other than the ones which trigger their insertion. But in every case in which such secondary conditioning of allomorphs is due to a dependent, that dependent is also a term. We therefore suspect that there is an allomorphy law parallel to the agreement law which limits agreements to being triggered only by terms. In the allomorphy law, terms are the only dependents which may trigger allomorphies. Also all allomorphies are triggered by cycle final structure.

APPENDIX

SUMMARY OF RULES

Clause Union (5)(IX) (not formalized in text)

$$V \ A:comp(V \ A \ (E)) \ (E) \ ==> \ V \ DV:V \ A \ \left\{ \begin{array}{l} (E) \\ (3) \ E \end{array} \right\}$$

$$a \quad b \ c \ d \ e \quad a \quad b \ c \quad d \ e$$

Equi Subject Union (63)(IX)

$$V \ 1:NP_i \ NT:comp(V \ 1:NP_i) \ ==> \ DV:V \ \emptyset \ V \ 1:NP_i$$

$$a \quad b \quad c \quad d \quad a \quad b \ c \quad d$$

Lowering Union (32)(IX)

$$V \ 1:comp(V) \ ==> \ DV:V \ V$$

$$a \quad b \quad a \quad b$$

Preposition Float (57)(IX)

PREP ==> ADV

Adverb Deadening (40)(IX)

ADV ==> DV:ADV

Dead Verb Attachment (6)(IX)

$$V \ DV:V \ ==> \ V-V$$

$$a \quad b \quad b \ a$$

Indirect Object Advancement (30)(V)

3 ==> 2

Raising (not formalized in text)

A copy of 1 ascends.

Transitive Stem Agreement (TSA) (50)(III)

$$V \ ==> \ V-TSA[A] \ / \ \underline{\quad} \ 2:[ANIM]$$

$$V-TSA[I] \ / \ \underline{\quad} \ 2:[INAN]$$

Non-term Advancement (14)(V)

V NT:[ANIM] ==> V-BEN 2:[ANIM] (does not affect the objects of prepositions)

Possessor Ascension (18)(V)

A [3] POSS of 2 ascends, marking the verb V-BEN.

Passive (58)(III)

V 2 ==> V-igw 1

Reflexivization (12)(IV)

$$NP_i \ ==> \ idi \ / \ 2:\underline{\quad} \ 1:NP_i$$

Middling (25)(X)

idi ==> \emptyset / V-MEDIAL- 2:_____

Object Incorporation (9)(IV)

V 2:N ==> V-N-MEDIAL

Medial Deletion (13)(IV)

MEDIAL ==> \emptyset / idi-_____

TSA Neutralization (7)(V)

(a) TSACIJ ==> TSACAJ / _____-igw

(b) TSACAJ ==> TSACIJ / _____-BEN

(c) TSACAJ ==> TSACIJ / _____-N (irregularly)

(c) clause not formalized in text)

PRO Deletion (6)(IV)

NT:PRO ==> \emptyset

Non-term Incorporation (39)(X)

V NT:CL ==> V-CL / _____ A(1)

where NT is simulative or locative

Classifier Incorporation (33) (X)

V ==> V-CL_i / _____ 1:NP_i where CL_i is the classifier of NP_i

Subject Incorporation (16)(X)

V 1:(POSS:NP)N ==> V-N-MEDIAL 1:NP
 a b b a

Intransitive Stem Agreement (28)(III)

V ==> V-ISACAJ / _____ A(i):[AN]
 V-ISACIJ / _____ A(1):[INAN]

Object Agreement I (42)(VII)

V ==> V-OAI / _____ 2:[INAN]
 V-ININ / _____ 2:[2]
 V-i / _____ 2:[1]
 V-a: / _____ 2:[3]

Negative Concord (31)(III)

V ==> V-NEG / _____ [NEG]

Chomeur Advancement (23)(V)

CH ==> 2 / _____ A(1)

Object Agreement II (43)(III)

V ==> V-n / _____ 2:[INAN] (not in conjunct environment)

Clausemate Obviation (10)(VIII)

[3] ==> [OBV] / B:_____ A:[3] Condition:A outranks B.

Obviation of Possessee (7)(VIII)

[3] ==> [OBV] / (POSS:[3])_____

AGREEMENTS

Inanimate Obviation (18)(III)

V ==> V-ini / _____ 1:[INAN,OBV]

Conjunct Obviation (20) (VIII)

V ==> V-ini / D _____ A(1):[AN,OBV]

Non-third Person Agreement (24)(VII)

(a) V ==> V-AN / D _____ 1:[2]
g-V / _____ 1:[2]

(b) V ==> V-A:N / D _____ 1:[1]
n-V / _____ 1:[1]

First Person Plural Agreement (28)(VI)

V ==> V-MIN / _____ T:[1PL]

Second Person Plural Agreement (46)(VII)

V ==> V-MW / _____ T:[2PL]

Third Plural Conjunct Agreement (23)(VII)

V ==> V-wa: / D _____ T:[3PL,AN]

Ergative Plural Agreement (38)(III)

(a) V ==> V-ini / _____ E:[OBV]
(b) V ==> V-wa: / _____ E:[3PL]

Third Person Agreement (40)(VII)

V ==> V-g / D _____ 1:[INAN]
V-D / D _____ 1:[3]
w-V / _____ E:[3]
V-w / _____ 1:[3]

Modal Attachment (22)(III)

(a) V bani ==> V-bani
(b) V ==> V-dig / _____ e:n (not in conjunct environment)

Dubitative Attachment (23)(III)

V e:n ==> V-e:n

Dubitative Deletion (not discussed in text)

e:n ==> ∅ / -dig-_____#

Absolute Plural Agreement (39)(III) (not in conjunct environment)

(a) V ==> V-an / _____ A:[INAN,PL] ([AN,OBV] = [INAN,PL])
(b) V ==> V-ag / _____ A:[3PL]

SPELLING

TSA Spelling (46)(III)

TSA[A] ==> n /[[SetI/II]-____
aw /[[SetV]-____
w /[[SetVI]-____
∅

TSA[II] ==> d /[[SetI/II/III/IV]-____
∅

Benefactive Spelling (6)(V)

BEN ==> aw /[[SetI/III]-____ (optional)
amaw

PRO Spelling (16)(IV)

PRO ==> a:h /[[a:h Class]-TSA-____
ig / aw-____
ig / m-____
iw / TSA[A]-____
ig

Medial Spelling (10)(V)

MEDIAL ==> ∅ / h____
e:

ISA Spelling (26)(III)

ISA[A] ==> izi /[[SetI/II/III/IV]-____
i /[[SetV]-____
∅

ISA[II] ==> ya: /[[SetI]-____
ad /[[SetII]-____
an /[[SetIII]-____
de: /[[SetIV]-____
in /[[SetV]-____
∅

OAI Spelling (46)(III)

OAI ==> o: /[[SetI/III]-____
am

ININ Spelling (43)(VII)

ININ ==> inin / ____ 2:[2PL]
ik / ____ 1:[3]
inin

NEG Spelling (32)(III)

NEG ==> siw / D ____ (not discussed in text)
isino:n / ISA[II]-____
si:

Subject Omission (48)(VII)

AN }
 A:N } ==> Ø / ____ T:[1/2PL]
 D }

Non-third Person Spelling (26)(VII)

(a) AN ==> ad / ____ 2:[3AN]
 an

(b) A:N ==> ag / ____ 2:[3AN]
 a:n

MIN Deletion (27)(VI)

MIN ==> igw-i-____-MW

Non-third Plural Spelling (47)(VII)

(a) MIN ==> angw / D ____ T:[21]
 angid / D ____ T:[3AN]
 a:ng / D ____
 min / ____-bani
 ____-dig
 na:ni / ____ 2:[3]
 min

(b) MW ==> agogw / D ____ 1:[1SG]
 e:gw / D ____
 wa: / ____ 2:[3]
 mw

a: Spelling (50)(VII)

(a) igw-i ==> ind / D ____ A(1):[3]
 (b) igw-i ==> a: / ____ A(1):[3]

in Substitution (26)(VI)

igw ==> in / ____ 2:[2SG]

Third Person Spelling (41)(VII)

D ==> Ø / D ____ 2:[2SG]
 ind-(wa:)-____

gw / ____-e:n (not discussed in text)
 g / C ____
 d

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