A PASSIVE TO INVERSE REANALYSIS IN CREE

BY

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ABSTRACT

One of the most interesting constructions in Cree is the inverse. The inverse comprises only half of the paradigm of the active transitive forms in the language and is interesting because it is typologically unusual. Inverse systems have only been reported in a few of the world's languages, and moreover, in the languages in which they occur they have been problematic for analysis, sometimes being analyzed as this unique voice opposition, and sometimes as a passive. The inverse in Cree has been problematic in this way, especially as it is morphologically like a passive, but syntactically like an inverse.

In this thesis, I argue that the inverse originated as a passive construction. Specifically, I claim that a passive construction that existed at a much earlier stage in the history of the language was reanalyzed as an active transitive clause – the inverse.

I use evidence from Cree and Proto-Algonquian, as well as evidence from Wiyot and Yurok, sister languages of Proto-Algonquian, to support this analysis. In addition, I provide typological evidence in support of this analysis.

The reanalysis account is shown to explain why the inverse is morphologically like a passive, but syntactically like a inverse, in this way incorporating the insights of other theorists who have previously addressed the analysis of this construction. In addition, the reanalysis account for the inverse in Cree is shown to have implications for the study of language more generally.

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To my mother, Judith

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LIST OF ABBREVIATIONS AND SYMBOLS

A	agent
ABS	absolutive
ACC	accusative
ACT	active
AGT	passive agent
AI	animate intransitive
ASP	aspect
ASSOC	associative
conj	conjunct order
DAT	dative
DEF	definite
DIR	direct
ERG	ergative
excl	exclusive
IMP	imperative
IMPFV	imperfective
incl	inclusive
IND	indicative
INV	inverse
NEG	negative
NOM	nominative
NP	noun phrase
OBJ	object (direct object)
OBL	oblique
P	patient
PA	Proto-Algonquian
PASS	passive
pl	plural
POSS	possessive
pre-PA	pre-Proto-Algonquian
pro	pronominal
prog	progressive
Prog	progressive auxiliary
RD	referential distance
sg	singular
STAT	stative
SUB	subject
TOP	topic
TP	topic persistence
uns	unspecified tense-aspect-mood
V	vowel
VP	verb phrase
1	first person
2	second person

	third person
ɹan or 0	third person inanimate
ɹdf	third person indefinite
ɔbv or 3′	third person obviative
prox or 3	third person proximate
	"act on," e.g., 3-2 third person acting on second person
	"outranks," e.g., 1>3 first person outranks second person
	"reconstructed form" or "ungrammatical construction" (depending on the context)

CHAPTER 1: INTRODUCTION

1.0. Introduction

One of the most interesting grammatical constructions in Cree is the inverse. Cree, like all of the other languages in the Algonquian family, has a system of "direction," also known as a "direct/inverse system." Direction is a category of transitive verbs such that each verb form is either direct or inverse. Direct forms are used when the agent outranks the patient with respect to a hierarchy of person. In Cree, this hierarchy is 2 > 1 > 3. Conversely, inverse forms are used when the agent is outranked by the patient with respect to this hierarchy (Wolfart 1973).[1]

Consider, for example, the Cree forms in (1).[2]

(1) a. *ni(t)- asam- â- w* > *nitasamâw*
1 feed direct 3
'I feed him (1-3)'

b. *ni(t)- asam- ekw- w* > *nitasamik*
1 feed inverse 3
'he feeds me (3-1)'
(Wolfart 1973, 24)

The forms in (1) are from the mixed set, i.e., one argument is first or second person and the other argument is third person.[3] In (1a), the direct form, marked with */â/*, is used because the first person agent outranks the third person

[1] Wolfart (1973, 26) uses the terms "actor" and "goal" as is the convention in Algonquian linguistics. However, I will use the terms "agent" and "patient" throughout this paper as I incorporate data from languages in other families as well.

[2] Interlinear glosses are only provided if they are available in the original source unless otherwise indicated. I have standardized the presentation of examples in the following way: the example itself is given in italics, the morpheme-by-morpheme gloss (where available) is given in the second line, and the English translation is given in the third line. The use of abbreviations has been standardized as in the table on page xiii-xiv. Finally, I have standardized the orthography used to indicate vowel length in Cree and Proto-Algonquian. For Cree, I use the diacritic ^ over the vowel and for Proto-Algonquian, I use a colon after the vowel.

[3] In Cree, verbs are inflected in three sets, these being the mixed set, the third person set and the non-third person set, depending on the person of the agent and patient arguments (Wolfart 1973).

patient. In (1b), the inverse form, marked with */ekw/*, is used because the third person agent is outranked by the first person patient (Wolfart 1973).[4]

Bloomfield (1946) reconstructs this type of opposition for the proto-language, Proto-Algonquian, as in the example in (2). The form in (2a) is marked with */a:/*, as in the Cree form in (1a), and the form in (2b) is marked with */ekw/*, as in the Cree form in (1b).

(2) a. **newa:pama:wa*
'I look at him'

b. **newa:pamekwa*
'he looks at me'
(Bloomfield 1946, 98)

The inverse is restricted in its distribution, comprising only half of the paradigm of transitive verbs. For example, consider the agreement morphology of forms which have a first or second person argument and a third person argument, i.e., forms in the "mixed set," in tables 1-1 and 1-2.[5] All forms in which the agent outranks the patient are direct as in table 1-1, while all forms in which the agent is outranked by the patient are inverse as in table 1-2.

		patient	
		3	3p
agent	1	ni- -âw	ni- -âwak
	2	ki- -âw	ki- -âwak
	1p	ni- -ânân	ni- -ânânak
	21	ki- -ânaw	ki- -ânawak
	2p	ki- -âwâw	ki- -âwâwak

Table 1-1 Agreement morphology of direct forms in the mixed set (independent order) (Wolfart 1973, 41)

[4] As Wolfart (1991, 186) indicates, the morpheme */ekw/* may be realized as *-iko-*, *-ikw-* or *-ik-* and after a stem which ends in *-aw-* as *-âko-*, *-âkw-* or *-âk-*. The sequence */ekw/* + third person *-w-* surfaces as *-ik-*.

[5] The paradigm for forms in the mixed set also includes third person "obviative" forms. These are not included here as they are not taken up until 3.1.

		agent	
		3	3p
patient	1	ni- -ik	ni- - âwak
	2	ki- -ik	ki- -âwak
	1p	ni- -ikonân	ni- -ikonânak
	21	ki- -ikonaw	ki- -ikonawak
	2p	ki- -ikowâw	ki- -ikowâwak

Table 1-2 Agreement morphology of inverse forms in the mixed set (independent order) (Wolfart 1973, 41)

Inverse forms are interesting because they are typologically unusual. Besides the languages of the Algonquian family (e.g., Cree), inverse systems have been reported in only a few of the world's languages. These languages include: languages in the Chukotko-Kamchatkan family, e.g., Chukchee (Comrie 1980); Kutenai, a language isolate (Dryer 1994); Northwest Sahaptin, a dialect of Sahaptin (Rude 1994); and languages in the Apachean family, e.g., Navaho (Jelinek 1990).

Moreover, in the languages in which they do occur, the analysis of these systems has been controversial. Where they do occur, they are sometimes analyzed as this unique voice opposition, i.e., an inverse system, and by others as having an active/passive opposition. For example, Klaiman (1991, 176) suggests that "the most extensively documented Apachean inverse system is that of Navaho" and that "authors generally agree on the description of Navaho voice, though not on its analysis." The inverse in Navaho has been likened to a passive.

Similarly, Klaiman (1991, 186) states that "Although Algonquian languages are currently the best-studied languages of the inverse type, they, like other inverse systems, are subject to conflicting analyses." Inverse systems in the languages of the Algonquian family have also been analyzed as active/passive oppositions (for example, see Voegelin (1946) for Delaware and Jolley (1982) for Cree; see also Wolfart's (1973, 26) survey of analyses for the category of direction in the Algonquian languages).

The analysis of the inverse in Cree is complicated by two aspects of the morphology in the synchronic grammar of the language. In each of these aspects, the inverse is morphologically like a passive. First, the Cree inverse marker */ekw/* forms part of three complex derivational suffixes, each of which adds a passive-like meaning to the stem to which it is added (Wolfart 1973, 1991).

Second, inverse forms in the third person set, i.e., forms which have two third person arguments, are morphologically marked only for the thematic patient. Wolfart (1991) claims that these forms may be likened to passives because they are marked only for the patient NP.

In this thesis, I address the analysis of the inverse construction in Cree, and I claim that the inverse construction in this language originated as a passive. That is, at a much earlier time in the history of the language, a productive passive construction marked by */ekw/* existed, and (i) this construction was reanalyzed as an inverse construction, and (ii) */ekw/* was reanalyzed as an inverse marker.

1.1. Background on Cree

Cree is a member of the Algonquian family, a family of languages whose members include Fox, Menomini, Ojibwa, Potawatomi, Shawnee, Blackfoot, Arapaho and others.[6] It is spoken across a vast geographical region, mostly in Canada, which extends from western Alberta in the west to the border of Ontario and Quebec in the east, where it forms a dialect continuum with Montagnais-Naskapi (Wolfart 1973, 7).

There are five dialects of Cree. Wolfart (1973) offers a comprehensive grammar of one of these, Plains Cree. The Cree examples given in this paper are from the Plains dialect, having been drawn from the work of Wolfart (1973, 1991) and also from Dahlstrom (1991).

[6] See Teeter (1973) for a detailed history of the study of the Algonquian languages.

Cree and the other Algonquian languages descend from the proto-language, Proto-Algonquian. According to Pentland (1979, 15), "It is generally agreed that the initial break-up of Proto-Algonquian produced about two dozen distinct languages" of which Cree-Montagnais was one. Pentland estimates that this break-up took place around 1000 B.C. See Pentland (1979) for a detailed classification of the languages in this family.

Bloomfield (1946) reconstructs the grammar of Proto-Algonquian using Fox, Cree, Menomini and Ojibwa. Although Bloomfield's reconstructions are based on only four of the Algonquian languages, he states that "these reconstructions will, in the main, fit all the languages and can accordingly be viewed as Proto-Algonquian" (Bloomfield 1946, 85).

Proto-Algonquian, together with two languages of California, Wiyot and Yurok, form a larger genetic grouping known as Algic.[7]

Wiyot, a language of California, was spoken by approximately 1000 people at the middle of the nineteenth century. However, at the time that Reichard came to do fieldwork for her 1925 grammar of the language, there were few fluent speakers and she found that "the language is fast becoming extinct" (Reichard 1925, 5). The last speaker died in 1962 (Teeter 1964, 1).

Yurok is a language spoken in an area in California just north of where Wiyot is spoken. As with Wiyot, the number of Yurok speakers has been on the decline since the mid nineteenth century and few fluent speakers remained when Robins did the fieldwork for his grammar which was published in 1958.

The relationship between Algonquian and Wiyot and Yurok was originally proposed by Sapir (1913). At the time, the nature of this relationship, and indeed the very existence of such a relationship, was the subject of

[7] Teeter (1965) suggests the name "Algic" for this family, apparently a term first used by Schoolcraft to refer to the Algonquian languages.

considerable controversy.[8] According to Haas (1958), the publication of grammars of Wiyot (1925) and Yurok (1958) and especially the publication of Bloomfield's (1946) "sketch" of Proto-Algonquian enabled theorists to substantiate the relationship of Wiyot and Yurok to Proto-Algonquian. Teeter (1965, 225) suggests that Proto-Algonquian, Wiyot and Yurok should be viewed as "parallel branches" of the Algic family tree.

1.2. The prototypical passive and inverse constructions

In this section, I characterize the passive and inverse constructions in terms of prototypical characteristics. As the terms "transitive," "intransitive," "thematic roles," and "grammatical relations" are crucial in distinguishing the prototypical passive and prototypical inverse constructions, I begin by briefly discussing these terms as they will be used here.

First, transitivity is a verbal phenomenon, such that verbs are either "transitive" or "intransitive." Transitive verbs, e.g., *hit*, select two nominal arguments while intransitive verbs e.g., *jump*, select a single nominal argument (Palmer 1994, 8).

Arguments are NPs which are obligatory. Thus, since a transitive verb has two arguments, a sentence which has a transitive verb and a single nominal argument will be ungrammatical, as in (3). On the other hand, the transitive verb in (4) occurs in a sentence with three NPs. In this sentence, however, there are only two obligatory NPs, or arguments; the third NP is optional (Palmer 1994).

(3) *Martin hit.

(4) Mary hit the ball (with her hand).

[8] Truman Michelson was particularly opposed to the postulation of this relationship. See Haas (1958) for a discussion of what she refers to as the "Algonkian-Ritwan controversy," "Ritwan" being the term used to refer to the grouping of Wiyot and Yurok.

Second, the term "thematic roles" will be used to refer to the particular roles that NPs in sentences can take. The most central of these are "agent" and "patient," the agent being the "one who performs the action designated by the verb" and the patient being the "one who is affected by the action designated by the verb." Other thematic roles include: beneficiary, locative and instrumental (Palmer 1994).[9]

Finally, the term "grammatical relations" refers to the notions of "subject," "object," "indirect object" and "oblique object." In an active transitive construction, the agent NP is the subject and the patient NP is the object.[10] The indirect object is associated with the beneficiary thematic role, and the locative and instrumental, when used, occur as oblique objects (Palmer 1994).[11]

A prototypical construction is one which has the characteristics or features that are central to that construction. The use of prototypes is intended to accommodate the "non-discrete" nature of grammar: "linguistic structures are not isolated, but rather tend to show partial resemblances among themselves" (Shibatani 1985, 821). These "partial resemblances", or overlap, between grammatical constructions may be either structural, functional or both.

1.2.1. The prototypical passive

1.2.1.1. Syntax

The English sentences in (5) illustrate the change in the association between structural positions and thematic roles, i.e., agent and patient, that typifies the prototypical active/passive alternation. That is, "in the prototypical active form an agent is in the subject role, and in the prototypical passive form a patient functions as a subject" (Shibatani 1988, 3).

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[9] Palmer (1994) uses the term "grammatical roles" as I am using "thematic roles."

[10] This is the association between grammatical relations and thematic roles in an accusative language. See Palmer (1994) for a discussion of the grammatical relations and thematic roles in an ergative language.

[11] I use the term "oblique object" following Shibatani (1985, p. 832), Sasse (1984, 245), and others. Palmer (1994) simply uses the term "oblique".

(5) a. The dog bit the child.

b. The child was bitten by the dog.

The sentence in (5a) is active. The transitive verb *bite* takes two nominal arguments: (i) *the dog* is the thematic agent and the grammatical subject, and (ii) *the child* is the patient and the object of the sentence.

The sentence in (5b) is passive. The verb has only one argument, the patient NP *the child*, and it is the grammatical subject. The agent NP *the dog* occurs as an oblique object marked by the preposition *by*.

The sentences in (5) also illustrate a second characteristic of the prototypical passive construction. That is, passives of transitive verbs are intransitive constructions.[12] The agent in the passive, if expressed, occurs as an oblique object, as in (5b) where it is marked as an oblique object with the preposition *by*. The agent may not be expressed at all, as in (6) (Shibatani 1985).[13]

(6) The child was bitten.

The structure of the passive is typically described in reference to the corresponding active construction. For example, the patient in the passive is regarded as having been "promoted" in terms of the hierarchy of grammatical relations in (7). The patient in the active is the grammatical object, and in the passive, it is the grammatical subject (Palmer 1994).

(7) subject > direct object > indirect object > oblique object
(Shibatani 1985, 832)

[12] As Shibatani (1985) points out, it is not fully accurate to characterize all passives as intransitive constructions, the appropriate generalization being that all passives are reduced in valency in comparison to the corresponding active construction. Therefore, passives derived from transitives are intransitive constructions, but passives derived from ditransitive verbs, i.e., verbs with three arguments, are transitive.

[13] In some languages the passive is obligatorily agentless. Wolfart (1991, 175) lists Classical Arabic, Latvian and Pashto as examples of languages of this type.

Conversely, the agent in the passive is regarded as being "demoted" in terms of this same hierarchy. The agent occurs as the subject in the active construction, and as an oblique object in the corresponding passive construction (Palmer 1994).[14]

Universally, then, the prototypical passive is an intransitive construction in which the patient NP is the grammatical subject. The agent occurs either as an oblique object or it may be omitted. The patient in the passive is regarded as having been promoted and the agent demoted in comparison to the corresponding active construction.

The assumed relation between the active and passive constructions has played a significant role in modern theories of formal linguistics. The active construction is regarded as "basic," and the passive is analyzed as being derived from it. This derivation is expressed in Chomsky's Government and Binding Theory in terms of movement, i.e., movement of the patient NP to the subject position in the passive, motivated by the need for the patient in the passive to be assigned case (cf. Haegeman 1992). Similarly, proponents of Relational Grammar seek to provide a universal characterization of passive in terms of its derivation from the corresponding active construction (Shibatani 1988).

In her typology of voice constructions, Klaiman (1991) works within the framework of Relational Grammar. She states that "derived voice encodes a mapping from one class of configurations, which are basic, to a second class of configurations, which are nonbasic and which can be accounted for by derivation" (Klaiman 1991, 161). That is, in the basic structural configuration, the active construction, the agent NP is associated with the subject position, and the patient NP is associated with the object position. The passive is derived by a process of "role remapping," a process which alters the

[14] I use the terms "promoted" and "demoted" in this sense throughout and not as they are used in Relational Grammar.

association between the structural positions and thematic roles of the basic configuration, such that the patient in the passive is associated with the subject position.

1.2.1.2. Pragmatic functions

In terms of structure, the patient in the passive is "promoted" and the agent "demoted" in comparison to the active construction. This structural change has a functional correlate; the patient is more "topical" and the agent is less "topical" in the passive than it is in the corresponding active construction (Givón 1994).

Givón (1994) defines four main voice types, the active/direct, the inverse, the passive and the antipassive, in terms of the relative "topicality" of the agent and patient. The passive, he claims, is a voice construction in which "the patient is more topical than the agent, and the agent is extremely non-topical ('suppressed', 'demoted')" (Givón 1994, 9).

1.2.1.2.1. Referential distance and topic persistence as measures of topicality

According to Givón, the topicality of the agent and patient arguments in these constructions can be assessed in terms of the "referential distance" (RD) and "topic persistence" (TP) of noun phrases, both of which he considers to be significant and measurable correlates with the topicality of NPs.

Referential distance refers to the number of clauses between the NP and its antecedent in the text. Highly topical NPs have an RD of 1, i.e., the antecedent occurs in the immediately preceding clause. NPs with an RD of 2 or 3, i.e., the antecedent is in the second or third clause before its present usage, are considered topical. Finally, NPs with an RD of 3 or greater are considered to be non-topical. The use of referential distance as a measure of topicality is summarized in table 1-3 (Givón 1994).

RD	topicality of NP
1	highly topical NP, e.g., pronouns, zero anaphors
2/3	topical NP, e.g., emphatic and topicalized NPs, independent contrastive pronouns
>3	non-topical

Table 1-3. Referential distance as a measure of topicality (Givón 1994)

The second measure of topicality, topic persistence, assesses the frequency with which the NP is used in the ten clauses preceding its present usage. The use of topic persistence as a measure of topicality is summarized in table 1-4.

TP	topicality
>2	'more topical referents'
0-2	'less topical referents'

Table 1-4. Topic persistence as a measure of topicality (Givón 1994)

.2.1.3. Morphology

Keenan (1981) offers a survey of passive constructions in the languages of the world. He argues that passives can be classified as being one of two types depending on how they are morphologically marked.

First, some languages have what Keenan (1981, 8) refers to as "strict morphological passives." In languages which have passives of this type, the passive is marked by some morphological process, e.g., by an affix or vowel change which indicates the passive verb. He lists Sre (Mon-Khmer), Hebrew, Malagasy, and Latin as examples of languages which have strict morphological passives. An example from Sre is given in (8).

(8) a. *cal pa? mpon*
wind open door
'The wind opened the door'

b. *mpon gə- pa? mə cal*
door pass-open by wind
'The door was opened by the wind'
(Keenan 1981, 8)

In the active construction in (8a), the transitive verb *paʔ* 'open' is unmarked and in the passive construction in (8b) it is prefixed with the passive marker *gə-*.

Second, some languages have what Keenan (1981, 13) refers to as "periphrastic passives." In languages which have passives of this type, the passive is marked (i) by an auxiliary verb, and (ii) by some morphological process which affects the passive verb. English is a language that has a periphrastic passive construction. Keenan lists German, Persian, Russian, and French as other languages which have periphrastic passives. An example from Persian is given in (9).

(9) a. *Ali Ahmed-ra košt*
Ali Ahmed-DO killed
'Ali killed Ahmed'

b. *Ahmed košté šod*
Ahmed killed become
'Ahmed was killed'
(Keenan 1981, 13)

Thus it is typically the case that passives are more morphologically marked than the corresponding active construction. In languages with strict morphological passives, the passive verb is marked, and in languages with periphrastic passives the passive verb is both marked and accompanied by an auxiliary verb.

In addition, as we saw in 1.2.1.1, the agent in the passive, if expressed, is marked as an oblique object.

.2.2. *The prototypical inverse*

.2.2.1. The syntax of the inverse

The inverse differs structurally from the passive in two ways. First, the inverse differs from the passive with respect to valency. The passive is reduced in valency in comparison to the corresponding active construction, i.e., the passive of a transitive verb is intransitive. In contrast, the inverse is a

transitive construction. Klaiman (1991, 193) states that "in passives the most obvious sign of valence reduction is formal intransitivity. But inverse voice forms, like direct voice forms, are formally transitive."

Second, the inverse differs from the passive with respect to the association between structural positions and thematic roles. The patient in the passive is the grammatical subject. In the inverse, however, as in other active constructions, the agent is the grammatical subject and the patient is the grammatical object.

Passives are regarded as a "promotional phenomenon"; the patient is promoted in comparison to the patient in the corresponding active construction according to the hierarchy: subject > direct object > indirect object > oblique object.

In the inverse, however, as in the corresponding direct construction, the patient is the grammatical object. Thus, Klaiman (1991, 183) argues that the inverse differs from the passive in that there is "no suppression or grammatical downgrading" of the inverse subject. According to Palmer (1994, 212), in the inverse "it would seem that there is no promotion and demotion but merely an alternation between the functions of the two NPs, 'direct' indicating Agent + Patient, and 'inverse' Patient + Agent." Similarly, Thompson (1994) claims that most inverse constructions are "nonpromotional," e.g., the patient in the inverse is not "promoted" in terms of this hierarchy as it is in the passive.[15]

[15]Thompson (1994), however, suggests that no single structural diagnostic can be used to differentiate between inverse and passive constructions, but he also takes a different approach to the inverse, defining it in strictly functional terms.

1.2.2.2. The pragmatic functions of the inverse

1.2.2.2.1. The empathy hierarchy and the inverse

According to Palmer (1994), many languages have restrictions on the type of NP that may serve as the grammatical subject; these restrictions commonly concern (i) the animacy of NPs, with animate NPs being preferred as subjects,

and (ii) grammatical person. When the restrictions on the subject involve grammatical person, discourse salience is the relevant feature. NPs that are highly salient, NPs that figure centrally in the discourse situation, tend to be preferred as subjects. As discourse salience reflects the point of view of the speaker and hearer, first and second person are more highly salient than third person, and therefore tend to be preferred as subjects.

The type of restrictions that affect the subject NP can be expressed using the empathy hierarchy. According to Comrie (1980, 62), although the hierarchy "differs somewhat from language to language, especially in that different languages make a different number of distinctions and have different cut-off points, certain aspects of this continuum from most to least animate recur in language after language" and these are outlined in (10).

(10) 1,2 > 3 (humans) > 3 (animals) > 3 (inanimates)
(Comrie 1980, 62)

The features of animacy and saliency are reflected in the hierarchy in (10).

In some languages if the higher-ranking argument, agent or patient, according to this hierarchy, is not the subject, then the sentence is ungrammatical. Palmer (1994, 207) states that the use of inverse systems constitutes what he refers to as "an extreme example of this type of restriction." In the inverse, the direct construction is obligatory when the agent outranks the patient and the inverse is obligatory when the agent is outranked by the patient.

In these languages, then, the use of the inverse serves to guarantee the subject of the active will never be outranked by the object NP. When the agent NP is outranked by the patient NP, the active is not used; instead this unique voice construction, the inverse, is used.

1.2.2.2.2. Topicality and the patient in the inverse

According to Givón (1994, 9), in the inverse "the patient is more topical than the agent, but the agent retains considerable topicality." As with the passive, then, one of the pragmatic functions of the inverse is that it makes the patient more topical. However, the functional profile of the inverse differs from that of the passive as in the passive the agent is non-topical and in the inverse, it remains topical.

1.2.2.3. Morphology of inverse verbs

Comrie (1989, 128) argues that "the most natural kind of transitive construction is one where the A[gent] is high in animacy and definiteness, and the P[atient] is lower in animacy and definiteness; and any deviation from this pattern leads to a more marked construction." The inverse, then, is pragmatically marked in comparison to the direct form, since it is used when the agent is outranked by the patient with respect to the empathy hierarchy.

According to Comrie (1989, 128), the inverse verb is also morphologically marked "to indicate an unexpected constellation of A and P," i.e., the agent is outranked by the patient with respect to the empathy hierarchy. This is illustrated with the example from Northwest Sahaptin in (11).

(11) a. *túk'wash-mash ní-ta*
cane- 1sg-2sg give-FUT
'I shall give you a cane.'
(Rude 1994, 103)

b. *níipt-nam pá-ni-ta*
two-2sg INV-give-FUT
'You will give me two'
(Rude 1994, 103)

In this example, the direct form is used in (11a) as the first person agent outranks the second person patient according to the hierarchy that applies in the language: 1 < 2 < 3prox < 3obv.[16] The direct form of the verb is unmarked for direction. The inverse form is used in (11b) as the second person agent outranks the first person patient. The inverse form of the verb is marked for direction with the inverse prefix *pá-*.

1.2.3. Summary of characteristics of prototypical passive and inverse constructions

Table 1-5 summarizes the characteristics of prototypical passive and inverse constructions.

	passive	inverse
syntax	-intransitive -patient is the subject -agent, if expressed, is an oblique object	-transitive -agent is the subject -patient is the direct object
pragmatic function	1. decrease the topicality of the agent 2. increase the topicality of the patient	1. decrease the topicality of the agent (though not as much as the passive) 2. increase the topicality of the patient 3. ensure that the subject is the highest-ranking argument in the clause
morphology	-the passive verb is marked in comparison to the active verb -the agent, if expressed, is marked as an oblique object	-the inverse verb is marked in comparison to the direct verb

Table 1-5 Summary of characteristics of prototypical passive and inverse constructions

1.3. Grammaticalization

1.3.1. Defining grammaticalization

In 1912, Meillet used the term "grammaticalization" to refer to the process by which lexical items become grammatical morphemes. However, while Meillet is credited with coining the term grammaticalization to refer to this process, other theorists had described it as early as the eighteenth century (Heine et al. 1991, Traugott and Heine 1991). For example, according to Heine et al. (1991), Condillac observed that verbal affixes, e.g., inflections for tense, traced their origins to full words in the 1740s.

[16] The distinction between third person proximate and obviative is discussed with respect to Cree in chapter 3.

Later, the use of the term "grammaticalization" came to include the process by which grammatical morphemes arise from other grammatical morphemes.[17] This is reflected in Kurylowicz's definition of grammaticalization: "grammaticalization consists in the increase of the range of a morpheme advancing from a lexical to a grammatical or from a less grammatical to a more grammatical status, e.g., from a derivative formant to an inflectional one" (Heine et al. 1991, 3).

The traditional conception of grammaticalization as changes by which lexical items become grammatical morphemes, or less grammatical morphemes become more grammatical, has broadened, following the work of Givón and others, to include changes by which discourse phenomena become incorporated into the grammatical structure of a language (Traugott and Heine 1991).

Du Bois's (1987) analysis of ergative case marking in Sacapultec (Mayan) provides an example of the grammaticalization of a discourse strategy as a grammatical pattern. In an ergative system, it is the transitive object which is marked like the subject of intransitives, i.e., in the absolutive case, while the transitive subject is marked in the ergative case. According to Du Bois, transitive subjects were marked when new information was introduced and this marking grammaticalized as a grammatical structure, i.e., the ergative case marker.

1.3.2. The linguistic effects of grammaticalization

Grammaticalization, then, is the component of language change by which grammatical elements are derived from lexical words and other grammatical forms. This process is typically represented as a unidirectional continuum with forms advancing from less grammatical to more grammatical. Although

[17] The terms "grammaticization" and "grammaticization" are also used in the literature referring to the same process (Traugott and Heine 1991, 1).

changes by which a form becomes less grammatical "have been observed to occur," Heine et. al (1991, 4) find that "they are statistically insignificant."

Forms which are "more grammatical" are those which are: (i) more abstract in meaning, (ii) "semantically bleached," (iii) more dependent, (iv) phonetically reduced, (vi) generalized, (vii) more frequently occurring, and (viii) obligatory (Hopper and Traugott 1993, Heine et al. 1991). Heine et al. (1991, 213) refer to these properties as the "linguistic effects of grammaticalization." In this section, I offer a brief discussion of each.

First, as forms grammaticalize they become increasingly more abstract. Heine et al. (1991, 42) suggest that "in linguistic works, the distinction between nongrammatical and grammatical 'meaning' is frequently described as one of 'concrete' versus 'abstract' meaning."

In their discussion of the abstractness of meaning associated with grammaticalized forms, Heine et al. (1991, 44-45) give an example from Ewe (Niger-Congo). In this language, the word *ta'* 'head' has grammaticalized as a postposition and clause subordinator where it has come to express more abstract meanings such as 'over' and 'on.'

Another linguistic effect of grammaticalization is that forms become "semantically bleached," i.e., they lose meaning. For example, Meillet distinguished between lexical words, "mots principaux," and grammatical morphemes, which he referred to as "mots accessoires" or "mots vides," i.e., "empty words" (Heine et al. 1991).

While there is considerable discussion in the literature concerning the loss of meaning associated with grammaticalized forms, some theorists take the position that as forms grammaticalize they acquire new meanings. These theorists argue that grammaticalized forms become "pragmatically enriched," i.e., they acquire "pragmatic meaning," or meaning that arises in the context of

use of a particular form or expression. For example, the verb *go* has grammaticalized and it has acquired the pragmatic meaning of 'future.' In order to understand how it is that a form acquires new meaning in the context of use, let us consider the use of *go* in the following sentence (Hopper and Traugott 1993).

(12) I was/am going to be married. (in the sense 'I was/am going for the purpose of getting married')

(Hopper and Traugott 1993, 82)

The use of *go* in (12) implies that the event took place at a later time. Over time, meaning that is either implied by the speaker or inferred by the hearer in this way can become associated with the form (Hopper and Traugott 1993).

In their discussion of semantic bleaching versus pragmatic enrichment, Hopper and Traugott (1993, 88) argue that there is "no doubt that over time meanings tend to become weakened during the process of grammaticalization." They distinguish, however, between the early and later stages of grammaticalization and argue that the early stages are characterized by "a redistribution or shift of meaning," while the later stages involve meaning loss. For example, using the grammaticalization of *go* as an example, they suggest that initially *go* acquired the pragmatic meaning of "future tense," but that as it has grammaticalized, it has also lost meaning, in particular the meanings of "motion and directionality" (Hopper and Traugott 1993, 3).

As forms grammaticalize, they become more dependent, e.g., words may grammaticalize as clitics or affixes, and become phonetically reduced such that forms are shorter, vowels are weakened, etc. (Hopper and Traugott 1993, Heine et al. 1991).

Another linguistic effect of grammaticalization is increased frequency, such that "the more frequently a form occurs in texts, the more grammatical it is assumed to be" (Hopper and Traugott 1993, 103). This is the case for two reasons. First, as forms grammaticalize and become semantically bleached, they can be used in a wider variety of contexts, and therefore are used more

often. Second, grammatical morphemes are used more frequently than lexical words. Therefore, as lexical words grammaticalize as grammatical morphemes, they are used more often. In addition, it is typically the case that it is forms that are frequently occurring which grammaticalize (Heine et al. 1991, 38-39).

As forms grammaticalize, they also become increasingly more generalized with respect to meaning and grammatical function. A single form will come to have more than one meaning and/or mark a wider range of grammatical functions (Hopper and Traugott 1993, 96-100).

Hopper and Traugott (1993) use the development of the *be V-ing* construction in English as an example of a construction which generalizes with respect to grammatical function. This construction first marked progressive aspect in agentive constructions and then it came to be used in passives, e.g., "*The house was building.*" (This passive construction was used in the eighteenth century.) The *be V-ing* construction then came to be used in stative contexts, e.g., "*There are statues standing in the park*" (Hopper and Traugott 1993, 100).

Finally, Lehman suggested that as forms grammaticalize they undergo a process that he refers to as "obligatorification." That is, as forms grammaticalize, they become increasingly more obligatory. According to Lehman, in the earlier stages of the process of grammaticalization, there is a "free choice of items according to communicative intentions" and in the later stages this "choice [is] systematically constrained [and] use [is] largely obligatory" (Heine et al. 1991, 19).

1.3.3. Reanalysis

One mechanism of grammaticalization is reanalysis. Hopper and Traugott (1993, 40) and Heine et al. (1991, 251) use Langacker's often cited definition of reanalysis as "change in the structure of an expression or class of expressions that does not involve any immediate or intrinsic modification of its surface manifestation." That is, the structure of a form or construction changes

without affecting the surface structure of that form or construction. For example, one common type of change by reanalysis occurs when boundaries shift as in (13). This is illustrated with an example from English in (14).

(13) *(A, B) C* is reanalyzed as *A (B, C)*
(Heine et al. 1991, 216)

(14) [[back] of the barn] >
[back of [the barn]]
(Hopper and Traugott 1993, 40)

In (14), the head noun *back* and modifying prepositional phrase *of the barn* has been reanalyzed as a complex preposition *back of* and head noun *barn*. This is a good example of reanalysis, because although the structure has changed, the surface form, i.e., *back of the barn*, remains the same (Hopper and Traugott 1993).

As I will show in this thesis, another type of reanalysis involves a change by which a particular morpheme defined in one way becomes defined in another way. Whether the change occurs in this way or by boundary shift or by some other means, changes by reanalysis always involve a change in structure that does not affect the surface manifestation of the form or expression.

While reanalysis is an important mechanism of grammaticalization, not all changes by reanalysis involve grammaticalization. Instead, only a subset of changes by reanalysis can properly be regarded as grammaticalizations, specifically those which involve a change from less to more grammatical (Hopper and Traugott 1993, Heine et al. 1991).

1.3.4. Grammaticalization as a framework for analysis

According to Hopper and Traugott (1993), grammaticalization can be defined both as the component of language change by which forms become more grammatical over time and, more broadly, as a framework for linguistic study. They suggest that as a framework for study, grammaticalization "refers to that

part of the study of language that focuses on how grammatical forms and constructions arise, how they are used, and how they shape the language" (Hopper and Traugott 1993, 1).

Grammaticalization used in this second sense, i.e., as a framework for study, takes a functional approach to the study of language, focusing on patterns of language use.

Heine et al. (1991, 1) use the following example from Ewe (Niger-Congo) to illustrate how linguistic data can be problematic for some of the basic premises which they claim underlie most post-Saussurean models of grammar, e.g., the assumption that "a linguistic form has only one function or meaning" and that "linguistic description must be strictly synchronic."

(15) (i) *me-ná ga kofí*
1sg-give money Kofi
'I gave Kofi money'

(ii) *me-ple βɔtrú ná kofí*
1 sg-buy door give Kofi
(a) 'I bought a door and gave it to Kofi'
(b) 'I bought a door for Kofi'

(iii) *me-wɔ dɔ vévié ná dodókpɔ́ lá*
1sg-do work hard give exam DEF
'I worked hard for the exam'
(Heine et al. 1991, 1)

In this example, *ná* is a verb meaning 'give' in (i) and a preposition meaning 'for' in (iii). In the sentence in (ii), *ná* is ambiguous and can be interpreted either as a verb 'give' or the preposition 'for.' Moreover, according to Heine et al. (1991), the sentences in (15) represent a simplification of the actual use of *ná* in Ewe in that there are actually far more possible uses of this morpheme. They suggest that, "given enough contexts in which this form occurs, it would be possible to demonstrate that these uses can be arranged along a continuum extending from prototypical verbal uses, as in (i), to prepositional uses, as in (iii). Sentence (ii) exemplifies only one of a large range of possible points along this continuum" (Heine et al. 1991, 3).

Heine et al. (1991) claim that *ná* originated as a verb and has developed uses as a preposition; they appeal to the diachronic development of *ná* to account for the continuum-like range of possible usages of this form in the language. This change involves the process of grammaticalization: for example, as *ná* becomes more grammatical, it develops uses as a preposition and can not be

inflected to tense, aspect, or negation. Forms like *ná*, then, are problematic for the assumptions that a single form has only one meaning or grammatical function and that linguistic study should be strictly synchronic.

Heine et al. (1991) maintain that the study of grammaticalization can contribute to the analysis of synchronic linguistic structures. They use Li and Thompson's study of the change from SVO to SOV word order in Chinese as an example to show how the grammaticalization analysis not only offers a plausible motivation for the change, i.e., the first verb in the sequence S-V1-O-V2 grammaticalizes as a case marker, but how it accounts for certain characteristics in the synchronic grammar of Chinese, for example, that case markers occur before the object.

In this thesis, I argue that the grammaticalization analysis accounts for the morphological similarity of the inverse in the synchronic grammar of Cree to a passive, but that it also accounts for the difficulty that there has been in analyzing passive and inverse constructions in other languages.

1.4. Overview of the chapters

Chapter 2 looks at the overlap that exists between passive and inverse constructions with respect to structure, function and morphology.

Chapter 3 looks at the use, distribution and previous analyses of the inverse in Cree.

Chapter 4 looks at the origin of the inverse marker */ekw/* in Proto-Algonquian and at two constructions in sister languages of Proto-Algonquian, a construction marked by *-ik/-uk* in Wiyot and the passive in Yurok.

Chapter 5 presents the passive to inverse reanalysis for Cree. According to this analysis, the inverse in Cree originated when a passive construction that existed at a much earlier time in the history of the language was reanalyzed as an active transitive clause, i.e., the inverse. I provide support for the proposed analysis from the morphology of Cree and inverse in Proto-Algonquian and from the *-ik/-uk* construction in Wiyot and the passive in Yurok. In addition, I offer typological support for the proposed analysis.

Finally, chapter 6 summarizes and provides some concluding remarks.

CHAPTER 2: OVERLAP BETWEEN THE PROTOTYPICAL PASSIVE AND INVERSE CONSTRUCTIONS

2.0. Introduction

This chapter describes the overlap that exists between the prototypical passive and inverse constructions with respect to the structure and function of these constructions.

2.1. Morphosyntactic sensitivity to the empathy hierarchy

One of the defining characteristics of inverse constructions, that being morphosyntactic sensitivity to the empathy hierarchy, is also associated with passive constructions in some languages. In these languages, "the choice of Agent or Patient as Subject, and thereby the choice of an active or passive construction, depends on the requirement that the argument that is higher on the hierarchy must be the Subject" (Palmer 1994, 30). The active is used when the agent outranks the patient, but when the agent is outranked by the patient, the passive is used. In this way, the higher-ranking argument is always the subject.

For example, the passive construction is preferred in Bantu languages when the patient NP outranks the agent NP with respect to the hierarchy in (1) (Foley and Van Valin 1985). This hierarchy is related to the general hierarchy given in 1.2.2.2.1 but is the hierarchy that applies specifically in the Bantu languages.

(1) 1 > 2 > proper human > common human > animate > inanimate
(Foley and Van Valin 1985, 330)

In other languages, the passive is obligatory in contexts in which the agent is outranked by the patient. In these languages, the active, like the direct in a direct/inverse system, is obligatory when the agent outranks the patient, while the passive, like the inverse, is obligatory when the agent is outranked by the

patient. Here, I discuss Lummi, Squamish, and Lushootseed (Coast Salish); Picurís, and Arizona Tewa (Tanoan); and Nitinat, Nootka, and Makah (Nootkan) as languages of this type.

2.1.1. Lummi, Squamish and Lushootseed (Coast Salish)

In Lummi, the empathy hierarchy is 1,2 > 3. In this language, either the active or passive can be used when both the agent and patient share the same rank in the hierarchy, e.g., 1-2, 2-1 or 3-3. However, the active is obligatory when the agent outranks the patient, e.g., 1-3, and the passive is obligatory when the agent is outranked by the patient, e.g., 3-1 (Jelinek and Demers 1983). A sentence such as *the man knows me/you* is an excluded sentence type, but can be expressed as a passive as in (2).

(2) *ɣčí-t-ŋ-sən/sx*^{w} *ə cə swəy?qe?*
know 1/2 by the man
'I/you are known by the man.'
(Jelinek and Demers 1983, 168)

In the passive in (2), the higher-ranking first or second person patient is promoted to subject position and the sentence is grammatical. Thus, as the example from Lummi illustrates, the passive is a grammatical device that can be used by a language to ensure that the subject is the highest-ranking NP in the clause.

Jelinek (1990) finds similar patterns of distribution for active and passive in Squamish and Lushootseed, two other Coast Salish languages. The following generalization, she claims, applies to them as it applies to Lummi: "any transitive or passive sentence where the subject is not the element of highest rank in the sentence is excluded" (Jelinek 1983, 169).

2.1.2. Picurís and Arizona Tewa (Tanoan)

2.1.2.1. Picurís

A similar distribution for active and passive is reported in the Tanoan family. For example, the passive in one of these languages, Picurís, is marked with the suffix *-mia*, as in (3).

(3) *Ta- mǫn -mia ʔ-ąn sənene -pa*
1sg see -mia PAST man OBL
'The man saw me'
(Klaiman 1991, 214)

The distribution of active and passive in Picurís is summarized in the following way:

> (a) When subject and ... direct object are both third person, either active or passive sentences will occur, i.e., passive is optional.
> (b) When subject and ... direct object are both non-third person ...[or] ... when subject is non-third person and ... direct object is third person, active sentences will occur and passive is not possible.
> (c) When subject is third person ... and direct object is non-third person, passive is required. (Klaiman 1991, 213)

The distribution of active and passive in Picurís, then, is much like that in Lummi, the only difference being that in Picurís the active is obligatory when both arguments are first or second person, while in Lummi either the active or passive can be used in this context.

2.1.2.2. Arizona Tewa

Kroskrity (1985) details the distribution of active and passive in another Tanoan language, Arizona Tewa. The passive in Arizona Tewa is not marked with a passive morpheme and is, therefore, different in structure from the passive in Picurís. Here, we will briefly consider Kroskrity's analysis for Arizona Tewa and look at some of the examples he provides.

In Arizona Tewa, transitive verbs may be marked with three classes of prefixes: (i) reflexive/reciprocal, (ii) active, and (iii) passive. In the examples below, the transitive verb *-kʰʷɛ̨di* 'to hit' is marked with active and passive prefixes. Both arguments in these sentences are third person singular.

(4) *he'i sen né'i 'enú mán-kʰʷędi.*
that man this boy 3sg/3.ACT-hit
'That man hit this boy.'
(Kroskrity 1985, 309)

(5) *né'i 'enú hé'i sen-di 'ó:-kʰʷędi.*
this boy that man-OBL 3sg/3.PASS-hit
'This boy was hit by that man.'
(Kroskrity 1985, 309)

Kroskrity (1985, 315) looks at evidence from the morphology and syntax of Arizona Tewa and concludes that "patients of passive clauses unmistakably serve as subjects." The agent may or may not be expressed; if expressed it occurs as an oblique object marked with the oblique marker *-di*.

Arizona Tewa, "like Southern Tiwa, displays a semantic constraint in which voice must be employed to make the NP which is higher in animacy the subject of the sentence" Kroskrity (1985, 315). The hierarchy that applies in Arizona Tewa is given below:

(6) 1/ 2 > 3 > animate > inanimate > definite > indefinite
(Kroskrity 1985, 309)

As a result of this constraint, the active is required when the agent is non-third person and the patient is third person. The passive is required when the patient is a non-third person.[1] An active/passive alternation is only possible in this language when both arguments are third person and of the same rank as in (4) and (5).

When both arguments are third person, but the subject is not the highest-ranking argument with respect to the categories in the hierarchy in (6), the sentence is judged as unacceptable as in (7).

(7) **né'i p'o hę'i sen-di 'ó:-sun*
this water that man-OBL 3sg/3.PASS-drink
'This water was drunk by that man.'
(Kroskrity 1985, 315)

[1] Unlike Picuris in which the active is obligatory when both arguments are non-third, the passive is obligatory in Southern Tewa with all non-third patients.

In (7), the inanimate subject *nɛ́'i p'o* 'this water' is outranked by the animate NP *hɛ́'i sen-di* 'that man' and the sentence is not acceptable.

In contrast, the active sentence corresponding to (7), given in (8), is grammatical, as the animate subject NP is the highest-ranking NP in the clause.

(8) *hę'i sen-di nɛ́'i p'o mán-sun.*
that man this water 3sg/3.ACT-drink
'That man drank the water.'
(Kroskrity 1985, 315)

Thus, the passive in Picurís and Arizona Tewa (Tanoan) is used as in Lummi, Squamish, and Lushootseed (Coast Salish) as a means for making the highest-ranking NP the subject/topic. This, then, is an important function of the passive in some languages.

2.1.3. Nitinat, Nootka, and Makah (Nootkan)

Whistler (1985) addresses the analysis of Nootkan oppositions such as that exemplified by the Nitinat example in (9).

(9) a. *cuqšiλ-ibt-ʔa Bill ʔu:yuq John*
spear-PAST-IND/3 ACC
'Bill speared John.'

b. *cuqšiƛ-ʔi:t-ibt-ʔa John ʔuχ"i:t Bill*
spear-PASS-PAST-IND/3 by
'John was speared by Bill'
(Whistler 1985, 228)

According to Whistler (1985), this type of opposition has traditionally been analyzed as one of voice, i.e., (9a) is active and (9b) is passive. Whistler argues that these oppositions are better analyzed as oppositions of direction, i.e., (9a) is direct and (9b) is inverse.

Whistler (1985) identifies Nootkan constructions like that in (9b) as the ''*-at* type construction,' referring specifically to the morpheme that marks this construction in Nootka, though cognate morphemes mark the constructions in Nitinat, e.g., '*-ʔiːt* in (9b), and Makah.

One of the reasons Whistler (1985) cites for analyzing these as oppositions of direction is that use of this opposition is sensitive to the empathy hierarchy that applies in these languages, i.e., 1,2 > 3. He states the following.

> The distribution of the Nootkan 'passive' constructions . . . is sensitive to the person of the arguments in the clause. Briefly stated, the 'passive' construction is obligatory for certain configurations of person, prohibited for others, and optional for yet others. Whenever the ACTOR (or 'initial subject') in a transitive clause is third person and the GOAL is first or second person the '*-at* marking is obligatory. Whenever the reverse situation obtains – first or second person ACTOR and third person GOAL – the '*-at* marking is prohibited. It is likewise prohibited when both ACTOR and GOAL are first or second person. When both ACTOR and GOAL are third person, '*-at* marking is optional (Whistler 1985, 239).

In this way, the distribution of the 'passive' suffix in Nootkan is the same as that described for Picurís.

Thus, in Nootkan the construction that has traditionally been analyzed as a passive, like the prototypical inverse, is sensitive to the morphosyntactic hierarchy.

2.1.4. Summary

Thus, in these languages, the active/passive opposition, like the direct/inverse opposition in a direct/inverse system, is sensitive to relative rank of the agent and patient arguments in the empathy hierarchy. The passive, like the inverse in a direct/inverse system, is used in contexts in which the agent is outranked by the patient.

However, the constructions in these languages differ from the prototypical inverse in two ways. First, the agent NP in these constructions, with the

exception of the construction in Arizona Tewa, is marked as an oblique object.[2] Second, there are contexts in which the choice of active or passive is optional; this is clearly not the case in a prototypical inverse system.

2.2. Topicality of the patient NP

In this section, I show that the one of the defining functions of the passive, i.e., that the patient is more topical than the patient in the active, is also a defining functional characteristic of the inverse. The patient in the inverse is more topical than the patient in the direct construction.

2.2.1. Kutenai

2.2.1.1. The passive in Kutenai

Kutenai is a language isolate spoken in southeastern British Columbia and the northern parts of Montana and Idaho.

According to Dryer (1994, 69), the Kutenai construction marked with *-iɬ* "involves a true passive, with the P[atient] as grammatical subject."

(10) *wu:kat- iɬ -ni*
see PASS IND
'He/she/it was seen.'/'They were seen.'
(Dryer 1994, 69)

(11) *hu wu:kat- iɬ -ni*
I see PASS IND
'I was seen.'
(Dryer 1994, 69)

The constructions in (10) and (11) are marked with the passive suffix *-iɬ*. The morpheme *hu* in (11) is the subject proclitic for first person. The construction in (10) is interpreted as having a third person subject in the absence of an overt subject marker. This construction is also not specified for number, i.e., singular or plural, and is therefore ambiguous.

[2] Interestingly, however, as discussed in 2.3.3, the oblique marker is sometimes not used in the constructions in Lummi (Coast Salish) and the Nootkan languages.

2.2.1.2. The inverse in Kutenai

Kutenai also has an inverse construction, an example of which is given in (12).

(12) *wu:kat- aps -i*
see INV IND
'He/she/it/they [obv] saw him/her/it/them.'
(Dryer 1994, 68)

The inverse in Kutenai is only used when both arguments of the verb are third person, i.e., when the agent is obviative and the patient is proximate (Dryer 1994).[3]

Dryer (1994, 68) claims that "while inverse clauses in Kutenai resemble passive clauses in other languages in some respects, they differ from typical passive clauses in that there is no reason to believe that they are intransitive." Instead, he argues that because the agent in the inverse is obligatory, the inverse may be regarded as a transitive construction. For example, with respect to (12), he claims that this sentence "cannot be interpreted as 'He was seen'; in other words it cannot be interpreted as having an unspecified A[gent], in sharp contrast to passives in other languages, where the absence of an overt A *requires* that the sentence be interpreted as having an unspecified A" (Dryer 1994, 68).

2.2.1.3. Topicality of the patient NP in the passive and inverse

Dryer (1994) uses the measures of referential distance and topic persistence to assess the function of the active-direct, inverse and passive constructions in Kutenai.[4] Using these measures, he finds that both the inverse and passive are constructions which can be used when the patient NP is highly topical to position the NP appropriately for its topicality.

[3] The term proximate and obviative are discussed with respect to Cree in chapter 3. For our purposes here, it is sufficient to note that third person proximate outranks third person obviative.
[4] Here, the term "active-direct" is used in languages such as Kutenai where this construction is opposed to both the passive and the inverse. This use of the term follows Givón (1994).

Table 2-1 summarizes the values for referential distance of the patient in the active-direct, inverse and passive.[5]

	active-direct	inverse	passive
RD = 1	38%	80%	54%
RD = 2 or 3	14%	17%	15%
RD > 3	48%	3%	44%

Table 2-1. Referential distance of the patient (Dryer 1994, 75)

With respect to the values for referential distance in table 2-1, Dryer (1994, 75) concludes that:

> the most common type of direct clause is one where the RD of the P[atient] is greater than 3 while the common type of inverse clause (80%) and of passive clause (54%) is one where the RD of the P is 1." This reflects the fact that the direct construction is associated with a less topical P while the inverse and passive constructions are associated with a more topical P.

Table 2-2 summarizes the values for topic persistence of the patient in each of the constructions.

	active-direct	inverse	passive
Persists 0 to 2 clauses	62%	23%	48%
Persists 3 or more clauses	38%	77%	52%

Table 2-2. Topic persistence of the patient (Dryer 1994, 79)

As with the values for referential distance, Dryer (1994, 80) concludes that the values for topic persistence indicate that: "inverse and passive constructions are associated with a more topical P."

2.2.2. Northwest Sahaptin (Sahaptian)

2.2.2.1. The passive in Northwest Sahaptin

An example of the Northwest Sahaptin passive construction is given in (13).

(13) *áw-tya-sh wá aw kúush púwan-i miyánash*
now-rather-my be now thus put-STAT child
'But now my child is put in (the cradle-board)'
(Rude 1994, 105)

The passive form of the verb in (13) is marked with the 'stativizing suffix' *-i*.

[5] Dryer (1994) applies the Fisher Exact Probability Tests to test the statistical significance of his results.

According to Rude (1994, 105) this construction is "promotional", i.e., the thematic patient is the grammatical subject in the intransitive construction. As in English, the Northwest Sahaptin passive requires a form of the verb *be* and the auxilary verb functions as the main verb for purposes of agreement. For example, the auxiliary in (14) is marked for agreement with the third person patient subject.

(14) *ku cháw tún i-wá tímash tíman-i*
and NEG what NOM-be marking mark-STAT
'And no marking is marked'
(Rude 1994, 105)

2.2.2.2. The inverse in Northwest Sahaptin

Northwest Sahaptin also has a direct/inverse system.[6] Direct forms are used when the agent outranks the patient and inverse forms are used when the agent is outranked by the patient with respect to the hierarchy 1 > 2 > 3prox > 3obv (Rude 1994).[7]

There are two inverse constructions in Northwest Sahaptin. One inverse construction, the semantic (obligatory) inverse, is used when both participants are non-third person, i.e., 2-1, or when one participant is third person and the other is non-third person, i.e., 3-1,2 (Rude 1994). Examples of this construction are given in (15) and (16).

(15) *ku-nam áw pá-yk-sha*
and-2sg now INV-hear-IMPFV
'And now you hear me'
(Rude 1994, 103)

(16) *i-q'íntu-sha-ash íwínsh-nim*
NOM-see-IMPFV-1sg man-OBV
'The man sees me'
(Rude 1994, 104)

[6] In chapter 1, we briefly looked at an example of a direct/inverse contrast in this language.
[7] Again, the proximate/obviative distinction is taken up in chapter 3 with respect to Cree. For our purposes, it is sufficient to note that proximate outranks obviative.

In (15), the second person agent is outranked by the first person patient. According to Rude (1994, 103), "when the agent is 2nd person and patient is 1st person, the *inverse* must be used, with the verb-prefix *pá-*."

In (16), the third person agent is outranked by the first person patient.[8] The prefix *pá-* is not used in this context.[9] The inverse verb in this construction is marked with the third person nominative prefix *i-* (Rude 1994, 103).

A second inverse construction, the pragmatic ('optional') inverse, is used when both participants are third person, i.e., 3′-3 (Rude 1994). An example of this construction is given in (17).

(17) *ku pá-'in-a pch'iimya-n piyáp-in*
and INV-tell-PAST wild.cat-OBJ elder.brother-OBV
'And the elder brother [obv] told the wild cat [prox]'
(Rude 1994, 104)

According to Rude (1994, 104), in inverse constructions of the type in (17), "the verb takes invariant inverse prefix *pá-*."

Unlike the agent in a passive which occurs as an oblique object, the agent in the inverse is the grammatical subject. For example, there are two NP arguments in the inverse in (17). One is the NP *pch'iimya* 'wild cat.' This argument is interpreted as the patient and it is marked with the suffix *-n* as the grammatical object. The other argument, i.e., the NP *piyáp-in* 'man,' according to Rude (1994), is the grammatical subject and thematic agent. This construction, therefore, is synchronically an inverse and not a passive construction.

[8] In inverse constructions of the type in (16), Rude (1994) refers to the higher-ranking argument, the first person in (16), as 'proximate' and the lower-ranking argument, the third person in (16), as 'obviative.' As we will see in chapter 3, Algonquianists do not use the terms 'proximate' and 'obviative' to refer to first or second person arguments and do not refer to third person arguments as obviative in contrast to a higher-ranking first or second person argument.

[9] No reason is given as to why the inverse prefix is not used in constructions having a third person agent and a first person patient.

.2.2.3. Topicality of the patient NP in the passive and the inverse

Rude (1994) uses the measures of referential distance (RD) and topic persistence (TP) to assess the function of the inverse and passive constructions in Northwest Sahaptin.

Table 2-3 summarizes the values for referential distance of the patient in the active-direct, inverse and passive constructions.

	active-direct	inverse	passive
RD = 1	34.4%	75.7%	75%
RD = 2-3	21.2%	17.6%	0%
RD > 3	44.4%	6.7%	25%

Table 2-3. Referential distance of the patient (Rude 1994, 113-114)

In table 2-3, the most frequently occurring active-direct clause (44.4%) is one having an RD or 3 or more, while the most frequently occurring inverse and passive constructions, 75.7% and 75% respectively, have an RD of 1. These values indicate that: (i) the patient is highly topical in both the inverse and passive, and (ii) the patient in these constructions shows an increase in topicality in comparison to the active-direct construction.

Table 2-4 summarizes the values for topic persistence of the patient.

	active-direct	inverse	passive
TP = 0-2	61.6%	8.1%	25%
TP > 2	38.4%	91.9%	75%

Table 2-4. Topic persistence of the patient (Rude 1994, 114-115)

In table 2-4, the most frequently occurring active-direct clause (61%) is one having a value for topic persistence between 0 and 2, while the most frequently occurring inverse (91.9%) and passive (75%) constructions have a value of 2 or more. These values clearly indicate that the patient in the inverse and passive is more topical than the patient in the active-direct construction.

Thus, it is the case in Northwest Sahaptin, as in Kutenai, that both the inverse and the passive function to increase the topicality of the patient NP.

2.3. Morphological overlap

2.3.1. Morphological markedness

One of the characteristics of the prototypical passive, i.e., morphological markedness, is shared by the inverse.

Passives are typically morphologically marked in one of two ways. First, the passive verb itself can be marked by some morphological process; these Keenan (1981, 8) calls "strict morphological passives."

The other way in which passives are morphologically marked is that the passive verb is marked by some morphological process and it is accompanied by an auxiliary; these Keenan (1981, 13) refers to as "periphrastic passives."

Similarly, as discussed in 1.2.2.3, inverse constructions tend to be morphologically marked to indicate that the action denoted by the verb proceeds in the unexpected direction, i.e., the agent is outranked by the patient in the empathy hierarchy.

2.3.2. Oblique marking of the agent in the inverse

One of the properties of passive constructions, specifically the oblique marking of the agent, is also found in inverse constructions in some languages.

In passive constructions which have an agentive NP, the demoted agent is marked as an oblique object (Shibatani 1985).

In some languages, the inverse agent is also marked in this way. Givón (1994, 21) states that oblique case-marking of the non-topical agent "with the original meaning 'from', 'with', 'by', through' 'because of' or even the genitive 'of', is a common marking pattern in *both* passive and inverse clauses."

Here, we look at the inverse constructions in Northwest Sahaptin. According to Givón (1994), in each of these constructions, the agent NP is marked with a morpheme that originated as an oblique case marking.

First, we look at the construction used for 2-1 and 3-1,2. For example, the sentence given as (16), and repeated here as (18), has a third person agent and a first person patient.

(18) *i-q'íntu-sha-ash* *ɨwínsh-nɨm*
3/NOM/INV-see-IMPFV-1 man-OBV
'The man sees me'
(Rude 1994, 104)

The suffix *-nɨm* in (18) marks the agent NP as obviative. This morpheme originated as an oblique marker meaning 'hither.' The examples in (19) illustrate how this oblique marker is used elsewhere in the language, i.e., outside the inverse system.

(19) a. *wina-tk*
go-IMP/PL
'Y'all go (away from here)'

b. *wina-m-tk*
go-hither-IMP/PL
'Y'all come (this way)'
(Givón 1994, 21)

The sentence in (19a) indicates movement (of the second person plural subject) away from the speaker. The sentence in (19b) differs from that in (a) only by the addition of the suffix *-m*. This suffix adds the meaning 'hither' and, according to Givón (1994), is related to the suffix *-nɨm* in (18).

Second, we look at the inverse construction used for obviative-on-proximate, as in the example first given as (17) and repeated here as (20).

(20) *ku* *pá-'ɨn-a* *pch'íimya-n* *piyáp-in*
and INV-tell-PAST wild.cat-OBJ elder.brother.OBV
'And the elder brother [obv] told the wild cat [prox]'
(Rude 1994, 104)

In (20), the suffix *-in* marks the agent NP as obviative. This suffix, according Givón (1994), originated as the associative suffix 'with.' The use of this suffix outside the inverse system is illustrated with the sentence in (21).

(21) *pa-wiyanawi-ya* *tilaaki* *miyanash-in*
3PL/NOM-come-ASP woman child-ASSOC
'The woman came with (her) child'
(Givón 1994, 21)

2.3.3. Absence of oblique marking of the agent in the passive

Conversely, in some languages the agent in the passive may occasionally not be marked with an oblique marker. In this case, the passive is morphologically like the prototypical inverse.

One language in which this is the case is Lummi (Coast Salish). In Lummi, the passive verb is marked with the intransitiver *-ŋ* and the agent is typically marked with the oblique marker 'by,' as in (22).

(22) *χčí-t-ŋ* *ə* *cə* *swəy̓qəʔ* *cə* *swiʔqoʔəɬ*
know-*t*-ŋ by the man the boy
'The boy is known by the man.'
(Jelinek and Demers 1983, 183)

In Lummi the active is obligatory when the agent is outranked by the patient, and the passive is obligatory when the agent is outranked by the patient, according to the hierarchy 1,2 > 3.

According to Jelinek and Demers (1983, 183), in this construction "the oblique marker may be omitted, producing two nonoblique adjuncts in the sentence," as in (23).[10] They suggest, however, that this occurs "relatively infrequently."

(23) *x̌či-t-ŋ cə swəy?qə? cə swi?qo?əɬ*
know-*t*-ŋ the man the boy
'The boy is known by the man.'
(Jelinek and Demers 1983, 183)

Jelinek and Demers (1983) claim that although the sentence in (23) is transitive, i.e., it has two nominal arguments, the construction marked by *-ŋ* is a passive and not an inverse. Here, I briefly summarize their arguments.

First, Jelinek and Demers (1983) note that there are contexts in which the choice of active or passive is optional, i.e., contexts in which the agent and patient share the same rank in the hierarchy. They state that "where there is a choice between transitive and passive constructions is allowed, there is a semantic contrast between these forms that corresponds to the contrast seen between active and passive constructions across languages (Jelinek and Demers 1983, 182).

Second, Jelinek and Demers (1983, 182) observe that the suffix *-ŋ* is also used to derive what appear to be middle voice constructions, e.g., *hes-ŋ-sən* 'I sneeze.'

Finally, Jelinek and Demers (1983) find that it is only in sentences in which there are two nominal arguments of equal rank that the oblique marker may be omitted. When the patient of this construction is first or second person and the agent is third person, the oblique marker must be used.

[10] Jelinek and Demers (1983) do not offer the English translation for this sentence. They do, however, suggest in a footnote that other researchers studying Salish languages have argued that the verbal arguments of the verb are always marked on the verb, such that "a transitive sentence usually translated as 'the man knows the boy' would be more accurately translated as 'he knows him, the man, the boy.' Jelinek and Demers (1983, 183) suggest, therefore, that "it is easy to see, if this is correct, why the oblique marking on an agent nominal in a passive sentence may occasionally be omitted. If a corresponding passive sentence is to be translated as 'he is known by him, the boy (by) the man', then the oblique marking on a nominal referring to the agent is less crucial."

Jelinek and Demers (1983) note that in Squamish and Halkomelem for 3-1, and in Lushootseed for 3-1, 3-2 that the choice between active and passive is optional. They question, therefore, "whether these languages are developing toward or away from an inverse-marking system" (Jelinek and Demers 1983, 183).

Similarly, the oblique marking of the passive subject is optional in the construction that has traditionally been analyzed as a passive in the Nootkan languages. This is illustrated using the Nitinat sentence in (24), the fact that this marking is optional being represented by the brackets around it.

(24) *cuqˇsiƛ-ʔiɬ:t-(ib)t-ʔa (ʔuχ) John (ʔuχ̇i:t) baʔiƛqac-ʔaq*
spear-PASS-PAST-IND/3 by boy-SPEC
'John was speared by Bill.'
(Whistler 1985, 228)

2.4. Conclusion

The types of overlap discussed in this chapter appear to blur the distinction between the passive and inverse constructions. It is still possible, however, to identify constructions in some languages which are representative of the prototypical passive and inverse constructions, i.e., having all or most of the central characteristics of one of these constructions. Thus, we could represent the passive and inverse as the end points of a continuum of related constructions, some of which have more characteristics in common with the passive, others of which have more characteristics in common with the inverse.

CHAPTER 3: THE INVERSE IN CREE

3.0. Introduction

As discussed in Chapter 1, Wolfart (1973) analyzes the contrast between the Cree forms in (1) as one of "direction," i.e., (a) is direct and (b) is inverse.[1]

(1) a. *ni(t)- asam- â- w* > *nitasamâw*
1 feed direct 3
'I feed him (1-3)'

b. *ni(t)- asam- ekw- w* > *nitasamik*
1 feed inverse 3
'he feeds me (3-1)'
(Wolfart 1973, 24)

The forms in (1) are from the mixed set, i.e., one argument is first or second person and the other is third person. In (1a), the verb is marked with the theme sign */â/* which marks direct forms in the mixed set. When the form of the verb is direct, the higher-ranking NP in the person hierarchy 2 >1 > 3 is interpreted as the agent and the lower-ranking argument is interpreted as the patient. In the mixed set, as in the example in (1a), when the form of the verb is direct, the first or second person argument is interpreted as the agent and the third person as the patient.

Conversely, in (1b), the verb is marked with the theme sign */ekw/* which marks inverse forms in the mixed set. When the form of the verb is inverse, the lower-ranking NP is interpreted as the agent and the higher-ranking argument as the patient. In the mixed set, as in the example in (1b), when the form of the verb is inverse, the third person argument is interpreted as the agent and the first or second person argument as the patient.

[1] I have added the morpheme-by-morpheme glosses for the example in (1) and (36)-(39), but I referred to Dahlstrom (1991) in doing so.

Notice that in the direct/inverse opposition in (1) the person and number morphology does not change, i.e., *ni-* marks the first person argument and *-w* marks the third person argument in (a) and (b). Only the theme sign indicating the direction of the form, i.e., direct or inverse, changes.

The grammatical contrast exemplified in (1) has been reconstructed for the proto-language, Proto-Algonquian (cf. Bloomfield 1946, Goddard 1967).

According to Wolfart (1973), the direct/inverse opposition in Cree and in other Algonquian languages has often been analyzed as a voice contrast, i.e., active/passive. Those who have used the term "passive" to refer to the inverse construction include: (i) Howse (1844) for Cree, who uses the term passive with reference to inverse forms in the third person set only; (ii) Lacombe (1874) for Cree, Jones (1911) for Fox, and Michelson (1912) for the Algonquian languages generally, each of whom use the term to refer to inverse forms in the mixed set only; and (iii) Voegelin (1946) who uses the term to refer to inverse forms in all three sets in Delaware.

3.1. Obviation and direction in Cree

Cree has a system of "obviation." In Cree, the category of third person is subdivided into proximate (abbreviated as 3prox or 3) and obviative (3obv or 3′) third persons. In any given "contextual span," one third person argument is distinguished as being more central, or "proximate," as opposed to all others which are less central, or "obviative" (Wolfart 1973, 17).[2]

Wolfart (1973, 17) states that: "The dimension of obviation thus marks a semantic system of FOCUS (as well as the syntactic linkage of cross-reference). We shall say that the proximate person, in any context, is in focus and the obviative person or persons are not." He relates this use of the term "focus" to Bloomfield's (1962, 38) claim that: "The proximate third person

[2]A "contextual span" is a segment of text or discourse in which the assignments of proximate and obviative are held constant (Wolfart 1973).

represents the topic of discourse, the person nearest the speaker's point of view, or the person earlier spoken of and already known."

Third person proximate outranks third person obviative in the person hierarchy. Therefore, direct forms are used when the proximate third person argument is the agent and the obviative argument is the patient, as in (2), and inverse forms are used when the obviative argument is the agent and the proximate argument is the patient, as in (3) (Wolfart 1973, 25).

(2) *sêkihêw nâpêw atimwa.*
scare (3-(3′)) man (3) dog (3′)
'The man scares the dog.'

(3) *sêkihik nâpêw atimwa.*
scare ((3)-3′) man (3) dog (3′)
'The dog scares the man.'

In (2) and (3), the NP *nâpêw* 'man' is proximate and the NP *atimwa* 'dog' is obviative. In Cree, the obviative third person is the marked category. Animate NPs referring to obviative third persons have the suffix *-a*, as in (2) and (3) (Wolfart 1973).

Since the assignments of proximate and obviative reflect focus, i.e., point of view, etc., these assignments may be altered by the speaker, with a new "contextual span" indicating a change in his/her focus (Wolfart 1973, 17).

For example, as Wolfart (1973) illustrates, the NPs in (2) and (3) can be reassigned proximate and obviative statuses such that *atim* 'the dog' is proximate and *nâpêw* 'the man' is obviative, marked with *-a*, as in (4) and (5).

(4) *sêkihêw nâpêwa atim.*
scare (3-(3′)) man (3′) dog (3)
'The dog scares the man.'
(Wolfart 1973, 25)

(5) *sêkihik nâpêwa atim.*
scare ((3′)-3) man (3′) dog (3)
'The man scares the dog.'
(Wolfart 1973, 25)

In (4), the direct form is used because the higher-ranking proximate NP *atim* is the agent. In (5), the inverse form is used because the obviative agent *nâpêwa* is outranked by the proximate patient.

3.2. Morphology of direct and inverse forms in the transitive animate (TA) paradigm

In Cree, there are four classes of verbs. This classification is based on: (i) the transitivity of the verb (i.e., transitive or intransitive), and (ii) the animacy of the verbal arguments (specifically, the animacy of the agent for intransitives and the animacy of the patient for transitive verbs).[3] Transitive animate verbs are transitive verbs which have an animate patient argument (Wolfart 1973).

The verbal paradigms in each of these classes form three superordinate categories called "orders" based on similarities in the morphology and syntactic function, these being the independent, conjunct and imperative orders (Wolfart 1973, Dahlstrom 1991).[4] The examples in (1)-(5) are from the independent order. In this chapter, I also give examples from the conjunct order.

In this section, the patterns of agreement morphology are summarized from Dahlstrom (1991). The examples given are from Dahlstrom, as well. The

[3] The animate intransitive paradigm is used for intransitive verbs which have an animate argument. Wolfart (1973, 43) summarizes the morphology of forms in the animate intransitive paradigm in the following table.

	Independent	Conjunct
indef		-hk
1	ni- -n	-yân
2	ki- -n	-yan
1p	ni- -nân	-yâhk
21	ki- -naw, -nânaw	-yahk
2p	ki- -nâwâw	-yêk
3	-w, -Ø*	-t, -k*
3p	-wak	-cik, -kik*
3'	-yiwa	-yit

Wolfart (1973, 43) uses the footnote * to indicate that "the first ending occurs with vowel stems, the second with n-stems", where AI stems end in either a vowel or with *n*.

[4] According to Dahlstrom (1991, 18), "Verbs in main clauses may appear in any of the three orders, while verbs in subordinate clauses can only be in the conjunct order."

bles are from Wolfart (1973), as are the discussions concerning the direction ıorphology.[3] In each of the examples the (a) forms are direct and the (b) ɔrms are inverse.

Mixed set

Forms in the mixed set are used when one of the arguments is non-third person and the other is third person. The direct form is used when the non-third person argument is the agent and the third person argument is the patient. The inverse is used when the third person argument is the agent and the non-third person argument is the patient.

Independent order

Table 3-1 summarizes the morphology of direct forms in the mixed set (independent order).

		patient		
		3	3p	3'
agent	indf	-âw	-âwak	-imâwa
	1	ni- - âw	ni- - âwak	ni- -imâwa
	2	ki- -âw	ki- -âwak	ki- -imâwa
	1p	ni- - ânân	ni- - ânânak	ni- -imânâna
	21	ki- - ânaw	ki- - ânawak	ki- -imânawa
	2p	ki- - âwâw	ki- - âwâwak	ki- -imâwâwa

Table 3-1 Agreement morphology of direct forms in the mixed set (independent order) (Wolfart 1973, 41)

Table 3-2 summarizes the morphology of inverse forms in the mixed set (independent order).

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a more comprehensive description of the morphology of direct and inverse forms in Cree the reader is red to Wolfart (1973) and Dahlstrom (1991).

		agent		
		3	3p	3'
patient	1	ni- -ik	ni- -ikwak	ni- -ikoyiwa
	2	ki- -ik	ki- -ikwak	ki- -ikoyiwa
	1p	ni- -ikonân	ni- -ikonânak	ni- -ikonâna
	21	ki- -ikonaw	ki- -ikonawak	ki- -ikonawa
	2p	ki- -ikowâw	ki- -ikowâwak	ki- -ikowâwa

Table 3-2 Agreement morphology of inverse forms in the mixed set (independent order) (Wolfart 1973, 41)

Direct forms in the mixed set (independent order) are marked with the theme sign */â/*. Inverse forms in this set are marked with the theme sign */ekw/* (Wolfart 1973, 53).

The basic patterns of person and number agreement in the mixed set (independent order) are as follows.

First, when both arguments are singular the verb stem is marked with: (i) a prefix which indicates agreement for the non-third person argument (if any), and (ii) a suffix which indicates agreement for the third person argument. An example is given in (6).

(6) a. *ni- wâpam- â- w* > *niwâpamâw*
1 see direct 3
'I see him'

b. *ni- wâpam- ekw- w* > *niwâpamik*
1 see inverse 3
'he sees me'
(Dahlstrom 1991, 36, 38)

Second, when the non-third person argument is singular and the third person is plural, the agreement is as in (6). In addition, the suffix *-ak* indicates plural number for the third person argument, as in (7).

(7) a. *ni- wâpam- â- w- ak* > *niwâpamâwak*
1 see direct 3 3p
'I see him'

b. *ni- wâpam- ekw- w- ak* > *niwâpamikwak*
1 see inverse 3 3p
'he sees me'
(Dahlstrom 1991, 36, 38)

Third, when the non-third person argument is plural and the third person is singular, the stem is marked with: (i) a prefix indicating agreement with the non-third person argument (if any), and (ii) with a suffix indicating plural number for the non-third person argument. The third person argument is not marked at all. An example is given in (8).

(8) a. *ni- wâpam- â- nân*
1 see direct 1p
'we (excl) see him'

b. *ni- wâpam- iko- nân*
1 see inverse 1p
'he sees us (excl)'
(Dahlstrom 1991, 37-38)

Fourth, when both arguments are plural the stem is marked as in (8), but it is also marked with a suffix indicating plural number for the third person argument. An example is given in (9).

(9) a. *ni- wâpam- â- nân- ak*
1 see direct 1p 3p
'we (excl.) see them'

b. *ni- wâpam- iko- nân- ak*
1 see inverse 1p 3p
'they see us (excl.)'
(Dahlstrom 1991, 37-38)

In addition to the patterns of agreement we have looked at, according to Dahlstrom (1991, 39), "If the third person argument is obviative, this may be

marked in the verb inflection."[6] There are two patterns of agreement when the third person argument is obviative.

First, when there is an obviative third person argument and a singular non-third person argument, the form is marked in the following way. A prefix indicates agreement for the non-third person argument. If the form is direct, it is marked: (i) with a suffix *-w* indicating agreement for third person, and (ii) the suffixes *-im* and *-a* which indicate that the third person argument is obviative, as in (10a). If the form is inverse, the obviative third person is marked with: (i) *-w*, and (ii) the suffixes *-iyi* and *-a*, as in (10b).

(10) a. *ni- wâpam- im- â- w- a* *o- kosis- a*
1 see obv direct 3 obv his son obv
'I see his son [obv]'

b. *ni- wâpam- iko- yi- w- a* *o- kosis- a*
1 see inverse obv 3 obv his son obv
'his son [obv] sees me'
(Dahlstrom 1991, 39)

Second, when there is an obviative third person argument and a plural non-third person argument the form is marked in the following way. A prefix indicates person agreement for the non-third person argument and a suffix indicates plural number for that argument. If the form is direct, it is marked with agreement for the obviative argument with the suffixes *-im* and *-a*. If the form of the verb is inverse, it is marked with agreement for the obviative argument with the suffix *-a*, as in (11).[7]

(11) *ni- wâpam- iko- nân- a*
1 see inverse 1p obv
'he (obv) see us (excl)'
(Dahlstrom 1991, 40)

Finally, Wolfart (1973) treats forms with an indefinite agent and a third person patient as forms in the mixed set as they are like other forms in this set with

[6] Dahlstrom (1991) notes, however, that this marking of obviation on verbs in the mixed set is sometimes not used in texts.

[7] Dahlstrom (1991) does not give an example of a direct form with an obviative third person argument and a plural non-third person argument. However, see table 2-1 for the morphology of this form.

respect to their morphology.[8] In the independent order, these forms, like other direct forms in the mixed set (independent order), are marked with the theme sign */â/* (Wolfart 1991).

These forms are marked with agreement for the patient NP only. Including the theme sign */â/*, the suffixes for forms with an indefinite agent are (i) third person singular *-âw*, (ii) third person plural *-âwak*, and (iii) third person obviative *-imâwa*. In these suffixes, the suffix *-w* indicates that the patient NP is third person, the suffix *-ak* indicates that the third person argument is plural, and the suffixes *-im* and *-a* indicate that the third person argument is obviative.

Wolfart (1991, 175-176) shows that the morphology of these forms parallels other forms in the mixed set of the independent order. To illustrate, he shows that the suffixes *-âw*, *-âwak*, and *-imâwa* also mark forms which have a first person agent and a third person singular, third person plural or obviative patient, respectively. The forms which have a first person agent differ only in that they are prefixed with *ni-* (cf. table 2-1).

The forms which have an indefinite agent, however, do differ from other forms in the mixed set in that they do not have corresponding inverse forms.

3.2.1.2. Conjunct order

Table 3-3 summarizes the morphology of direct forms in the mixed set (conjunct order).

[8] Dahlstrom (1991) analyzes these forms as passives.

		patient		
		3	3p	3'
agent	indf	-iht	-ihcik	-imiht
	1	-ak	-akik	-imak
	2	-at	-acik	-imat
	1p	-âyâhk	-âyâhkik	-imâyâhk
	21	-âyahk	-âyahkok	-imâyahk
	2p	-âyêk	-âyêkok	-imâyêk

Table 3-3 Agreement morphology of direct forms in the mixed set (conjunct order) (Wolfart 1973, 42)

Table 3-4 summarizes the morphology of inverse forms in the mixed set (conjunct order).

		agent		
		3	3p	3'
patient	1	-it	-icik	-iyit
	2	-isk	-iskik	-iyisk
	1p	-ikoyâhk	-ikoyâhkik	-ikowâyâhk
	21	-ikoyahk	-ikoyahkok	-ikowâyahk
	2p	-ikoyêk	-ikoyêkok	-ikowâyêk

Table 3-4 Agreement morphology of inverse forms in the mixed set (conjunct order) (Wolfart 1973, 42)

In the mixed set (conjunct order), direct and inverse forms which have a singular first or second person argument are zero marked for direction and they are suffixed with portmanteau morphemes indicating the person and number of the agent and patient arguments (Dahlstrom 1991, 40-41).[9] An example is given in (12).[10]

[9] Wolfart (1973, 57) offers an alternative analysis for the person, number and direction morphology of these forms.

[10] As in Dahlstrom (1991), the conjunct forms in the examples given in this paper are preceded by the preverb *ê*. Dahlstrom (1991) uses an equals sign rather than a hyphen following this preverb. Here, I consistently use a hyphen throughout.

(12) a. *ê-wâpam- Ø- at*
see [theme.sign] 2sg-3
'you (sg) see him' [conjunct]

b. *ê-wâpam- Ø- isk*
see [theme.sign] 3-2sg
'he sees you (sg)' [conjunct]
(Dahlstrom 1991, 41)

Similarly, forms which have a singular non-third person argument and an obviative third person argument are marked as in (12). In addition, if the form is direct, the third person argument is marked as obviative with the suffix *-im*, as in (13a). If the form is inverse, it is marked with the obviative suffix *-iyi*, as in (13b).

(13) a. *ê-wâpam- im- Ø- ak o- kosis- a*
see obv [theme.sign] 1sg-3 his son obv
'I see his son [obv]' [conjunct]

b. *ê-wâpam- Ø- iyi- sk o- kosis- a*
see [theme.sign] obv 3-2sg his son obv
'his son [obv] sees you sg.' [conjunct]
(Dahlstrom 1991, 41-42)

In the mixed set (conjunct order), forms which have a plural non-third person argument are marked with the direct marker */â/* or the inverse marker */ekw/* (Wolfart 1973, 53). A suffix indicates agreement for the non-third person argument, and if the third person argument is also plural, a second suffix indicates plural number for this argument. An example is given in (14). As in the independent order, if the third person argument is singular, there is no agreement for it.

(14) a. *ê-wâpam- â- yâhk- ik*
see direct 1p 3p
'we (excl) see them' [conjunct]

b. *ê-wâpam- iko- yâhk- ik*
see inverse 1p 3p
'they see us (excl)' [conjunct]
(Dahlstrom 1991, 40)

Similarly, forms which have a plural non-third person argument and an obviative third person argument are marked for direction as in (14). A suffix indicates agreement for the non-third person argument. In addition, if the form is direct, it is marked with the suffix *-im* for the obviative third person, as in (15a), and if it is inverse, it is marked with *-wâ*, as in (15b).

(15) a. *ê-wâpam- im- â- yâhk o- kosis- a*
see obv direct 1p his son obv
'we (excl) see his son [obv]' [conjunct]

b. *ê-wâpam- iko- wâ- yêk o- kosis- a*
see inverse obv 2p his son obv
'his son [obv] sees you (pl)' [conjunct]
(Dahlstrom 1991, 41-42)

Finally, forms which have an indefinite agent are marked with third person singular *-iht*, third person plural *-ihcik*, and third person obviative *-imiht*.

Wolfart (1991, 176) states that the suffix "*-iht* is the conjunct order equivalent of *-âw*" where *-âw* in the independent order is the direct marker and third person agreement. The suffix *-iht* is pluralized by *-ik* and made obviative by *-im*.

2.2. Third person set

Forms in the third person set are used when one argument is third person proximate and the other is third person obviative or when both arguments are third person obviative.

While forms in this set have two arguments, the verb is marked with agreement for only one of these arguments. According to Wolfart (1973, 53), "the one referent which is morphologically expressed and significatively specific in direct forms functions as actor, and as goal in inverse forms."[11]

[1] Again, I use the term "patient" to refer to the argument which Wolfart (1973) identifies as the "goal."

3.2.2.1. Independent order

Table 3-5 summarizes the morphology of direct forms in the third person set (independent order).

		patient
		3
agent	3	-êw
	3p	-êwak
	3'	-êyiwa

Table 3-5 Agreement morphology of direct forms in the third person set (independent order) (Wolfart 1973, 41)

Table 3-6 summarizes the morphology of inverse forms in the third person set (independent order).

		agent
		3
patient	3	-ik
	3p	-ikwak
	3'	-ikoyiwa

Table 3-6 Agreement morphology of inverse forms in the third person set (independent order) (Wolfart 1973, 41)

Direct forms in the third person set (independent order) are marked with the theme sign */ê/*. Inverse forms is this set are marked with the inverse theme sign */ekw/* (Wolfart 1973, 53).

When the proximate argument is singular, the form is marked for person agreement with this argument with *-w*, as in (16).

(16) a. *wâpam- ê- w* > *wâpamêw*
see direct 3
'he [prox] sees him [obv]'

b. *wâpam- ekw- w* > *wâpamik*
see inverse 3
'he [obv] sees him [prox]'
(Dahlstrom 1991, 45-46)

When the proximate argument is plural, the form is marked for person agreement with this argument with *-w* and for plural number with *-ak*, as in (17).

(17) a. *wâpam- ê- w- ak* > *wâpamêwak*
see direct 3 3p
'they [prox] see him [obv]'

b. *wâpam- ekw- w- ak* > *wâpamikwak*
see inverse 3 3p
'he [obv] see them [prox]'
(Dahlstrom 1991, 45-46)

When both arguments are third person obviative, either the direct or inverse form may be used. When the direct form is used, the verb is marked for agreement with the obviative agent with the suffixes *-iyi* and *-a*. When the inverse form is used, the verb is marked for agreement with the obviative patient with these suffixes. An example is given in (18).

(18) a. *wâpam- ê- iyi- w- a* > *wâpamêyiwa*
see direct obv 3 obv
'he [obv] sees him [obv]'

b. *wâpam- iko- iyi- w- a* > *wâpamikoyiwa*
see inverse obv 3 obv
'he [obv] sees him [obv]'
(Dahlstrom 1991, 47)

3.2.2.2. Conjunct order

Table 3-7 summarizes the morphology of direct forms in the third person set (conjunct order).

		patient
		3'
agent	3	-ât
	3p	-âcik
	3'	-âyit

Table 3-7 Agreement morphology of direct forms in the third person set (conjunct order) (Wolfart 1973, 42)

Table 3-8 summarizes the morphology of inverse forms in the third person set (conjunct order).

		agent
		3
patient	3	-ikot
	3p	-ikocik
	3	-ikoyit

Table 3-8 Agreement morphology of inverse forms in the third person set (conjunct order) (Wolfart 1973, 42)

Direct forms in the third person set (conjunct order) are marked with the theme sign */â/*. Inverse forms is this set are marked with the inverse theme sign */ekw/* (Wolfart 1973, 53).

When the proximate argument is singular, the form is marked for person agreement with this argument with *-t*, as in (19).

(19) a. *ê-wâpam- â- t*
see direct 3
'he [prox] sees him [obv]' [conjunct]

b. *ê-wâpam- iko- t*
see inverse 3
'he [obv] sees him [prox]' [conjunct]
(Dahlstrom 1991, 45-46)

When the proximate argument is plural, the form is marked for person agreement with this argument with *-t* and for plural number with *-ik*, as in (20).[12]

(20) a. *ê-wâpam- â- c- ik*
see direct 3 3p
'they [prox] see him [obv]' [conjunct]

b. *ê-wâpam- iko- c- ik*
see inverse 3 3p
'he [obv] sees them [prox]' [conjunct]
(Dahlstrom 1991, 46)

[12] Here, *t* is palatalized to *c* before the third person plural suffix.

As in the independent order, when both arguments are third person obviative, either the direct or inverse form may be used. When the direct form is used, the verb is marked for agreement with the agent. The agent is marked as obviative with *-iyi* and as third person with *-t*. When the inverse form is used, the verb is marked for agreement with the patient with these suffixes. An example is given in (21).

(21) a. *ê-wâpam- â- iyi- t*
see direct obv 3
'he [obv] sees him [obv]' [conjunct]

b. *ê-wâpam- iko- iyi- t*
see inverse obv 3
'he [obv] sees him [obv]' [conjunct]
(Dahlstrom 1991, 47)

3.2.3. *Non-third person set*

Forms in the non-third person set are used when both arguments are first or second person.[13] In Cree, second person outranks first person, and therefore, direct forms are used when the second person is the agent and the first person is the patient. Inverse forms in this set are used when the agent is first person and the patient is second person.

3.2.3.1. Independent order

Table 3-9 summarizes the morphology of direct forms in the non-third person set (independent order).

		patient	
		1	1p
agent	2	ki- -in	ki- inân
	2p	ki- -inâwâw	ki- -inân

Table 3-9 Agreement morphology of direct forms in the non-third person set (independent order) (Wolfart 1973, 41)

[13] The term "non-third person set" is from Dahlstrom (1991). Wolfart (1973) refers to the forms in this set as the "you-and-me forms."

Table 3-10 summarizes the morphology of inverse forms in the non-third person set (independent order).

		agent	
		1	1p
patient	2	ki- -itin	ki- -itinân
	2p	ki- -itinâwâw	ki- -itinân

Table 3-10 Agreement morphology of inverse forms in the non-third person set (independent order) (Wolfart 1973, 41)

Direct forms in the non-third person set (independent order) are marked with the theme sign */i/*. Inverse forms is this set are marked with the inverse theme sign */eti/* (Wolfart 1973, 47).

When both arguments are singular the stem is marked with: (i) the prefix *ki-* which indicates person agreement for the second person argument, and (ii) the suffix *-n* which marks singular number for the first and second person arguments, as in (22).

(22) a. *ki- wâpam- i- n*
2 see direct sg
'you (sg) see me'

b. *ki- wâpam- iti- n*
2 see inverse sg
'I see you (sg)'
(Dahlstrom 1991, 42-43)

When the second person argument is plural and the first person argument is singular, the stem is marked with: (i) *ki-* which indicates person agreement for the second person argument, and (ii) with the suffix *-nâwâw* which indicates plural number for that argument, as in (23).

(23) a. *ki- wâpam- i- nâwâw*
2 see direct 2p
'you (pl) see me'

b. *ki- wâpam- iti- nâwâw*
2 see inverse 2p
'I see you (pl)'
(Dahlstrom 1991, 42-43)

When the first person argument is plural, the stem is marked with (i) the prefix *ki-* which indicates person agreement for the second person argument, and (ii) the suffix *-nân* which marks plural number for the first person argument, as in (24).

(24) a. *ki- wâpam- i- nân*
2 see direct 1p
'you (sg) see me'

b. *ki- wâpam- iti- nân*
2 see inverse 1p
'we see you (sg) or (pl)'
(Dahlstrom 1991, 42-43)

The forms in (24) are ambiguous with respect to the number of the second person argument. The agreement markings for number are sensitive to the hierarchy 1pl > 2pl > singular non-3rd (Dahlstrom 1991, 44). The second person argument shows agreement for plural number only when the first person argument is singular, as in (23).

3.2.3.2. Conjunct order

Table 3-11 summarizes the morphology of direct forms in the non-third person set (conjunct order).

		patient	
		1	1p
agent	2	-iyan	-iyâhk
	2p	-iyêk	-iyâhk

Table 3-11 Agreement morphology of direct forms in the non-third person set (conjunct order) (Wolfart 1973, 41)

Table 3-12 summarizes the morphology of inverse forms in the non-third person set (conjunct order).

		agent	
		1	1p
patient	2	-itân	-itâhk
	2p	-itakok	-itâhk

Table 3-12 Agreement morphology of inverse forms in the non-third person set (conjunct order) (Wolfart 1973, 41)

Direct forms in the non-third person set (conjunct order) are marked with the theme sign */i/*. Inverse forms is this set are marked with the inverse theme sign */et/* (Wolfart 1973, 47).

When both arguments are singular, the stem is marked for agreement with the agent NP, as in (25).[14]

(25) a. *ê-wâpam- i- yan*
see direct 2sg
'you (sg) see me' [conjunct]

b. *ê-wâpam- it- ân*
see inverse 1sg
'I see you (sg)' [conjunct]
(Dahlstrom 1991, 44-45)

When the second person argument is plural and the first person argument is singular, the direct form is suffixed with *-yêk* indicating plural number for the second person argument, as in (26a). The inverse form is suffixed with *-akok* which indicates that a singular first person argument is acting on a plural second person argument, as in (26b).

[14] According to Dahlstrom (1991), this form shows agreement for the subject NP. Here, I use "agent" instead of "subject" to be consistent with the usage of terms in this paper.

(26) a. *ê-wâpam- i- yêk*
see direct 2p
'you (pl) see me' [conjunct]

b. *ê-wâpam- it- akok*
see inverse 1sg-2pl
'I see you (pl)' [conjunct]
(Dahlstrom 1991, 44)

Finally, when the first person argument is plural, the form is marked with the suffix *-(y)âhk* indicating plural number for the first person argument as in (27).

(27) a. *ê-wâpam- i- yâhk*
see direct 1p
'you (sg) or (pl) see me' [conjunct]

b. *ê-wâpam- it- âhk*
see inverse 1p
'we see you (sg) or (pl)' [conjunct]
(Dahlstrom 1991, 44)

The forms in (27) are ambiguous with respect to the number of the second person argument, because, as with forms in the independent order, the second person argument shows agreement for plural number only when the first person argument is singular.

3.3. Morphology of forms in the TA indefinite agent and inanimate agent paradigms

Wolfart (1973) deals with forms which have an indefinite agent and a first or second person patient and forms which have an inanimate agent in a section entitled *Marginal and suppletive paradigms*.[15] According to Wolfart (1973, 59), "a marginal paradigm is . . . one which formally diverges, however slightly, from one of the basic paradigms" while paradigms that are suppletive "generally serve to fill gaps, of whatever origin, in the basic paradigms" (Wolfart 1973, 59).

[15] Again, Wolfart (1973) actually refers to these as the TA indefinite actor and inanimate actor paradigms. I use the "agent" rather than "actor" to be consistent with my use of terminology throughout.

3.3.1. *The TA indefinite agent paradigm*

The TA indefinite agent paradigm consists of forms which have an indefinite agent and a first or second person patient. As discussed in 3.2.1, Wolfart (1973) includes forms which have an indefinite agent and a third person patient as forms in the mixed set of the TA paradigm.[16]

Forms in the TA indefinite agent paradigm are suffixed with */ekawi/* in both the independent and conjunct orders (Wolfart 1973). According to Goddard (1979b, 89), this suffix is a development of the inverse suffix */ekw/*.

Forms in this paradigm show agreement for the non-third person patient using the same morphology as forms in the animate intransitive paradigm. The agreement suffixes follow the suffix */ekawi/* (Wolfart 1973).

Examples of forms in the TA indefinite agent paradigm are (28), from the independent order and (29) is from the conjunct order.[17]

(28) *ni- sâkih- ikawi- n*
1 love ekawi sg
'I am loved'
(Dahlstrom 1991, 51)

(29) *ê-sâkih- ikawi- yêk*
love ekawi 2p
'you (pl.) are loved'
(Dahlstrom 1991, 51)

3.3.2. *The TA inanimate agent paradigm*

The TA inanimate agent paradigm is comprised of inverse forms which have inanimate agent and an animate patient (Dahlstrom 1991).

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[16] Dahlstrom (1991) argues that, although they differ morphologically, indefinite agent forms which have a first or second person patient and those which have a third person patient form a single syntactic class, that being "the passive."

[17] In these examples, Dahlstrom (1991, 51) glosses the morpheme */ekawi/* as 'passive' as this is the approach she takes to these forms in her analysis. As I prefer to take a more general approach, I have simply glossed this morpheme 'ekawi.'

All forms in this paradigm are marked with */ekw/* or with */eko/* which Wolfart (1973) identifies as a variant of */ekw/*. In addition, these forms are marked for agreement with the animate patient NP using the agreement morphology of the animate intransitive paradigm (cf. footnote 3). Agreement suffixes follow the suffix */ekw/* (Wolfart 1973).

Wolfart (1973) observes, however, that there is a peculiarity in one of the forms for third person singular in the independent order. Alongside the expected form *-ik*, which results when the suffix */ekw/* is followed by the third person agreement marker *-w*, exists a second form *-ikôw*. Wolfart suggests that this second form may be due to a change by analogy with other forms in the paradigm. In these forms, */ekw/* followed by */e/* or */i/* surfaces as *-iko-* (cf. Wolfart (1973, 61) for more discussion).

Examples of forms in the inanimate agent paradigm are given as follows: (30) is an example from the independent order and (31) is an example from the conjunct order.

(30) *ni- sêkih- iko- n*
1 scare inverse sg
'it scares me'
(Dahlstrom 1991, 50)

(31) *ê-sêkih- iko- yân*
scare inverse 1sg
'it scares me [conjunct]'
(Dahlstrom 1991, 49)

3.4. Analysis of the inverse as passive

In this section, I look at one analysis (Jolley 1982) that treats the inverse in Cree as a passive. I discuss her analysis, in particular, because it provides a detailed account of the inverse as a passive. In addition, some of the claims she makes, though not true for the present grammar of the language, are appropriate for an earlier stage of the language and I have incorporated these into my diachronic analysis.

3.4.1. Jolley's (1982) analysis

Jolley (1982) analyzes the inverse in Cree as a passive using Perlmutter and Postal's (1977) universal characterization of passive in Role and Reference Grammar. According to this characterization, the subject of the passive corresponds to the direct object in the underlying active construction, while the subject of the active construction may be absent in the passive and, if present, is expressed as an oblique object. As the passive has only one argument, i.e., the subject, Postal and Perlmutter conclude that universally the passive is an intransitive construction.

Given this characterization of the passive, Jolley (1982, 5) concludes that "we now have a diagnostic tool by which to test the so-called passive in Cree, in that if inverse forms can be shown to be syntactically intransitive, they may be called passive."

Jolley (1982) argues that the inverse is an intransitive construction in three ways. Let us consider her analysis using the direct/inverse contrast in (32) as an example.

(32) a. *asamêw* 'he (prox) feeds him (obv)'
b. *asamik* 'he (obv) feeds him (prox)'
(Jolley 1982, 8)

According to the traditional analysis, direct forms in the third person set, as in (32a), are marked for agreement with the agent, while inverse forms, as in (32b), are marked for agreement with the patient. Jolley (1982) claims that the passive analysis allows for what she claims is a significant generalization to be made concerning the agreement morphology of these forms.

Jolley (1982) assumes that: (i) the agent in the direct construction is the subject, and (ii) the patient in the inverse is the subject. This enables her to make the generalization that the agreement is always for the subject.[18]

Jolley (1982) claims that the subject of the passive corresponds to the object in the underling active construction. According to her analysis, the English gloss for the underlying construction of (32b) would be 'he (prox) is fed by him (obv),' and therefore the third person obviative subject of the inverse in (32b) corresponds to the obviative object in (32a).

Jolley (1982) argues that direct forms are marked for agreement with an object, while inverse forms are not, i.e., they are intransitive. This is the case as she claims that direct markers specify the person of the object while inverse markers do not.

Specifically, Jolley (1982) shows that direct markers provide information about the person of the object in the following way: (i) when the direct marker is *â*, the object is third person (proximate or obviative), (ii) when the direct marker is *ê*, the object is third person (obviative),[19] and (iii) when the direct marker is *i*, the object is first person.

Conversely, Jolley (1982) claims that the inverse markers do not provide information as to the person of the second argument in the same way. For example, when the inverse marker is *ekw*, the nonsubject argument could be

[18] Specifically, Jolley (1982) claims that agreement is always for the final subject, i.e., the subject in the surface construction. In an active construction, the subject in the underlying construction, or what she refers to as the initial subject, is the same as the subject in surface construction or the final subject. In the passive, the NP that is the object in the underlying construction, i.e., the initial object, is the NP that is the subject in the surface construction, i.e., the final subject.

[19] According to Jolley (1982), *ê* also marks "further obviative." See Wolfart (1973, 24, 53) for a discussion of the appropriateness of the use of this person category in Plains Cree. I will not refer to it again in this paper.

first person, second person or third person (proximate or obviative).[20] She concludes that as the inverse does not show agreement for an object, it is an intransitive construction.

Jolley (1982) concludes that the inverse in Cree is an intransitive construction in which the subject corresponds to the object in the underlying active construction, and, therefore, that the inverse in Cree is a passive.

According to Jolley's (1982) analysis, then, it is the active form (rather that the direct form) which is used when the agent outranks the patient with respect to the person hierarchy, and it is the passive (rather than the inverse) which is used when the agent is outranked by the patient with respect to this hierarchy.

3.4.2. Advantages to the passive analysis

Jolley (1982) argues that an important advantage to the passive analysis is that it accounts for the use of a morpheme similar to */ekw/* in the indefinite agent paradigm and for the use of */ekw/* in the inanimate agent paradigm.

In order to discuss Jolley's claim, we need to introduce an expanded version of the person hierarchy in Cree, i.e., one that includes the indefinite and inanimate persons in this language. This hierarchy is given in (33).

(33) 2 > 1 > indefinite > 3prox > 3obv > inanimate
(Hockett 1966, 60)

According to Hockett (1966), the indefinite is situated between first and third person proximate in the person hierarchy in Algonquian and the inanimate third person is in the lowest position in this hierarchy.

With regard to the indefinite agent forms, Jolley (1982) argues that the marker of these forms, */ekawi/*, is a variant of */ekw/* and that the passive is used for these forms because the indefinite agent is outranked by both first and second

[20] Jolley (1982) claims that when the inverse marker is */ekw/*, the nonsubject argument could also be third person indefinite, but this however is not the case.

person in the hierarchy. She maintains that the morphology of these forms supports the passive analysis. Here, we look again at the example given as (34).

(34) *ni- sâkih- ikawi- n*
1 love ikawi sg
'I am loved'
(Dahlstrom 1991, 51)

As we saw in 3.3.1, indefinite agent forms are only marked for agreement with the patient, e.g., in (34) the form is marked for agreement for first person. There is no agreement for the indefinite agent. Jolley (1982) argues that this form, like forms in the third person set, is intransitive and is marked only for the patient argument which she analyzes as the grammatical subject.

Similarly, Jolley (1982) claims that all inanimate agent forms are passive. The inanimate third person is in the lowest position in the hierarchy, and, therefore, is outranked by all other persons. As with the indefinite agent forms, she claims that the inanimate agent forms are marked only for the patient argument which she analyzes as the subject. For example, in the example given as (30), and repeated here as (35), the form is marked with agreement for first person only.

(35) *ni- sêkih- iko- n*
1 scare inverse sg
'it scares me'
(Dahlstrom 1991, 50)

Problems for Jolley's analysis

In spite of the advantages of the passive analysis, I believe there are two major problems for Jolley's analysis, the first of which she herself identifies.

1. Inverse forms as intransitives

According to Jolley (1982), inverse forms in the mixed set are problematic for her analysis because they are marked with person agreement for both arguments, as in the example in (36).

(36) *nitasamikwak* 'they feed me'
(Jolley 1982, 9)

The form in (36) is an inverse form in the mixed set. This form is marked with agreement for both arguments, i.e., with *ni-* for the first person argument and with *-wak* for the third person argument. Jolley (1982) acknowledges, therefore, that inverse forms in the mixed set, like the example in (36), are problematic for her analysis of inverse forms as intransitive constructions because they are marked for agreement with both arguments.[21]

With respect to this "extra agreement," however, Jolley (1982, 10) suggests that "consistent application allows us to state just when extra agreement will occur and so does not threaten to weaken our generalization concerning agreement with final subjects." I would argue instead that the "consistency" of this agreement would suggest that the passive analysis is not appropriate for these forms. Therefore, this problem for her analysis is not addressed.

Jolley (1982) notes that the inverse forms from the non-third person set, such as the example given in (37), are also problematic for this aspect of her analysis. This form is marked with the inverse marker *eti* which is used only when the agent is first person and the patient is second person. Jolley suggests, therefore, that this suffix indicates that the initial object is first person, a problem, then, for the analysis of these forms as intransitive constructions.

(37) *kitasamitin* 'I feed you'
(Jolley 1982, 9)

Here again, Jolley (1982) does not provide a satisfactory solution to the problem of extra agreement. For forms in the non-third person set, Jolley claims that *eti* does not mark agreement for the object in the "passive," but rather that it marks agreement for the subject in the underlying active construction. With respect to this claim she suggests that:

[21]As we saw in 3.1.1, in the mixed set (independent and conjunct orders), when the non-third person argument is plural and third person argument is singular, there is no agreement for the third person argument. Typically, however, in these paradigms, there is agreement for both arguments.

> Though this marking of initial terms in restricted forms may appear ad hoc, the consequences of not analyzing the forms this way must be considered. If we are forced to give up a passive analysis in you-and-me forms because of this agreement property, we will also be forced to give it up for the other forms similar to them. ... Further, this would mean splitting up third person forms and mixed set forms into those that do allow passive and those that don't. At present, there seems to be no independent reasons for doing this (Jolley 1982, 12).

Clearly, forms in the mixed set and non-third person set are problematic for Jolley's analysis of inverse forms as intransitive and therefore as passives. In fact, it is only the analysis of forms in third person set which is not problematic for her approach. In the diachronic approach that I take in Chapter 5, I argue that there are historical reasons why the "passive analysis" works well for forms in the third person set, but not for forms in the mixed and non-third person sets.

3.4.3.2. Grammatical relations and thematic roles in the inverse

Traditionally, Algonquianists have preferred to use the terms "actor" and "goal" which express thematic relations rather than the terms "subject" and "object" which denote grammatical relations (Wolfart 1973). Part of the reason for this preference is the difficulty in determining grammatical relations in the Algonquian languages as many of the standard tests for grammatical relations can not be used in these languages. For example, word order cannot be used as an indicator of grammatical relations because these languages have free word order.[22]

Jolley (1982) makes certain assumptions concerning the grammatical relations of the direct and inverse construction in Cree. She assumes that: (i) the agent in the direct construction is the subject, and (ii) the patient in the inverse, or "passive" as she analyzes it, is the subject. These assumptions, it seems, are based primarily on the morphological agreement patterns of the forms, but she does not provide evidence from syntactic tests to support them. As we will see in 3.5.2, Dahlstrom (1991) uses as a test the "copying-to-object construction"

[22]The word order in Cree is "free" in the sense that the grammatical relations of S, V and O are not identified with particular positions in the sentence structure. The word order may, however, be affected by pragmatic factors (Dahlstrom 1991).

and using this she argues that it shows that the obviative subject of the inverse is the thematic agent, not the patient as Jolley claims.

Similarly, Jolley (1982) assumes that inverse constructions are syntactically intransitive, but again this is an observation concerning the syntax of the language that she makes solely on the basis of the morphology of the constructions. Moreover, as we saw in 3.4.3, she also shows that inverse forms in the mixed and non-third person sets are morphologically marked for two arguments, but dismisses this extra agreement, still claiming that these forms are intransitive.

In spite of these problems, Jolley (1982) makes interesting claims which, as I will argue, may have been true of an earlier stage of the language. For example, I will show in chapter 5 that there is good evidence to show that */ekw/* originally marked a passive construction and that direct markers in the present-day language did in fact originate as object markers.

3.5. Arguments for the inverse analysis

3.5.1. Wolfart's analysis of inverse forms

As discussed in 3.0 and 3.1, Wolfart (1973) relates the category of direction to the person hierarchy in Cree, 2 > 1 > 3prox > 3obv. Given a form which has person markings for both agent and patient, the leftmost affix will be interpreted as the agent, and the other as the patient, when the form of the verb is direct. The example in (38) is marked with */â/*, the direct marker for forms in the mixed set. The prefix *ni-*, first person, marks the agent, and the suffix *-w*, third person, marks the patient.

(38) *ni(t)-asam- â- w*
1 feed direct 3
'I feed him (1-3)'
(Wolfart 1973, 24)

Conversely, when the form of the verb is inverse, the first affix will be interpreted as the patient, and the second as the agent. Here, according to

Wolfart (1973, 24), "the actual linear sequence remains unchanged but the reversal of the fundamental priority order is indicated by theme signs." For example, in (39), the form is marked with */ekw/*, the inverse sign for forms in the mixed set, the prefix *ni-* marks the patient, and the suffix *-w* marks the agent.

(39) *ni(t-)asam- ekw- w* > *nitasamik*
1 feed inverse 3
'he feeds me (3-1)'
(Wolfart 1973, 24)

Wolfart (1973) acknowledges the similarity of the direct and inverse forms to active and passive forms in other languages. Still, he argues against a voice analysis for the forms in Cree.

> However, the tempting similarity of the verbal forms must not be allowed to obscure the very fundamental differences. Direction reflects the actor-goal relationship of the referents. Voice in the Indoeuropean languages, by contrast, is primarily a matter of emphasis and stylistics. (Wolfart 1973, 25)

Wolfart also addresses the use of the term "passive" in Cree in his 1991 paper "Passives with and without agents." He discusses, at some length, the arguments which can be made for and against the analysis of inverse forms as passive, distinguishing here between the inverse forms used with two third person arguments and those used in the mixed set.

According to Wolfart (1991, 171), "prominence for the patient, obscurity for the agent and marked verb forms are the signs of classical passive constructions." He argues, therefore, that inverse forms used with two third person arguments may be likened to passives since these forms are morphologically marked for agreement only with the patient NP. In (40), the inverse form does not show agreement for the obviative agent. It is marked for agreement only with the proximate patient with *-w*.[23]

[23] The agent, however, may be expressed using a full NP (Wolfart 1991).

(40) *wâpam- ekw- w > wâpamik*
see inverse 3
'he(prox) is seen by him/them/it'
(Wolfart 1991, 178)

Moreover, Wolfart (1991) claims that the suffix */ekw/* marking the inverse form, in (40) is "marked" in comparison to the marker of direct forms, a further indication, then, that it may be passive.[24] Similarly, inverse forms in the mixed set are marked; they too are suffixed with a form of */ekw/*, as in the example in (41).

(41) *ni-wâpam-ekw- w- ak > niwâpamikwak*
1 see inverse 3 3p
'they see me'
(Wolfart 1973, 173)

Wolfart (1991) shows, however, that unlike inverse forms in the third person set, inverse forms in the mixed set are obligatorily marked for agreement with the agent. In (41), there is agreement for the third person agent, i.e., with the suffix *-w* marking third person, and with the suffix *-ak* indicating that this argument is plural.

Wolfart (1991) argues that there are other considerations, in addition to the presence of agreement for the agent, which suggest that a passive analysis for inverse forms in the mixed set is not appropriate. First, he points out that the direct and inverse forms differ in meaning. In contrast, the passive is typically an optional variation of the active construction (used for style or emphasis), and both the active and passive constructions express the same meaning. Consider the examples below. I provide the English example to illustrate Wolfart's point.

(42) a. *niwâpamâwak* 'I see them'
(Wolfart 1991, 175)

b. *niwâpamikwak* 'they see me'
(Wolfart 1991, 173)

[24] See Wolfart (1991) for arguments concerning the markedness of */ekw/*.

(43) a. I see them.

b. They are seen by me.

In the Cree example, (42a) is direct, and (42b) is inverse. In (42a), the first person is the agent, and the third person is the patient. In (42b), the third person is the agent, and the first person is the patient. In contrast, in (43), the first person is the agent and the third person is the patient in both the active construction, (43a), and the passive, (43b); that is, the active and passive express the same meaning.

Second, Wolfart (1991) shows that the use of the direct and inverse relates directly to the status of the arguments in the person hierarchy. The direct form is required when the agent outranks the patient, e.g., 1-3, and the inverse form is required when the agent is outranked by the patient, e.g., 3-1. As in his 1973 study, Wolfart argues that this suggests that the direct/inverse contrast in Cree is more a function of direction than it is of voice.

3.5.2. Dahlstrom's (1991) analysis of inverse forms

Dahlstrom (1991), like Wolfart (1973, 1991), argues that forms such as that in (44) are inverse forms and not passives.

(44) *ni(t)- asam- ekw- w > nitasamik*
1 feed inverse 3
'he feeds me (3-1)'
(Wolfart 1973, 24)

Dahlstrom (1991), however, takes a syntactic approach to the analysis of these forms, attempting to demonstrate: (i) that these forms are syntactically transitive, and (ii) that the subject of the inverse is the thematic agent. In a passive construction, the grammatical subject would be the thematic patient.

First, Dahlstrom (1991) claims that inverse forms are syntactically transitive, i.e., that they subcategorize for both subject and object arguments. These arguments may be expressed pronominally in the agreement morphology of the

language, as in (44). In (44), the first person argument is marked with the prefix *ni-* and the third person argument with the suffix *-w*.

The subject and object arguments may also be expressed with full NPs, as in (45).

(45) *osâm* *ê-sâkihikot* *ohtâwiyah*
too much love obv-3/conj [inverse] his father obv
aw *ôskinîkiw.*
this young man
'for his father too much cherished this young man.'
(Dahlstrom 1991, 63)

The example in (45) is an inverse form in the third person set. Both arguments *ohtâwiyah* 'his father' and *aw ôskinîkiw* 'this young man' are expressed with full NPs.[25]

Second, Dahlstrom (1991) maintains that inverse forms are active, i.e. that the subject of the inverse is the thematic agent. She uses the "copying-to-object construction" to demonstrate that the obviative subject of the inverse is the thematic agent.

(46) *nikisikêyimâw* *George* *ê-sâkihât* *okosisa*
know TA *1-3* love *3-obv* his son *obv*
'I know George loves his sons'
(Dahlstrom 1991, 72)

(47) **nikiskêyimimâwa* *George* *ê-sâkihât* *okosisa*
know TA *1-3obv* love *3-obv* his son *obv*
'I know George loves his sons'
(Dahlstrom 1991, 73)

This construction was identified by Frantz (1978) for Blackfoot (see also James (1979) for earlier work by others) as a test for "subjects" (or "objects") with the transitive animate verbs which take clausal complements. In this construction, "the object of the Transitive Animate matrix verb must be coreferential with the subject of the complement clause; it can not be coreferential with the object of the complement clause" (Dahlstrom 1991, 72).

[25] Dahlstrom (1991) does not offer any further evidence to show that these NPs are arguments of the verb.

In (46) and (47), the TA verb *kiskêyim-* 'know (about) someone' takes a clausal complement with the TA verb *sâkih-* 'love someone.' In (46), the matrix verb *kiskêyim-* shows agreement for a third person object which corefers with the third person subject of the verb in the complement clause, *George*, and the sentence is grammatical. In (47), the matrix verb shows agreement for a third person obviative object which corefers with the object of the complement clause, *okosisa* 'his son(s),' and the sentence is ungrammatical (Dahlstrom 1991).

Dahlstrom (1991) likens the copying-to-object construction in Cree to the raising-to-object construction in English as both may be used as tests for "subjects." In the English construction in (48), the third person argument may be expressed as the subject of the finite verb, as in (48a), or as the object of the verb in the main clause, as in (48b).

(48) a. I believe that he is sick.
b. I believe him to be sick.
(Dahlstrom 1991, 68)

The sentence is ungrammatical when this argument is expressed both as the object of the verb in the main clause, and as the subject in the complement clause. This is illustrated in the example in (49).

(49) *I believe him that he is sick.
(ungrammatical on the reading:
'I believe that he is sick')
(Dahlstrom 1991, 69)

When the clausal complement is an inverse construction, the inverse form in the clausal complement of the verb is inflected for an obviative agent and a proximate patient. Consider the following contrast.[26]

[26] Dahlstrom (1991) uses the terms "experiencer" and "goal" instead of "agent" and "patient" with the verb *love*.

(50) *nikiskêyimimâwa* *George ê-sâkihikot*
know TA *1-obv* love *obv-3*

okosisa
his son *obv*
'I know that his sons love George'
(Dahlstrom 1991, 73)

(51) **nikiskêyimâw* *George ê-sâkihikot*
know TA *1-3 [direct]* love *obv-3/conj [inverse]*

okosisa
his son *obv*
'I know that his sons love George'
(Dahlstrom 1991, 73)

In (51), the verb in the matrix clause is marked with agreement for the obviative object. This agreement corefers with the subject of the inverse, the obviative agent, and the sentence is grammatical. In (51), the verb in the matrix clause is marked with agreement for a proximate object. This agreement corefers with the object of the inverse and the sentence is ungrammatical (Dahlstrom 1991).

Since the agent is the subject of the inverse, Dahlstrom (1991) concludes that the inverse is an active construction.

3.5.3. Section summary

The evidence for the analysis of these forms as inverse constructions is stronger than the evidence for the analysis of these forms as passives and this, therefore, is the approach that I will assume for the analysis of these forms.

3.6. Conclusion

The inverse marker */ekw/* marks: (i) inverse forms in the mixed and third person sets in the independent and conjunct orders, and (ii) all forms which have an inanimate agent in the independent and conjunct orders. In addition, forms with an indefinite agent and a first or second person patient are marked with */ekawi/* which, according to Goddard (1979b), developed from the use of */ekw/* to mark these forms in the independent order in Proto-Algonquian.

I looked at two of the approaches which have been offered for the synchronic analysis of inverse forms in Cree, these being the analysis of these forms as passives (Jolley 1982) and the analysis of these forms as inverse constructions (Wolfart 1973, 1991 and Dahlstrom 1991). I found that Wolfart (1973, 1991) and Dahlstrom (1991) both make compelling arguments for the analysis of these forms as inverse constructions and, therefore, this is the analysis that I will assume for these forms, as well.

CHAPTER 4: EVIDENCE FOR THE ORIGIN AND FUNCTION OF -EKW- IN PROTO-ALGIC

4.0. Introduction

The direct/inverse opposition in Cree has been reconstructed for Proto-Algonquian. In the examples in (1), (a) is direct and (b) is inverse.

(1) a. **newa:pama:wa*
'I look at him'

b. **newa:pamekwa*
'he looks at me'
(Bloomfield 1946, 98)

In (1a), the direct form is marked with **-a:* and, in (1b), the inverse form is marked with **-ekw*.

4.1. The use of direction in Proto-Algonquian

4.1.1. Mixed set

Direct forms in the mixed set are used when one argument is first or second person and the other argument is third person.

4.1.1.1. Independent order

In the independent order of Proto-Algonquian, there are "objective forms" which specify object agreement and "absolute forms" which do not specify object agreement in both the mixed and third person sets (Goddard 1967). Table 4-1 summarizes the morphology of direct forms in the objective paradigm of the mixed set (independent order).

		patient	
		3	3p
agent	1	ne- -a:wa	ne- -a:waki
	2	ke- -a:wa	ke- -a:waki
	1p	ne- - a:na:na	ne- - a:na:naki
	21	ke- - a:nawa	ke- - a:nawaki
	2p	ke- - a:wa:wa	ke- - a:wa:waki

Table 4-1 Agreement morphology of direct forms (objective) in the mixed set (independent order) (Goddard 1967, 94)

Table 4-2 summarizes the morphology of inverse forms in the objective paradigm of the mixed set (independent order).

		agent	
		3	3p
patient	1	ne- -ekwa	ne- -eko:ki
	2	ke- -ekwa	ke- -eko:ki
	1p	ne- - ekwena:na	ne- - ekwena:naki
	21	ke- - ekwenawa	ke- - ekwenawaki
	2p	ke- - ekowa:wa	ke- - ekowa:waki

Table 4-2 Agreement morphology of inverse forms (objective) in the mixed set (independent order) (Goddard 1967, 94)

Table 4-3 summarizes the morphology of direct forms in the absolute paradigm of the mixed set (independent order).

		patient
		3(p)
agent	1	ne- -a
	2	ke- -a
	1p	ne- - a:Pena
	21	ke- - a:Pena
	2p	ke- - a:Pwa

Table 4-3 Agreement morphology of direct forms (absolute) in the mixed set (independent order) (Goddard 1967, 94) [1]

According to Goddard, there are no inverse forms corresponding to the direct forms in the absolute paradigm of the mixed set (independent order). He finds that "in the first and second persons of the TA inverse it is possible to reconstruct objective endings only; apparently no language furnishes evidence for absolute forms in these categories, even though the absolute/objective correlation is otherwise attested throughout the transitive paradigms" (Goddard 1967, 83).

Direct forms in the objective and absolute paradigms of the mixed set (independent order) are marked with the theme sign *-*a:*. Inverse forms in the objective paradigm of this set are marked with the theme sign *-*ekw*.

4.1.1.2. Conjunct order

Table 4-4 summarizes the morphology of direct forms in the mixed set (conjunct order).

[1] **P* is used to represent a segment in Proto-Algonquian which is realized as *p* is some of the daughter languages and *m* in others (Goddard 1967, 87). According to Goddard (1974, 322), further evidence suggests that this segment is actually a cluster, either **hm* or **?m*, which may now be represented as **Hm*.

		patient
		3
agent	1	-ak-
	2	-at-
	1p	-akent-
	21	-ankw-
	2p	-e:kw-

Table 4-4 Agreement morphology of direct forms in the mixed set (conjunct order) (Bloomfield 1946, 102)

Table 4-5 summarizes the morphology of inverse forms in the mixed set (conjunct order).

		agent
		3(p)
patient	1	-it-
	2	-eθk-
	1p	-iyament-
	21	-ɛθankw-
	2p	-eθa:kw-

Table 4-5 Agreement morphology of inverse forms in the mixed set (conjunct order)(Goddard 1977, 133)

Direct forms in the mixed set (conjunct order) have no theme sign, while inverse forms in this set are marked with the theme signs **-i* and **-eθ* (Bloomfield 1946, 102).

4.1.2. *Third person set*

Forms in the third person set are used when one argument is third person proximate and the other is third person obviative or when both arguments are third person obviative.

4.1.2.1. Independent order

Table 4-6 summarizes the morphology of direct forms in the objective paradigm of the third person set (independent order).

		patient	
		3'	3'p
agent	3	we- -a:wali	we- -a:wahi
	3p	we- -a:wa:wali	we- -a:wa:wahi

Table 4-6 Agreement morphology of direct forms (objective) in the third person set (independent order) (Goddard 1967, 94)

Table 4-7 summarizes the morphology of inverse forms in the objective paradigm of the third person set (independent order).

		agent	
		3'	3'p
patient	3	we- -eko:li	we- -eko:hi
	3p	we- -ekowa:wali	we- -ekowa:wahi

Table 4-7 Agreement morphology of inverse forms (objective) in the third person set (independent order) (Goddard 1967, 94)

Direct forms in the objective paradigm of the third person set (independent order) are marked with the theme sign *-*a:*. Inverse forms in this paradigm are marked with *-*ekw*.

Table 4-8 summarizes the morphology of direct forms (absolute) in the third person set (independent order).

		patient
		3'
agent	3	-e:wa
	3p	-e:waki

Table 4-8 Agreement morphology of direct (absolute) forms in the third person set (independent order)(Goddard 1967, 94)

Table 4-9 summarizes the morphology of inverse forms (absolute) in the third person set (independent order).

		agent
		3'
patient	3	-ekwa
	3p	-eko:ki

Table 4-9 Agreement morphology of inverse (absolute) forms in the third person set (independent order) (Goddard 1967, 94)

Direct forms in the absolute paradigm of the third person set (independent order) are marked with the theme sign *-*e*:. Inverse forms in this paradigm are marked with *-*ekw* (Goddard 1967).

4.1.2.2. Conjunct order

Table 4-10 summarizes the morphology of direct forms in the third person set (conjunct order).

		patient
		3'
agent	3	-a:t-
	3p	-a:twa:w
	3'	-a:lit-

Table 4-10 Agreement morphology of direct forms in the third person set (conjunct order)

Table 4-11 summarizes the morphology of inverse forms in the third person set (conjunct order).

		agent
		3'
patient	3	-ekwet-
	3p	-ekwetwa:w-
	3'	-ekwelit-

Table 4-11 Agreement morphology of inverse forms in the third person set (conjunct order)

Direct forms in the third person set (conjunct order) are marked with the theme sign *-*a*:. Inverse forms in this paradigm are marked with *-*ekw*.

4.1.3. Non-third person set

Forms in the non-third person set are used when both arguments are first or second person.

4.1.3.1. Independent order

Table 4-12 summarizes the morphology of direct forms in the non-third person set (independent order).

		patient	
		1	1p
agent	2	ke- -i	ke- -iPena
	2p	ke--iPwa	

Table 4-12 Agreement morphology of direct forms in the non-third person set (independent order) (Goddard 1967, 94)

Table 4-13 summarizes the morphology of inverse forms in the non-third person set (independent order).

		agent	
		1	1p
patient	2	ke- -eθe	ke- -eθePena
	2p	ke- -eθePwa	

Table 4-13 Agreement morphology of inverse forms in the non-third person set (independent order) (Goddard 1967, 94)

Direct forms in the non-third person set (independent order) are marked with the theme sign *-*i*. Inverse forms in this paradigm are marked with *-*eθ* (Goddard 1979a).

4.1.3.2. Conjunct order

Table 4-14 summarizes the morphology of direct forms in the non-third person set (conjunct order).

		patient	
		1	1p
agent	2	-iyan-	-iya:nk-
	2p	-iye:kw-	

Table 4-14 Agreement morphology of direct forms in the non-third person set (conjunct order) (Bloomfield 1946, 102)

Table 4-15 summarizes the morphology of inverse forms in the non-third person

		agent	
		1	1p
patient	2	-eθa:n-	-eθa:nk-
	2p	-eθakokw-	

Table 4-15 Agreement morphology of inverse forms in the non-third person set (conjunct order) (Bloomfield 1946, 102)

Direct forms in the non-third person set (independent order) are marked with the theme sign **-i*. Inverse forms in this paradigm are marked with **-eθ* (Bloomfield 1946).

*.1.4. Theme signs *-i and *-eθ in the Proto-Algonquian conjunct*

According to Goddard (1979a, 84), "In the Proto-Algonquian conjunct the theme signs **-i* (Theme 3) and **-eθ* (Theme 4) were used for all forms with first person and second person objects, respectively." Therefore, it would seem that these morphemes functioned as object markers rather than as theme signs at an earlier stage in the history of the language.

1.5. Origin of the inverse marker /ekw/ in Proto-Algonquian

According to Goddard (1974), the conjunct order in Proto-Algonquian predates the independent order and this is where the inverse marker **-ekw* originated. He suggests that it was first used in the conjunct to mark obviative-on-proximate and inanimate-on-animate. He states that:

> the opposition of the theme signs -a: *direct* and -ekw *inverse* is used in the conjunct to distinguish proximate-on-obviative (*-a:t *he–him, them (obv.)*) from obviative (-and-inanimate)-on-proximate (*-ekwet *he, they (obv.)/it, they (inan.)–him*), and this must have been the point of origin for the corresponding theme signs in the independent direct and inverse paradigms (Goddard 1974, 324).

Thus, the use of **-ekw* to mark forms in the independent order in Proto-Algonquian, and hence in the independent order in Cree, originated from this use of **-ekw* in the Proto-Algonquian conjunct.

In sum, while **-ekw* is used to mark many forms in the independent order in Proto-Algonquian, this morpheme originated in the conjunct mode in the proto-language where it marked only third person obviative-on-proximate and third person inanimate-on-third person animate.

4.2. Evidence from Wiyot

4.2.1. Agreement morphology in Wiyot

In this section, I look at the agreement morphology used for intransitive and transitive verbs in the indicative mood.[2] This survey is summarized from Teeter's grammar of Wiyot (1964).

Intransitive stems are suffixed to show agreement with the person of the subject. For example, the forms in (2) and (3) are marked for agreement with a first person subject and a second person subject, respectively.

(2) *tohl-á*
talk-1
'I talk'
(Teeter 1964, 34)

(3) *tohl- át*
talk- 2
'you talk'
(Teeter 1964, 34)

Transitive verbs are derived from intransitive verbs by the addition of a suffix referred to as a "final." For example, the transitive stem *rakhohw-* 'laugh at' is

[2] In Yurok, there are imperative, negative and subjunctive moods as well (Teeter 1964).

derived from the intransitive stem *rakh-* 'laugh' by the addition of the final *-ohw* (Teeter 1964, 33). There are many different finals, some particular to only one verb.

The transitive stem is suffixed for agreement both with the subject and with the object, as in the examples in (4) and (5).[3]

(4) *hog- íɬ- al- at*
tell FINAL 1 2
'you tell me'
(Teeter 1964, 73)

(5) *rakh- óhw- al- íɬ*
laugh FINAL 1 3
'he laughs at me'
(Teeter 1964, 33)

4.2.2. *Word order and grammatical relations in Wiyot*

According to Reichard (1925, 96), word order is used to indicate the grammatical relations of subject and object: "Syntactic relations are expressed by position." The first NP in the linear order is the subject and the second is the object. Therefore, changing the order of constituents can change the meaning. For example, the sentence in (6) has the same three constituents as the sentence in (7), but the order of the constituents has changed and so has the meaning.[4]

(6) gurago •'w î h îyaẃe'l êL guratc'tck
man sees boy
'that man sees the boy'
(Reichard 1925, 96)[5]

[3] I have added the morpheme-by-morpheme glosses in examples (4) and (6)-(12). In addition, I have indicated the morpheme boundaries in the (10)-(12)
[4] See Whalen (1997) for arguments that word order can be used as an indicator of grammatical relations.
[5] While the sentences in (6) and (7) differ only with respect to the order of constituents, i.e., there is no difference in the morphology of the NPs or VP between the two sentences, the sentences do differ just slightly in the English translation of the determiner used with the NP 'boy,' i.e., 'that' in (6) and 'this' in (7).

(7) guratc'tck h îyawe'l êL gurago •'w î
boy sees man
SUB/AGT VERB OBJ/PAT
'that boy sees that man'
(Reichard 1925, 96)

According to Teeter (1964, 48), in Wiyot "S normally precedes V, and O most often follows V, but may precede it." When NPs for both subject and object are used, the word order is generally SVO, as in (6)-(7), or SOV as in (8).

(8) John Mary va-dawi'kw-iL
John Mary visited
SUB/AGT OBJ/PAT VERB
John visited Mary'
(Reichard 1925, 96)[6]

In sentences which have a subject and an oblique object, the oblique object occurs where the direct object would occur in the usual SVO word order, such that the order of constituents is as follows, subject, verb, oblique object. In sentences which have both a direct object and an oblique object, the order of constituents is as follows: subject, direct object, oblique object, verb (Reichard 1925).

(9) guratc'tck wa'iyits va'd•î da'gamo•diL
boy dog with a stick hit
'that boy hit the dog with a stick'
(Reichard 1925, 96)

Most sentences with verb, subject and object have either SVO or SOV word order. However, Reichard (1925, 22) states:

> When there is no ambiguity the position of independent words is quite free. For example, when there is no nominal object the subject may stand either before or after the verb, but if object or nominal instrumentals are present they are obliged to settle down in their own compartments.

Teeter (1964, 49) states that sometimes OVS word order is used for object emphasis.[7]

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[6] Reichard (1925) used a now-obsolete orthography, in which *L* is equivalent to modern *ł*, *tc* is modern *č*, and ' is the glottal stop.
[7] See Teeter (1964) for additional examples.

2.3. *The construction with -uk/-ik in Wiyot*

According to Goddard, Proto-Algonquian **-ekw* is a probable cognate of the suffix *-uk/-ik* in Wiyot. Specifically, he suggests, with reference to the direct/inverse opposition and the inverse morpheme, that "extreme antiquity for this opposition and the morpheme **-ekw* is indicated by the existence of an apparent cognate in Wiyot" (Goddard 1974, 324).

Goddard (1966) notes Teeter's brief reference to two rarely used forms of the third person object suffix, *-ik* and *-uk*.

> In addition to those listed, there are two rather rare 3-Obj suffixes which are optionally used in certain verbs normally taking the *m* allomorph. The first has the form *ik*, and is added directly to certain *a*-stems, of which *hacab-* 'give it' is an example. The second is *uk*, used after themes of certain *i*-stems, exemplified by *tisk-* 'like' (theme *tiskow-*) to express the 3-Obj: *tiskowuk-* 'like him' (Teeter 1964, 73)

In a list of examples of transitive forms, Teeter includes examples with the *-ik* and *-uk* suffixes alongside the more frequently used *-m*. These examples are given here as (10) and (11) respectively.

(10) a. *hácab- u- m- ił*
give- FINAL 3OBJ 3SUB
'he gives it to him'

b. *hácab- ik- ił*
give 3OBJ 3SUB
'he gives it to him'
(Teeter 1964, 74)

(11) a. *tisk- o- m- ìł*
like FINAL 3OBJ 3SUB
'he likes him'

b. *tisk- o(w)- úk- ił*
like FINAL 3OBJ 3SUB
'he likes him'
(Teeter 1964, 74)

Goddard (1966) states that Reichard's (1925) grammar of Wiyot includes more detail with respect to these forms. He takes the forms *tiskomìł* and *tiskowúkił* from Teeter's grammar and, using the glosses given in Reichard's grammar, he

likens the contrast between these forms to the direct/inverse opposition in Proto-Algonquian.

> Some verb forms have attested beside them rare by-forms which were apparently not clearly differentiated in Mrs. Prince's usage; e.g. tiskowúkił *he likes him* beside the usual tiskomił (p. 73-4). Judging by Reichard's examples these indicate action by the second-mentioned of two third persons on the first-mentioned: Louis tiskomił Mary *Louis loves Mary*; Louis tiskowúkil Mary-*Mary loves Louis* (R[eichard 1925] 75). The parallel with the obviative-on-proximate forms of Algonquian is striking (Goddard 1966, 403).

Goddard (1974) suggests that the allomorphs *-uk/-ik* in Wiyot may be cognate with the morpheme *-ekw-* in Proto-Algonquian. This implies that the origin of this morpheme can be traced to Proto-Algic.

4.2.3.1. Reichard's (1925) analysis of the construction marked by *-uk/-ik*

The sentences in (12) from Reichard (1925) are the same pair that Goddard (1966) likens to a direct/inverse opposition. However, in her grammar, Reichard uses a system of orthography which is no longer used and the suffix *-ik/uk* corresponds to *-oγ/og* in Reichard's examples.

(12) a. Louis dicga•'miL Mary
love-am-iL
'Louis loves Mary'

b. Louis dica'γ'oγiL Mary
love- oγ-iL
'Mary loves Louis'
(Reichard 1925, 75)

Notice the contrast between the sentences in (12a) and (b). In (12a), the verb is suffixed with the regular form of the third person object suffix. The agent NP *Louis* is in subject position and the patient NP *Mary* is in object position. As discussed in 4.2.2, word order is usually used to express the grammatical relation of subject and object in Wiyot with the subject NP preceding the object NP.

In (12b), the verb is suffixed with what Reichard (1925) refers to as the lesser used "personal" form of the third person object suffix, i.e., *-oγ/og*. The word order in (12b) is the same as the word order in (12a), the only difference

between the two sentences being that the verb in (12a) is suffixed with the "non-personal" form of the third person object suffix and the verb in (12b) is suffixed with the "personal" form of the third person object suffix.

With respect to the position of subject and object when the object is personal as in (12b) or non-personal as in (12a), Reichard (1925, 75) claims that: "A noun is indicated as subject or object, while keeping a fixed position in the sentence, according as one or the other form of the suffix is used in the verb."

In (12b), the patient NP *Louis* is still, as in (12a), in the position normally associated with subjects in Wiyot, while the agent NP *Mary* is still in the position normally associated with objects in this language. However, it seems that when the verb is suffixed with the personal form of the third person suffix, the NP which would typically be the agent/subject, *Louis*, is interpreted as the patient and the NP which would typically be the patient/object, i.e., *Mary*, is interpreted as the agent.

There is a second example of this contrast in Reichard (1925).

(13) a. gats gêLe'laViL Louis
yellow-jacket stung-*aV-iL* Louis
'the yellow-jacket stung Louis'

b. Louis gêLelo•'giL gato
Louis stung-og-iL yellow-jacket
'the yellow-jacket stung Louis'
(Reichard 1925, 75)[8]

The two sentences in (13) have the same meaning. In (13a), the verb is suffixed with the non-personal form of the third person object suffix. The agent NP *yellow-jacket* is in subject position. The patient NP *Louis* is in object position.

In (13b), however, the verb is suffixed with the personal form of the third person object suffix. Here, the NP that is in subject position, *Louis*, is interpreted as the patient, while the NP that is in object position, *yellow-jacket*,

is interpreted as the agent. As in (12b), when the personal form of the third person object suffix is used, the NP that is in the position typically associated with the agent/subject is interpreted as the patient, and the NP that is in the position typically associated with the patient/object is interpreted as the agent.

Unfortunately, there are no additional examples in Reichard (1925) and none at all in Teeter's materials.

2.3.2. Constraints on the *-ik/-uk* construction

Reichard (1925) finds that the construction marked by the personal form of the third person object suffix *-oγ/og* is subject to the following constraints: (i) the object must be human and third person, and (ii) the subject must also be third person. She gives the sentence in (14) as an example.

(14) *wa'iyits gêLelo•'giL gats
dog stung-og-iL yellow-jacket
(Reichard 1925, 75)[9]

The sentence in (14) is like the sentence in (13b), except that the patient NP *dog* in (14), the object according to Reichard's analysis, is not human, and the sentence is therefore ungrammatical. In (13b), the patient NP *Louis*, the object according to Reichard, is human and the sentence is grammatical.

1.3. Evidence from Yurok

1.3.1. Agreement morphology in Yurok

In Yurok, there are two productive classes of inflected verbs, *e*-class and *o*-class, depending on the particular series of inflections taken.[10] For *e*-class verbs, *e* is the most common vowel in the series of inflections. Similarly, for *o*-class verbs, *o* is the most common vowel in the series of inflections (Robins 1958).[11]

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[8] Note the difference in spelling for 'yellow-jacket', i.e., in (a) it is *gats* and in (b) *gato*.
[9] Note the form of the suffix *-og;* in (12) and (13) it is *-o•g*.
[10] There are also a few *a*-class verbs (Robins 1958).
[11] There are actually two subclasses of *o*-class verbs differing with respect to the particular inflections taken for second and third person singular.

In the indicative mood, intransitive stems are suffixed to indicate agreement in person and in number with the subject. For example, the forms in (15) and (16) are marked for agreement with the first person singular subject.[12]

(15) (*nek*)[13] *ma?epet-ek'*
PRO tie up-1SG
1SG
'I tie up'
(Robins 1958, 33)

(16) (*nek*) *ho?omohtk-ok'*
PRO hurt-1SG
1SG
'I hurt'
(Robins 1958, 34)

The paradigm for transitive verbs is incomplete, with some forms in it being regularly and systematically substituted for by passive or intransitive forms. Where active transitive forms are used, the stem is suffixed with: a 'stem vowel' + object agreement + subject agreement. Examples of active transitive forms are given for *e*-class and *o*-class verbs are given in (17) and (18), respectively.

(17) (*nek*) *nekcen- i- c- ek'*
PRO meet-STEM V- 2sg-1sg
'I meet you (sg)'
(Robins 1958, 71)

(18) (*nekah*) *ko?moy- o- c- oh*
PRO hear-STEM V- 2sg- 1pl
'we hear you (sg)'
(Robins 1958, 72)

In most cases, the agreement morphology for *e*-class and *o*-class transitive verbs seems to differ with respect to the stem vowel only; the subject and object suffixes take the same form for *e*-class verbs as they do for *o*-class

[12] I have provided interlinear glosses for the Yurok examples given in this section.
[13] The pronominal subject *nek* is bracketed to indicate that it is optional (Robins 1958). In Yurok, the verb alone can form a complete sentence.

verbs. For example, in (17) and (18) the second person singular subject is marked with *-c*.

4.3.2. *Word order and grammatical relations in Yurok*

The subject NP occurs before the object NP in the unmarked case as in the sentences in (19).

(19) a. *ku pegrk no?p'e?n mewił*
the man chased an elk
'the man chased an elk'

b. *mewił no?p'e?n ku pegrk*
an elk chased the man
'an elk chased the man'
(Robins 1958, 19)

In (19), the sentences differ only with respect to the position of the NPs relative to one another in the linear order. In (19a), the subject NP *ku pegrk* 'the man' occurs first and the object NP *mewił* 'an elk' is second. In (19b), *mewił* is the subject and *ku pegrk* is the object. These sentences differ only with respect the order of constituents.

However, Robins (1958, 19) states that where "the morphological form of one or more of the words, or their sense, makes the structure of the sentence unambiguous, this order is not necessarily adhered to." For example, in (20), the first person singular objective pronominal *nekac* occurs before the NP *ku wencokʷ* 'the woman,' but it is still the object.

(20) *nekac newohpe?n ku wencokʷ*
me saw the woman
'the woman saw me'
(Robins 1958, 19)

4.3.3. *The structure of the passive in Yurok*

In Yurok, the passive of transitive verbs is formed by adding a suffix to the active stem. This suffix is *-ey-* for *e*-class verbs and *-oy-* for *o*-class verbs (Robins 1958).

The passive stem formed with *-ey-/-oy-* is then marked for person and number agreement with the passive subject, i.e., the thematic patient. These endings are the same for both *e*-class and *o*-class verbs and are given in (21). These endings take the same form as the agreement suffixes for intransitive verbs.

(21) Agreement affixes for passive forms

1sg	*-ek'*	1pl	*-oh*
2sg	*-e?m*	2pl	*-u?*
3sg	see below	3pl	*-eɬ*

(Robins 1958, 47)

Examples of passive forms are given in (22) and (23).

(22) *o*-class stem *tmo:l-* 'to shoot'; passive stem *tmo:loy-* 'to be shot'
1sg *tmo•loyek'* (*tmo:loyk*)[14]

(Robins 1958, 47)

(23) *e*-class stem *nekcen-* 'to meet'; passive stem *nekceney-* 'to be met'
1sg *nekceneyek'* (*nekceneyk'*)

(Robins 1958, 47)

The third person passive form of verbs of both classes is formed by adding *-i?-* to the active stem, as in (24) and (25).[15]

(24) *o*-class stem *tmo:l-* 'to shoot'; 3rd singular passive *tmo:li?*

(Robins 1958, 47)

(25) *e*-class stem *nekcen-* 'to meet'; 3rd singular passive *nekceni?*

(Robins 1958, 47)

Some *e*-class verbs form the passive stem with the suffix *-el-* instead of *-ey-*. Third-person forms of these verbs are formed by adding the suffix *-u?-* to the active stem, e.g., *e*-class stem nek- 'to put'; 3rd singular passive *neku?* (Robins 1958, 49)

: second form in which the final vowel is not pronounced is an alternative pronunciation. See also the ple in (22) and Robins (1958, 39).

: suffix *-i?* differs from the agreement marking of the third person singular form of the intransitive n which the final consonant is glottalized.

The passive in Yurok is like the prototypical passive construction in the following ways. The patient occurs as the subject and the agent is usually marked as an oblique object with the preposition *meł* 'by.' In addition, the passive stem is intransitive in the sense that it is marked for agreement with the same suffixes used in the intransitive conjugation, except for the use of *-i?* for the third person passive suffix. Examples of the passive in Yurok are given in the following examples.

(26) *nek kic teykelewom-oy-ek' meł leyes*
I PAST bite-PASS-1sg BY snake
'I was bitten by a snake'
(Robins 1958, 50)

(27) *srmryrw-i? c'uc'is meł ha?a:g*
kill-PASS bird BY stone
'the bird was killed with a stone'
(Robins 1958, 50)

(28) *kic le?l-oy-k' meł me?yeł*
PAST sting-PASS-1sg BY nettle
'I have been stung by a nettle'
(Robins 1958, 146)

According to Robins (1958), however, "sometimes the agent or instrument stands alone without *meł* as an independent subject", as in (28).

(29) *nekah wi? cpi ?ekon-i? ku nepuy*
1p pro there only hold-PASS/3sg the salmon
'the salmon is held by us alone'
(Robins 1958, 50)

Robins (1958, 17) suggests that in constructions such as that in (29) "a nominal or nominal group stands as a kind of independent subject to the sentence as a whole, apart from any specific subject of the verbal."

4.3.4. Distribution of active and passive in Yurok

In his grammar of Yurok, Robins (1958, 69) states that active transitive forms, which he refers to as "bipersonal forms," "only fill certain places in the system, namely, those in frequent use," and that "the other places are filled either by

forms derived from the passive stem but used in syntactic structures appropriate to an active verb, or by forms of the unipersonal conjugation," where he uses the term "unipersonal conjugation" to refer to intransitive forms.

When an intransitive form is substituted for a transitive form, it is marked for agreement with the agent of the transitive form. For example, an intransitive form is used in contexts in which the agent is third person plural and the patient is singular. In addition, the object is expressed with a full NP unless "the context makes it unnecessary" (Robins 1958, 77).

As I am concerned with the distribution of active and passive, I will not consider the use of intransitive forms in the transitive paradigm any further.

Although Robins (1958) relates the distribution of active and passive in Yurok to frequency of use, I will show that the distribution of active and passive in this language is related to the relative rank of the agent and patient NPs with respect to the empathy hierarchy. The active is used in most contexts in which the agent outranks the patient, while the passive is used in most contexts in which the agent is outranked by the patient.

Table 4-16 summarizes the distribution of active, passive and intransitive forms in Yurok.

		subject					
		1sg	**2sg**	**3sg**	**1pl**	**2pl**	**3pl**
object	**1sg**		active	active		active	active/pass
	2sg	active		passive	active		passive
	3sg	active	active	intrans.	active	active	intrans.
	1pl	active	passive	passive		passive	passive
	2pl	active		passive	active		passive
	3pl	active	intrans.	intrans.	intrans.	intrans.	intrans.

Table 4-16. The distribution of active and passive in Wiyot (Robins 1958, 70)

As we have seen, in languages which have empathy hierarchies, first and second person both outrank third person, i.e., 1,2 > 3. In Yurok, active forms

are used in most contexts in which the agent outranks the patient according to this hierarchy.[16] The exceptions to this are the use of intransitive forms for 2sg-3pl, 1pl-3pl and 2pl-3pl.[17]

Conversely, in Yurok, passive forms are used in most contexts in which the agent is outranked by the patient according to the hierarchy 1,2 > 3. The exceptions to this generalization are that: (i) the active is used for 3sg-1sg, and (ii) either the active or passive may be used for 3pl-1sg.

In Yurok, the active is used for forms in which both arguments are first or second person except when the object is first person plural, suggesting that first person plural outranks second person plural in Yurok. Interestingly, first person plural has priority over second person plural in the number marking of Algonquian forms in the you-and-me set (cf. Bloomfield (1946, 100) for Proto-Algonquian, Wolfart (1973, 55) for Cree). For example in Cree, if both the first and second person arguments are plural, the verb is marked for agreement with the first person argument. Verbs in this set show agreement for the second person plural argument only when the other argument is first person singular.

4.4. Conclusion

In Proto-Algonquian, the inverse morpheme *-*ekw* first marked proximate-on-obviative and inanimate-on-animate in the conjunct order.

In Wiyot, -*uk*/-*ik*, a probable cognate of *-*ekw* in PA, marks a construction in which the NP in subject position is interpreted as the patient and the NP in object position is interpreted as the agent.

[16] Active transitive forms with a third person object are only used when the object is human. Intransitive forms are used otherwise (Robins 1958).
[17] Intransitive forms are also used in all cases in which both the agent and the patient are third person, e.g., 3sg-3sg, 3sg-3pl, 3pl-3sg, and 3pl-3pl.

In Yurok, a passive marked by *-i?/-u?* has an interesting structural parallel with the *-uk/-ik* construction in Wiyot; the patient is in subject position, i.e., it precedes the agent NP, the agent NP occurs in the object position. Unlike the Wiyot construction, however, the agent in the Yurok construction, like the agent in the prototypical passive, is marked as an oblique object.

CHAPTER 5: EVIDENCE FOR A PASSIVE TO INVERSE REANALYSIS IN CREE

5.0. Introduction

In this chapter, I take a diachronic approach to the analysis of the inverse in Cree. Specifically, I claim that the inverse in Cree originated when a passive construction that existed at a much earlier time in the history of the language, i.e., in Proto-Algic, was reanalyzed as an active transitive clause. This reanalysis, I claim, was motivated by an obligatory use of the passive in contexts in which the agent was outranked by the patient. The resulting construction would have been an active transitive clause that was used in contexts in which the agent was outranked by the patient, i.e., an inverse.

5.1. The reanalysis account for Cree (Algonquian)

5.1.1. The passive in Proto-Algic

According to the diachronic development that I am proposing, a passive construction that existed in Proto-Algic was reanalyzed as an active transitive clause, i.e., the inverse, in pre-Proto-Algonquian.

I reconstruct a passive construction marked by */ekw/* for Proto-Algic as in figure 5-1.

PATIENT/SUBJECT (=underlying DO)	VERB-*ekw*-*SUBJ*	OBL by	AGENT/OBL OBJ (=underlying SUBJ)

Fig. 5-1. Proto-Algic Passive

In the Proto-Algic passive in figure 5-1, the patient NP is the subject and the agent occurs as an oblique object marked by an oblique marker like Yurok *mel* 'by'. The passive verb is marked: (i) by the passive suffix *-*ekw*, and (ii) with a suffix agreement for the passive subject.

.2. *The reanalysis*

I claim that the passive construction marked by */ekw/* applied obligatorily when the agent was outranked by the patient, but only within the category of third person. In this way, passive would have applied when the agent was outranked by the patient with respect to the hierarchy 3 > 3′ > 0.

Thus, the passive would have been obligatory in contexts in which the agent was outranked by the patient, i.e., 3′-3, 0-3. The active construction would have been obligatory in contexts in which the agent outranked the patient, i.e., 3-3′, 3-0.

The proposed reanalysis of the passive as an active transitive construction may have been motivated by the obligatory use of the passive in the following way.

Typically, most constructions are active and the passive is an optional variation which is used under particular semantic or discourse conditions and is the marked construction. The active occurs in the unmarked case.

The frequency of the passive resulting from the obligatory use of the passive would have made the passive rule "opaque" to speakers of the language; it would no longer be associated with the semantic and discourse conditions that typically determine when the passive is used in language (Chung 1978).

Moreover, once the passive became obligatory in certain contexts, it would no longer be a "passive" in the sense there is no corresponding active construction.[1] For example, given the distribution of active and passive proposed here for pre-Proto-Algonquian, there would be no way to express obviative-on-proximate using an active construction.

Chung (1978) argues that the passive is a structure that can be interpreted in two ways and can, therefore, be subject to reanalysis. Following Chung, I

:ording to Jelinek and Demers (1983), this is an issue that has been raised in the literature for some of 'oast Salish languages.

claim that the obligatory passive in Proto-Algic was reanalyzed in pre-PA in terms of its underlying structure in the following way.

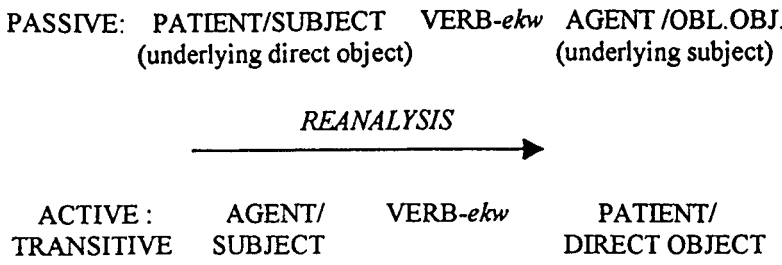

Fig. 5-2. The passive to inverse reanalysis in pre-PA[2]

In figure 5-2, the agent is reanalyzed as the subject of an active clause, while the patient is reanalyzed as the direct object of that clause.

The active transitive clause that results from the reanalysis in figure 5-2 is used in contexts in which the agent is outranked by the patient, i.e., it is an inverse construction. The marker of the original passive construction, i.e., */ekw/*, marks the inverse verb in the reanalyzed construction.

The active transitive construction that was originally opposed to the passive, i.e., the construction that was used in contexts in which the agent outranked the patient, is now opposed to the inverse and is a direct construction.[3]

5.1.3. *A problem for the analysis*

One problem for the reanalysis account is the absence of an oblique marker in the reanalyzed construction. I would suggest that the oblique marking of the passive was lost prior to reanalysis.

[2] This figure has been adapted from Chung's (1978, 263) diagram of the passive-to-ergative reanalysis for anguages in the Polynesian family.

[3] In her study of the functional profiles of voice constructions in Spanish, Hidalgo (1994) finds that the passive used with the auxiliary *ser* 'be' has a functional profile which fits more closely with the profile of an inverse rather than a passive. She suggests, therefore, that "an erstwhile agent-preserving promotional passive may change over time into a functional inverse-voice clause. She makes no claims however about the passive being reanalyzed as an inverse.

In the discussion of the type of overlap which exists between passive and inverse constructions in the languages of the world in 3.3.2.3, I give examples from Lummi (Salish) and the Nootkan languages in which the oblique marking of the agent in the passive is sometimes omitted. Both Lummi and the Nootkan languages are languages in which the passive construction is obligatory in contexts in which the agent is outranked by the patient, this being the same context which I argue was the conditioning environment for the reanalysis of the passive in Algonquian.

Thus, it may sometimes be the case that prior to the reanalysis of a passive as an active transitive clause, the oblique marking of the agent is at first sometimes omitted and eventually lost.

Note, too, that in addition to this typological evidence we saw that the oblique marking of the agent in the passive in Yurok is sometimes omitted. Since Yurok is a sister language to Algonquian, and the Yurok passive is the construction upon which I base the reconstruction of the Algic passive, it may well be that oblique marking of the passive subject was lost prior to reanalysis.

5.1.4. The analysis as grammaticalization

In 1.3.1, I discussed grammaticalization as a process of language change by which discourse phenomena or lexical items become incorporated into the grammatical structure of the language and by which less grammatical morphemes become more grammatical.

The passive is a discourse-based phenomenon. The inverse, however, is an obligatory grammatical structure, i.e., it is obligatory in contexts in which the agent is outranked by the patient. This change is, by definition, grammaticalization because it involves the incorporation of a discourse-based phenomenon, the passive, into the grammatical structure of the language. One of the linguistic effects of grammaticalization exemplified by the proposed reanalysis, then, is that the inverse morpheme is an obligatory grammatical structure rather than a discourse-based phenomenon.

Related to the increasingly obligatory nature of */ekw/* as an inverse marker is increased frequency. The morpheme */ekw/* would be used more often as an inverse marker than as a passive morpheme. This is due to the obligatory nature of the inverse, i.e., the inverse is required whenever the agent is outranked by the patient.

According to Givón (1994, 11): "All other things being equal, inverse constructions tend to be much more frequent in text than passive constructions." Wolfart (1991, 172) states that "the text frequency of passives, and of agentive passives in particular, is notoriously low." In contrast, Wolfart (1991, 172) finds that the occurrence of direct and inverse in Cree is "of balanced frequency." Another linguistic effect of grammaticalization exemplified by the proposed reanalysis of */ekw/*, then, is increased frequency; i.e., */ekw/* would be used more frequently as an inverse marker than it would have been as a passive marker.

5.1.5. The proposed analysis as reanalysis

As discussed in 1.3.3, changes by reanalysis always involve a change in the structure of a form or expression, but do not affect the surface manifestation of that form or expression. Here, I discuss the proposed analysis as an example of reanalysis.

Hopper and Traugott (1993, 42) suggest that in order for a form or expression to undergo reanalysis, there must be "opacity/ambiguity that allowed for the structure to be analyzed as before, and for a new analysis to coexist with it." As we have seen, the passive is a construction which is opaque/ambiguous in this way and may, therefore, be subject to reanalysis.

Clearly, the grammaticalization of a passive as an active transitive clause that I have proposed here involves reanalysis. Whether the passive is interpreted in terms of its surface structure or its underlying structure, the surface manifestation is not affected and there is no corresponding change in meaning.

5.2. Specific typological evidence: the passive to ergative reanalysis for languages in the Polynesian family

Chung's analysis for languages in the Polynesian family provides specific typological support for the type of change I propose for Cree, i.e., the reanalysis of the passive as an active transitive clause. Chung (1978) argues that in some languages in this family the passive has been reanalyzed as an active transitive clause. She claims that ergative case systems arose in languages which originally had accusative when this reanalysis took place.

5.2.1. Accusative and ergative case systems in the Polynesian languages

Polynesian languages systematically mark grammatical relations in one of two ways. In some languages, it is the agent of transitive clauses that is marked like, or identified with, the subject of intransitive clauses, i.e., an accusative system. In others, it is the direct object of transitive clauses that is marked in this way, i.e., an ergative system.[4]

In Polynesian languages, there are two types of transitive verbs, "canonical transitive" and "middle." According to Chung (1978, 47), "canonical transitive verbs describe events which produce a direct, often physical effect on the direct object, while middle verbs describe events that do not affect the direct object immediately." A middle clause is a sentence that has a middle verb.

The accusative case system is associated with languages in the East Polynesian subgroup of the Polynesian family of languages. Here, I will look at an example of this type of case marking system from Maori, an East Polynesian language.

[4] In addition to the accusative and ergative systems described here, a mixed accusative-ergative case marking system exists in Kapingamarangi, a language in the Samoic-Outlier subgroup.

In Maori, subjects of transitive and intransitive clauses are unmarked, as in (1) and (2), respectively. The direct object of canonical transitive clauses is case marked with the accusative marker *i*, as in (1).[5]

(1) *Ka whakareri a Rewi i nga: rama.*
uns prepare prop Rewi ACC the-pl torch
'Rewi prepared the torches.'
(Chung 1978, 50)

(2) *Ka moe te tamaiti.*
uns sleep the child
'The child is sleeping.'
(Chung 1978, 50)

Subjects of middle clauses are unmarked and direct objects of these clauses are marked with *i* or *ki*, as in (3).

(3) *Ka hiahia au ki te pepeha: tika.*
uns want I to the proverb right
'I want the right proverb.'
(Chung 1978, 51)

Languages with accusative systems have a passive construction in which the patient is promoted to subject position and the agent occurs as an oblique object marked with *e*. The passive verb is marked with the suffix *-Cia*, as in the Maori example in (4).[6]

(4) *ka tuku-a e Paowa te waka.*
uns leave-PASS AGT Paowa the canoe
'Paowa left the canoe.'
(Chung 1978, 52)

The ergative case system is associated with languages in the Tongic subgroup, as well as in a number of languages in the Samoic-Outlier subgroup of the Polynesian family. Here, I will look at an example of this type of case marking system from Tongan, a Tongic language.

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[5] In the Polynesian examples from Chung (1978), I use a colon to indicate vowel length where Chung uses ¯ over the vowel.

[6] *C* in the passive suffix *-Cia* represents a variable consonant (Chung 1978).

In Tongan, subjects of transitive clauses are case marked with the ergative marker *'e*, as in (5). Direct objects of transitive clauses are marked with the absolutive marker *'a*, as in (5). Subjects of intransitive clauses may or may not be marked with the absolutive marker, as in (6).

(5) *'Oku fau 'e hoku tokouá 'a e te:pile.*
prog make ERG my sibling ABS the table
'My brother is making a table.'
(Chung 1978, 53)

(6) *'Oku lolotonga puna ('a) e vakapuna.*
prog PROG fly ABS the airplane
'An airplane is flying.'
(Chung 1978, 53)

As in the accusative languages, ergative languages have a middle clause construction in which the subject is in the absolutive case and the direct object is marked with *'i* or *ki*, as in the Tongan example in (7).

(7) *'Oku manako ia 'i he ta'ahiné.*
prog like he at the girl
'He likes the girl.'
(Chung 1978, 54)

Chung (1978) finds that the ergative languages do not have a passive. This is explained by her account as it is the passive that is reanalyzed as an active transitive clause with ergative case marking.

According to Chung (1978, 267), the morphology of the attested languages, both accusative and ergative, indicates that the proto-language had an intransitive pattern, such as that in (8), and two transitive patterns, (i) an accusative or middle pattern, such as that in (9), and (ii) a passive or ergative pattern, such as that in (10).

(8) Verb NP

(9) Verb NP *i* NP

(10) Verb-(*Cia*) *e* NP NP

5.2.2. *Proto-Polynesian*

Chung (1978) claims that it is the languages that have accusative systems which are representative of the proto-language. She reconstructs an accusative case marking system for Proto-Polynesian, as in figure 5-3, and a passive construction, as in figure 5-4.

Verb	Subj		(intransitive)
Verb	Subj	*i* DO	(canonical transitive)
Verb	Subj	*i/ki* DO	(middle)

Fig. 5-3. Proto-Polynesian Case Marking (Chung 1978, 262)

VERB-*Cia*	*e* AGENT	PATIENT
	(=underlying SUBJ)	(=underlying DO)

Fig. 5-4 Proto-Polynesian Passive (Chung 1978, 262)

5.2.3. *The passive-to-inverse reanalysis*

Chung (1978) argues that in some languages, i.e., languages that now have ergative systems, speakers of the language interpreted the passive in terms of its underlying structure. As a result of this reanalysis, the passive-to-inverse reanalysis, it is the subject of transitive clauses that is morphologically marked, i.e., with the oblique marker *e*. The direct object of transitive clauses, like the subject of intransitives, is unmarked, i.e., an ergative system.

According to Chung (1978, 263), in most of the languages which have undergone the reanalysis "this ergative pattern replaced the older accusative pattern for canonical transitive clauses, resulting in the ergative case systems found today."

5.2.4. *Motivation for the reanalysis*

Chung (1978) hypothesizes that the passive to ergative reanalysis was motivated by the high frequency of the passive in Proto-Polynesian. According to Chung (1978, 262), "passive applied more often than not to

canonical transitive clauses" as a result of the application of a condition such as that in (11).

(11) Apply passive to clauses containing an affected direct object.
(Chung 1978, 262)

Chung (1978) claims that a condition like that in (11) exists in modern-day Maori. In Maori, passive applies to all perfective canonical clauses and some clauses which have middle verbs, but not to clauses with reflexive verbs or cognate-direct objects, where she claims that "reflexive and cognate-direct objects are not affected at all, given that they are referentially independent" (Chung 1978, 79).[7]

Chung (1978) concludes that passive applies to clauses in which the direct object is affected by the action of the verb, i.e., the condition in (11). In addition, she speculates that passive applies in clauses of this type because "affected NPs" are preferred as subjects.

According to Chung (1978), in some languages, i.e., the languages which now have accusative systems, the condition causing the high frequency of the passive was lost. In other languages, i.e., the languages which now have ergative systems, she claims, the opacity was decreased when the passive was reanalyzed as an active transitive clause. In Maori, the condition on the use of passive applies, but the passive has not yet been reanalyzed as an ergative construction.

5.2.5. *The passive and the empathy hierarchy*

There is also some evidence which suggests that the passive in Proto-Polynesian was preferred in contexts in which the patient is high ranking and/or the agent is low ranking with respect to features of the empathy hierarchy.

[7] According to Chung (1978, 79) cognate objects are object NPs that "do not refer."

This evidence comes from three of the Polynesian languages which have ergative case marking systems, these being Tongan, Niuean, and Samoan. In each of these languages, the suffix *-Cia* , i.e., the passive suffix in the proto-language, is used in lexical derivation. According to Chung (1978, 282), where these derivatives "differ from a true passive is in the distribution of their semantic and syntactic effects, which are not invariably present but instead are lexically selected by the stem."

The use of lexical derivations with *-Cia* in each of these languages suggests that one of the contexts in which the passive was used in Proto-Polynesian in contexts in which the subject was low ranking in features of animacy or agency, i.e., in features of the empathy hierarchy. These lexical derivations are nonproductive in some languages, e.g., Tongan, and not fully productive in others, e.g., Samoan.

In each of these languages, some lexical derivations with *-Cia* are used to indicate a "lack of agency" in the sense that "the event is not controlled by a canonically human or specific agent" (Chung 1978, 274). For example, this type of derivation is used in the sentence in (12) from Samoan to indicate a lack of agency in this way. In (12), the stem *mana'o* 'want' is suffixed with *-mia*, a form of *-Cia*.

(12) *'Ua mana'o-mia 'oe (e le fale-fa'amasino).*
PRF want-SUFF you ERG the house-investigate
'You are wanted (by the court).'
(Chung 1978, 285)

Similarly, lexical derivation is used in the sentence from Tongan in (13) to indicate a lack of agency.

(13) *Na'e fangu-na au 'e he nanamu 'o e kakalá*
PAST awaken-SUFF me ERG the smell of the flower
'I was awakened by the smell of the flower.'
(Chung 1978, 274)

In the examples in (12) and (13), lexical derivation with *-Cia* is used in contexts in which the agent, the subject of the transitive ergative construction in each case, is low ranking with respect to features of animacy and agency.

In her discussion of lexical derivation with *-Cia* in Tongan, Chung (1978, 274) suggests that "derivations of this type usually impose additional selectional or subcategorization restrictions on the (transitive) subject. For instance, if transitive, the derivatives may require their subject to be nonhuman or inanimate."

For example, Chung (1978) offers the following contrast between the Tongan sentences in (14) and (15), which use lexical derivatives with *-Cia*. In each of these sentences, the stem *kei* 'eat' is suffixed with *-na*, a form of *-Cia*.

(14) *'Oku hanga 'e he kulî 'o kei-na 'a e*
prog do ERG the dog COMP eat-SUFF ABS the
puaka mata.
pig raw
'The dog is eating the dead pig.'
(Chung 1978, 274)

(15) **'Oku hanga 'e he Sione 'o kei-na 'a e*
prog do ERG the John COMP eat-SUFF ABS the
puaka mata.
pig raw
'John is eating the dead pig.'
(Chung 1978, 274)

The sentence in (14) has a nonhuman subject and is grammatical; the sentence in (15) has a human subject and the sentence is ungrammatical. The subject must be lower ranking with respect to the feature of agency and animacy, i.e., it must be nonhuman or inanimate.

According to Chung (1978), the semantic effects of these lexical derivations are "strikingly similar to those traditionally associated with Passive rules in the languages of the world." The suffix *-Cia* used in this type of lexical derivation originated as the passive suffix. Thus, prior to the reanalysis of the

passive as an active transitive clause, *-Cia* was used to mark passive constructions in which the agent was low in features of agency or animacy.

5.2.6. Parallels between the reanalyses in Algonquian and Polynesian

First, with respect to the type of change hypothesized, the proposed analysis, like Chung's (1978) analysis for the ergative Polynesian languages, involves the reanalysis of a passive as an active transitive clause. The passive is reanalyzed in terms of its underlying structure, i.e., as a transitive clause with an agent/subject and a patient/direct object.

Second, with respect to the motivation for the change, I argue that a condition on the use of the passive existed in the proto-language, i.e., Proto-Algic, as in Chung's (1978) analysis, the effect of which was an increased frequency of the passive. It is this increased frequency of the passive, which, according to Chung, motivated the reanalysis..

Moreover, in each case the conditioning factor for the proposed development exists synchronically in a daughter language, i.e., in Maori for Polynesian and in Yurok for Algic. As we have seen, in Yurok, the passive is obligatory in most contexts in which the agent is outranked by the patient. Therefore, it is plausible to suppose that such a condition on the use of the passive in pre-Proto-Algonquian.

Clearly, then, there are parallels between the analyses with respect to both the type of change hypothesized and the motivation for the hypothesized change. Moreover, I would argue that there are also parallels between the two analyses with respect to the context in which the passive was used in the proto-language.

Chung (1978) suggests that the high frequency of the passive is conditioned by a preference for "affected NPs" as subjects. Similarly, I claim that the obligatory use of the passive hypothesized for pre-PA was motivated by a preference for NPs that are high ranking in the empathy hierarchy as subject.

In addition, the constraints on lexical derivation with *-Cia* in the ergative Polynesian languages suggest that the passive was used in contexts in which the agent was low-ranking with respect to animacy and agency, both features of the empathy hierarchy. In this way, the conditioning environment of the reanalysis in the ergative Polynesian languages overlaps with that of the conditioning environment for the passive-to-inverse reanalysis.

It would seem, then, that in Proto-Polynesian and pre-PA, the obligatory use of the passive in certain contexts was motivated by the preference for a particular type of NP as the subject.

Significantly, the analyses for the Polynesian and Algic families differ in terms of the output of the hypothesized reanalyses. In the Polynesian languages affected by reanalysis, the oblique marker of the passive subject NP was reanalyzed as an ergative case marker, the end result of which was that an ergative case marking pattern replaced the original accusative case marking pattern for canonical transitive clauses. In the Algic language affected by this reanalysis, i.e., Proto-Algonquian, I claim that the oblique marker of the passive subject NP was lost, the reanalyzed construction therefore being simply an active transitive construction which was obligatory in contexts in which the agent was outranked by the patient, i.e., an inverse.

Despite this difference, I believe that Chung's analysis provides important typological support for the proposed analysis. Her analysis is well documented, in part due to the number of languages in the family, and to the way in which the change has affected only some of the many Polynesian languages in the family. Some of the languages in the Polynesian family have not undergone reanalysis, i.e., the languages with accusative systems, while some of the languages have undergone the reanalysis, i.e., the ergative languages, and still there are languages, e.g., Maori, which would appear to be undergoing the change. For example, the conditioning environment for the proposed reanalysis exists in the synchronic grammar of Maori.

The evidence for the analysis proposed here for Cree is comparatively fragmentary owing to the time depth at which the hypothesized change would have taken place, i.e., between Proto-Algic and Proto-Algonquian. In the Algic family, there are three languages. Of these, the reanalysis of the passive as an active transitive clause affected Algonquian, which has since diversified into a number of daughter languages, and Wiyot, which is extinct.

5.3. Evidence from Wiyot and Yurok

5.3.1. The evidence from Wiyot

Goddard's (1974) claim that **-ekw-* in Proto-Algonquian and *-ik/uk* in Wiyot are probable cognates means that they likely originated from a single morpheme in the proto-language, i.e., Proto-Algic.

The parallel distributions of the constructions marked by these morphemes would seem to indicate that their ancestor marked a single construction in the proto-language. For example, they are both used in constructions which have two third person arguments, and in which the patient outranks the agent with respect to the empathy hierarchy. In Wiyot the patient must be human. In Proto-Algonquian, **-ekw* was first used to mark inanimate-on-animate and obviative-on-proximate.

Here, I argue that the *-ik/uk* construction in Wiyot, like the inverse in Proto-Algonquian, originated when a passive that existed in Proto-Algic was reanalyzed as an active transitive clause.

5.3.1.1. The reanalysis in Wiyot

I claim that the passive in Proto-Algic was reanalyzed as in Figure 5-5.

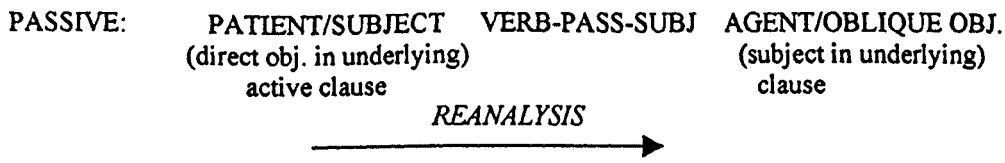

Fig. 5-5. Hypothetical reanalysis in an earlier stage of Wiyot

The patient/subject of the passive is reanalyzed as the patient/direct object of an active transitive construction. The agent/oblique object is reanalyzed as the agent/subject of the active transitive construction. The passive marker *-ik/uk* is reanalyzed as the object marker.

5.3.1.2. Grammatical relations and thematic roles in the *-ik/uk* construction in Wiyot

The reanalysis account for the *-ik/uk* construction in Wiyot is able to account for the association between grammatical roles and thematic relations that exists in this construction in the synchronic grammar of the language. Here, I briefly explain how this is the case.

In Wiyot, the grammatical relations of subject and object are typically expressed by position. In a construction with two NPs, the first NP is the agent/subject and the second is the patient/object. However, as we saw in 4.2.3.1, in the *-ik/uk* construction the patient/object is in the position typically associated with the subject, and the agent/subject is in the position associated with objects/oblique objects.

The construction resulting from the proposed reanalysis in Figure 5-5 has precisely the same word order and association between grammatical relations and thematic roles that exists in the *-ik/uk* construction in the synchronic grammar of the language. The patient/object is in initial position, followed by the verb, while the agent/subject occurs after the verb.

Thus, the proposed reanalysis for Wiyot is able to account for the peculiar association that exists between the grammatical relations and thematic roles in the *-ik/uk* construction.

.3. Constraints on the *-ik/uk* construction

The reanalysis account for Wiyot also accounts for the constraints on this construction that are described by Reichard (1925).

The *-ik/uk* construction in Wiyot is subject to two constraints, these being that: (i) the object/patient must be third person and human, and (ii) that the subject/agent must also be third person.

There is a universal tendency for third person human to outrank all other third persons (Comrie 1980). Since (i) both arguments in the *-ik/uk* construction in Wiyot are third person, and (ii) the patient is human, the *-ik/uk* morpheme is only used in contexts in which the patient shares the same rank as the agent or outranks it. It will never occur in a construction in which the agent outranks the patient, i.e., when the agent is third person human and the patient is third person nonhuman.

As we have seen, there is a universal tendency for languages to prefer constructions in which the subject is the highest-ranking NP in the clause, and instead, this constraint ensures that the subject never outranks the object NP.

However, given the diachronic analysis which I have presented here, the existence of these constraints is easily explained. According to the reanalysis account, the patient NP in the *-ik/uk* construction originated as the subject of a passive construction. Therefore, the constraint that the patient of *-ik/uk* construction must be human would have ensured that the subject, i.e., the patient in the passive, was never outranked. It could have shared the same rank as the oblique object if this argument was also human, but it could never have been outranked.

Given the diachronic analysis I offer here, the constraints on the *-ik/uk* construction in the synchronic grammar of the language can be easily accounted for in terms of a phenomenon we see in many languages of the world, i.e., the tendency for a language to prefer constructions in which the subject is high-ranking with respect to the empathy hierarchy. As we have seen, the passive is a grammatical device that is exploited in some languages to ensure that the subject NP is the highest-ranking NP in the clause in this way.

The hypothesized reanalysis for Wiyot, therefore, accounts for both: (i) the association that exists between the grammatical relations and thematic roles that exists in the *-ik/uk* construction, and (ii) the constraints on this construction in the synchronic grammar of the language.

5.3.1.4. Problem for the reanalysis account for Wiyot

The absence of an oblique marker in the reanalyzed clause is a problem for the reanalysis account for Wiyot, just as it is for the account for Algonquian. However, as discussed in 5.1.3, there is some typological evidence as well as evidence from Yurok, a sister language to both Proto-Algonquian and Wiyot, which suggests that an oblique marker may have existed and been omitted prior to reanalysis.

5.3.2. The evidence from Yurok

5.3.2.1. The passive in Yurok

In 4.3.3, I showed that the passive in Yurok is like the prototypical passive construction since: (i) the patient occurs as the subject, (ii) the agent is usually marked as an oblique object, and (iii) the passive stem is intransitive in the sense that it is marked for agreement with the same suffixes used in the intransitive conjugation (except in the third person).

Thus, the existence of this construction in Yurok could well be representative of a passive that existed in the proto-language, Proto-Algic. The Proto-Algic passive in figure 5-4 is reconstructed based on the Yurok passive.

Moreover, it is significant with respect to the proposed analysis that the agent in the passive in Yurok can be expressed as an oblique object. Clearly, it would seem unlikely that an agentless passive could be reanalyzed as an active construction in the way I have described for Algonquian since there would be no agent/oblique object NP which could be reanalyzed as the subject as in the proposed analysis for Algonquian and in the reanalysis which has taken place in some of the Polynesian languages.

5.3.2.2. The distribution of the passive in Yurok

The distribution of the passive in Yurok may also be used to provide valuable support for the proposed analysis. The passive in Yurok is obligatory in most contexts in which the agent is outranked by the patient, the conditioning environment for the proposed analysis in Proto-Algonquian. This distribution of active and passive may well be representative of the distribution of the active and passive in pre-PA, prior to the reanalysis of that construction as the inverse.

Thus it is the case that the conditioning environment of the proposed analysis actually exists in a sister language of Proto-Algonquian, thereby providing support for the proposed analysis.

5.3.2.3. Comparing the passive in Yurok to the *-ik/uk* construction in Wiyot

5.3.2.3.1. Syntax

In Yurok, word order can be used to mark the grammatical relations of subject and object and when it does, the subject precedes the object in the linear order. In the passive, the patient NP precedes the agent NP, such that, as in the prototypical passive, the patient in the passive is the grammatical subject, while the agent NP, if expressed, occurs as an oblique object. The agent NP is marked as an oblique object by the preposition *mel*.

Similarly, in the *-ik/uk* construction in Wiyot the patient NP occurs in the position typically associated with the subject and the agent NP occurs in the position typically associated with objects/oblique objects.

In this way, then, the syntax of the passive in Yurok parallels the syntax of the *-ik/uk* construction in Wiyot.

5.3.2.3.2. Morphology

As discussed in 4.3.3, in Yurok the passive of transitive verbs is formed by adding a suffix to the active stem, i.e., *-ey-* for *e*-class verbs and *-oy-* for *o*-class verbs (Robins 1958). The passive stem is then marked for person and number agreement with the passive subject, i.e., the thematic patient, giving the structure VERB-PASS-SUBJ.

The third-person form of verbs of both classes are formed by adding *-i?-* to the active stem. Some *e*-class verbs form the passive stem with the suffix *-el-* instead of *-ey-*. Third-person forms of these verbs are formed by adding the suffix *-u?-* to the active stem.

Now compare the morphology of the passive verb in Yurok to the morphology of the verb in the *-ik/-uk* construction in Wiyot.

In the *-ik/-uk* construction, the suffix is suffixed to the verb and is followed by the subject agreement marker *-il*, giving the structure VERB-OBJ-SUBJ.

According to the reanalysis account that I am proposing, the morphology of the passive verb was reanalyzed in Wiyot as follows: VERB-PASS-SUBJ reanalyzed as VERB-OBJ-SUBJ.

The reanalysis of the passive marker as an object marker in the reanalyzed construction in Wiyot seems plausible given that object agreement precedes subject agreement for transitive verbs in both Yurok and Wiyot.

There is one significant difference between the agreement morphology of the passive verb in Yurok and the verb in the *-ik/-uk* construction in Wiyot. The subject agreement in the Yurok passive is for the thematic patient, while in the Wiyot construction it is for the thematic agent. However, this difference is not problematic for the reanalysis account presented here since both NPs in the

reanalyzed construction are third person. The agreement for the third person patient/subject could have been reanalyzed as agreement for the third person agent/subject in the reanalyzed construction, as in Figure 5-6.

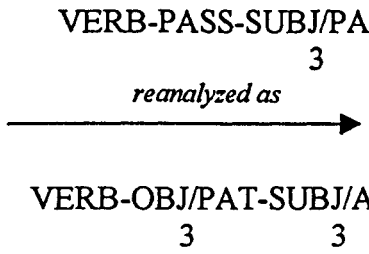

Figure 5-6. Reanalysis of verbal morphology in Wiyot

I can find no evidence to suggest that marker of the passive in Yurok, either *-ey/-oy* or *-i?-/-u?*, is cognate with the morpheme *-ik/-uk* in Wiyot. However, I would still argue that the constructions marked by these morphemes originated from a single construction in the proto-language, that construction being a passive.

5.3.3. *Considering the evidence for a common origin of the inverse in Algonquian, the -ik/uk construction in Wiyot and the passive in Yurok*

I argue that *-ekw* in Proto-Algonquian and *-ik/-uk* in Wiyot are cognate. In addition, I show that (i) there are structural similarities between the *-ik/-uk* construction in Wiyot and the passive in Yurok, and (ii) these constructions and the inverse in Proto-Algonquian have similar distributions in their respective languages. I claim that these constructions have a common origin in the Proto-Algic passive.

5.3.4. *Problems for the proposed common origin of the Algonquian, Wiyot and Yurok constructions*

One problem for the proposed common origin of these constructions is that I am unable to relate the morphemes marking the inverse construction in Proto-Algonquian and the *-ik/-uk* construction in Wiyot to the marker of the passive in Yurok. However, given that I am working at the time depth of Proto-Algic, this is perhaps not surprising.

5.3.5. Alternative analyses

At this point, there are two alternative approaches we may want to consider, one of these being that the inverse marker in Proto-Algonquian and *-ik/-uk* in Wiyot originated as an object marker in the proto-language, and the other that the inverse in Proto-Algonquian, *-ik/-uk* construction in Wiyot, and the passive in Yurok originated as an inverse in the proto-language. Let us begin by considering the first of these.

It is possible that the inverse marker in Proto-Algonquian and *-ik/-uk* in Wiyot originated as an object marker, as *-ik/-uk* is an object marker in the synchronic grammar of Wiyot. This approach, however, would not account for: (i) the constraints on the *-ik/-uk* construction, or (ii) the association between thematic roles and grammatical relations in the *-ik/-uk* construction in the synchronic grammar of the language, as the passive analysis does. This approach also does not account for the distributional parallels between the *-ik/-uk* construction in Wiyot and the passive in Yurok.

The second approach would be to argue that the inverse in Algonquian, the *-ik/-uk* construction in Wiyot, and the passive in Yurok originated as an inverse construction in Proto-Algic.[8] This approach would relate the three constructions in these languages, just as the reanalysis account I propose does. However, it lacks typological support in terms of the type of change proposed and the motivation for this change. Moreover, this approach would involve the development of a more grammatical construction, the inverse, as a less grammatical construction, the passive, and according to the unidirectionality hypothesis of grammaticalization, such changes tend not to occur.

[8] Similarly, Forrest (1991) suggests that an inverse in Bella-Coola (Salish) may have developed as a passive.

5.4. The evidence from Proto-Algonquian and Cree

5.4.1. Evidence from Proto-Algonquian

5.4.1.1. Antiquity of /ekw/

In the diachronic approach that I take, I argue that the inverse marker */ekw/* in Cree originated as a passive marker when, at a much earlier stage in the history of the language, a passive construction marked by */ekw/* was reanalyzed as an active transitive construction.

Goddard (1974) claims that the morpheme */ekw/* was first used in the conjunct order of Proto-Algonquian and that it is a "probable cognate" of the morpheme *-ik/-uk* in Wiyot. This indicates that the origin of this morpheme can probably be traced at least as far back as the ancestral language of Proto-Algonquian and Wiyot, i.e., Proto-Algic. This is significant with respect to the present analysis because it shows that the morpheme */ekw/* appears to have sufficient antiquity to suggest that the proposed analysis is plausible.

5.4.1.2. Origin of */ekw/* in Proto-Algonquian

I claim that the reanalysis of the passive in pre-PA was motivated by the obligatory use of the passive in contexts in which the agent is outranked by the patient.

The inverse marker */ekw/* was first used in the conjunct mode in Proto-Algonquian to mark obviative-on-proximate and inanimate-on-proximate. Therefore, given the hierarchy that exists in the language, i.e., 3prox > 3obv > inan, we can see that the inverse in Proto-Algonquian was first used in constructions in which the agent was outranked by the patient, precisely the conditioning environment for the proposed reanalysis.

5.4.2. Evidence from the morphology of Cree

5.4.2.1. The morphology of inverse forms in the third person set

As discussed in 3.5.1, Wolfart (1991) likens inverse forms in the third person set of the independent order to passive forms. These forms show agreement

only for the patient thematic role. Since they are not marked for agreement with the agent, and are therefore marked only for a single argument, they are morphologically intransitive.

Similarly, forms in the third person set of the conjunct order are marked only for the patient argument, as in the examples in (16).

(16) a. *ê-wâpamikot* 'he [obv] sees him [prox]'

b. *ê-wâpamikocik* 'he [obv] sees them [prox]'

c. *ê-wâpamikoyit* 'he [obv] sees him [obv]'
(Dahlstrom 1991, 45-47)

In each of the forms in (16), the suffix *-t* indicates that the patient is third person and there is no agreement for the agent. In (16b), the suffix *-ik* indicates that the third person patient is plural, and in (16c), the suffix *-iyi-* indicates that the third person patient is obviative.

One explanation for the similarity of the inverse construction in the third person set (in the independent and conjunct orders) to a passive construction, then, is that the inverse originated as a passive. There are two potential problems for this analysis.

One potential problem is that while inverse forms in the third person set have passive-like morphology, inverse forms in the mixed set and non-third person set are marked with agreement for the agent.

As we saw in 3.4.3.1, it is the morphology of these forms, i.e., inverse forms in the mixed set and non-third person set, that is problematic for Jolley's (1982) analysis of inverse forms in Cree as passives because these forms are marked for agreement with the agent.

In his survey of forms which may be analyzed as passive, Wolfart (1991) concludes that of the three constructions he considers, these being, inverse forms in the mixed and third person sets and indefinite agent forms, the inverse

forms in the mixed set are the least passive-like as they are marked with agreement for both agent and patient (cf. 3.5.1).

Inverse forms in the mixed and non-third person sets are not problematic, however, given the diachronic analysis I offer in this chapter. If passive applied in contexts in which the agent was outranked by the patient, but only within the category of third person, then the forms in the third person set could be expected to differ morphologically from the forms in the mixed set and non-third person set precisely as they do in the synchronic grammar of the language. Thus, there are historical reasons why the "passive analysis" works well for forms in the third person set, but not for inverse forms in the mixed and non-third person sets.

A second potential problem concerns the morphology of direct forms in the third person set. These forms are also marked for agreement with a single argument, in this case the agent, as in the example below.

(16) *wâpam- ê- w*
see direct 3
'he [prox] sees him [obv]'
(Dahlstrom 1991, 45)

The direct form in (16) is marked for the third person agent with the suffix *-w*. There is no agreement for the patient argument.

The fact that direct forms in the third person set, like inverse forms in this set, are also marked only for a single argument would appear to weaken the argument that inverse forms in this set are morphologically like passive forms. Moreover, given the analysis presented here in which I claim that inverse forms originated as passives and direct forms as active transitive forms, we would have expected that direct forms would be active transitive forms marked for both agent and patient.

Interestingly, however, there is evidence, particularly from the grammars of Wiyot, Yurok and Proto-Algonquian which suggests that active verbs were in

fact marked for both subject and object in Proto-Algic. In this way, direct markers would have originated as object markers.[9] I consider this evidence here.

First, as we saw for Wiyot in 4.2.1, transitive verbs are marked with suffixes for object agreement and subject agreement, respectively. Similarly, as we saw for Yurok in 4.3.1, active transitive verbs are marked with suffixes for object agreement and subject agreement, respectively. Thus, as two of the three Algic languages are morphologically V + OBJ + SUBJ, it is probable that active transitive forms in Proto-Algic had this agreement pattern.

Second, as we saw 4.1.4, according to Goddard (1979a), the theme signs *-*i* and *-*eθ* in Proto-Algonquian marked all forms with first person and second person object, respectively, throughout the conjunct. This indicates that in Proto-Algonquian, these morphemes functioned as object markers, rather than theme signs. Moreover, as we have seen, the conjunct order is more likely to be indicative of the proto-language, suggesting that these morphemes were in fact object markers in Proto-Algic.

Thus, I would argue that direct markers existed as object markers of active transitive forms prior to the reanalysis, and therefore that the passive-like morphology of inverse forms in the third person set can in fact be used to support the hypothesis that inverse forms originated as passives.

5.4.2.2. Evidence for */ekw/* as a passive marker - the derivational suffixes

According to Chung (1978), constructions which she refers to as "relics" or "archaisms" are of particular importance where internal reconstruction is concerned.

> These are constructions that are unmotivated or restricted synchronically, but can be explained as survivors of motivated or general constructions from an earlier stage of the language. In other words, they are exceptions that cease to be exceptional when placed in the context of a historical proposal (Chung 1978, 267).

[9] Jolley (1982) claims that direct markers are object markers in the synchronic grammar of the language. Her claim, though not true of the synchronic grammar of the language, is appropriate for an earlier stage of the language.

Chung (1978) has suggested that derivational suffixes are more marginal and less productive, and that forms of this type are more likely to be indicative of the earlier function of a morpheme.

The use of three complex derivational suffixes in modern-day Cree, each of which is formed with the inverse marker */ekw/* (Wolfart 1973), suggests that the inverse morpheme was a passive morpheme at an earlier stage in the history of the language. Each of these complex derivational suffixes adds a passive-like meaning to the stem to which it is added.

The inverse morpheme forms part of the complex finals *-ikosi-* and *-ikwan-*, the other elements in these suffixes being the intransitive abstract finals *-isi-* and *-an-* respectively. Wolfart (1991) states that the passive meaning of the inverse marker is evident in the derivation of forms using these suffixes.

> The suffix *-iko-* which in Plains Cree appears in the marked member of the opposition occurs in a variety of other contexts as well; its passive meaning is particularly obvious in the derivation of intransitive stems such as, *ohcinâkosi* 'be (animate) seen from there', *itihtâkwan* 'be (inanimate) heard thus' (Wolfart 1991, 173).

The suffix *-ikosi-* derives forms that Wolfart (1973) refers to as medio-passives from transitive animate (TA) verbs. For example, the medio-passive form *itêyihtâkosiw* 'he is thus thought of' is derived from the TA stem *itêyihtaw-* 'think so of someone.'

Similarly, Bloomfield (1925, 137) reconstructs Proto-Algonquian **te:pehta:kwesiwa* 'he is audible within hearing' which has the suffixes **-ekw-* and **-esi-* which he glosses as 'undergoing' and 'animate intransitive,' respectively.

Finally, Wolfart (1973, 71) finds that "*-isi-* and *-an-* further combine with a longer alternant of the inverse marker */ekw/* to form the complex final *-ikowisi-* 'action by the supernatural powers'." He gives the example *itêyimikôwisiw* 'he is thus thought of by the supernatural powers,' from *itêyim-* 'think so of someone.'

Forms derived with *-ikowisi-* are also passive-like in meaning. In fact, Wolfart (1991, 174) states with respect to these forms that "more than merely passive in meaning, these verbs express a state of impotence or submission (perhaps even grace)." In addition, forms derived with *-ikowisi-* are syntactically passive-like since they involve a reduction in valency and because the subject of the derived form corresponds to the object of the underived form.

Thus, the passive function of *-ekw-* in the derivational forms may well represent the earlier function of the inverse marker.

Therefore, the use of the derivational morphemes with */ekw/* in Cree supports the diachronic analysis presented here, i.e., at an earlier time in the history of the language */ekw/* marked a productive passive construction.

5.5. General typological evidence

5.5.1. Context of use

One type of general typological evidence which can be used to support the proposed development concerns the context in which passive and inverse are used in the world's languages. In many languages, passives exhibit the same type of morphosyntactic sensitivity to the empathy hierarchy that characterizes the inverse. In these languages, passives, like inverse constructions in a direct/inverse system, are used in contexts in which the agent is outranked by the patient.

This overlap with respect to context of use between passive and inverse constructions can be explained by the reanalysis account. Inverse constructions are used in the same context as passives in some languages because they can originate as passives that are obligatory when the agent is outranked by the patient.[10]

[10] While I suggest that one source of inverse constructions may be passives, I do not mean to imply that that there are not other source constructions for the inverse. I do not consider other source constructions for the inverse in this paper.

5.5.2. Morphological overlap

A second type of general typological evidence which may be used to support the proposed analysis concerns the morphological overlap which exists between passive and inverse constructions in the languages of the world. The diachronic approach to the passive and inverse proposed here can account for this overlap.

According to this approach, there is morphological overlap between passive and inverse because some inverse constructions originate as passives. Here, I consider how this approach specifically accounts for the types of morphological overlap that were discussed in 2.3.

5.5.2.1. Passive and inverse are both the more marked members of their respective oppositions

I showed that passive and inverse verbs are the more marked members of their respective oppositions, i.e., the passive verb tends to be universally more morphologically marked than the active, and the inverse verb tends to be more marked than the verb in the direct construction. According to the approach taken here, direct/inverse oppositions can originate as active/passive oppositions; therefore the direct verb, like the active verb, is typically unmarked, while the inverse verb, like the passive verb, is typically marked.

5.5.2.2. The inverse agent in some languages is marked as an oblique object

According to Givón (1994), the agent in the inverse in some languages is marked as an oblique object. In these languages, then, the agent in the inverse is marked like the agent in the prototypical passive. I gave examples from Northwest Sahaptin (Givón 1994) which illustrate that the agent NP in both types of inverse construction in that language is marked with a morpheme that originated as an oblique object marker.

Given the approach presented here, I would argue that it is possible that the agent NP in both inverse constructions in Northwest Sahaptin is marked like

the agent NP in a passive because the inverse constructions originated as passives in an earlier stage in the history of the language.

Interestingly, the inverse in Northwest Sahaptin is paralleled by an ergative construction in a closely related language, Nez Perce (also a Sahaptian language). In Northwest Sahaptin the suffix *-nim* is the marker of the agent in the inverse, originating as an oblique agent marker meaning 'hither.' The cognate of this morpheme in Nez Perce is the ergative NP suffix *-nim* (Givón 1994).

In 5.2, I discussed Chung's (1978) analysis for languages of the Polynesian family in which she claims that the ergative constructions in some of the languages in this family originated as passive constructions and the ergative NP marker originated as the oblique object marker. It is possible that the ergative construction in Nez Perce and the inverse in Northwest Sahaptin both developed from a passive that existed in the ancestral language.[11]

In 5.2.6, I argued that the passive-to-inverse development proposed here for Proto-Algonquian parallels the passive-to-ergative development in the ergative Polynesian languages. It may well be that each of these developments, i.e., passive-to- inverse and passive-to-ergative, has taken place in a single family, i.e., Sahaptin. This would seem to provide support for the proposed analysis. At the very least it would support my claim that the proposed passive to inverse change and the passive to ergative change in the Polynesian languages are parallel developments.

5.5.2.3. The passive agent not marked as an oblique object

In some languages the agent in the passive is sometimes not marked as an oblique object. Where this occurs, the passive construction in these languages is like the prototypical inverse in that the agent is not marked as an oblique

[11] According to Givón (1994), the ergative in Nez Perce arose by means of an inverse-to- ergative development. Givón suggests that the inverse marker in Northwest Sahaptin originated as the marker of an impersonal passive construction to which an oblique object was added.

object and the construction is transitive. I discussed the following as languages of this type: Lummi (Coast Salish); Yurok (Algic); and Nitinat, Nootka and Makah (Nootkan).

For Lummi, Jelinek and Demers (1983, 183) suggest that this construction may be "developing toward or away from an inverse-marking system."

Interestingly, in each of these languages, the passive is obligatory in contexts in which the agent is outranked by the patient. It may well be that the passive constructions in these languages are developing along the passive-to-inverse path proposed here for Cree and that first the passive becomes obligatory in contexts in which the agent is outranked by the patient and then is reanalyzed as an active transitive clause, i.e., the inverse.

5.5.3. Functional overlap

A third type of general typological evidence which may be used to support the proposed analysis concerns the functional overlap which exists between passive and inverse constructions in the languages of the world.

One of the defining functional characteristics of the passive, i.e., that it makes the patient more topical, is also a defining functional characteristic of the inverse. The diachronic approach proposed here for passive and inverse constructions is able to account for the overlap in function between these constructions. According to this approach, the functional overlap between passive and inverse constructions exists because inverse constructions originated as passives.

5.6. Conclusion

There is evidence suggesting that *-ekw* in Algonquian and *-ik/-uk* in Wiyot are cognate, supported by distributional evidence which suggest that they marked a single construction in the proto-language. Then, in turn, there is distributional evidence to suggest that the *-ik/-uk* construction and the passive originated as a

single construction in Proto-Algic. Finally, the constraints on the Wiyot construction, and the morphological evidence from Cree suggest that this construction was a passive.

According to the approach taken here, the inverse in Cree is morphologically like a passive because it originated as a passive, but syntactically like an inverse because the original passive was reanalyzed as an active transitive clause.

CHAPTER 6
CONCLUSION

6.0. Introduction

In this thesis, I argue that the inverse in Cree originated from a passive construction that existed at a much earlier time in the history of the language. In this chapter, I summarize the evidence in support of this analysis. In addition, I look at the advantages to this approach for the analysis of the inverse in Cree and at some of the implications that this approach has for the study of language more generally. Finally, I identify some of the questions for further research that arise from the proposed analysis.

6.1. Evidence in support of the account

6.1.1. Evidence that /ekw/ marked a passive in Proto-Algic

First, the fact that a passive construction exists in a sister language of Proto-Algonquian, i.e., Yurok, suggests that a passive construction may have existed in Proto-Algic.

Second, the fact that Goddard (1974) identifies an "apparent cognate" of */ekw/* in Wiyot suggests that the morpheme */ekw/* can be traced back to the ancestral language of Proto-Algonquian and Wiyot, i.e., Proto-Algic.

6.1.2. Evidence for the conditioning environment

There is evidence which suggests that the hypothesized conditioning environment for the proposed analysis, i.e., the obligatory use of the passive in contexts in which the agent is outranked by the patient, may have existed in pre-Proto-Algonquian.

In Yurok the active is obligatory in most contexts in which the agent outranks the patient and the passive is obligatory in most contexts in which the agent is outranked by the patient. Since Yurok is a sister language to Proto-

Algonquian, it is therefore plausible that the same distribution of active and passive may have existed in Proto-Algic.

Second, the constraints on the *-uk/-ik* construction in Wiyot suggest that this construction originated as a passive in which the subject/patient is never outranked by the oblique object/agent.

Third, Goddard (1974) claims that the morpheme */ekw/* was first used in the conjunct order of Proto-Algonquian to mark obviative on proximate and inanimate on proximate. Given the hierarchy for third person which exists in the language, i.e., 3 > 3′ > 0, */ekw/* actually originated in contexts in which the agent was outranked by the patient, thereby providing further support for the hypothesized conditioning environment.

Finally, there is general typological evidence which suggests that this conditioning environment may have existed in pre-PA. In many languages, e.g., Picurís, Arizona Tewa (Tanoan); Lummi, Squamish, Lushootseed (Coast Salish); and Nitinat, Nootka, Makah (Nootkan), the active is obligatory when the agent outranks the patient and the passive is obligatory when the agent is outranked by the patient. Therefore, the hypothesized conditioning environment, i.e., the obligatory use of the passive in contexts in which the agent is outranked by the patient, is highly plausible.

6.1.3. Motivation for the proposed change

Chung's reanalysis for the ergative Polynesian languages offers plausible motivation for the proposed reanalysis. Specifically, the reanalysis of the passive as an active transitive clause was likely motivated by the obligatory use of the passive in contexts in which the agent is outranked by the patient.

When the passive is obligatory it becomes opaque to the speakers of the language, i.e., it is no longer associated with the semantic and discourse conditions that typically determine when the passive is used. Moreover, when

the passive is obligatory, it is no longer a passive in the sense that there is no corresponding active construction.

Also, the passive construction is ambiguous in that it may be interpreted in terms of its underlying structure or its surface structure. The passive is reanalyzed in terms of its structure in the unmarked context, i.e., the agent is the subject and patient is the direct object.

6.1.4. Typological evidence

Chung (1978) documents the specific type of change proposed here for some of the languages in the Polynesian family, i.e., those that have ergative case marking systems. The proposed analysis parallels Chung's analysis with respect to both the type of change and the motivation for the hypothesized change. This suggests that such a reanalysis may have taken place in pre-PA as well.

In addition, the analysis proposed here is supported by general typological evidence. If inverse constructions typically originate as passives, we would expect to find the type of overlap that exists between these constructions in the languages of the world.

6.2. Why take this approach to the analysis of the inverse in Cree

The fact that the inverse in Cree is morphologically like a passive but syntactically like an active transitive construction has contributed to the controversy which has surrounded the analysis of this construction. This, however, can be explained by the diachronic analysis offered here. The inverse is morphologically like a passive because it originated as a passive, but it is syntactically an active transitive construction because the passive has been reanalyzed in terms of its underlying structure.

One advantage, then, to the proposed analysis is that is explains why the inverse in Cree is morphologically like a passive but syntactically active. In this way, we incorporate the insights of the various theorists who have

analyzed this construction and explain why it is that the analysis of this construction has been problematic.

6.3. General implications of the analysis

The analysis proposed here for Cree may have implications with respect to the analysis of inverse constructions in other languages. If the inverse in Cree originated as a passive, it is possible that the passive is a typical source construction for inverse constructions.

The proposed analysis also has implications for the use of grammaticalization as a framework for linguistic analysis.

The grammaticalization framework can accommodate the type of change proposed here. Rather than view the inverse and passive as two separate categories, we are able to describe them in terms of prototypes, or in terms central characteristics of these constructions which can be viewed as existing as different points on a continuum of related construction.

Different constructions in different languages may exist at various points along this continuum. For example, the passive in Yurok is like the inverse in some ways, e.g., it is used in the same context in which the inverse is used, but it has more characteristics in common with the passive, i.e., it is an intransitive construction in which the subject is the patient and the agent is marked as an oblique object.

On the other hand, the inverse in Cree is morphologically like a passive in some respects, but it has more characteristics in common with the prototypical inverse construction, e.g., it is a transitive construction in which the agent is the subject and the patient is the object.

The proposed analysis, therefore, provides support for the grammaticalization approach to language study. A theory of language that views the inverse and passive as separate, unrelated constructions from a synchronic perspective: (i)

can not explain why the inverse is Cree is morphologically like a passive, but syntactically like an inverse, and (ii) can not accommodate the type of change proposed here.

6.4. Questions for further study

The proposed analysis raises several interesting questions for further study.

First, this analysis does not address the origin of the system of obviation that Cree inherited from Proto-Algonquian. This type of system does not exist in Yurok or Wiyot. Interestingly, obviation exists only in the Algic language which has an inverse system, i.e., Proto-Algonquian, and its descendents. One area for further study would then concern the origin of obviation; in particular, it might address whether or not the origin of obviation is tied into the origin of the inverse.

Second, as we saw, the morpheme *-ik/-uk* in Wiyot is analyzed as an object marker in both Reichard (1925) and Teeter (1964). I briefly explored the possibility that the construction marked by *-ik/-uk* in Wiyot also originated as a passive which has been reanalyzed as an active transitive clause. I believe this is an area that merits further study. In addition, I have no account as to why the morpheme in the reanalyzed construction in Wiyot is an object marker, while the morpheme in the reanalyzed construction in Proto-Algonquian is an inverse marker.

Third, as we saw, there are languages in which the passive is obligatory in contexts in which the agent is outranked by the patient. In these languages, we might expect that the passive will develop as an inverse in these languages.

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