THE SYNTAX AND SEMANTICS OF CLAUSE–TYPING IN PLAINS CREE

by

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Abstract

This thesis proposes that there are two kinds of clauses: indexical clauses, which are evaluated with respect to the speech situation; and anaphoric clauses, which are evaluated with respect to a contextually-given (anaphoric) situation. Empirical motivation for this claim comes from the clause-typing system of Plains Cree, an Algonquian language spoken on the Canadian plains, which morpho-syntactically distinguishes between two types of clauses traditionally called INDEPENDENT and CONJUNCT orders. In the current analysis, the INDEPENDENT order instantiates indexical clauses, and the CONJUNCT order instantiates anaphoric clauses.

After laying out the proposal (chapter 1) and establishing the morphosyntax of Plains Cree CPs (chapter 2), the remaining chapters discuss the proposal in detail.

Chapter 3 focusses on the syntax and semantics of indexical clauses (Plains Cree's INDEPENDENT order). Syntactically, I show that there is an anti-c-command and an anti-precedence condition on indexical clauses. Semantically, I show that indexical clauses are always and only evaluated with respect to the speech situation, including the speech time (temporal anchoring), speech place (spatial anchoring), and speaker (referential anchoring).

Chapter 4 focusses on the syntax and semantics of anaphoric clauses (Plains Cree's CONJUNCT order). Syntactically, I show that anaphoric clauses must always be either preceded or dominated by some other antecedent clause. Semantically, I show that the value of temporal/spatial/referential dependent elements within an anaphoric clause is determined by an antecedent.

Chapter 5 turns to the syntactic sub-classification of Plains Cree's CONJUNCT (i.e., anaphoric) clauses. I propose that there are three classes: chained clauses, adjunct clauses, and mediated argument clauses. I provide two kinds of diagnostics that distinguish these classes, and explore the consequences of this classification for argument clauses and complementation.

Finally, Chapter 6 proposes a semantic sub-classification of Plains Cree's CONJUNCT (i.e., anaphoric) clauses. I propose that there is a direct mapping between the morphology and the semantics: one complementizer encodes presupposition of the proposition, the lack of a complementizer encodes a-veridicality of the proposition, and one complementizer is semantically unspecified (the elsewhere case). This means that Plains Cree's clause-typing is fundamentally concerned with how the truth of the proposition is represented.

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Abbreviations

0	=	inanimate (agreement)
1	=	1st person
1>2	=	1st person acts on 2nd person
1>3	=	1st person acts on 3rd person
2	=	2nd person
2>1	=	2nd person acts on 1st person
2>3	=	2nd person acts on 3rd person
3	=	3rd person
3>1	=	3rd person acts on 1st person
3>2	=	3rd person acts on 2nd person
AN	=	animate
APPL	=	applicative
BEN	=	benefactive
C1	=	changed conjunct 1
C2	=	changed conjunct 2
CONJ	=	conjunctive
CONN	=	connective
COME	=	directional towards origo
DEIC	=	deictic
DEM	=	demonstrative
DIR	=	direct
DJ	=	disjoint argument
DS	=	different subject
DUB	=	dubitative
DUR	=	durative
EMPH	=	emphatic
EPEN	=	epenthetic
EVID	=	evidential
FUT	=	future
GO	=	direction away from origo
HAB	=	habitual
HES	=	hesitation
HORT	=	hortative
IC	=	internal change
IMP	=	imperfective
INAN	=	inanimate
INCEP	=	inceptive
INV	=	inverse
IRR	=	irrealis
PERF	=	perfective
PV	=	preverb marker
INC	=	inceptive
INDIC	=	indicative
INT	=	intend
IRR	=	irrealis
LOC	=	locative
MIDST	=	on-going action
MOD	=	modifier
NEG	=	negation
NOM	=	nominalizer
OBV	=	obviative
ORIG	=	origin
PL	=	plural
Q	=	interrogative
QUANT	=	quantifier
PL	=	plural
PREV	=	previous
PV	=	preverb
RAT	=	rationale
RED	=	reduplication
REFLX	=	reflexive
REL	=	relative clause marker
REMP	=	remote past
RR	=	relative root
SAP	=	speech act participant
SG	=	singular
SIM	=	simultaneous
SUBJ	=	subjunctive
SUBJ1	=	subjunctive 1
SUBJ2	=	subjunctive 2
TEMP	=	temporal
TOP	=	topic marker
USC	=	unspecified subject construction
VAI	=	verb, animate intransitive
VII	=	verb, inanimate intransitive
VTA	=	verb, transitive animate
VTI	=	verb, transitive inanimate
WH	=	wh-word

Symbols

*	=	string is ill-formed
!	=	string is well-formed, but cannot have the intended interpretation
#	=	string is well-fomed, but infelicitous in the given context
∃	=	existential quantifier
∀	=	universal quantifier
¬	=	negation
<	=	temporally precedes
[ ]	=	constituency brackets
CP	=	complementizer phrase
DP	=	determiner phrase
F	=	function
IP	=	inflectional phrase
Op	=	operator
p	=	proposition
S	=	speaker
s	=	situation variable
T	=	time
t	=	trace
vbl	=	variable
VP	=	verb phrase

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Plains Cree is a beautiful language. My heartfelt thanks go first to the people that speak it who have been so patient and generous with me over the past five years as I tried both to learn it and to learn about it. I first heard Plains Cree when I took a conversational class at the University of Alberta; ***Dorothy Thunder*** always encouraged my efforts and made the class fun. ***Wally Awasis*** not only put up with my really long (and often bizarre!) constructed sentences, but told great jokes and sang beautiful songs. ***Josephine Small*** shared her time generously amid a schedule that would already be too much for most people. I appreciated ***Rita Daniels'*** warm hospitality and openness to almost total strangers when we visited her (including the bannock lessons). She told lovely stories and made Plains Cree feel 'real.' The early morning conversations and work sessions with ***Joseph Deschamps*** in Alberta were the basis for many of the ideas in this thesis, and also made life seem better. ***Toni Cardinal*** always seemed to know what question I was trying to ask, and even better, how to answer it. Her clear thinking, patience, and steadfastness brought this work together. I hope some of what they have tried to teach me is captured in these pages.

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Nature gives most of her evidence in answer to the questions we ask her.

Here, as in the courts, the character of the evidence depends on the shape of the examination, and a good cross-examiner can do wonders. He will not indeed elicit falsehoods from an honest witness. But, in relation to the total truth in the witness's mind, the structure of the examination is like a stencil. It determines how much of that total truth will appear and what pattern it will suggest.

C.S. Lewis
The Discarded Image

CHAPTER 1
INDEXICAL VERSUS ANAPHORIC CPS

1.1 Proposal: Indexical vs. anaphoric CPs

This thesis proposes that there is a fundamental division between sentence-types (CPs) which anchor to the speech act, and those which do not. I call the first type *indexical* CPs: these are sentences which are obligatorily interpreted deictically – with respect to the speaker, the speech time, and the speech place (Bühler 1934, Bar-Hillel 1954, Fillmore 1975, 1982, Ehlich 1982, Kaplan 1989, Schlenker 2003).

(1) $CP_{indexical}$

I call the second type of CP *anaphoric*. Anaphoric CPs are interpreted with respect to some other element; just as anaphoric expressions are interpreted relative to an antecedent (Bühler 1934, Ross 1967, Langacker 1969, Fillmore 1975, Reinhart 1976), so with anaphoric CPs.

(2) $XP_{antecedent}$ … $CP_{anaphoric}$

Starting with the idea that a proposition cannot be evaluated until it is given a context (Austin 1950, Barwise 1981), I model the difference between indexical and anaphoric clauses within a situation semantics framework as a difference in the value of the situation. With indexical clauses the proposition is evaluated with respect to the speech situation (s_0). With anaphoric clauses, the situation is not specified – rather it is anaphorically given (s).

(3) a. INDEXICAL CP b. ANAPHORIC CP

The division between indexical and anaphoric CPs is motivated on the basis of the clause-typing system of Plains Cree, an Algonquian language spoken on the plains of western Canada and the United States. Plains Cree has an explicit clause-typing system whereby every clause is morpho-syntactically coded for its clause-typing status. For example, a clause can have two entirely different sets of inflectional morphology, depending on whether it is in the INDEPENDENT or CONJUNCT order. In (4a) there is a first-person morpheme *ni-* preceding the stem *wâpam* 'x sees animate'; a grammatical function coding morpheme *-â*, and a third-person element *-w*. In (4b), the *ni-* has been replaced by the element *ê-*, and the two morphemes *-â* and *-w* have been replaced by a single morpheme coding a first-person subject and a third-person object.

(4) Plains Cree (Algonquian)

a. **ni**wâpam**âw** atim INDEPENDENT
ni- wâpam -â -w atim
1- see.VTA -DIR-3 dog
'I see a dog.'

b. **ê**-wâpam**ak** atim CONJUNCT
ê- wâpam -ak atim
C1-see.VTA -1>3 dog
'… I see a dog.'

INDEPENDENT order clauses are restricted only to (a subset of) matrix clauses, and instantiate what I am calling indexical clauses. I will show that they are associated with a particular set of semantic properties deriving from their anchoring to the speech act: they are interpreted relative to the speech time, speech place, and the speaker.

CONJUNCT clauses have a much wider distribution, which depends on a further subdivision determined by the affixes on the left and right edges of the clause. All CONJUNCT clauses can be embedded; those with the left-edge *ê-* morpheme may also occur in matrix clauses – but, as I argue, without the deictic properties of INDEPENDENT clauses. CONJUNCT clauses, as a class, instantiate what I am calling anaphoric clauses: they are licensed either by a linguistic antecedent or by a shared context (cf. Fillmore 1975, Reinhart 2003, Kratzer 2007). Anaphoric CONJUNCT clauses differ in how this licensing is achieved; some specifically require subordination to an antecedent, while others do not.

1.2 Relation to previous work

The clause-typing distinction between indexical and anaphoric CPs is connected to – and therefore brings together – several distinct fields that have had significant previous research, including clause-typing (§1.1.1, 1.1.2), indexicality (§1.1.3), anaphora (§1.1.4), and Algonquian linguistics (§1.1.5).

1.2.1 Connection to the matrix/embedded distinction

The indexical versus anaphoric distinction cross-cuts the familiar division between matrix and embedded clauses (Hockett 1958) that has been discussed for many Indo-European languages. For Plains Cree, this means that the INDEPENDENT/CONJUNCT clause-typing system does not directly map onto the matrix/embedded distinction (cf. §2.3). Cross-linguistically, I expect that clauses which are morpho-syntactically or syntactically typed as matrix clauses will subclassify into indexical and anaphoric clauses, as in table 1.1.

	Matrix	Embedded
Indexical	✔	✖
Anaphoric	✔	✔

Table 1.1. Indexicality *vs*. embedding

In addition, the properties of anaphoric clauses – which can occur in both matrix and embedded contexts – have properties in common with clauses that participate in clause-chaining (Longacre 1983, Finer 1985, Stirling 1993, among many others), but does not have to stipulate these chains as a special kind of clause (cf. Givón 2001). Both of these issues are addressed in chapter 4.

1.2.2 Connection to illocutionary force

The distinction between indexical and anaphoric clauses also cross-cuts illocutionary force (i.e., the distinction between declaratives, interrogatives, and/or imperatives; cf. Cheng 1991,

Chomsky 1995, Rizzi 1997, Portner 1999). This means that Plains Cree's INDEPENDENT/CONJUNCT clause-typing system will not map directly onto illocutionary force; for example, both indexical and anaphoric clauses may in principle be (and in Plains Cree, are) declarative or interrogative.

1.2.3 Parallel between indexical CPs and indexical expressions

Indexical expressions go back at least as far as Bühler (1934), and are defined for the purposes of this thesis as in (5), following Bühler (1934), Bar-Hillel (1954), Fillmore (1975), and Kaplan (1989), among many others.

(5) **Indexical expression**$_{def}$: a linguistic element whose interpretation requires identification of the speaker, speech time and/or speech location

Typical English indexical expressions include pronominal *I* as well as spatial and temporal relation to the speech act (i.e., the here and now; cf. Bühler 1934, Bar-Hillel 1954).

Since an indexical expression looks to the speech act for its interpretation, it is a particular kind of deictic (from Greek δεικ- 'point out') expression, as defined in (6) (cf. Fillmore 1975, Kaplan 1989, Green 1989, Nunberg 1993, Schlenker 2003).

(6) **Deictic expression**$_{def}$: a linguistic element whose interpretation requires pointing to some aspect of the context in which it is used

Claiming that a clause is indexical therefore means that it has the same pointing function to the speech act that any other indexical expression has. In this thesis, I argue that Plains Cree's INDEPENDENT order morpho-syntactically codes such a clause and does in fact have this pointing function.

Claiming that clause-typing codes a relation to the speech act relates in significant ways to the debate about the syntactic representation of 'speech-act' elements. This is most clearly seen in the tense literature, where reference to the *speech time* goes back at least as far as Paul 1886, and has been used in literally countless syntactic and semantic analyses since (in chronological order: Reichenbach 1947, Klein 1994, Kamp 1981, Stowell 1982, Kamp & Rohrer 1983; Enc 1987, Stowell 1995, Abusch 1998, Demirdache & Uribe-Etxebarria 2000, among

many others). In the current work, temporal deixis on the speech time is taken to be part of the general deixis on the speech situation (cf. Kratzer 2007). Similarly, there is much current work on the representation of a speaker or a speech-act-phrase; this is apparent particularly in the evidential literature (cf. Cinque 1994, Rivero 1994, Rizzi 1997, Speas & Tenny 2003, 2005), but also in work on speaker-oriented truth (Lasersohn 2005, Stephenson 2007), and in the linguistic structure of discourse (Banfield 1982, Smith 2003).

In Plains Cree, all of these phenomena are associated with a particular clause-type, and thus the work reported on here – and the analysis pursued – is an attempt to show how these concepts might be linked. In particular, I model these relations within a situation semantics framework, where every proposition must be evaluated with respect to a situation (Austin 1950, Barwise 1981, Barwise & Perry 1983, Barwise & Etchemendy 1987, Kratzer 2007a). I argue that in an indexical clause this situation as the speech situation[1]. Following Kratzer (1989, 2007a), I define a situation *s* as a partial world, where a partial world is a domain for truth evaluation that does not necessarily contain truth values for all possible propositions.

(7) **Situation**$_{def}$: a partial world

Within this framework, propositions are evaluated relative to situations. The speech situation s_0 is simply a situation in which someone is speaking. When we think about what would be necessary for a situation to be called a speech situation, we would minimally need to include the individuals who are doing the speaking and hearing (i.e., the Speaker and Hearer); the time at which the speaking occurred (i.e., Speech Time), and the place at which the speaking occurred (i.e., Speech Location). The definition of a speech situation is given in (8).

(8) **Speech situation**$_{def}$: a situation minimally involving (i) the Speaker/Hearer; (ii) the Speech Time; and (iii) the Speech Location

A speech situation thus captures the relation between, for example, temporal effects and person effects.

[1] See Kaplan 1989 for a treatment of indexicals in *contexts*, rather than *situations*.

1.2.4 Parallel between anaphoric CPs and anaphoric expressions

Anaphoric expressions have also been an enormous research topic in linguistics. Working on pronominal forms in English, there are as many proposals about the relevant principles governing the licensing of anaphora as there are linguists, where licensing is defined as in (9).

(9) **Licensing**$_{def}$: an element α is licensed iff there is some element β able to serve as its context of interpretation

Fillmore (1975) provides discussion of how anaphora can be licensed both by an antecedent (*antecedence* licensing), and in the absence of a linguistic antecedent (shared context, termed *symbolic* licensing). There is general agreement that the latter case is not an entirely separate licensing mechanism from the first case (Heim & Kratzer 1998, Reinhart 2003); however, most of the work has tried to specify the conditions on the first mechanism, antecedence licensing. In particular, there have been disagreements about whether anaphora can be accounted for strictly by notions of hierarchy (e.g., the antecedent c-commands the anaphor; see Reinhart 1976, 1983, Kayne 1994), or whether both hierarchy and precedence (e.g., the antecedent precedes the anaphor) are relevant (Langacker 1967, Ross 1967, 1969, McCawley 1988, Carden 1986, Williams 1997). There is also disagreement as to whether anaphora have special properties (this seems to be the standard position), or whether they are an elsewhere case (as explicitly argued in McCawley 1970 and Williams 1997).

This thesis contributes to the discussion in at least three ways. First, it extends the discussion of pronominal anaphora into the domain of clauses by claiming that there is a particular kind of clause that can host (both antecedence and symbolic) anaphoric relations. Second, it explicitly claims that anaphoric clauses are an elsewhere case: anaphoric clauses occur in contexts where an indexical clause fails to occur. Third, the data set considered here has the same licensing conditions as discussed by Carden (1986) and Williams (1997): i.e., c-command and precedence are split into separate conditions, with some anaphoric clauses needing only precedence, some needing only c-command, and others requiring both.

1.2.5 Connection to the INDEPENDENT/CONJUNCT contrast

Within Algonquian linguistics, the distinction in clause-typing discussed in this thesis has been difficult to understand and analyze, despite a relatively long history of linguistic work on Plains Cree (Howse 1865, Lacombe 1874, Bloomfield 1928, Wolfart 1973, Dahlstrom 1991, Ogg 1991, Wolfart & Carroll 1996, Blain 1997, Long 1999, Hirose 1999) and related languages (in particular Reinholtz 1996, 1999, 2007 for Swampy Cree). It is hoped that the analysis developed here for Plains Cree's INDEPENDENT/CONJUNCT distinction will serve as a basis for a more fine-grained description and analysis of the function of clause-typing across the Algonquian language family. In particular, while the INDEPENDENT/CONJUNCT contrast in Plains Cree maps in a one-to-one fashion to the indexical/anaphoric contrast (language 1 in table 1.2), it is possible that in other languages, the INDEPENDENT order extends across both clause-types (language 2), or alternatively, the CONJUNCT order extends across both (language 3).

Clause type	**Language 1 (=Plains Cree)**	**Language 2 (= ??)**	**Language 3 (= ??)**
Indexical	independent	independent	independent conjunct
Anaphoric	conjunct	independent conjunct	conjunct

Table 1.2. Mapping the indexical/anaphoric contrast onto INDEPENDENT and CONJUNCT

Within Plains Cree, Blain's (1997) thesis on wh-questions proposes a structural analysis of two kinds of CONJUNCT clauses within a restricted set of contexts, but the extent to which the analysis can be generalized across the language has not been addressed. Although her analysis is only relevant for specific parts of this thesis, the findings here are consistent with her claims. Long's (1999) thesis on complement clauses in Plains & Swampy Cree similarly proposes a structural analysis of one kind of CONJUNCT clause in 'complement' contexts, and provides a number of diagnostics to structurally distinguish complement clauses from adjunct clauses. The work in chapter 5 builds on this analysis, adding more clause-types, more diagnostics, and proposing a third syntactic clausal relation: chains.

Other previous work on Plains Cree has primarily focussed on the (large amounts of) morpho-phonology (cf. Lacombe 1874, Bloomfield 1925, Wolfart 1973), its historical relation to

other Algonquian languages (Goddard 1967, 1974, Pentland 1979, 1999), and morpho-syntax (Dahlstrom 1991, Déchaine 1999, 2001, 2002, 2003; Hirose 2000). This thesis has depended – at times heavily – on this previous work: without having it as a foundation, much of the current work could not have been done. At the same time, much of the data presented in this thesis – looking at the co-occurrence restrictions between the verbal complex and particles, the structural relations between clauses, and the interpretation of utterances – is novel, and many of the generalizations have not been previously discussed. Unless otherwise cited, all data comes from primary sources: either original elicitation fieldwork, or texts (i.e., transcribed recordings of narratives collected by others). This leads us to a discussion of methodology.

1.3 Methodology: Data collection and presentation

This research is based on two methods of data collection. The first method is the elicitation of introspective speaker judgments. The data reported in this thesis was collected on the basis of work with six different fluent Plains Cree speakers from Alberta and Saskatchewan[2]. Elicitation sessions included a variety of tasks, including (i) *translation tasks*, where the speaker is either presented with an English sentence and asked to translate into Plains Cree or vice versa; (ii) *judgment tasks*, where the speaker is presented with a Plains Cree utterance and asked to judge its well-formedness and or felicity in a context; (iii) *utterance-in-context tasks*, where the speaker is asked to provide an appropriate utterance in a constructed context; and (iv) *analytic tasks*, where the speaker provides a reason for the (un)grammaticality or (in)felicity of the utterance (Cook & Mühlbauer 2006). Elicitation work is vital to this thesis in two ways: it provides linguists with information on what are impossible utterances, and with explicit information about the (im)possible meanings that an utterance may have. At the same time, it should be noted that – as with all elicitation – different tasks sometimes lead to quite different results. In particular, a Plains Cree utterance may be translated in a particular way into English (for example, past tense), but when tested in defined contexts, turn out not to have the same distribution or felicity

[2] Relevant biographical information on consultants is as follows: S1 was male, mid-50s, from Thunderchild, SK; S2 was female, mid-40s, born Lac La Biche, AB, raised in Edmonton, AB; S3 was female, early 50s, from Ermineskin, AB; S4 was male, mid-50s, from Louis Bull, AB; S5 was female, early 40s, from Little Pine, SK; S6 was female, mid-60s, from Cold Lake, AB.

conditions as the English translation. Likewise, speakers may offer what turn out to be crucial insights in analytic tasks, but it is vitally important to test these insights via other tasks.

The second method of data collection involves the use of corpus material. In particular, I draw from published narratives of four Plains Cree speakers that were recorded, then transcribed and (minimally) edited by Wolfart & Ahenakew[3] (Whitecalf 1993, Minde 1997, Kâ-Nipitêhtêw 1998, Ahenakew 2000). These speakers are referred to in the thesis by the initials of their names: SW, EM, JKN, and AA, respectively. The narratives range in length from approximately one hour of speech (SW) to approximately two and a half hours of speech (each of EM, JKN, and AA). Generalizations from corpora are vital in that they show the possible utterances in an organically constructed context, and also indicate the robustness of a given phenomena.

Following the premises of 'cross-methodological validation' (Carden & Dietrich 1982, Matthewson 2004), this thesis draws on both elicited and corpus data. Used together, these two methods of data collection can be used to cross-check the validity of the data set. For example, in elicitation contexts, speakers will sometimes rule utterances as impossible because the appropriate context has not been established; in such a case the corpora can (i) give evidence that the construction really does exist, and (ii) provide a ready-made context for that construction. Likewise, sometimes the construction being targeted will not appear in the corpora for accidental reasons (e.g., the appropriate context did not occur), but a fluent speaker can readily provide a judgment and context for the utterance when asked.

In many cases, the two sources of data were combined, where pieces of the corpora were presented to the elicitation consultant and the consultant was asked about the meaning, or asked about possible permutations on the attested piece. This method was particularly useful for when judgments within a particular discourse context were needed, since the Plains Cree corpora provided a ready-made context without potential interference from a distinct framing language (in this case English).

All Plains Cree data, whether from elicitation or textual sources, is presented in a (minimally) four-line format as follows (the lines enclosed in parentheses are given as relevant):

[3] In essence, any transcription involves editorial decisions, even at the level of word breaks. Editorial work included marking of punctuation. False starts and hiccups were transcribed as they were heard.

(10) (*context-of-utterance*)

Plains Cree data in standard Roman orthography
Morphemic breakdown
Morpheme-by-morpheme gloss
'Free English translation.'

(*comment(s) by consultant about utterance*)

In addition, text taken from textual sources is cited from the relevant text by speaker and paragraph number within the transcription[4]. Following the practices of Wolfart (e.g., 2000), textual data also includes the relevant contextual punctuation marking introduced by the editors (Ahenakew & Wolfart 1997, 1998; Wolfart & Ahenakew 1993, 2000) in the following way. Preceding the cited clause, ellipsis [...] indicates preceding linguistic material with no intervening period [.] or semicolon [;]. Any other intervening punctuation, including a comma [,], colons [:], and initial or ending quotations ["] are marked. Following the cited clause, all punctuation is marked; if the punctuation is anything other than a period or semicolon, another ellipsis follows. Finally, it should be noted that because the translation is not always word-for-word, there are times where the punctuation of the English translation differs from the Plains Cree (for example, the Plains Cree clause may be in sentence initial position, but the English translation of that clause is in non-initial position).

The internal morphological structure of stems is not usually given, since the relation between elements within the stem is different from the relation between elements external to the stem (Wolfart 1973). If necessary, stem-internal morpheme breaks are given within brackets [STEM-MORPHEMES].

A list of the abbreviations used in the morpheme-by-morpheme gloss is given in the front matter. As with any gloss, these are approximate and should not be taken as having any analytic or 'real' value.

There are three symbols that may precede the Plains Cree line of an example: an asterisk [*], an exclamation point [!], or a pound sign [#]. The asterisk marks a string that was judged by one or more fluent speakers to be ill-formed – i.e., an impossible utterance. The exclamation point marks an utterance that may be well-formed, but cannot have the relevant interpretation. Such utterances are often judged ungrammatical if presented in the context of the relevant

[4] This annotation makes it easy to distinguish between data from textual sources and elicitation data.

structure (e.g., coordination), but judged grammatical in the context of some other construction (e.g., temporal modification). Finally, the pound sign marks a string that is grammatical, but infelicitous in a particular discourse context.

1.4 Plains Cree terminology

Plains Cree, like other Algonquian languages, has three inflectional classes of words: verbs, which take one set of inflectional morphology, nouns, which take another set of inflectional morphology, and particles, which cannot be inflected (Wolfart 1973).

Particles are a syntactically and semantically heterogeneous class which I will not deal with here (but see Ogg 1991 for discussion).

Nominal stems may be inflected for possession and plurality (Lacombe 1874, Hockett 1966, Wolfart 1973, Dahlstrom 1991). Modifiers may attach to the left of the stem. A simplified template for nouns is given in (11).

(11) Template for nominal stems

[POSS [MOD [STEM] PL/OBV]]

Depending on the context in which they occur, nouns fall into one of three referential categories: inanimate, animate, or obviative (a subclass of animate), but nouns are not inherently specified as to their category (see arguments in Wolfart 1973, Mühlbauer 2008).

Verbal complexes consist of a *stem*, which almost always has internal structure (Wolfart 1973, Hirose 2000, Déchaine 2003), including a *root*, a possible *medial*, and at least one *final*.

(12) Template for verbal stems

[$_{\text{STEM}}$ root – (medial) – final]

The finals are inflected for animacy and arguably code argument structure (i.e., the introduction of argument positions and the assigning of grammatical function) (cf. Hirose 1999, Déchaine 2003). To the left of the stem is the *pre-verb* domain, which hosts, among other things modifiers and tense/aspect/modality markers (Edwards 1954, Wolfart 1973, Cook 2004).

The left and right edges of the verbal complex external to the stem have person/number marking and, in the case of CONJUNCT clauses, a closed class of left-edge morphemes hosting an

ablaut process called *initial change* (IC, cf. Wolfart 1973); these latter will be of central concern to the thesis. As we saw at the beginning of the chapter, there are two agreement paradigms[5]. These are called *orders*: there are the INDEPENDENT and CONJUNCT orders, represented by the templates in (13) and (14) respectively. (The * in the template indicates the possibility of iteration; parenthesis indicates that the element is only sometimes present.)

(13) template for INDEPENDENT order

[$_{\text{VERBAL COMPLEX}}$ **PERSON** [(PRE-VERB *) [STEM]] **PERSON** (**NUMBER**)]

(14) template for CONJUNCT order

[$_{\text{VERBAL COMPLEX}}$ ***ê-/kâ-/IC*** [(PRE-VERB *) [STEM]] **PERSON** (**NUMBER**)]

Orders may subclassify for *modes*; in Plains Cree, at least for the data set I have, the CONJUNCT order is the only one to have any modes (cf. Wolfart 1973, who documents three modes for the INDEPENDENT order in older forms of Plains Cree). These modes include (following Wolfart 1973) a primary division between *simple* CONJUNCT, and the *changed* CONJUNCT, and a further division depending on the suffixation of *-i*, yielding the *subjunctive* CONJUNCT, the and the *iterative* CONJUNCT.

MODE		**FORM**
SIMPLE	simple	(ka-)nipât
	subjunctive	nipâc**i**
CHANGED	changed	**ê**-nipât
		kâ-nipât
		n**ê**pât
	iterative	n**ê**pâc**i**

Table 1.3. The CONJUNCT modes

For the data set I am working with, the simple CONJUNCT is almost universally prefixed with the irrealis preverb *ka-*. Both the changed CONJUNCT formed by ablaut (*n**ê**pât*) and the iterative CONJUNCT (*n**ê**pâci*) are essentially absent from the data (i.e., no consultant recognized or produced the forms, and they were only attested a handful of times in the corpora).

[5] There is a third paradigm – the IMPERATIVE order. The imperative order cannot host most agreement, any of the elements on the far left edge, or most of the preverbs. I will not discuss it further in this thesis.

For a more in-depth discussion of Plains Cree's grammar, see Wolfart (1973, 1996); Wolfart & Carroll (1981); and Dahlstrom (1991). For the purposes of this thesis, other Algonquian-specific terms will be introduced as necessary.

1.5 Layout of the thesis

There are six chapters following the introduction.

Chapter two presents a series of arguments that the sentence-level verbal complexes I am looking at in Plains Cree form a uniform syntactic class, which within the Principles & Parameters framework of Chomsky (1981) and Chomsky & Lasnik (1993) is called a CP. I further argue that in CONJUNCT clauses the left-edge elements head the CP (i.e., they are complementizers), while in INDEPENDENT clauses the left edge elements are in spec, CP.

The next two chapters address the main proposal of the thesis, that the fundamental distinction in Plains Cree's clause-typing system is between indexical and anaphoric clauses.

Chapter three is concerned with structural and semantic contexts for indexical clauses, instantiated by Plains Cree INDEPENDENT order. Structurally, I show that indexical clauses (a) are subject to anti c-command (they cannot be c-commanded); and therefore (b) require all dependent elements to be resolved locally (within the clause). Semantically, I show that indexical clauses have indexical temporal and referential properties.

Chapter four is concerned with what happens when the structural and semantic context is such that an indexical clause cannot occur. Here I claim that we get anaphoric clauses, instantiated by Plains Cree's CONJUNCT order. Syntactically, I extend Williams' (1997) analysis of anaphora, and show that anaphoric clauses are licensed by either a precedence condition or a c-command condition. Semantically, I show that the value of temporal/spatial/referential dependent elements within an anaphoric clause are determined by an antecedent. Finally, I use Fillmore's (1975) contextual licensing principles of anaphora to derive the distribution of matrix anaphoric clauses.

The next two chapters develop more specific syntactic and semantic analyses of anaphoric CONJUNCT clauses.

Chapter five argues that anaphoric clauses fall into three syntactic classes, defined by their relation to another clause:

(i) chained clauses, which are governed solely by precedence and do not form a constituent with any other clause;

(ii) adjunct clauses, which are governed by c-command and form a constituent of another clause; and

(iii) mediated argument clauses, which are licensed by an argument-position (subject or object) and adjoined within the clause.

Chapter six argues that anaphoric clauses also fall into three semantic classes, which cross-cut the syntactic classification of chapter 5, but map onto the form of the complementizer:

(i) the complementizer *kâ-* introduces presupposed clauses, where the truth of the proposition being presented is assumed within the discourse;

(ii) the ⃠ (null) complementizer introduces a-veridical clauses, where the truth of the proposition being presented is unevaluated within the discourse; and

(iii) the complementizer *ê-* introduces an unspecified clause which does not carry any inherent semantic value.

Chapter seven concludes by summarizing the main findings of the thesis, and pointing out possible directions for further research.

CHAPTER 2
MAPPING INDEXICAL AND ANAPHORIC CPS ONTO PLAINS CREE'S MORPHO-SYNTAX

2.1 Proposal: A one-to-one mapping in Plains Cree

I claim that there are two clause-types in Plains Cree: indexical clauses and anaphoric clauses. Indexical clauses have an indexical speech situation (s_0) in spec, CP, as in (1a), and anaphoric clauses have an anaphoric situation (s) in the same position (1b).

(1) a. INDEXICAL CP b. ANAPHORIC CP

Syntactically and semantically, there is a one-to-one relation between the element in spec, CP (indexical vs. anaphoric), and the kind of dependencies which a CP may have. Indexical clauses code a proposition that is evaluated with respect to the speech situation (see chapter 3). Anaphoric clauses code a proposition that is evaluated to an anaphoric situation (see chapter 4).

Morpho-syntactically, the distinction between indexical CPs and anaphoric CPs could logically have one of three patterns.

The first possibility is that there is no morpho-syntactic distinction between different kinds of CPs; the distinction between them is contextually determined.

The second possibility is that there is a morpho-syntactic differentiation between different kinds of CPs, but the distinction is cued to factors other than the indexical vs. anaphoric property.

The third possibility is that there is a morpho-syntactic differentiation between different kinds of CPs which is specifically cued to the distinction between indexical and anaphoric

clauses. I claim that this is the pattern we see in Plains Cree (Algonquian): the two clause types are morpho-syntactically realized by two different clausal paradigms, called *orders* in the Algonquianist literature, and there is a direct mapping between the morpho-syntax, syntax, and semantics of indexical and anaphoric clauses.

For Plains Cree, I show that the INDEPENDENT order instantiates indexical clauses. It is characterized by proclitics on the left edge of the clause (1st-person *ni-* in (2a); 2nd-person *ki-* in (2b)), and by a particular set of right edge agreement (e.g., the speech-act-participant suffix *-n* in (2a-b), and the third person suffix *-w* in (2c)).

(2) Indexical clause = INDEPENDENT order

a. **ni**mîciso**n**
ni-mîciso -n
1-eat.VAI-SAP
'I've eaten.'

b. **ki**mîciso**n**
ki-mîciso -n
2-eat.VAI -SAP
'You've eaten.'

c. mîciso**w**
mîciso-w
eat.VAI-3
'S/he's eaten.'

For Plains Cree, I also show that the CONJUNCT order, of which there are several varieties, morpho-syntactically instantiates anaphoric clauses. What CONJUNCT clauses share with each other is a distinct set of right-edge morphology (for example, 3rd-person *-t* in (3a-c)).

(3) Anaphoric clauses = CONJUNCT order (citation forms)

a. ê-wâpamâ**t**
ê- wâpam -â -t
C1-see.VTA-DIR-3
'…s/he sees him/her'

b. kâ-wâpamâ**t**
kâ- wâpam -â -t
C2-see.VTA -DIR-3
'…when s/he saw him/her'

c. wiyâpamâ**c**i[1]
IC- wâpam -â -t -i
IC- see.VTA-DIR-3-PL
'…whenever s/he saw him/her'

On the left edge, the data in (3) illustrates a number of different clause-typing elements, all of which are associated with an ablaut process known in Algonquian linguistics as *initial change* (IC); these include the proclitics *ê-* and *kâ-*, (ablauted from *i-* and *kî-*, respectively) and stem infixation (*-iy-*).

In the absence of initial change, CONJUNCT clauses are termed 'simple CONJUNCT'; they have an irrealis element (*ka-* or *-i*)[2]. These again share the right-edge agreement.

(4) Anaphoric clauses = CONJUNCT order (citation forms)

a. **ka**-wâpamât
ka- *wâpam -â* ***-t***
IRR-see.VTA -DIR-3
'…him/her to see him/her'

b. wâpamâ**ci**
wâpam -â ***-t -i***
*see.VTA-DIR-**3-SUBJ***
'…if/when s/he see him/her'

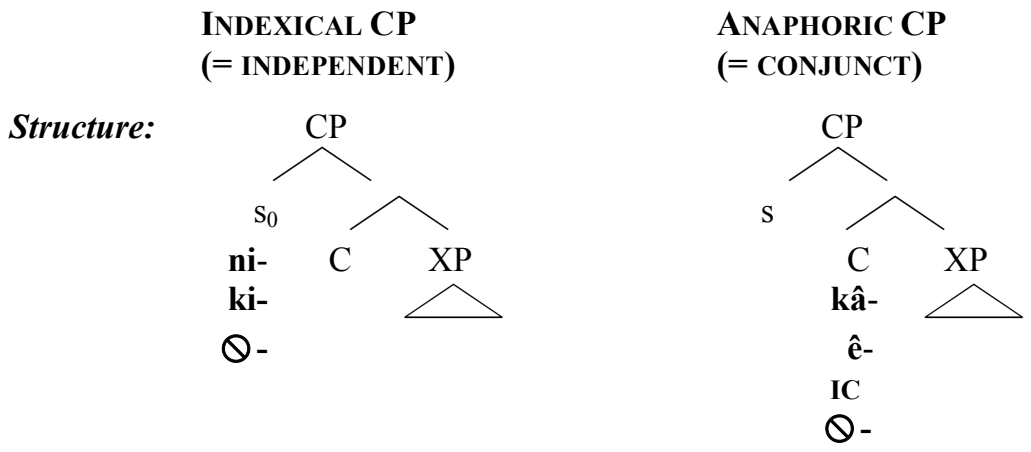
[1] Historically, ablaut of the stem could also take place without the subjunctive suffix *–i* (see, e.g., Wolfart 1973:46, who notes that it seemed to be disappearing in favor of the *ê-* proclitic). I have not found any examples of this kind in any of the corpora I have worked with, and none of the speakers I work with recognize or use these forms; even with the subjunctive marker, ablaut is now extremely restricted, and I have little to say about them.

[2] Historically, a simple CONJUNCT clause like (4a) was reported to be possible without *ka-* (Wolfart 1973:46). However, I have not worked with a speaker who controls difference between a simple conjunct clause with vs. without the *ka-* proclitic. Writing 35 years ago, Wolfart (1973:45) comments that forms with *ka-* (or its alternant *(ki)ta-*) was by far more common than forms without it; since then, the completely bare verbal complex seems to have (all but?) disappeared.

The irrealis markers are different from the clause-typing elements in that they have a wider distribution: *ka-* can occur in both INDEPENDENT and CONJUNCT clauses, and *-i* can co-occur with the clause-typing elements *ê-, kâ-*, and internal change (IC). I will treat clauses like in (4) as having a null complementizer for reasons that will become clear later in the chapter.

The mapping between the two clause types and the two orders in Plains Cree is thus represented as in (5).[3]

(5) TWO TYPES OF CLAUSES



There are two parts to my claim which must be defended:

(i) that what I'm talking about are CPs (rather than some smaller structure like an IP or a VP); and

(ii) that there are two kinds of CPs (i.e., indexical and anaphoric).

In the current chapter, I take up the claim that the two clause-types both have the properties of CPs. To the extent that this characterization is accurate, indexical and anaphoric CPs differ not in the amount of structure they have, but in the *s* vs. s_0 contrast in spec, CP. This chapter lays the groundwork for the later chapters, where I address the second claim, analyzing the syntax and semantics of the two clause types in detail.

[3] On this account, the *ni-*, *ki-*, and ⊘- proclitics are all in the same syntactic position as the s_0 constant, in effect meaning there are three ways to spell out s_0. If this is an accurate representation, we raise the interesting question of having many forms mapping to the same meaning. Since I take the the s_0 constant to be a characteristic property of the INDEPENENT paradigm, rather than a property of a particular morpheme, the answer to the question is not crucial to the analysis. Alternatively, we could say that s_0 is external to CP altogether (Lisa Matthewson, p.c.). Again, nothing hinges on this decision.

First, I lay out the evidence that both INDEPENDENT and CONJUNCT verbal complexes in Plains Cree are full CPs, and that the left-edge elements (pronominal proclitics and clause-typing proclitics introduced by initial change) in particular are hosted in CP. This is important because, in principle, both the pronominal proclitics and initial change could target any level of the clause, including VP, IP and CP, and this in fact seems to be a place where there is variation across the Algonquian family. For example, it has been argued that the pronominal proclitics in Blackfoot are hosted in the IP domain (Ritter & Wiltschko 2005, 2007), and similarly, the process of initial change in Ojibwa is associated with tense (James 1982, Blain 1999, Mathieu 2008). If the pronominal proclitics and clause-typing proclitics were in a lower position, we would not expect them to correlate with clause-typing distinctions.

Second, I show that the pronominal proclitics *ni-* '1st person' and *ki-* '2nd person' differ from the clause-typing proclitics *ê-*, *kâ-* and IC in a number of respects. I model this difference as a difference in whether the element is introduced in spec, CP (i.e., for the pronominal proclitics) or head the CP-projection (i.e., the clause-typing elements).

2.2 Diagnostics for CPs in Plains Cree

When we compare multiple elements in a class, we need a set of criteria which makes each element a member of that class. Here I am comparing members of the class of CP – that is, things which are CPs (i.e., maximal clauses). Thus, in this section, I provide the set of criteria used in determining that Plains Cree verbal complexes are CPs. First, the ordering properties of the pronominal and clause-typing proclitics are consistent with having the highest position in the clause. Second, the distributional and interpretational properties of Plains Cree's peripheral agreement are consistent with CPs, but not IPs or VPs (cf. Déchaine 2001, 2002). Third, the sensitivity of verbal complexes to the matrix/embedded distinction is consistent with CPs, but not IPs or VPs. Finally, the complementary distribution of pronominal proclitics as opposed to clause-typing proclitics supports the claim that the pronominal proclitics are hosted by the same layer of the clause as the clause-typing proclitics.

Although no one of these criteria is conclusive evidence about the nature of Plains Cree verbal complexes, if they are taken together they present a coherent argument for the current analysis.

2.2.1 Ordering properties

Aspect (temporal structure of the predicate), tense (temporal anchoring of the event), and modality ((ir)reality of the proposition) are taken to be in VP and IP domains of the clause (Pollock 1989, Hornstein 1990, Cinque 1999, Givón 2001, Demirdache & Uribe-Etxebarria 2002, among many others). Cook (2003, 2004) has argued that the linear ordering of elements in Plains Cree's preverb domain reflects hierarchical structure (cf. Baker 1986, Kayne 1994, Cinque 1999): if element α precedes element β, then element α dominates element β.

This position leads us to expect that within Plains Cree's verbal complexes, elements associated with the CP-layer of the clause must precede elements associated with the IP-layer of the clause. This is borne out in the data: the pronominal proclitics and clause-typing elements precede all tense, aspect, and modality preverbs. This is schematized in (6a) for INDEPENDENT clauses and (6b) for CONJUNCT clauses (cf. also Edwards 1954).

(6) a. [PERSON] [**modality/temp.**] [**aspect**] [STEM] INDEPENDENT
[*ni-, ki-*] [***ka-, kî-***] [***ati-, mêkwâ-, wî-***] […]

b. [CLAUSE-TYPING] [**modality/temp.**] [**aspect**] [STEM] CONJUNCT
[*ê-*, *kâ-*, IC] [***ka-, kî-***] [***ati-, mêkwâ-, wî-***] […]

A representative pair of data showing the position of the temporal shifting preverb *kî-*[4] relative to the pronominal proclitic *ni-* and clause-typing proclitic *ê-* is given in (7).

[4] See chapters 3 and 7 for discussion of *kî-* as a temporal shifting device.

(7) a. ni**kî**-wâpamâw ana nâpêw INDEPENDENT
*ni-**kî**- wâpam -â -w ana nâpêw*
*1-**PREV**-see.VTA-DIR-3 DEM.AN man*
'I saw that man.'

b. êwakw ânima pêyak kisêyiniw ê-**kî**-nakiskawak,… CONJUNCT
*êwakw anima pêyak kisêyiniw ê- **kî**- nakiskaw -ak*
*TOPIC DEM.INAN one old.man C1-**PREV**-meet.VTA -1>3*
'I met a certain old man about that, ...' (JKN 1.1)

Likewise, (8) demonstrates that aspectual elements such as inceptive *ati-* always follow pronominal proclitics like *ni-* and clause-typing proclitics like *ê-*.

(8) a. nit**ati**-kinosin INDEPENDENT
*ni(t)- **ati**- kinosi -n*
*1- **INCEP**-tall.VAI-SAP*
'I am getting taller.'

b. ..., êkos êkwa, ê-**ati**-tipiskâk êkwa, ... CONJUNCT
*êkosi êkwa ê- **ati**- tipiskâ -k êkwa*
*TOPIC and C1-**INCEP**-night.VII-0 and*
'And so, when it was getting to be night, …' (AA 2.2)

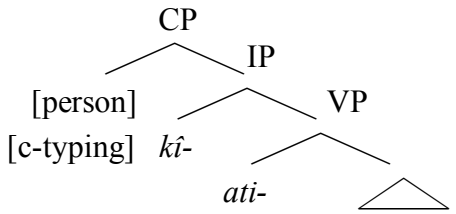
The temporal anchoring preverb *kî-* precedes the aspectual preverb *ati-*; this is consistent with *kî-* occupying a higher position in the clause.

(9) *kî-* precedes *ati-*

eight hours ni**kî**-**ati**-nôcihtânân, ...
eight hours ni- kî- ati- nôcihtâ -nân
eight hours 1- PREV-INCEP-pursue.VAI -1PL
'It had taken us eight hours to go, …' (AA 3.4)

The ordering of the preverbal elements with respect to the pronominal/clause-typing elements is consistent with the claim that the latter elements are in the highest position of all. Although the ordering does not tell us what that position is, the ordering is consistent with the claim I am making that the elements are in CP.

(10)



The irrealis preverb *ka-* interacts with the left edge in a more complex way: it is internal to the pronominal proclitics as in (11), and in complementary distribution with the CONJUNCT proclitics.

(11) a. ..., "â, êkota ni**ka**-pôsipayihon," ... INDEPENDENT
*â êkota ni- **ka**- pôsipayiho -n*
*INTERJ there 1- **IRR**-jump.VAI -SAP*
'..., "Well, I will jump on that," … ' (AA 8.3)

b. * ê-**ka**-pôsipayihoyân CONJUNCT
*ê- **ka**- pôsipayiho -yân*
*C1-**IRR**- jump.VAI -1*
--- (*intended*: 'I will jump.')

However, unlike either the pronominal proclitics or the clause-typing proclitics, *ka-* can occur in both matrix INDEPENDENT and embedded CONJUNCT clauses.

(12) Irrealis *ka-* across different clause-types

a. ..., "â, êkota ni**ka**-pôsipayihon," ... INDEPENDENT
*â êkota ni- **ka**- pôsipayiho -n*
*INTERJ there 1- **IRR**-jump.VAI -SAP*
'..., "Well, I will jump on that," … ' (AA 8.3)

b. nikî-kwêcimâw Nettie **ka**-pê-itohtêt CONJUNCT
ni- kî- kwêcim -â -w N ka- pê- itohtê -t
1- PREV-ask.VTA -DIR-3 N IRR-come-go.VAI-3
'I asked Nettie to come.'

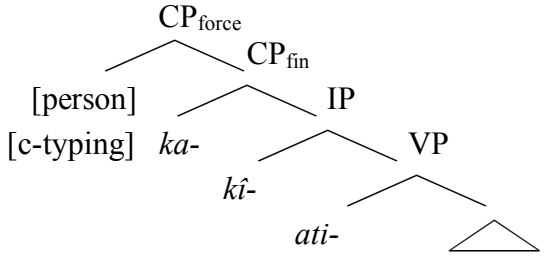
The data in (12) shows that *ka-* crosscuts both the matrix/embedded distinction and Plains Cree's INDEPENDENT/CONJUNCT distinction. In addition, *ka-* precedes *kî-*, as in (13).

(13) ..., ni**ka**-kî-itwân êwakw anima, ...
ni- ka- kî- itwâ -n êwakw anima
1- IRR-PREV-say.VAI-SAP TOPIC DEM.INAN
'..., I can say that, …' (AA 2.1)

I take the distribution of *ka-* to be significant. In particular, even though *ka-* interacts with clause-typing elements, it is crucially not restricted to one of the clause-types (i.e., INDEPENDENT or CONJUNCT). Therefore, it must be sitting in a lower position than both the pronominal proclitics (with which it co-occurs) and the clause-typing proclitics (which are restricted to CONJUNCT order).

Taking its ordering with respect to *kî-*, its complementarity with the clause-typing elements *ê-* and *ka-*, and its irrealis meaning into account, I model *ka-* as a finiteness complementizer (C_{fin}; Rizzi 1997). This position is distinct from and lower than force complementizers (C_{force}).[5]

(14)



The co-occurrence restrictions between *ka-* and the clause-typing elements can be seen as an instance of local head-to-head interaction (e.g., only one complementizer may be overt at a time).

Summarizing, we see that the position of the pronominal proclitics and clause-typing elements is consistent with them being in the CP-layer of the clause. I now look at some evidence that they are in fact in this layer of the clause.

2.2.2 Peripheral agreement diagnoses CPs

Algonquian languages are famous for the abundance of agreement they exhibit. Consider the INDEPENDENT clause in (15). From left to right, we see a pronominal proclitic *ni-*, the root *wâp*, a valency marker *-am* that is codes the animacy of the internal argument, a valency marker *-â*, a third person suffix *-w*, and a plural marker *-ak*.

[5] I have not given evidence that *ka-* must be a finiteness complementizer, and in fact nothing in the following argumentation depends on it being such.

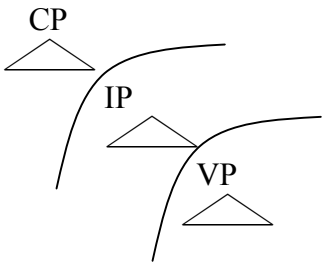
(15) niwâpamâwak INDEPENDENT
ni- [wâp- am] -â -w-ak
1- [light- eye.AN]$_{see.VTA}$ -DIR -3 -PL
'I see them.'

The CONJUNCT clause in (16) has a left-edge clause-typing element *ê-*; it shows some of the same agreement on the right edge, including identical valency markers, but it has person (*-t* '3rd') and number (*-ik* 'pl') agreement that is different from the INDEPENDENT clause.

(16) ê-wâpamâcik CONJUNCT
ê- [wâp -am] -â -t -k
C1- [light -eye.AN]$_{see.VTA}$ -DIR -3 -PL
'…I see them.'

The amount and kinds of agreement that these clauses exhibit provide evidence that these verbal complexes are structurally quite big. If a clause is composed of multiple domains (cf. Pollock 1989, Rizzi 1997, Cinque 1999, among others), then agreement may logically occur in any of these domains. For the purposes of this discussion, I will assume that a clause has at least the layers of VP (i.e., the predicate domain where theta-marking agreement occurs); IP (the inflectional domain where grammatical function agreement occurs); and CP (the clause-typing domain where discourse function agreement occurs).

(17)



← discourse function agreement

← grammatical function agreement

← theta-marking agreement

Agreement that remains constant across distinct clause-typing environments (e.g., matrix vs. embedded clauses or declarative vs. interrogative clauses) is not a good candidate for CP-agreement, and I will not discuss it here (see Déchaine 2001, 2002 for discussion). However, for several reasons, the peripheral person and number agreement which alternates in Plains Cree's INDEPENDENT and CONJUNCT order provide evidence that the verbal complexes under analysis are full CPs, rather than a reduced constituent (e.g., an IP or a VP):

(i) the agreement does not map directly onto either theta-roles or grammatical-function;

(ii) the agreement does not interact with finiteness; and

(iii) the agreement correlates with clausal embeddedness.

First, person and number agreement are insensitive to grammatical function (i.e., subject vs. object vs. indirect object). In (18), the third person *-w* suffix of the INDEPENDENT order can act as a subject (18a), an object (18b), or an indirect object (18c).

(18) a. mâto**w**
mâto -w
cry.VAI-3
'**s/he** is crying/cries'

b. ninakiskawâ**w**
ni- nakiskaw -â -w
1- meet.VTA -DIR-3
'I met **him/her**.'

c. niwihtamawâ**w**
ni- wihtam -aw -â -w
1- tell.VTA-BEN-DIR-3
'I tell this **to him/her**.'

Similarly, in (19) the third person *-t* suffix of the CONJUNCT order can mark subjects (19a), objects (19b), or indirect objects (19c).

(19) a. ê-mâto**t**
ê- mâto -t
C1-cry.VAI-3
's/he is crying'

b. ê-mâmitonêyihtamiko**t**
ê- mâmitonêyihtam -iko -t
C1-trouble.VTA -INV -3
'it (inan.) troubles him/her'

c. ê-itôtâko**t**
ê-itôtê-aw-iko-t
C1-do.VTA-BEN-INV-3
'it did this to him/her'

The plural markers which occur on the far right edge of the verbal complex may also be associated with either the subject or object position[6]. For example, *-ak* in the INDEPENDENT order may be associated with a subject (20a) or an object (20b).

(20) a. wâpamêw**ak** SUBJECT
wâpam -ê -w -ak
see.VTA-DIR-3 ***-PL***
= '**They** see him/her.'
≠ 'S/he sees **them**.'

b. niwâpamâw**ak** OBJECT
ni- wâpam -â -w -ak
1- see.VTA-DIR-3 ***-PL***
≠ '**We** see him/her.'
= 'I see **them**.'

The *-k* plural suffix of the CONJUNCT order may also be associated with a subject (21a) or an object (21b).

(21) a. ê-wâpamâc**ik** SUBJECT
ê- wâpam -â -t -k
C1-see.VTA-DIR-3 -PL
= ' … **they** see him/her.'
≠ '…s/he sees **them**.'

b. ê-wâpamak**ik** OBJECT
ê- wâpam -ak -k
C1-see.VTA-1>3-PL
≠ '…**we** see him/her.'
= '…I see **them**.'

Finally, the INDEPENDENT order pronominal proclitics *ni-* '1st' and *ki-* '2nd' may be associated with either a subject or an object argument. In (22), *ni-* and *ki-* are associated with the subject of a classically unergative predicate *pâhpi-* 'laugh.VAI'.

[6] The determination of which argument the plural is associated with is complex and depends on multiple factors. In general, they are associated with an object if a speech act participant is the subject, and associated with subject elsewhere (including cases where 3PL acts on 3PL). The point here is that it does not mark only one type of argument.

(22) a. **ni**pâhpin
ni- pâhpi -n
1- laugh.VAI-SAP
'**I** laugh.'

b. **ki**pâhpin[7]
ki- pâhpi -n
2- laugh.VAI-SAP
'**You** laugh.'

In (23), *ni-* and *ki-* are associated with the subject of a classically unaccusative predicate *nêstosi-* 'tired.VAI'.

(23) a. **ni**nêstosin
ni- nêstosi -n
1- tired.VAI-SAP
'**I** am tired.'

b. **ki**nêstosin
ki- nêstosi -n
2- tired.VAI-SAP
'**You** are tired.'

In (24), *ni-* and *ki-* are associated with the subject of a transitive verb *miskam-* 'find.VTA'; notice that the theme-sign immediately following the stem is the direct form *-â.*

(24) a. **ni**miskamâw
ni- miskam -â -w
1- find.VTA-DIR-3
'**I** found him/her.'

b. **ki**miskamâw
ki- miskam -â -w
2- find.VTA -DIR-3
'**You** found him/her.'

In (25), however, *ni-* and *ki-* are associated with the object of the transitive verb; here the subject/object association has been reversed by the use of the inverse marker (Dahlstrom 1991, Déchaine and Reinholtz 1997, 2008).

[7] Note that the second-person forms are pragmatically very odd, since the contexts where a statement about the addressee can be made felicitously are extremely restricted (cf. Ross 1970; Rutherford 1970 for discussion of this problem in English). These forms are given to demonstrate their formal grammaticality.

(25) a. **ni**miskamik
ni- miskam -ik -w
1- find.VTA-INV-3
'S/he found **me**.'

b. **ki**miskamik
ki- miskam -ik -w
2- find.VTA-INV-3
'S/he found **you**.'

The above data shows that the peripheral elements in Plains Cree verbal complexes is independent of the subject or object position. Plains Cree does have elements which are associated with subjects (e.g., the different subject marker *-yi* (Mühlbauer 2007) and the inverse marker *-ik* (Déchaine & Reinholtz 1997, 2008)), and elements associated with objects (direct theme signs, Déchaine & Reinholtz 2008). The insensitivity of peripheral person marking to these positions must therefore mean that it is not in the IP domain (i.e., subject domain) or the VP-domain (i.e., object domain). Combining this evidence with the ordering facts discussed above, I conclude that these peripheral elements must be external to IP.

Another fact about the peripheral person marking in Plains Cree which suggests it is external to the IP-domain is that there is no correlation between agreement and finiteness of clauses. The irrealis clauses which are used in dependent clauses for commands, wishes, etc. (i.e., the contexts where English has non-finite clauses) show exactly the same kind of agreement as other kinds of embedded clauses. The (non-)contrast is shown in (26), where (26a) shows a realis clause, introduced by a factive predicate and (26b) shows an irrealis clause (with the irrealis *ka-*) introduced by a predicate of desire (*ninitawêyimâw*). The right-edge agreement (3rd-person *-t*) stays constant.

(26) a. ê-wankisiyân Clare ê-nipâ**t** FINITE
ê- wankisi -yân C ê- nipâ -t
C1-forget.VAI-1 C C1-sleep.VAI-3
'I forgot Clare was sleeping.'

b. ninitawêyimâw Jeff ka-nipâ**t** NON-FINITE
ni- nitawêyim -â -w J ka- nipâ -t
1- want.VTA -DIR-3 J IRR-sleep.VAI-3
'I want Jeff to sleep.'

This is different from some other Algonquian languages, such as Blackfoot, where person

marking changes in some irrealis conditions (Frantz 1991, Ritter & Wiltschko 2007). For example, in (27a) the 2nd-person pronominal proclitic *ki-* occurs on the left edge of the embedded finite clause; in (27b), there is no pronominal proclitic, and the agreement is on the right edge of the embedded non-finite clause. This is one factor that has led Ritter & Wiltschko to posit that person marking is hosted in the IP domain.

(27) Blackfoot person marking changes relative to finiteness.

a. nitsíkohtaahsí'taki **ki**káó'toohsi FINITE
nit- ik- oht- yaahs -i'taki k- ikáá- o'too -hs -yi
1- very-source-good -feel.VAI 2- PERF- arrive.VAI-conj-conj
'I'm glad that you have arrived.' (Frantz 1991:112)

b. ikkamáyo'ka**inoainiki**, nitáakahkayi NON-FINITE
ikkam -á -yo'kaa -inoainiki nit- yáak- wa:hkayi
if -dur-sleep.VAI -2PL.SUBJ 1- FUT- go^home
'If you (pl) are sleeping, I'll go home.' (Frantz 1991:113)

The final distinguishing characteristic of Plains Cree's peripheral agreement which is consistent with placing it in the CP layer is its sensitivity to the matrix/embedded distinction. A verbal complex with the INDEPENDENT agreement *-w* in (28a) cannot occur in an embedded clause (notice here that the INDEPENDENT clause has no pronominal proclitic, but still is restricted to matrix clauses).

(28) Only CONJUNCT agreement allowed in embedded clauses

a. * ninitawêyimâw nîcêwâkan (ka)-mîciso**w**
ni- nitawêyim -â -w ni- wîcêwâkan mîciso-w
1- want.vta -DIR-3 1- friend eat.VAI-3
--- (*intended*: 'I want my friend to eat.')

b. ninitawêyimâw nîcêwâkan ka-mîciso**t**
ni- nitawêyim -â -w ni- wîcêwâkan ka- mîciso -t
1- want.VTA -DIR-3 1- friend IRR-eat.VAI-3
'I want my friend to eat.'

It is also impossible for the pronominal proclitics (*ni-* '1st-person' and *ki-* '2nd-person') to occur in an embedded clause, regardless of the right-edge agreement. In (29), the first-person *ni-* cannot occur in an embedded clause with right-edge INDEPENDENT agreement (29a), nor can it

occur in an embedded clause with right-edge CONJUNCT agreement (29b). The embedded clause must have CONJUUNCT agreement without the pronominal proclitic (29c).

(29) Person proclitics are impossible in embedded clauses

a. * Sam nitawêyihtam **ni-**(ka)-nikamo**n** INDEPENDENT
S nitawêyihtam -w ni-ka- nikamo -n
S want.VTI -3 1-IRR-sing.VAI -SAP
---

b. * Sam nitawêyihtam **ni-**(ka)-nikamo**yân** CONJUNCT
S nitawêyihtam -w ni-ka- nikamo -yân
S want.VTI -3 1-IRR-sing.VAI -1

This again differs from Blackfoot, where the pronominal proclitics occur in both matrix (30a) and embedded (30b) clauses.

(30) a. **ki**táakahkayi MATRIX
kit- áak- ahkayi
2- FUT- go^home
'You're going home.' (Frantz 1991:15)

b. nitsíkohtaahsí'taki **ki**káó'toohsi EMBEDDED
nit- ik- oht- yaahs -i'taki k- ikáá- o'too -hs -yi
1- very-source-good -feel.VAI 2- PERF- arrive.VAI-conj-conj
'I'm glad that you have arrived.' (Frantz 1991:112)

In summary, then, the peripheral agreement in Plains Cree is associated with the CP domain: it is sensitive to the matrix/embedded distinction, a characteristic property of CP-level elements; and it is insensitive characteristic properties of IP-level elements such as the subject/object distinction and finiteness. In both of these respects, there is variation across the Algonquian language family, meaning that it is important to establish the position of agreement for each individual language.

2.2.3 Clause-typing diagnoses CPs

If the CP-layer associates the proposition to a larger structure (Rizzi 1997), this implies that elements whose presence conditions the distribution and interpretation of a clause relative to its larger context must be in the CP-layer of the clause. If the element can only occur in matrix clauses, or only in embedded clauses, that element invokes a CP structure. For example, the complementizer *that* in English is taken to be in C: it specifies the clause as a complement clause and can only be found in embedded structures (Rosenbaum 1967, Emonds 1976).

(31) a. * **that I'm tired**.
[$_{CP}$ [$_{C}$ *that* [$_{IP}$ *I'm tired*]]]

b. I told my brother **that I'm tired**.
I told my brother [$_{CP}$ [$_{C}$ *that* [$_{IP}$ *I'm tired*]]]

In Plains Cree, the form of the verbal complex is dependent on the matrix/embedded distinction. As we have already seen, INDEPENDENT clauses cannot be embedded.

(32) INDEPENDENT clauses are sensitive to the matrix/embedded distinction

a. **ninêstosin** MATRIX
ni-nêstosi-n
1-tired.VAI-SAP
'I'm tired.'

b. * nikî-wîhtamawâw nisîmis **ninêstosin** EMBEDDED
ni- kî- wîhtamaw -â -w ni- sîmis ni-nêstosi -n
1- PREV-tell.VTA -DIR-3 1- sibling 1- tired.VAI-SAP
--- (*intended:* 'I told my younger brother that I'm tired.')

One could argue that some overt complementizer or subordinator is needed to subordinate INDEPENDENT clauses (e.g., if one tried to posit matrix clauses as IPs). However, adding an overt subordinating particle like *osâm* 'because' does not help, as (33) shows.

(33) *osâm* 'because' can only introduce INDEPENDENT clauses

a. * nawac ê-kî-cihkêyihtahkik, **osâm** kî-sâkihito**wak** INDEPENDENT
nawac ê- kî- miyawâtam -k -k, ***osâm*** *kî- sâkih -ito* ***-w -ak***
*more C1-PREV-happy.VTI -0 -PL because PREV-love.VTA-REFL-**3** **-PL***
---

b. ..., nawac ê-kî-miyawâtahkik, **osâm ê-**kî-sâkihito**cik**, … CONJUNCT
nawac ê- kî- miyawâtah -k -k ***osâm ê-*** *kî- sâkih -ito* ***-t -k***
more C1-PREV-happy.VTI -0 -PL ***because C1****-PREV-love.VTA-REFL-**3-PL***
'..., they had been happier even when they were poor, because they used to love one another, …' (EM 6)

In CONJUNCT clauses, the presence and particular form of clause-typing element determines the distribution of the verbal complex as a whole with respect to matrix and embedded environments. The element *kâ-* and internal change both restrict the verbal complex to embedded clauses.

(34) *kâ*-clauses must be embedded

a. * atim **kâ**-mêkwâ-nipât MATRIX
atim ***kâ****- mêkwâ- nipâ -t*
dog ***C2****- MIDST- sleep.VAI-3*
---

b. nikî-atoskân atim **kâ**-mêkwâ-nipât EMBEDDED
ni-kî- atoskâ -n atim ***kâ****- mêkwâ- nipâ -t*
1-PREV-work.VAI-SAP dog ***C2****- MIDST- sleep.VAI-3*
'I worked while the dog slept.'

(35) IC-clauses must be embedded

a. * k**iy**îsîhtâci pêyak wâskahikan MATRIX
iy-kîsîhtâ -t -i pêyak wâskahikan
IC-finish.VAI-3-SUBJ one house
---

b. ..., k**iy**îsîhtâci pêyak wâskahikan, kotakihk ê-itohtêt; EMBEDDED
iy-kîsîhtâ -t -i pêyak wâskahikan kotak -ihk ê- itohtê -t
IC-finish.VAI-3-SUBJ one house other -LOC C1-go.VAI -3
'..., and when he had finished one house, he went to the next;' (AA 1.9)

Substituting the clause-typing proclitic *ê-* for *kâ-* or internal change correlates with a change in the distribution of the CONJUNCT verbal complex; with *ê-*, the verbal complex may occur in both matrix and embedded environments.

(36) *ê*-clauses allow both matrix and embedded clauses

a. atim **ê**-nipât MATRIX
atim ***ê-*** *nipâ -t*
dog ***C1-*** *sleep.VAI -3*
'...the dog is sleeping.'

b. nikî-wâpahtên atim **ê**-nipât EMBEDDED
ni- wâpahtê-n atim ***ê-*** *nipâ -t*
1- see.VTI -SAP dog ***C1-*** *sleep.VAI -3*
'I saw that the dog was sleeping.'

Finally, if the left-edge process of initial change is absent (so-called *simple* CONJUNCT), the verbal complex is also restricted to embedded clauses. A simple CONJUNCT clause can only be introduced by higher predicates, as in (37).

(37) Simple CONJUNCT clauses must be embedded

a. * **(ka-)mîcisot** MATRIX
ka- mîciso -t
IRR-eat.VAI-3
---

b. ninitawêyimâw nîcêwâkan **ka-mîcsot** EMBEDDED
ni- nitawêyim -â -w ni- wîcêwâkan ka- mîciso -t
1- want.VTA -DIR-3 1- friend IRR-eat.VAI -3
'I want my friend to eat.'

(38) Subjunctive CONJUNCT clauses must be embedded

a. * **wâpamaki Jeff** MATRIX
wâpam -ak -i J
see.VTA-1>3-SUBJ J
---

b. **wâpamaki Jeff**, nika-wîhtamawâw kâ-itwêyan EMBEDDED
wâpam -ak -i J ni- ka- wîhtamaw -â -w kâ- itwê -yan
see.VTA-1>3-SUBJ J 1- IRR-tell.VTA -DIR-3 C2- thus.say.VAI-2
'Should I see Jeff, I'll tell him what you said.'

In CONJUNCT clauses, then, it is the left-edge element that determines the distribution of the verbal complex. The table summarizing the distribution is given below.

	Matrix	Embedded
kâ-	✖	✔
IC-	✖	✔
ê-	✔	✔
⊘	✖	✔

Table 2.1. Left-edge clause-typing proclitic determines distribution of clause

Since it is the choice of clause-typing element that correlates with distribution in matrix vs. embedded environments, these are the elements that look much like *that* in English – their distributional effect is consistent with putting them in C.

(39) $[_{CP}\ [_{C}\ \textit{ê-} / \textit{kâ-} / \textit{IC}\ [_{IP} \ldots]\ ]\ ]$

2.2.4 Pronominal proclitics are complementary with clause-typing

In the last section we saw that the left-edge proclitics in the CONJUNCT order have a clause-typing function. If we compare these proclitics to the pronominal proclitics, we see additional evidence that pronominal proclitics are in CP: they are in complementary distribution with the clause-typing elements (including *ê-*, *kâ-*, and internal change) (cf. Wolfart 1973, Blain 1997). This is illustrated in (16-17), with the first-person marker *ni-* and the clause-typing element *ê-*. We have already seen that *ni-* and *ê-* can both occur in matrix clauses, However, as (40) shows, *ni-* and *ê-* cannot co-occur with right-edge INDEPENDENT order agreement *-n*.

(40) a. * **ni**(t)-**ê**-kî-mâton
nit- ê- kî- mâto -n
1- C1-PREV-cry.VAI-SAP
--- (*intended:* 'I cried.')

b. * **ê-ni**-kî-mâton
ê- ni- kî- mâto -n
C1-1- PREV-cry.VAI-SAP
--- (*intended:* 'I cried.')

And as (41) shows, *ni-* and *ê-* cannot co-occur with right-edge CONJUNCT order agreement *-yân*.

(41) a. * **ni**(t)-**ê**-kî-mâtoyân
nit-ê-kî-mâtoyân
nit-ê-kî-mâto-yân
--- (*intended:* '…I was crying')

b. * **ê-ni**-kî-mâtoyân
ê-ni-kî-mâto-yân
C1-1-PREV-cry.VAI-1
--- (*intended:* '…I was crying')

There is no semantic reason why a first-person marker should be incompatible with a complementizer, since many languages permit this (e.g., English: *John told me **that I** was going to win*.). Thus, we can conclude that the incompatibility of the person prefixes and complementizers is a syntactic problem: their complementarity arises from the fact that they are both within the same layer of the clause (i.e., the CP).

2.2.5 Interim summary: Verbal complexes are CPs

I have presented a four-part argument that verbal complexes in Plains Cree are CPs, with the pronominal proclitics and clause-typing proclitics specifically hosted in the CP-layer of the clause:

(i) pronominal proclitics and clause-typing proclitics precede all tense/aspect and modality preverbs;

(ii) peripheral agreement has does not have any properties associated with IP (e.g., subjecthood, sensitivity to finiteness);

(iii) the distribution of the clause in matrix vs. embedded contexts is determined by the presence of pronominal proclitics and/or choice of clause-typing proclitics;

(iv) pronominal proclitics and clause-typing proclitics are in complementary distribution.

In the next section I distinguish between the different verbal complexes, showing that INDEPENDENT clauses have an overtly filled specifier position (spec, CP), that CHANGED CONJUNCT clauses have an overt complementizer (i.e., C), and that SIMPLE CONJUNCT clauses have a covert complementizer ($C_{\varnothing}$).

2.3 Diagnosing C vs. spec, CP

In this section, I give evidence to support the claim that the pronominal forms (*ni-* '1st' and *ki-* '2nd') are in spec, CP while the clause-typing proclitics are in C. The diagnostics I use to determine whether pronominal proclitics are heads or not are: (a) whether they select for a complement; (b) whether substitution of elements within the same class changes the distribution of the clause; and (c) the (non-)significance of a covert element. In each case, the pronominal proclitics diverge from the clause-typing proclitics; the former are consistent with specifiers, the latter with heads.

DIAGNOSTIC	PRONOMINAL PROCLITICS (=SPEC)	CLAUSE-TYPING PROCLITICS (=HEAD)
select for complement?	✖	✔
substitution determines distribution?	✖	✔
covertness significant?	✖	✔

Table 2.2. Diagnostics for specifiers vs. heads

I discuss each of these diagnostics in turn in the following subsections.

2.3.1 Selection of complement

Turning our attention first to the pronominal proclitics, we see that they are not specific to clauses. Rather, they are analogous to the paradigm for possessors in nominals (Wolfart 1973, Ahenakew 1987, Dahlstrom 1991), and in fact their use in the verbal is argued to be a historical extension from the nominal domain (Goddard 1967). In (42a), we see the pronominal prefix attaching to a verbal stem and associated with one of the arguments of the predicate; in (42b), this same prefix attaches to a nominal stem and marks the possessor:

(42) a. **ni**cihkêyihtên
ni- cihkêyihtê -n
1- happy.VTI -SAP
'I'm happy.'

b. **ni**maskisin
ni- maskisin
1- shoe
'my shoe'

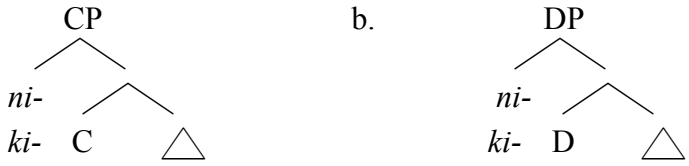
The full paradigms are given in Table 2.3. For the first and second person, both nominals and clauses have a left edge *ni-* or *ki-*; and share the same right-edge plural marking, including 1pl. excl. *-nân;* 1-2.pl *-naw;* and 2.pl *-wâw* (note that the verbal version of the latter has an extended form *–**nâ**wâw*). In the third person, the verbal complex lacks the prefix *o-*, (a fact I will return to in §3.2.3.2) but again the verbal and nominal paradigms have the same right-edge marking in the 3.obv form (*-yiwa*).

PERSON CATEGORY	INDEPENDENT ORDER	NOMINAL POSSESSION
1.sg.	**ni**nipâ**n**	**ni**mis
2.sg.	**ki**nipâ**n**	**ki**mis
1.pl. excl.	**ni**nipâ**nân**	**ni**misi**nân**
1.pl. incl.	**ki**nipâ**naw**	**ki**mis**naw**
2.pl	**ki**nipâ**nâwâw**	**ki**misi**wâw**
3.sg.	nipâ**w**	**o**misa
3.pl	nipa**wak**	**o**misi**wâwa**
3.obv	nipâ**yiwa**	**o**misi**yiwa**

Table 2.3. Person marking in INDEPENDENT and possession paradigms

Pronominal proclitics do not select for a particular kind of XP: they are neutral with respect to the distinction between DPs and CPs.

(43) a. b.



Syntactically, this is a classic difference between heads and specifiers: heads must select for a complement, but a specifier does not. In the case of complementizer C heads, the head selects for a clausal constituent. However *ni-* and *ki-* are not selecting for a clausal constituent – the presence of *ni-* or *ki-* does not identify the constituent it attaches to as a clause. This is evidence that they are hosted in spec, CP, rather than C.

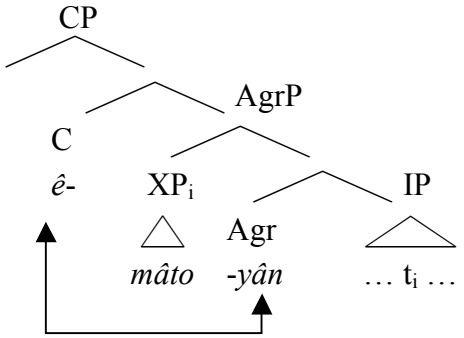
While pronominal proclitics are found in both verbal and nominal contexts, the clause-typing proclitics occur only in verbal contexts. For example, in (44), the proclitic *ê-* may not attach to a nominal stem, but it may attach to a verbal stem (identifiable by the *-t* agreement).

(44) a. * ê-minôs
ê- minôs
C1-cat
--

b. ê-minôsit
ê- minôs –i -t
C1-cat -EPEN-3
'S/he is a cat.'

Thus, the clause-typing proclitics do identify a clause. Notice that categorial properties of the verbal stem are identifiable by the right-edge agreement, and recall that we saw reason to suppose that this agreement is very high in the clause, above the IP-layer of the clause. Following Déchaine (2001), I therefore take this agreement to occupy the phrase which is selected by the complementizer, as in (45): the whole verbal predicate *mâto-* 'cry.VAI' rises from its lower position to sit in the spec of the Agr Phrase, giving rise to the discontinuity of the two elements.

(45) [$_{CP}$ [$_{C}$ **ê-** [$_{XPverb}$ mâto**yân**]]]



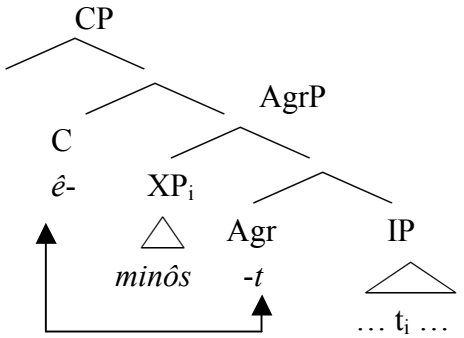
Since nominal stems lack this verbal agreement, the clause-typing proclitic cannot select for an appropriate complement, yielding ungrammaticality, as with *minôs* 'cat'.

(46) [$_{CP}$ [$_{C}$ ê- [$_{XPnoun}$ minôs]]]

Adding the appropriate selectional material (i.e., clausal agreement) satisfies selection. Notice that when the nominal stem is framed by the clause agreement, we get a predicate reading: 'he is a shoe'; this is a common strategy in Plains Cree.

(47) **ê**-minôsi**t**
ê- minôs -i -t
C1-cat -EPEN-3
'…s/he is a cat.'

(48) [$_{CP}$ [$_{C}$ **ê-** [$_{AgrP}$ minôsi**t**]]]



With respect to selection, the clause-typing proclitics exhibit behaviour that is quite distinct from the behaviour of the pronominal proclitics: the former behave like heads, the latter do not.

2.3.2 Substitution (does not) determine distribution

Specifier positions also differ from heads in that interchanging the form of the former should not necessarily change the clause's distribution relative to external linguistic structure, while interchanging the form of the latter (i.e., the complementizer) should.

For example, there are several wh-words that may move to spec, CP in English (Ross 1967, Huang 1982, Richards 1997).

(49) a. What did you do yesterday? [$_{CP}$ **what$_i$** [$_C$ did [$_{IP}$ you do t$_i$ yesterday]]]

b. Why did you do that? [$_{CP}$ **why$_i$** [$_C$ did [$_{IP}$ you do it t$_i$]]]

c. Where did you find it? [$_{CP}$ **where$_i$** [$_C$ did [$_{IP}$ you find it t$_i$]]]

Substituting *what* for *who* will change the question that is being asked, but it does not change the fact that the clause is a wh-clause with wh-syntax. However, the element in C is invariant across this movement: it is always an auxiliary moved from I. We cannot substitute a different complementizer, such as *that*, or *while*.

(50) a. * What **that** you did yesterday? [$_{CP}$ what$_i$ [$_C$ **that** [$_{IP}$ you did t$_i$ yesterday]]]

b. * What **while** you did yesterday? [$_{CP}$ what$_i$ [$_C$ **while** [$_{IP}$ you did t$_i$ yesterday]]]

If we apply this logic to Plains Cree clauses, we get a split between pronominal proclitics and clause-typing proclitics. Clause-typing proclitics look like English complementizers: substitution changes the distribution of the clause. For example, the *ê-* proclitic obligatorily occurs in clauses associated with an object position. Absence of the *ê-* proclitic (51b) or replacement with a different proclitic (51c) result in a clause that cannot be interpreted as an object clause.

(51) a. Jeff ê-wanikiskisit **ê-mîcisot** [$_{CP}$ [$_C$ ê- [$_{XP}$ mîcisot]]]
J ê- wanikiskisi -t ê- mîciso -t
J C1- forget.VAI -3 C1-eat.VAI-3
'Jeff forgot that he had eaten.'

b. ! Jeff ê-wanikiskisit **mîcisoci** [$_{CP}$ [$_{C}$ ⊘ [$_{XP}$ mîcisoci]]]
J ê- wanikiskisi -t mîciso -t -i
J C1-forget.VAI -3 eat.VAI-3 -SUBJ
--- (*intended*: 'Jeff forgot that he was eating.')

c. ! Jeff ê-wanikiskisit **kâ-mîcisot** [$_{CP}$ [$_{C}$ kâ- [$_{XP}$ mîcisot]]]
J ê- wanikiskisi -t kâ-mîciso -t
J C1-forget.VAI -3 C2-eat.VAI -3
--- *(intended*: 'Jeff forgot that he was eating.')

Pronominal proclitics, on the other hand, do not distinguish between clause-types. For example, substituting the pronominal form does not change the CP's inability to be embedded. In (52), the clause hosting the proclitic *ni-* cannot be embedded (52b).

(52) a. **ni**wâpamik MATRIX
ni- *wâpam -ik -w*
1- *see.VTA-INV-3*
'He saw me.'

b. * Jeff niwîhtamâk **ni**wâpamik EMBEDDED
J ni- wîhtam -aw -ik ***ni-*** *wâpam -ik*
J 1- tell.VTA -BEN-INV ***1-*** *see.VTA-INV*

In (53), *ki-* has been substituted for *ni-*, and the clause is still unable to be embedded (53b).

(53) a. **ki**wâpamik MATRIX
ki- *wâpam -ik*
2- *see.VTA-INV*
'He saw you.'

b. * Jeff niwîhtamâk **ki**wâpamik EMBEDDED
J ni- wîhtam -aw -ik ***ki-*** *wâpam -ik*
J 1- tell.VTA-BEN-INV ***2-*** *see.VTA -INV*

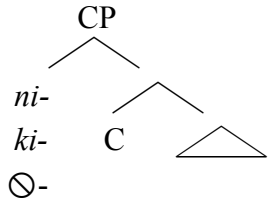
Finally, in (54) there is no proclitic at all, and the clause is again unable to be embedded (54b).

(54) a. nimâma **wâpamik** MATRIX
ni- mâma wâpam -ik
1- mom see.VTA-INV
'My mother saw him/her.'

b. * Jeff niwîhtamâk nimama **wâpamik** EMBEDDED
J ni- wîhtam -aw -ik ni- mâma wâpam -ik
J 1- tell.VTA-BEN-INV 1- mom see.VTA-INV

I therefore posit a structure in which the pronominal proclitics are in spec, CP, rather than C: substitution of the pronominal proclitic (i.e., *ni-* vs. *ki-* vs. ⦸-) does not change the distribution of the clause.

(55)

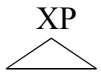


The behaviour of the clauses with a ⦸- proclitic leads us to the next point: the significance of non-overtness.

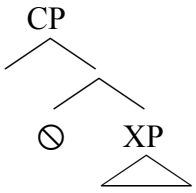
2.3.3 The significance of non-overtness

Just as substitution of different forms has different consequences for specs vs. heads, so the absence of a form has consequences. For heads, the absence of a form means either that the head is gone (resulting in less structure), or that there is a null head (which should affect the form and function of the phrase it projects to (56)).

(56) a.



b.



The structure in (56b) more accurately captures what we see with the clause-typing proclitics. In (57a) we see a clause *wâpahtam Jeff* 'Jeff saw it' introducing a dependent proposition with the clause-typing proclitic *ê-*. If this clause-typing proclitic is absent, the utterance becomes ungrammatical.

(57) Clauses associated with object position require *ê-* proclitic

a. wâpahtam Jeff **ê**-kî-mispohk
*wâpahtam -w J **ê-** kî- mispon -k*
*see.VTI -3 J **C1**-PREV-snow.VII-0*
'Jeff saw it had snowed.'

b. * wâpahtam Jeff kî-mispohk
wâpahtam -w J kî- mispon -k
see.VTI -3 J PREV-snow.VII-0

Likewise, clauses without an overt clause-typing proclitic (used, for example, in some conditionals) become ungrammatical if an overt clause-typing proclitic is added. This is demonstrated in (58).

(58) Antecedents of conditionals require *ê-* proclitic

a. kspî nîcêwâkan **sipwêhtêci** wâpahki, nika-kaskêyihtên[8]
kspî ni- wîcêwâkan sipwêhtê -t -i wâpah -k -i ni-ka- kaskêyihtê -n
if/when 1- friend leave.VAI-3-SUBJ dawn.VII-0 -SUBJ 1- IRR-lonely.VTI -SAP
'If my friend leaves tomorrow, I will be lonely.'

b. * kspî nîcêwâkan **ê**-sipwêhtêci wâpahki, nika-kaskêyihtên
kspî ni-wîcêwâkan ê- sipwêhtê -t -i wâpah -k -i ni- ka- kaskêyihtê -n
if/when 1- friend C1-leave.VAI-3-SUBJ dawn.VII-0-SUBJ 1- IRR-lonely.VTI -SAP

This bi-directional implication between the presence of a phonologically overt clause-typing proclitic versus the functional and distributional properties of the clause is behaviour that is accounted for by representing them as C heads.

[8] The *kspî* element in these examples is regularly used in these construction by one of the consultants I worked with. It is not clear to me if this is a morpho-phonological permutation of *kîspin* 'if', a morpho-phonological permutation of *êkospî* 'then', or an entirely different particle. I have thus left this particle in its surface form.

There is an additional complication with simple CONJUNCT clauses in that the preverb *ka-* and suffix *-i* have a different distribution. For example, the *-i* clause cannot be substituted for the *ka-* clause in (59).

(59) a. nikwêcimâw Jeff **ka-**nikamot
*ni-kwêcim -â -w J **ka-** nikamo -t*
*1-ask.VTA -DIR-3 J **IRR**-sing.VAI-3*
'I asked Jeff to sing.'

b. * nikwêcimâw Jeff nikamoc**i**
*ni-kwêcim -â -w J nikamo -t **-i***
*1-ask.VTA -DIR-3 J sing.VAI-3-**SUBJ***
'I asked Jeff to sing.'

However, I do not treat them as complementizers on par with the clause-typing proclitics because they do not have the distributional restrictions that the true clause-typing proclitics have. As we saw earlier in the chapter, the irrealis preverb *ka-* can occur in matrix and embedded clauses, and in both INDEPENDENT and CONJUNCT clauses. The relevant data is repeated in (60): in (60a), *ka-* is occurring in an INDEPENDENT clause to indicate a future event, and in (60b) it is in a CONJUNCT clause to indicate a clausal relation akin to the Indo-European subjunctive (see chapter 6 for details).

(60) Interpretations of irrealis *ka-* across Plains Cree's orders

a. ..., "â, êkota ni**ka**-pôsipayihon," ... — INDEPENDENT future
*â êkota ni- **ka-** pôsipayiho -n*
*INTERJ there 1- **IRR**-jump.VAI -SAP*
'..., "Well, I will jump on that," … ' (AA 8.3)

b. nikî-kwêcimâw Nettie **ka**-pê-itohtêt — CONJUNCT irrealis
ni- kî- kwêcim -â -w N ka- pê- itohtê -t
1- PREV-ask.VTA -DIR-3 N IRR-come-go.VAI-3
'I asked Nettie to come.'

Likewise, the suffix *-i*, which is glossed as a subjunctive marker in simple CONJUNCT clauses (61a), also appears in CONJUNCT clauses that have clause-typing proclitics. In the latter cases it indicates plurality of inanimate referents, as in (61b), or plurality of realis events (61c) (see Mühlbauer 2008 for discussion).

(61) Interpretations of *–i* across Plains Cree's CONJUNCT modes

a. miywâsik**i** … — SIMPLE SUBJUNCTIVE
*miywâsi -k –**i***
*nice.VII -0 **-SUBJ***
'if it/they are nice'
non-singular unrealized event

b. **ê-**miywâsik**i** maskisina — Ê-CONJUNCT
***ê-** miywâsi -k **-i** maskisin -a*
***C1**-nice.VII -0-**PL** shoe -PL*
'...the shoes are nice.'
non-singular inan. referent

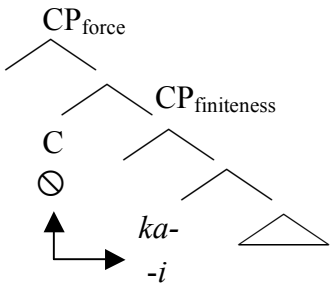
c. êkwa p**iy**ê-takohtêtwâw**i** — IC-CONJUNCT
*êkwa **iy**- pê- takohtê -twâw **-i***
*and **IC**-COME-arrive.VAI-3PL **-PL***
'And when the men would come home
non-singular realized event

mâna nâpêwak kî-kîsowihkasowak, …
mâna nâpêw -ak kî- kîsowihkaso -w -ak
usually man -PL PREV-warm.self.VAI-3 -PL
they used to warm themselves …' (EM 50)

This means that, for *ka-* and *-i*, the choice of clause-type affects the interpretation of the proclitic, rather than the proclitic affecting the choice of clause-type.

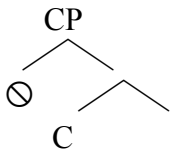
I take the data above to signify that *ka-* or the *-i* are in a position immediately below the clause-typing domain; concretely, I call this $C_{finiteness}$, following Rizzi (1997), and call the clause-typing domain where the pronominal proclitics and clause-typing proclitics sit C_{force}.

(62) a.



Let us now turn to the specifier position. If a specifier position is phonologically null, the projection as a whole does not change, and we expect that the function and distribution of the constituent also will not change.

(63)



For the pronominal forms, we observe this latter pattern. While the pronominal proclitics are obligatory if a speech act participant (1st or 2nd person) is one of the participants in the event, there is no pronominal proclitic at all if no speech act participant is an event participant. Thus (64) shows two examples that differ only in the presence/absence of a phonologically overt pronominal proclitic: if there is an overt pronominal proclitic, it gets interpreted (in this example) as a subject (64a); if there is none, then the subject is obligatorily unspecified (thus denoted by the passive translation to English in 64b) (cf. Déchaine & Reinholtz 1999 on unspecified subject constructions).

(64) a. niwâpamâw
ni-wâpam -â -w
1- see.VTA-DIR-3
'I see him/her

b. wâpamâw
wâpam -â -w
see.VTA-DIR-3
's/he was seen.'

Other morpho-syntactic configurations of the INDEPENDENT order, which involve only third persons, obligatorily lack an overt pronominal proclitic, as in (65).

(65) a. wâpamêw
wâpam -ê -w
see.VTA-DIR-3
's/he saw him/her.'

b. * niwâpamêw
ni- wâpam -ê -w
1- see.VTA-DIR-3

A phonologically null – or absent – pronominal proclitic does not change the external syntax of the verbal complex. The form *wâpamêw* 's/he sees him/her', which lacks a pronominal proclitic,

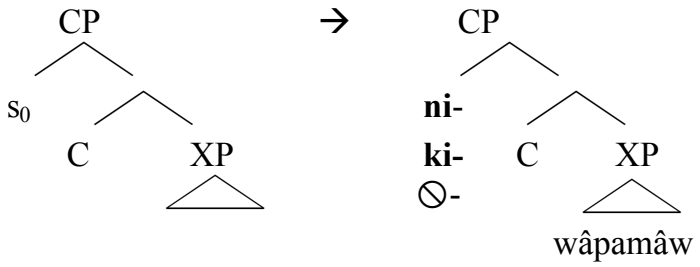
cannot suddenly appear in an embedded clause. In this sense, the pronominal proclitics behave like elements in a specifier, rather than a head, position.

2.3.4 Interim Summary

The preceding pages have shown several ways in which the pronominal proclitics in the INDEPENDENT order and the clause-typing proclitics in the CONJUNCT order differ; I have argued that these differences correspond to the split between heads and specifiers.

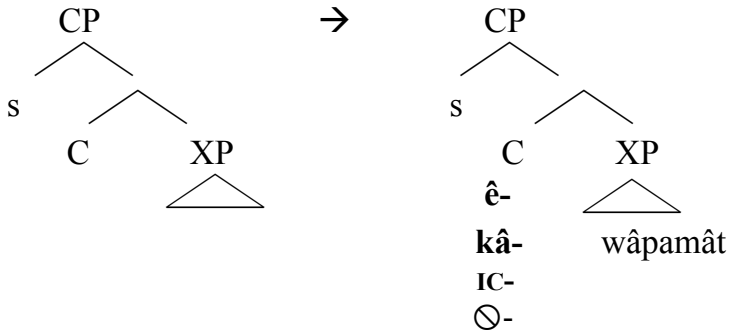
This means that the mapping between Plains Cree's morpho-syntax and the distinction between indexical versus anaphoric clauses is quite transparent. Given that the INDEPENDENT order corresponds to indexical clauses (the topic of chapter 3), indexical clauses in Plains Cree may host an element in spec, CP.

(66) INDEXICAL CLAUSE → Plains Cree INDEPENDENT



And given that the CONJUNCT order corresponds to anaphoric clauses (the topic of chapter 4), anaphoric clauses in Plains Cree may host a complementizer in C that corresponds with the anaphoric situation.

(67) ANAPHORIC CLAUSE → Plains Cree CONJUNCT



2.4 The indexical/anaphoric distinction ≠ matrix/embedded distinction

The final point I want to make in this chapter is that, although Plains Cree's clause-typing split interacts with the matrix/embedded distinction in many ways, it does not pick out the matrix/embedded distinction. In this section, I briefly look at two elements in Plains Cree that do distinguish matrix vs. embedded contexts: negation, and the interrogative marker *cî*. The relevant point is that the distribution of both of these elements is not determined by the morpho-syntactic INDEPENDENT/CONJUNCT distinction in Plains Cree, but rather by the syntactic matrix/embedded distinction.

2.4.1 Negation distinguishes matrix and embedded clauses

Plains Cree has two negative elements: *êkâ* and *namôya*[9] (Lacombe 1874, Wolfart 1973, Dahlstrom 1991, Déchaine & Wolfart 1998, 2000). Unlike English negation, the form of negation in Plains Cree is sensitive to the distinction between matrix and embedded clauses (Wolfart 1973, Reinholtz & Wolfart 1996, Reinholtz 1999, Déchaine & Wolfart 1998, 2000; Déchaine & Wiltschko 2002, 2006).

[9] This negator actually has multiple morpho-phonological forms, including *nama, ma, môya,* and *môy*. In general, the *môy(a)* forms are most commonly found with clausal negation (as opposed to constituent negation), but more work is needed to understand the interaction of form with function and distribution.

The *namôya* form occurs in matrix environments. For example, the verbal complexes under negation in (68a-b) have the same form (CONJUNCT), but differ as to whether they are embedded. The *môy* form of negation cannot be used in embedded clauses.

(68) a. **môy** ê-kiskêyimak MATRIX
môy ê- kiskêyim -ak
NEG C1-know.VTA-1>3
'I didn't know him.'

b. * nitâyimêyihtên **môy** ê-kiskêyimak EMBEDDED
ni(t)- âyimêyihtê -n môy ê- kiskêyim -ak
1- consider.difficult.VTI-SAP NEG C1-know.VTA-1>3
--- (*intended*: 'It was hard that I didn't know him.')

comment: in this sentence, *êkây* feels better

In (69), the matrix negator *môya* occurs with both INDEPENDENT clauses (69a) and CONJUNCT (69b). This means that the form of negation does not map onto a particular morpho-syntactic form in Plains Cree.

(69) a. **môy** ninêstosin INDEPENDENT
môy ni- nêstosi -n
NEG 1- tired.VAI-SAP
'I'm not tired.'

b. …, **namôy** ê-môhcwêyimakik, … CONJUNCT
namôya ê- môhcwêyim -ak -k
NEG C1-consider.VTA-1>3-PL
'…, I do not consider them stupid, …' (JKN 1.3)

The *êkâya* form of negation occurs in embedded clauses or in clauses that have the irrealis marker *ka-*.[10] Without *ka-*, the negator *êkâya* is prohibited from matrix clauses, whether they be INDEPENDENT (70a) or CONJUNCT (70b).

[10] This is a long-standing puzzle in Plains Cree syntax and semantics: why do these environments pattern together? A third environment where *êkâya* negation is used is in imperatives, which, like clauses with *ka-*, have an irrealis flavor; this suggests that, whatever the answer, the puzzle is not specific to the morpheme *ka-*. Thus, on the one hand, *êkâya*'s distribution is syntactically conditioned (by the matrix/embedded split), and on the other hand it is semantically conditioned (by the realis/irrealis split) (Déchaine & Wolfart 1998, 2000).

(70) *êkâ* negation cannot occur in matrix clauses

a. * **êkâ** nikiskêyimâw INDEPENDENT
êkâ ni-kiskêyim-â-w
NEG 1-know.VTA-DIR-3
--- (*intended*: 'I don't know him/her.')

b. * **êkâ** ê-kiskêyimak CONJUNCT
êkâ ê- kiskêyim -ak
NEG C1-know.VTA-1>3
--- (*intended*: 'I don't know him/her.')

Since INDEPENDENT clauses are never allowed in embedded contexts, they are unsurprisingly bad here too (71a); in a CONJUNCT embedded clause, *êkâ* negation is fine (71b).

(71) *êkâ* negation occurs in embedded clauses

a. * nitâyimêyihtên **êkâ** nikiskêyimâw INDEPENDENT
ni(t)- âyimêyihtê -n êkâ ni- kiskêyim -â -w
1- consider.difficult.VTI-SAP NEG C1- know.VTA -DIR-3
'It was hard because I didn't know him.'

b. nitâyimêyihtên **êkâ** e-kiskêyimak CONJUNCT
ni(t)- âyimêyihtê -n êkâ ê- kiskêyim -ak
1- consider.difficult.VTI-SAP NEG C1-know.VTA-1>3
'It was hard because I didn't know him.' (AA 2.1, presented in elicitation)

Proof that *êkâ* negation is not selecting for CONJUNCT clauses can be found when we look at clauses with the modal *ka-* (cf. Lacombe 1874, Déchaine & Wolfart 1998). In (72a-b), we see examples of *êkâ* co-occurring with an INDEPENDENT clause hosting *ka-*.

(72) INDEPENDENT + *ka-* + *êkâ* negation

a. **êkâ** ka-kimiwan
êkâ ka- kimiwan
NEG IRR-rain.VII
'It better not rain!!'

b. **êkâ** ni**ka**-mîcison
êkâ ni- ka- mîciso -n
NEG 1- IRR-eat.VAI-SAP
'I won't eat (right now).'

Summing up, the distribution of negation in Plains Cree is sensitive to (although not entirely determined by) the matrix/embedded distinction. Relevant to the current discussion is the fact that the distribution of negation is not sensitive to the distinction between Plains Cree's INDEPENDENT and CONJUNCT orders.

2.4.2 Interrogative marking distinguishes matrix and embedded clauses

A second element that is sensitive to the matrix/embedded distinction in Plains Cree is the interrogative marker *cî*, which can only occur in matrix clauses. This is not surprising, given that interrogative force is a kind of illocutionary force (Searle 1965, Austin 1950), which in turn is thought to be a function of the CP-domain (Cheng 1991, Chomsky 1995, Portner 1999).

Again, the point I want to make here is that *cî* picks out matrix clauses, which are a heterogeneous class in terms of Plains Cree's morpho-syntax. Both INDEPENDENT and CONJUNCT verbal complexes host Plains Cree *cî*, as shown in (73): in (73a), *cî* follows an INDEPENDENT verbal complex, and in (73b), it follows an ê-CONJUNCT verbal complex.

(73) a. kimîcison **cî** INDEPENDENT
ki-mîciso-n cî
2-eat.VTA-SAP Q
'Have you eaten?'

b. ê-nêstosiyan **cî** CONJUNCT
ê-nêstosi-yan cî
C1-tired.VAI-2 Q
'…are you tired?'

However, *cî* may not be embedded under a higher predicate. Thus, in (74a), *cî* is in second position and has scope over the clause it follows – the matrix clause *kiwâpamâw* 'you saw her'. In (74b), which was an attempt to form an embedded interrogative, *cî* is ungrammatical.

(74) a. kiwâpamâw **cî** Rose-Marie ê-kî-pâhpit MATRIX
*ki- wâpam -â -w **cî** RM ê- kî- pâhpi -t*
*2- see.VTA-DIR-3 **Q** RM C1-PREV-laugh.VAI-3*
'Did you see that Rose-Marie laughed?'

b. * Rose-Marie môy niwâpamâw [ê-sipwêhtêt **cî**] EMBEDDDED
RM môya ni- wâpam -â -w ê- sipwêhtê -t cî
RM NEG 1- see.VTA -DIR-3 C1-leave.VAI-3 Q
--- (*intended:* 'I didn't see if/whether Rose-Marie left.')

Similarly, in (75) we observe that *kîspin* 'if' is used to introduce an indirect yes/no question (75a), and that it is ungrammatical to replace *kîspin* 'if' with *cî* 'Q' (75b).

(75) a. nikwêcimâw Rose-Marie **kîspin** ê-wî-itohtêt
ni- kwêcim -â -w RM kîspin ê- wî- itohtê -t
1- ask.VTA-DIR-3 RM if C1-INT-go.VAI-3
'I asked Rose-Marie if/whether she was coming.'

b. * nikwêcimâw Rose-Marie **cî** ê-wî-itohtêt
ni- kwêcim -â -w RM cî ê- wî- itohtê -t
1- ask.VTA -DIR-3 RM Q C1-INT-go.VAI-3

In summary, then, *cî* picks out matrix clauses, but it does not pick out INDEPENDENT clauses. Together, negation and the interrogative *cî* provide evidence that the morpho-syntactic division between INDEPENDENT and CONJUNCT in Plains Cree does not correspond to the matrix/embedded distinction.

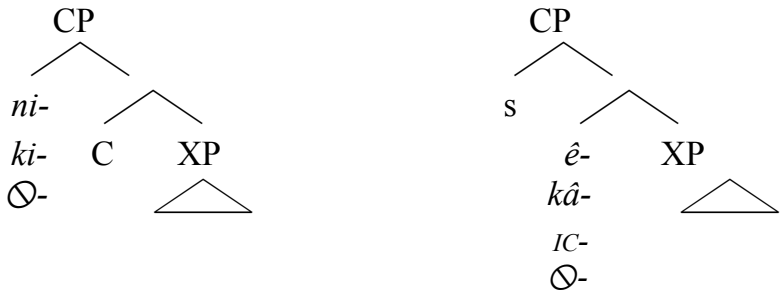
2.5 Summary

This chapter has been concerned with how the indexical vs. anaphoric division in clauses maps onto Plains Cree's morpho-syntax. I first argued that the left-edge pronominal proclitics and clause-typing proclitics are hosted in the CP-domain in Plains Cree, a place where Plains Cree differs from at least some other Algonquian languages, and that these were thus candidates for cuing the indexical/anaphoric division, which I claim is hosted in spec, CP.

(76) a. INDEXICAL CP b. ANAPHORIC CP

I then argued that the pronominal proclitics in the INDEPENDENT order are in spec, CP, while the clause-typing proclitics in the CONJUNCT order are complementizers.

(77) a. INDEXICAL CP b. ANAPHORIC CP



This results in a one-to-one mapping between the indexical vs. anaphoric clauses on the one hand, and Plains Cree's clause-typing morpho-syntax on the other.

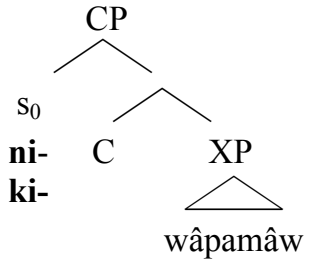
I now turn to the external syntax and the semantics of each of these clauses.

CHAPTER 3
INDEXICAL CLAUSES: PLAINS CREE'S INDEPENDENT ORDER

3.1 Proposal: The syntax and semantics of indexical clauses

In chapter 2, we looked at the internal structure of indexical clauses, and I argued that they have an indexical speech situation variable in spec, CP.

(1) **Internal structure of an indexical clause**



In Plains Cree, an indexical clause is instantiated by the INDEPENDENT order. In the summary given in table 3.1, we see that INDEPENDENT clauses are characterized by left-edge 1st and 2nd person marking, and by a unique set of right-edge person marking.

PERSON CATEOGRY	INDEPENDENT ORDER
1.sg.	**ni**nipâ**n**
2.sg.	**ki**nipâ**n**
1.pl. excl.	**ni**nipâ**nân**
1.pl. incl.	**ki**nipâ**naw**
2.pl	**ki**nipâ**nâwâw**
3.sg.	nipâ**w**
3.pl	nipa**wak**
3.obv	nipâ**yiwa**

Table 3.1. Summary of the INDEPENDENT order paradigm in Plains Cree

In this chapter I turn to indexical clauses' external properties; i.e., how an indexical clause relates to clause-external linguistic material. I make claims about the reflexes of indexicality in these clauses' structural, semantic, and discourse properties.

Structurally, I take there to be two ways in which clauses can be related: the hierarchical notion of *c-command* as defined in (2), and the linear notion of *precedence* as defined in (3).

(2) **C-command**$_{def}$: A constituent α c-commands β iff β is dominated by the lowest node of a major category that dominates α.

(3) **Precedence**$_{def}$: A constituent α precedes β iff constituent α is linearly ordered before β within a given domain.

Given these conditions[1], I claim that indexical clauses are subject to anti-c-command and anti-precedence. Thus they are prohibited in configurations like (4) where the indexical clause is dominated by another clause.

(4) * CP

CP$_{\mathbf{IND}}$

They are also prohibited in configurations like (5), where the indexical clause is non-initial within the domain (indicated by the square brackets).

(5) * [CP ... **CP**$_{\mathbf{IND}}$ ...]

In §3.2, I show that these conditions on indexical clauses derive the distribution of Plains Cree's INDEPENDENT order clauses. The anti-c-command condition derives the fact that Plains Cree's INDEPENDENT clauses are always matrix clauses. The anti-precedence condition derives the fact that variables introduced in Plains Cree's INDEPENDENT order clauses must have a clause-internal antecedent – i.e., even a non-c-commanding antecedent is ruled out. In other words, indexical clauses "must be free."

[1] There is much disagreement in the literature about whether c-command and precedence are two separate conditions (Ross 1967b, Carden 1986, Williams 1997) or whether one can be derived from the other (cf. Reinhart 1983, perhaps laid out most explicitly in Kayne 1994). As we will see in this chapter and chapter 4, Plains Cree exhibits patterns that are best captured by positing both conditions.

Semantically, indexical clauses have a privileged relation to the speech act (cf. Banfield 1982): they are indexed to it (cf. Bühler 1934, Bar-Hillel 1954, Kaplan 1989 on indexical expressions). Indexicality is a subset of deixis that picks out the speaker, the speech time and/or the speech location.[2] We therefore expect that an indexical clause will have the following particular deictic properties:

(i) referentially, they are anchored to the speaker;

(ii) temporally, they are anchored to the speech time; and

(iii) spatially, they anchored to the speech place.

In §3.3, I show that these properties account for the restricted interpretation of Plains Cree's INDEPENDENT order clauses: they are evaluated relative to speech time, relative to the speaker, and relative to the speech location.

Modelling this within a situation semantics framework, where every proposition must be evaluated with respect to a situation (Austin 1950, Barwise 1981, Barwise & Perry 1983, Kratzer 1989, 2007), I argue that in an indexical clause this situation is the speech situation. As discussed in chapter 1, a situation *s* is a partial world; the speech situation s_0 is simply a situation in which someone is speaking. The speech situation minimally must include the individual who is doing the speaking (i.e., the speaker *I*); and the temporal/spatial location of the speaking (i.e., speech time *now* and speech place *here*).

Therefore, if the truth of a proposition expressed by an indexical clause is evaluated relative to the speech situation, this logically entails that the clause be evaluated relative to both the individual (speaker) and temporal/spatial location to be coded. In §3.3 I look at the referential, temporal, and spatial anchoring properties of indexical clauses to empirically motivate the semantic claims about them.

3.2 The structural context of indexical clauses

In this section I discuss the structural contexts of indexical clauses, focussing on the implications of the claim that indexical clauses are subject to anti-c-command and anti-precedence. We expect

[2] The confluence of speaker, speech time, and speech place is called the *origo* in some treatments (e.g., Bühler 1934; Garrett 2001).

that the exponent of indexical clauses in Plains Cree, INDEPENDENT clauses, will be excluded from all embedded contexts (§3.2.1).

However, being a matrix clause is not enough to ensure an indexical clause. The implication goes only one way: indexical clauses must be matrix clauses, but there can be matrix clauses which are not indexical. In order for a matrix clause to be an indexical clause it must also satisfy anti-precedence: it cannot be preceded by another clause within its domain. This means, for example, that an indexical clause cannot enter into cross-clausal dependencies. Thus, in a language that morpho-syntactically marks indexical clauses (such as Plains Cree's INDEPENDENT order), we expect that all and only indexical matrix clauses will lack cross-clausal dependencies (§3.2.2).

3.2.1 Indexical clauses must be matrix clauses

In this section I show that indexical INDEPENDENT clauses cannot be introduced by higher predicates or by subordinating particles. Further, elements which can be independently argued to be restricted to embedded clauses will be ungrammatical with INDEPENDENT clauses; for example, I show that the embedded negator *êkâya* cannot be used with an INDEPENDENT clause.

English clauses are unspecified with respect to the indexical/non-indexical distinction; there is no morpho-syntactic marking to distinguish them. The form of an English matrix clause can be morpho-syntactically identical to its embedded counterpart.

(6) a. **I'm happy**.

b. I told her **I'm happy**.

In Plains Cree, however, these two contexts are morpho-syntactically distinguished: an indexical INDEPENDENT clause can occur in a matrix context (7a), but is replaced by a non-indexical CONJUNCT clause in the corresponding embedded context (7b).

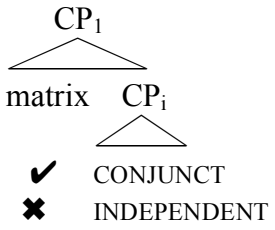
(7) a. **nicihkêyihtên** INDEPENDENT
ni- cihkêyihtê -n
1- happy.VTI-SAP
'I'm happy.'

b. niwîhtamawâw **ê-cihkêyihtamân** CONJUNCT
ni- wîhtamaw -â -w ê- cihkêyihtam -ân
1- tell.VTA -DIR-3 C1-happy.VTI -1
'I told him/her I'm happy.'

3.2.1.1 Embedding predicates do not introduce indexical clauses

Many verbs in Plains Cree may introduce an embedded clause, but indexical clauses (Plains Cree's INDEPENDENT order) are impossible in an embedded position; another clause type (Plains Cree's CONJUNCT order) must be used.

(8)



The examples below illustrate. In (9) the embedded clause is a simple CONJUNCT clause (9a); an indexical INDEPENDENT clause is ungrammatical (9b).

(9) a. ninitawêyimâw nîcêwâkan **ka-mîcisot** CONJUNCT
ni- nitawêyim -â -w ni- wîcêwâkan ka- mîciso -t
1- want.VTA -DIR-3 1- friend IRR-eat.VAI-3
'I want my friend to eat.

b. * ninitawêyimâw nîcêwâkan **mîcisow** INDEPENDENT
ni- nitawêyim -â -w ni- wîcêwâkan mîciso-w
1- want.VTA -DIR-3 1- friend eat.VAI-3
--- (*intended*: 'I want my friend to eat.')

Likewise, in (10) we observe an embedded ê-conjunct clause (10a); again the indexical INDEPENDENT counterpart is ungrammatical.

(10) a. nikî-wâpahtên **ê-kimiwahk** CONJUNCT
ni- kî- wâpahtê -n ê- kimiwan -k
1- PREV-see.VTI -SAP C1-rain.VII -0
'I saw that it was raining.'

b. * nikî-wâpahtên **kimiwan** INDEPENDENT
ni-kî- wâpahtê -n kimiwan
1-PREV-see.VTI -SAP rain.VII
--- (*intended*: 'I saw that it was raining.')

Similarly, predicative particles (e.g., *piko* 'be.necessary.that') cannot introduce an INDEPENDENT clause (cf. Wolfart 1973, Ahenakew 1987). Rather, they always introduce a CONJUNCT clause. This is illustrated in (11), where both simple CONJUNCT clauses (prefixed with the irrealis marker *ka-*) and changed CONJUNCT clauses (prefixed with the complementizer *ê-*) are grammatical (11a-a'), but INDEPENDENT clauses are not (11b).

(11) a. piko **ka-wâpamak** ana nâpêw SIMPLE CONJ
piko ka- wâpam -ak ana nâpêw
be.necessary IRR-see.VTA-1>3 DEM.AN man
'I have to see that man.'

a'. piko **ê-wâpamak** ana nâpêw *Ê-* CONJUNCT
piko ê- wâpam -ak ana nâpêw
be.necessary C1-see.VTA -1>3 DEM.AN man
'I have to see that man.'

b. * piko **niwâpamâw** ana nâpêw INDEPENDENT
piko ni- wâpam -â -w ana nâpêw
be.necessary 1- see.VTA-DIR-3 DEM.AN man
--

In summary, Plains Cree INDEPENDENT clauses cannot be embedded. This is a way in which Plains Cree's INDEPENDENT clauses are more restricted than clauses that appear in matrix contexts in English: the latter can occur in embedded contexts without any change in the morpho-syntax, whereas the indexical INDEPENDENT clauses cannot.

3.2.1.2 Subordinating particles do not introduce indexical c\lauses

In addition to embedded clauses, there are a number of subordinators which introduce different kinds of adjoined dependent clauses. These subordinators are uninflected particles which sit external to and precede the verbal complex; they act as restrictors on the complementizer of the clause they introduce, specifying the type of embedded clause. Syntactically, I posit that these particles are complementizers.

Since indexical clauses are by hypothesis subject to anti-c-command, we expect that Plains Cree's INDEPENDENT clauses should never occur with these subordinators. This expectation is fulfilled by the data as exemplified in the following table. The distribution of each subordinator according to clause-type is given for four different speakers (AA, EM, JK, SW).[3] None of the subordinators introduce an indexical INDEPENDENT clause for any of the speakers, while all of them may introduce an anaphoric CONJUNCT clause (the numbers give the number of attested examples for each speaker).

Subordinator	**indexical: INDEPENDENT**				**anaphoric: CONJUNCT**			
	JK	SW	AA	EM	JK	SW	AA	EM
osâm 'reason'	--	✖	--	✖	--	✔ (5)	--	✔ (24)
iyikohk 'as far as'	✖	✖	✖	✖	✔ (12)	✔ (4)	✔ (47)	✔ (46)
kiyâm 'although'	✖	✖	✖	✖	✔ (4)	✔ (6)	✔ (5)	✔ (5)
pâmwayês 'before'	✖	✖	✖	✖	✔ (2)	✔ (2)	✔ (3)	✔ (10)
mayaw 'as soon as'	✖	✖	✖	✖	✔ (7)	✔ (3)	✔ (4)	✔ (2)

Table 3.2. Distribution of subordinators by clause-type in Plains Cree

The distributional facts of INDEPENDENT clauses in the context of subordinators are quite striking: they simply do not occur. By contrast, every subordinator introduces some form of an anaphoric CONJUNCT clause[4]. This data was confirmed in elicitation sessions, where speakers rejected utterances where an indexical INDEPENDENT clause had been substituted for the anaphoric CONJUNCT clause: minimal pairs are given in (12-13). For example, concessive clauses are introduced by *kiyâm* 'although', and always appear in the kâ-conjunct (12a), usually followed by the particle *âta* 'even'. An indexical INDEPENDENT clause is ungrammatical (12b).

[3] There are a limited number of subordinators that occur with any regularity. The table is intended to be an exhaustive list of those which occur across multiple speakers.
[4] See chapter 6 for details.

(12) *kiyâm* 'although' only in CONJUNCT

a. **kiyâm** âta **kâ-pipok**, âhci piko mân ê-kî-yîkinikêt nikâwînân. CONJUNCT
kiyâm âta kâ-pipon -k
although even C2-winter.VII-0

âhci piko mâna ê- kî- yîkinikê -t ni-kâwî -nân
still usually C1-PREV-milk.VAI-3 1- mother-1.PL
'Even during the winter our mother would still milk the cows.' (EM 17)

b. * **kiyâm** âta **pipon**, âhci piko mân ê-kî-yîkinikêt nikâwînân. INDEPENDENT
kiyâm âta pipon âhci piko mâna ê- kî- yîkinikê -t ni-kâwî -nân
although even winter.VII still usually C1-PREV-milk.VAI-3 1- mother-1.PL

Degree clauses are introduced by the element *iyikohk* 'so'. As a degree marker,[5] *iyikohk* 'so' always introduces an anaphoric CONJUNCT clause (13a); the corresponding indexical INDEPENDENT clause is ungrammatical (13b).

(13) *iyikohk* 'so' only in CONJUNCT

a. "… êkotowahk mân ê-kî-mîciyân, **iyikohk ê-nôhtêhkatêyân**," … CONJUNCT
êkotowahk mâna ê- kî- mîci -yân iyikohk ê- nôhtêhkatê -yân
that.kind usually C1-PREV-eat.VTI-1 DEG C1-hungry.VAI-1
' "…I was **so** hungry that I would eat that kind," …' (EM 71)
(alt. trans. "I used to eat the kind because I was so hungry.")

b. * êkotowahk mân ê-kî-mîciyân, **iyikohk nikî-nohtêhkatân**[6] INDEPENDENT
êkotowahk mâna ê-kî-mîci-yân iyikohk ni-kî-nôhtêhkat-â-n
that.kind usually C1-PREV-eat.VTI-1 DEG 1-PREV-hungry-VAI-SAP
--- (*intended*: 'I was so hungry that I would eat that kind.')

[5] Note that, like many particles, *iyikohk* occurs in a number of varied contexts, with a number of interpretations. While some of these contexts do allow INDEPENDENT clauses, these contexts do not have the dependence of the degree clauses given above. See chapter 6 for further discussion.

[6] In this example, I have presented the INDEPENDENT order clause with the temporal sequencer *kî-*, since *kî-* is necessary to get a time disjoint from utterance time (cf. §7.1), which is what we have in the preceding *ê-kî-mîciyân* clause. The INDEPENDENT is also bad if the *kî-* is omitted:

(i) * …êkotowahk mân ê-kî-mîciyân, iyikohk **ninohtêhkatân**
êkotowahk mâna ê- kî- mîci -yân iyikohk ni- nôhtêhkatâ -n
that.kind usually C1-PREV-eat.VTI-1 DEG 1- hungry.VAI-SAP
--- (*intended*: 'I was so hungry that I would eat that kind.')

3.2.1.3 Embedded negation does not modify indexical clauses

The last embedded context presented here is one specific to Cree – the interaction of clause-type with negation. As we saw in chapter 2, Plains Cree has two forms of negation: *namôya* and *êkaya*. These two forms are sensitive to the matrix/embedded distinction. *namôya* occurs in unembedded contexts. The *êkâya* form of negation occurs only in embedded clauses (cf. Déchaine & Wiltschko 1998, 2006)[7] ; the relevant contrast is shown in (14).

(14) a. nitâyimêyihtên **êkâ** e-kiskêyimak
ni(t)- âyimêyihtê -n êkâ ê- kiskêyim -ak
1- consider.difficult.VTI-SAP NEG C1-know.VTA-1>3
'It was hard because I didn't know him.' (AA 2.1, presented in elicitation)

b. * nitâyimêyihtên **môy** ê-kiskêyimak
ni(t)- âyimêyihtê -n môy ê- kiskêyim -ak
1- consider.difficult.VTI-SAP NEG C1-know.VTA-1>3
--- (*intended*: 'It was hard because I didn't know him.')

Thus we expect that it will not be possible to negate an indexical INDEPENDENT clauses with *êkâ*. This is correct, as shown in (15): replacing *môy* negation with *êkâ* negation yields ungrammaticality.

(15) a. **môy** ninohtêhkatân
môy ni- nohtêhkatâ -n
NEG 1- hungry.VAI-SAP
'I'm not hungry.'

b. * **êkâ** ninohtêhkatân
êkâ ni- nohtêhkatâ-n
NEG 1- hungry.VAI-SAP
--

Thus, negation provides further evidence for the indexical analysis: we see that the only type of negation available for INDEPENDENT clauses is the negation that is restricted to unembedded environments.

[7] Unless the irrealis *ka-* preverb is present; see chapter 2.

3.2.1.4 Summary: Indexical clauses cannot be subordinated

We have seen three independent pieces of evidence that indexical INDEPENDENT clauses are subject to anti-c-command: they cannot be introduced by a higher predicate, they cannot be introduced by a subordinating particle, and they cannot be negated by the *êkâyâ* negator.

In the next section I turn to the anti-precedence condition on indexical clauses and show how this condition accounts for the lack of cross-clausal dependencies in indexical INDEPENDENT clauses.

3.2.2 Indexical clauses exclude cross-clausal dependencies

The purpose of this section is to show that cross-clausal dependencies, such as the binding of a variable by a clause-external variable, are excluded from indexical clauses. First, I examine a class of variables known in the Algonquianist literature as *relative roots* (§3.2.2.1), and show that the antecedence relation is affected by clause-type, an observation which, regardless of whether the current analysis is correct or not, offers an important insight into the grammar of Algonquian languages. Second, I examine temporal and locative proforms and show that unless the proform has a morphologically marked deictic component, they are ungrammatical in indexical INDEPENDENT clauses (§3.2.2.2). Third, I discuss how reference to argument expressions is restricted in indexical INDEPENDENT clauses (§3.2.2.3)

3.2.2.1 Relative roots

Relative roots are a class of proforms (locative, manner, temporal, etc.) found across all Algonquian languages (Bloomfield 1962; Wolfart 1973; Valentine 2001; Rhodes 1976). They are termed *roots* because they may be found in the root position of a stem (even though they may also be found in places where they are not in a root position). They are *relative* because they do not have an independent interpretation, but rather are interpreted relative to the an antecedent which is obligatory for the utterance in which they occur to be well-formed (Bloomfield 1962, Wolfart 1973). More generally, they are variables that are quite unspecified as to their features:

their specific function is determined in part by its position in the clause (there are at least three possible positions), and in part by nature of its antecedent. For each of the two relative root variables that I look at here, there are at least three kinds of antecedents.

Although they have been widely discussed in the literature (cf. Bloomfield 1928, 1946, 1962; Wolfart 1973, Rhodes 1976, 2003, Pentland 1979, Dahlstrom 1991, Bruening 2001, among others), the principles that determine (im)possible antecedence relations remain very poorly understood.

In Plains Cree, the inventory of these antecedent-dependent elements is a closed class and includes: *it/isi* 'thus'[8]; *oht/ohci* 'originating.from' *isko-* 'to.such.an.extent', and *tahto-* 'so.many' (Wolfart 1973:66). In this thesis I have chosen to look at the two relative roots which are found across all of the speakers I have worked with: the relative root of manner: *it*/*is(i)* 'thus' and the relative root of origin: *oht/ohc(i)* 'originating from'. Both relative roots may be found in a variety of positions within the clause. In the following examples, I have bolded the relative root and underlined its antecedent (the element without which the utterance would be ungrammatical).

First, they may occur in a root position: in (16a), *isi-* 'thus' is the root and *Jane* is the antecedent; in (16b), *ohc-* 'origin' is in the root position and *Calgary* is the antecedent.

(16) ROOT POSITION

a. <u>Jane</u> **isi**yîhkâsow
J ***isi****yîhkâso -w*
J ***THUS****.be.called.VAI-3*
'Her name is Jane.'

b. <u>Calgary</u> nit**ohc**în
C nit- ohcî -n
C 1- ORIG.VAI-SAP
'I am from Calgary.'

[8] These glosses are meant only to give a rough idea of their meaning; as will become clear, their semantics are underspecified. The addition of *-i* causes a palatalization of both relative roots: *it* → *isi*; and *oht* → *ohci* (cf. Piggott 1971, Wolfart 1973). Due to morpho-phonological processes which lead to the deletion of *–i* (for example, vowel hiatus), many times the surface form will be palatalized but not have *-i*. Finally, *ohc(i)* alternates with *ôh-* based on factors that are as yet undescribed in the literature. The alternations do not seem to have any direct correlation to the syntactic and semantic generalizations presented here (although I have never seen the *ôh-* form with an *ê*-CONJUNCT verbal complex), so I will not be concerned further about which form shows up.

Second, relative root variables may occur in a preverbal position, as in (17)[9].

(17) PREVERBAL POSITION

a. mâka kahkiyaw pâh-pîtos kit**is**-âyânânaw.
mâka kahkiyaw pâh- pîtos kit- is- âyâ -nânaw
but all RED- *different 2-* THUS-*be.*VAI-*2.*PL
'but we are all different.' (EM 19)

b. mistahi mân âya, tôhtôsâpoy nikî-**ohci**-pimâcihikonân êkwa aya, ...
mistahi mâna aya tôhtôsâpoy ni- kî- ohci- pimâcih -iko -nân êkwa aya
a.lot usually CONN *milk 1-* PREV-ORIG-*sustain.*VTA-INV-*1*PL *and* CONN
'She used to have lots of milk on which to sustain us, ...' (EM 16)

Finally, a relative root variable can be an adposition. With verbs of motion, *isi* indicates motion towards goal (e.g., towards *waskahikanihk* 'the house.LOC' in 18a) and *ohci* indicates motion from the origin (e.g., away from *waskahikanihk* 'the house.LOC' in 18b) (cf. Edwards 1954).

(18) ADPOSITION – VERB OF MOTION

a. nipimohtân wâskahikanihk **isi**
ni- pimohtâ -n wâskahikan -ihk isi
*1- walk.*VAI -SAP *house* -LOC THUS
'I'm walking towards the house.'

b. nipimohtân wâskahikanihk **ohci**
ni- pimohtâ -n wâskahikan -ihk ohci
*1- walk.*VAI-SAP *house* -LOC ORIG
'I'm walking from the house.'

If the verb is not a verb of motion, the adpositional relative root indicates manner for *isi*, as in (19a), and instrumental for *ohci*, as in (19b).

[9] I take the clausal material occurring external to the verbal complex to be part of the CP constituting the verbal complex; e.g., in (17) I take the adverbial *pâh*-pîtos 'different' to be a modifier of the verb *ayâ*- 'be'. I do not know of any good analysis of the mechanisms driving some clausal elements to be external to the verbal complex, and others to be internal to it (although see Dahlstrom 1995, Mühlbauer 2003, and Déchaine 2007 for a more detailed description of the issue). On a very broad view, the issue seems to be one of non-concatenative morpho-syntax (cf. non-concatenative morpho-phonology in Semitic; Arad 2000).

(19) ADPOSITION – OTHER VERBS

a. ..., âta ê-kî-kiskêyihtahkik <u>âh-âyîtaw</u> **isi** maskihkiy, ...
âta ê- kî- kiskêyihtam -k -k âh- âyîtaw isi maskihkiy
even C1-PREV-know.VTI -0 -PL RED-side THUS medicine
'..., although they used to know both sides of medicine, ...' (AA 10.1)
(Lit: '... they knew both sides of medicine that way.')

b. <u>môhkomân</u> **ohci** ê-wî-mansamân
môhkomân ohci ê- wî- mansam -ân
knife ORIG C1-INT-cut.VTI -1
'I am going to cut it with a knife.'

Notice that in all these examples the underlined antecedent precedes the bolded relative root it binds: for example the antecedent *môhkomân* 'knife' must precede the adposition *ohci* 'with'. This is a context where there is an fixed ordering between two elements in Plains Cree[10] (Wolfart 1973, see also Rhodes 2003 for Ojibwa). As we will see, however, this pattern is part of a more general principle about the relation that must hold between a dependent element and its antecedent (cf. chapter 4).

Now that we have seen the different positions where a relative root position may be introduced, I turn to the different possible antecedents. I focus on relative roots in the preverbal position because it is this position that (i) shows the most variation in possible antecedents, but (ii) has antecedents that are both clause-internal and clause-external, allowing us to test the claim about indexical INDEPENDENT clauses.

3.2.2.1.1 Relative roots with predicate modifier antecedents

One type of antecedent that preverbal relative roots may be anaphoric on is a predicate modifier (i.e., an adverbial or oblique argument). Syntactically, predicate modifiers are usually assumed to be introduced quite low in the clause, either in the vP, or the functional domain (AspP or TP).

---

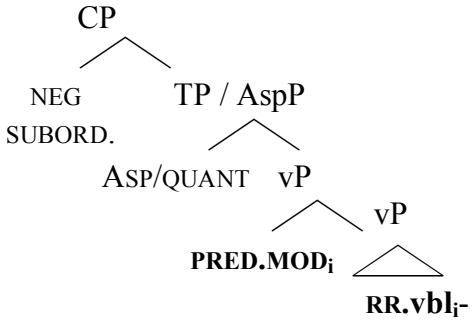
[10] There are some speakers for whom the ordering some examples is not fixed. In particular, when the relative root is stem-internal, it does not require that the antecedent precede the stem, as in (i) volunteered by a consultant.

(i) nit**isi**yîhkâson <u>Clare</u>
*ni(t)- **isi**yîhkâso -n C*
*1- **THUS**.be.called.VAI-SAP C*
'My name is Clare.'

I take this to be a separate grammar, where the stem is now opaque – it has 'word-level' properties in the sense of DiSciullo & Williams (1987), and thus the relative root is not available for syntactic operations. See also Hirose (2000) for discussion of variation with respect to the syntactic visibility of stems in Plains Cree.

Plains Cree's predicate modifiers are consistent with this claim: they are linearly internal to elements in information-structure positions (i.e., topic/focus), negation, and quantifiers (cf. Dahlstrom 1995, Mühlbauer 2003). For concreteness, I place them as modifiers to the vP. In (20), I give a proposed structure, where the relative root variable (RR.vbl) is associated with a predicate modifier (indicated by the coindexation).

(20)



Since predicate modifiers are within the same CP as the relative root variable they are associated with, we expect them to be possible antecedents for both INDEPENDENT and CONJUNCT clauses. This is accurate for both relative roots, as shown in table 3.3.

Antecedent		**indexical INDEPENDENT**				**anaphoric CONJUNCT**			
		JK	SW	AA	EM	JK	SW	AA	EM
Predicate modifier	*isi-*	✔	✔	✔	✔	✔	✔	✔	✔
	ohci-	✔	✖	✔	✔	✔	✔	✔	✔

Table 3.3 Predicate modifier antecedents occur in both clause-types

The preverbal *isi-* can have lexical manner adverbs as antecedents, as in (21a-b). Both indexical INDEPENDENT and anaphoric CONJUNCT clauses allow manner adverbs such as *kwayask* 'proper' to be antecedents to *isi-*.

(21) a. ..., pik ôma ka-mâmawôhkamâtoyahk, CONJUNCT
piko ôma ka-mâmawôhkama-ito-yahk
necessary DEM.INAN IRR-*work.*VTA -RECIP-*21pl*

kwayask ka-kakwê-**isi**-pimâtisiyahk, ...
kwayask ka-kakwê-isi-pimâtisi-yahk
proper IRR-*try*-THUS-*live.*VAI *-21*
'..., we must work together to try to lead a good life, ...' (EM 37)

b. ..., matwân cî <u>kwayask</u> nika-kî-**isi**-tâhkôtên … INDEPENDENT
matwân cî kwayask ni-ka- kî- isi- tâhkôtê -n
EVID Q proper 1- IRR-PREV-THUS-discuss.VTI-SAP
'..., I wonder if I will be able to discuss it with proper faithfulness, …' (JKN 6.1)

The other relative root, *ohci*, introduces instrumental adjuncts[11]. In (22a), the topic element *êwako* 'that' is the antecedent for *ohci* and represents the means of washing the floor. In (22b), the deictic element *êkoni* is the antecedent for *ohci* and indicates the means of blessing the addressee. The former is an anaphoric CONJUNCT clause; the latter an indexical INDEPENDENT clause.

(22) a. ..., pihko ê-siswêwêpinahkik êkwa CONJUNCT
pihko ê- siswêwêpinam -k -k êkwa
ash C1-sprinkle.VTI -0 -PL and
'Some I even saw sprinkle ashes about and

<u>êwako</u> ê-**ohci**-wâpiskahahkik aya, …
êwako ê- ohci- wâpiskaham -k -k aya
TOPIC C1-ORIG-wash.VTI -0 -PL CONN
use that to wash the floor-boards …' (EM 82)
(lit: '...and wash the floor-boards with that ...')

b. "hâw, <u>êkoni</u> ôhi, k-**ôh**-sawêyimitin nîst ôma, … INDEPENDENT
hâw êkoni ôhi ki- oh- sawêyim -iti -n nîsta ôma
indeed DEIC.TOPIC DEM.INAN 2- ORIG-bless.VTA-1>2-SAP 1.EMPH DEM.INAN
' "Indeed, with these I myself will bless you, … ' (JKN 7.2)

---

[11] The preverbal *ohci-* can also introduce directional adjuncts, just like the adpositional *ohci*. Directional adjuncts also being predicate modifiers, they can occur with either indexical (INDEPENDENT) or anaphoric (CONJUNCT) clauses, as shown in (i). Notice that with the CONJUNCT example, there is a demonstrative intervening between the locative element *ôtê* 'there' and the verbal complex; this is indicative of a cleft construction (cf. Blain 1997) and significantly, is absent in the INDEPENDENT example.

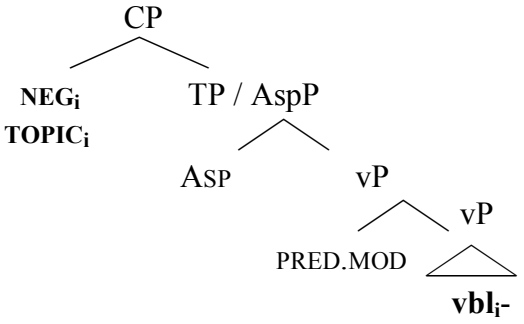
(i) a. ..., **ôtê** k-**ôh**-osâpamikowâw.
ôtê ki- oh- osâpam -iko -wâw
there 2- ORIG-watch.jealously.VTA-INV -2PL
... , that they are [jealously] watching you from over there, ... (JKN 3.17)

b. **ôtê** ana ê-**ohci**-kitâpamiht, ...
ôtê ana ê- ohci- kitâpam -ih -t
there DEM.AN C1-ORIG-watch.over.VTA-USC-3
he is watched over from there, ... (JKN 4.9)

3.2.2.1.2 Relative roots with CP-modifier antecedents

CP-modifiers can also act as antecedents to a preverbal relative root variable, including the deictic topic marker *êkosi* and negation (both *namôya* and *êkâya*). The topic marker is part of information structure, and on independent grounds, negation is a CP-modifier (Déchaine & Wiltschko 2002).

(23)



Since negation and topic markers are CP-modifiers, again we expect that they are possible antecedents in both INDEPENDENT and CONJUNCT clauses. This is borne out in all four corpora, as shown in table 3.4.

Antecedent		**indexical INDEPENDENT**				**anaphoric CONJUNCT**			
		JK	SW	AA	EM	JK	SW	AA	EM
Predicate modifier	*isi-* (oblique)	✔	✔	✔	✔	✔	✔	✔	✔
	ohci- (oblique)	✔	✖	✔	✔	✔	✔	✔	✔
CP-modifier	***isi-* (topic)**	✔	✔	✔	✔	✔	✔	✔	✔
	***ohci-* (negation)**	✔	✔	✔	✔	✔	✔	✔	✔

Table 3.4. CP-modifier antecedents are possible in both clause-types

The topic-marker *êkosi* 'that way' is an antecedent for *isi* (24); consistent with being a CP-modifier, it occurs in a clause-initial position (Baker 1985, Cinque 1999; Cook et. al 2003).[12]

[12] *êkosi* ends in the segmental sequence *si-*; following Wolfart (1973), I analyze this element as having a bi-partite structure *êkw* 'deixis' and *isi* 'thus'.

(24) a. êwakw ânim [$_{CP}$ êkos ê-kî-**isi**-pimâcihocik kayâs ayisiyiniwak]. CONJUNCT
êwakw anima êkosi ê- kî- isi- pimâciho -t -k kayâs ayisiyiniw -ak
topic DEM.INAN DEIC.so C1-PREV-THUS-live.VAI -3 -PL long.ago person -PL
'That is how the people made a living long ago.' (EM 12)

b. …, [$_{CP}$ êkosi mîna mâna nikî-**isi**-mâmitonêyihtên]. INDEPENDENT
êkosi mîna mâna ni- kî- isi- mâmitonêyihtê -n
DEIC.so also usually 1- PREV-THUS-think.about.VTI-SAP
'…, and that is how I used to think about it.' (EM 29)

Negation is an antecedent for *ohci* in both anaphoric CONJUNCT and indexical INDEPENDENT clauses[13]; here it is suppletive with the temporal preverb *kî-*[14] and has a past orientation. In (25a), *êkâ* 'NEG' antecedes *ohci-* in a CONJUNCT clause; in (25b) *môy* negation antecedes *ôh-* in an INDEPENDENT clause.

(25) a. …, êkâ ê-**ohci**-nisitawêyimakik ayisiyiniwak. CONJUNCT
*êkâ ê -**ohci**- nisitawêyim -ak -k ayisiyiniw -ak*
*NEG C1-**ORIG**- know.VTA -1>3-PL person -PL*
'…, because I did not know people.' (EM 8)

b. mâka, niya wiya môy n**ôh**-pakwâtên anima ... INDEPENDENT
*mâka niya wiya môya ni-**ôh**- pakwâtê -n anima*
*but 1 EMPH NEG 1-**ORIG**-hate.VTI-SAP DEM.INAN*
'But I did not mind [it]...' (EM 8)

3.2.2.1.3 Relative roots with cross-clausal antecedents

Like other kinds of variables, relative roots can have an antecedent in another clause, creating a cross-clausal dependency[15]. These include clause-external wh-words (Blain 1997; Cook 2003,

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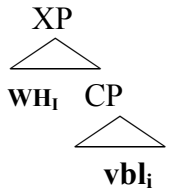
[13] In this discussion, I claim that NEG is an antecdent to *ohci-* in the sense that (i) the presence of NEG is sufficient to license *ohci-*; and (ii) the presence of NEG yields a particular interpretation of *ohci-*. An alternative hypothesis is that *ohci-* under negation is a negative polarity item. I think that the NPI analysis is not mutually exclusive to the discussion here – e.g., as an NPI, *ohci-* would be licensed by negation, which is consistent with the discussion here. The main point I am trying to make here is that *ohci-* must always be licensed by something. There is still the question of how *ohci* gets the interpretation it does – i.e., how is the 'past' interpretation related to the directional and instrumental readings. For this question, I think a consideration of the very abstract ORIGIN concept would be useful, although I do not have time and space to consider it here. Finally, if *ohci-* is analyzed as an NPI, it would have to be a strong NPI in that negation is the only context that triggers it (e.g., *ohci-* cannot be triggered in interrogatives, relative clauses, etc., at least in Plains Cree). Since the NEG…*ohci* pattern is robust across the Algonquian family, it might be worthwhile to look at NPI contexts across different languages to see if there is variation on this account. Thanks to A. Dahlstrom (p.c.) for bringing this to my attention, and to L. Matthewson (p.c.) for discussion.

[14] See §7.4 for a discussion on the role of negation and modality in the interpretation of *kî-*.

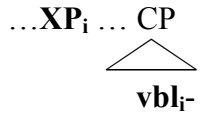
[15] These cross-clausal dependencies lead Bruening (2001) to posit a relative root phrase.

2004) as in (26a), clause-external non-wh antecedents (Wolfart 1973) as in (26b), and discourse antecedents (Bloomfield 1928, 1946) as in (26c).

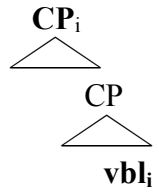
(26) a.



b.



c.



Now, if indexical clauses have an anti-c-command condition, there will be no higher clause to host the antecedent. We therefore expect that cross-clausal antecedents will only be possible with anaphoric CONJUNCT clauses; indexical INDEPENDENT clauses should be ungrammatical. This is correct, as summarized in table 3.5.

Antecedent		**INDEPENDENT**				**CONJUNCT**			
		JK	SW	AA	EM	JK	SW	AA	EM
Predicate modifier	*isi-* (oblique)	✔	✔	✔	✔	✔	✔	✔	✔
	ohci- (oblique)	✔	✖	✔	✔	✔	✔	✔	✔
CP-modifier	*isi-* (deictic)	✔	✔	✔	✔	✔	✔	✔	✔
	ohci- (negation)	✔	✔	✔	✔	✔	✔	✔	✔
Cross-clausal wh-	***isi-* (manner)**	✖	✖	✖	✖	✔	✔	✔	✔
	***ohci-* (reason)**	✖	✖	✖	✖	✔	✔	✔	✔
Cross-clausal non wh-	***isi-* (manner)**	✖	✖	✖	✖	✔	✔	✔	✔
	***ohci-* (reason)**	✖	✖	✖	✖	✔	✔	✔	✔
Superordinate clause	***isi-***	✖	✖	✖	✖	✔	✔	✔	✔

Table 3.5. No cross-clausal antecedents for indexical INDEPENDENT clauses

Let us look at each case in turn. Starting first with the wh-antecedents, we observe that the relative root *isi-* may be bound by the manner wh-word *tânisi* 'how' (27a). Similarly, the relative root *ohci-* may be bound by the reason wh-word *tânêhkî* 'why' in (27b).

(27) a. [$_{CP}$ [$_{pred}$ <u>tânisi</u>$_i$]$_j$ [$_{DP}$ pro$_i$ [$_{CP}$ *Op$_i$* ... **isi$_i$** ...] t$_j$]

<u>tânisi</u> ê-**isi**-pimipayik, ...
tânisi ê-isi-pimipayi-k
Q.manner C1-THUS-go.VII-0
'how it happened' (SW16)

b. [$_{CP}$ **[$_{pred}$** <u>tânêhkî</u>$_i$ **]$_j$** [$_{DP}$ pro$_i$ [$_{CP}$ *Op$_i$* … **ôh$_i$** …] **t$_j$**]

– <u>tânêhk</u> âwa, k-**ôh**-ihtakot ôta?
tânêhkî awa kâ- ôh- ihtako -t ôta
Q.RAT DEM.AN C2-ORIG-exist.VAI-3 here
'why does this one here exist?' (JK3:13)

Relative root variables may also be bound by non-wh antecedents. In (28) we have a bi-clausal structure: the *êkos ânima* sequence is a kind of nominal predication structure (Déchaine 1997, Blain 1999) roughly equivalent to 'the way is this'. The anaphoric CONJUNCT clause modifies the subject *anima* 'this'. Here the relative root variable *isi-* in the embedded modifying clause has the deictic manner element *êkosi* 'this way' in the higher clause as its antecedent.

(28) [$_{CP}$ **[$_{pred}$** êkosi$_i$ **]$_j$** [$_{DP}$ anima$_i$ [$_{CP}$ *Op$_i$* … **isi$_i$** …] **t$_j$**]

..., <u>êkos</u> ânim **ê-isi**-kitâpamât; (EM38)
*êkosi anima ê- **isi**- kitâpam -â -t*
*TOP DEM.INAN C1-**THUS**-look.VTA-DIR-3*
..., **that is the way** she looks upon them;

Similarly, the relative root variable *ohci-* can have a cross-clausal antecedent like the *êwakôhci* (from *êwakw* 'that' + *ohci* 'originate') in (29b), which is again arguably acting as the subject of a higher nominal predication structure (Déchaine 1997, Blain 1999). Such antecedents are fine with an anaphoric CONJUNCT clause, but not with indexical INDEPENDENT clauses.

(29) [$_{CP}$ **[$_{pred}$** êwakôhci **]$_j$** [$_{DP}$ pro$_i$ [$_{CP}$ *Op*$_i$ … **oh$_i$** …] **t$_j$**]

a. ê-nôhtê-osêhkêmit, êwakôhci k**ôh**-âtoskêt Jeff CONJUNCT
ê- nôhtê-osêhkêmi -t êwakw ohci kâ- ôh- âtoskê -t J
C1-WANT-have.car.VAI-3 TOPIC ORIG C2-ORIG-work.VAI-3 J
'He wants a car, that is why Jeff is working.'

b. * ê-nôhtê-osêhkêmit, êwakôhci **ôhc**-atoskêw Jeff INDEPENDENT
ê- nôhtê-osêhkêmi -t êwakw ohci ôhc- âtoskê -w J
C1-WANT-have.car.VAI-3 TOPIC ORIG ORIG-work.VAI-3 J
--- (*intended*: 'He wants a car, that's why Jeff is working.')

The final kind of cross-clausal antecedent is specific to the relative root variable *isi-*. This antecedent is not a word- or phrase-level constituent, but rather the a preceding (set of) clause(s) (cf. Bloomfield 1928). For example, in (30), the narrator is describing of the things they had to do, and she then says that, through those actions they were able to avoid starvation. Thus, all of the things described in the initial clauses serve as an antecedent to the manner variable *isi-* in the purpose clause.

(30) piko mitoni --~ tâpitawi pikw ê-~ ê-wî-kakwê-tôtamâhk kîkway,
piko mitoni tâpitawi piko ê- wî- kakwê-tôtam -ân -k kîkway
QUANT much truly QUANT C1-INT-TRY- do.VTI -1 -PL thing
'we very much had to try and do things at all time

k-**êsi**-pihkohtamâsohk ka-mîcihk.
ka- isi- pihkohtamâso -hk ka- mîci -hk
IRR-THUS-manage.VAI -IMP IRR-eat.VTI-IMP
in order to manage to have something to eat.' (AA 9.1)

Once again, since the antecedent is external to the clause, the behaviour of *isi-* exemplified in (30) is unattested with indexical INDEPENDENT clauses.

To sum up, relative roots show that indexical INDEPENDENT clauses exclude cross-clausal anaphoric relations that are possible in anaphoric CONJUNCT clauses. This is important because it is consistent with our expectation that dependency relations must be resolved locally (i.e., clause-internally) with indexical clauses.

3.2.2.2 Spatio-temporal variables must be bound in indexical clause

Plains Cree has dedicated spatial and temporal proform variables, including *ita* 'where'; *itê* 'where' and *ispî* 'when'; these occur on the far left edge of the clause, and must be bound by an antecedent. The anti-c-command and anti-precedence conditions predict that they will be excluded from indexical clauses. This is correct: as shown in table 3.6, they are unattested.

Variable	**indexical** INDEPENDENT				**anaphoric** CONJUNCT			
	JK	SW	AA	EM	JK	SW	AA	EM
itê 'where'	✖	✖	✖	✖	✔ (5)	✔ (3)	✔ (7)	✔ (8)
ita 'where'	✖	✖	✖	✖	✔ (46)	✔ (8)	✔ (9)	✔ (27)
ispî 'when'	✖	--	✖	✖	✔ (4)	--	✔ (7)	✔ (9)

Table 3.6. Distribution of spatio-temporal proform variables by clause-type

Elicitation data confirms that locative *itê* and *ita*, and temporal *ispî* are incompatible with indexical INDEPENDENT clauses.

(31) locative proform variables are bad in INDEPENDENT

a. * **itê** itohtêwak INDEPENDENT
itê itohtê -w -ak
LOC go.VAI-3 -PL
--- (*intended*: 'They are going there/somewhere.')

b. * **ita** itohtêwak INDEPENDENT
itê itohtê -w -ak
LOC go.VAI-3 -PL
--- (*intended*: 'They are going somewhere.')

(32) temporal proform variable is bad in INDEPENDENT

a. **ispî** kâ-pîhtikwêt, … CONJUNCT
ispî kâ- pîhtikwê -t
TEMP C2-go.in.VAI -3
'when she went in, …'

b. * **ispî** pîhtikwêw INDEPENDENT
ispî pîhtikwê -w
TEMP go.in.VAI -3
--- (*intended*: 'When/then she went in.')

However, if these variables are bound by the deictic element *êkw-* (Wolfart 1973), they become perfectly acceptable, as demonstrated by the locative proforms with *êkw-* in (33) and the minimal pair of temporal proforms in (34).

(33) Locative proforms bound by *êkw-* are good in INDEPENDENT

a. itohtêwak **êkotê**
itohtê -w -ak êkotê
go.VAI-3 -PL there
'They went over there.'

b. itohtêwak **êkota**
itohtê -w -ak êkotê
go.VAI-3 -PL there
'They went there.'

(34) Temporal proforms require *êkw-* in INDEPENDENT

a. * **ispî** kimiwan êkotê kâ-itohtêyâhk
ispî kimiwan êkotê kâ- itohtê -yân -k
time rain.VII there C2- go.VAI -1 -PL
---

b. **êkospî** kimiwan êkotê kâ-itohtêyâhk
êkospî kimiwan êkotê kâ- itohtê -yân -k
then rain.VII there C2-go.VAI -1 -PL
'At that time it was raining, when we went there.'

Syntactically, *êkw-* acts as an antecedent to the variable, precluding the necessity of a cross-clausal antecedent. Semantically, recall from chapter 1 that deictic expressions point to their referent (Fillmore 1975, Kaplan 1989, a.o.); thus the presence of *êkw-* fixes the reference of the spatio/temporal proform in a given context.

In fact, *êkw-* is a general-purpose deictic antecedent. For example, we saw earlier that the deictic topic marker ***êko**si* 'that way' was one of the possible antecedents for the *isi* variable in indexical clauses. The relevant example is repeated in (35).

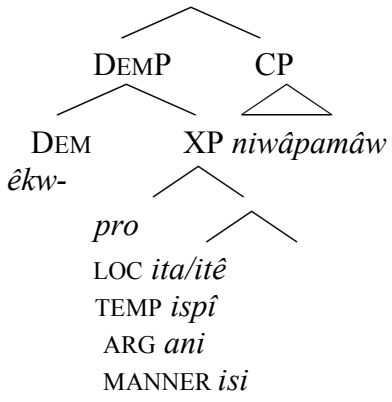
(35) ..., êkos ânim **ê-isi**-kitâpamât;
êkosi anima ê- isi- kitâpam -â -t
TOP DEM.INAN C1-THUS-look.VTA-DIR-3
'..., **that is the way** she looks upon them;' (EM 38)

It is also used for deictic referents, in combination with the referential *ani* (cf. Reinholtz & Wolfart 2001). For example, in (36) *êkoni* is associated with *nâpêwa* 'man', and is used with either a demonstrative gesture (deixis), or to refer back to man previously talked about (anaphora).

(36) ê-wâpamât iskwêw **êkoni** nâpêwa
ê- wâpam -â -t iskwêw êkoni nâpêw -a
C1-see.VTA-DIR-3 woman that.one man -OBV
'The woman saw **that** man.'

The morphological bi-partite structure of *êkw-* affixed elements (cf. Wolfart 1973:38) has syntactic and semantic significance as well: the initial *êkw-* morpheme acts as an antecedent to a variable introduced by the second unit of the demonstrative.

(37)



3.2.3 Pronominal proclitics are indexical

I have so far shown that indexical clauses have a particular set of structural properties: (i) they cannot be embedded; and (ii) dependent elements must have their dependency resolved clause-internally or be deictic. I have claimed that these properties reflect the syntax of indexicality, here implemented as anti-c-command and anti-precedence conditions. A third outcome of the

indexical analysis is that indexical clauses should not have anaphoric pronominal forms. In particular, the pronominal proclitics in Plains Cree INDEPENDENT clauses should have a deictic/indexical dependency, rather than an anaphoric one. Turning to the INDEPENDENT mode paradigm in table 3.7, this includes 1st-person *ni-* and 2nd-person *ki-* . In Plains Cree, unlike many other Algonquian languages, it does not include 3rd-person *o-*

PERSON CATEOGRY	INDEPENDENT MODE	NOMINAL POSSESSION
1.sg.	**ni**nipâ**n**	**ni**mis
2.sg.	**ki**nipâ**n**	**ki**mis
1.pl. excl.	**ni**nipâ**nân**	**ni**misi**nân**
1.pl. incl.	**ki**nipâ**naw**	**ki**mis**naw**
2.pl	**ki**nipâ**nâwâw**	**ki**misi**wâw**
3.sg.	nipâ**w**	**o**misa
3.pl	nipa**wak**	**o**misi**wâwa**
3.obv	nipâ**yiwa**	**o**misi**yiwa**

Table 3.7. Person-marking in INDEPENDENT clauses vs. possessed nominals

If these pronominal proclitics are indexical, they should have a more restricted behaviour than general pronominals: (a) indexical pronominals cannot be bound[16], and (b) indexical pronominals cannot lack referential features.

3.2.3.1 Indexical proclitics cannot be bound

1st- and 2nd- person pronominal forms are anaphoric variables; rather, they are a sub case of deixis: they directly point to the speech act participants (speaker and hearer). Thus, in possession, *niminôsim* 'my cat' is the cat of the speaker (38a); in the clause *ninêstosin* 'I am tired' it is the speaker who is tired (38b).

[16] As we will see, English forms like *I* and *you* can be bound in some contexts. Although they are often considered prototypical indexical forms, I would argue following Heim (1991) that the binding facts mean *I* and *you* cannot be dedicated indexicals; i.e., they only have an indexical function in some contexts.

(38) a. **ni**minôsim
ni- minôs -im
1- cat -DISJ
'my cat'

b. **ni**nêstosin
ni-nêstosi -n
1- tired.VAI-SAP
'I am tired.'

In Plains Cree, the pronominal forms are dedicated indexicals, where pronominal forms in English are not, as can be seen by looking at the contexts in which first- and second person may function as variables (cf. Heim 1991, Partee 1989, Kratzer 1998, Rullmann 2003, 2004, among others). For example, for at least some speakers of English, the second 'I' in (39) is a bound-variable; in ellipsis contexts it can be bound by the higher subject (e.g., John).

(39) Only I got a question I understood; John didn't.
= (i) John didn't get a question John understood. Bound-variable
= (ii) John didn't get a question I understood. Indexical
(adapted from Rullmann 2004)

In Plains Cree however, the bound variable reading of 'I' and 'you' must be represented by anaphoric CONJUNCT agreement. Ellipsis is done as in (40), with the contrastive conjunction *mâka* 'but', matrix negation *môya,* and the subject *Jeff*[17]:

(40) niya niwâpamâw wacask, mâka môya Jeff.
niya ni-wâpam-â-w wacask mâka môya J
1.EMPH 1see.VTA-DIR-3 muskrat but NEG J
'I saw a muskrat but Jeff didn't (see a muskrat).'

In order to get a bound-variable reading of 1st-person, the CONJUNCT form in (41a) is used; when this utterance was presented to the consultant, the bound-variable reading was volunteered, and the consultant strongly dispreferred the non-bound-variable reading. When the INDEPENDENT form is substituted, the utterance is ruled ungrammatical – in other words, contexts that allow a bound variable reading prohibit indexical clauses.

[17] Ellipsis structures have not, to my knowledge, been discussed in the Plains Cree literature previously.

(41) a. niya niwâpamâw atim kâ-niton**ak**, mâka môya Jeff. CONJUNCT
niya ni- wâpam -â -w atim kâ- niton -ak mâka môya J
1.EMPH 1- see.VTA -DIR-3 dog C2- look.for.VTA-1>3 but NEG J
= 'I saw the dog **I** was looking for, but Jeff didn't see the dog **he** was looking for.'
≠ ? 'I saw the dog **I** was looking for, but Jeff didn't see the dog **I** was looking for.'

b. * niya niwâpamâw atim ninitonâw, mâka môya Jeff. INDEPENDENT
niya ni- wâpam -â -w atim ni- niton -â -w mâka môya J
1.EMPH 1- see.VTA -DIR-3 dog 1- look.for.VTA-DIR-3 but NEG J

Likewise, the counterpart examples discussed by Lakoff (1968) are obligatorily translated into the CONJUNCT order. For example, in (42), the dreamer is dreaming that s/he is someone else, and as that other person, kisses the dreamer. In such a context, the English *I* in 'I kissed myself' is not indexical. The indexical clause in Plains Cree is ruled ungrammatical.

(42) *context*: Speaker is describing a dream in which s/he was someone else (Bridget Bardot), and as that other person, kisses the dreamer

a. CONJUNCT
ê-pakwatamân awâs-tipskaw Bridget Bardot êsa niya êkwa **ê-ocêmisoyân**
ê- pakwâtam -ân awas-tipiskâw BB êsa niya êkwa ê- ocêmiso -yân
C1-dream.VTI -1 last-night BB EVID 1.PRO and C1-kiss.VAI -1
'I dreamt I was Bridget Bardot, and I kissed myself.'

b. INDEPENDENT
! ê-pakwâtamân awas-tipskaw Bridget Bardot êsa niya ekwa **nitocêmison**
ê- pakwâtam -ân awas-tipiskâw BB êsa niya êkwa ê- ocêmiso -yân
C1-dream.VTI -1 last-night BB EVID 1.PRO and C1-kiss.VAI -1
---

comment: 'I'm not familiar with this [*nitocêmison*] form.'

Thus, the pronominal proclitics in Plains Cree have a fixed reference: they do not introduce a bound-variable dependency.

3.2.3.2 The absence of third-person proclitics

Unlike 1st-and 2nd-person pronominals, which are deictic on the the speech act, third-person pronominals such as *her/him/she/he/it* must be assigned reference by an antecedent or by some

corresponding deixis (i.e., pointing) (cf. Postal 1969, Ritter 1995, Heim & Kratzer 1998, Déchaine & Wiltschko 2002). They are also only accidentally part of the speech situation – there is nothing in the features of a third person that necessarily links them to a speech act.

In possession, the dependence of third-person pronominals can be seen by the infelicity of uttering *ominôsima* 'his/her cat' without specifying the antecedent of *o-* (e.g., *Fred* in (43)).

(43) #(Fred) wâpamêw **o**minôsima
wâpam-ê-w F o- minôs -im -a
see.VTA-DIR-3 F 3-cat -DISJ-OBV
'Fred saw his cat'

However, notice that the *o-* is necessary to show the relation between *Fred* and *minôs* (44). The prefix *o-* thus codes reference, but does not identify the referent.

(44) * Fred wâpamêw minôsima
F wâpam -ê -w minôs -im -a
F see.VTA-DIR-3 cat -DISJ-OBV

This means that the 3rd-person prefix *o-* should not be present in an indexical clause, where it would be located in spec, CP. This is correct.

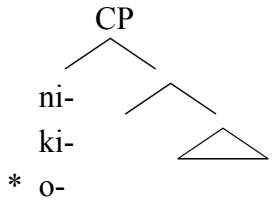
(45) a. Fred nêstosiw
F nêstosi -w
F tired.VAI-3
'Fred is tired.'

b. * Fred **o**nêstosiw
F o- nêstosi -w
F 3- tired.VAI-3

Notice that this argument does not say that there are no third-person arguments in INDEPENDENT clauses (notice that 45a is completely grammatical), or even that there is no agreement for third person arguments (45a has the third-person subject agreement suffix -*w*). Rather, the point is

that there is no third-person pronominal form sitting in spec, CP. Since this is the position occupied by the indexical speech situation, this is the position that is of relevance here[18].

(46)



This raises the question of how third persons in general (i.e., apart from the pronominal proclitic) behave in indexical clauses, which I turn to next.

3.2.3.3 Referents are deictically anchored in indexical clauses

We have so far considered the properties of first- and second-person referents, and I have shown that they are always indexical in indexical clauses. I have not so far considered the properties of 3rd-person referents. In particular, while 1st and 2nd person referents, who I take to be speech act participants (cf. Fillmore 1975, Benviniste 1950) and thus licensed by the s_0 speech situation, 3rd person referents have no indexical properties since they are not speech act participants.

The current analysis therefore predicts a different structure for third-person referents in indexical vs. non-indexical clauses, with accompanying distributional and interpretation differences.

There are two difficulties with testing this prediction: first, there is in general a lack of criteria that could be used to distinguish different kinds of referents; second, reference-tracking in Plains Cree specifically is not at all well-understood. What I have to say here will be tentative in nature; this is a huge topic for further research.

Minimally we see that the forms used to refer to third-person referents differ between indexical INDEPENDENT clauses and anaphoric CONJUNCT ones: in the former we have the suffix -*w*, and the latter we have -*t* (3rd.animate) and -*k* (3.inanimate). Of course until we have an idea

[18] This predicts that Algonquian languages which do have the third-person prefix (e.g., Ojibwa, Blackfoot) would either lack the indexical/anaphoric distinction described here for Plains Cree, or that the third-person prefix would on independent grounds be in some other position (e.g., in IP).

about the semantics of these agreement markers, this does not provide evidence of what the difference is: but at least these facts are consistent with my claim.

Let us suppose that referents can be defined over some unit of discourse (i.e., they are the topic of that unit) (cf. Longacre 1979, Fox 1987a, b, Smith 2003 for the correspondence between reference-tracking and topicality in English and other languages; see also the discussion of reference tracking in centering theory: Brennan, Friedman & Pollard 1987, Grosz, Joshi & Weinstein 1995, etc.). We could then say that INDEPENDENT clauses only pick out referents which are topics; if the referent they refer to is not a topic, an overt nominal will be necessary.

There is some preliminary evidence that this is on the right track, although much more work would need to be done to work out this analysis in detail. I discuss three cases from the corpora that I have found:

(i) cases where the indexical INDEPENDENT clause uses an overt nominal even when the nominal was also present in the previous CONJUNCT clause;

(ii) cases where an indexical INDEPENDENT clause requires re-introduction of a referent (via an overt nominal) in a subsequent clause; and

(iii) cases where an indexical INDEPENDENT clause has no overt nominals, but refers to the main characters of a story.

I also consider the properties of the disjoint-subject marker *-yi*, and show that it has only occurs in two restricted environments in indexical INDEPENDENT clauses, both of which are consistent with the analysis of INDEPENDENT clauses.

While the data presented here is not conclusive, and by no means a full account of overt nominals, it may serve as a step towards understanding the structure of discourse in Plains Cree.

3.2.3.3.1 Distribution of overt nominals in a discourse

The first piece of evidence suggesting that indexical INDEPENDENT clauses do not contain anaphoric reference to referents comes from data like (47). Here we find a CONJUNCT order clause accompanied by the overt nominal *awa nâpêsis* 'little boy'; this is followed by an indexical INDEPENDENT clause, which is also accompanied by the same overt noun phrase (*awa nâpêsis* 'the little boy').

(47) **overt nominal + CONJUNCT**

…, **awa nâpêsis** êkwa awa ê-nihtâwikit,
awa nâpêsis êkwa awa ê- nihtâwiki -t
DEM.AN boy and DEM.AN C1-born.VAI -3
'…, and when the little boy was born,

overt nominal + INDEPENDENT

nipamihâw mân **âwa nâpêsis** ê-~ ê-~, …
ni- pamih -â -w mâna awa nâpêsis
1- care.VTA-DIR-3 usually DEM.AN boy
I would look after him too.' (AA 5.5)

Based on observations made about English and theories of anaphora, we would expect the main clause to be fine without this referent (cf. Ross 1967, Langacker 1969, Reinhart 1976, 1983, and the accompanying English translation). Based on the analysis of indexical clauses, however, we expect this kind of 'repetition', since the reference to a third-person should be defined within the clause (i.e., by the overt nominal).

Another suggestive piece of evidence has to do with what happens when an overt nominal is introduced by an indexical INDEPENDENT clause. Here the following INDEPENDENT clauses can also refer to *awa nâpêsis* 'the little boy', but only as long as each indexical INDEPENDENT clause successively refers to him. Thus, in (48), all three indexical INDEPENDENT clauses refer to him.

(48) ..., **nipamihâw** mân **<u>âwa nâpêsis</u>** ê-~ ê-~, <u>kâ-sipwêhtêcik</u> mân ôki,
ni- pamih -â -w mâna awa nâpêsis kâ-sipwêhtê -t -k mâna ôki
1- care.VTA-DIR-3 usually DEM.AN boy C2-leave.VAI -3-PL usually DEM.AN
'..., I would look after him too, when they [his parents] went out,

niya mâna **nikanawêyimâw** êkwa <u>ê-pamihak</u>.
niya mâna ni- kanawêyim -â -w êkwa ê- pamih -ak
1.EMPH usually 1- care.VTA -DIR-3 and C1-care.VTA-1>3
I kept him and looked after him.

êkosi piyis aci-**misikicisiw**, ...
êkosi piyis aci- misikicisi -w
TOPIC finally INCEP-big.VAI -3
So at last he was getting quite big, …' (AA 5.5-6)

However, when the speaker then switches to clauses referring only to herself, and then mentions the boy again in the INDEPENDENT, an overt nominal is again used. The following example picks up immediately after the last example left off. The INDEPENDENT clauses in the first line (bolded) refer only to the speaker; the INDEPENDENT clause *at-ôhpikiw* 'he was growing up' in the second line (bolded) refers to the little boy again, and has the overt nominal phrase *nâpêsis awa* 'the little boy' (bolded and underlined).

(49) …, êkwa êkos êkwa **nikî-pônatoskân** êkwa nîtê kâwi **nikî-isi-kîwân**.
êkwa êkosi êkwa ni-kî- pônatoskê -n êkwa nîtê kâwi ni- kî- isi- kîwê -n
and TOPIC and 1- PREV-stop.work.VAI-SAP and there again 1- PREV-thus-gohome.VAI-SAP
'…, and then I quit my job and went back home over there.

kîtahtawê kâ-pîhtamân aya (-- at-~ **at-ôhpikiw <u>awa nâpês</u>**-~, **<u>nâpêsis awa</u>**, ...
kêtahtawê kâ- pêhtam -ân aya ati- ôhpiki -w awa nâpêsis awa
suddenly C2- hear.VTI-1 CONN INCEP-grow.VAI-3 DEM.AN boy DEM.AN
Later I heard (the little boy was growing up, …' (AA 5.6)

Here, it appears that once reference has been shifted away from the boy, it cannot be picked up again with an indexical INDEPENDENT order clause; an overt nominal phrase is used to re-establish the referent.

The same pattern happens again in (50) (taken from later in the same corpus). Here an indexical INDEPENDENT clause is accompanied by an overt nominal phrase *an îskwêw* 'that woman', and the next indexical INDEPEPENDENT clause also refers to her. In the third and fourth lines, we have indexical clauses which refer only to the speaker[19], and when the next indexical clause refers again to the woman, the overt nominal phrase is re-used.

(50) …, êkwa nikî-~ **kî-âcimâw <u>an îskwêw</u>** an âyi, <u>ê-asiwasot</u> ôtê Battleford,
êkwa kî- âcim -â -w ana iskwêw ana ayi ê- asiwaso -t ôtê B
and PREV-tell.VTA-DIR-3 DEM.AN woman DEM.AN CONN C1-be.locked.up.VAI-3 there B
"…, and then that woman was said to be locked up over there at Battleford,

êtikwê kî-~ **kî-kîskwêyêyihtam**, êtikw ânim <u>ê-kî-pâskiswât</u> onâpêma.
êtikwê kî- kîskwêyêyihtam -w êtikwe anima ê- kî- pâskisw -â -t o- nâpêm -a
DUBIT PREV-crazy.VTI -3 DUBIT DEM.INAN C1-PREV-kill.VTA -DIR-3 3-husband-OBV
she must have gone mad, I suppose, upon killing her husband.

[19] I do not count the clauses in the direct quote, since those are part of a separate discourse (cf. Banfield 1982).

ê-wî-~ ê-~ **nikî-itohtân** ê-nitawi-nitonawak,
ni-kî- itohtâ -n ê- nitawi- nitonaw -ak
1-PREV-go.VAI-SAP C1-go- look.for.VTA-1>3
I went there to go and look for her,

«mwâc, môy ôta ayâw, môy ôhci-pimâtisiw,» **nikî-itikawin**,
namwâc môya ôta ayâ -w môy ohci- pimâtisi -w ni-kî- it -ikawi -n
NEG NEG here be.VAI-3 NEG PREV-live.VAI -3 1- PREV-say.VTA-USC -SAP
and I was told "No, she is not here, she has died,"

êkosi môy **nôh-wâpamâw an îskwêw**.
êkosi môy n- ôh- wâpam -â -w ana iskwêw
topic NEG 1-PREV-see.VTA-DIR-3 DEM.AN woman
and so I never did get to see that woman." (AA 5.7)

The final set of data I talk about has to do with topics of the story. Mühlbauer (2007) argues that when we look at the distribution of nominals in a Plains Cree discourse, we find that there are two different kinds of nominals, introduced at two different stages of the discourse. In the initial stage of a discourse, speakers introduce a set of referents, and identify the relation of each referent to the speaker, via a kin-term, some intermediate individual, or by shared space/time. In the second stage of a discourse, the speaker talks about the events surrounding these referents (cf. also Janzen 2004 for similar patterns in American Sign Language).

Referents that are introduced in the intial stage I will refer to as topic referents.

For example, in the following piece of narrative, taken from an earlier point of the same narrative as the past two pieces of data) the narrator (Alice Ahenakew) starts with an intransitive verb in the INDEPENDENT order, then introduces her relation to the two 'main characters' *môniyâwak* 'white people' via the transitive verb *ê-kî-atoskawakik* 'I worked for them.'

(51) êkwa ôtê mîna mâna nikî-atoskân ôtê isi,
êkwa ôtê mîna mâna ni- kî- atoskê -n ôtê isi
and here also usually 1- PREV-work.VAI-SAP here DIR
'And then I also used to work over in this direction,

môniyâwak ê-kî-atoskawakik.
môniyâw -ak ê- kî- atosk-aw -ak -ik
white -PL C1-PREV-work-BEN-1>3-PL
I used to work for White people.' (AA 5.5)

These two main characters are then identified independently of any events in the story, as given in (52).

(52) pêyak ana, aya, Irish an[a] îskwêw, êkwa ana nâpêw German, ...
pêyak ana aya Irish ana iskwêw êkwa ana nâpêw G
one DEM.AN CONN *Irish* DEM.AN *woman and* DEM.AN *man G*
'The one, the woman was Irish, and the man was German,' (AA 5.5)

And then the narrator proceeds to tell the story of working for these two people, and how, eventually, some time after she stopped working for them, the woman ends up killing her husband. Several other referents come into this story at different points: e.g., the couple's children (a boy and two girls), several other nouns are also used; however the story centers around these two individuals. These I call the topic referents of the story.

In fact, other than the instance we saw above with the *awa nâpêsis* 'little boy', all other instances of INDEPENDENT clauses in this narrative that lack overt nominals for all their arguments refer to one of these two referents. There are three such cases, distributed throughout the story. The first one refers to the woman and has no nominal phrases outside the verbal marking (53). (There is no overt nominal in the previous clause either.)

(53) INDEPENDENT refers to text-level woman

…, **nitaw-ôpêpîmiw** êkwa ...
nitaw- opêpîmi -w êkwa
go- have.baby.VAI-3 and
…, she went to have her baby, … (AA 5.5)

The second case is a transitive verb with the man as the subject and the woman as the object. Here there is a possessive form *wîwa* 'his wife' referring to the woman as the man's wife. While the demonstrative *ana* 'that.AN' refers to the man, the demonstrative without an accompanying noun does not have enough information to identify the referent. The man has not been brought up since line 2.

(54) INDEPENDENT refers to text-level man

..., êkotê êkwa **itohtahêw** ana wîwa;
êkotê êkwa itohtah -ê -w ana w- îw -a
there and take.VTA-DIR-3 DEM.AN *3- wife-OBV*
'…, then that man took his wife there;' (AA 5.5)

Finally, the last line of the story contains just a bare INDEPENDENT clause. The verb is transitive, and is the punch line of the story: the woman introduced at the beginning of the story has killed

the man introduced at the beginning of the story (notice, for example, the emphatic flavour of the English with the affirmative *did*.

(55) INDEPENDENT refers to both text-level individuals

…, kî-nipahêw.
kî- nipah -ê -w
PREV-kill.VTA-DIR-3
…, and she did kill him.' (AA 5.6)

To sum up then – INDEPENDENT clauses referring to third persons seem to have a specific set of properties with them. First, they will repeat overt nominals even when the relevant referent was introduced in the previous anaphoric clause. Second, a referent introduced in an indexical clause is reintroduced after an intervening indexical clause. Third, other indexical INDEPENDENT clauses lacking overt nominals correspond to referents that are the main 'topics' of the story. These observations provide an opening into much further research.

3.2.3.3.2 Restrictions on switch-reference in INDEPENDENT clauses

Plains Cree has a switch-reference marker -*yi*, which marks a subject disjoint from an argument of some other predicate (different subject (DS); Dahlstrom 1991, Mühlbauer 2007, in prep). Because -*yi* requires that arguments across two predicates be evaluated, the current analysis predicts that -*yi* in indexical INDEPENDENT clauses will be either ill-formed or have a deictic function.

The latter prediction is borne out and actually predicts a pattern has not generally been noticed in the language. Thus, teaching grammars such as Ahenakew (1987) and Hunter, Karpinski, & Mulder (2001) show, as part of the standard paradigm, independent forms with the -*yi* suffix (usually termed obviative agreement), but it is not coincidental that all of their examples use a CONJUNCT form of the verb. In fact, a look at Wolfart (1973) shows that, in running speech, -*yi* is only attested in some of the expected forms in the INDEPENDENT order, (Wolfart 1973:41; Ahenakew 1987 also gives text counts which show that -*yi* is very restricted in the indexical INDEPENDENT clauses). Table 3.8 replicates Wolfart's findings.

Syntactic context		Expected form	Attested in INDEPENDENT order?
Intransitive	DS	STEM-yiwa	✔
Transitive	DS > 1	ni-STEM-ikoyiwa	✖
	DS > 2	ki-STEM-ikoyiwa	✖
	DS > 3OBV	STEM-êyiwa	✔

Table 3.8. (Un)attested co-occurrence of *-yi* in INDEPENDENT order (Wolfart 1973)

Even when we limit ourselves to the forms which do occur in running speech, which I will discuss below, it is difficult to reproduce these forms in elicitation contexts for reasons that will become clear below.

Consider the following pair, both of which were presented in elicitation. With the anaphoric CONJUNCT form, the consultant found the sentence infelicitous without context, but when asked how it would be interpreted, (e.g., if accidentally overheard) could translate it (56a). By contrast, consultants do not even recognize the form in (56b) - it is uninterpretable.

(56) *Context*: presentation of different subject marking in CONJUNCT and INDEPENDENT forms

a. # nâpêwa **ê-nikamo**yi**t** CONJUNCT
nâpêw -a ê- nikamo -yi -t
man -OBV C1-sing.VAI-DS-3
'Someone's guy is singing.'

comment: who are you talking about?

b. ! anihi nâpêwa **nikamo**yi**wa** INDEPENDENT
anihi nâpêw -a nikamo -yi -w -a
dem man -OBV sing.vai-DS -3 -OBV
--

comment: I've never heard that before.

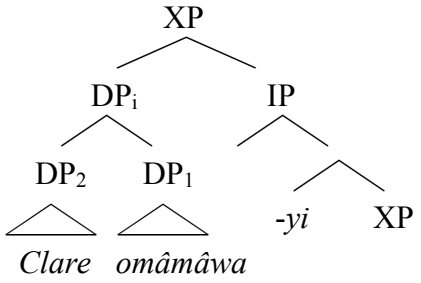
The inability of consultants to recognize the latter form in elicitation contexts highlights the difference between indexical clauses, and anaphoric clauses, which even when unembedded, can be interpreted with respect to some previous antecedent.

When we look at running speech, we do see INDEPENDENT clauses with the *-yi* suffix on them – but only in two specific contexts (Mühlbauer 2007, in prep). The first is when the subject of the verb is possessed, as in (57).

(57) Clare **omâmâwa** ka-nikamo**yi**wa INDEPENDENT
C o-mâmâ -a ka- nikamo -yi -w -a
C 3-mother-obv IRR-sing.VAI-DS -3 -OBV
'Clare's mother will sing.'

In this case, there is internal structure of the DP subject *Clare omâmâwa* 'Clare's mother'; in particular, there are two referents: *Clare* and *omâmâwa* 'her mother'. The different subject marks disjunction between the subject of the verb *omâmâwa* 'her mother' and the subject of the possession construction *Clare* as represented in (58); crucially, there is no cross-clausal antecedence relation between the two subjects.

(58) *-yi*: ($\text{Subj}_{\text{omâmâwa}} \neq \text{Subj}_{\text{Clare}}$)



This context accounts for almost all *-yi* marked INDEPENDENT clauses, and it should be underlined that this is the only context I know of where a consultant has accepted a *-yi* marked INDEPENDENT clause in an elicitation context.

The second context where *-yi* can occur is when it marks what again look like text-level referents. For example, in (59), the speaker is telling a joke about a dead prairie-chicken found by a woman going to church. The prairie chicken is introduced as an obviative referent relative to the woman, and is the referent on which the joke hangs. At the point of the story where this clause is uttered, there are only two possible referents in the discourse: *nôcikwêsiw* 'old woman' and *pihêwa* '(obviative) prairie chicken'. Further, previous to this clause, there have been no switching of subjects between clauses. In this situation, then, we have an utterance like (59).[20]

[20] When these kinds of examples are presented to speakers in elicitation contexts, they are accepted as fine, but when the speakers are asked to reproduce them, the context seems to evaporate and the different subject marking disappears.

(59) *context*: middle of story about woman and prairie chicken

..., mâk êtikwê miyâkosiyiwa, ...
mâka êtikwê miyâkosi -yi -w -a
but EVID stink.VAI -DS -3 -OBV
'..., but it [the prairie chicken] must have been smelling already, ...' (AA7.1)

In this case we can say that the *-yi* is not anaphorically dependent on the previous clause, but rather it is deictically pointing to the (only) obviative referent in the story.

Thus the subordinate subject marker *-yi*, has deictic behaviour in INDEPENDENT clauses (cf. its anaphoric behaviour in CONJUNCT clauses, discussed in chapter 4).

3.3 The semantics of indexical clauses: Indexicality

We now turn from the structural conditions on indexical INDEPENDENT clauses to the implications of the clause being anchored to the speech act (via the situation variable in spec, CP); in particular focussing on the temporal implications (i.e., that indexical INDEPENDENT clauses are evaluated with respect to speech time) and referential implications (i.e., that indexical INDEPENDENT clauses are evaluated with respect to the speaker).

First, I show that indexical clauses have a privileged temporal relationship to the speech time (§3.3.1). Second, I show that indexical clauses have a privileged referential relationship to the speaker (§3.3.2).

3.3.1 Temporal deixis: Relating reference time to speech time

In this section, I consider the temporal properties of indexical clauses. Within a Reichenbachian framework (cf. Paul 1886, Reichenbach 1947, Hinrichs 1986, Enc 1987, Hornstein 1990, Kamp & Reyle 1993, Klein 1994, Kratzer 1998, Demirdache & Uribe-Etxebarria 2002, among others), there are traditionally three times: the *speech* time (aka utterance time), the *reference* time (aka topic time), and the *event* time (aka situation time). These are defined in (60) and related to the corresponding linguistic structures.

(60)

a.	Speech Time (T_0)	the time of speaking	speech act
b.	Reference Time (T_{ref})	the time the sentence makes a claim about	propositional structure
c.	Event time (T_{sit})	the time of the event or situation	predicate structure

From these times, a large number of relations can be made to model different tense/aspectual distinctions (see, for example Klein 1994). The relation between these times can be sequencing in nature, i.e., x precedes y, x follows y. It may also be a relation of inclusion: x includes y or conversely, y includes x[21]. Following recent work in the tense/aspectual literature, I model the relations between these times as a [± coincidence] relation, where [- coincidence] captures the sequencing relation, and [+ coincidence] captures the inclusion relation (cf. Demirdache & Uribe-Etxebarria 199x, 200x; Ritter & Wiltschko 2005, 2007)[22].

Tense relations are generally taken to be relations anchored to the speech time, and aspectual relations those anchored to the situation time. In this thesis, since we are interested in clause-typing, I am primarily concerned with the former type of relation.

More recently, many analyses (e.g., Gennari 2003, among others) also make reference to an *evaluation* time, as in (61).

(61) **Evaluation Time (T_{eval})***def*: the time with respect to which the truth of the sentence (i.e., proposition) is evaluated

The status of this fourth time with respect to the others is often vague. In this thesis, I integrate the evaluation time into the other times in a specific way, such that, for any clause, there are only

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[21] In order to relate multiple times, multiple relations are often necessary. For example, the specification of an English past perfect specifies a precedence relation between the reference time and the utterance time, and a precedence relation between the reference time and the situation time (cf. Klein 1994).

(i) - COIN ($T_{ref,}$ T_0)
- COIN ($T_{ref,}$ T_{sit})

Because these relations can be established (at least semi-)independently, we expect that they could be established via multiple parts of the grammar: e.g., there is no need to assume that a single morpheme would give both the relation between T_{ref} and T_{sit} and the relation between T_{ref} and T_0.

[22] The [± coincidence] feature is in fact an over-simplified analysis, since the precedence relation could also in theory be reversed, where the topic time must precedent the situation time, yielding a future tense (Kamp & Rohrer 1983). To distinguish the future from the past, we therefore need some additional specification. While there is on independent grounds substantial agreement that the future needs a modal component (Jespersen 1924, Comrie 1985, Hornstein 1990, Abusch 1998, Copley 2002, Matthewson 2006, among others), the modal component is again not sufficient to derive the temporal properties of the future, and the ordering component of the future must be specified as [FOLLOW]. Thus an alternative analysis fully compatible with the data here is to specify the relations as [OVERLAP] and [PRECEDENCE].

three relevant times. Specifically, I model the relation often characterized as a relation between reference time and speech time as a relation between reference time and evaluation time.

(62) Tense relations:

+ COIN (T_{ref}, T_{eval})

- COIN ($T_{ref,}$ T_{eval})

What the indexical/non-indexical split in clauses does is give the value of the evaluation time T_{eval}. Within the situation semantics framework, all of these times will be derived from situations. Here I focus on the 'times' aspect, and use the 'times' notation. But if indexical INDEPENDENT clauses are evaluated with respect to a speech situation (s_0), then the time they will be evaluated with respect to (i.e., the evaluation time) is the speech time T_0.

(63) $s_0 \rightarrow T_0$

By transitivity, in indexical clauses the tense relation will always be between the reference time and the speech time.

(64) **Indexical:** ***Evaluation time is speech time ($T_{eval} = T_0$)***

+ COIN (T_{ref}, T_0)

- COIN (T_{ref}, T_0)

In anaphoric CONJUNCT clauses, by contrast, the proposition is evaluated with respect to some (unspecified) situation; thus it will be evaluated with respect to some (unspecified) time (in chapter 4, I argue that this time is established according to general principles of anaphora). In anaphoric CONJUNCT clauses, the tense relations will therefore be as in (65).

(65) **Anaphoric:** ***Evaluation time is anaphorically give ($T_{eval} = T$)***

+ COIN (T_{ref}, T)

- COIN (T_{ref}, T)

The definition in (64) captures the fixed reference to speech time that indexical clauses have; in §3.2.2.4 I use the distinction between (64) and (65) to capture the different interpretations of indexical (Plains Cree INDEPENDENT) and anaphoric (Plains Cree CONJUNCT) clauses.

The second part of the claim is that a bare indexical clause in Plains Cree has a [+ coincidence] value;[23] in order to get a [- coincidence] value, the temporal shifting preverb *kî-* must be added to the verbal complex. Putting everything together, the temporal value of a bare INDEPENDENT order clause in Plains Cree is thus as in (66).

(66) + COIN (T_{ref}, T_0)

Thus, while bare INDEPENDENT clauses do not map directly onto either of the English past/present tense distinctions in terms of distribution, they are more like a present tense in that the reference time coincides with the speech time. This captures the generalization that Plains Cree's INDEPENDENT clauses always have 'present relevance', a notion that is also recurrent in the literature for other languages (cf. Huddleston 1969, Lakoff 1970, Bennett & Partee 1972, Comrie 1976, Dowty 1979, Klein 1992, 1994, among others).

There are at least two possible interpretations that the [+ COIN (T_{ref}, T_0)] relation is compatible with, depending on what the relation between T_{event} and T_{ref} is. First, it is compatible with a 'present tense' interpretation, where T_{event} also coincides with T_{ref}.

(67) *present:* 'I am happy.'
+ COIN (T_{ref}, T_0)
+ COIN (T_{ref}, T_{event})

Second, the coincidence relation between T_{ref} and T_{eval} could be conjoined with a non-coincidence relation between T_{event} and T_{ref}. This is approximately the model for the English present perfect (Klein 1994): the reference time must be in the posttime (i.e., after) the situation time (i.e., expressed by the predicate), and must also include the utterance time.

(68) *present perfect* 'I have eaten three apples.'
+ COIN (T_{ref}, T_0)
- COIN (T_{ref}, T_{event})

Since T_{event} is associated with the predicate domain and T_{ref} with the propositional domain, and these are both below the clause-typing domain, I will not be concerned with the representation of

[23] I leave as an open question whether the unmarked value of [+ coincidence] should be treated as an inherent (i.e., universal) value of indexical clauses, or whether this is specific to Plains Cree's indexical clause.

aspectual value (cf. Klein 1992, Kratzer 1998, Bohnemeyer & Swift 2004). I show that while there is variation between a present and present perfect interpretation (which is indirectly related to aspectual value), there is always a [+ COIN] relation between the reference time T_{ref} and the speech time T_0.

If the predicate is stative, the state holds at speech time; if the predicate is an activity (i.e. a-telic), the event or resultant state holds at speech time; if the predicate is an accomplishment (i.e., telic), then the resultant state holds at speech time (i.e., like a present perfect). This is summarized in table 3.9.

ASPECT CLASS	INTERPRETATION
Stative predicates	present
Activity predicates	present
Telic predicates	present perfect

Table 3.9. Interpretation of INDEPENDENT clauses by aspectual class

3.3.1.1 Contrasting temporal interpretations of indexical and non-indexical clauses

The temporal difference between indexical and non-indexical clauses is represented in (69): while the [+coincidence] relation is indexically given as the speech time in INDEPENDENT order clauses, it is unspecified in anaphoric CONJUNCT clauses, and must be given by context (specifically, it must have an antecedent).

(69) a. + COIN (T_{ref}, T_0) INDEPENDENT

b. + COIN (T_{ref}, T) CONJUNCT

Probably the most striking illustration of the anaphoric nature of non-indexical CONJUNCT clauses is that they may be embedded with respect to another clause, in which case they are dependent on the higher clause for temporal interpretation (cf. Chapter 4). In (70) the crying is interpreted relative to when Kim spoke to me, not relative to speech time. (The baby could still be crying, but the sentence says nothing about that.)

(70) Kim nikî-itik bêbîsis ê-mâtot
K ni- kî- it -ikw bêbi -sis ê- mâto -t
K 1- PREV-tell.VTA-INV baby-DIM C1-cry.VAI-3
'Kim had told me that the baby was crying
= + COIN (crying, T; T = TELL)

The sentence in (70) tells us that the temporal interpretation of embedded anaphoric (CONJUNCT) clauses can be set with respect to some time that is not the speech time (i.e., it is not fixed). However, even in unembedded contexts, the temporal interpretation of CONJUNCT clauses is not fixed. In (71), both utterances are translated exactly the same way, but they are nevertheless temporally distinguished: the CONJUNCT form can be used to report something you heard earlier, or something cotemporaneous with speech time; the indexical INDEPENDENT has only the cotemporaneous interpretation.

(71) a. **ê-pêhtawak** nisîmis wayawihtamihk ê-mêtawêt CONJUNCT
ê- pêhtaw -ak ni- sîmis wayawihtam -ihk ê- mêtawê -t
C1-hear.VTA-1>3 1- sibling outside -LOC C1-play.VAI -3
'…I heard my little brother playing outside.'

comment: This one could mean any time; it could mean before, or it could mean I'm hearing him now

b. **nipêhtawâw** nisîmis wayawihtamihk ê-mêtawêt INDEPENDENT
ni- pêhtaw -â -w ni- sîmis wayawihtam-ihk ê- mêtawê -t
C1-hear.VTA-DIR-3 1- sibling outside -LOC C1-play.VAI-3
'I heard my little brother playing outside.'

comment: …like I'm on the phone with you, and he's making noise, and I'm telling you about it

Second, in places where INDEPENDENT clauses must be marked with *kî-* (e.g., states that hold at some time other than utterance time), CONJUNCT clauses can be bare. The temporal value of the indexical clause is interpreted with respect to speech time, so an overt [- coincidence] element like *kî-* is needed (72a, 73a). The temporal value of the anaphoric CONJUNCT clause (72b, (72b) is interpreted with respect to the time established by the previous clause: the times of the events coincide so *kî-* is not needed.

(72) a. kâ-wâpamak Jeff, **kî**-nôhtêhkatêw INDEPENDENT
kâ-wâpam -ak J kî- nôhtêhkatê -w
C2-see.VTA-1>3 J PREV-hungry.VAI -3
'When I saw Jeff, he was hungry.'

b. kâ-wâpamak Jeff, **ê-nôhtêhkatêt** CONJUUNCT[24]
kâ-wâpam -ak J ê- nôhtêhkatê -t
C2-see.VTA-1>3 J C1-hungry.VAI -3
'When I saw Jeff, he was hungry.'

(73) a. kâ-wâpamak Jeff, **kî**-âhkosiwpayiw INDEPENDENT
kâ- wâpam -ak J kî- âhkosiwpayi-w
C2-see.VTA -1>3 J PREV-sick.VAI -3
'When I saw Jeff he got sick (suddenly).'

b. kâ-kî-wâpamak Jeff, **ê-âhkosiwpayit** CONJUNCT
kâ- kî- wâpam -ak J ê- âhkosiwpayi -t
C2-PREV-see.VTA -1>3 J C1-sick.VAI -3
'When I saw Jeff, he got sick (suddenly).'

Third, in sequences of clauses, if *kî-* is added to an indexical INDEPENDENT clause, it fixes the relation relative to the speech time, as in (74a, 75a); however if *kî-* is added to an anaphoric CONJUNCT clause (74b, 75b), it shifts the event time with respect to the preceding clause, rather than with respect to speech time. See chapter 4 for more details.

(74) a. ê-pê-kîwêt Jeff ni**kî**-mîcisonân. INDEPENDENT
ê- pê- kîwê -t J ni- kî- mîciso -nân
C1-come-go.home.VAI-3 J 1- PREV-eat.VAI-1PL
'When Jeff came, **then** we ate.'
= come home < **eat**

b. ê-pê-kîwêt Jeff, ê-**k**î-mîcisoyâhk CONJUNCT
ê- pê- kîwê -t J ê- kî- mîciso -yân -k
C1-come-go.home.VAI-3 J C1-PREV-eat.vai -1 -PL
'…Jeff came home, we had eaten.' (we = speaker & someone else)
= **eat** < come home

[24] Stative predicates in unembedded clauses still strongly prefer to be interpreted as holding at utterance time, but as the example shows, this is only a preference when it comes to CONJUNCT clauses.

(75) a. kâ-wâpamak Jeff, **kî**-ahkosiwpâyiw INDEPENDENT
kâ- wâpam -ak J kî- ahkosiwpayi -w
C2- see.VTA-1>3 J PREV-sick.VAI -3
'When I saw Jeff he got sick (suddenly) (at that time).'

b. kâ-wâpamak Jeff, tontoni ê-**kî**-ahkosiwpayit CONJUNCT
kâ- wâpam -ak J ê- kî- ahkosiwpayi -t
C2-see.VTA -1>3 J C1-PREV-sick.VAI -3
'When I saw Jeff, he **had** gotten really very sick.'

Finally, the asymmetry between INDEPENDENT and CONJUNCT clauses can be seen in structures where the temporal adverbial *tâkosih* 'yesterday' is in final position (74a). Indexical INDEPENDENT clauses are bad, but non-indexical CONJUNCT clauses are fine.

(76) a. ?* kacis pêyakwâw **nimîcison** otâkosihk INDEPENDENT
kacis pêyakwâw ni- mîciso -n otâkosihk
only once 1- eat.VAI-SAP1 yesterday
intended: I only ate once yesterday

b. kacis pêyâkwâw **ê-mîcisoyân** otâkosihk CONJUNCT
kacis pêyakwâw ê- mîciso -yân otâkosihk
only once C1-eat.VAI -1 yesterday
'I only ate once yesterday.'

As we will see in the following sections, there is a general prohibition on final past time adverbials with indexical clauses lacking the temporal shifter *kî-*, across all aspectual classes; this is expected if there is a fixed coincidence relation between reference time and speech time. However, there is no such prohibition on non-indexical CONJUNCT clauses; this is expected if the coincidence relation is between reference time and some unspecified time (i.e., that might be in the past).

In this last section I have exemplified the difference between indexical INDEPENDENT clauses and non-indexical CONJUNCT clauses. In the next section, I focus on the temporal interpretations available for indexical clauses in stative and (atelic and telic) eventive predicates. These sections demonstrate the [+coincidence] relation between the reference time T_{ref} and speech time T_0. Because the relation is always evaluated relative to speech time T_0, these sections also provide additional indirect evidence that the evaluation time for indexical clauses is always T_0.

3.3.1.2 Indexical clauses present statives that hold at T_0

Stative predicates are interpreted as holding at speech time in indexical (INDEPENDENT) clauses, as evidenced by the following characteristics:

(i) they cannot be translated with a true past 'used to (be)' constructions;

(ii) they cannot be used in explicitly past contexts;

(iii) they are obligatory if the time span referred to (either by context or by a modifier) includes the utterance time; and

(iv) they cannot co-occur with final past-time adverbials unless there is an overt temporal shifter.

First, if Plains Cree was simply vague or ambiguous with respect to temporal relations, we would expect that it could be mapped onto either tense form in English[25]. However, when translations which unambiguously identify the predicate as *not* holding at speech time, such as the periphrastic 'used to be' (termed English *true past* constructions in Lakoff 1970), they are systematically rejected. The preverb *kî-,* which is often called a 'past tense' (see chapter 7 for discussion), is used if the predicate does not hold at speech time.

(77) Permanent stative predicates must have *kî-* for unambiguous past translation

a. Jeff kinosiw
J kinosi -w
J tall.VAI-3
= '**Jeff is tall'**
≠ 'Jeff used to be tall.'

b. Jeff **kî**-kinosiw
J kî- kinosi -w
J PREV-tall.VAI-3
≠ 'Jeff is tall.'
= '**Jeff used to be tall**.'

[25] For example, the Plains Cree diminutive *-sis* is ambiguous with respect to indicating size or quality (i). Notice that both English translations, which are non-ambiguous, are valid.

(i) acimosis
atimw -sis
dog -DIM
= 'small dog (e.g., Pomeranian)'
= 'puppy (e.g., baby German Shepherd)'

(78) Temporary stative predicates must have *kî-* for unambiguous past translation

a. nôhtêhkatêw Tomio
nôhtêhkatê -w T
hungry.VAI-3 T
= '**Tomio is hungry**.'
≠ 'Tomio was/used to be hungry.'

b. **kî**-nôhtêhkatêw Tomio
kî- nôhtêhkatê -w T
PREV- hungry.VAI-3 T
≠ 'Tomio is hungry.'
= **'Tomio was/used to be hungry.'**

Adding overt past contexts which disambiguate the interpretations (criteria (ii)) confirms these translations. For example, when talking about a person who's no longer living, a stative predicate must be marked with *kî-* (cf. Wolfart 1990, 2000:170). The absence of *kî-* codes that the dead person can still have this state attributed to them, as nicely summarized by one consultant.

(79) *context*: talking about a person who's no longer living

b. # nôhkomipân kahkiyaw kiskêyihtam
n- ôhkom -pân kahkiyaw kiskêyihtam -w
1-grandmother-former all know.VTI -3
'My grandmother (no longer here) **knows** everything.'

comment: OK if you believe you still have some communication with grandmother…spiritual [communication], she's dead, but you still have a relationship with her – for example, a dream where she speaks to you

b. nôhkomipân kahkiyaw **kî**-kiskêyihtam
n- ôhkom -pân kahkiyaw kî- kiskêyihtam -w
1- grandmother-former all PREV-know.VTI -3
'My grandmother (no longer here) **knew** everything.'

(80) *context:* talking about a friend who recently died

a. # John kinosiw
J kinosi -w
J tall.VAI-3
'John is tall.'

b. John kî-kinosiw
J kî- kinosi -w
J PREV-tall.VAI-3
'John was tall.'

Likewise, in (81), the state being talked about (living in a particular house) held for some previous time span that does not include the time of speech. Again the bare indexical clause cannot be used.

(81) *context*: walking by a house that speaker used to live in. Speaker points it out

a. # **niwîkin** ôta ôma wâskahikan nêwaskiy
ni- wîki -n ôta ôma wâskahikan nêwo askiy
1- live.VAI-SAP here DEM.INAN house four year
'I've lived in this house for four years.'

b. **ni**kî-**wîkin** ôta ôma wâskahikan nêwiskiy
ni- kî- wîki -n ôta ôma wâskahikan nêwo askiy
1- PREV-live.VAI-SAP here DEM.INAN house four year
'I lived at this house for four years.'

The past context for the INDEPENDENT clause in (82) is disambiguated by the initial clause: the speaker is talking about a state that held many years in the past. Again, the clause must be marked with *kî-*.

(82) *context*: old person talking about when they were young

a. * kâ-(kî)-oskinîkiskwêwiyân **nikatawasisin**
kâ- kî- oskinîkiskwêwi -yân ni- katawasisi -n
C2-PREV-young.woman.VAI-1 1- beautiful.VAI-SAP
---

b. kâ-(kî)-oskinîkiskwêwiyân, **ni**kî-**katawasisin**
kâ- kî- oskinîkiskwêwi -yân ni- kî- katawasisi -n
C2-PREV-young.woman.VAI-1 1- PREV-beautiful.VAI-SAP
'When I was a young woman, I was beautiful.'

Conversely, if the state does hold at present, a indexical (INDEPENDENT) clause must be bare (not marked with *kî-*). In (83) the speaker is talking about a person recently met. In order for the state to be interpretable as holding at utterance time, the unmarked clause must be used. (If the clause is marked with *kî-*, then the state must hold at a time previous to speech time).

(83) *context*: talking about tall guy named Bernie after meeting him at a party

a. iyikohk **kinosiw** Bernie
iyikohk kinosi -w B
so tall.VAI-3 B
'Bernie is/was really tall.'

b. # iyikohk **kî-kinosiw** Bernie
iyikohk kî- kinosi -w B
so PREV-tall.VAI-3 B
---

comment: *laughter* how did he get short? is it because he's older and shrunk?

Likewise, the contrast in (84) shows that with the adverbial phrase *ispî otâkosihk* 'since yesterday', only the bare form is good.

(84) a. nicihkêyihtên sspî otâkosihk
ni- cîhkêyihtê -n ispî otâkosin -k
1- happy.VTI -SAP TIME be.evening.VII-0
'I've been happy since yesterday.'

b. * ni**kî**-cihkêyihtên sspî otâkosihk
ni- cîhkêyihtê -n ispî otâkosin -k
1- happy.VTI -SAP TIME be.evening.VII-0
--- (*intended*: 'I've been happy since yesterday.')

A final piece of evidence that predicates in an indexical clause must hold at speech time is their co-occurrence restrictions with past time adverbials. Distant past-time adverbials like *kayâs* 'long ago' cannot co-occur at all.

(85) * kayâs nimiyosin
kayâs ni- miyosi -n
long.ago. 1- pretty.VAI-SAP
--- (*intended*: 'A long time ago I was pretty.')

More recent past time adverbials can co-occur with unmarked statives. If an unmarked INDEPENDENT clause is contrasted with a *kî*-marked INDEPENDENT, the difference seems to be that in the latter case, the state of happiness no longer holds.

(86) a. **otâkosihk** nicihkêyihtên
otâkosin -k ni- cihkêyihtê -n
be.evening-0 1- happy.VTI -SAP
'I was happy yesterday.

b. **otâkosihk** n**kî**-cihkêyihtên
otâkosin -k ni- kî- cihkêyihtê -n
be.evening.VII-0 1- PREV happy.VTI -SAP
'I was happy yesterday.'

comment: there's sort of an implied BUT… she's not happy now

However, there is a restriction on this co-occurrence: the adverbial must be in initial position. In final position, they are bad, as in (87).

(87) a. ninitawêyihtên mîcimâpoy
ni- nitawêyihtê -n mîcimâpoy
1- want.VTI -SAP soup
= 'I want soup.'
≠ 'I wanted soup.'

b. * ninitawêyihtên mîcimâpoy **otâkosihk**
ni- nitawêyihtê -n mîcimâpoy otâkosin -k
1- want.VTI -SAP soup be.evening.VII-0

At this point, I am not sure what accounts for the distribution of the adverbials, although one possible line of analysis to pursue is that initial adverbials relate to the event time, while final adverbials relate to reference time (cf. Currie 1995 on time adverbials in Salish; also Klein 1992 on English adverbials with the perfect).

3.3.1.3 Indexical clauses present activities that coincide with T_0

Like stative predicates, unmarked activity predicates are interpreted as present in indexical clauses, with either a habitual or imperfective reading, as shown in (88).

(88) Activity predicates must be marked with *kî-* for unambiguous past reading

a. nikisipêkinên wîyâkana
ni- kisipêkinê -n wîyâkan -a
1- wash.VTI -SAP dish -PL
= 'I am washing dishes (right now)'
= 'I wash dishes in general'

b. ni**kî**-kisipêkinên wîyâkana
ni-kî-kisipêkinê-n wîyâkan-a
1-PREV-wash.VTI-SAP dish-PL
= 'I had washed the dishes'

Activity predicates in bare indexical clauses act like stative predicates with respect to periphrastic past constructions; speakers reject periphrastic 'used to' past translations as in (89), even with the habitual element *mâna* 'usually/at times'.

(89) a. nimâton
ni- mâto -n
1- cry.VAI-SAP
= 'I am crying / I cry.'
≠ 'I used to cry.'

b. nimâton mâna
ni- mâto -n mâna
1- cry.VAI-SAP usually
= 'I cry at times.'
≠ 'I used to cry (at times).'

Activity predicates also behave like stative predicates in that speakers reject the bare indexical clause in past contexts. Notice that in many cases (e.g., (90)), speakers will volunteer an English past translation, but reject the past context.

(90) nimîcison
ni- mîciso -n
1- eat.VAI-SAP
= 'I'm eating right now.'
= 'I eat.' (Like say you lost weight, and someone asks 'aren't you eating anymore?')
≠ 'I ate' (consultant allows translation 'I ate' but says it is bad in a past context, e.g., talking about the big meal you had earlier in the day)

One possible explanation for this translation/interpretation discrepancy is that it stems from the convergence of tense (past) and aspect (completive) in English past tense constructions: in these

contexts, the speaker is attending to the fact that event time can precede and be completed by reference time, rather than attending to the relation between reference time and speech time. At any rate, when a past relation is established (e.g., by using a context), the speaker systematically rejects the bare indexical clause forms.

Also like stative predicates, when the context is set up such that the reference time includes the speech time, an indexical clause is obligatorily bare. This includes present perfect contexts, as in (91).

(91) *context*: walking across British Columbia, reach a friend's house after three weeks, but still have a long ways to go

a. mistahi nipimohtân mîhcêt kîsikâk
mistahi ni- pimôhtê -n mîhcêt kîsikâ -k
much 1- walk.VAI-SAP many be.day.VII-0
'I've walked a lot/many miles in many days.'

b. # mistahi ni**kî**-pimohtân
mistahi ni- kî- pimohtê -n
much 1- PREV-walk.VAI -SAP
'I had walked a lot/ many miles'

comment: I wouldn't guess that you're going to walk more

In terms of past time adverbials, unmarked activities can be modified by *tâkosihk* yesterday, but like with statives, the adverbial must be in initial position.

(92) a. **otâkosihk**, mistahi nimâton
otâkosin -k mistahi ni- mâto -n
be.evening.VII-0 much 1- cry.VAI-SAP
'I cried yesterday.'

b. ?? mistahi nimâton **otâkosihk**
mistahi ni- mâto -n otâkosin -k
much 1- cry.VAI-SAP be.evening.VII-0
--- (*intended:* 'I cried yesterday.')

Also like statives, the utterance is much worse if the temporal adverbial refers to a distant past. In (93), the consultant fixed the unmarked form by adding the temporal sequencer *kî-*, and a locative demonstrative.[26]

(93) a. ?? kayâs kimiwan
kâyâs kimiwan
long.ago rain.VII
---

b. kayâs kî-kimiwan ôta
kayâs kî- kimiwan ôta
long.ago PREV-rain.VII here
'It rained here a long time ago.'

3.3.1.4 Indexical clauses present telic predicates whose result state coincides with T_0

Unmarked telic predicates can only be interpreted as completed in bare indexical clauses. In terms of the coincidence relations, the result holds at speech time.

Concurrent with their completion status, unmarked telic predicates can only translate into the English temporal system as a past tense. In (94) English present translations are rejected; however, like stative and activity predicates, the periphrastic past 'used to' is also rejected.

[26] The addition of the locative in tandem with *kî-* is suggestive of the well-known link between spatial and temporal deixis. In particular, while unmarked predicates are always taken to be spatially centered around the speaker (consistent with their indexical status), the marked predicate is clearly not; thus the overt proximal locative *ôta* 'here' specifies that although the event is temporally distant it is still spatially coincident with the speech situation.

(94) Telic predicates can only have completed translation

a. Wâpastim **pîkonam** wâpamowina[27]
W pîkonam -w wâpam -win -a
W break.VTI-3 see.VTA-NOM-OBV
'W. broke a mirror.'
≠ 'W. is breaking a mirror.'
≠ 'W. breaks mirrors.'
≠ 'W. used to break mirrors.'

comment: The mirror is broken.

b. Jeff **paskiswêw** atimwa
J paskisw -ê -w atimw -a
J shoot.VTA-DIR-3 dog -OBV
'Jeff shot the dog.'

Incompleted events are marked by preverbs or adverbials; in (93) the addition of *mêkwâ* corresponds with a progressive.

(95) a. atim nipahêw minôsa
atimw nipah -ê -w minôs -a
dog kill.VTA-DIR-3 cat -OBV
'A/some dog killed a cat.'

b. atim **mêkwâ**-nipahêw minôsa
atimw mêkwâ- nipah -ê -w minôs -a
dog IMP- kill.VTA-DIR-3 cat -OBV
'A dog is killing a cat right now.'

comment: Maybe they're looking out the window and see it happening.

---

[27] It appears that the aspectual properties may not be hard-coded in these predicates; the other interpretations are made available by adding modifiers: *mâna* 'usually' to get the habitual, *mêkwac-* 'midst' to get an imperfective:

(i) a. Wâpastim pîkonam wâpamwona **mâna**
W pîkonam -w wâpam -win -a mâna
W break.VTI-3 see.VTA-NOM-PL usually
'Wâpastim breaks mirrors.' (Lit.: 'Wâpastim has broken a mirror repeatedly.'?)

b. Wâpastim **mêkwâc**-pîkonam wâpamwona
W mêkwâc pîkonam -w wâpam -win -a
W now break.VTI-3 see.VTA-NOM-PL
'W. is breaking mirrors right now.'

This does not impact the analysis of clause-typing, which only requires an evaluation time of T_0 (compatible with both (ia) and (iib)), but it suggests further work is need on aspectual classes in Plains Cree.

The present perfect contexts help to tease apart the aspectual interpretation (i.e., the result holds at T_0) from the temporal interpretation (i.e., T_{ref} precedes T_0). If the former is the relevant interpretation of the clause, then we predict that present perfect contexts will be fine with bare indexical INDEPENDENT clauses, whereas if the latter analysis is more accurate, then we would expect some additional marking to be necessary in these contexts (just as *mêkwâ*, which is used for imperfectives, is necessary in present contexts).

In present perfect contexts, the bare indexical clause is used. For example, the 'news' context of the present perfect (Comrie 1976, Fenn 1987, Klein 1994) necessitates an unmarked INDEPENDENT clause. Notice that trying to use a *kî-* marked clause elicits the kind of response we expect where reference time does not coincide with the speech time: the present relevance of the father's fall and leg-breaking is no longer apparent.

(96) *context*: a child's father has just broken his leg; child runs to tell the news and get help

a. nipâpa **wîsakisin**, **pîkonam** oskât, pê-wîcihinân
ni- pâpa wîsakisin -w pîkonam -w o- skât pê- wîcihi -nân
1- papa fall.VAI -3 break.VTI -3 3- leg come-help.VTA-1.PL
'My dad got hurt, he broke his leg, come and help us!'

b. # nipâpa **kî**-wîsaksin, **kî**-pîkonam oskât, pê-wîcihinân
ni- pâpa kî- wîsakisin-w kî- pîkonam -w o- skât pê- wîcihi -nân
1- papa PREV-fall.VAI-3 PREV-break.VTI-3 3- leg come-help.VTA-1.PL
---

comment: …wouldn't say it that way; sounds like the son is heartless/ungrateful

(97) *context*: I found a hat that belonged to you several months ago, but didn't tell you until just now (months later). I want to pretend I just found it

a. kitastotin nimiskên
ki(t)- astotin ni- miskê -n
2- hat 1- find.VTI-SAP
'I found your hat.' (Last spring)

comment: He will think you just found it.

b. # kitastotin nikî-miskên
ki(t)- astotin ni- kî- miskê -n
2- hat 1- PREV-find.VTI-SAP
'I had found your hat.'

comment: if you wanted to pretend that you just found it, you wouldn't use the *kî-*

Using the adverbial phrase *anohc piko* 'just now' also obligatorily requires a bare indexical clause, as in (98).

(98) *context*: on a walk; snake has just slithered across path and into bushes

a. **anohc piko niwâpamâw** kinêpik
anohc piko ni- wâpam -â -w kinêpikw
today QUANT 1- see.VTA-DIR-3 snake
'I saw a snake just now.'

b. * **anohc piko** ni**kî**-wâpamâw kinêpik
anohc piko ni- kî- wâpam -â -w kinêpikw
today QUANT 1- PREV-see.VTA-DIR-3 snake
---

comment: They're sort of cancelling each other out–one is now, the other is before

Finally, a bare predicate is used for a 'perfect of result' context, as shown in (99) and (100).

(99) *context*: explaining to someone why you can't see

a. niwanîhtân niskîsikôhkâna
ni- wanîhtâ -n ni- skîsikwihkân -a
1- lose.VAI -SAP 1- glasses -PL
'I lost my glasses.'

b. ?# ni**kî**-wanîhtân niskîsikôhkâna
ni- kî- wanîhtâ -n ni- skîsikwihkân-a
1- PREV-lose.VAI-SAP 1- glasses -PL
'I lost my glasses.'

(100) *context*: we are waiting for Tom to come so we can start dancing

A: Tom ôta ayâw
T ôta ayâ -w
T here be.VAI-3
'Is Tom here?'

B: pê-takosin
pê- takosin -w
DIR-arrive.VAI-3
'(Yes) he's arrived.'

comment: this one is implying that he's still here, that we're ready to dance

What all of these contexts have in common is that they are contexts where we want to model that the result holds at speech time. Thus, just like stative and activity predicates, telic predicates in indexical clauses have a fixed temporal relation to the speech time. And in all of these contexts, bare indexical INDEPENDENT clauses are felicitous, indicating that we are tracking the coincidence of the reference time with speech time (T_0).

Bare indexical clauses with telic predicates can co-occur with *otahkosihk* 'yesterday', as in (101). Sometimes examples with past time adverbials are augmented by another clause with a stative predicate. In these examples, the telic predicate is overtly related to some non-telic predicate that holds at utterance time.[28]

(101) a. **otâkosihk** nîcêwâkan sipwêhtew, êkwa anohc **nikaskêyihtên**.
otâkosin -k ni- wîcêwâkan sipwêhtê -w êkwa anohc ni- kaskêyihtê -n
be.evening.VII-0 1- friend leave.VAI-3 and today 1- lonely.VTI -SAP
'Yesterday my friend left, and now I'm lonely.'

b. nikisîpêkinên ôma wîyâkan, **kanâtan**
ni- kisîpêkinê -n ôma wîyâkan kanâtan
1- wash.VTI-SAP DEM.INAN dish clean.VII
'I washed this dish, it's clean.'

The data in (101) is consistent with the data we saw earlier, where the past time adverbial was acceptable as long as it was in initial position.

[28] This parallels observations made by Lakoff (1970) regarding 'present relevance' in the English tense system.

3.3.1.5 Interim summary

Given the times (situation time, reference time, evaluation time, and speech time) and relations [±coincidence] that seem to be relevant to linguistic structure, we would expect indexical clauses to always make reference to the speech time. More specifically within a situation semantics analysis, the speech time is the temporal component of the speech situation by which the proposition in an indexical clause is evaluated.

Consistent with our expectations, in this section we have seen data to show that there is a [+coincidence] relation between reference time and speech time in indexical clauses. Crucially, as we saw in §3.3.1.1, this interpretation is different from non-indexical clauses, where speech time is not necessarily taken into account.

In the next section I argue that we can make the same claims for referents that we do for times, to derive the evidential force of indexical INDEPENDENT clauses.

3.3.2 Referential deixis: The role of the speaker in indexical clauses

In this section, I show that indexical INDEPENDENT clauses always make reference to a speaker, a property which has not been previously discussed in the Algonquianist literature.

If we think about which referents are necessary for a speech act, we see that first-person is crucial. Without a speaker, there is no speech act, and as long as there is a speaker, a speech act can occur[29]. Within a speech act, then, only first person is a referential constant; all other referents can come or go. If an indexical clause contains reference to a speech act (or, more formally, the speech situation), and every speech act contains a speaker, then that logically means that an indexical clause always contains reference to a speaker.

(102) s_0 → Speaker

[29] It may be possible for reference to s_0 to also yield second-person effects (i.e., common ground effects). On independent grounds, Plains Cree forms seem not to have a lot of common ground sensitive forms, so it is not surprising that I have found no common ground effects in the clause-typing domain either.

By contrast, non-indexical clauses are not deictic on the speech act; the proposition in a non-indexical clause is evaluated relative to a contextually-given situation. This means that non-indexical clauses will not necessarily contain reference to a speaker.

In this section I provide evidence that indexical clauses, do asymmetrically divide referents between speakers (first person) and non-speakers (second and third persons) – and that non-indexical clauses do not. Just as propositions in indexical clauses are temporally evaluated with respect to the speech time, so they are referentially evaluated with respect to the speaker. This is manifest in a number of domains.

One way for the relation between the proposition and the speaker to be established is if the speaker is one of the participants in the event. Thus, if speaker is identified with one of the arguments of the predicate, an indexical clause will be preferred. Thus, in Plains Cree, indexical INDEPENDENT clauses are preferred when talking about the self.

If the speaker is not identified with one of these arguments, then the reference must be established in some other way. I suggest that one way reference can be established is via the speaker's perception of the event: if the event is directly perceived, then the speaker has a privileged relation to the proposition. This would mean that indexical clauses would have a 'direct' evidential force in the sense of Willett (1988) and Aikhenvald (2004) among others.

Finally reference to the speaker can be given as the speaker's epistemic state (i.e., certainty) about the proposition being expressed, or in subjective predicates, by the speaker's attitude towards the proposition.

All of these patterns converge to show that there is a specified relation between the proposition and the speaker in indexical clauses. Thus, despite the lack of dedicated morphological evidential marking, Plains Cree's independent indicative mode has a privileged relationship with the speaker, and so has evidential force.

3.3.2.1 Person-effects: Preference for indexical clauses when talking about the self

In this section I show that, across multiple classes of predicates, if the speaker is associated with one of the arguments of the verb, the clause is indexical. If we think about there being a coded relation between the proposition and the speaker, one way this relation could be realized is by the speaker being a participant in the event.

When a non-indexical CONJUNCT order clause is used instead, a variety of distancing interpretive effects arise. If we think about the difference between indexical and non-indexical clauses within situation semantics, in the former case the proposition is evaluated with respect to the speech situation, while in the latter case the proposition is evaluated relative to some (unspecified) situation. Thus, in this analysis, indexical clauses (Plains Cree's INDEPENDENT order) are specified, and non-indexical (i.e., anaphoric; Plains Cree's CONJUNCT order) clauses are not specified. Via principles of Blocking (Trubetzkoy 1939, Jakobsen 1929, among many others), the choice of an unspecified form (here anaphoric clause-typing) implies that the specified form (here indexical clause-typing) is infelicitous; thus the situation in the non-indexical clause could not be the speech situation.

For example, in (103), the INDEPENDENT is the only felicitous way for a speaker to express the current state of feeling cold; the ê-CONJUNCT, in this context as a whole utterance, has a distancing effect, and the consultant comments on how the non-indexical clause fails to convey the experience of being cold.

(103) a. nikawacin INDEPENDENT
ni- kawaci -n
1- cold.VAI-SAP
'I'm cold.'

b. #? ê-kawaciyân CONJUNCT
ê- kawaci -yân
c1-cold.VAI-1
'I was cold.'
≠ 'I'm cold.'

comment: it's referring to **when I was cold**…I wouldn't say this to you. I would say *nikawacin* 'I'm cold'… for 'I'm cold' I wouldn't use [this form] <emphasis mine>

Similarly, in (104), the indexical INDEPENDENT conveys the internal state of the speaker, while the ê-conjunct does not. Here the anaphoric CONJUNCT form codes a first person argument, and the first person is not bound, so it is associated with the speaker. Thus, when asked about the interpretation of (104b) the consultant disassociated the experience from speaking along temporal lines (even though, as we saw earlier, and will see in chapter 4, CONJUNCT clauses are unspecified for their temporal value).

(104) a. nikisiwâsin INDEPENDENT
ni- kisiwâsi -n
1- angry.VAI-SAP
'I'm angry.'

comment: like, right now. It's referring to I'm angry or I feel angry right now

b. ê-kisiwâsiyân CONJUNCT
ê- kisiwâsi -yân
c1-angry.VAI-1
'I got angry.'
≠ 'I'm angry right now.'

comment: like yesterday, or something

In both these cases, the clause-typing conveys the internal state of self; however, in the non-indexical case, the internal state is disconnected from the current state (i.e., the state at the speech situation). In indexical clauses, by contrast, the internal state coded by the predicate is connected to the state at the speech situation.

The distancing effect is also seen in naming predicates (such as, but not limited to *isiyîhkâso-*/*isiyîhkâtê-* 's/he is called'/ 'it is called'): we find that predicates of naming almost universally utilize indexical clauses; anaphoric CONJUNCT clauses are only used with naming predicates in very specific contexts. In particular, when introducing oneself (i.e., when the participant of the event is the speaker), it is necessary to use the indexical (i.e., INDEPENDENT) clause-type. If the CONJUNCT is used, consultants react as though the speaker has no knowledge of their own name.

(105) *context:* speaker naming self

a. Clare nitsiyîhkâson INDEPENDENT
C ni(t)- isiyîhkâso -n
C 1- be.called.VAI-SAP
'My name is Clare.'

b. # Clare ê-isiyîhkâsoyân CONJUNCT
C ê- isiyîhkâso -yân
C C1-be.called.VAI-1
'My name is Clare.'

comment: *laughing* that's just what they tell me…. You don't know yourself

The only time where a naming predicate referring to self is found in the CONJUNCT order is when it is embedded under some other predicate – where, as we have seen, an indexical clause is excluded.

(106) ana iskwêw kiskêyihtam Clare ê-isiyihkâsoyân
ana iskwêw kiskêyihtam -w C ê- isiyihkâso -yân
DEM.AN woman know.VTI -3 C C1-THUS.be.called.VAI-1
'That woman knows my name is Clare.'

The felicitousness of the non-indexical CONJUNCT clause in (106) has to do with its unspecified nature and will be discussed further in chapter 6.

3.3.2.2 Indexical clauses are infelicitous in contexts of unconsciousness

Consciousness is a condition on being a speaker (cf. Searle 1965, Banfield 1982). So far we have looked at contexts where the speaker also happens to be one of the participants in the event

expressed by the proposition. However, if the speaker is unconscious during the event, then the speaker loses their privileged relation to the event. A lack of consciousness means by definition a lack of experience; something that happens while I am unconscious is experientially equivalent to something happening to someone else outside of my perceptual field (cf. Chung 2005 for Korean). In addition, because one undergoing unconsciousness does not have awareness during the event, the reporting of the event must always occur at a time that is distinct from the occurrence of the event. This means that when someone is reporting a proposition for which they were unconscious, this proposition cannot be connected to the speech situation. We expect indexical clauses to be infelicitous in such contexts, and they are.

For example, in (107), the consultant immediately offered a clause in the ê-conjunct to express lack of consciousness. When presented with the independent indicative, the consultant accepted the form, but when asked to repeat it, always repeated the clause in the ê-conjunct.

(107)	a.	#	niwanitipskinên *ni- wanitipiskinê -n* *1- lose.consciousness.VTI-LP* 'I (have) lost consciousness.'	INDEPENDENT (presented)
	b.		ê-wanitipskinamân *ê- wanitipskiniam -ân* *C1-lose.consciousness.VTI-1* 'I lost consciousness.'	CONJUNCT (offered)

Clause-typing is also sensitive to contextually-specified unconsciousness – we can take a predicate that has no particular intentional or consciousness properties, and the choice of clause-typing will indicate the experiential knowledge of the speaker. Thus, in (108), the predicate of falling (*pahksini-*) would usually be interpreted as happening while the participant is conscious, and when a context of consciousness is provided, the speaker prefers the indexical INDEPENDENT clause.

(108) *context:* speaker tripped over a chair, and fell to the floor

a. nipahkisinin INDEPENDENT
ni- pahkisin -n
1- fall.VAI -SAP
'I fell.'

b. # ê-pahkisiniyân CONJUNCT
ê- pahkisin -yân
C1-fall.VAI -1
'I fell.'

By contrast, when provided with a context of unconsciousness (for example, falling during a faint), the consultant switches to the anaphoric ê-conjunct and rules the indexical INDEPENDENT infelicitous.

(109) *context:* speaker blacked out and fell, woke up on the floor with a cut

a. # nipahkisinin INDEPENDENT
ni- pahkisin -n
1- fall.VAI -SAP
'I fell.'

comment: no, you would say ê-pahksiniyân

b. ê-pahkisiniyân CONJUNCT
ê- pahkisin -yân
C1-fall.VAI -1
'I fell.'

So far we have seen confirmation that if the speaker (i.e., the referent entailed by a speech act) is also one of the referents in the proposition, an indexical clause is preferred; an anaphoric clause gives rise to temporal/consciousness distancing effects.

Given that indexical clauses always have reference to the speaker, we expect that indexical clauses that do not otherwise have a first person referent will (a) be restricted; and (b) have a special meaning where the speaker is invoked.

When we look at passages of Plains Cree discourse, we find that there are strong tendencies on when a speaker uses an INDEPENDENT clause to talk about others. This leads to a split in the way first-person vs. non-first-person forms coincide with clause-typing. For example, if we compare the use of indexical INDEPENDENT and anaphoric CONJUNCT clauses in the passage

given below (108), we see that both of the predicates in which the speaker is a participant (*kitâcimostâtonânaw* 'we tell one another' and *nipêhtawâwak* 'I have heard') are in the INDEPENDENT order. However, all of the clauses referring solely to others (underlined) are in the ê-conjunct, except for one quotative (*itwêwak* 'they say'):

(110) misakâmê ayisk ôma, kâ-mêkwâ-pimâtisiyahk, **kitâcimostâtonânaw** mâna tânis ê-ispayik aya, ôm âya, m-~ pimâtisiwin ôma kâ-pimâtisîtotamahk mêkwâc. pêci-nâway ôtê nawac ayisiyiniwak (tânitahto **nipêhtawâwak**) ê-kî-pê-miyawâtahkik, nawac ahpô, ê-itwêcik, ê-mêkwâ-kitimâkisicik, nawac ê-kî-miyawâtahkik, osâm ê-kî-sâkihitocik, nanâtohk is ê-kî-aya-wîcihitocik mîn âya, ê-kî-kiyokâtocik, miyêkwâ-wâskamisîtwâwi; êkosi mân **îtwêwak**; êkwa wêtinahk ê-kî-âcimostâtocik, ê-miywâsik kîkway ê-kî-mâmiton-~-mâmiskôtahkik. (Minde 1998:6)

For all along, throughout our life, **we tell one anothe**r about what is happening, about this life we are in the midst of living. In the past, people had been happier (**I have heard** many say that), they had been happier even when they were poor, because they used to love one another, they used to help one another in various ways, and they also visited one another when they were settled down; that is what **they say**; and they used to take time to tell stories to one another and to talk about good things.

Since all indexical clauses have reference to a speaker, the use of the indexical INDEPENDENT clause for the quotative in this passage indicates that there is some other relation between the proposition and the speaker[30]. I now turn to the conditions under which an indexical (INDEPENDENT order) clause can felicitously be used to talk about others, and think about how the interpretation of these clauses can be thought of as invoking reference to a speaker.

3.3.2.3 Events in indexical clauses must be directly perceived by the speaker

Indexical clauses which do not have any first person arguments are nevertheless predicted to make reference to the speaker. In this section I consider the evidential force of indexical clauses and suggest that this force is a result of the obligatory reference to the speaker.

Following the evidential literature, I will take evidentiality to be concerned with the speaker's *source of information* for the proposition being expressed; for example, direct experience, hearsay, or a dream (Aikhenvald 2004). The extent to which source of information is

[30] Specifically, the INDEPENDENT here corresponds to something that the speaker has heard directly. See the following discussion for details.

a separate notion from epistemic certainty of the proposition (e.g., certain, probable, possible, impossible) is separate from evidentiality or whether one category can be derived from the other has remained a matter of debate (cf. Bybee 1985, Willett 1988); for the Plains Cree evidential system, the relevant notion seems to be source of information (Wolfart 1973, Blain & Déchaine 2006a, b; 2007; Blain et al. 2006). However, as we will see, both source of information and certainty are defined in terms of the speaker's relation to the proposition.

When different sources of information are considered, the primary distinction that is cross-linguistically relevant is the distinction between *direct* and *indirect* sources of information. Direct evidentiality, also termed *experiential* or *direct-perceptual* evidentiality, includes information that the speaker has gained from personally perceiving (auditory, tactile, visual, etc. Aikhenvald 2004) an event or through self-knowledge (Garrett 2001). Indirect evidential force includes hearsay, reported, or inferred information (Willett 1988, Garrett 2001; Faller 2002, 2004; Aikhenvald 2004). Direct evidentiality by definition makes reference to the speaker, indirect evidentiality marks information coming from some other source.

Under the indexical / non-indexical analysis of clauses, we thus expect that the direct/indirect evidential split could only map onto the clause-typing in one way. Indexical clauses, which always make reference to the speaker, should correspond to direct evidential force; non-indexical clauses, which do not have any reference to the speaker, should correspond to indirect evidential force. Further, the direct evidential force provides evidence that, even when the speaker is not one of the participants of the event, there is still reference to the speaker in the clause.

Turning back to Plains Cree's clause-typing system, INDEPENDENT clauses behave as if they have a direct evidential force: the INDEPENDENT indicates that the speaker has direct experiential evidence for the proposition being uttered. This is what happens with a clause like (111): the predicate is an attitude verb (*miywêyihtam* literally, 'act.on.something.by.mind.in.a.good.way'; freely, 'enjoy/like something'), and has a third-person subject (Anna); in this case, an indexical clause (the INDEPENDENT) is infelicitous in normal conversation.

(111) *context*: I see Anna cooking a lot; she smiles and laughs when she's in the middle of cooking, so I infer that Anna must enjoy cooking

a. # Anna **miywêyihtam** ka-kîstêpot INDEPENDENT
A miywêyihtam -w ka- kîstepo -t
A like.VTI -3 IRR-cook.VAI-3
'Anna likes to cook.'

b. Anna **ê-mîywêyihtahk** ka-kîstêpot CONJUNCT
A ê- miywêyihtam -k ka- kîstepo -t
A C1-like.VTI -0 IRR-cook.VAI-3
'Anna likes to cook.'

comment: this is better (than independent) if I don't actually know if Anna likes to cook, I'm just guessing because she cooks all the time

In elicitation contexts, Plains Cree speakers will often allow intentional (i.e., attitude) predicates with third-person referents to have indexical INDEPENDENT clause-typing, but in this case, they often provide commentary on its felicity conditions. An example of this is given in (112), which has a third-person subject of a clause marked with *wî-* 'intend'. The consultant accepts the sentence, but comments about the necessary knowledge state of the speaker in order for this to be a felicitous statement.

(112) Shujun wîpac **wî**-kîsîhtâw otatoskêwin INDEPENDENT
S wîpac wî-kîsihtâ-w o-atoskê-win
S soon.IPC INT-finish.VAI-3 3-work.VAI-NOM
'Shujun's going to finish her work soon.'

comment: it's a fact that she's going to finish her work soon… [you could say this] if you know where she's going to be in her work

In fact, the indexical clauses are only felicitous in contexts where the speaker has experienced (observed, heard, felt directly) some part of the event. Take for example the verb of saying *itwê-* 'say thus' (used in the form *itwêwak* in the passage in (110) above). As a predicate that overtly codes the flow of information, *itwê-* has been analyzed as a predicate-level evidential in Plains Cree (Wolfart 1973, Blain & Déchaine 2006, 2007), and is thus a good case to investigate in this section. As in the cases above, an indexical INDEPENDENT clause is used when the speaker heard the speech firsthand, while a non-indexical (CONJUNCT) clause does not have any such restriction. One consultant used a religious context, where source of information becomes especially important, and volunteered a minimal pair in (113) to highlight the distinction between

the two clause-types[31]: the indexical INDEPENDENT clause may only be used when reporting something told by a spirit in the speaker's presence (cf. Cook & Mühlbauer 2007):

(113) *context*: speaker hears the spirit

a. êkos **îtwêw** INDEPENDENT
êkosi itwê -w
thus thus.say.VAI-3
'that's what he said'

b. # êkos **ê-itwêt** CONJUNCT
êkosi ê- itwê -t
thus C1-thus.say.VAI-3
'that's what he said'

(114) *context*: someone else heard the spirit and reported the event to the speaker

a. # êkos **îtwêw** INDEPENDENT
êkosi itwê -w
thus thus.say.VAI-3
'that's what he said'

b. êkos **ê-itwêt** CONJUNCT
êkosi ê- itwê -t
thus C1-thus.say.VAI-3
'that's what he said'

Just like for first persons, naming predicates provide an important test case for third persons because naming is a performative action (Searle 1965, Ross 1970, Rutherford 1973, among

[31] A further distinction in information flow may be made by use of the obviative, as (i) illustrates (see also Mühlbauer 2007 for discussion). The distinction in flow of information exhibited here by the clause-typing contrast and obviation is reminiscent of the distinctions discussed in Drapeau (1996), allowing for an interesting way to begin comparing how information flow is coded across the Cree dialect continuum.

(i) a. êkos **ê-itwêt** CONJUNCT
êkosi ê- itwê -t
thus C1-thus.say.VAI-3
'that's what he said'
Explanation: that's what you'd say if someone told you that heard it

b. êkos **ê-itwê**yi**t** CONJUNCT W/ OBVIATIVE
êkosi ê- itwê -yi -t
thus C1-thus.say.VAI-DS-3
'that's what he said'
Explanation: that's what you'd say if it was third- or fourth-hand.

others): by using a particular name for someone, I as the speaker have direct (experiential) evidence for the name of that person. We thus expect naming predicates referring to third persons to be an example where the indexical clause is the neutral clause-type even for third-persons, and this expectation is fulfilled. Indexical clauses are always used with naming predicates unless the speaker is referring to the name of an individual that the speaker does not personally use (e.g., when talking about a person the speaker does not know).

For example, in (115), the speaker first gives, in an INDEPENDENT clause, her kin-term for the man she is talking about (kin terms being used extensively and consistently in Plains Cree as forms of address (Mandelbaum 1940; Wolfart 2000)), and then switches to an anaphoric ê-CONJUNCT when she provides the nickname that other people used. Note that there is a speech hiccup in this example (also bolded): the speaker starts to use an indexical clause, stops, and then restarts and uses an anaphoric CONJUNCT clause.

(115) …, 'nitawêmâw' **nikî-itâhkômâw** mân âna, nâpêw, INDEPENDENT
ni(t)- awêmâw ni- kî- itâhkôm -â -w mâna ana nâpêw
1- brother.in.law 1- PREV-use.VTA -DIR-3 usually DEM.AN man
'..., I used to use the kin-term 'my brother-in-law' for him, for this man,

'Black' **kî-isiyîhk**-~, <u>nickname</u> anim êkos **ê-kî-isiyîhkâsot.** CONJUNCT
B kî- isiyîhk-~ nickname anima êkosi ê- kî- isiyîhkaso -t
B PREV-thus.be.called.VAI -~ nickname DEM.INAN TOPIC C1-PREV-thus.be.called.VAI-3
his name was Black, that was his nickname.' (AA 8.1)

In fact, naming predicates in the ê-conjunct may be accompanied by the indirect evidential *êsa*, which overtly identifies the source of information as indirect; this is illustrated in (116), where the speaker is talking about her husband's younger half-brother, whom she had never met.

(116) …, êkw êsa ê-kî-pôni-pimâtisit; '*Paul'* **ês** êwako **ê-kî-isiyîhkâsot**.
êkwa êsa ê-kî-pôni-pimâtisi-t P êsa êwako ê-kî-isiyîhkâso-t
and REPORT C1-PREV-stop-live.VAI-3 P REPORT RESUM C1-PREV-thus.be.called.VAI-3
'…, that one had died; Paul had been his name.' (EM 31)

The contrast between the INDEPENDENT and ê-CONJUNCT modes when talking about nonfirst-person referents is sometimes even described by consultants as a difference in information source. In (117a), the source corresponds to direct, sensory input to the speaker; in (117b), the source is indirect – the information is coming from someone else.

(117) a. miyomâcihow Anna INDEPENDENT
miyomâciho -w A
feel.well.VAI -3 A
'She's feeling well.'

comment: seems like you're getting that from seeing her and looking at her

b. ê-miyomâcihot Anna CONJUNCT
ê- miyomâciho -t A
C1-feel.well.VAI-3 A
'…she's feeling well.'

comment: ê-miyomâcihot is more like you're hearing about it

3.3.2.4 *êsa* has mirative force in indexical clauses

So far I have suggested that the evidential interpretation in indexical clauses could be seen as arising from the necessity of evaluating the proposition with respect to the speech situation. In particular, if the speech situation referent (the speaker) was not a participant in the event of the proposition, one way to connect the proposition to the speech situation is if the speaker has some spatio-temporal overlap with the event described in the proposition.

Further evidence that indexical clauses *must* make reference to the speaker comes from the way they interact with other evidentials in Plains Cree. The evidential *êsa* makes a good test case in that it is usually described as a reportative (Wolfart & Ahenakew 2000:34 gloss it as 'reportedly'; Blain & Déchaine 2007:265 explicitly claim it is a reportative). This is based on its use in narratives, such as (118a), where the speaker is retelling a story that had been told to her about events that happened about a hundred years earlier, *êsa* is marked in almost every clause.

(118) …, êkotê ê-sa-sâsakitisihk **êsa**, ...
êkotê ê- sa- sâsakitisin -k ***êsa***
there C1-RED-lie.on.back.VAI-0 ***EVID***
'and he was lying there on his back …' (AA 9.8)

When speakers are asked about these clauses in elicitation contexts, the indirect evidential interpretation is confirmed (119), although it is used in contexts broader than just a reportative. As we will see, with anaphoric ê-CONJUNCT clauses, it behaves like a general purpose indirect evidential.

(119) ê-pê-itohtêt **êsa** Miranda
ê- pê- itohtê -t ***êsa*** *M*
C1-COME-go.VAI-3 ***EVID*** *M*
'Apparently Miranda came.'

comment: *êsa* you use if you didn't see her yourself as a fact, if you don't know

The evidential *êsa* expresses indirect evidentiality, and I am trying to show that the indexical INDEPENDENT clause-type requires a connection between the proposition and the speaker. Depending on what the specific semantics of *êsa* are, the current analysis of indexical INDEPENDENT clauses predicts that the use of *êsa* should either be excluded from co-occurring with them, or should give rise to a 'stacked evidentiality' effect where the interpretation of *êsa* is additive to the interpretation of INDEPENDENT clauses (cf. LaPolla 2003).

In this section, I show that *êsa* is, in fact, sensitive to clause-typing.[32] The particular interpretation of *êsa* with indexical INDEPENDENT order clauses is reminiscent of 'stacked evidentiality', providing additional evidence that indexical clauses always make reference to the speaker.

3.3.2.4.1 The interaction of clause-typing and *êsa*

While *êsa* has traditionally been thought of as a dedicated indirect evidential which always and only conveys that the speaker has no direct knowledge of the state of affairs expressed by the proposition, one finding of the present work is that its interpretation in fact varies depending on clause-typing. The table in 3.10 summarizes the different interpretations of *êsa* that are available.

CLAUSE-TYPE	INTERPRETATION OF ÊSA
Independent	Mirative
ê-conjunct	Indirect
Simple conjunct	retrospective

Table 3.10. Interpretations of *êsa*[33]

[32] For independent reasons, Blain and Déchaine (2006, 2007) propose that *êsa* is a CP-level evidential, which predicts on syntactic grounds that *êsa* should interact with clause-typing. The present findings are consistent with their analysis.

[33] *êsa* also has a distinct interpretation with *kâ-* CONJUNCT clauses, although I have not been able to define it so far. Syntactically, the presence of *êsa* in a *kâ-* CONJUNCT clause allows the clause to be a matrix clause.

In INDEPENDENT order clauses, *êsa* is used to convey the speaker's surprise at the state of affairs expressed by the proposition. Cross-linguistically, constructions which convey this surprise can be said to have a *mirative* function and are found in many languages (cf. DeLancey 1997, 2001). The state of affairs is directly experienced by the speaker, but is contrary to their previous expectations; miratives are variously summarized as "unexpected information" (DeLancey 1997), or "unprepared mind" (Aikhenvald 2004). It should be noted that it is very common (though not universal) for the expression of mirativity to be the result of an 'indirect' evidential occurring with some other element (Aikhenvald 2004).

(120) *mirativity:* expressed via INDEPENDENT clause and *êsa*

a. nisôniyamin
ni-sôniyami -n
1- have.money.VAI-SAP
'I have money.'

b. nisôniyamin êsa
ni-sôniyami -n êsa
1-have.money.VAI-SAP EVID
'I have money!?'

comment: if you have money in your wallet that you didn't know you had

I will return to the discussion of *êsa* and INDEPENDENT clauses below in §3.3.2.4.2.

If *êsa* co-occurs with a non-indexical *ê*-CONJUNCT, the interpretation is that the speaker has only indirect knowledge of the state of affairs expressed by the proposition. This is the interpretation that is well-known and usually cited in the Algonquian literature.

(121) *indirect evidence*: expressed by *ê*-CONJUNCT and *êsa*

a. ê-pê-itohtêt Miranda
ê- pê- itohtê -t M
C1-COME-go.VAI-3 M
'Miranda came.'

b. ê-pê-itohtêt êsa Miranda
ê- pê- itohtê -t êsa M
C1-COME-go.VAI-3 EVID M
'Apparently Miranda came.'

comment: *êsa* you use if you didn't see her yourself as a fact, if you don't know

Finally, *êsa* may be used with simple CONJUNCT clauses to express past in a modal construction (see chapter 6 for discussion).

(122) *retroactive*: expressed by simple CONJUNCT and *êsa*

a. môy ka-ki-fonahwak nimâma
môy ka- kî- fonahw -ak ni- mâma
NEG IRR-PREV-call.VTA -1>3 1- mother
'I shouldn't call my mom.' (trying to decide what to do)

b. môy ka-ki-fonahwak nimâma **êsa**
môy ka- kî- fonahw -ak ni- mâma êsa
NEG IRR-PREV-call.VTA -1>3 1- mother EVID
'I shouldn't have called my mother.' (after having a bad conversation)

Here *êsa* has a temporal shifting function (cf. Wolvengrey 2001), and explicitly highlights what Blain & Déchaine call 'the retrospective component' of indirect evidentiality (Blain & Déchaine 2007).

These three contexts do not contradict the characterization of *êsa* as an indirect evidential in that many indirect evidentials are reported to have a retrospective aspect and many also are reported to be part of a mirative construction, including Turkish (Turkic; Aksu-Koc & Slobin 1986), Hare (Athabaskan; DeLancey 1990, 1997), Kham (Tibetan; DeLancey 1992, 1997), and Tsafiki (Barbacoan; Dickinson 2000). The contexts do provide evidence that the semantic characterization of *êsa* is more abstract than the convenient label 'indirect evidential' conveys. It may be more accurate to think of *êsa* as coding *distance* between the speaker and the proposition, whether it be perceptual distance (yielding the indirect evidential interpretation), psychological distance (as in the mirative interpretation), or temporal distance (yielding the temporal shifting interpretation) (cf. the discussion of *distantive* force in East Cree (James *et al.* 2001), and in Korean (Chung 2005)). Finally, the prediction made by the current analysis of INDEPENDENT clauses, that *êsa* should interact with them, is upheld.

3.3.2.4.2 Mirativity as incongruent experience

Since mirativity conveys the speaker's surprise, it is important to show that the mirative interpretation is available regardless of whether or not the speaker is coded in the clause (e.g., as an argument of the predicate) in order to demonstrate that it is the indexical clause-type which

introduces this meaning. In fact, we see that the mirative interpretation is present in first-person (123), second-person (124), and third-person (including inanimate) predicates (125), provided they are INDEPENDENT clauses.

In (123), the speaker's state of tiredness is unexpected given the speaker's knowledge state up until that point. The combination of the clause-typing and the evidential conveys information that is incongruent with the speakers 'premonitory awareness' (Aksu-Koc & Slobin 1986, 1988; Dickinson 2000).

(123) a. ninêstosin
ni- nêstosi -n
1- tired.VAI-SAP
'I'm tired.'

b. ninêstosin êsa
ni- nêstosi -n êsa
1- tired.VAI-SAP EVID
'I'm tired?!'

comment: you didn't know that you were tired until after you stopped or went out for a breath of fresh air. Maybe you only worked for a short time and suddenly you were tired

Such a description is also consistent with the context in (122), where the speaker is expecting exactly the opposite of what actually happens. In this context, *êsa* must be used with the indexical INDEPENDENT order, rather the CONJUNCT, showing that it is the combination of the evidential marker and the clause-typing which conveys the mirativity.

(124) *context:* speaker believes hearer isn't coming, but hearer unexpectedly shows up

a. (Oh) ki-pê-itohtân êsa! INDEPENDENT
Oh ki- pê- itohtâ -n êsa
Oh 2- DIR-go.VAI-SAP EVID
'Oh, you came!'

b. # Oh, ê-pê-itohtêyan êsa CONJUNCT
Oh ê- pê- itohtê -yan êsa
Oh C1-DIR-go.VAI-2 EVID
'Oh, you came!'

Even with predicates that have no overt arguments at all, such as weather verbs, *êsa* can be used with the INDEPENDENT order to convey surprise on the speaker's part. Insofar as speaking to oneself involves treating oneself as another, the consultant's comment on this piece of data, '*it's more something I would think or say to myself*' also suggests the speaker's psychological distance (conveyed by *êsa*) from the state of affairs being experienced.

(125) *context*: didn't know it was raining, step outside; OR wake up in the morning, look out the window

kimiwan êsa
kimiwan êsa
rain.VII-0 EVID
'It's raining.'

comment: this sounds kind of funny in conversation; it's more something I would think or say to myself

Turning next to the distribution of *êsa* in running speech, we see confirmation of these judgments. First, in the narratives I have worked with, *êsa* occurs much more freely with anaphoric ê-conjunct clauses than with the indexical INDEPENDENT clauses; given that reported narratives will have a lot of indirect evidentiality, this is expected.

For example, in the following passage, *êsa* is marked on virtually every clause. The striking exception to this pattern is when an INDEPENDENT clause is used: in all three cases (bracketed with the clause bolded), *êsa* is missing. These three examples instantiate the only INDEPEDENT clauses in this span. The first independent clause is when the speaker is explaining background information about the structure of the lodge. The other two independent clauses mark the crucial point of the story: while the speaker may not know exactly all the details leading up to the shooting of the bird, the shooting of the bird did happen – without that, there is no story. Hence, these clauses appear in the INDEPENDENT order, and *êsa* is no longer used.

(126) êkwa, kisêyiniw aw êkwa **êsa** ê-sâsakitisihk, mêtoni mistah ê-mâmitonêyihtahk ôma mâka pâskisikan wiy **êsa** ê-kî-nakatamâht **êsa**. [êkwa ôhi mîkiwâhpa ayis **tawâwa** ôtê ispimihk,] êkwa March anim ê-ispayik **êsa**, êkotê ê-sa-sâsakitisihk **êsa**, kêtahtaw **êsa** kâ-wâpamât êkotê ê-pimih~, ispimihk ê-pimihyâyit niska. mêton **êsa** kâ-êkicikâwit **ês** ê-isitâcimot iskwâhtêmihk, êkota ê-pimakociniyit **êsa** kâpâskiswât êkoni anihi niska; [**nipahêw**, **pê-nîhtakociniyiwa**.] (AA 9.8, brackets added)

Now the old man was lying on his back, thinking about things a very great deal – but he had been left with a gun. [Now, these lodges **are open** at the top, of course,] and it was March at the time, and he was lying there on his back when suddenly he saw some geese flying overhead. He was very slow in crawling to the door, and as the geese flew over he shot at them; [**he killed one** and **it came falling down**.]

Second, in at least some cases where *êsa* occurs with the indexical INDEPENDENT in textual sources, it does not have the same interpretation as when it occurs with the ê-conjunct[34]. For example, in (127), taken from a little later in the same story as above, *êsa* is used twice. The first clause is the CONJUNCT *ê-pê-takohtêcik* '…they arrived', and *êsa* has an (untranslated) reportative function. In the second clause, *êsa* occurs with an INDEPENDENT clause *kî-papâmohtêyiwa* 'they were walking about', and the event is surprising; this appears to be a mirative interpretation of *êsa* (cf. Bloomfield 1962, Macaulay 2004 on the mirative function of *-êsa* in Menominee)[35].

(127) ê-pê-takohtêcik **êsa**, CONJUNCT
ê-pê-takohtê-t-k êsa
C1-COME-arrive.VAI-3-PL EVID

pôt ôhi kî-papâmohtêyiwa **êsa** [laughter], ... INDEPENDENT
pôti ohi kî-papâmohtê-yi-w-a êsa
behold DEM PREV-walk.about.VAI-DEP-3-OBV EVID
'When they arrived there, behold, the old people were walking about, ...' (AA 9.8)

In this example, there is also the particle of surprise *pôti* 'behold', which is cross-linguistically a common type of element to occur with mirative clauses (cf. Aksu-Koc & Slobin 1986,

[34] The examples cited below offer cases where the non-reportative reading is clear from the linguistic context. In some other cases, this reading is not clear from the linguistic context; in such instances, more work with fluent speakers is needed to understand the interpretation of *êsa*.

[35] The mirative reading of *êsa* also appears in nominal clauses, such as (i), whereby the speaker expresses surprise at the situation she finds herself in.

(i) ispî êkwa ê-wâsaskotênikêhk aya, cîk **ês ôma** nipêwinihk ê-nîpawiyân;
'Then, when they lit the lamp, **here I was** standing close to the bed;' (Minde 1998:§41)

Dickenson 2000; Aikhenvald 2004), and in Plains Cree has been independently observed to occur with *êsa* when surprise is being expressed (Wolfart & Ahenakew 1998:165).

Similarly, in another case (128), *êsa* and an INDEPENDENT clause co-occur when the speaker is reporting a speech that she seems to believe will surprise her audience. In fact, she goes on to state that the event was one she personally witnessed. Thus the presence of *êsa* does not preclude that the proposition was directly witnessed by the speaker.

(128) **kî-wîhtamawêw êsa** ayisiyiniwa, "sôskwâc nama kîkway êwakw ânima ninitawêyihtên niy âya, k-âtoskâtamân, niwî-ôm-âya-~ niwî-tôtên ôma, niwî-okistikêwiyinîwin, êkos êwako niwi-~ niwî-kisâtên, osâm mistahi nika-wanihtân nitatoskêwin, ôma okimâhkâniwiyâni," ê-kî-itwêt, **nîsta nikî-pêhtawâw êkos ê-itwêt**. (EM 27)

He had **told** the people, "I simply do not want that kind of work at all; I am going to do this, I am going to farm, and so I am going to stay with it, because I will lose too much of my working time if I am a chief," he had said, and **I myself had heard him say that**.

To summarize, the interpretation of *êsa* is consistently distinguished on the basis of clause-typing. In particular, with INDEPENDENT clauses, *êsa* conveys surprise at the state of affairs experienced by the speaker; it does not convey lack of speaker's experience. If the reference to speaker were merely a default value – an implication that could be cancelled – we could expect *êsa* to have its regular 'reportative' function. The fact that *êsa* has a mirative function is thus evidence that indexical clauses are specified: have a fixed referential deixis such that even when there is no first-person marking in the clause, the speaker's perspective on the proposition is always present.

3.3.2.5 Speaker commitment to the proposition

A common property of direct evidentials is that they can be licensed in restricted contexts where the speaker has integrated information into their knowledge base, even if the information is not part of their personal experience (Dickenson 2001, Aikhenvald 2004, among others). This must be information from a trusted source, and there is often a time lapse between the time when the speaker learned the information and the time when the speaker conveys the information to someone else. For example, Dickenson (2001) reports that in Tsafiki, one speaker used an

indirect evidential immediately after finding out from his mother the city where he was born, but a day later used the direct evidential.

In terms of the current discussion, the relevant part of the phenomena is who has an epistemic commitment to the proposition – it is the speaker. If indexical clauses always contain reference to the speech act, than the person epistemically committed to the proposition should be the speaker. This expectation is also fulfilled.

For example, (129) was uttered in the context of the speaker visiting with the subject – a clear case of direct experience, and a place where we would expect a direct evidential to be licensed. The speaker then comments that this utterance could also imply that you know about Betty's illness from someone else.

(129) c*ontext:* Speaker visited with Betty

âhkosiw Betty anôs INDEPENDENT
âhkosi -w B anohc
sick.VAI-3 B today
'Betty's sick today.'

comment: you're just stressing that **that's a fact**. It's **for sure** that she's sick. It seems like you **know** that or you **believe it from someone else** <emphasis mine>

When an explicit context of reporting was set up (as in the following example), the speaker lays out the restrictions necessary for the indexical INDEPENDENT to be felicitous, and contrasts it with a second example with a non-indexical CONJUNCT clause. This latter clause does not make reference to the speaker's commitment to the proposition.

(130) *context:* someone told speaker that Betty was sick today

a. ahkosiw Betty anôs INDEPENDENT
ahkosi -w B anohc
sick.VAI-3 B today
'Betty's sick today.'

comment: if you know this person, and you know this person is pretty honest and reliable, and that they're not going to lie. [Otherwise], you would have to add 'I heard'…you're not going make such an active statement

b. ê-ahkosit Betty anôs CONJUNCT: NEUTRAL
ê- ahkosi -t B anohc
C1-sick.VAI-3 B today
'Betty's sick today.'

comment: this covers your tracks a little more. It doesn't feel as strong as [the INDEPENDENT]. this one has wiggle room. Usually that one is you heard it. What it means is it's not first-hand knowledge

Likewise, in narrative, indexical clauses can be used to convey emphatic certainty of an event: there is a contrast between INDEPENENT and CONJUNCT clauses in terms of whether the speaker is committed to the proposition. As one speaker commented on listening to this passage: "She starts off questioning: 'I'm guessing why it happened, but it did happen.'" Notice that the English translation of the indexical *kî-nipahêw* 's/he killed someone' has the emphatic *did*, used for emphatic affirmatives.

(131) kâ-pîhtamân ana îskwêw ê-nipahât onâpêma, ê-pâskiswât. êkosi kî-~ nikî-koskwêyihtên, mistah âyis ê-kî-miyohtwât mistah âna îskwêw, miton êtikwê kwayask ê-kî-kisiwâhikot anihi kâ-kî-pâskiswât onâpêma, **kî-nipahêw**. (AA 5.6)

… later I heard that this woman killed her husband, she shot him. So I was greatly shocked, for that woman had been very good-natured, she must have been angered exceeding by her husband when she shot him, and **she did kill him**.

3.3.2.6 Subjective predicates convey speaker's attitude

The last piece of evidence that indexical clauses have deictic reference to the speaker comes from the fact that predicates which lack any first person argument may be used in the indexical clause-type to convey the speaker's opinion. For example, the predicate *miywâsi-* 'it (inan.) is

good' in (130) is interpreted as good *with respect to the speaker*. Thus, (130) was offered as a translation for the English 'I like this chair'; significantly, the anaphoric CONJUNCT clause-type was not judged an appropriate translation.

(132) *context*: translation task for 'I like this chair'

a. **mîywâsin** ôma têhtapiwin — INDEPENDENT (offered)
mîywâsin ôma têhtapi -win
good.VII DEM.INAN sit -NOM
'This is a nice chair.'

comment: by saying that, it implies that you like it

comment: if you use *mîywâsin* about something that someone else has, then the other person has to give it to you. It's very powerful

b. # ê-miywâsik ôma têhtapiwin — CONJUNCT (presented)
ê-miywâsi-k ôma têhtapi-win
C1-good.VII-0 DEM sit-NOM
'This is a nice chair.'

comment: you're saying it's nice so it could mean you like it… I would never say this if I wanted to be taken as liking this chair

It is significant that the type of predicate where this effect shows up most strongly is in 'subjective' predicates (cf. Lasersohn 2005, Stephenson 2007). In some languages, where the indexical status of the clause is not marked, these predicates introduce an oblique phrase such as the German *mir* 'to/for me'. In Plains Cree, where the indexical status is morpho-syntactically marked by the clause-typing, the relation to the speaker is already given by the presence of the speech situation variable.

3.3.2.7 Interim summary

In this section I have reported on a number of previously undocumented facts about the interpretation of indexical INDEPENDENT clauses relating to the presence of a speaker coded in the speech situation (s_0) variable. Indexical clauses pair the proposition with the speech situation; since a speech situation always entails a speaker, by transitivity indexical clauses pair the proposition with a speaker. Clause-typing of intentional predicates thus shows marked

person effects. When the subject of the predicate is identical with the speaker (first person), there is a match between one of the individuals in the proposition and the individual that the proposition is paired with; there is a strong tendency to use indexical clauses. When the subject of the predicate is distinct from the speaker (e.g., a third person), then use of an indexical clause means that the speaker has some other relation to the proposition: the speaker may have experienced the event coded by the proposition, be epistemically committed to the proposition, or be providing an evaluation of the proposition.

3.4 Summary: Structural and semantic conditions on indexical clauses

This chapter put forward the claim that indexical clauses have both structural and semantic conditions on them that separate them from non-indexical clauses. Structurally, indexical clauses are subject to anti-c-command: they can never be embedded, and they cannot be preceded. Semantically, indexical clauses are temporally and referentially indexical: temporal relations are always and only calculated with respect to speech time, and reference always includes reference to a speaker.

In the next chapter I examine non-indexical clauses – Plains Cree's anaphoric CONJUNCT order.

CHAPTER 4
ANAPHORIC CLAUSES: PLAINS CREE'S CONJUNCT ORDER

4.1 Proposal: Anaphoric clauses

In chapter 3, we saw that indexical clauses are anchored in the discourse in a particular way. We looked at the syntax and semantics of indexical clauses as two sides of the same coin: in terms of their syntax, we saw they could not be c-commanded, and in terms of their semantics, we saw that the proposition in an indexical clause is evaluated with respect to the (indexical) speech situation.

A clause that is not anchored in this way correspondingly lacks the restrictions of indexical clauses. In Plains Cree, for example, the CONJUNCT order of clauses can occur in both matrix and embedded environments (1a-b; cf. Wolfart 1973, 1996; Dahlstrom 1991; Blain 1997; Cook & Mühlbauer 2006; Cook 2007);

(1) a. **ê-wâpamak atim** MATRIX
ê- wâpam -ak atim
C1-see.VTA-1>3 dog
'…I see a dog.'

b. nikiskêyihtên **ê-wâpamak atim** EMBEDDED
ni- kiskêyihtê -n ê- wâpam -ak atim
1- know.VTI -SAP C1-see.VTA -1>3 dog
'I know I saw a dog.'

In Plains Cree, then, we have a system which morpho-syntactically distinguishes between an indexical and a non-indexical clause. In this chapter, I provide an account for the non-indexical clauses. I take the distinction between indexical and anaphoric pronominal forms (Bar-Hillel 1954, Kaplan 1989, among many others) and extend it to clauses: I claim that a non-indexical clause, lacking the specification of an indexical clause, must have an antecedent – in the same way that a pronominal anaphor does.

I then argue that just as the anti-c-command and anti-precedence conditions syntactically model the requirement that dependencies be resolved clause-internally in indexical clauses, the absence of these restriction syntactically models the possibility of dependency relations being established cross-clausally. The behaviour of the variables within a clause directly reflects how the clause is syntactically introduced into the discourse. If the clause itself is subject to the principles of anaphora (i.e., precedence and/or c-command, to be made more explicit below), the variables within the clause may be bound by an antecedent that obeys those same principles. Following Williams (1997), who takes anaphora to be an 'elsewhere' case, I claim that the anaphoric properties we see in anaphoric clauses are what arise in the absence of other restrictions.

4.2 From pronominal to clausal anaphora

In the rich literature on anaphoric argument expressions, an element is said to be anaphoric if its reference is not fixed, but is rather determined by some other expression (cf. Hockett 1958, Ross 1969, Langacker 1969, McCawley 1988, Reinhart 1983, Safir 2004, among others). This other expression is called the antecedent, and an anaphoric element is coreferential (since it 'co-refers') with the antecedent. For example, in (2a), we cannot tell who *him* refers to, since *Mary* is female and therefore not a possible antecedent; in (2b), we understand that *him* refers to the same person as *Tom* (indicated by the matching indices), (although it could also – infelicitously in this context – refer to some other individual not mentioned in the sentence).

(2) a. # Mary is angry at **him**.

b. **Tom$_i$** doesn't know that Mary is angry at **him$_i$**.

In (2), then, *him* is anaphoric, and in (2b) if *him* corefers with *Tom*, then *Tom* is the antecedent.

There are at least two kinds of questions that we must address in order to understand what an anaphoric clause is. First, what are the possible forms of an anaphoric element? Second, what is the nature of the antecedent (i.e., its form and relation to the anaphoric element)?

4.2.1 The forms of anaphoric elements

If DPs (i.e., argument expressions) are the anaphoric elements we are talking about, we observe two different forms: zero-anaphora and proform anaphora. A zero anaphor has no phonological content at all (e.g., the phonologically-empty subject in 3a). A proform has phonological content that stands in for the antecedent (e.g., *him* is anaphoric on *John* in 3b).

(3) a. [**John**]$_i$ wants [⦸]$_i$ to eat breakfast.

b. Mary called [**John**]$_i$ and invited [**him**]$_i$ over.

These two forms can be represented as in (4).

(4) a. [antecedent] [⦸] ZERO-ANAPHOR

b. [antecedent] [anaphor] PROFORM ANAPHOR

Notice that these forms are not necessarily restricted to DPs. For example, both zero-anaphora and proform anaphora can be found in English for much larger constituents such as predicates (VPs) and entire clauses (CPs) (cf. McCawley 1988, Williams 1997).

(5) Predicate anaphora

a. John [**broke an arm**]$_i$ on Tuesday and Mary did [⦸]$_i$ on Wednesday.

b. I [**climbed on the house-roof**]$_i$, and John did [**it**]$_i$ too.

(6) Clausal anaphora

a. Sam kept arguing [**that Lenin was Jewish**]$_i$, but he couldn't convince us [⦸]$_i$.

b. Mary said [**that Roger was an idiot**]$_i$, but I'm sure she doesn't really think [**so**]$_i$.

(from McCawley 1988:319)

Anaphora can also be embedded within a larger structure. For example, in (7) the pronominal form *his* is embedded within the object DP, and has as its antecedent the subject DP *John*.

(7) [**John**]$_i$ loves [[**his**]$_i$ dog].

Any time we have a constituent with subconstituents, it is possible that an anaphoric element will be one of those subconsitituents. Here I claim that Plains Cree has a type of clause that hosts embedded anaphoric elements: the CONJUNCT order. In particular, whereas indexical clauses are evaluated with respect to a speech situation (8a), anaphoric CONJUNCT clauses are evaluated with respect to an anaphoric situation: there must always be an antecedent for it.

(8) a. [$_{CP}$ $\mathbf{s_0}$ [$_C$ …]] INDEXICAL: situation is indexical

b. [antecedent]$_\mathbf{i}$ [$_{CP}$ $\mathbf{s_i}$ [$_C$ …]] ANAPHORIC: situation is anaphoric

Therefore, even when an anaphoric clause is a matrix clause, it must have an antecedent in order for the proposition to be evaluated. Just as the sense of a DP with an embedded anaphor – such as *his dog* – cannot be resolved without an antecedent[1], so the sense of a CP with an anaphorically given situation cannot be resolved without an appropriate antecedent.

This leads us to the next question: what can be a possible antecedent for an anaphor?

4.2.2 The relation between anaphor and antecedent

The second set of properties about anaphora that we must understand in order to evaluate anaphoric clauses is with respect to their relation to the antecedent. This has to do with how an anaphoric element is licensed: with what may an anaphoric element corefer, and what relation must hold between the anaphoric element and its antecedent?

Antecedent licensing of anaphoric elements has received a huge amount of study in formal linguistics. Williams (1997) observes that the antecedent licensing of English anaphoric elements is sensitive both to c-command and precedence: the anaphor must either follow or be in a subordinate relation to the antecedent. If the anaphor *it* follows its antecedent *term paper*, it may occur in either a matrix clause (10a) or a subordinate clause (10b); but if the anaphor

[1] Actually, English pronominal forms like *him* are not inherently anaphoric – they are simply proforms. As such, their reference may be resolved either anaphorically (the part of the puzzle relevant here) or deictically. The latter case covers gestural pointing, as well as *salient* (Heim & Kratzer 1998, Kratzer 2007) or *symbolic* (Fillmore 1975) reference.

precedes its antecedent, it must be in a subordinate clause[2] as in (10c); otherwise, the utterance becomes ungrammatical (10d).

(9) Generalized pattern of anaphoric dependence

a. Anyone [who has written their **term paper**$_i$] can turn **it**$_i$ in to me now.
b. Anyone can turn their **term paper**$_i$ in to me now [who has written **it**$_i$].
c. Anyone [who has written **it**$_i$] can turn their **term paper**$_i$ in to me now.
d. * Anyone can turn **it**$_i$ in to me now [who has written their **TERM PAPER**$_i$].

(Williams 1997, (22))

The pattern in (10a-d) is termed the Generalized Pattern of Anaphoric Dependence (GPAD) and is summarized by Williams as "Dependence can be forward; or it can be 'backward and down'." (Williams 1997:588; cf. also Lakoff 1967, Ross 199, McCawley 1988). According to this pattern, there are two conditions in which antecedent licensing of an anaphoric element may take place: in a c-command condition, where the antecedent is in a clause that c-commands the clause containing the anaphor; and in a precedence condition, where the antecedent precedes the anaphoric element.

It is important to realize that the precedence condition does not specify how far the antecedent may be from the co-referent anaphor. Consider for example the following actual situation. My husband and I were reading a story about a girl in England who befriends a robin redbreast. Being from North America, we weren't familiar with what a robin redbreast was, and were particularly puzzled since we kept thinking of North American robins – which this didn't seem to be. Three days later, while on a walk and talking about something unrelated (probably linguistics), we walked by a North American robin on someone's lawn. My husband looked at it for a moment, then abruptly changed the topic, saying (9).

(10) It can't be like the robins around here.

In this utterance, the pronoun *it* refers back to the robin redbreast in the story we had read three days earlier. In order to understand the reference of this pronoun (and I did), the hearer needs to have a context previously established with the speaker. The utterance in (9) is crucially not in a discourse initial position, and this is what defines anaphoric (from Greek αναφωρειν 'to carry

[2] Notice that the anaphoric element does not need to be directly c-commanded by the antecedent; thus a relative clause as in the examples is a sufficient condition for an antecedence relation to be established.

forward') elements; they always look back to something else, on which they are dependent for reference.

Thus we expect anaphoric clauses to have a 'common-ground' effect, whereas indexical clauses will not. This I cover in §4.3.2.

As evidence for my claim that anaphoric clauses correspond to Plains Cree's CONJUNCT order, I show that the precedence and c-command conditions of the Generalized Pattern of Anaphoric Dependency govern the distribution of the anaphoric clauses themselves as well as the possible antecedents for the anaphoric links within those anaphoric clauses.

4.2.3 Conditions on antecedent-licensing: C-command and precedence

As with pronominal anaphora, I show that only one of the two conditions (c-command or precedence) need hold in order for antecedent licensing of anaphoric clauses to take place. Before turning to the Plains Cree patterns that are attested, let us look in more detail at what patterns each condition predicts.

The first condition is the c-command condition, given in (11).

(11) **C-command condition on anaphoric elements**: An anaphoric element is licensed by an antecedent if that antecedent is in a clause c-commanding the clause containing the anaphoric element.

Under the c-command condition, there are only two structures in which an anaphoric element may be licensed: if the anaphor is in a subordinate clause relative to and follows the antecedent, or if the anaphor is in a subordinate clause relative to and precedes the antecedent. These are shown in Table 4.1.

C-command condition met?	✔	
Structures	CP △ anteced. CP △ **anaphor**	CP △ CP anteced. △ **anaphor**

Table 4.1. Structures which meet the c-command condition

According to the c-command condition, all of the following structures are undefined for anaphora, including structures where the antecedent is in a subordinate clause relative to the anaphor, and structures where there is no c-command relation between the clauses in which the anaphor and antecedent occur. All of the logical possibilities are given in Table 4.2.

C-command condition met?	✖ (antecedent in a subordinate clause relative to anaphor)		✖ (no c-command relation between clauses)	
Structures	CP CP **anaphor** anteced.	CP **anaphor** CP anteced.	CP CP **anaphor** anteced.	CP CP anteced. **anaphor**

Table 4.2. Structures which do not meet the c-command condition

The other condition on antecedent licensing of anaphoric elements is the precedence condition, given in (12).

(12) **Precedence condition on anaphoric elements**: An anaphoric element is licensed by an antecedent if the antecedent precedes it.

If we restrict our attention to just the precedence condition, we see that there three syntactic relations between clauses that will respect precedence: the clause which contains the anaphor may be subordinate to, superordinate to, or non-subordinate to the clause which contains the antecedent.

Precedence condition met?	✔		
Structures	CP anteced. CP **anaphor**	CP CP **anaphor** anteced.	CP CP anteced. **anaphor**

Table 4.3. Structures which meet the precedence condition

The precedence condition will also leave some configurations undefined for anaphoric elements. If the potential antecedent follows the anaphoric element, according to the precedence condition the antecedent cannot be licensed in any syntactic configuration. The structures in table 4.4

below are exactly the same as those in table 4.3 above, but the precedence relation has been reversed, and the configuration is undefined.

Precedence condition met?	✖	✖	✖
Structure	CP CP **anaphor** anteced.	CP **anaphor** CP anteced.	CP CP anteced. **anaphor**

Table 4.4. Structures which do not meet the precedence condition

Remember, however, that only one of the two conditions is necessary for the licensing relation between the anaphor and antecedent to be established. Thus, there are two configurations which are undefined once both conditions have been applied, as in table 4.5.

C-command condition met?	✖	
Precedence condition met?	✖	
Structures	CP **anaphor** CP anteced.	CP CP **anaphor** anteced.

Table 4.5. Structures which are undefined for antecedent licensing of anaphoric elements

The ill-formed dependency between *it* and *term paper* given in (10d), here repeated as (13), is thus ruled out in that the anaphor element *it* is not preceded by its potential antecedent *term paper*, nor is it in a subordinate clause with respect to the clause which contains the potential antecedent.

(13) a. * Anyone can turn it_i in to me now [who has written their TERM PAPER$_i$].

b. * CP
it_i CP
[term paper]$_i$

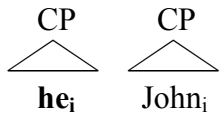
Likewise, two coordinated (14a) or two independent, adjacent (14b) clauses do not permit a backwards dependency to be established.

(14) a. * He$_i$ won the race and we welcomed home JOHN$_i$. Williams (1997: ex. 23b)

b. * He$_I$ knocked. I opened the door and greeted JOHN$_I$.

Here the anaphor *he* cannot be dependent on *John*, since *John* neither precedes nor is in a c-commanding clause relative to *he*.

(15)



Notice that the potential antecedent 'term paper' in (13) is capitalized to reflect its status as new information, which in turn means that it is not itself anaphoric on some preceding antecedent in the discourse. The distinction is important because the string in (13) is not in and of itself ungrammatical: it is the particular antecedent-anaphor relationship which causes the problem. Within a larger discourse, where there is a previous mention of 'term paper' available to serve as the antecedent for 'it' the string becomes grammatical (notice crucially that the final instance of 'term paper' *cannot* be stressed).

(16) [I assume you recall that this course requires a term paper$_i$.]
Anyone can turn it$_i$ in to me now [who has WRITTEN their term paper$_i$].
(adapted from Williams 1997: ex. 27)

In this example, the second instance of 'term paper' is itself anaphoric on the first instance, and the formal anaphor *it* is likewise anaphoric on the preceding instance. The anaphoric dependency can be determined in English by the placement of stress: the fact that the second instance of 'term paper' is destressed indicates that it is not new information (and thus not the antecedent). The relevant dependencies could be represented as a kind of 'many-to-one' linking dependency a la Higginbotham (1983): both 'it' and the final instance of 'term paper' are anaphorically dependent on the first instance of 'term paper', which is the antecedent.

(17) [… term paper …] [… it …] [… term paper …]

ANTECEDENT ANAPHOR ANAPHOR

Crucially, the relation between the antecedent/anaphoric elements in (17) does not have to be a chain, where the antecedent / anaphor relation must be calculated with respect to each local pair of elements. The chain analysis would require that the first instance of *term paper* be that antecedent for *it*, and that *it* would itself serve as an antecedent to the second instance of *term paper*, as in (18).

(18) [… term paper …] [… it …] [… term paper …]

ANTECEDENT ANAPHOR ANAPHOR

Just as English anaphora require (something like) a linking analysis to capture the kinds of dependencies that they establish, we will see that the anaphoric links in anaphoric clauses are best represented by a linking-type analysis rather than a chaining-type analysis.

4.2.4 Summary: The properties of anaphoric clauses

Indexical clauses are evaluated with respect to the speech situation. Anaphoric clauses, on the other hand, are evaluated with respect to an unspecified situation; I claim that the properties of this situation are determined by an antecedent, just as the reference of an anaphoric pronominal are determined by an antecedent. I show that the distribution of anaphoric clauses, which are morpho-syntactically distinguished from their indexical counterparts in Plains Cree, is accounted for by the c-command and precedence conditions in §4.3.

I further claim that variables within an anaphoric clause are subject to the antecedent-licensing conditions of anaphora: the antecedent must be in a superordinate or preceding clause. In §4.4 I show that this correctly accounts for the range of interpretations within anaphoric clauses. Dependent elements are anaphoric in anaphoric clauses, but deictic in indexical clauses.

4.3 The distribution of anaphoric clauses

In this section I show how the distribution of anaphoric clauses can be accounted for by the general licensing mechanisms proposed for pronominal anaphora.

4.3.1 Anaphoric clauses are subject to precedence and/or c-command

The discussion of antecedent licensing of anaphoric clauses is broken into constructions for which c-command holds; constructions for which precedence holds, and constructions which satisfy neither c-command nor precedence.

4.3.1.1 Anaphoric clauses that must be c-commanded are not subject to precedence

For three of the four subtypes of anaphoric CONJUNCT clauses, the morpho-syntactic marking on the clause corresponds with obligatory embedding. This includes clauses introduced by the complementizer *kâ-*, the subjunctive CONJUNCT (with a null complementizer and plural suffix *-i*), and the simple CONJUNCT (with a null complementizer and modal prefix *ka-*).

The simplest way to demonstrate the embeddedness of these clauses is to test their ability to be uttered on their own (i.e., as a complete proposition). As shown in (4-6), none of these clauses pass this test. They thus have a very local dependency – they must be part of a larger constituent in order to be grammatical. This is exemplified for *kâ*-clauses in (19), subjunctive clauses in (20), and simple CONJUNCT clauses in (21).

(19) a. * **kâ-kîsitêpoyân** KÂ-CONJUNCT
kâ- kîsitêpo -t
C2-cook.VAI-3
--

b. kisitêw **kâ-kîsitêpoyân**
kisitê -w kâ- kîsitêpo -yân
be.hot.VII-3 C2- cook.VAI -1
'It's hot when I cook.'

(20) a. * Jeff **nikamoci** SUBJUNCTIVE
J nikamo -t -i
J sing.VAI-3 -SUBJ
--

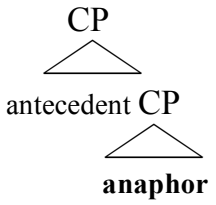
b. Jeff **nikamoci** wâpakaniy ka-wâpahtam
J nikamo -t -i wâpakaniy ka- wâpahtam-w
J sing.VAI-3-SUBJ flower IRR-see.VTI -3
'Should Jeff sing, he will see a flower.'

(21) a. * **ka-kawsimoyan** SIMPLE
ka- kawsimo -yan
IRR-go.to.bed.VAI-2
---

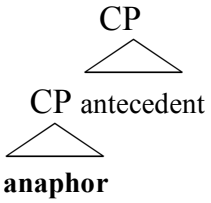
b. piko **ka-kawsimoyan** êkwa
piko ka- kawsimo -yan êkwa
it.is.necessary IRR-go.to.bed.VAI -2 now
'You have to go to bed now!' (father to child)

Since these clauses are obligatorily embedded, they fulfill the c-command condition on anaphora[3]. We expect that they will be insensitive to the precedence condition: they should be able to either precede or follow their antecedent, as the structures in (22) represent.

(22) a.



b.



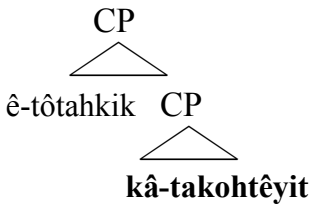
This prediction is borne out for these CONJUNCT clauses. For example, we see that *kâ*-clauses can either precede or follow the clause they modify (i.e., are dependent on). The relevant structures are repeated below each example.

[3] It is also theoretically possible that an embedded clause could be anteceded by some clause other than the immediately superordinate clause. The point is that there must always be an immediately superordinate clause.

(23) *kâ*-CONJUNCT clause as anaphor: following

a. …, êkos âniki mân ê-tôtahkik, tourists **kâ-takohtêyit**,” ...
êkosi aniki mâna ê-tôtam -k-k tourists kâ-takohtê -yi -t
TOPIC DEM.AN usually C1-do.VTI-0-PL tourists C2-arrive.VAI-DS -3
‘…, that is what they do when tourists arrive,” ... ’ (AA 3.2)

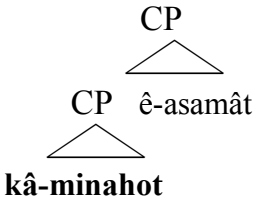
b.



(24) *kâ*-CONJUNCT clause as anaphor: preceding

a. **kâ-minahot**, kahkiyaw awiya ê-asamât;
kâ-minaho -t kahkiyaw awiya ê-asam-â-t
C2-kill.animal.VAI-3 all someone C1-feed.VTA-DIR-3
‘when he killed an animal, he fed everyone;’ (AA 1.7)

b.

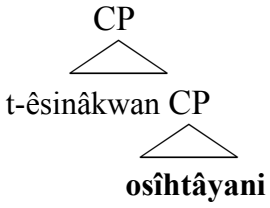


Similarly, subjunctive clauses – identified by the lack of a proclitic complementizer and the suffix *-i* – may either precede or follow the clause they are dependent on.

(25) SUBJUNCTIVE clause as anaphor: following

a. … , ‘êkos ôma t-êsinâkwan ôma, maskihkiy **osîhtâyani**,’ nititik,” …
êkosi ôma ta-isinâkwan ôma maskihkiy osîhtâ -yan-i ni(t)-it -ik -w
TOPIC DEM IRR-thus.look.VII DEM medicine make.VAI-2 -SUBJ 1- say.VTA-INV -3
‘ “…, ‘It will look like that when you make the medicine,’ he said to me,” …’
(AA 4.3)

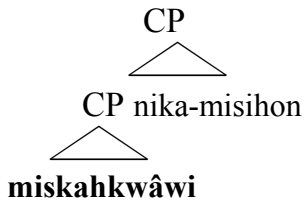
b.



(26) SUBJUNCTIVE clause as anaphor: preceding

a. ..., “ ‘**miskahkwâwi**, nika-misihon, maskihkîwiyiniwak,’ ...”
miskam -k-wâw-i ni-ka-misiho -n maskihkîwiyiniw-ak
find.VTI-0-3PL -SUBJ 1- IRR-trouble.VAI-SAP doctor -PL
‘..., “ ‘If the doctors find it, I’ll be in trouble,’ ...” ’ (AA 4.8)

b.

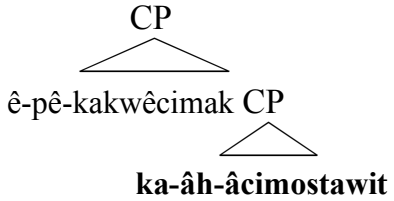


Finally, simple CONJUNCT clauses are also able to precede or follow their antecedent, although the case of precedence is very rare and seems to be highly restricted.

(27) simple CONJUNCT clause as anaphor: following

a. …, awa ê-pê-kakwêcimak **ka-âh-âcimostawit**, …
awa ê- pê- kakwêcim-ak ka- âh- âcimostaw-it
DEM.AN C1- COME-ask.VTA -1>3 IRR-RED-tell.VTA -3>1
‘… I have come to ask [her] …to tell me stories.’ (FA in AA 1)

b.

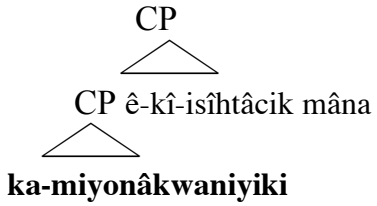


(28) simple CONJUNCT clause as anaphor: preceding

a. ..., ê-titipikwanahahkik êkoni anih âya, ocîhkwêhikana,
ê- titipikwanaham-k-k êkoni anihi aya ocîkwêhikan-a
C1-sew.VTI -0-PL TOPIC DEM.INAN CONN moccasin -PL
'..., sewing it around the vamp of the gathered moccasins…

ka-miyonâkwaniyiki ê-kî-isîhtâcik mâna.
ka- miyonâkwan-yi -k-i ê- kî- isîhtâ -t -k mâna
IRR-good.look.VII -DS-0-PL C1-PREV-make.VAI-3-PL usually
so as to make them look nice.' (EM 20)

b.



This means that for all clause-types whose embeddedness can be identified from the morpho-syntactic marking of the clause (i.e., CONJUNCT agreement with *kâ-*, *ka-*, or the suffix *-i*), there is a c-command condition. Corresponding with the satisfaction of c-command, there are no absolute linear restrictions between the embedded clause and the superordinate clause. This data is enough to demonstrate that these anaphoric clauses are licensed where the antecedent-anaphor relation satisfies c-command; I will return to a more detailed analysis of the syntax and semantics of these clauses in chapters 5 and 6.

4.3.1.2 Anaphoric clauses with subordinating particles are not subject to precedence

There are also many cases where a clause's embeddedness in Plains Cree is determined by a particle that introduces a particular kind of subordinate clause, such as the degree-marker *iyikohk*, concessives like *kiyâm* 'although' and *âta* 'even', and non-interrogative locatives like *ita* 'where'. I take these particles to be a complementizer in C, since they interact with the clause-typing (i.e., choice of *kâ-* vs. *ê-*) and the presence of the particle affects the distributional properties of the clause.

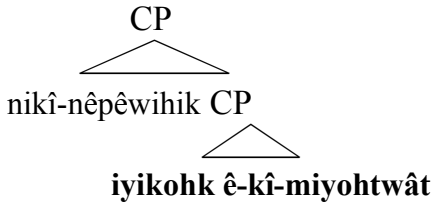
Since these clauses are subordinate, we again expect that the precedence condition need not hold. This prediction also holds. For example, degree clauses introduced by the particle *iyikohk* 'so' are also insensitive to precedence, as demonstrated in (29) and (30).

(29) *iyikohk*-clause as anaphor: following

a. ..., âskaw mâna nikî-nêpêwihik,
âskaw mâna ni-kî- nêpêwih -ik -w
sometimes usually 1- PREV-shame.VTA-INV-3
'..., my husband used to put me to shame at times

iyikohk ê-kî-miyohtwât niwîkimâkan, ...
iyikohk ê-kî-miyohtwâ-t ni-wîkimâkan
DEGREE C1-PREV-good.natured.VAI-3 1-spouse
because he was **so** good-natured...' (EM 29)

b.

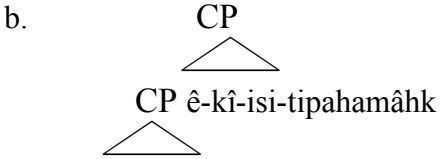


(30) *iyikohk*-clause as anaphor: preceding

a. … **iyikohk ê-kî-miyokihtâyâhk askipwâwa**,
iyikohk ê- kî- miyokihtâ-yân-k askipwâw-a
DEG C1-PREV-grow.VAI -1 -PL potato -PL
'…, when we grew **such** a good crop of potatoes,

êkosi mân ê-kî-isi-tipahamâhk, …
êkosi mâna ê- kî- isi-tipaham -ân-k
TOPIC usually C1-PREV-SO-measure.VTI-1 -PL
that is how we measured them, ...' (EM 54)
(lit: 'we grew such a good crop of potatoes that we measured them that way')

b.

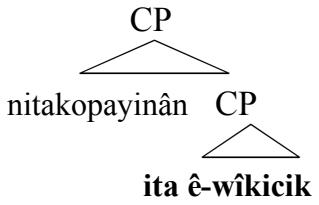


Similarly, *ita* 'where' clauses can occur in both linear relations to the superordinate clause[4]. In (31), the *ita* 'where' clause follows the superordinate clause.

(31) *ita*-clause as anaphor: following

a. nitakopayinân êkwa anita êkwa ê-wi-~, **ita ê-wîkicik**.
ni-takopayi -nân êkwa anita êkwa ita ê- wîki -t -k
1- drive.up.VAI-1PL then there then where C1-live.VAI-3-PL
'Then we drove up there **where they lived**. (AA 2.2)

b.

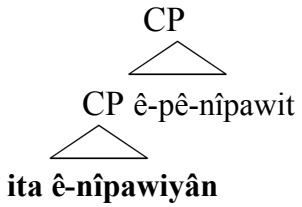


In (32), the *ita* 'where' clause *ita ê-nîpawiyân* 'where I stood' precedes the superordinate clause it is modifying. (Notice that the corresponding clause in the English follows the superordinate clause.)

(32) *ita*-clause as anaphor: preceding

a. …, **ita ê-nîpawiyân**, otâhk ôtê ê-pê-nîpawit, …
ita ê- nîpawi -yân otâhk ôtê ê- pê- nîpawi -t
where C1-stand.VAI-1 behind there C1-COME-stand.VAI-3
'… [he] came and stood over there behind me, **just where I stood**, … (AA 12.10)

b.



Thus in contexts where a CONJUNCT clause is unambiguously embedded with respect to some higher clause, they work like anaphors do: they may either precede or follow their antecedent.

I turn now to a more complicated case: the distribution of *ê*-clauses with no overt subordinating particles.

[4] Many of these clauses do have a more common position relative to the higher clause (some more frequently precede the matrix clause, others more frequently follow it). Dahlstrom (2006) discusses some of these patterns for Fox; at the moment it is not clear what determines which order occurs (but see Mühlbauer 2003, 2008; Wolvengrey 2007, and Déchaine 2007 for discussion of principles of ordering in Plains Cree).

4.3.1.3 Anaphoric clauses that are subject to precedence: Unembedded *ê*-clauses

In addition to clauses which are unambiguously embedded (as shown by their inability to stand on their own), we expect that some anaphoric clauses will be licensed under the precedence condition, and thus not need to be embedded. In Plains Cree, we see this behaviour exhibited in CONJUNCT clauses with the *ê*- complementizer (henceforth, *ê*-clauses). Anaphoric *ê*-clauses are often found in relatively long chains introduced by an initial indexical clause. For example, in (33), the first clause is indexical, and is marked with the temporal-shifting element *kî*- (as is obligatory in this context); the following anaphoric clauses, while referring to successive events within the same episode, do not have any temporal marking at all.

(33) [Indexical] [anaphoric] [anaphoric] . . .

(i) êkwa nêwosâp-~ nistosâp-kîsikâw **nikî-papâmâcihonân** êkotê, INDEXICAL
êkwa nêwosâp-~ nistosâp-kîsikâ -w ni-kî- papâmâciho-nân êkotê
and fourteen-~ thirteen- day.VII-3 1- PREV-go.about.VAI -1PL there
'Then **we toured about** over there for fourteen-~ for thirteen days,

(ii) a tour **ê-otinamâhk** oti, ANAPHORIC
a tour ê- otinam -ân-k oti
a tour C1-take.VAI-1 -PL especially
we **took** a tour,

(iii) bus **ê-pôsiyâhk**, aya, ANAPHORIC
bus ê- pôsi -yân-k aya
bus C1-travel.VAI-1 -PL CONN
we **travelled** on a bus,

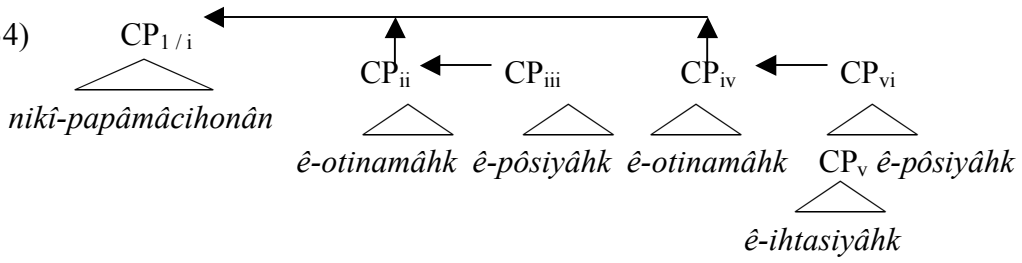
(iv) thirteen-day tour **ê-otinamâhk**, ANAPHORIC
thirteen-day tour ê- otinam -ân-k
thirteen-day tour C1-take.VTI-1 -PL
we **took** a thirteen-day tour

(v) thirty-six **ê-ihtasiyâhk**, ANAPHORIC
thirty-six ê- ihtasi -yân-k
thirty-six C1-be.VAI-1 -PL
with thirty-six of us

(vi) bus an[a] **ê-pôsiyâhk**. ANAPHORIC
bus ana ê- pôsi -yân-k
bus DEM.AN C1-travel.VAI-1 -PL
travelling on the bus.' (AA 3.2)

Notice that line (ii) and line (iv) are repetitions of the same clause with the same verbal predicate inflected for the same participants (*ê-otinamâhk* 'we took it'), and lines (iii) and (vi) are also alternates of each other with the same verbal complex (*ê-pôsiyâhk* 'we travelled'). Discoursally, these clauses seem to be restrictions of the main clause. Thus, we can analyze this sequence of clauses as in (34) (here I represent each CP only with the verbal complexes for simplicity's sake): the clauses in lines (ii-iii) restate and restrict line (i); those in lines (iv) and (vi) repeat (ii-iii), with (v) further restricting (vi). The arrows in the tree flow from anaphor to antecedent.

(34)



The only clause in this sequence that might be said to be embedded in this example is *ê-ihtasiyâhk*.[5] None of the other clauses are embedded within any of the other clauses, and in particular none of the anaphoric clauses are embedded relative to the initial indexical clause. However, despite the lack of embedding, there is still a dependence between the anaphoric clauses and the indexical clause, most clearly seen in the temporal interpretation they receive. Specifically, the anaphoric clauses carry the same temporal value as the indexical clause, even though they are not marked in any way other than being typed as anaphoric by the *ê-* complementizer in the CONJUNCT order.

The licensing conditions on anaphora predict that, since the c-command condition does not hold, the precedence condition must. If the anaphor is in a non-initial position, precedence is satisfied (35a), but if the anaphor is in an initial position, precedence is not satisfied (35b).

[5] In this example it is also entirely possible that the *ê-ihtasiyâhk* clause is not embedded either, since it is formally identical to the other clauses; instead it could be second in a three-part chain with lines (iv) and (vi). I chose the embedding analysis on the basis of the discourse structure.

(35) a. CP ← CP ANAPHORIC

antecedent **anaphor**

b. * CP → CP UNDEFINED

anaphor antecedent

This turns out to capture the distribution of the unembedded ê-conjunct clauses. For example, in (36), we have an initial clause marked with the preverb *kî-* and the temporal particle *mâna* 'usually', followed by a second clause which has no marking. There is thus an analogous temporal dependency between these clauses as we saw above. The overt nominal *awâsisak* 'children' is also in the initial clause, and is interpreted as the subject of both clauses. Crucially, the anaphoric clause, which lacks both the temporal specification and the overt nominal, cannot be placed before the antecedent clause (36b).

(36) a. [antecedent] [**anaphor**]

[ê-kî-pê-itohtêcik mâna awâsisak] [**ê-nikamocik**]
ê- kî- pê- itohtê -t -k mâna awâsis-ak ê- nikamo -t -k
C1-PREV-COME-go.VAI-3-PL usually child -PL C1-sing.VAI-3-PL
'The children used to come and they used to sing.'

comment: this could mean either they were singing while they came, or that they sang when they got there

b. [**anaphor**] [antecedent]

! [**ê-nikamocik**] [ê-kî-pê-itohtêcik mâna awâsisak]
ê- nikamo -t -k ê- kî- pê- itohtê -t -k mâna awâsis-ak
C1-sing.VAI-3-PL C1-PREV-COME-go.VAI-3-PL usually child -PL
--- (*intended*: 'The children used to sing and come.')

Some might object that the absence of the overt nominal in the initial clause of (36b) accounts for the utterance's ungrammaticality, but if the initial clause is subordinated to the second clause, then precedence should not be a problem. The following example confirms this: when the *ê-* in the initial clause is replaced with the unambiguously subordinating complementizer *kâ-*, the utterance is grammatical, as in (37).

(37) [**anaphor**] [antecedent]

kâ-nikamocik, ê-kî-pê-itohtêcik mâna awâsisak
kâ-nikamo -t-k ê- kî- pê- itohtê -t -k mâna awâsis-ak
C2-sing.VAI-3-PL C1-PREV-COME-go.VAI-3-PL usually child -PL
'Only when the children sang did they come.'

Within Plains Cree, the sensitivity to precedence is striking; as we have seen, in general, subordinate clauses are not sensitive to it. For example, a subordinate clause introduced by the complementizer *kâ-* may either precede or follow the superordinate clause, as in (38).

(38) a. Jane **kâ-mêkwâc-atoskêt** âhkosiwipayiw.
J kâ-mêkwâ-âtoskê -t âhkosiw-ipayi -w
J C2-NOW- work.VAI-3 sick.VAI- INCH.VAI-3
'When Jane was working, she got ill / sick'

b. Jane âhkosiwipayiw **kâ-mêkwâc-atoskêt**
J âhkosiw-ipayi -w kâ-mêkwâ-âtoskê -t
J sick.VAI-INCH.VAI-3 C2-NOW- work.VAI-3
'When Jane was working, she got ill / sick'

Cross-linguistically, a sensitivity to precedence is striking because it is reminiscent of the patterns seen for 'clause-chains'. Most of the languages claimed to have clause-chaining have the same strict observance of precedence relations: a dependent clause that is part of a chain may only be in one position relative to the non-dependent clause[6].

If CONJUNCT clauses are anaphoric clauses, this is exactly the pattern predicted: where anaphoric clauses are not embedded with respect to their antecedent, the antecedent must precede them in order for the dependency to be established.

4.3.2 Long-distance precedence of antecedent for anaphoric clauses

We have seen that ê-clauses differ from other CONJUNCT clauses in that they need not be c-commanded with respect to their antecedent; i.e., *ê*-clauses are unembedded. The unembedding property of *ê*-clauses is in fact quite general: they are also grammatical as stand-alone sentences. Thus, in elicitation translation tasks, consultants will often offer anaphoric ê-clauses as stand-

[6] See §4.5.1.2 for discussion on this point.

alone clauses, and claim that they are interchangeable with their indexical INDEPENDENT counterparts, as in (39) below.

(39) *elicitation task*: translation of 'Sol is crying.'

a. Sol mâto**w** INDEPENDENT
S mâto -w
S cry.VAI-3
'Sol is crying / cries.'

b. Sol **ê**-mâto**t** CONJUNCT
S ê- mâto -t
S C1-cry.VAI-3
'…Sol is crying / cries.'

comment: "**They mean the same thing.**"

However, when we look at the contexts in which these utterances occur, stand-alone indexical clauses and stand-alone anaphoric clauses become distinct. In particular, an indexical clause (INDEPENDENT) is felicitous in an out-of-the-blue context, while an anaphoric clause (CONJUNCT) requires an established context – which both the speaker and hearer share – for its felicity[7]. Thus, when speakers are asked to identify how they would use an INDEPENDENT clause as opposed to an unembedded CONJUNCT clause, their answers indicate that the two clause-types are quite different.

In this section I consider the contexts that license anaphoric clauses, with reference to the discussion at the beginning of the chapter, where I posited that anaphora are found in established contexts. The analysis of CONJUNCT clauses as anaphoric allows us to understand their behaviour when they occur as stand-alone utterances. This expectation provides a way to relate some previously undiscussed and puzzling data to familiar principles. In the current section I consider the distribution of anaphoric CONJUNCT clauses in out-of-the-blue contexts vs. established contexts (§4.3.2.1), in focus contexts (§4.3.2.2), and in different speaking modes (narrative, conversation, and elicitation) (§4.3.2.3).

[7] The nature of a translation task is such that the relevant context-dependency does not emerge in this example; see Cook & Mühlbauer (2006) for further discussion.

4.3.2.1 Out-of-the-blue contexts vs. established contexts

When asked to think about the contexts in which an anaphoric CONJUNCT clause is used, as opposed to an indexical INDEPENDENT clause, speakers often contrast an out-of-the-blue context (for INDEPENDENT clauses) with an established context (for CONJUNCT clauses). This is what happens in (40-41): the indexical INDEPENDENT clause is felicitous where there has been no cue that the hearer is hungry, and there is no reason on the part of the speaker to suppose that the speaker is hungry. By contrast, the anaphoric ê-conjunct clause is used in a context where the actions of the addressee create a presupposition for asking the question.

(40) *context:* someone is coming to visit; just arrived

a. kinôhtêhkatân cî INDEPENDENT
ki- nôhtêhkatâ-n cî
2- hungry.VAI -SAP Q
'Are you hungry?'

b. # ê-nôhtêhkatêyan cî CONJUNCT
ê- nôhtêhkatê -yan cî
C1-hungry.VAI -2 Q
'…are you hungry?' (cf. 'Is it that you're hungry?')

(41) *context*: see someone rummaging in the refrigerator

a. # kinôhtêhkatân cî INDEPENDENT
ki- nôhtêhkatâ-n cî
2- hungry.VAI -SAP Q
'Are you hungry?'

b. ê-nôhtêhkatêyan cî CONJUNCT
ê- nôhtêhkatê -yan cî
C1-hungry.VAI -2 Q
'…are you hungry?' (cf. 'Is it that you're hungry?')

This anaphoric form is similar to the way in which, in English, context licenses a clefted form of the question.[8]

[8] In fact, Plains Cree speakers who use Cree as their primary language will often translate ê-clauses into clefts, even when the English cleft has an extra presupposition that makes the English infelicitous. For example, during one elicitation session, someone excused himself to use the washroom, and a Cree speaker teased him: "It's you who has the bladder problem."

When consultants are asked about using anaphoric CONJUNCT clauses in a situation where the context has explicitly not been given, the anaphoric clause is rejected as infelicitous. For example, in (42), the INDEPENDENT form can be felicitously uttered, but the anaphoric CONJUNCT form cannot.

(42) *context*: out-of-the-blue (used to express the concept 'Life's great!' or 'It's all good!')

a. miywâsin INDEPENDENT
miywâsi -n
good.VII -0
'[it's] good.'

b. # ê-miywâsik CONJUNCT
ê- miywâsi -k
C1-good.VII -0
'…it's good.'

comment: it's understandable, but I'd add something with this one[9]

An anaphoric clause in an initial position – e.g., at the beginning of a discourse – is quite restricted, if indeed it happens at all. One potential textual example of this is given in (43), which is the initial clause in Ahenakew (2000), a text based on a recorded interview. Here the interviewer is identifying herself, her interviewee, and the purpose of the conversation into the tape recorder.

(43) ê-wî-âh-âcimoyâhk ôm ôt[a] ânohc, …
ê- wî- âh- âcimo -yân-k ôma ôta anohc
C1-INT-RED-story.VAI-1 -PL DEM.INAN here today
'We are going to tell stories here today, … ' (FA in AA 1)

Notice that this involves a complex context: the speaker is talking into a tape-recorder, rather than to the interviewer. The intended addressee will only be able to receive this message via the tape recorder, and so the presence of the tape recorder must be assumed by both the speaker and

[9] The consultant added a preverbal resumptive topic marker to the anaphoric clause (i) to provide the relevant context:

(i) êwakw ânima ê-miywâsik
êwakw anima ê- miywâsi -k
TOPIC DEM.INAN C1-good.VII -0
'It's good.'

the hearer in this discourse – it is a quintessential "established context". Within this context, the speaker is simply identifying the relevant activity as story-telling.

4.3.2.2 Contrastive focus

Another environment where we can see the difference between indexical matrix clauses and anaphoric matrix clauses is when some part of the proposition has contrastive focus. Both the syntax and semantics of contrastive focus are relevant for the analysis of clause-typing proposed here.

Semantically, contrastive focus is characterized as the choice of one alternative out of a (discoursally-given) set of alternatives (Rooth 1996, Hagstrom 1998, among others). Thus in a contrastive focus context we need a context: the speaker and hearer need to share the set of alternatives. Semantically then, contrastive focus should satisfy the anaphoric nature of CONJUNCT clauses.

Syntactically, contrastive focus is treated as a (minimally) bi-partite structure (Rooth 1996): the focus part, and whatever is left over. In terms of the syntax, contrastive focus will invoke a clause external dependency between the open proposition and the focus element associated with it. Thus, syntactically, contrastive focus of any dependent in a clause should be syntactically incompatible with indexical INDEPENDENT clauses. Taken together, we expect that contrastive focus constructions will use anaphoric clauses, not indexical clauses. Of particular note in this example is the fact that the ê-clause is immediately followed by the demonstrative *ôma*, which is not associated with any noun. This is significant because post-positional *ôma* serves to introduce the element it follows as a predicate, and is interpreted as a subject of that predicate, rather than a modifying demonstrative. Consider the pair in (44): when the demonstrative precedes the nominal, the phrase is interpreted as a deictic DP 'this knife', but when the demonstrative follows the nominal, the phrase is interpreted as an instance of predication 'this is a knife' with *môhkomân* 'knife' as the predicate, and *ôma* 'this' as the subject:

(44) a. ôma môhkomân
ôma *môhkomân*
DEM.INAN knife
= 'this knife …'
≠ 'this is a knife'

b. môhkomân ôma
môhkomân ôma
knife DEM.INAN
≠ 'this knife …'
= 'this is a knife' (Déchaine 1997)

Analyzing the predicative example in (44b) as a kind of predicate inversion where the predicate has undergone raising (Moro 1999, Déchaine 1997), is supported by the semantic properties associated with [X DEM] strings: contrastive focus (Ahenakew 1987, Reinholtz 1995, 1999, Blain 1997, Déchaine 1997, Okimasis & Ratt 1999, Wolvengray 2003). For example , in (45a), the initial locative element *ôta* 'here' is focussed, and in (45b) the clause *ê-pêhoyân* 'I'm waiting' in initial position corresponds to predicate-focus.

(45) a. **ôt** ôma ê-pêhoyân
ôta ôma ê- pêho -yân
here DEM.INAN C1-wait.VAI-1
'I'm waiting **here**. / It's **here** that I'm waiting.' (from Wolvengrey 2003, ex. 5b)

b. **ê-pêhoyân** ôma
ê- pêho -yân ôma
C1-wait.VAI-1 DEM.INAN
'I'm **waiting**.' / 'It's that I'm **waiting**.' (from Wolvengrey 2003, ex. 6a)

Since [XP *ôma*] structures are associated with contrastive focus of the XP, we expect an asymmetry between anaphoric CONJUNCT clauses and indexical INDEPENDENT ones. With anaphoric clauses the [XP *ôma*] structure introduces contrastive predicate-focus. We expect the indexical INDEPENDENT clause to not be able to have this interpretation, and it doesn't.

(46) *context*: argument over whether the speaker is angry or tired

a. ê-nêstosiyân ôma, môy ê-kisiwâsiyân CONJUNCT
ê-nêstosi-yân ôma môy ê-kisiwâsi-yân
C1-tired.VAI-1 DEM.INAN NEG C1-angry.VAI-1
'I'm TIRED, not ANGRY.'

b. # ninêstosin ôma, môy nikisiwâsin INDEPENDENT
ni-nêstosi -n ôma môy ni- kisiwâsi -n
1-tired.VAI-SAP DEM.INAN NEG 1- angry.VAI-SAP
'I AM tired, I am NOT angry.'

If the CP is an indexical clause, the only available interpretation is verum-focus: i.e., over the polar value of the entire proposition. This is exemplified in (47), where the two speakers are arguing over whether the proposition has a positive or negative value. The anaphoric CONJUNCT clause is infelicitous here, but the INDEPENDENT is appropriate.

(47) *context*: argument over whether speaker is angry or not angry

a. # êha, ê-kisiwâsiyân ôma CONJUNCT
êha ê- kisiwâsi -yân ôma
yes C1-angry.VAI-1 DEM.INAN
'Yes, I'm angry, but …'

b. êha, nikisiwâsin ôma INDEPENDENT
êha ni- kisiwâsi -n ôma
yes 1- angry.VAI-SAP DEM.INAN
'Yes, I AM angry.'

Verum-focus means that only the polarity of the proposition is available for focus in an indexical clause – there can be no variables within the proposition. The association of polarity with the C domain is also independently argued for on the basis of Swampy Cree, a closely related language to Plains Cree (cf. Reinholtz 2007).

4.3.2.3 The distribution of clause-typing in elicitation: A discourse effect

Elicitation offers a somewhat peculiar discourse context as opposed to regular language-use: utterances are devoid of their usual context. If we consider elicitation as a kind of (constructed) discourse, we can compare it to narratives and conversation, which are themselves quite distinct

discourse modes (Hockett 1958, Smith 2003, among others). In all three, we expect the initial utterance of the discourse to be indexical, as summarized in table 4.6.

Discourse-type	Initial utterance
Elicitation	indexical (PC: INDEPENDENT)
Conversation	indexical (PC: INDEPENDENT)
Narrative	indexical (PC: INDEPENDENT)

Table 4.6. Clause-typing in discourse-initial position

We then expect that subsequent anaphoric clauses will be licensed – since they are in a non-initial position and therefore satisfy the precedence condition – until a new scene needs to be established. In elicitation, however, the scene is often re-established from one utterance to the next; for example, if I am testing aspectual classes of predicates, then each utterance will be unrelated to the next, and every utterance effectively begins a new discourse. In other words, such utterances are all in out-of-the-blue contexts.

Discourse-type	Sequencing of clauses
Elicitation	indexical, indexical, indexical (PC: INDEPENDENT, INDEPENDENT, INDEPENDENT)
Conversation	indexical, anaphoric, anaphoric (PC: INDEPENDENT, CONJUNCT, CONJUNCT)
Narrative	

Table 4.7. Sequencing of clause-types by discourse-type

This helps explain the preponderance of INDEPENDENT clauses as opposed to CONJUNCT clauses in Plains Cree. In sharp contrast to longer conversations and narratives – where anaphoric clauses are by far more common – anaphoric clauses are treated as 'special' in elicitation[10]. For example, in (48) the speaker proffered an INDEPENDENT clause, and when presented with its CONJUNCT counterpart, translated it with the nominal dislocated (i.e., as non-neutral).

[10] Anecdotally, the preponderance of indexical INDEPENDENT clauses in elicitation contexts as opposed to narrative contexts is so striking that linguists more familiar with Plains Cree discourse will raise questions about the validity of the data.

(48) a. âhkosiw Tomio — INDEPENDENT (offered)
ahksoi -w T
sick.VAI-3 T
'Tomio is sick'

b. ê-âhksosit Tomio — CONJUNCT (presented)
ê- ahkosi -t T
C1-sick.VAI-3 T
'He is sick, Tomio.'

When asked about anaphoric CONJUNCT clauses, consultants will in fact often refer to other modes of discourse, saying things like "this is something you would say in the middle of a story" or "maybe if you were talking to someone". More specifically, consultants will often provide a conversational context for the CONJUNCT clause in question. This is exemplified in (49); here the speaker had been presented with the form *ê-kî-nêstosiyân* '…I was tired', had ruled it a good utterance, and had then been asked to provide a situation in which the utterance would be felicitous. The consultant responded by providing a preceding question (which is itself presuppositional; see chapter 6), and then used the targeted form as the response[11].

(49) *context*: constructed context for *ê-kî-nêstosiyân*

A: Tânêhki ôma êkâ kâ-pê-itohtêyan
tân-êhki ôma êkâ kâ-pê- itôhtê -yan
WH-REASON DEM.INAN NEG C2-COME-go.VAI-2
'Why didn't you come?' [Lit: why is it that you didn't come?]

B: ê-kî-osâm-nêstosiyân
ê- kî- osâm-nêstosi -yân
C1-PREV-DEG- tired.VAI-1
'…I was too tired.'

Here the context on which the clause is anaphoric has been linguistically defined by a preceding clause; by virtue of its having been uttered within the same conversation, it is part of the context that has been established between the speaker and hearer.

Anaphoric clauses are expected to emerge in elicitation contexts where the targeted utterance is non-initial in the discourse. This is also borne out: there is a strong tendency, particularly when doing English-Cree translation tasks, for a consultant to start with a Cree

[11] The consultant has also added the quantifier *osâm* to the target form. This doesn't change the context, and it indicates that the speaker has 'taken the utterance on as their own': she added some element that made the utterance feel appropriate, rather than simply repeating a citation form (Cook & Mühlbauer 2006).

INDEPENDENT clause, and then, if asked to repeat the utterance, to switch to an anaphoric CONJUNCT clause.

In (50), the initial translation task uses an indexical INDEPENDENT clause. Here I was interested in the presence of the *-a* suffix on the noun *iskwêw* 'woman' and the *-yi* suffix in the embedded clause, and was trying to remove them – a process which makes the utterance ungrammatical (see Wolfart 1973, 1996; Cook & Mühlbauer 2006, Mühlbauer 2007, chapter 5 of this thesis). Thus I was using the same utterance and changing only one element. In this non-initial utterance, the consultant switched to the anaphoric CONJUNCT clause[12].

(50) a. *context*: translation of 'that man wants that woman to dance.'

ana napêw **nitawêyimêw** anihi iskwêwa ka-nimihitoyit INDEPENDENT
ana nâpêw nitawêyim -ê -w anihi iskwêw -a ka- nimihito -yi -t
DEM.AN *man want.VTA -DIR-3* DEM.INAN *woman-OBV* IRR-*dance.VAI-DS-3*
'That man wants that woman to dance.'

b. *context*: consultant repeating (a) with the *-yi* suffix missing

(*) ana nâpêw **ê-nitawêyimât** iskwêwa ka-nimihitot CONJUNCT
ana nâpêw ê- nitawêyim -â -t iskwêw -a
DEM.AN *man C1-want.VTA -DIR-3 woman-OBV*
--- (*intended*: 'That man wants the woman to dance.')

Here the consultant takes the initial utterance as a context for the repetition of the utterance. This is parallel to what consultants do with pronominal anaphora, where they will initially insist on an overt nominal to identify a referent, but will, on repeating the utterance, revert to a pronominal form (51).

[12] One can easily imagine the trouble this creates for collecting minimal pairs.

(51) a. *context*: initial utterance

atim nipâw INDEPENDENT W/ OVERT NOMINAL
atimw nipâ -w
dog sleep.VAI-3
'The dog is sleeping'

b. *context*: non-initial utterance

tanispî ê-kî-nipât CONJUNCT W/OUT OVERT NOMINAL
tân -ispî ê- kî- nipâ -t
Q -time C1-PREV-sleep.VAI-3
'When did he [the dog] go to sleep?'

To sum up, anaphoric CONJUNCT clauses appear less frequently in elicitation contexts than in narrative contexts or conversational contexts, and the places where anaphoric CONJUNCT clauses emerge in elicitation are similar to the places where pronominal anaphora occur, such as non-initial utterances that are related to some previous utterance (i.e., have the same propositional content).

4.3.3 Interim summary

I have shown that anaphoric CONJUNCT clauses behave like nominal anaphora in that they need an antecedent and that the antecedent-anaphor relation is satisfied by either a c-command condition or a precedence condition. I have also shown that they can be licensed by an established context, which is consistent with the behaviour of pronominal anaphora and can be thought of as satisfying precedence over a larger domain.

I now turn to temporal and referential dependent elements contained within anaphoric CONJUNCT clauses and show that the relation between these dependent elements and their antecedents also obey the c-command and precedence conditions on anaphora.

4.4 Anaphoric dependencies in anaphoric clauses

So far we have seen that anaphoric clauses are licensed by the general principles of anaphora: they may be licensed by a linguistic antecedent given that either the precedence or c-command condition holds.

Recall that during our first look at anaphoric clauses back in chapter 3, we saw that the temporal interpretation of an anaphoric clause could be set relative to the temporal interpretation of its antecedent. For example, in (52a) we have a chain of clauses with *kî-* marked only on the initial clause, but all within the same temporal setting. Here the temporal shifter *kî-*, which is obligatory in indexical clauses, cannot be used on the non-initial anaphoric clauses in the sequence (52b-c), nor can all the anaphoric clauses be marked (52d).

(52) a. êkwa mistahi mân âya, ê-**kî**-papâmohtêyâhk, ANTECEDENT
êkwa mistahi mâna aya ê- kî- papâmohtê -yân -k
and much usually CONN *C1-PREV-go.about.VAI-1 -PL*
'And we used to go around a lot,

ê-wîcêwâyâhk âskaw ANAPHOR
ê- wîcêw -â -yân -k âskaw
C1-go.with.VTA-DIR-1 -PL sometimes
sometimes going along with her

ê-~ ê-papâmi-mawisot, ... ANAPHOR
ê- papâmi- mawiso -t
C1-about.PV-pick.berries.VAI-3
as she went about berry-picking, …' (EM 17)

b. * …, ê-papâmohtêyâhk, ê-**kî**-wîcêwâyâhk âskaw ê-~ ê-papâmi-mawisot,
ê- papâmohtê -yân-k ê- kî- wîcêw -â -yân -k âskaw
C1-go.about.VAI-1 -PL C1-PREV-go.with.VTA-DIR-1 -PL times

ê- papâmi- mawiso -t
C1-go- pick.berries.VAI-3
---

c. * …, ê-papâmohtêyâhk, ê-wîcêwâyâhk âskaw ê-~ ê-**kî**-papâmi-mawisot,
ê- papâmohtê -yân-k ê- wîcêw -â -yân -k âskaw
C1-go.about.VAI-1 -PL C1-go.with.VTA-DIR-1 -PL times

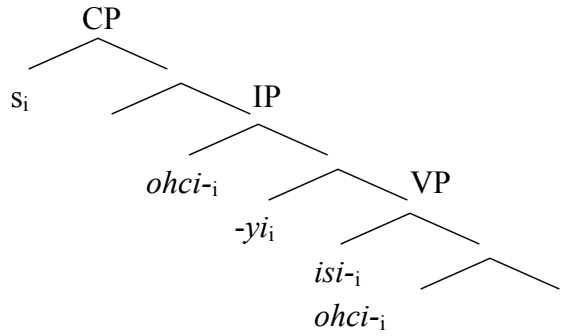
ê- kî- papâmi- mawiso -t
C1-PREV-go- pick.berries.VAI-3
---

d. * …, ê-**kî**-papâmohtêyâhk, ê-**kî**-wîcêwâyâhk âskaw ê-~ ê-**kî-**papâmi-mawisot,
ê- kî- papâmohtê -yân-k ê- kî- wîcêw -â -yân -k âskaw
C1-PREV-go.about.VAI-1 -PL C1-PREV-help.VTA-DIR-1 -PL times

ê- kî- papâmi- mawiso -t
C1-PREV-go- pick.berries.VAI-3

The anaphoric properties of clauses, then, affect not only the distribution of the clause itself, but the distribution and interpretation of dependent expressions contained within the anaphoric clause. In principle, since I take anaphora to be an elsewhere (i.e., generalized) phenomena, any variable in the clause should be able to establish clause-external relations with an antecedent, and multiple anaphor-antecedent relations can be established at once. For example, we expect temporal reference (which is in the situation variable *s*), referent tracking (i.e., argument variables like the different subject marker -*yi*), and modifier variables (e.g., *isi* 'thus' and *ohci* 'for') to be able to have clause-external antecedents, regardless of where they are introduced in the clause.

(53) antecedent$_i$



The table in 4.8 summarizes the patterns we expect: in indexical clauses these dependent elements must either be deictic, or they are ungrammatical; in anaphoric clauses, they are anaphoric.[13]

VARIABLE		INDEXICAL	ANAPHORIC
Temporal	*kî-*	✔(Deictic)	✔ (Anaphoric)
Referential	*-yi*	✔(Deictic)	✔ (Anaphoric)
Modifier variables	*isi-*	✔(Deictic)	✔ (Anaphoric)
	ohci-	✔(Deictic)	✔ (Anaphoric)
	ispî 'time'	✖	✔ (Anaphoric)
	ita 'place'	✖	✔ (Anaphoric)

Table 4.8. Deictic vs. anaphoric dependents

In this section, I show that the distribution and interpretation of both the temporal shifting element *kî-*, and the different subject marker *-yi* are subject to the c-command and precedence conditions on anaphora.[14]

4.4.1 *kî-* is subject to c-command and precedence in CONJUNCT clauses

In chapter 3 we saw that *kî-* 'PREVIOUS' was obligatory in indexical clauses to shift the reference time relative to the evaluation time. Here I look at its function in anaphoric clauses, where we shall see that instead of shifting relative to utterance time, *kî-* shifts relative to the time in the antecedent clause.

Consider the following set of contrasts. In both examples of the first set (54a-b), we have an anaphoric clause followed by an indexical clause. They differ minimally in that (54b) has *kî-* added to the indexical clause. Notice that the temporal sequencing of the events (the time of

[13] See the discussion in chapter 3 for the discussion of modifier variables, which I showed could have clause-external antecedents in anaphoric CONJUNCT clauses, but not in indexical INDEPENDENT clauses.
[14] Note that the current analysis predicts that it is possible for an anaphoric clause to host multiple different anaphoric relations (for example, an anaphoric temporal element relating to one clause, and an anaphoric referential element relating to another clause). Such cases are attested in Plains Cree.

eating relative to the time of coming home) is unaffected by this difference; in both cases the coming home precedes the eating[15].

(54) a. ê-pê-kîwêt Jeff **nimîcisonân**. INDEPENDENT
ê- pê- kîwê -t J ni-mîciso-nân
C1-come-go.home.VAI-3 J 1-eat.VAI-1PL
'Jeff is home, we ate.'
= PRECEDE (come home, eat)

b. ê-pê-kîwêt Jeff **ni**kî-**mîcisonân**. INDEPENDENT W/ ***kî-***
ê- pê- kîwê -t J ni- kî- mîciso -nân
C1-come-go.home.VAI-3 J 1- PREV-eat.VAI-1PL
'When Jeff came, then we ate.'
= PRECEDE (come home, eat)

In the second set of examples (55a-b), the indexical clause has been replaced by an anaphoric clause. When *kî-* is added in (55b), it acts anaphorically, it reverses the temporal relation between the two events: in this example the eating occurs *before* the coming home. With the change in temporal ordering is a concomitant change in the participants of the eating: since the eating happened before Jeff came home, Jeff could not be one of the eaters.

(55) a. ê-pê-kîwêt Jeff, **ê-mîcisoyâhk** CONJUNCT
ê- pê- kîwê -t J ê- mîciso -yân -k
C1-come-go.home.VAI-3 J C1-eat.VAI -1 -PL
'…Jeff came home and we ate.' (we = speaker & Jeff)
= PRECEDE (come home, **eat**)

b. ê-pê-kîwêt Jeff, **ê-**kî-**mîcisoyâhk** CONJUNCT W/ ***kî-***
ê- pê- kîwê -t J ê- kî- mîciso -yân -k
C1-come-go.home.VAI-3 J C1-PREV-eat.VAI -1 -PL
'…Jeff came home, we **had** eaten.' (we = speaker & someone else)
= PRECEDE (**eat**, come home)

The next sections show that the precedence and/or c-command conditions must hold in order for *kî-* to behave anaphorically in an anaphoric clause.

[15] The only difference in the translation is the presence of the overt temporal connective *then* in the example containing *kî-*. I suspect that this relates to the emphatic reading discussed below; at any rate, the presence of *kî-* clearly does not reverse the relative temporal sequencing of the two events in Plains Cree.

4.4.1.1 Precedence without c-command: *kî-* is anaphoric

The first context I examine is one where the anaphoric element (here *kî-*) follows its antecedent, but is not subordinate to it: precedence holds, but c-command does not.

(56) CP CP

antecedent **anaphor**

This is essentially the case we saw above. In the second clause, the presence of *kî-* yields an interpretation where the event in the second clause temporally precedes the event in the second clause.

There are many instances of this kind of dependency. One case is in conversational sequences like (57). Here the *kî-* in the second persons' response provides the necessary sequencing of the crying before the laughing.

(57) A. ê-pâhpit ana iskwêw
ê- pâhpi -t ana iskwêw
C1-laugh.VAI-3 DEM.AN woman
'That woman is/was laughing.'

B. ê-**kî**-mâtot
ê- kî- mâto -t
C1-PREV-cry.VAI-3
'She was crying (earlier).'

Here, the first speaker's utterance provides the reference time which *kî-* is evaluated with respect to. This latter example confirms that an ê-conjunct clause's dependency may be to some other speaker's utterance in a dialogue, as we saw earlier in the discussion of elicitation and conversation (cf. §4.3.2.3).

If the anaphoric reading is excluded, the utterance becomes ungrammatical: the *kî-* in the second-clause must have an antecedent in order for the asymmetry between the two clauses to be resolved. This accounts for the ungrammatical examples we saw earlier when we attempted to place *kî-* on some non-initial CONJUNCT clause, repeated here as (58). In such a case *kî-* does not have an antecedent; and under the targeted interpretation must itself be the antecedent; since this violates the precedence and c-command conditions, it is ungrammatical.

(58) * [anaphoric] [**antecedent**]

! [ê-nikamocik] [ê-**kî**-pê-itohtêcik mâna awâsisak]
ê- nikamo -t-k ê- kî- pê- itohtê -t -k mâna awâsis-ak
C1-sing.VAI-3-PL C1-PREV-COME-go.VAI-3-PL usually child -PL
--- (*intended*: 'The children sang and came.')

The anaphoric behaviour of *kî-* is also exhibited in the clause chains in Plains Cree narratives, where, in a way that is remarkable from an English perspective, temporal sequencing is almost universally done without adverbials like *before* and *after*. In (59), we have a sequence of three clauses. The first two clauses are unmarked, and the temporal interpretation follows from the linear ordering of the events (*ê-mâh-manipitahk* 's/he pulled them up' linearly and temporally precedes *ê-mâh-mîcit* 's/he ate them'). The final clause lacks any of the temporal connectives (such as *êkwa* 'and' or *mîna* 'also') that we saw earlier, but is marked with *kî-*. Temporally, the event in this clause (*ê-kî-kanâcihtât* 's/he cleaned them') is interpreted as preceding the eating: *kî-* is shifting the temporal reference.

(59) a. sôskwâc ê-mâh-**manipitahk** anihi ocêpihkisa,
sôskwâc ê- mâh-manipitam -k anihi ocêpihkis-a ê -mâh-mîci -t êkoni
simply C1-RED- pull.up.VTI-3 DEM.OBV root -OBV C1-RED-eat.VTI-3 RESUMP
'…she simply **pulled up** those little roots

ê-mâh-**mîcit** êkoni ... ê-**kî**-kanâcihtât êkoni.
ê- mâh-mîci -t êkoni ê- kî- kanacihtâ -t êkoni
C1-RED- eat.VTI-3 RESUMP C1-PREV-clean.VAI -3 RESUMP
'…and cleaned and ate them.' (EM 71)

Similarly, in (60), the first two clauses are unmarked, while the third clause is marked with *kî-* and reports on an event that had happened much earlier in the story (several months). Again, the only indication of this sequencing is this preverb, which corresponds with the past perfect in the English.

(60) êkwa, kisêyiniw aw êkwa êsa ê-sâsakitisihk,
êkwa kisêyiniw awa êkwa êsa ê- sâskitisin -k
and old.man this.AN and EVID C1-lay.on.back.VAI-3
'Now the old man was lying on his back,

mêtoni mistah ê-mâmitonêyihtahk ôma –
mitoni mistahi ê- mâmitonêyihtam-k ôma
intense much C1-think.VTI -3 this.INAN
thinking about things a very great deal –

mâka pâskisikan wiy êsa ê-**kî**-nakatamâht êsa.
mâka pâskisikan wiya êsa ê- kî- nakatamâ-h -t êsa
but gun emphatic EVID C1-PREV-left.VTI -US-3 EVID
but he **had been left** with a gun.' (AA 9.8)

All of the cases we have seen so far have no temporal reference point other than the event time of the preceding clause, and no temporal connectives such as *êkwa* 'and, now/then' (cf. Ogg 1991). In the following example, both an overt temporal adverb (*otâkosihk* 'yesterday'), and *êkwa* are present, and we see that it opens up additional temporal sequencing possibilities. The interpretation of *ê-kî-ahkosit* 's/he was sick') is ambiguous: it can either mean that *nimâma* 'my mom' was sick at the time she came to visit, *or* that she had been sick previous to her coming to visit[16].

(61) a. otâkosihk nimâma pê-kiyokêw, êkwa ê-ahkosit
otâkosin -k ni-mâma pê- kiyokê -w êkwa ê- ahkosi -t
be.evening.VII-0 1-mama come-visit.VAI-3 and C1-sick.AI-3
'My mother came to visit yesterday and she was sick at the time.'

b. otâkosihk nimâma pê-kiyokêw, êkwa ê-**kî**-ahkosit
otâkosin -k ni- mâma pê- kiyokê -w êkwa ê- ahkosi -t
be.evening.VII-0 1- mama COME-visit.VAI-3 and C1-sick.AI -3
= 'Yesterday my mother came to visit and she **had been** sick'
= 'Yesterday my mother came to visit and she was sick **at the time**.'

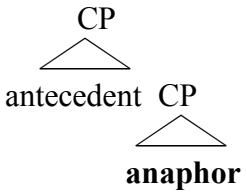
[16] Given the fact that the predicate *ahkosi-* 'sick.VAI' seems to vary between whether it is a stative or inchoative predicate (Wolfart, p.c.), some of the ambiguity in interpretation may be attributed to that. The interpretation may also depend on the temporal sequencing properties of *êkwa* 'and, now/then', which I do not have a full account of, but discuss in §4.5.1.

While I do not have a full account of this, crucially an anaphoric relation between the two clauses can still be established. This means that we can maintain the precedence condition for *kî-* in clause sequences.

4.4.1.2 Precedence and c-command: *kî-* is anaphoric

If *kî-* appears in an anaphoric clause that is subordinate to the preceding clause, we predict that it should be anaphoric. Both the precedence and c-command conditions hold.

(62)



This prediction is borne out when we look at the interpretation of *kî-* in subordinate clauses. In (63), we have a perceptual predicate where the proposition is the thing perceived: i.e., the ê-conjunct clause is behaving as a part of the larger clause. If the subordinate clause is not marked with *kî-*, it may be interpreted as simultaneous or sequenced (63a). If *kî-* is added to the subordinate clause, the interpretation is restricted so that only the sequenced interpretation is available (63b).

(63) a. wâpahtam Jeff **ê-mispohk** CONJUNCT
wâpahtam-w J ê- mispon -k
see.VTI -3 J C1-snow.VII-0
'Jeff saw that it (had) snowed.'
= (i) PRECEDE (snow, see)
= (ii) OVERLAP (snow, see)

b. wâpahtam Jeff **ê-**kî-**mispohk** CONJUNCT W/ ***kî-***
wâpahtam-3 J ê- kî- mispon -k
see.VTI -3 J C1-PREV-snow.VII-0
'Jeff saw that it (had) snowed.'
= (i) PRECEDE (snow, see)
≠ (ii) OVERLAP (snow, see)

While double-marking of *kî-* (i.e., in both clauses) in this context was ruled inappropriate, the consultant noted that, insofar as the utterance meant anything, only the sequenced interpretation was valid.

(64) ? **kî**-wâpahtam Jeff **ê-kî-mispohk**
kî- wâpahtam-3 J ê- kî- mispon -k
prev-see.VTI -3 J C1-PREV-snow.VII-0

= (i) PRECEDE (snow, see)
≠ (ii) OVERLAP (snow, see)

comment: don't need both *kî-*'s – it's too much

The interpretation of *kî-* in the dependent clauses in example (65 and 66) is also obligatorily calculated with respect to the higher clause. Notice that the sequencing effect is insensitive to the aspectual class of the predicate in the dependent clause: in (65) it is eventive, while in (66) it is stative.

(65) a. nipêhtên Jeff **ê-nikamot** CONJUNCT
ni-pêhtê -n J ê- nikamo -t
1- hear.VTI-SAP J C1-sing.VAI-3
'I heard that Jeff was singing'
≠ (i) PRECEDE (sing, hear)[17]
= (ii) OVERLAP (sing, hear)

b. nipêhtên Jeff **ê**-kî-**nikamot** CONJUNCT W/ ***kî-***
ni- pêhtê -n J ê- kî- nikamo -t
1- hear.VTI-SAP J C1-PREV-sing.VAI-3
'I heard Jeff had sang.'
= (i) PRECEDE (sing, hear)
≠ (ii) OVERLAP (sing, hear)

[17] I am not sure why the PRECEDE interpretation is unavailable in this example, but acceptable in, e.g., (63a) and (67a). If this represents a consistent pattern, it is important for understanding the temporal behaviour of unmarked *ê*-CONJUNCT clauses. Since it is not of direct import to understanding the anaphoric behaviour of *kî-* here, I leave it for further research.

(66) a. niwâpahtên Joe **ê-kisiwâsit** CONJUNCT
ni-wâpahtê-n J ê- kisiwâsi -t
1- see.VTI -SAP J C1-angry.VAI-3
'I see Joe is/was mad.'
≠ (i) PRECEDE (angry, see)
= (ii) OVERLAP (angry, see)

b. niwâpahtên Joe (êsa) **ê**-kî-**kisiwâsit** CONJUNCT W/ ***kî-***
ni-wâpahtê-n J êsa ê- kî- kisiwâsi -t
1- see.VTI -SAP J EVID C1-PREV-angry.VAI-3
'I see Joe was mad.'
= (i) PRECEDE (angry, see)
≠ (ii) OVERLAP (angry, see)

Dependent clauses introduced by a verb of speaking behave the same way: the presence of *kî-* in the dependent clause obligatorily sequences it with respect to the matrix verb. This is illustrated in (67) by the infelicity of using *kî-* in a dependent clause in a context where the event time should *not* be sequenced with respect to the higher predicate.

(67) *context*: you are going to meet someone you don't know at the airport, and he gives you information that you can identify him by. Later, you are relaying these to a friend

a. nâpêw nitik **ê-kinosit** CONJUNCT
nâpêw n- it -ik ê- kinosi -t
man 1- tell.VTA-INV C1-tall.VAI-3
'He told me he is/was tall.'

b. # nâpêw nitik **ê**-kî-**kinosit** CONJUNCT W/ ***kî-***
nâpêw n-it -ik ê- kî- kinosi -t
man 1-tell.VTA-INV C1-PREV-tall.VAI-3
'This man told me that he used to be tall.'

comment: *laughter* how are you gonna know he used to be tall??

Other kinds of subordinate clauses also exhibit the expected pattern. The pair in (68) shows the contrast in interpretation when *kî-* is used in a relative clause; in (69), we see the same contrast in a temporal modification clause; and in (70) the contrast again in a reason clause introduced by *ayis* 'for/because'.

(68) a. nimôsahkinâw bêbîsis ana **kâ-mêkwâ-mâtot** CONJUNCT
ni- môsahkin -â -w bêbî -sis ana kâ- mêkwâ- mâto -t
1- pick.up.VTA-DIR-3 baby-DIM DEM.AN C2-WHILE- cry.VAI-3
'I picked up the baby, the one that was crying.'
≠ (i) PRECEDE (cry, pick up)
= (ii) OVERLAP (cry, pick up)

b. nimôsahkinâw ana bêbîsis ana **kâ-**kî**-mâtot** CONJUNCT W/ ***kî-***
ni- môsahkin -â -w ana bêbi -sis ana kâ- kî- mâto -t
1- pick.up.VTA-DIR-3 DEM.AN baby-DIM DEM.AN C2-PREV-cry.VAI-3
'I picked up the baby that had been crying.'
= (i) PRECEDE (cry, pick up)
≠ (ii) OVERLAP (cry, pick up)

(69) a. Clare kâkikê mâtow, **nikamoci** CONJUNCT
C kâkike mâto -w nikamo -t -i
C always cry.VAI-3 sing.VAI-3-SUBJ
'Clare always cries when she sings.'
≠ (i) PRECEDE (sing, cry)
= (ii) OVERLAP (sing, cry)

b. Clare kâkikê mâtow, **kî-nikamoci**[18] CONJUNCT W/ ***kî-***
C kâkike mâto -w kî- nikamo -t -i
C always cry.VAI-3 PREV-sing.VAI-3-SUBJ
'Clare always cries when she's through/done singing.'
= (i) PRECEDE (sing, cry)
≠ (ii) OVERLAP (sing, cry)

---

[18] In the corpus data I've looked at, the constructions parallel to the data in (69) are always also marked with initial change, which ablauts the initial vowel (cf. Hockett 1966, Wolfart 1973). In this case, since the initial vowel is the [i] in *kî-*, the changed vowel should be [a]. A relevant example from Minde (1997) is given in (i): here we get the same sequencing effect as in the elicitation data (i.e., the resting and sleeping always took place before the working in the fields).

(i) ... êkwa **kâ**-ayiwêpici **kâ**-nipâci,
êkwa IC. kî- ayiwêpi -t -i IC.kî- nipâ -t -i
and IC-PREV-rest.VAI -3-SUBJ IC-PREV-sleep.VAI-3-SUBJ

kî-wayawîw mân ê-nitaw-âtoskêt kistikânihk.
kî- wayawî -w mâna ê- nitaw-âtoskê -t kistikân -ihk
PREV-go.out.VAI-3 HAB C1-DIR- work.VAI-3 field -LOC
'..., then when he had rested and slept, he would still go out to go and work in the fields.' (EM 28)

None of the 6 speakers I have worked with control this process in elicitation contexts when eliciting these particular constructions: some use periphrastic constructions, while others, including the one whose data is cited above, simply use the unchanged form.

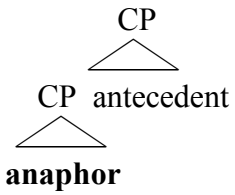
(70) a. ê-mâtoyân ayis ê-sipwêhtêt nimâma CONJUNCT
ê- mâto -yân ayis(k) ê- sipwêhtê -t ni- mâma
C1-cry.VAI-1 for C1-leave.VAI -3 1- mom
'I cried because my mom left.'
= (i) PRECEDE (leave, cry)
= (ii) OVERLAP (leave, cry)

b. ê-mâtoyân ayis ê-kî-sipwêhtêt nimâma CONJUNCT W/ ***kî-***
ê- mâto -yân ayis ê- kî- sipwêhtê -t ni -mâma
C1-cry.VAI-1 for C1-PREV-leave.VAI -3 1 -mom
'I cried because my mom (had) left.'
= (i) PRECEDE (leave, cry)
≠ (ii) OVERLAP (leave, cry)

4.4.1.3 C-command without precedence: *kî-* is anaphoric

The third configuration in which a relation between an anaphor and an antecedent can be established is when the antecedent follows the anaphor (precedence does not hold), but the antecedent is in a higher clause than the antecedent (c-command holds). This is represented in (71).

(71)



When *kî-* is in an anaphoric clause, we then expect that, for any of the utterances we saw in the last section (where the subordinate clause followed its matrix clause), the order of the two clauses can be switched without altering the temporal relation between the two events.

Again, this prediction is borne out in the data. For clauses that are introduced by propositional predicates (verbs of thinking, speaking and perception), placing the dependent clause before the matrix clause yields an utterance that is not particularly natural (cf. chapter 5), but the judgments on the temporal relation between the events are quite clear. I here give examples with *wâpaht-* 'see.VTI' (72a) and *wihtamaw-* 'tell.VTA' (72b).

(72) a. ? ê-**kî**-mispohk wâpahtam Jeff CONJUNCT W/ ***kî-***
ê- kî- mispon -k wâpaht-am J
C1-PREV-snow.VII-0 see.VTI -3 J
'Jeff saw that it had snowed.'
= (i) PRECEDE (snow, see)
≠ (ii) OVERLAP (snow, see)

b. ? ê-**kî**-mîcisot niwîhtamâk Jeff
ê- kî- mîciso -t ni- wihtam -aw -ikw J
C1-PREV-eat.VAI -3 1- tell.VTA -BEN-INV J
'Jeff told me he had eaten.'
= (i) PRECEDE (eat, tell)
≠ (ii) OVERLAP (eat, tell)

The other subordinate clauses are found more commonly preceding the clause they are dependent on; the interpretation of *kî-* is again insensitive to the change in ordering of the two clauses. A contrast between a relative clause that is unmarked vs. one that is marked with *kî-* is given in (73): the insertion of *kî-* reverses the available interpretations.

(73) a. awâsis **kâ-mowât** cookie ê-mâci-mâtot CONJUNCT
awâsis kâ- mow -â -t cookie ê- mâci-mâto -t
child C2-eat.VTA-DIR-3 cookie C1-start-cry.VAI-3
'The child eating the cookie is starting to cry'
≠ (i) PRECEDE (cry, eat)
= (ii) OVERLAP (cry, eat)

b. awâsis **kâ-**kî-**mowât** cookie ê-maci-mâtot CONJUNCT W/ ***kî-***
awâsis kâ- kî- mow -â -t cookie ê- mâci-mâto -t
child C2-PREV-eat.VTA-DIR-3 cookie C1-start-cry.VAI-3
'The child that had been/was eating the cookie is starting to cry now'
= (i) PRECEDE (cry, eat)
≠ (ii) OVERLAP (cry, eat)

Likewise, we see that initial subjunctive clauses (74a) and initial reason clauses (74b) behave just like their non-initial counterparts: the superordinate clause acts as an antecedent.

(74) a. **kî**-nikamoci, Clare kâkikê mâtow CONJUNCT W/ ***kî-***
kî- nikamo -t -i C kâkike mâto -w
PREV-sing.VAI-3-SUBJ C always cry.VAI-3
'When she's done singing, Clare always cries.'
= (i) PRECEDE (sing, cry)
≠ (ii) OVERLAP (sing, cry)

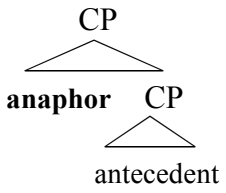
b. ayis ê-**kî**-sipwêhtêt nimâma, ê-mâtoyân CONJUNCT W/ ***kî-***
ayis ê- kî- sipwêhtê -t ni- mâma ê- mâto -yân
for C1-PREV-leave.VAI-3 1- mom C1-cry.VAI-1
'Because my mother left I cried.'
= (i) PRECEDE (leave, cry)
≠ (ii) OVERLAP (leave, cry)

I have now established that if either precedence or c-command holds between a clause marked with *kî-* and its potential antecedent, *kî-* is anaphoric on a reference time given by the clause which serves as the antecedent.

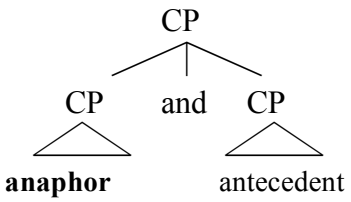
4.4.1.4 No precedence, no c-command: *kî-* is not anaphoric

The configuration where an anaphor may not establish a relationship to a potential antecedent is when the antecedent follows the anaphor (i.e., precedence does not hold) and the anaphor is not in a subordinate clause relative to the antecedent (i.e., c-command does not hold either). This would be the case if the antecedent were in an embedded clause (75a), or if the anaphor and antecedent are in separate coordinated clauses (75b), or if there is simply a sequence of two independent clauses (75c).

(75) a. *



b. *



c. * CP CP

anaphor antecedent

The structures in (75) violate both the precedence condition and the c-command condition. The prediction is that the potential anaphor will fail to be dependent on the subsequent clause as the antecedent. The prediction for *kî-* is that in an initial CONJUNCT clause, it cannot shift the event time of that clause with respect to a following clause it is not subordinated under.

Recall that it is specifically the dependency between the potential anaphoric element and antecedent pair that is prohibited by these structures, and that we could have structures such as (77), where both elements are (co-)dependent on some other antecedent.

(76) [I assume you recall that this course requires a term paper$_i$.]
Anyone can turn it$_i$ in to me now [who has WRITTEN their term paper$_i$].
(adapted from Williams 1997: ex. 27)

(77) [… term paper …] [… it …] [… term paper …]
ANTECEDENT ANAPHOR ANAPHOR

This is important for the current discussion because *kî-* can always sequence the event time relative to some other topic time: *kî-* anchors to utterance time in indexical INDEPENDENT clauses, and can anchor to a time of some other clause in anaphoric CONJUNCT clauses.

There is also the complication of shifting reference time in narratives (cf. Hinrich 1984, Kamp & Rohrer 1983, Bittner 2008). Although the contexts in which shifting reference time is possible and/or obligatory have not thoroughly worked out even for English (e.g., the extent of the role of aspectual class of the two predicates), it seems that a similar sort of pattern is seen in Plains Cree, where the temporal order of two events, will, all else being equal, reflect the order in which they are presented. For example, in (78) the order of presentation is *kîwê-* 'come.home', *mîciso-* 'eat', and the temporal interpretation is that the coming home preceded the eating.

(78) a. ê-pê-kîwêt Jeff, **ê-mîcisoyâhk** CONJUNCT
ê- pê- kîwê -t J ê- mîciso -yân -k
C1-come-go.home.VAI-3 J C1-eat.VAI -1 -PL
'…Jeff came home and we ate.' (we = speaker & Jeff)
= PRECEDE (come home, **eat**)

Taking these two factors into account, the GPAD predicts that in any of the configurations given above in (75), the *kî-* will not affect the temporal relation between the clause it is in and the following clause at all. Precedence is not entirely ruled out (since it can be established via shifting reference time), but should be equally available regardless of whether *kî-* is there or not. Further, an overlap reading should be possible, whereas it was not possible when the conditions on anaphora were met.

This is exactly what we see. In the superordinate clause (79), the sequenced reading should be strange on semantic grounds, so if *kî-* was coding temporal precedence, we would expect it to be infelicitous. But it is not: the utterance is fine, and codes two contemporaneous events.

(79) Superordinate clauses: *kî-* fails to be anaphoric

kî-wâpahtam Jeff **ê-mispohk**
kî- wâpahtam-w J ê- mispon -k
PREV-see.VTI -3 J C1-snow.VII-0
'Jeff had seen it snowed.'
≠ PRECEDE (see, snow)
= OVERLAP (see, snow)

context: snow was falling when Jeff looked out the window

With two coordinated clauses, the first coordinate and second coordinate are interpreted as overlapping in (80a); the addition of *kî-* in (80b) does not allow the sequenced interpretation.

(80) Coordinated clauses: *kî-* fails to be anaphoric

a. ê-kinosit Jack, êkwa ê-takâhkâpêwit
ê- kinosi -t J êkwa ê- takâhkâpêwi -t
C1-tall.VAI-3 J and C1-good.looking.man.VAI-3
'Jack is tall, and a good-looking man.'
≠ (i) PRECEDE (tall, good looking)
= (ii) OVERLAP (tall, good looking)

b.. ê-**kî**-kinosit Jack, êkwa ê-takâhkâpêwit.[19]
ê- kî- kinosi -t J êkwa ê- takâhkâpêwi -t
C1-PREV-tall.VAI-3 J and C1-good.looking.man.VAI-3
'Jeff used to be tall, and he was handsome / a good-looking man.'
≠ (i) PRECEDE (tall, good looking)
= (ii) OVERLAP (tall, good looking)

Finally, in (81) we have a sequence of two eventive predicates. Both the sequenced and overlap interpretations are available in (81a), and the addition of *kî-* again does not eliminate the overlap interpretation.

(81) Chained clauses: *kî-* fails to be anaphoric

a. ê-sipwêhtêt nimâma, ê-mâtoyân
ê- sipwêhtê -t ni- mâma ê- mâto -yân
C1-leave.VAI -3 1- mom C1-cry.VAI -1
'My mother left, I cried.'
= (i) PRECEDE (leave, cry)
= (ii) OVERLAP (leave, cry)

b. ê-kî-sipwêhtêt nimâma, ê-mâtoyân
ê- kî- sipwêhtê -t ni- mâma ê- mâto -yân
C1-PREV-leave.VAI-3 1- mama C1-cry.VAI-1
'My mother left, I cried.'
= (i) PRECEDE (leave, cry)
= (ii) OVERLAP (leave, cry)

Here the temporal relations are being established apart from *kî-*, and, importantly, they are not changed by adding *kî-* to the initial clause. In all cases *kî-* fails to be anaphoric, as predicted.

4.4.2 *-yi* is subject to c-command and precedence in CONJUNCT clauses

The suffix *-yi* in Plains Cree is a subject-oriented reference-tracking marker which codes disjoint reference between the subject of its clause and some other clause (Mühlbauer 2007, 2008). For

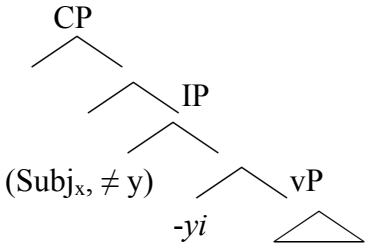
[19] See also 4.2.1.2 for parallel examples with non-stative predicates.

example, in (82), the subject of the singing clause (Solveiga) is different from the subject from the knowing clause (Jeff), and is marked with suffix *-yi*.[20]

(82) Jeff kiskêyihtam Solveiga **ê-nikamo**yit. CONJUNCT W/ *-yi*
J. kiskêyihtam -w S ê- nikamo -yi -t
J know.VTI -3 S C1-sing.VAI-DS -3
'Jeff knows that Solveiga is singing.'

The syntax of *-yi* can be represented as in (83).[21] The subject associated with *-yi* is disjoint from some other element (cf. also Saxon 1986 on disjoint anaphora).

(83)



(Mühlbauer 2008)

The presence of *-yi* thus always requires that the clause be interpreted with respect to another clause: it indirectly establishes a cross-clausal dependency[22].

The current analysis of clause-typing predicts that the cross-clausal dependency will be subject to c-command and/or precedence in anaphoric clauses (§4.3.2.1). The dependency between *-yi* and its antecedent is claimed by Mühlbauer (2007, 2008) to be sensitive to precedence and c-command, and the current analysis provides a systematic consideration of this claim, and situates it within a larger picture of anaphoric dependencies in Plains Cree clauses.

The following table presents, for each condition on anaphora, the percentages and total number of occurrences of a *-yi* marked clause in a two-and-a-half hour narrative (Minde 1997).

[20] Note that 'Solveiga' is not marked with obviation (i.e., the suffix *-a*) in this sentence; obviation is commonly dropped on common names in elicitation contexts. See Cook & Mühlbauer (2006) for discussion.
[21] The traditional analysis of *-yi* is that it marks obviative agreement. For discussion and evidence as to why this analysis cannot be correct, see Mühlbauer (2007); since it is not of direct import here, I do not replicate the arguments. However, it is important for readers to know that *-yi* only marks disjoint reference over third persons: it will never, for example, be marked if the subject of the antecedent clause is a speech act participant.
[22] In fact, cross-linguistically, languages which exhibit switch-reference marking also exhibit extensive cosubordination (i.e., clause-chaining), and the switch-reference marking is restricted to cosubordinated clauses (see, e.g., Stirling 1993).

Conditions on anaphora	***-yi*** (Minde 1997)	
	Attested?	% (tokens)
C-command and precedence	✔	55 (59)
Precedence	✔	27 (29)
C-command	✔	14 (15)
No c-command, no precedence	✖	0 (0)
antecedent [anaphor [ant]]	✔	4 (4)

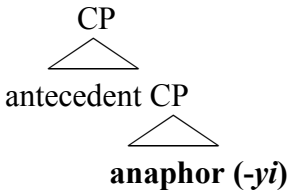
Table 4.9. Distribution of *-yi* by anaphoric configuration

While each of the three possible antecedent-anaphor relations are instantiated in this narrative, the relation that is predicted to be impossible is unattested. I here consider each condition in turn, supplementing the textual data with elicitation data.

4.4.2.1 C-command and precedence: *-yi* is licensed

If the anaphor both follows and is subordinated to its antecedent, it fulfills both conditions on anaphora. This is the most common configuration for a *-yi* clause and its antecedent clause.

(84)



Examples of this pattern with three different anaphoric CONJUNCT clauses are given: (85a) is a temporal modification clause introduced by the *kâ-* complementizer (which can only occur when it is embedded with respect to a higher clause). (85b) is a relative clause introduced by the *ê-* complementizer, it is an inanimate intransitive verb modifying *êkotowahk* 'that kind' (which is associated with the verb's subject position). (85c) is a purpose clause introduced by a clause that lacks an overt complementizer.

(85) a. [ê-kî-CONJ [kâ-CONJ-**yi**]]

..., ê-kî-miciminamawât misatimwa aya **kâ-nakayâhâ**yi**t**, ...
ê- kî- miciminamaw -â -t misatimw -a aya kâ- nakayâh -â -yi -t
C1-PREV-hold.for.VTA -DIR-3 horse -OBV CONN C2- break.VTA-DIR-DS-3
'She even held the horses for him, she told me, when he broke them, …' (EM 66)

b. [ê-kî-CONJ [ê-CONJ-**yi**]]

... ê-kî-kikiskahk mân êkotowahk **ê-mîkisiwi**yi**ki**.
ê- kî- kikiskam -k mâna êkotowahk ê- mîkisiwi -yi -k -i
C1-PREV-wear.VTI -0 usually that.kind C1-beaded.VII-DS-0-PL
'… he used to wear beaded ones.' (EM 68)
(lit: '...he used to wear [shoes] that were beaded.')

c. [kâ-CONJ [CONJ-**yi**]]

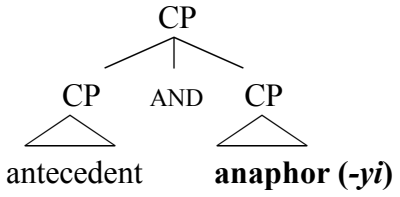
..., kâ-misipotât aya pahkêkin, **ka-yôskâ**yi**k**, ...
kâ- misipot -â -t aya pahkêkin ka- yôskâ -yi -k
C2-roll.VTA-DIR-3 CONN hide IRR-soft.VII-DS -0
'..., when she rolled a hide over the blade so that it would be soft, ...' (EM 18)

In all three cases the non-initial, subordinate clause is marked with *-yi*.

4.4.2.2 Precedence without c-command: *-yi* is licensed

If precedence holds, an antecedent-anaphor relation may be established regardless of the subordinate relation between the two clauses. There are thus a number of precedence-governed clausal relations where we expect *-yi* to occur. First, we expect *-yi* to be possible in the second conjunct of a coordinated clause[23].

(86)



The overtly coordinated clauses in (87) fit into this class. Here the subject in the first clause (*âyâw-* 'have') is *Dan Minde,* and the subject in the second clause (*âyâw-* 'have') is *Sam Minde*. The two clauses are conjoined with *mâka* 'but', and the disjoint subject marker *–yi* is in the second conjunct.

[23] I do not at present have a full analysis of coordination. On the one hand, in anaphoric clauses, the second coordinate can host anaphoric elements like *–yi*. On the other hand, indexical clauses can also be coordinated, although there are restrictions on coordination (e.g., an overt coordinator such as *êkwa* 'and/then' is necessary, and such coordinators may function at a discourse level, rather than simply inter-clausally; cf. Ogg 1991). Further, even when indexical clauses are coordinated, they cannot host anaphoric elements.

(87) [$_{CP}$ IND] mâka [$_{CP}$ ê-CONJ-**yi**]

..., môya mihcêt oht-â-~ ohc-**âyâwêw** wiya nisis awa Dan Minde,
môya mihcêt ohc- âyâw -ê -w wiya nisis awa DM
NEG many PREV-have.VTA-DIR-3 EMPH father-in-law DEM.AN DM
'..., my father-in-law Dan Minde, he did not have many,

mâka wiy ô-~ osîma, mihcêt aya pisiskiwa, mostoswa êkwa misatimwa
mâka wiya o-sîm -a mihcêt aya pisiskiw -a mostosw -a êkwa misatimw -a
BUT EMPH 3-SIBLING-OBV many CONN animal -OBV cow -OBV and horse -OBV

ê-kî-**ayâwâyit**.
ê- kî- ayâw -â -yi -t
C1-PREV-have.VTA-DIR-DS-3
but his younger brother [Sam Minde] had many animals, cattle and horses.' (EM 45)

Two clauses which are coordinate with respect to each other and both subordinate to some higher predicate show the same pattern. In (88) the subject of the first conjunct (*wawânêyiht-* 'worry') is *kêhtê-ayak* 'the old people'; and subject of the second conjunct (*nôhtêhkatê-* 'hungry') is *ôtawâsimisiwâwa* 'their children'. The subjects are disjoint, and the second conjunct contains *-yi*.

(88) [ê-CONJ [ka-CONJ êkwa ka-CONJ-**yi**]]

... kêhtê-ayak ê-~ ê-kwayâtastamâsocik mîciwin,
kêhtê-aya -k ê- kwayâtastamaw -iso -t -k mîci -win
old-people-PL C1-get.food.VTA -REFLX-3-PL eat.VTI-NOM
'... [the old people would get] food ready for themselves

êkâ **ka-wawânêyihtahkik**;
êkâ ka- wawânêyihtam -k -k
NEG IRR-worry.VTI -0 -PL
so that they would not have to worry about it;

êkwa mîn ôtawâsimisiwâwa êkâ ka-waw-~ **ka-nôhtêhkatê**yit.
êkwa mîna o(t)- awâs -im-is-wâw-a êkâ ka-nôhtêhkatê-yi-t
and also 3- child -DJ-DIM-3.PL-OBV NEG IRR-hungry.VAI-DEP-3
and so that their children would not have to go hungry.' (EM 17)

Two clauses do not have to be overtly coordinated (e.g., with *êkwa*) in order for one to be in a non-subordinative relation to the other: they may simply occur next to each other (what in this thesis I am calling clause-chains).

(89) CP CP

antecedent **anaphor**

If the two clauses have different subjects, the second one may be marked with *-yi* (as in 90).[24]

(90) [IND ê-CONJ-**yi**]

êkwa kî-omisiw, '*Sophie*' ê-isiyîhkâso**yi**t;
*êkwa kî- omisi -w S ê- isiyîhkâso **-yi** -t*
*and PREV-have.older.sister.VAI-3 S C1-thus.be.called.VAI-**DS** -3*
'And he [my husband] had an older sister, Sophie was her name;' (EM 31)

Finally, we predict that the anaphoric link may be superordinate to its antecedent, as long as the antecedent precedes it. This particular configuration was not attested in the textual data, but was confirmed to be grammatical in elicitation.

(91) CP

CP **anaphor**

antecedent

(92) [kâ-CONJ] ê-CONJ-**yi**]

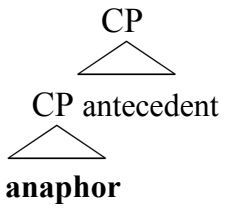
kâ-nôhtêhkatêt awâsis, **ê-atâwê**yi**t** iskwêwa mîcisowin
kâ- nôhtêhkatê -t awâsis ê- atâwê -yi -t iskwêw -a mîciso -win
C2-hungry.VAI -3 child C1-buy.VAI-DS -3 woman-OBV eat.VAI-NOM
'When the child is hungry, the woman buys food.'

4.4.2.3 C-command without precedence: *-yi* is licensed

The third configuration where we predict that an anaphoric relation may be established, is one which violates precedence, but respects c-command, as in (93).

[24] Note that *-yi* marking is not obligatory under the same conditions that *kî-* is. This is discussed in more detail in chapter 5. For the present discussion, I am concerned with where *-yi* is possible and where it is impossible.

(93)



These structures are also attested for *-yi*, as illustrated in (94). In (94) we see overt subordinators such as *iyikohk* 'instead' and *âta* 'although' in clauses that are morpho-syntactically coded as subordinate (e.g., simple CONJUNCT in 94a; *kâ-* complementizer in 94b). The antecedent clause follows the subordinate clause; since c-command is respected, the anaphoric link can be established.

(94) a. [$_{CP}$ [$_{CP}$ iyikohk ka-CONJ-**yi**] ê-kî-tôtahkik]

(i) **iyikohk ka-misiwanâtani**yi**k** anima wiyâs,
iyikohk ka- misiwanâtan -yi -k anima wiyâs
DEG IRR-be.destroyed.VII-DS-0 DEM.INAN meat
'Instead of the meat being destroyed,

(ii) êkos ânima mân ê-kî-tôtahkik, …
êkosi anima mâna ê- kî- tôtam -k -k
TOP DEM.INAN usually C1-PREV-do.VTI -0 -PL
they used to do [these things], ...' (EM 57)

b. [$_{CP}$ [$_{CP}$ âta kâ-CONJ-**yi**] kî-wîcihêwak]

(i) **âta** wiy êtokwê mâ-~, ita **k-âyimani**yi**k**,
âta wiya êtokwê ita kâ- ayiman -yi -k
although EMPH EVID LOC C2- be.hard.VII-DS -0
'Where it was hard, though,

(ii) nâpêwak mîna mâna kî-wîcihêwak wîwiwâwa, …
nâpêw -ak mîna mâna kî- wîcih -ê -w -ak wîwi -wâw -a
man -PL also usually PREV-help.VTA-DIR-3 -PL wife -3.PL -OBV
I guess the men used to help their wives, …' (EM 17)

Likewise, in (95) the subordinate *kâ*-clause modifies the following ê-clause. The *-yi* marks that the subject of the modifying clause is disjoint from the subject of the following, unmarked clause.

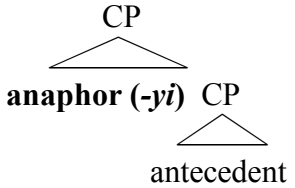
(95) [$_{CP}$ [$_{CP}$ kâ-CONJ-**yi**] ê-CONJ]

kâ-pîhtikwêyit awiya, êkos ê-asamât kîkway, ...
*kâ- pîhtikwê -**yi** -t awiy -a, êkosi ê- asam -â -t kîkway*
C2-enter.VAI-DS-3 someone-OBV, thus C1-feed.VTA-DIR-3 something
'When someone came to visit he fed them something right away, ...' (AA 1.7)

4.4.2.4 No c-command, no precedence: *-yi* is not licensed

When neither the precedence condition nor the c-command condition hold, we expect that an anaphoric-antecedent relation cannot be licensed. For example, if the clause with the potential anaphoric link is superordinated to the other clause, and is not preceded by it, we predict that the anaphoric-antecedent relation is undefined; thus *-yi* will be ungrammatical.

(96) a. *



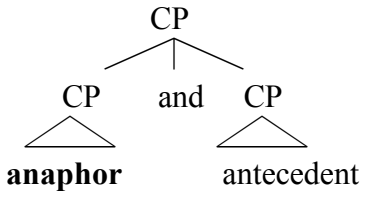
This prediction is accurate; in (97), the superordinate ê-clause has *-yi*, and the subordinate *kâ-* clause follows it. The utterance is ungrammatical.

(97) a. * [$_{CP}$ ê-CONJ-**yi** [$_{CP}$ kâ-CONJ]]

b. * **ê-atâwê**yi**t** iskwêwa mîcisowin, kâ-nôhtêhkatêt awâsis
ê- âtâwê -yi -t iskwêw -a mîciso -win kâ- nôhtêhkatê -t awâsis
C1-buy.VAI-DS-3 woman-OBV eat.VAI-NOM C2- hungry.VAI -3 child
--- (*intended*: '...the woman bought food when her child was hungry')

We also predict that the first conjunct in a coordinated structure will not be able to host *-yi*.

(98) *



This prediction is also borne out. In (99), two clauses are overtly coordinated with *êkwa*. We observe that the second coordinate may bear -*yi* marking; However, the first coordinate, crucially, is not allowed to have -*yi* marking.

(99) a. Jeff ê-nikamot êkwa Clarewa **ê-nimihito**yi**t**
J ê- nikamo -t êkwa C -wa ê- nimihito -yi -t
J C1-sing.VAI-3 and C-OBV C1-dance.VAI -DS -3
'Jeff was singing and Clare was dancing.'

b. * Jeffa **ê-nikamo**yi**t** êkwa Clare ê-nimihitot
J -a ê- nikamo -yi -t êkwa C ê- nimihito -t
J-OBV C1-sing.VAI-DS-3 and C C1-dance.VAI-3

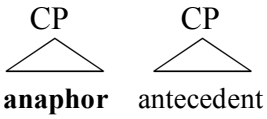
We also find that the configurations which violate both precedence and c-command are unattested in running speech. In the final row of table 4.9 above, I showed that there were four examples where a configuration similar to that in (97) arose: the superordinate clause is marked with -*yi*, and the next clause it introduces (either subordinated or coordinated) is unmarked. If the superordinate clause were anaphoric on the subordinate clause, these examples would run counter to the precedence and c-command conditions on antecedent-licensing.

However, a closer inspection shows that these are all cases where the anaphoric (i.e., the -*yi* marked) clause is anaphoric on a previous clause, and the unmarked subordinate clause is also dependent on that previous clause: they have the structure in (100):

(100) ANTECEDENT [ANAPHOR [ANAPHOR]]

For example, (101b) contains two clauses that are simply sequenced with respect to each other: *ê-ahkosiyit* ('[his father] was sick, with -*yi*) and *ê-kî-wîcihât* ('he was helping him', without -*yi*). At first glance, this looks problematic for the anaphoric account.

(101) a. *



b. ôhtâwiya **ê-âhkosi**yi**t** ê-kî-wîcihât.
o- ohtâwiy -a ê- âhkosi -yi -t ê- kî- wîcih -â -t
3- father -OBV C1-sick.VAI-DS-3 C1-PREV-help.VTA-DIR-3
'his father was ill and he was helping him.' (EM 27)

However, if we look at the immediately preceding sequence of clauses, we see that the speaker has been talking about her husband, and the things her husband did, and the way he used to work. In particular, the initial clause given in (103) is *ê-âcimostawit* 'he told me', where her husband is the subject of the clause (the overt noun occurred earlier in the discourse). The second and third clauses *nistosâp ê-itahtopiponwêt* 'he was 13 years old' and *kâ-kî-âtoskêt* 'he worked' have the same subject. Crucially, the *ê-ahkosiyit* 'he was sick' clause is in a non-initial position: it is the fourth clause and *-yi* is marking disjoint subjecthood relative to the first three clauses. The final clause *ê-wîcihât* 'he helped him' is unmarked, since it is simply a return to the subject of the initial clauses.

(102) (i) pêyakwâw ê-âcimostawit,
pêyakwâw ê- âcimostaw -it
once C1-tell.VTA -1>3
Once he told me the story of when he had begun,

(ii) nistosâp ê-itahtopiponwêt,
nistosâp ê- itahtopiponwê -t
thirteen C1-be.thus.many.winters.VAI-3
at the age of thirteen,

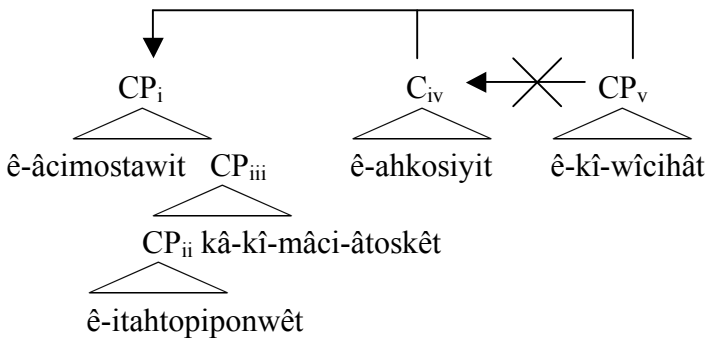
(iii) kâ-kî-mâc-âtoskêt kistikânihk;
kâ- kî- mâci- âtoskê -t kistikân -ihk
C2-PREV-start- work.VAI-3 field -LOC
to work in the fields;

(iv) ôhtâwiya **ê-âhkosi**yi**t**
o- ohtâwiy -a ê- âhkosi -yi -t
3- father -OBV C1-sick.VAI-DS-3
his father was ill

(v) ê-kî-wîcihât.
ê- kî- wîcih -â -t
C1-PREV-help.VTA-DIR-3
and he was helping him.' (EM 27)

The structure of an utterance like (103) would thus be something like (104). In particular, CP_i functions as the antecedent for both CP_{iv} and CP_v, rather than there being an anaphor-antecedent relation between CP_{iv} and CP_v.

(103)



The other cases where at first glance the conditions on antecedent-licensing appear to be contradicted all turn out to be like the one just discussed: the subject of the putative antecedent clause is the same as the subject in a clause that precedes the anaphoric clause, and in all cases there is no overt nominal on the putative antecedent clause. Thus the potentially contradictory examples turn out to be further confirmation that *-yi* in CONJUNCT clauses is behaving like anaphors in other languages.

4.5 The cross-linguistic typology of anaphoric clauses

Just like pronominal anaphora can occur in matrix and embedded clauses, anaphoric clauses crosscut the traditional syntactic division between matrix (unembedded) and subordinate (embedded) clauses. As we have seen, an anaphoric clause may be subordinated to another clause, but it may also be a matrix clause and licensed by precedence or context. Indexical clauses, on the other hand, cannot be embedded. This gives us the typology for clauses in table 4.10.

	Matrix	Embedded
Indexical	✔	✖
Anaphoric	✔	✔

Table 4.10. Anaphoricity vs. embedding

We have already seen that in Plains Cree, where I have claimed that INDEPENDENT order clauses are indexical, and CONJUNCT clauses are anaphoric, the former are restricted to matrix clauses, but the latter occur in both contexts, as expected. In this section, I compare Plains Cree's clause-typing system to two other systems.

First, I look at how anaphoric clauses relate to 'clause-chaining', a phenomena that is pervasive in the areal region of New Guinea, and also present in many North American languages. This shows that the clause-typing split in Plains Cree is not specific to the language: in order to talk about clause-chains, the same distinction between "dependency" (cf. Foley & Van Valin 1984, what I am calling anaphoricity) and embedding must be made.

Second, I look at how the anaphoric/indexical split maps onto English clause-typing. In particular, since an English matrix clause is not morpho-syntactically marked as indexical or anaphoric, we expect it to occur in both contexts. I show that we see cases of English matrix anaphoric clauses in the phenomena known as 'modal subordination' (cf. Roberts 1989).

4.5.1 Chained clauses are anaphoric clauses

In their work on the typology of inter-clausal relations, Foley & Van Valin (1984) recognize that:

> …dependence is *not* equivalent to embeddedness. That is, whether a clause is dependent in some way upon another clause is independent of whether it is embedded as an argument of another clause. As we will see, many languages possess constructions in which one unit is dependent upon another and yet is clearly not embedded in it. (Foley & Van Valin 1984:243)

Foley & Van Valin use the term *cosubordinate* for clauses which are dependent but not embedded. Cosubordination is often referred to as clause-chaining; it is a pervasive feature of many languages of the Pacific and North America (cf. Stirling 1993).

Plains Cree's unembedded anaphoric clauses share a number of properties with cosubordinate clauses. In particular, they share the same kind of dependencies (here I focus on temporal dependencies); they pattern together with respect to the division between coordination and subordination; and they both have a fixed order relative to the antecedent clause.

4.5.1.1 The significance of asymmetric marking

One of the tests by which coordination is distinguished from subordination is the *morpho-syntactic locus* test (Zwicky 1985, Kazenin & Testelets 2004). According to this test, the morpho-syntactic realization of a dependency between two constituents and the superordinate structure will depend on the relation between these two constituents. If the constituents are coordinated, then the dependency must be marked on both coordinates; but if they are not (traditionally, if one is subordinate to the other), the dependency will only be marked once. This is used, for example, to explain the double-marking of the possessive marker in (104a), which is coordinated, contrasted with the obligatory single-marking in (104b) which is subordinate.

(104) a. the king's and the queen's palace

b. the king(*'s) of England's palace (from Kazenin & Testelets 2004)

In languages which are considered to have clause-chaining, this diagnostic differentiates clause-chains from a sequence of coordinated clauses. Clause-chains are headed by a clause which is marked for a number of features relating the proposition to the speech act (e.g., evidential value, illocutionary force, polarity, and/or tense). The other clauses in the chain are *not* marked for these features, but only for same-subject or different-subject morphology relative to the marked clause. For example, in Amele (Papuan; Papua New Guinea), the marked clause is marked for what Stirling (1993) calls "Remote Past" temporal marking, but other clauses in a clause chain are not so marked.

(105) Ho bu-busal-en dana age qo-**in**
pig Sim-run_out-3sg_DS man 3Pl hit-3Pl-**RemP**
'As the pig ran out the men killed it.' (Stirling 1993: 203)

For Amele, this asymmetry in marking is one of the diagnostics for identifying clause-chains, since it indicates, according to the morpho-syntactic locus test, that the two clauses cannot be analyzed as coordinate clauses.

This means that the asymmetric marking can be used as a diagnostic for the relation between two clauses. If the dependent clauses are acting like coordinated clauses, they should require symmetric marking; conversely, if it does not require symmetric marking, then it is not a coordinated clause.

This is the asymmetry we observe for unembedded anaphoric CONJUNCT clauses. In the sequence in (106), the preverb *kî-* is a temporal sequencer which sequences the reference time relative to some evaluation time. Here, *kî-* is only marked on the initial clause; adding *kî-* to the other clauses makes the utterance ungrammatical.

(106) a. êkwa mistahi **mân** âya, ê-**kî**-papâmohtêyâhk, ANTECEDENT
êkwa mistahi mâna aya ê- kî- papâmohtê -yân-k
and much usually CONN *C1-PREV-go.about.VAI-1 -PL*
'And we used to go around a lot,

ê-wîcêwâyâhk âskaw ANAPHORIC
ê- wîcêw -â -yân-k âskaw
C1-go.VTA-DIR-1 -PL sometimes
sometimes going along with her

ê-~ **ê-papâmi-mawisot**, ANAPHORIC
ê- papâmi-mawiso -t
C1-go- pick.berries.VAI-3
as she went about berry-picking, …' (EM 17)

b. * ê-**kî**-papâmohtêyâhk, ê-**kî**-wîcêwâyâhk âskaw ê-~ ê-**kî-**papâmi-mawisot
ê- kî- papâmohtê -yân-k ê- kî- wîcêw -â -yân-k âskaw
C1-PREV-go.about.VAI-1 -PL C1-PREV-go.VTA-DIR-1 -PL sometimes

ê- kî- papâmi-mawiso -t
C1-PREV-go- pickberry.VAI-3
---

comment: there's too many *kî-'s* … It's worse to put them in, and I wouldn't

The asymmetric marking in clause chains parallels the asymmatric marking we see in subordinate clauses – only one marking is necessary, as in (107).

(107) a. **kî**-wâpahtam Jeff ê-mispohk
kî- wâpahtam -w J ê- mispon -k
PREV-see.VTI -3 J C1-snow.VII-0
'Jeff saw that it snowed.'

b. * **kî**-wâpahtam Jeff ê-**kî**-mispohk
kî- wâpahtam -w J ê- kî- mispon -k
PREV-see.VTI -3 J C1-PREV-snow.VII-0
--- (*intended*: 'Jeff saw that it snowed.')

By contrast, as expected, two overtly coordinated clauses require matching marking. For example, in Tonkawa, one clause can get its illocutionary force from a following clause (the dependent clause's dependency showing up in the switch-reference marking). If the illocutionary force (morphologically realized as the suffix *-w*) is marked on both clauses, there is a concomitant addition of an overt coordinator *ʔe:-ta* (108).

(108) a. Asymmetric marking = no coordinator

Tekekeʔe:k šʔa:pa-**ta** ke-yaše-**w**.
in.that.bush hide-SAME 1sgU-watch-IMP
'Hide in that bush and watch me.'

b. Symmetric marking = coordinator (*ʔe:-ta*)

Tekekeʔe:k šʔa:pa-**w ʔe:-ta** ke-yaše-**w**.
in.that.bush hide-IMP and-SAME 1sgU-watch-IMP
'Hide in that bush and watch me.'
(Hoijer 1949, in Foley & Van Valin 1984:258)

Plains Cree behaves like Tonkawa. If two clauses are coordinated with *êkwa* 'and/then' and both clauses have the same (presence or absence of) marking, the coordination is fine (as evidenced by the fact that the simultaneous reading can occur) (109a-b).

(109) a. Jane ê-atoskêt **êkwa** ê-mâtot
J ê- atoskê -t êkwa ê- mâto -t
J C1-work.VAI-3 and C1-cry.VAI-3
'Jane worked and cried.'
= (i) PRECEDE (work, cry)
= (ii) SIMULTANEOUS (work, cry)

b. Jane ê-**kî**-atoskêt **êkwa** ê-**kî**-mâtot
J ê- kî- atoskê -t êkwa ê- kî- mâto -t
J C1-PREV-work.VAI-3 and C1-PREV-cry.VAI-3
'Jane had worked and she had cried'
≠ (i) PRECEDE (work, cry)
= (ii) SIMULTANEOUS (work, cry)

comment: this is better if you have *êkwa* in it
comment: you're putting it in the same time

If only the second clause is marked with *kî-*, the utterance is acceptable, but the two events cannot be cotemporaneous (110a). Finally, the utterance where the first clause is marked with *kî-* degrades: the temporal relations become unclear, and the consultant volunteered a form with *êkwa* removed.

(110) a. Jane ê-atoskêt **êkwa** ê-**kî**-mâtot.
J ê- atoskê -t êkwa ê- kî- mâto -t
J C1-work.VAI-3 and C1-PREV-cry.VAI-3
'Jane is working and she had cried'
= (i) PRECEDE (work, cry)
≠ (ii) SIMULTANEOUS (work, cry)

comment: when she was at work, she looked like she had cried

b. ? Jane ê-**kî**-atoskêt **êkwa** ê-mâtot
J ê- kî- atoskê -t êkwa ê- mâto -t
J C1-PREV-work.VAI-3 and C1-cry.VAI-3
'Jane had worked and she was crying'

comment: you could say '*J ê-kî-atoskêt ê-mâtot*'

Plains Cree unembedded anaphoric clauses thus have the same behaviour as clause-chaining with respect to the morpho-syntactic locus test: they pattern with subordinate clauses, rather than coordinate clauses.

The sensitivity of unembedded anaphoric clauses to the overt coordinator *êkwa* 'and/then' means that we can use its presence as a diagnostic for the relative structure of two

clauses. If there is an overt coordinator like *êkwa*, then the two clauses are coordinated and both coordinates must be equally marked.

The data below shows that *êkwa* 'and/then' is connecting only clauses which have an overt temporal operator: the dependent clauses are not targeted by *êkwa* (cf. Ogg 1991, who claims that *êkwa* is a 'sentential' connective that is often interpreted as connecting a clause it is not adjacent to). More generally, *êkwa* 'and/then' only coordinates like constituents, and in order for two constituents to be 'alike' they must both be marked for temporal force as well as clause-typing.

We observe a sequence of nine *ê*-conjunct clauses, four of which are marked with *kî*- and five of which lack it. Relevant to the current discussion is that all of the clauses which are marked with the temporal sequencer *kî*- are also marked with an overt clausal sequencer *êkwa* (and, in all cases but one, with the habitual *mâna* as well).

(111) kiyâm âta kâ-pipok, âhci piko **mân** ê-**kî**-yîkinikêt nikâwînân.
kiyâm âta kâ-pipon -k âhci piko mâna ê- kî- yîkinikê -t ni- kâwî -nân
even though C2-winter.VII-0 still QUANT usually C1-PREV-milk.VAI -3 1- mom -1PL
'Even during the winter our mother would still milk the cows.

êkwa mistahi **mân** âya, ê-**kî**-papâmohtêyâhk,
êkwa mistahi mâna aya ê- kî- papâmohtê -yân -k
and much usually CONN C1-PREV-go.around.VAI-1 -PL
And we used to go around a lot,

ê-wîcêwâyâhk âskaw ê-~ ê-papâmi-mawisot,
ê- wîcêw -â -yân -k âskaw ê- papâm -i- mawiso -t
C1-go.along.VTA-DIR-1 -PL sometimes C1-around-PV-pick.berries.VAI-3
sometimes going along with her as she went about berry-picking,

êkwa ê-**kî**-nayahtahk **mâna** mînisa aya,
êkwa ê- kî- nayahtam -k mâna mînisa aya
and C1-PREV-carry.on.back.VTI-0 usually berries CONN
and she used to carry the berries on her back

ê-pê-kîwêhtatât
ê- pê- kîwêhtat -â -t
C1-COME-go.home.VTA-DIR-3
and bring them back home,

êkwa ê-**kî**-pâsahk misâskwatômina.
êkwa ê- kî- pâsam -k misâskwatômin -a
and C1-PREV-dry.VTI-0 berry -PL
and she used to dry saskatoons.

êkwa mîna takwahiminâna **mân** ê-**kî**-takwahahk,
êkwa mîna takwahiminân -a mâna ê- kî- takwaham -k
and also choke.cherry -PL usually C1-PREV-pound.VTI -0
And she also used to pound chokecherries

ê-pâsahk êkoni; kâ-pipok êkoni ê-mîciyâhk.
ê- pâsam -k êkoni kâ- pipon -k êkoni ê- mîci -yân -k
C1-dry.VTI-0 TOPIC C2-winter.VII-0 TOPIC C1-eat.VTI-1 -PL
and dry them; these we ate during the winter.' (EM 17)

4.5.1.2 Fixed relative order of the anaphoric clause and antecedent clause

Another classic feature of clause-chains is that the order of the dependent clause relative to the main clause is fixed.

In many of the languages discussed (Longacre 1983, Stirling 1993), the order is [dependent main]; i.e., they are head-final.

(112) [dependent] [main] Tonkawa

[Tekekeʔe:k šʔa:pa-**ta**] [ke-yaše-**w**].
in.that.bush hide-SAME 1sgU-watch-IMP
'Hide in that bush and watch me.' (Hoijer 1949, in Foley & Van Valin 1984:258)

In Plains Cree, the main (antecedent) clause always precedes the dependent (anaphoric) clause. Under the current analysis, the ordering facts predict that in head-final clause-chains the dependent clauses must be subject to c-command. This is a question I am not prepared to answer since I am not familiar enough with the relevant languages. However, in further research, I suspect this would be relevant to Givón's (2001) discussion about head-initial vs. head-final "clause-chains." A supporting piece of evidence that this prediction is on the right track is that anaphoric clauses can be matrix clauses (i.e., are not subject to c-command); to my knowledge, dependent clauses in a clause-chain cannot (Stirling 1993) (i.e., indicating they are subject to c-command).

In each of the following examples, the initial antecedent clause is marked with *kî-*, while the anaphoric clauses follow them. The antecedent clauses also have additional temporal particles, including habitual *mâna* 'usually', the connective *êkwa* 'and' and/or the connective *mîna* 'and/also'. Here the point I wish to make is that all of the sequencing elements are showing up on the same clauses, rather than being distributed across the clauses.

(113) ê-**kî**-sipwêpicicik **mân** ANTECEDENT
ê- kî- sipwêpici -t -k mâna
C1-PREV-move.VAI -3-PL usually
'they would move their camps out

ê-nitawi-wîkicik êkotê, … ANAPHORIC
ê- nitawi- wîki -t -k êkotê
C1-go- live.VAI-3-PL there
and go to live out there, …' (EM 12)

(114) **êkwa mîn** ê-**kî**-nitâmisohk ANTECEDENT
êkwa mîna ê-kî- nitâmiso -hk
and also C1-PREV-look.for.berries.VAI-USC
'And people used to look for berries

ê-mawasohk, … ANAPHORIC
ê- mawaso -hk
C1-pick.berries.VAI-USC
and pick berries, …' (AA 9.2)

(115) ANTECEDENT
mâka mân êkotê mîna, iyikohk **mân** ê-**kî**-papâmipiciyâhk misiw îtê north,
mâka mâna êkotê mîna iyikohk mâna ê- kî- papâmipici -yân -k misiwê itê north
but usually there also DEG usually C1-PREV-move.VAI -1 -PL all there north
'But we also **used to** move our camp about so much, all over the north,

ê-minahocik, ANAPHORIC
ê- minaho -t -k
C1-hunt.VAI-3-PL
they killed animals

ê-mawasoyâhk kâ-nîpihk, … ANAPHORIC
ê- mawaso -yân -k kâ- nîpin -k
C1-pick.berries.VAI-1 -PL C2-summer.VII-0
and we picked berries in the summer, …' (AA 1.4)

As we saw earlier in the chapter, an unembedded anaphoric clause cannot precede its antecedent; an example of this is given in (116).

(116) a. nîcêwâkan ê-pê-wîtatoskêmit, [**ê-ahkosiyit wîwa**]
ni- wîcêwâkan ê- pê- wîtatoskêm -it ê- ahkosi -yi -t w- îw -a
1- friend C1-COME-work.with.VTA-3>1 C1-sick.VAI-DS-3 3- wife-OBV
'…my friend came to work with me, his wife was sick.'

b. ! [**ê-ahkosiyit wîwa,**] nîcêwâkan ê-pê-wîtatoskêmit
ê- ahkosi -yi -t w- îw -a ni- wîcêwâkan ê- pê- wîtatoskêm -it
C1-sick.VAI-DS-3 3- wife-OBV 1- friend C1-COME-work.with.VTA-3>1
--- (*intended*: '...his wife was sick, my friend came to visit me.')

4.5.2 English modally subordinated clauses are anaphoric clauses

I have claimed that the indexical/anaphoric distinction in Plains Cree clauses is directly mapped into the morpho-syntactic distinction between INDEPENDENT and CONJUNCT order clauses. However, the analysis predicts that even in a language which does not morphologically distinguish between these two clause-types, such as English, there should still be semantic evidence for the distinction between indexical and anaphoric clauses

In English, the indexical/anaphoric distinction is most clearly seen by contrasting a matrix clause and an embedded one. Without any other context, the matrix clause (117a) is taken as presenting a proposition that the speaker believes (i.e., an indexical clause), and the embedded clause (117b) as presenting a proposition that the islanders (i.e., the subject of the higher clause) believe (i.e., an anaphoric clause).

(117) a. **Death is never natural**.

b. The islanders believe **that death is never natural**.

However, a proposition in a matrix clause can also be interpreted relative to a preceding clause, in a phenomena identified by Roberts (1989) as 'generalized modal subordination'. In modal subordination, unembedded clauses are in the (discourse) scope of some operator in a previous clause: no overt modal operator, nor any other type of morpho-syntactic distinction is necessary (although the cases where an overt modal is present are by far the most common cases discussed in the literature).

Consider the following example, a paragraph consisting of three 'sentences'.[25]

(118) The islanders believe a lot of strange things about the world. Death is never natural and each death must be avenged. The gods punish those who do not avenge the death of their family members. (from Farkas 1992:88)

The first sentence makes a claim about the islanders and their beliefs. The next two sentences are interpreted as elaborations on this claim: as English readers, we understand the propositions 'death is never natural' 'each death must be avenged' and 'the gods punish those who do not avenge the death of their family members' to be things that the islanders believe (and not, for example, something that the writer believes).

(119) The islanders believe p_1, p_2, p_3 INDEXICAL

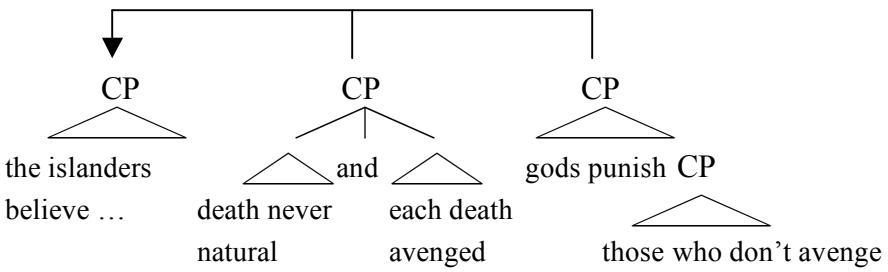
p_1: Death is never natural ANAPHORIC

p_2: Each death must be avenged ANAPHORIC

p_3: The gods punish those who do not avenge the death of their family members. ANAPHORIC

In terms of their interpretation, then, these propositions behave like an embedded proposition rather than an (indexical) matrix clause, even though they are morphologically indistinguishable from the latter.

(120)



Roberts (1989) characterizes clauses that are modally subordinated having a 'telescoping' function, where the modally subordinated clauses are in a part-whole or subset-set relation to the antecedent clause.

[25] When one starts looking at English discourse through this perspective, examples appear in abundance: in newspapers, in letters, in stories, in conversations; it is an important issue to investigate more thoroughly in future research.

Contexts like (118) are exactly where we see the indexical/anaphoric distinction marked in Plains Cree, as in the following example (121). The first line contains an indexical INDEPENDENT clause *nikiskisin* 'I remember'. The following anaphoric CONJUNCT clauses provide the details of what she remembered – they are all interpreted relative to the indexical clause. We also see internal structure of the sequence of anaphoric clauses: clauses (ii), (iv), (vi), (xi), and (xii) are marked with the temporal sequencer *kî-* and correspond to either a change of subject or an overt nominal (i.e., the temporal anaphora and pronominal anaphora are working in tandem, as expected by discourse analysis done on other languages; cf. Givón 2001, Smith 2003, among others). The first anaphoric clause introduces *pêyak êkota mâna kisêyiniw* 'a certain old man'; the subject changes in (iv) and (vi), and an overt nominal is used in (xi) and (xii). In these and only these cases, the clause is marked with *kî-*: the temporal anchoring and referential anchoring are working in tandem.[26]

(121) (i) mâcik êkospî anima **nikiskisin** kâ-mîhcinêhk anima, aya, INDEPENDENT
mâcik êkospî anima ni- kiskisi -n
wait.and.see then DEM.INAN 1- remember.VAI-SAP

kâ- mêhcinêhk anima aya
C2-die.out.VAI DEM.INAN CONN
'For instance I remember how, at the time of the great epidemic

(ii) pêyak êkota mâna **kisêyiniw**, cîki nikî-wa-wîtapimâkaninân,
pêyak êkota mâna kisêyiniw cîki ni-kî- wa- wîtapimâkani -nân
one there usually old.man close 1- PREV-RED-neighbor.VAI -1PL
a certain old man, a close neighbour of ours,

iyikohk **ê**-kî-**papâmi-pamihtâsot**, CONJUNCT
iyikohk ê- kî- pâpâmi- pamihtâso -t
DEG C1-PREV-go.about-tend.VAI -3
went about looking after the sick

(iii) ê-papâm-âh-a-~-pâh-pîhtikwêt wâskahikana, CONJUNCT
ê- papâm- pâh- pîhtikwê -t wâskahikan -a
C1-go.about-RED-go.inside.VAI -3 house -PL
going into each of the houses

[26] In line (ii), there is an additional INDEPENDENT clause: *cîki nikî-wa-wîtapimâkaninân* 'he was a close neighbor of ours'. Notice that this clause functions as a parenthetical – the speaker's comment to the side about the person she is talking about – the indexical clause has the expected disconnect from the discourse of the main story line of the man's actions during the epidemic.

(iv) mistah âyis anim **ê-**kî-**âhkosihk** sôskwâc, CONJUNCT
mistahi ayis anima ê- kî- âhkosi -hk sôskwâc
very for DEM.INAN *C1-PREV-sick.*VAI *-*USC *just*
for the people were extremely sick

(v) iyikohk mihcêt kâ-kî-nipicik; CONJUNCT
iyikohk mihcêt kâ-kî- nipi -t -k
DEG *many C2-PREV-die.*VAI*-3-PL*
and there were so many who died

(vi) ê-**kî**-papâmi-pîhtikwatâ**t** mihta, CONJUNCT
ê- kî- papâmi -pîhtikwatâ -t mihta
*C1-PREV-go.about-carry.inside.*VAI*-3 firewood*
he went about hauling wood

(vii) nipiy ê-astâ**t**, CONJUNCT
nipiy ê- astâ -t
*water C1-place.*VAI*-3*
and filling up the water supply,

(viii) êkwa kahkiyaw kîkway ê-tôta**hk**, CONJUNCT
êkwa kahkiyaw kîkway ê- tôtam -k
*and all thing C1-do.*VTI *-0*
doing everything,

(ix) kiyîsîhtâci pêyak wâskahikan, CONJUNCT
iy- kîsîhtâ -t -i pêyak wâskahikan
IC*-finish.*VAI*-3-*SUBJ *one house*
and when he had finished one house,

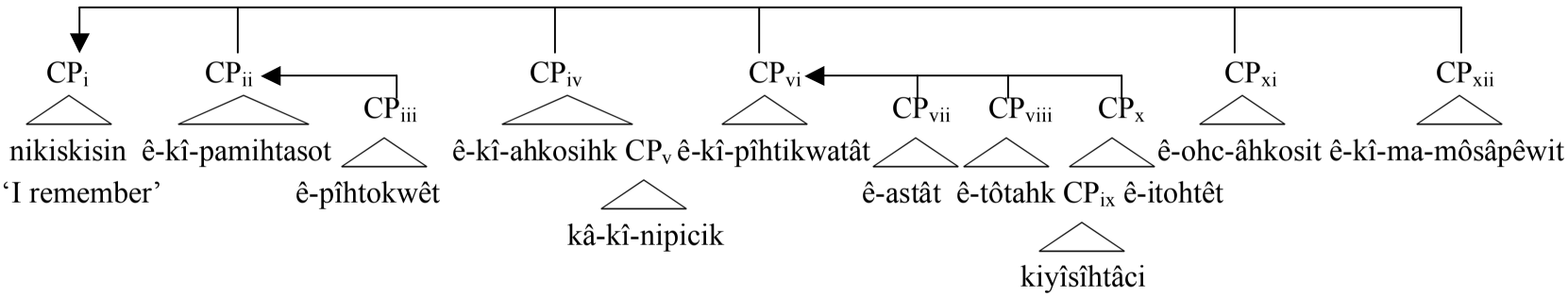
(x) kotakihk ê-itohtê**t**; CONJUNCT
kotak -ihk ê- itohtê -t
*other -*LOC *C1-go.*VAI *-3*
he went to the next;

(xi) môy ê-**ohc**-âhkosi**t** êwakw ân[a] âna **kisêyiniw**, CONJUNCT
môya ê- ohci- âhkosi -t êwakw ana ana kisêyiniw
NEG *C1-PREV-sick.*VAI*-3* TOP DEM.AN DEM.AN *old.man*
that old man did not get sick,

(xii) ê-**kî**-ma-môsâpêwit ana **kisêyiniw**. CONJUNCT
ê- kî- ma- môsâpêwi -t ana kisêyiniw
*C1-PREV-RED-widower.*VAI*-3* DEM.AN *old.man*
that old man was a widower.' (AA 1.9)

Taking the correlation of *kî*-marking and reference-tracking to indicate structure, the utterance in (121) can be structurally represented as in (122).

(122)



In this structure, the arrows flow from the anaphoric clause to its antecedent. Subordinate clauses are embedded under their antecedent clause, non-subordinate clauses are not (regardless of their anaphoric status).

There is an initial indexical clause *nikiskisin* 'I remember' and then five clauses (ii, iv, vi, xi, and xii) anaphorically dependent on the indexical clause. Clauses (ii) and (vi) also serve as anchors for the anaphorically dependent clauses (iii), (vii), (viii) and (x). There are also two subordinate clauses: clause (v) is subordinated to clause (iv), and clause (ix) is subordinated to clause (x).

Roberts suggests that modal subordination in English could be semantically modelled using situation semantics: a clause that is modally subordinated with respect to some other clause must be given a situation in which to be evaluated. This is formally very similar to the analysis proposed here for anaphoric clauses (i.e., the situation in which the proposition of an anaphoric clauses is anaphorically given). The current analysis thus offers a way to understand the semantic similarities of unembedded-but-modally-subordinated and embedded clauses in English.

4.6 Summary

This chapter has talked about anaphoric clauses, which take the form of CONJUNCT clauses in Plains Cree. Taking Williams' (1997) observed patterns for licensing dependencies between anaphors and antecedents as a starting point, I showed that anaphoric CONJUNCT clauses have all of the familiar patterns of pronominal anaphors. If they are embedded, they are insensitive to precedence; if they are unembedded, precedence must be respected. This pattern directly parallels the distribution of pronominal anaphors. Second, anaphoric CONJUNCT clauses have the same kinds of discourse-dependencies that pronominal forms do: they are infelicitous in out-of-the-blue contexts.

Finally, variables within anaphoric CONJUNCT clauses have relations to their antecedents that are subject to the c-command and precedence conditions seen for pronominal anaphora.

In the next chapter I turn to the syntax of these anaphoric clauses.

CHAPTER 5
THE SYNTAX OF ANAPHORIC CLAUSES

5.1 Proposal: Chained, adjoined, and mediated argument clauses

In the last chapter I established that anaphoric CONJUNCT clauses contain dependent elements whose antecedent must be either in a preceding or c-commanding clause. In this chapter, I turn to the nature of the structural relations that may hold between an anaphoric clause and the antecedent clause. Differentiating relations between clauses has typically been difficult in Plains Cree for multiple reasons. For one thing, there is not much inflectional clause-typing morphology to distinguish between clauses. Anaphoric clauses in Plains Cree come in five morpho-syntactic flavors, as shown in table 5.1.

PLAINS CREE CONJUNCT 'modes'	FORM	GLOSS
changed conjunct (1)	**ê**- nipât	…s/he is sleeping
changed conjunct (2)	**kâ**-nipât	when s/he sleeps
(iterative) changed conjunct	n**ê**pâci	whenever s/he slept
(subjunctive) simple conjunct	nipâc**i**	if/when s/he sleeps
(irrealis) simple conjunct	**ka**-nipât	him/her to sleep

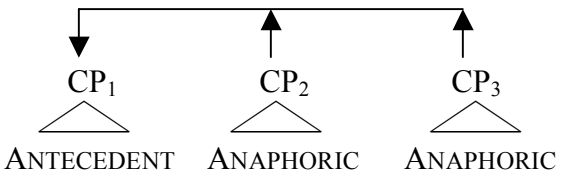
Table 5.1. Morpho-syntactic classification of anaphoric CONJUNCT clauses

However, as we will see, the morpho-syntax of the verbal complex often cross-cuts the syntactic classes; for example, all five classes in table 5.1 seem to behave in some contexts as adjunct clauses.

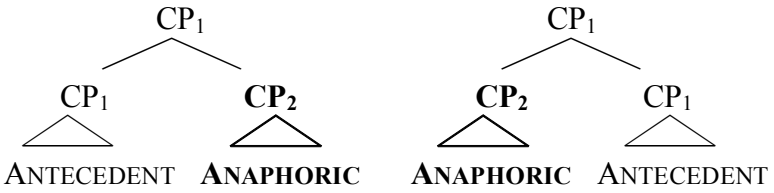
A second – albeit related – problem is that some of the diagnostics used for distinguishing different syntactic relations between clauses in languages like English are not directly applicable to Plains Cree (Blain 1997, Long 1999); language-internal diagnostics are needed in order to develop an accurate classification.

In this chapter, I propose that anaphoric clauses can be divided into three classes: chained clauses as in (1), adjoined clauses as in (2), and mediated argument clauses (including both object- and subject-mediated clauses) as in (3).

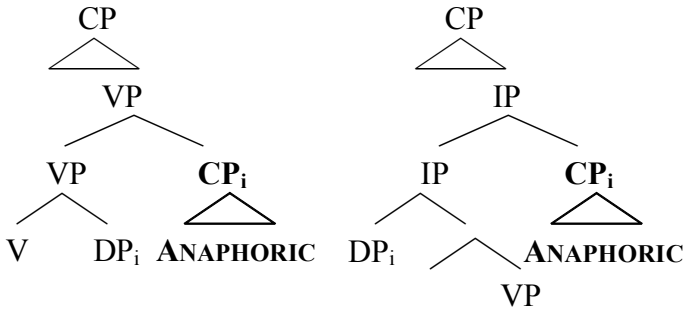
(1) CHAINED CLAUSES



(2) a. Right-adjoined a. Left-adjoined ADJOINED CLAUSES



(3) a. Object-mediated b. Subject-mediated MEDIATED ARGUMENT CLAUSES



In terms of the relation between anaphoric clauses and their antecedent, chained clauses are excluded from the antecedent clause in the sense of May (1985), Chomsky (1986): no part of the antecedent clause dominates the anaphoric clause. Adjunct clauses are c-commanded by the clause they are adjoined to. Argument-mediated clauses are c-commanded by the clause they they are adjoined to, and in addition are licensed by an argument position. In §5.2, I lay out the two classes of diagnostics I use motivate my tripartite division: exclusion tests, and island tests. In §5.3, I walk through the exclusion diagnostics and show that they pick out chained clauses (those that are not c-commanded by any other clause). In §5.4, I walk through the c-command diagnostics and show that they pick out argument-mediated clause (those that are licensed by an argument position). Finally, in §5.5, I look at the implications of the analysis with respect to (i)

the non-existence of argument clauses; (ii) complementation; and (iii) the syntax of copy-to-object constructions.

5.2 The diagnostics

I use two classes of tests to pick out the three syntactic classes of clauses.

5.2.1 Exclusion tests

Exclusion tests are tests that pick out something which is excluded, as defined in (4).

(4) **Exclusion**$_{def}$: element α is excluded iff there is no element β that dominates it

I use three exclusion tests:

(i) sensitive to precedence,

(ii) necessity of prosodic breaks; and

(iii) ability to be a matrix clause.

Exclusion tests should uniformly isolate chained clauses as opposed to adjoined or mediated argument clauses. In the case of precedence and prosodification tests, the test shows that the relevant process is obligatory for chained clauses but optional for for adjoined and argument mediated clauses. In the case of the matrix clause tests, we observe that chained clauses may always be matrix clauses, but adjoined and mediated argument clauses sometiems cannot.

5.2.2 Island tests

Island tests are so-called after Ross (1967), who discovered that adjuncts are "islands" - they do not allow elements to escape from them – but arguments are not. Following work arguing that

(mediated) argument clauses fail to be islands because of their relation to an argument position, I use these tests to isolate mediated argument clauses as opposed to chained or adjoined clauses. There are three island tests:

(i) wh-fronting

(ii) quantifier-fronting

(iii) argument expression-fronting

In all of these cases mediated argument clauses allow fronting of the relevant element, but adjoined and chained clauses do not.

5.3 Applying the exclusion tests

The first set of diagnostics pick out chained clauses as opposed to adjoined and mediated argument clauses.

5.3.1 Linear precedence

Recall that anaphora must be licensed either by the c-command condition or the precedence condition. If an anaphoric clause fails to be licensed by c-command, then we expect that it must be subject to the precedence condition: otherwise, it could not be anaphoric. Thus we expect the following pattern.

	CHAINED	ADJOINED	MEDIATED ARG.
Always subject to precedence?	✔	✖	✖

Table 5.2. Diagnostic 1: Subjection to precedence

This is what we find, as exemplified in each of the next three subsections.

5.3.1.1 Chained clauses must follow their antecedent

Chained clauses must follow the antecedent clause that licenses them. As expected, reversing the order of a chained anaphoric clause with respect to the antecedent clause is not possible.

(5) a. [antecedent] [chained clause]

b. * [chained clause] [antecedent]

In (6) the antecedent clause contains the temporal shifting preverb *kî-*, the habitual *mâna* 'usually' and the overt nominal *awâsisak* 'children'; the anaphoric clause *ê-nikamocik* '…they used to sing' must follow it.[1]

(6) a. [ê-kî-pê-itohtêcik mâna awâsisak,] [**ê-nikamocik**] CHAIN
ê- kî- pê- itôhtê -t -k mâna awâsis -ak ê- nikamo -t -k
C1-PREV-COME-go.VAI-3-PL usually child -PL C1-sing.VAI-3-PL
'…the children used to come and they used to sing.'

b. ! [**ê-nikamocik,**] [ê-kî-pê-itohtêcik mâna awâsisak]
ê- nikamo -t -k ê- kî- pê- itôhtê -t -k mâna awâsis -ak
C1-sing.VAI-3-PL C1-PREV-COME-go.VAI-3-PL usually child -PL
--- (*intended*: '…the children used to come and they used to sing.')

Similarly in (7), the anaphoric clause contains the different-subject marker *-yi*, and in order to get the chained interpretation, it must follow its antecedent clause.

(7) a. nîcêwâkan ê-pê-wîtatoskêmit, [**ê-âhkosiyit wîwa**] CHAIN
ni- wîcêwâkan ê- pê- wîtatoskêm -it ê- âhkosi -yi -t w- îw -a
1- friend C1-COME-work.with.VTA-3>1 C1-sick.VAI-DS-3 3- wife-OBV
'…my friend came to work with me, his wife was sick.'

b. ! [**ê-âhkosiyit wîwa,**] nîcêwâkan ê-pê-wîtatoskêmit
ê- âhkosi -yi -t w- îw -a ni- wîcêwâkan ê- pê- wîtatoskêm -it
C1-sick.VAI-DS-3 3- wife-OBV 1- friend C1-COME-work.with.VTA-3>1
--- (*intended*: '…his wife was sick, my friend came to visit me.')

[1] Recall that the exclamation point indciates a string that may be well-formed under some interpretation, but not well-formed with the particular interpretation being tested. See chapter 1 for details.

5.3.1.2 Adjoined clauses can precede their antecedent

By contrast, adjoined clauses are c-commanded by their antecedent, so we expect that they will be able to either precede or follow the antecedent. This expectation is also borne out, as exemplified by adjunct clauses which are introduced by subordinating particles (e.g., subordinate negation *êkâ* in (8)), by the clause-typing (e.g., *kâ-* in (9)).

(8) a. nisipwêhtân **êkâ ê-miyomâcihoyân** ADJUNCT
ni-sipwêhtâ -n êkâ ê- miyomâciho -yân
1-leave.VAI -SAP NEG C1-feel.well.VAI -1
'I left because I wasn't feeling well.'

b. **êkâ ê-miyomâcihoyân**, nisipwêhtân
êkâ ê- miyomâciho-yân ni-sipwêhtâ-n
NEG C1-feel.well.VAI-1 1-leave.VAI-SAP
'I left because I wasn't feeling well.'

(9) a. Jane **kâ-mêkwâc-atoskêt** âhkosiwipayiw ADJUNCT
J kâ- mêkwâ- atoskê -t âhkosiwipayi -w
J C2-MIDST- work.VAI-3 get.sick.VAI -3
'When Jane was working, she got ill / sick'

b. Jane âhkosiwpayiw **kâ-mêkwâc-atoskêt**
J âhkosiwpayi -w kâ-mêkwâ- atoskê -t
J get.sick.VAI -3 C2-MIDST- work.VAI-3
'When Jane was working, she got ill / sick'

comment: it's the same as [a]

This data demonstrates that, although embedded clauses may prefer one of the two positions relative to the superordinate clause (cf. Dahlstrom 2006 for Fox), both positions are in principle available (see also the discussion in chapter 4).

5.3.1.3 Mediated argument clauses usually (but not always) follow their antecedent

The ordering of mediated argument clauses relative to the main clause is more complicated than adjoined clauses. On the one hand, this class of clauses can be interpreted both when it precedes and follows the main clause; in this sense it does not look like chained clauses.

(10) a. wâpahtam Jeff **ê-kî-mispohk** VOLUNTEERED
wâpahtam-w J ê- kî- mispon -k
see.VTI -3 J C1-PREV-snow.VII-0
'Jeff saw that it had snowed.'

a. ? **ê-kî-mispohk** Jeff wâpahtam PRESENTED
ê- kî- mispon -k J wâpahtam-w
C1-PREV-snow.VII-0 J see.VTI -3
'Jeff saw that it had snowed.'

comment: it means 'Jeff saw that it had snowed.' But I would say it [the other way]

However, as the consultant's comment indicates, an order where the embedded clause precedes the higher clause is quite artificial. It is not an order that is seen in running speech, speakers never volunteer this order (in marked contrast to many adjoined clauses), and often comment that they would not use such utterances.

More importantly, with some of these clauses, the embedded clause is judged completely bad if it precedes the c-commanding clause. This includes both irrealis object-mediated clauses in (11) and subject-mediated clauses (12).

(11) a. ninitawêyihtên **ka-mîcisoyân** MEDIATED OBJECT
ni- nitawêyihtê -n ka- mîciso -yân
1- want.VTI -SAP IRR-eat.VAI -1
'I would like to eat.'

b. * **ka-mîcisoyân** ninitawêyihtên
ka- mîciso -yân ni- nitawêyihtê -n
IRR-eat.VAI -1 1- want.VTI -SAP
--- (*intended*: 'I would like to eat.')

(12) a. miywâsin **ôma ê-pê-itohtêt John** MEDIATED SUBJECT
miywâsin ôma ê- pê- itohtê -t J
good.VII DEM.INAN C1-COME-go.VAI-3 J
'It's good that John came.'

b. * **ôma ê-pê-itohtêt John**, miywâsin
ôma ê- pê- itohtê -t J miywâsin
DEM.INAN C1-COME-go.VAI-3 J good.VII
--- (*intended*: 'It's good that John came.')

Thus, mediated argument clauses have a restriction on them that adjoined clauses do not. I will return to this issue in §5.5.1.

5.3.2 Ability to be a matrix clause based on morpho-syntax

Since chained clauses are not embedded as a constituent of some other clause, we expect them to have more independence than adjoined and mediated argument clauses, which are constituents. If a clause cannot stand on its own, by part-whole logic, it must be a part of some constituent. Conversely, if a clause is not part of some constituent, it must be able to stand on its own.

Therefore, we expect that clauses which participate in chaining structures should always be able to occur as matrix clauses, while those which are embedded under another clause will not have to, as summarized in table 5.3.

	CHAINED	ADJOINED	MEDIATED ARG.
Always subject to precedence?	✔	✖	✖
Always has matrix capability?	✔	✖	✖

Table 5.3. Diagnostic 2: Matrix capability

This accounts for the relation between the morpho-syntactic clause-type allowed in chained, adjoined, and mediated argument clauses, and the ability of the of the clause to be a matrix clause.

There are four morpho-syntactic clause-types possible, as in (13); only anaphoric *ê-* clauses are possible in matrix environments.

(13) a. * **kâ**-wâpamak atim
kâ- wâpam -ak atim
C2- see.VTA-1>3 dog
---

b. * **ka**-wâpamak atim
ka- wâpam -ak atim
IRR-see.VTA -1>3 dog
---

c. * wâpamak**i** atim
wâpam-ak -i atim
see.VTA-1>3-SUBJ dog
---

d. **ê**-wâpamak atim
ê- wâpam -ak atim
C1-see.VTA-1>3 dog
'…I see a dog.'

On the basis of the data in (13), in each of the next three subsections, I show the mapping between each syntactic class of clauses and the ability of a form to be a matrix clause. We will see that chained clauses are always capable of being matrix clauses, but adjoined and mediated argument clauses are not, as expected.

5.3.2.1 Chained clauses are always capable of being matrix clauses

Only *ê*-CONJUNCT clauses can stand on their own (Cook 2007), and only *ê*-CONJUNCT clauses can occur in chains. There is a one-to-one mapping between participating in a clause chain and being a matrix clause.

Clause-type	Matrix clause?	CHAINED
kâ-CONJUNCT	✖	✖
simple CONJUNCT (w/ *ka-*)	✖	✖
subjunctive CONJUNCT (w/ *-i*)	✖	✖
ê-CONJUNCT	✔	✔

Table 5.4. Only potential matrix clauses can be chained clauses

5.3.2.2 Adjoined clauses are not always capable of being matrix clauses

Unlike chained clauses, adjoined clauses can be any of the four clause-types; not all adjoined clauses can be matrix clauses. This is expected, since adjoined clauses are by part of a larger clause.

Clause-type	Matrix clause?	ADJOINED
kâ-CONJUNCT	✖	✔
simple CONJUNCT (w/ *ka-*)	✖	✔
subjunctive CONJUNCT (w/ *-i*)	✖	✔
ê-CONJUNCT	✔	✔

Table 5.5. Adjoined clauses need not have potential to be matrix clauses

5.3.2.3 Mediated argument clauses are not always capable of being matrix clauses

Mediated argument clauses employ two different clauses types (*ê-* and simple CONJUNCT). Not all mediated argument clauses can be matrix clauses. Again, this is consistent with them being part of a larger clause.

Clause-type	Matrix clause?	MEDIATED ARGUMENT
kâ-CONJUNCT	✖	✖
simple CONJUNCT (w/ *ka-*)	✖	✔
subjunctive CONJUNCT (w/ *-i*)	✖	✖
ê-CONJUNCT	✔	✔

Table 5.6. Mediated argument clauses need not have potential to be matrix clauses

5.3.3 Prosodification

In Plains Cree running speech, the prosodic break between two clauses can be marked by up to four properties (pitch shift, amplitude shift, final-syllable lengthening, and a pause), with an overall correlation between the degree of clausal-relatedness and the degree of intonational

(in)dependence (Cook 2006). These findings are consistent with cross-linguistic findings that syntactic integration of two clauses corresponds with prosodic integration (Chafe 1988).

This means we expect chained clauses, which are not a constituent (i.e., part) of another clause, to not be prosodically integrated with the antecedent clause, whereas adjoined and mediated argument clauses may be prosodically integrated.

	CHAINED	ADJOINED	MEDIATED ARG.
Always subject to precedence?	✔	✖	✖
Always has matrix capability?	✔	✖	✖
Requires intonational break?	✔	✖	✖

Table 5.7. Diagnostic 3: Intonational break

Again the following subsections show the relevant data patterns as expected.

5.3.3.1 Chained clauses require an intonational break

Consultants impose prosodic requirements chained clauses in elicitation contexts: chained clauses can only be constructed if there is minimally a pause (and often a corresponding pitch and amplitude shift) at the end of each clause (marked orthographically with a comma).

(14) a. ê-kî-kîs-kimiwahk**,** Tom **ê**-pimohtêt CHAIN
ê- kî- kîs- kimiwan-k T ê- pimôhtê -t
C1-PREV-FINISH-rain.VII -0 T C1-walk.VAI-3
'It had stopped raining, Tom was walking.'

b. ! ê-kî-kîs-kimiwahk Tom **ê**-pimohtêt
ê- kî- kîs- kimiwan-k T ê- pimôhtê -t
C1-PREV-FINISH-rain.VII -0 T C1-walk.VAI-3
--- (*intended*: 'It had stopped raining, Tom was walking.')

5.3.3.2 Adjoined clauses do not require an intonational break

Adjoined clauses do not require a prosodic break. When asked, consultants will often allow a prosodic break, but comment that "it isn't necessary"; they do not volunteer it.

(15) a. ? ê-kî-kîs-kimiwahk**,** Tom **kâ**-pimohtêt ADJUNCT
ê- kî- kîs- kimiwan-k T kâ-pimôhtê -t
C1-PREV-FINISH-rain.VII -0 T C2-walk.VAI-3
'It had stopped raining when Tom went walking.'

b. ê-kî-kîs-kimiwahk Tom **kâ**-pimohtêt
ê- kî- kîs- kimiwan-k T kâ-pimôhtê -t
C1-PREV-FINISH-rain.VII -0 T C2-walk.VAI-3
'It had stopped raining when Tom went walking.'

This is expected in that adjoined clauses are also syntactically integrated into a higher clause.

5.3.3.3 Mediated argument clauses do not require an intonational break

Mediated argument clauses pattern with adjoined clauses: they do not require an intonational break between the two clauses. Thus the intonational break in (16a) is dispreferred; while an integrated prosodic contour (i.e., without a pause) is appropriate (16b).

(16) a. ? ana nâpêw nitawêyimêw**,** anihi iskwêwa ka-nimihitoyit MEDIATED ARGUMENT
ana nâpêw nitawêyim -ê -w anihi iskwêw -a ka-nimihito -yi -t
DEM.AN man want.VTA -DIR-3 DEM.OBV woman -OBV IRR-dance.VAI-DEP-3
'That man wants that woman to dance.'

b. ana nâpêw nitawêyimêw anihi iskwêwa ka-nimihitoyit
ana nâpêw nitawêyim -ê -w anihi iskwêw -a ka-nimihito -yi -t
DEM.AN man want.VTA -DIR-3 DEM.OBV woman -OBV IRR-dance.VAI-DEP-3
'That man wants that woman to dance.'

5.3.4 Interim summary

In this section I showed that chained clauses have a set of properties that can be derived from analyzing them as excluded clauses:

(i) since they are not c-commanded by any other clause, they are sensitive to precedence;

(ii) as excluded clauses, we have independent evidence that they can occur in matrix clause environments;

(iii) an intonational break is required between chained clauses, indicating that they are not as closely syntactically integrated.

In the next section I apply the second set of diagnostics, those that pick out mediated argument clauses as opposed to any other clauses.

5.4 Applying the island tests

A classic test for argument-adjunct (or, more neutrally, argument/non-argument) distinctions is island effects – the (in)ability of an element to escape out a clause (CP) and occur in a non-local position relative to it, as illustrated in (17) (Ross 1967, Chomsky 1977, Huang 1982, Manzini 1992, among many others).

(17) ... α … XP … [$_{CP}$ …

Since at least Ross (1967) it has been noticed that CPs which are adjoined to a higher CPs, rather than being associated with an argument position, act as islands for various kinds of movement operations (e.g., wh-movement, focus-movement).

(18) Extraction from clause associated with object position

a. Nettie knows I like **ice cream**.

[$_{CP}$ [$_{IP}$ Nettie knows [$_{CP}$ I like **ice cream**]]]

b. **What** does Nettie know I like?

[$_{CP}$ **What** does [$_{IP}$ Nettie know [$_{CP}$ I like $\mathbf{t_i}$]]]

(19) Extraction from adjoined clause

a. Denver laughs when I eat ice cream.

[$_{CP}$ [$_{IP}$ Denver laughs] [$_{CP}$ when I eat ice cream]]

b. * What does Denver laugh when I eat?

[$_{CP}$ **What** does [$_{IP}$ Denver laugh] [$_{CP}$ when I eat **t**$_i$]]

Thus there is said to be an argument-adjunct asymmetry with respect to island effects.

In Plains Cree there is evidence that the asymmetry is broader. On the one hand, not only adjoined clauses but also chained clauses are islands. On the other hand, a clause that is associated with an argument position, rather than itself being an argument, is enough to allow an element to escape out of it.

I consider three kinds of elements that can front in Plains Cree[2]. Wh-words, quantifiers, and argument expressions can all front across an intervening clause if the clause they are associated with is an mediated argument clause.

5.4.1 Long distance wh-construal must be across mediated arguments

In a wh-construction, there is an operator in Spec, CP associated with a gap (20a). Cross-linguistically, this operator is sensitive to clause-boundaries: it cannot move out of an adjunct clause (cf. Huang's Condition on Extraction Domains 1982).

(20) a. [$_{CP}$ What$_i$ [$_{IP}$ … t$_i$ …]]

b. * [$_{CP}$ What$_i$ … [$_{CP}$ because … t$_i$ …]

[2] The properties of quantifiers and wh-words have been discussed in the literature for Plains Cree (Blain 1997, Long 1999); the properties of argument expressions have not, to my knowledge. Neither have the fronting properties been discussed as a single class of properties. This discussion is thus more general than has been traditionally recognized for Plains Cree.

The invalidity of this structure accounts for the ungrammaticality of English utterances like (21), where the wh-word *who* is supposed to be associated with the object of *saw*.

(21) * Who did John kiss Mary because he saw?

In Plains Cree, Blain (1997) argues that wh-words are generated external to the clause, and the operator within the clause is null (22).[3] In long-distance extraction, however, the null operator must obey the same conditions that the overt operator in English does; we expect adjunct clauses, e.g., a reason clause introduced by *osâm* 'because,' to behave like adjunct clauses in English.

(22) a. [wh_i] [$_{CP}$ Op_i [$_{IP}$ … t_i …]

b. * [**wh_i**] [$_{CP}$ **Op_i** … [$_{CP}$ osâm 'because' [$_{IP}$ … **t_i** …]]]

Extending the logic of Huang (1982) and following work (e.g., Chomsky 1986, Manzini 1992), we expect chained clauses to behave like adjunct clauses. Since they are not licensed by an argument position, long-distance wh-construal should be impossible. We thus expect a bifurcation between chained and adjoined clauses on the one hand, and mediated arguments on the other.

	CHAINED	ADJOINED	MEDIATED ARG.
Long distance wh-fronting	✖	✖	✔

Table 5.8. Only mediated argument clauses allow long-distance wh-words

The following subsections give the data supporting this generalization. In this section I start with the mediated argument clauses to show that the construction is possible, and then move to adjoined and chained clauses.

[3] Differences in behaviour of wh-questions between Plains Cree and English include lack of multiple wh-questions; presence of a dedicated yes-no question particle (cf. Cheng 1991), fixed ordering of the wh-word even in echo questions, and non-obligatory agreement (e.g., animacy, obviation) between the wh-word and the argument. See Blain (1997) for details and chapter 6 for more discussion.

5.4.1.1 Wh-words can be long distance with mediated argument clauses

Mediated argument clauses allow the wh-word to be long distance from the clause which contains the gap that the wh-word is associated with. For example, in (23) the argument wh-word *awîna* 'who' is associated with the object position in *John ê-ocêmât* 'John kissed x'.

(23) Argument extraction from a mediated object clause

awîna ê-itwêyan ê-itêyihtaman John ê-**ocêmât**
awîna ê- itwê -yan ê- itêyihtam -an J ê- ***ocêm*** *-â -t*
who *C1-say.VAI-2 C1-think.VTI -2 J C1-**kiss.VTA**-DIR-3*
'who did you say you think John kissed?' (Blain 1997:186)

[wh]$_i$ [$_{CP}$ *Op*$_i$ ê-itwêyan [$_{CP}$ ê-itêyihtaman [$_{CP}$ John ê-ocêmât t$_i$]]]

The wh-word *awîna* 'who' in (24) is likewise associated with the subject position of the embedded clause.

(24) **awîna** ôma Tom ê-wîhtamâsk **ê-cihkêyihtamiyit** ayis nimâma ê-pê-itohtêt
awîna *ôma ê- wîhtamaw-isk ê-* ***cihkêyihtam-yi****-t ayis ni-mama ê-pê- itohtê -t*
who *DEM.INAN C1-tell.VTA -3>2 C1-**happy.VTI -DS**-3 for 1-mom C1-COME-go.VAI-3*
'Who is it that Tom told you is happy because my mother came to visit?'

Adjunct wh-words may also front from a mediated argument clause, as in (25), where the manner wh-word *tânisîsi* 'how' is questioning the manner of leaving in the lower clause (as can be seen the by the extraction marker *isi* in that clause; cf. Wolfart 1973, Cook 2004 for details).

(25) Adjunct extraction from a mediated object clause

tânsîsi ê-kî-itwêt Misti ê-**isi**-sipwêhtêyit Wâpastimwa
tânisîs *ê- kî- itwê -t M ê-* ***isi-*** *sipwêhtê -yi -t W-a*
how *C1-PREV-say.VAI-3 M C1-**THUS**-leave.VAI-DS-3 W-OBV*
'What did Misti say was the way that Wâpastim walked away?'

In Plains Cree, subject-oriented clauses and object-oriented clauses pattern together with respect to long-distance wh-movement (cf. Wiltschko 1995 on German extraposed clauses). In (26), we have an intransitive verb *ê-miywâsik* 'it is good' with an inanimate subject; the mediated subject clause *John ê-pê-itohtêt* 'John came' is the subject of the verb *ê-miywâsik*.

(26) Argument extraction from a mediated subject clause

awîna ôma ê-miywâsik **ê-pê-itohtêt**
awîna *ôma ê- miywâsi -k ê- pê-* ***itohtê*** *-t*
who *DEM.INAN C1-good.VII -0 C1-COME-**go.VAI**-3*
'Who was it that came over that made it nice?'

Thus both mediated-subject and mediated-object clauses allow the wh-word to front across the higher clause.

5.4.1.2 Wh-words cannot be long distance with adjoined clauses

As Blain (1997) shows, a wh-question cannot be construed with a position in an adjoined clause. In (27a) we see that the wh-word *awînihi* 'who.OBV' cannot be associated with an object position of the adjoined clause *tânêhki kâ-pôn-kiyokawât* 'why she stopped visiting him/her'. And in (27b), the wh-word *awîna* 'who' cannot be associated with a subject position of the adjoined clause *osâm ê-pîkonât* 'because s/he broke it'.

(27) a. [**awînihi**$_i$] [$_{CP}$ ***Op***$_i$ … [$_{CP}$ tânêhki [$_{IP}$ … kâ-pôn-kiyokawât ***obj***$_i$ …]]]

* **awînihi** kâ-kakwêcimat Mary tânêhki kâ-pôn-**kiyokawât**
awîna -hi *kâ- kakwêcim -at M tânêhki kâ- pôn-* ***kiyokaw*** *-â -t*
who -OBV *C2- ask.VTA -2>3 M Q.why C2- STOP-**visit.VTA** -DIR-3*
--- (*intended:* 'Who did you ask Mary why she stopped visiting?') (Blain 1997)

b. [**awîna**$_i$] [$_{CP}$ ***Op***$_i$ … [$_{CP}$ osâm [$_{IP}$ … ***subj***$_i$ ê-pîkonât …]]]

* **awîna** kâ-mâtoyân osâm ê-**pîkonât** kitawâsisihkâna
awîna *kâ-mâto -yân osâm* ***ê-pîkon*** *-â -t ki(t)-awâsisihkân-a*
who *C2-cry.VAI-1 because C1-**break.VTA**-DIR-3 2- doll -OBV*
--- (*intended*: 'Who did you cry because … broke your doll?') (Blain 1997:189)

Similarly, (28) provides a minimal pair showing that while the wh-word *awîna* 'who' can be associated with a long-distance subject of a mediated argument clause, it cannot be associated with the long-distance subject of an adjoined clause. For example, *ê-cikêyihtamiyit* 'someone is happy' is associated with an argument position of *ê-wihtamâsk* 'he told x to you' in (28a). In (28b), we have a reason clause introduced by the subordinator *ayis* 'for/because' and extraction from this clause is impossible.

(28) a. Extraction from subject of mediated-argument clause

awîna ôma Tom ê-wîhtamâsk **ê-cihkêyihtamiyit** ayis nimâma ê-pê-itohtêt
awîna ôma ê- wîhtamaw-isk ê- cihkêyihtam-yi-t ayis ni-mâma ê-pê-itohtê-t
who DEM.INAN *C1-tell.VTA -3>2 C1-happy.VTI-DS-3 for 1-mom C1-COME-go.VAI-3*
'Who is that Tom told you is happy because my mother came to visit?'

b. Extraction from subject of adjoined clause

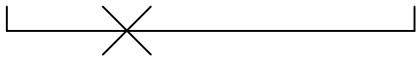
* **awîna** ôma Tom ê-wîhtamâsk ê-cihkêyihtamân **ayis ê-pê-itohtêt**
awîna ôma ê- wîhtamaw -isk ê- cihkêyihtam-ân ayis ê- pê- itohtê -t
who DEM.INAN *C1-tell.VTA -3>2 C1-happy.VTI -1 for C1-COME-go.VAI-3*
--- (*intended*: '**Who**$_i$ did Tom tell you I was happy because **t**$_i$ came to visit?')

5.4.1.3 Wh-words cannot be long distance with chained clauses

Finally, wh-words cannot be construed with an argument in a chained clause across the antecedent clause. In (29a), *kahkiyaw mînisa* 'all the berries' is the object of the second clause; in (29b) I have attempted to construct a wh-word associated with this object position of the chained clause, but the result is ungrammaticality.

(29) a. awâsisak kwêsimocikihtâwak, **kahkiyaw mînisa** ê-mîcisocik CHAIN
awâsis -ak kwêsimocikihtâ -w -ak kahkiyaw mînis -a ê- mîciso -t -k
child -PL have.fun.VAI -3 -PL ALL berry -XT C1-eat.VAI-3 -PL
'The children were having a lot of fun, they ate all the berries.'

b. * [**kîkway**$_i$] [$_{CP}$ ***Op***$_i$ …] [$_{CP}$ [$_{IP}$ … ê-mîcisocik ***obj***$_i$ …]]]



* **kîkway** awasisak kwêsimocikihtâwak ê-**mîcisocik**
kîkway *awâsis -ak kwêsimocikihtâ -w -ak ê-* ***mîciso*** *-t -k*
what *child -PL have.fun.VAI -3 -PL C1-**eat.VAI**-3 -PL*
--- (*intended*: '**What**$_i$ did the children have fun, they ate **t**$_i$?')

I now turn to another domain in which we see long-distance phenomena: quantification.

5.4.2 Long distance quantifier-fronting must be across mediated arguments

It has been noticed for some time that quantifiers in Plains Cree, like other languages of the Cree dialect continuum, may be discontinuous from the argument over which they quantify (Matthewson & Reinholtz 1996, Reinholtz 1995, 1999; Russell & Reinholtz 1996; Wolvengrey 2003, among others). An example of this is given in (30), where *awâsisak* 'children' can either immediately follow the quantifier *nîso* 'two', or can occur at the end of the utterance, with the verbal complex *kî-pâhpiwak* 'they laughed' intervening.

(30) a. **ôki nîso awâsisak** kî-pâhpiwak
ôki nîso awâsis-ak kî- pâhpi -w-ak
DEM two child -PL PREV-laugh.VAI-3-PL
'These two children laughed.'

b. **ôki nîso** kî-pâhpiwak **awâsisak**
ôki nîso kî- pâhpi -w-ak awâsis-ak
DEM two PREV-laugh.VAI-3-PL child -PL
'These two children laughed.' (from Wolvengrey 2003: 9a-b)

Here I show that an entire clause may intervene between the quantifier and the element being quantified over. With respect to the syntactic classification proposed in this chapter, we expect the same patterns as for wh-words, as summarized in table 5.9.

	CHAINED	ADJOINED	MEDIATED ARG.
Long distance wh-fronting	✖	✖	✔
Long distance quantifier-fronting	✖	✖	✔

Table 5.9. Only mediated argument clauses allow long-distance quantifier-fronting

The next subsections bear this out.

5.4.2.1 Mediated argument clauses permit long distance quantifier-fronting

As expected, mediated argument clauses allow quantifiers to escape as schematized in (31); such examples are found in discourses, and judged acceptable in elicitation contexts.

(31) [Q_j] [$_{CP}$ ...**arg**$_i$ ... [$_{CP}$ ... DP_j …]$_i$] MEDIATED ARGUMENT

For example, in (32), the partitive quantificational phrase *mihcêt aniki* 'many of them' is in initial position, and the nominal *iskwêwak* 'women' is in final position. They are separated not only by the clause with which the quantification phrase is associated (*mîkiskihkahcikê-* 'do.beadwork.VAI'), but by the matrix clause *kaskihtâ-* 'succeed.at.VAI'.

(32) **mihcêt aniki** ê-kî-kaskihtâcik aya ê-mîkisihkahcikêcik êkospî **iskwêwak**, …
mihcêt aniki *ê- kî- kaskihtâ -t -ik aya ê- mîkisihkahcikê -t-ik êkospî* ***iskwêw-ak***
many DEM.AN C1-PREV -able.VAI-3-PL CONN C1-do.beading -3-PL then ***woman-PL***
'Many of the women used to be able to do beadwork then, …' (EM 48)

This is also shown in (33) where *kahkiyaw* 'all' may occur either adjacent to the subject of the lower clause (33a)[4] or in initial position with the matrix clause intervening (33b): in both cases it quantifies over *iskwêwa* 'women'.

(33) a. J pêhtawêw **kahkiyaw iskwêwa** ê-nikamoyit
J pêhtaw -ê -w kahkiyaw iskwêw -a ê- nikamo -yi -t
J hear.VTA-DIR-3 all woman -OBV C1-sing.VAI-DS -3
'Jeff heard all the women singing.'

b. **kahkiyaw** J pêhtawêw **iskwêwa** ê-nikamoyit
kahkiyaw J pêhtaw -ê -w iskwêw -a ê- nikamo -yi -t
all J hear.VTA-DIR-3 woman -OBV C1-sing.VAI-DS -3
'Jeff heard all the women singing.'

Demonstratives, which pattern like quantifiers with respect to their discontinuous properties (Reinholtz 1999, Wolvengrey 2003), may also front long distance out of a mediated argument clause.

[4] On independent grounds, quantifiers have been shown be restricted from occurring after the verbal complex of the clause they are associated with (see, for example, Reinholtz 1995, 1999, Matthewson & Reinholtz 1998); this rules out the possibility that *kahkiyaw* is just quantifying over the object of *pêhtawêw* in (33a).

(34) Demonstratives front out of mediated argument clauses

a. nikiskêyihtên ê-nîmihitocik **ôki** nâpêwak
ni- kiskêyihtê -n ê- nimihito -t -k ***ôki*** *nâpêw -ak*
1- know.VTI -SAP C1-dance.VAI-3 -PL ***DEM.AN*** *man -PL*
'I know these men are dancing.'

b. **ôki** nikiskêyihten ê-nîmihtocik nâpêwak
ôki *ni-kiskêyihtê-n ê- nimihito -t -k nâpêw-ak*
DEM.AN *1-know.VTI -SAP C1-dance.VAI-3-PL man -PL*
'These men here, I know that they're dancing.'

5.4.2.2 Adjoined clauses do not permit long distance quantifier-fronting

As expected, adjoined clauses do not permit long-distance quantifier fronting. This is schematized in (35).

(35) * [**Q**$_i$] [$_{CP}$ [$_C$ ...] [$_{CP}$ ...DP$_i$ ...]]

This is exemplified by a clause with the causal subordinator *ayis* 'for/because' and the subordinator *ê-*. In (36a), the quantificational element is continuous with the nominal; in (36b), *kahkiyaw* 'all' has been fronted, but the result is ungrammatical.

(36) Long distance quantifier-fronting not allowed in adjoined clauses

a. nikî-sipwêhtân **ayis kahkiyaw** nâpêwak ê-nimihitocik
ni- kî- sipwêhtâ -n ayis kahkiyaw nâpêw -ak ê- nimihito -t -k
1- PREV-leave.VAI -SAP for all man -PL C1-dance.VAI-3 -PL
'I left because all the men were dancing.'

b. * **kahkiyaw** nikî-sipwêhtân **ayis** ê-nimihitocik nâpêwak
kahkiyaw *ni-kî- sipwêhtâ -n ayis ê- nimihito -t -k* ***nâpêw -ak***
all *1- PREV-leave.VAI -SAP for C1-dance.VAI-3-PL* ***man -PL***
--- (*intended*: 'I left because all the men were dancing.')

5.4.2.3 Chained clauses do not permit long distance quantifier-fronting

Chained clauses do not allow discontinuous quantifiers (as in the structure in (37)) either.

(37) * [**Q**$_i$] [$_{CP}$ ...] [$_{CP}$ ...DP$_i$ ...]

For example, in (38a) we have the quantificational phrase *kahkiyaw mînisa* 'all the berries'; in (38b) the quantifier *kahkiyaw* 'all' has been displaced to the front, yielding ungrammaticality.

(38) Long distance quantifier-fronting not allowed in chained clauses

a. awâsisak kwêsimocikihtawak, **kahkiyaw mînisa** ê-mîcisocik
awâsis -ak kwêsimocikihtâ -w -ak ***kahkiyaw mînisa*** *ê- mîciso -t -k*
child -PL have.fun.VAI -3 -PL ***ALL*** ***berries*** *C1-eat.VAI-3 -PL*
'The children were having a lot of fun, they ate all the berries.'

b. * **kahkiyaw** nâpêsis kwêsimohcikihtâw **mînisa** ê-mîcisot
kahkiyaw *nâpêsis kwêsimohcikihtâ-w* ***mînisa*** *ê- mîciso -t*
all *boy have.fun.VAI -3* ***berries*** *C1-eat.VAI -3*
--- (*intended*: 'The boy was having fun, he ate all the berries.')

5.4.3 Long distance argument-expression fronting

The same kinds of clausal dependencies that are transparent for discontinuous quantifiers also prove to be transparent for some other discontinuous constituents. We once again expect that this will only be possible with mediated argument clauses, as summarized in table 5.10.

	CHAINED	ADJOINED	MEDIATED ARG.
Long distance wh-fronting	✖	✖	✔
Long distance quantifier-fronting	✖	✖	✔
Long distance argument-fronting	✖	✖	✔

Table 5.10. Only mediated argument clauses allow long-distance argument expressions

5.4.3.1 Mediated argument clauses permit long distance argument-fronting

Non-quantificational arguments may also be discontinuous from the clause they are associated with. In (39), the argument *nâpêwak* 'men' is the subject of the clause *ê-pê-itohtêcik* 'they came'. (39a) shows *nâpêwak* 'men' adjacent to the clause with which it is associated; however in (39b) the matrix clause *nikiskêyihtên* 'I know it' intervenes. Even though *nâpêwak* 'men' is not associated with any argument position in this matrix clause, the utterance is fine.

(39) a. nikiskêyihtên **nâpêwak** ê-pê-itohtêcik
ni-kiskêyihtê-n nâpêw-ak ê- pê- itohtê -t-k
1-know.VTI -SAP man -PL C1-COME-go.VAI-3-PL
'I know the men came.'

b. **nâpêwak** nikiskêyihtên ê-pê-itohtêcik
nâpêw-ak ni-kiskêyihtê-n ê-pê- itohtê -t-k
man -PL 1-know.VTI -SAP C1-COME-go.VAI-3-PL
'I know the men came.'

Whole argument phrase (e.g., with quantifiers) may also occur in initial position, with an intervening clause between it and the clause with which it is syntactically associated. For example, in (40) *kahkiyaw nâpêwak* 'all the men' is the subject of *ê-nimihitocik* 'they are dancing', but occurs in initial position.

(40) **kahkiyaw nâpêwak** nikiskêyihtên ê-nimihitocik
kahkiyaw nâpêw -ak ni- kiskêyihtê -n ê- nimihito -t -k
all man -PL 1- know.VTI -SAP C1- dance.VAI-3-PL
'I know all the men are dancing.'

Examples of fronted argument expressions also occur in corpora. For example, in (41), the quantified phrase *kahkiyaw êkoni* 'all these things' is the object of the lower clause *ka-tôtamâhk* 'us to do'.

(41) **kahkiyaw êkoni** ê-kî-wîhtamâkawiyâhk aya ka-tôtamâhk, ...
kahkiyaw êkoni ê- kî- [wîht-amaw]-ikawi-yân-k aya ka- tôtam-ân-k
all TOPIC C1-PREV-tell.VTA-APPL-USC -1 -PL CONN IRR-do.VTI-1 -PL
'all these things she used to tell us to do, …' (EM 49)

Here the upper clause is inflected for three arguments: the subject is suppressed via the unspecified subject *-ikawi*, the object is morphologically expressed via the 1st-person plural

object *-yâhk*, and the applicative morpheme *-amaw* introduces an indirect object argument, with which the dependent clause is associated.

While the presence of this applicative argument might at first glance appear to allow *kahkiyaw êkoni* 'all these things' to be an argument of the upper clause, this analysis does not work on at least two counts. First, this analysis would have to posit that the lower clause is an adjunct clause. However, in the absence of an overt subordinating particle, adjunct *ka*-clauses are interpreted as purpose clauses (cf. chapter 7), which is not what is happening here. Consider the contrast between (41) above and (42), given here:

(42) "kisê-manitow ôm ê-kî-osîhât ayisiyiniwa, **ka-miyawâtamiyit**, …"
kisê-manitow ôma ê- kî- osîh -â -t ayisiyiniw-a ka- miyawâtam -yi -t
God DEM.INAN *C1-PREV-make.*VTA*-DIR-3 person -*OBV IRR*-happy.*VTI *-*DS *-3*
' "God has created man **to be happy**, …" ' (EM 37)

Second, an analysis where *kahkiyaw êkoni* 'everything' is the indirect object of *wihtamaw-* 'tell.VTA' claims that the speaker is being told about something (i.e., *kahkiyaw êkoni* 'all these things'), rather than directed to do something (i.e., *ka-totamâhk* 'what we should do').

Even oblique arguments that are not subcategorized for by the verbal complex (and which generally have more restricted ordering properties; cf. Dahlstrom 1995, Mühlbauer 2003) can be discontinuous from the clause they are associated with. For example, in (43), the modifier *nanâtohk isi* 'in various ways' is associated with the *ê-wîcihikot* 'she helped him'.

(43) **nanâtohk isi** mîn ê-kî-wâpahtamân **ê-wîcihikot** aya owîkimâkana, …
nanâtohk isi mîna ê- kî- wâpahtam-ân ê- wîcih -iko -t aya o-wîkimâkan-a
*various way also C1-PREV-see.*VTI *-1 C1-help.*VTA*-INV -3* CONN *3-wife -*OBV
'I also saw that his wife helped him in various ways, …'
(EM 43 presented in elicitation)

comment: the *nanâtohk isi* is telling you about all the ways the wife helped her husband.

Likewise, in (44), the topic marker *êwakw ânima* 'that' (referring back to the immediately previous discourse) is associating with the relative root *isi* 'this way'; *êwakwânima* describes the way the speaker saw her husband.

(44) **êwakw ânima** kêhcinâ aya ê-kî-miywêyihtamân,
êwakw anima kêhcina aya ê- kî- miywêyihtam -ân
TOP DEM.INAN certainly CONN C1-PREV-happy.VTI -1

ê-kî-oh-~ aya ê-kî-**isi**-wâpamak niwîkimâkan ...
aya ê- kî- isi- wâpam -ak ni- wîkimâkan
CONN C1-PREV-THUS-see.VTA -1>3 1- spouse
'I certainly used to be happy that I could see my husband in this light ...' (EM 28)

5.4.3.2 Adjoined clauses do not permit long distance argument-fronting

Adjoined clauses also behave as expected: they do not permit long distance argument-fronting. Thus, for example, in (45) we have an adjoined clause introduced with the *kâ-* clause-typing proclitic. The argument expression *awâsisak* 'children' cannot occur to the left of the matrix clauses.

(45) * **awâsisak** nikî-mâton kâ-mêtawêcik wayawihtamihk
awâsis -ak ni- kî- mâto -n kâ- mêtawê -t -k wayawihtamihk
child -PL 1- PREV-cry.VAI-SAP C2- play.VAI-3-PL outside
--- (*intended*: 'I cried while the children were playing outside.')

When there is an argument phrase in an adjoined clause, it cannot occur to the left of the subordinating particle, as exemplified with *ayis* 'for/because' in (46).

(46) a. nikî-sipwêhtân <u>ayis</u> **kahkiyaw nâpêwak** ê-nimihitocik
ni- kî- sipwêhtê -n ayis kahkiyaw nâpêw-ak ê- nimihito -t -k
1- PREV-leave.VAI-SAP for all man -PL C1-dance.VAI-3-PL
'I left because all the men were dancing.'

b. * nikî-sipwêhtân **kahkiyaw nâpêwak** <u>ayis</u> ê-nimihitocik
ni- kî- sipwêhtê -n kahkiyaw nâpêw-ak ayis ê- nimihito -t -k
1- PREV-leave.VAI-SAP all man -PL for C1-dance.VAI-3-PL
--- (*intended*: 'I left because all the men were dancing.')

c. * **kahkiyaw nâpêwak** nikî-sipwêhtân <u>ayis</u> ê-nimihitocik
kahkiyaw nâpêw -ak ni- kî- sipwêhtâ -n ayis ê- nimihito -t -k
all man -PL 1- PREV-leave.VAI-SAP for C1-dance.VAI-3-PL
--- (*intended*: 'I left because all the men were dancing.')

5.4.3.3 Chained clauses do not permit long distance argument-fronting

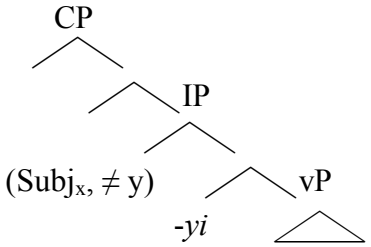
Chained clauses pattern with adjoined clauses: the argument cannot front out of them. For example, in (47), *mînisa* 'berries' are supposed to be associated with the object position of *ê-mîcisot* 'he is eating', but it is impossible if *mînisa* 'berries' is in an initial position.

(47) a. * **mînisa** nâpêsis kwêsimocikihtâw **ê-mîcisot** CHAIN
mînisa nâpêsis kwêsimocikîhtâ -w ê- mîciso -t
berries boy have.fun.VAI -3 C1-eat.VAI -3
--- (*intended*: 'The boy was having fun, eating berries.')

5.4.4 (Non-)obligatory switch-reference picks out object oriented clauses

In chapter 4, we saw that the dependent reference marker *-yi* is an anaphoric different-subject marker: it marks that the subject of the predicate to which it is attached is disjoint from some clause-external argument (see also Mühlbauer 2008).

(48)



(Mühlbauer 2008)

We saw that the relation between these two clauses must have the same configuration as the relation between an anaphor and its antecedent: either precedence or c-command.

What I consider in more detail here are the conditions under which *-yi* marking is obligatory. Switch reference is obligatory in object-oriented clauses, but not in any other type (chained, adjoined, or subject-oriented).

Chained clauses behave like coordinated clauses: in some contexts *-yi* is used, but it may also be omitted without changing the well-formedness of the construction.

(49) *-yi* can be omitted in chained clauses

a. Jeff ê-nikamot, Clarewa **ê-nimihito**yi**t**
Jeff ê- nikamo -t C-wa ê- nimihito ***-yi*** *-t*
*J C1-sing.VAI-3 C-OBV C1-dance.VAI-**DS**-3*
'Jeff sang, Clare danced.'

b. Jeff ê-nikamot, Clare **ê-nimihitot**
Jeff ê- nikamo -t C ê- nimihito -t
J C1-sing.VAI-3 C C1-dance.VAI-3
'Jeff sang, Clare danced.'

Adjoined clauses that are introduced either by the complementizer *kâ-*, or by some subordinating particle also show behaviour that is parallel to coordinated clauses: *-yi* may occur, but it is not obligatory (cf. Long 1999). For example, a modificational clause introduced by the complementizer *kâ-* can have a different subject from the clause it is modifying it, and there is no need for dependent reference marking. The ordering of the two clauses has no effect (50a-b).

(50) *-yi* can be omitted in adjoined clauses in either order

a. Jeff nipâw, **Clare kâ-mêkwâc[5]-nôtinikêt**
J nipâ -w C kâ- mêkwâc- nôtinikê -t
J sleep.VAI-3 C C2-while- fight.VAI-3
'Jeff is sleeping while Clare is fighting.'

b. **Jane mâna kâ-miyopayit**, Beth ê-mâtot
J mâna kâ- miyopayi -t B ê- mâto -t
J usually C2- good.VAI -3 B C1-cry.VAI-3
'When Jane has good fortune, Beth cries.'

In fact, if the modificational clause contains both referents (one proximate, the other obviative) and the following main clause is unmarked, the subject cannot be determined: it may either be the same subject as in the modificational clause (in this case, Jeff), or it may be different (in this case *atim* 'dog').

[5] The form *mêkwâc* is usually found external to the verbal complex (Wolfart 1973; Dahlstrom 1991).

(51) *-yi* can be omitted in adjoined clauses and still be disjoint

a. Jeff kâ-môsâhkinât atima, **ê-nôhtêhkatê**yi**t**
J kâ-môsâhkin -â -t atimw-a ê- nôhtêhkatê -yi-t
J C2-pick.up.VTA-DIR-3 dog -OBV C1-hungry.VAI-DS-3
'When Jeff picked up the dog, he(≠Jeff, =dog) was hungry.'

b. Jeff kâ-môsâhkinât atima, **ê-nôhtêhkatêt**
J kâ-môsâhkin -â -t atimw-a ê- nôhtêhkatê-t
J C2-pick.up.VTA-DIR-3 dog -OBV C1-hungry.VAI-3
'When Jeff picked up the dog, he(=Jeff, =dog) was hungry.'

Mediated-subject clauses actually disprefer *-yi*, a pattern for which I have no good explanation at the moment[6].

(52) *-yi* should be omitted in mediated subject clauses

a. ê-miywâsik ôma **ê-pê-itohtêt** Jeff
ê- miywâsi -k ôma ê- pê- itohtê -t J
C1-good.VII-0 DEM.INAN C1-COME-go.VAI-3 J
'It's good that Jeff came.'

b. #? ê-miywâsik ôma **ê-pê-itohtê**yi**t** Jeff-a
ê- miywâsi -k ôma ê- pê- itohtê -yi -t J -a
C1-good.VII -0 DEM.INAN C1-COME-go.VAI-DS-3 J-OBV
'It's good that Jeff came.'

However, this does show a subject-object asymmetry for mediated argument clauses, because mediated object clauses require the different subject marker *-yi* in the dependent clause. For example, in (53), we have the psych predicate *nitawêyim-* 'want.VTA' introducing the dependent clause *anihi iskwêwa ka-nimihitoyit* '(that) the woman dances'. (The higher predicate is inflected for an animate object (here *iskwêwa* woman), meaning that we are dealing with a copy-to-object construction (Dahlstrom 1991)).

(53) a. ana nâpêw nitawêyimêw anihi iskwêwa **ka-nimihito**yi**t**
ana nâpêw nitawêyim -ê -w anihi iskwêw -a ka- nimihito -yi -t
DEM.AN man want.VTA -DIR-3 DEM.OBV woman-OBV IRR-dance.VAI-DS-3
'That man wants that woman to dance.'

[6] I suspect that it has to do with the fact that the matrix clause given – as well as all other clauses that introduce mediated subject clauses that I can think of - is an inanimate intransitive verb, which lacks the referential properties associated with switch reference; cf. Mühlbauer 2008.

b. * ana nâpêw nitawêyimêw anihi iskwêwa **ka-nimihitot**
ana nâpêw nitawêyim -ê -w anihi iskwêw -a ka- nimihito -t
DEM.AN man want.VTA -DIR-3 DEM.OBV woman-OBV IRR-dance.VAI-3

Further confirmation of this pattern is shown in (54-55) for both VTA matrix clauses (which agree with the subject of the lower clause) and VTI matrix clauses (which show agreement for the proposition).

(54) a. (ana) nâpêw pêhtawêw iskwêwa **ê-nikamo**yi**t** MEDIATED OBJECT
ana nâpêw pêhtaw -ê -w iskwêw-a ê- nikamo -yi -t
DEM man hear.VTA-DIR-3 woman-OBV C1-sing.VAI-DS-3
'The man heard the woman singing.'

b. ! ana nâpêw pêhtawêw iskwêw(a) **ê-nikamot**[7]
ana nâpêw pêhtaw -ê -w iskwêw-a ê- nikamo -t
DEM man hear.VTA-DIR-3 woman-OBV C1-sing.VAI-3
--- (*intended:* 'The man heard the woman singing.')

(55) a. ana nâpêw pêhtam iskwêwa **ê-nikamo**yi**t** MEDIATED OBJECT
ana nâpêw pêhtam-w iskwêw-a ê- nikamo -yi -t
DEM man hear.VTI-3 woman-OBV C1-sing.VAI-DEP-3
'The man heard that the woman was singing.'

b. ! ana nâpêw pêhtam iskwêw **ê-nikamot**
ana nâpêw pehtam-w iskwêw ê- nikamo -t
DEM man hear.VTI-3 woman C2-sing.VAI-3
--- (*intended*: 'The man heard the woman singing.')

One possible exception to this generalization is an example like (56), in which the nominal *iskwêw* 'woman' and the verbal complex *ê-nikamot* '…s/he is singing' are both unmarked: the nominal is not obviative, and there is no dependent reference marker *-yi*.[8]

---

[7] It should be possible for *ê-nikamot* to be grammatical, meaning that the man (*not* the woman) was singing when he heard the woman (Wolfart 1973, 1996). When I asked about this possibility, the consultant said it was possible, but "you wouldn't use *ê-nikamot* [in this position] with this sentence". She preferred to use a *kâ*-clause with an overt aspectual marker indicating the simultaneity of the hearing and the singing; she also indicated that she preferred to have the *kâ*-clause placed immediately after *nâpêw.*

(i) ana nâpêw kâ-mêkwâ-nikamot pêhtawêw iskwêwa
ana nâpêw kâ-mêkwâ-nikamo-t pêhtaw-ê-w iskwêw-a
DEM man C2-NOW-sing.VAI-3 hear.VTA-DIR-3 woman-OBV
'The man heard the woman while he was singing.' / 'The man who was singing heard the woman.'

[8] Such examples are, to my knowledge, unattested in running speech.

(56) ana nâpêw pêhtam**,** iskwêw ê-nikamot
ana nâpêw pêhtam-w iskwêw ê- nikamo -t
DEM man hear.VTI-3 woman C2-sing.VAI-3
'The man heard it – the woman was singing.'

comment: because he doesn't know her, who that woman is, he just knows there's a voice, a woman's voice

However, there are at least four independent reasons why I do not think such a clause has the same embedded status as the examples in which *iskwêw* 'woman' is obviated and the verbal complex is obligatorily marked with *-yi*.

First, there is a difference in interpretation, most clearly brought out in the evidential distinction (cf. Dahlstrom 1991): the clause with the switch reference marker (in 55a) must be interpreted as indirectly perceived by the subject of the higher clause; in (56), however the clause lacking the switch reference marker may be interpreted as directly perceived, and correlates with Kuno's (1987) 'direct discourse'.

Second, there is a difference in prosody: the consultant noted that the clause without the switch-reference marker must be preceded by a prosodic break. As we have seen earlier, this is a property of chained clauses, but is otherwise unattested in mediated object clauses.

Third, the string in (57) is ungrammatical, where the object agreement of the higher clause agrees with the subject of the lower clause. In other words, when you have agreement giving you an obligatory embedding relation, then this structure is unavailable.

(57) * ana nâpêw pêhtawêw, iskwêw ê-nikamot
ana nâpêw pêhtaw -ê -w iskwêw ê- nikamo -t
DEM man hear.VTA-DIR-3 woman C1-sing.VAI -3

Finally, the *-yi* marked vs. unmarked examples differ with respect to the 'fronting' diagnostic: if the clause is not marked with the switch-reference marker, the subject is clause-bound. Placing the plural subject *iskwêwak* 'women' at the beginning of the utterance induces an interpretation that the women are doing the perceiving (even though the obligatory plural agreement on the matrix clause is missing).

(58) a. kahkiyaw **iskwêwa** pêhtam ê-nikamo**yi**t
kahkiyaw iskwêw -a pêhtam -w ê- nikamo -yi -t
all woman-OBV heard.VTI-3 C1-sing.VAI-DS-3
'S/he heard all the women singing.'

b. * **iskwêwak** pêhtam ê-nikamocik
iskwêw -ak pêhtam -w ê- nikamo -t -k
woman-PL hear.VTI-3 C1-sing.VAI-3-PL
--- (*intended*: 'S/he heard all the women singing.')

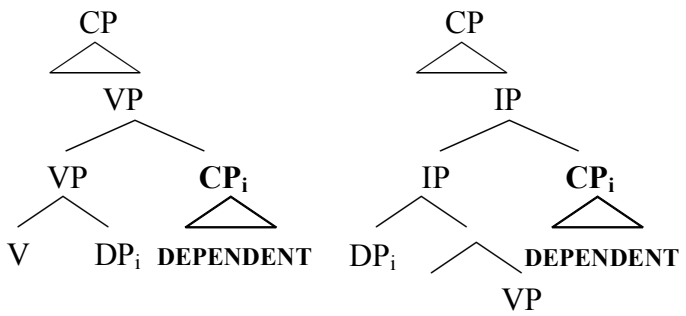
Thus, (56) patterns with adjoined clauses rather than mediated argument clauses with respect to the fronting diagnostic.

The obligatory presence of *-yi* as a diagnostic splits object-mediated clauses from chained and adjoined clauses in exactly the same way as quantifier-fronting and discontinuous arguments: while adjoined and chained clauses do not require *-yi* marking, mediated object clauses do. In other words, object-mediated clauses can never form an independent domain for different-subject marking. I take this data to stem from the position of object-mediated clauses: they are introduced and adjoined to VP; the entire clause is thus always in the scope of the subject of the matrix clause.

5.5 Consequences

In this section I consider some of the consequences of the proposed syntactic classification of anaphoric CONJUNCT clauses. In particular, I single out the mediated-argument clauses, whose structure I repeat in (59). An object-mediated clause is associated with an object DP position and adjoined to VP (59a); a subject-mediated clause is associated with a subject DP position and adjoined to IP (59b).

(59) a. Object-mediated b. Subject-mediated



If this is the correct analysis for this class of clauses, and the other types of clauses are adjoined and chained clauses, then there are no true argument clauses. In §5.5.1, I provide some evidence that these clauses are not sitting directly in an argument position. In §5.5.2, I show that there is VP-complementation, as evidenced by "pre-verbs". Finally, the analysis of mediated argument clauses forces an analysis of copy-to-object constructions (discussed for Plains Cree by Dahlstrom 1986, 1991) as local-agreement (*contra* the proposal made by Branigan & MacKenzie 2002 for Innu-Aimun, another Algonquian language), as discussed in §5.5.3.

5.5.1 The non-existence of argument clauses

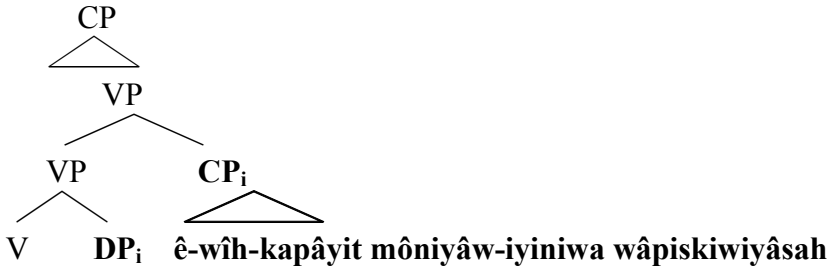
In this section I turn to the syntax of mediated argument clauses: mediated subjects and mediated objects. I take seriously the older linguistic claims such as Wolfart (1973:46), who claims that in an example like (60) the ê-clause "functions as the adjunct of a verb".

(60) kîtahtawê pêyak kîh-pawâtam
kêtahtâwê pêyak kî- pawâtam -w
once certain PREV*-dream.*VTI*-3*
'Then at one time a certain man dreamt

[**ê-wîh-kapâyit môniyâw-iyiniwa wâpiskiwiyâsah**]
ê- wî- kapâ -yi -t môniyawiyiniw -a wâpiskiwiyâs -a
*C1-*INT*-land.*VAI*-*DS*-3 White.man -*OBV *Canadian -*OBV
that the Canadian, the White Man would land here.'

Under the current proposal, the dependent clause of (61) would adjoined to VP, and associated with an object DP introduced by the verb.

(61) Mediated object clause

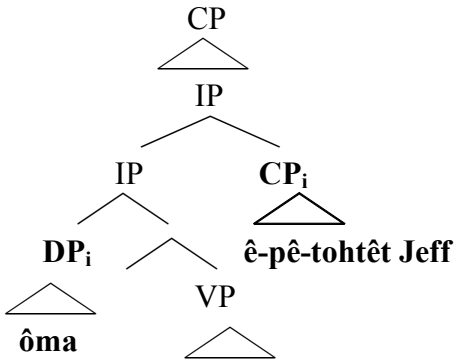


In (62), the CONJUNCT clause *ê-pê-itohtêt Jeff* 'Jeff came.' is associated with the subject position of *miywâsin* 'it's good.'; it is analyzed as being adjoined to IP and associated with the subject DP (here instantiated by the demonstrative *ôma* 'this').

(62) Mediated subject clause

a. miywâsin ôma **ê-pê-itohtêt Jeff**
miywâsin ôma ê- pê- itohtê -t J
good.VII DEM.INAN C1-COME-go.VAI-3 J
'It's good that Jeff came.'

b.



These clauses are thus analyzed as an instance of base-generated extraposition (cf. Culicover & Rochemont 1990, Wiltschko 1995); i.e., the dependent clause is generated in its adjoined position, rather than moving to it from an argument position.

It should be pointed out that although the arguments for these structures are based on the properties of clauses in Plains Cree, this is not a claim specific to Plains Cree. English 'argument' clauses exhibit several behaviours that have led many syntacticians to believe they are not generated in argument position.

First, only some ‘argument-clauses’ can undergo passivization (63; Rosenbaum 1967); in particular, the infinitival ‘argument-clauses’ cannot. If passivization targets an object position, then the data in (64) implies that not all clauses are in an object position.

(63) a. Columbus demonstrated [**that the world is not flat**].

b. [**That the world is not flat**] was demonstrated by Columbus.

(64) a. She began [**to cry**].

b. * [**To cry**] was begun by her. (Rosenbaum 1967:10-11)

Second, object nominals most neutrally occur before manner adverbials, but ‘complement-clauses’ most neutrally occur after them as in (65-66), taken from Stowell 1981. This implies that the ‘complement-clauses’ are attaching not as complements of V, but higher up (e.g., adjoined to VP or IP).

(65) DPs are pre-adverbial

a. He explained **the situation** very carefully.

b. ? He explained **that he was not going to leave** very carefully.

(66) Clauses are post-adverbial

a. ? He explained very carefully **the situation**.

b. He explained very carefully **that he was not going to leave**.

Third, we see that for at least some ‘object’ clauses, and all ‘subject’ clauses, there is the possibility of having an overt pronominal form in the argument position, with the clause being in such cases obligatorily extraposed to the right (Jesperson 1937; McCawley 1988, among others).

(67) Pronominal form in subject clause

a. John regrets [**that he quit his job**].

b. John regrets **it** [**that he quits his job**].

(68) Pronominal form in object clause

a. [**That you got sick**] is unfortunate.

b. **It** is unfortunate [**that you got sick**].

In fact, some 'subject-clauses' can only occur in the extraposed position, as in (69) and (70).

(69) a. it happened [that John came early]

b. * [that John came early] happened (Rosenbaum 1967:71-2)

(70) a. I wonder whether **the robbery** surprised [them]

b. ?/* I wonder whether **that the pig was stolen** surprised [them]

c. I wonder whether **it** surprised [them] **that the pig was stolen**

(Haegeman 1994:57)

Taking the most widely-available construction to be the basic, and the restricted form to be derived, this has led many to the conclusion that the extraposed position for subject clauses is basic, and the non-extraposed position derived (Rosenbaum 1967, Ross 1967b, Williams 1974, Emonds 1976, McCawley 1981, 1988:98).

Finally, even for 'subject-clauses' that are permitted in the non-extraposed position, there is a requirement that it be introduced either by *that*, which is also used in the nominal domain as a demonstrative, or by a nominal phrase like *the fact*, as in (71) (Koster 1978; Safir 1985). In other words, they require an element that is independently attested in DP-syntax.

(71) a. * [John failed the final] means he failed the course.

b. [That John failed the final] means he failed the course.

c. [The fact that John failed the final] means he failed the course. (R. Waldie, pc)

Returning to the question of Plains Cree clauses, we will see in the following section that similar sorts of problems rear their head if we try to treat clauses as arguments. First, 'subject' clauses require an overt nominal antecedent (§5.5.1.1). Second, clauses do not have the same freedom of ordering that nominals have (§5.5.1.2). Third, no predicates select for a clausal

argument (§5.5.1.3). Fourth, some predicates select for nominals (§5.5.1.4). Finally, incorporation targets nominal arguments, but not clauses.

5.5.1.1 'Subject' clauses require overt nominal antecedent

If 'argument' clauses are always mediated by a DP, the DP position should always be available. Thus we predict that an overt nominal antecedent to a mediated argument clause should always be possible.

This is correct. In fact, object-oriented clauses always can, and very often do co-occur with an overt inanimate demonstrative (cf. Ahenakew 1987). The result is that we get the following paradigm: the matrix predicate inflected for an inanimate object argument (72a), and there is a corresponding inanimate demonstrative *ôma* (72b).

(72) a. nikiskêyi**ht**ên
ni- kiskêyihtê -n
1- know.VTI -SAP
'I know it.'

b. nikiskêyihtên **ôma**
ni- kiskêyihtê -n ôma
1- know.VTI -SAP DEM.INAN
'I know it/this.'

If the object argument is associated with a clause (73a), then the inanimate demostrative can precede it (73b).

(73) a. nikiskêyihtên **ê-wî-kîwêyan**
ni-kiskêyihtê -n ê- wî- kîwê -yan
1- know.VTI -SAP C1-INT-go.home.VAI-2
'I know that you're going to go home.'

b. nikiskêyihtên **ôma ê-wî-kîwêyan**
*ni-kiskêyihtê -n **ôma** ê- wî- kîwê -yan*
1-know.VTI -SAP DEM.INAN C1-INT-go.home.VAI-2
'I know that you're going to go home.' (Ahenakew 1987:159)

The demonstrative must precede the clause with which it is associated, as shown in (74).[9]

(74) a. nikiskêyihtên **ôma** ê-wî-kîwêyan
ni-kiskêyihtê-n ***ôma*** *ê- wî- kîwê -yan*
1-know.VTI -SAP ***DEM.INAN*** *C1-INT-go.home.VAI-2*
'I know that you're going to go home.'

b. ! nikiskêyihtên ê-wî-kîwêyan **ôma**
ni- kiskêyihtê -n ê- wî- kîwê -yan ***ôma***
1- know.VTI -SAP C1-INT-go.home.VAI-2 ***DEM.INAN***
--- (*intended*: 'I know that you're going to go home.')

In subject position, the generalization is much stronger: subject clauses must be preceded by an overt nominal, even when the agreement is such to license an inanimate nominal. Consultants can interpret but reject subject-oriented clauses that occur without *ôma* (or some other inanimate demonstrative).

(75) a. ?? miywâsin ê-pê-itohtêt Jeff
miywâsin ê- pê- itohtê -t J
good.VII C1-COME-go.VAI-3 J
'It's good that Jeff came.'

b. miywâsin **ôma** ê-pê-itohtêt J
miywâsin ôma ê- pê- itohtê -t J
good.VII DEM.INAN C1-COME-go.VAI-3 J
'It's good that Jeff came.'

---

[9] In addition to the fact that the demonstrative must precede the clause with which it is associated, there is the question of whether it is possible to extract out of an extraposed clause if there is an overt antecedent (such as the demonstrative). In German, for example, such extraction is impossible and is attributed to the presence of a Novelty condition (cf. Wiltschko 1995; see also Heim 1982 on indefinites). I do not at present have the relevant data to compare Plains Cree to German on this particular point; however, if the Novelty condition were active, we would expect to see its effects across the grammar. For example, we would expect relative clauses to always follow their head, but this does not work for Plains Cree, where a relative clause may either precede or follow the head noun; this is exemplified in (i).

(i) a. niwâpamâw **kâ-mâtot** iskwêw
ni- wâpam -â -w kâ- mâto -t iskwêw
1- see.VTA -DIR -3 C2- cry.VAI-3 woman
'I saw the woman that's crying / crying woman.'

b. niwâpamâw iskwêw **kâ-mâtot**
ni- wâpam -â -w iskwêw kâ- mâto -t
1- see.VTA -DIR -3 woman C2- cry.VAI-3
'I saw the woman that's crying.'

I leave for further research the question of why Plains Cree exhibits some, but not all, of the precedence constraints on extraposed clauses; minimally, Plains Cree would seem to provide evidence that not all precedence can be explained in terms of the Novelty condition.

In corpora, clauses are associated with a subject position only if they are preceded by a nominal element (including *ôma* 'this.INAN'; *kîkwây* 'what'). For example, in (76) we have a clause with an inverse marker and the inanimate subject *kîkway* 'something'; the clause which identifies that something (enclosed in brackets) occurs in final position, discontinuous from the nominal element with which it is associated.

(76) a. ..., êwak ôma **kîkway** k-âstâhikoyahk,
êwakw ôma kîkway kâ-astâh -iko -yan-k
TOPIC DEM something C2-worry.VTA-INV-2 -PL
'... there is something which is worrying us,

tahtwâw ê-kîsikâk êkâ kîkway kâ-miywâsik.
tahtwâw ê- kîsikâ -k êkâ kîkway kâ-miywâsi-k
so.many.times C1-day.VII-0 NEG something C2-good.VII-0
the fact that day after day there are things which are not good.' (JKN 1.1)

Likewise, in (77) the clause *ê-kî-minihkwêskit* 'he used to drink' is associated with the subject of *ê-kî-kitimahikot* 'it gave my husband trouble'; there is an overt nominal element *kîkwây* 'something'. The utterance is ungrammatical if *kîkwây* 'something' is removed, as in (77b).

(77) a. **kîkwây** ê-kî-kitimahikot niwîkimâkan, **ê-kî-minihkwêskit**;
kîkwây ê- kî- kitimah -iko -t ni- wîkimâkan ê- kî- minihkwê -ski -t
thing C1-PREV-trouble.VTA-INV-3 1- spouse C1-PREV-drink.VAI -HAB-3
'What used to give my husband trouble was that he used to drink;' (EM 28)

b. * ê-kî-kitimahikot niwîkimâkan, **ê-kî-minihkwêskit**
ê- kî- kitimah -iko -t ni- wîkimâkan ê- kî- minihkwê -ski -t
C1-PREV-trouble.VTA-INV-3 1- spouse C1-PREV-drink.VAI -HAB-3
--- (*intended*: 'It troubled my husband that he used to drink.')

Further, *kîkwây* 'something' can be replaced by a nominalization, but not by the clause, as the contrast in (78) shows.

(78) a. **ominihkwêwin** ê-kitimahikot niwîkimâkan
o-minihkwê-win ê- kitimah -iko-t ni-wîkimâkan
3-drink.VAI-NOM C1-trouble.VTA-INV-3 1-spouse
'…his drinking troubled my husband.'

b. * **ê-kî-minihkwêskit** ê-kitimahikot niwîkimâkan
ê- kî- minihkwê-ski -t ê- kitimah -iko -t ni-wîkimâkan
C1-PREV-drink.VAI-HAB-3 C1-trouble.VTA-INV-3 1-spouse
--- (*intended*: 'That he used to drink troubled my husband.')

Here we see a subject-object asymmetry where object-mediated clauses allow an overt nominal antecedent, and subject-mediated clauses require an overt nominal antecedent. I take the subject-object asymmetry in the clauses to be related to more general subject-object asymmetries where we see that, cross-linguistically, subjects are not licensed by the verb and thus require some independent mechanism for licensing.

If we say that all 'argument' clauses are associated with a mediating argument expression, this accurately predicts that overt nominal elements like *ôma* 'this.INAN' are always in principle available. The most widely available option (in this case, the presence of a nominal element like *ôma* 'this.INAN') is basic, and the restricted option (in this case, the absence of a nominal element) is derived.

However, if we claimed that clauses are in argument position, we would have to add an additional rule to derive obligatory extraposition and nominal insertion. I thus take the above data to support the current analysis.`

5.5.1.2 Clauses have different ordering properties than arguments

A second argument for the mediated argument analysis is the restricted ordering properties that clauses have as opposed to nominal arguments. In Plains Cree, nominal arguments are regularly found in both preverbal and postverbal position (cf. Déchaine 1997, 2007, Mühlbauer 2003, Reinholtz 1999, Wolvengrey 2003).

(79) a. niwâpamâw **minôs**
ni- wâpam -â -w minôs
1- see.VTA-DIR -3 cat
'I see a cat.'

b. **minôs** niwâpamâw
minôs ni-wâpam -â -w
cat 1- see.VTA-DIR-3
'I see a cat.'

Argument-like clauses are different from nominal arguments in this respect. Recall from §5.3 that such clauses are restricted to postverbal position. The relevant data is repeated below for both subjects (80) and objects (81-82).

(80) Mediated subject clause

a. miywâsin **ôma ê-pê-itohtêt John**
miywâsin ôma ê- pê- itohtê -t J
good.VII DEM C1-COME-go.VAI-3 J
'It's good that John came.'

b. * **ôma ê-pê-itohtêt John**, miywâsin
ôma ê- pê- itohtê -t J miywâsin
DEM C1-COME-go.VAI-3 J good.VII
---

(81) Mediated object clause

a. ninitawêyihtên **ka-mîcisoyân**
ni- nitawêyihtê -n ka- mîciso -yân
1- want.VTI -SAP IRR- eat.VAI -1
'I would like to eat.'

b. * **ka-mîcisoyân** ninitawêyihtên
ka- mîciso -yân ni- nitawêyihtê -n
IRR-eat.VAI -1 1- want.VTI -SAP
--- (*intended*: 'I would like to eat.')

(82) Mediated object clause

a. niwanikiskisin **ê-nipât awâsis**
ni-wânkiskisi -n ê-nipâ -t awâsis
1- forget.VAI -SAP C1-sleep.VAI-3 child
'I forgot **that the child is sleeping**.'

b. ?* **ê-nipât awâsis** niwanikiskisin
ni- wânkiskisi -n ê- nipâ -t awâsis
1- forget.VAI -SAP C1-sleep.VAI-3 child
--- (*intended*: 'I forgot that the child is sleeping.')

If clauses can sit in argument position, these ordering restrictions are unexpected. However, ordering restrictions are one of the cross-linguistic hallmarks of extraposed clauses, (cf. Rosenbaum 1967; Culicover & Rochemont 1990; Koster 1978; Wiltschko 1995, etc). In (83-84), for example, we see that extraposed clauses do not like to be in a preverbal position in English.

(83) Ordering restrictions on extraposed subject-oriented clauses

a. It happened [that John came early].

b. * It [that John came early] happened. (Rosenbaum 1967)

(84) Ordering restrictions on extraposed object-oriented clauses

a. John liked **it**$_i$ [$_{CP}$ **that we ate all his food**]$_i$.

b. * [$_{CP}$ **That we ate all his food**,]$_i$ John liked **it**$_i$.

For German, we also see that the extraposed clause has ordering restrictions; in particular, it cannot precede the pronominal expression that sits in the argument position.

(85) a. Peter hat **es** geglaubt, **dass Maria Bier trinkt**
Peter has it believed [that Maria beer drinks] (Wiltschko 1995:55)
'Peter believed that Mary drinks beer.'

b. * **Dass Maria Bier trinkt** hat Peter **es** geglaubt
[that Mary beer drinks] has Peter it believed
--- (*intended*: 'Peter believed that Mary drinks beer.') (Wiltschko 1995:147)

The ordering restrictions on Plains Cree argument-like clauses thus look like a general property of extraposed clauses. If we do not analyze these clauses as extraposed, we then have ann unexplained restriction on ordering that is specific to Plains Cree.

5.5.1.3 No predicates subcategorize for clauses

So far the predicates that introduce object-oriented clauses are of the morphological class VTI – transitive verbs coded for an inanimate argument. In these cases the predicate has identical agreement to cases where an inanimate nominal argument is being introduced, and we in fact saw that it was always possible to have an additional overt nominal antecedent.

One might wish to save the 'clause-as-argument' analysis by looking for clauses that subcategorize for a clausal argument. For example, when trying to understand the relation of English argument-like clauses to nominal arguments, Grimshaw (1979, 1981) argued that some verbs could syntactically select (c-select) for a clause rather than a nominal. Such verbs are restricted to interrogative verbs (Lahiri 2002) like *wonder* and *inquire*.

(86) a. John wondered [$_{CP}$ what the time was].

b. * John wondered [$_{NP}$ the time]. (Grimshaw 1979, Lahiri 2002)

In this section, I show that Plains Cree lacks such a class of verbs.

First, like English, non-interrogative predicates can always select for nominal expressions.[10] For example, the speech predicate *wihtamaw-* 'tell.x.to.y' can introduce either a

[10] A set of data that at first looks like a wrinkle are predicates like *itêyihtam* 's/he thinks thus' and *itwêw* 's/he says thus', which *may* exclusively introduce propositions as opposed to nominals (although note that they can introduce deictic topics).

(i) ê-nêstosiyân nikî-itwân
ê- nêstosi -yân ni-kî- itwê -n
C1-tired.VAI-1 1-PREV- thus.say.VAI -SAP
'I said I'm tired.'

(ii) ? kîkway itwêw
kîkway itwê -w
thing thus.say.VAI -3
'S/he said something.'

(iii) êkosi itwêw
êkosi itwê -w
that thus.say.VAI -3
'S/he said that$_{top}$.'

dependent clause *ê-nêstosiyân* 'I am tired' as in (87), or a nominal such as *kîkway* 'thing' as in (88).

(87) niwîhtamawâw nisîmis **ê-nêstosiyân**
ni- wîhtamaw -â -w ni- sîmis ê- nêstosi -yân
1- tell.VTA -DIR-3 1- SIBLING C1-tired.VAI -1
'I told my little brother/sister I was tired.'

(88) âtiht ayisk ayisiyiniwak, namôy wîhkâc **kîkway** aya wîhtamawâwak aya,…
âtiht ayisk ayisiyiniw -ak namôy wîhkâc kîkway aya wîhtamaw -â -w -ak aya
some for person -PL NEG ever thing CONN tell.VTA -DIR-3 -PL CONN
'for some people are never told anything, …' (EM 42)

Likewise, the VTI predicate *nitawêyiht-* 'want' can introduce a dependent clause (*ê-nikamot John* 'John is singing' is what I want), or an inanimate nominal (*maskisin* 'shoe' is what I want).

(89) a. ninitawêyihtên ê-nikamot John
ni- nitawêyihtê -n ê- nikamo -t J
1- want.VTI -SAP C1-sing.VAI-3 J
'I want John to sing.'

b. ninitawêyihtên maskisin
ni- nitawêyihtê -n maskisin
1- want.VTI -SAP shoe
'I want a/the shoe.'

Second, interrogative predicates like *wonder* are not predicates as such in Plains Cree; rather the adverbial particle sequence *matwân cî* 'I wonder if' is used. This particle sequence can introduce nominals like *one month* in (90b), and the particle *tâpwê* 'true' (90a).

These are 'bridge verbs', which, cross-linguistically, have anomalous syntactic behaviour compared to other propositional predicates (Erteschik-Shir 1973, Fodor 1992, Holmberg & Platzack 1995, among others).

In Plains Cree, the clauses introduced by these two predicates have very different behaviour from other propositions. First, unlike complement-like clauses they usually (in fact, *always* in running speech) precede the proposition that introduces them. Second, also unlike complement-like clauses, they may be in the INDEPENDENT order (but only if the proposition being expressed is direct speech or direct thought). Finally, the predicates *itêyihtam* 's/he thinks thus' and *itwêw* 's/he says thus' are ungrammatical without an overt argument.

This behaviour is not entirely unpredictable: notice that both of these predicates have as their root the morpheme *it-* 'thus'. This is one of a class of *relative roots* (cf. Howse 1865, Wolfart 1973): pronominal forms that require some antecedent to be well formed (cf. chapter 3 for more discussion). As such, the mechanism by which these propositions are introduced is distinct from the way arguments are introduced (notice, for example, that roots are not involved in transitivity classes; cf. Hirose 2000, Déchaine 2003). At minimum, it seems necessary to treat the clauses that precede these verbs as something different from the extrapositional clauses we are looking at here.

(90) a. ..., “matwân cî tâpwê,” nikî-itêyihtên mâna, …
matwân cî tâpwê ni- kî- itêyihtê -n mâna
wonder Q true 1- PREV-thus.think.VTI-SAP usually
‘..., “That will be the day,” I used to think, …’ (AA 5.5)
(Lit.: “I wonder if it’s true?” I used to think)

b. two m-~ two months, matwân cî one month, …
two months matwân cî one month
two months wonder Q one month
‘after two months, I wonder if it was one month, …’ (AA 12.14)

The sequence *matwân cî* can also introduce INDEPENDENT clauses, which as we have already seen cannot be embedded.

(91) ..., matwân cî ka-kaskihtânânaw sôniyâw ka-mowâyahk?”
matwân cî ka- kaskihtâ -nânaw sôniyâw ka- mow -â -yan -k
wonder Q IRR-able.VAI -21PL money IRR-eat.VTA-DIR-2 -PL
‘ “..., I wonder if we will be able to eat money?” ’ (EM 63)

Finally, while there are no predicates that select for clauses (i.e., CPs), there are predicates that select for another verbal predicate (i.e., VPs). These constructions have a significantly different structure than the constructions we have seen so far: the higher predicate is introduced in the preverb domain, and lower predicate is inflected as the main predicate, as in (92a-c).

(92) a. ni**kwê**-nipân
ni- kwê- nipâ -n
1- try- sleep.VAI-SAP
‘I’m trying to sleep’

b. ni**mâci**-pâhpin
ni- mâci- pâhpi -n
1- start- laugh.VAI-SAP
‘I’m starting to laugh.’

c. ni**kîs**-nimihiton
ni- kîs- nimihito -n
1- finish-dance.VAI-SAP
‘I’ve finished dancing.’

As I show below, VP-complementation is mono-clausal and is a ‘restructuring’ phenomena (Napoli 1981; Cinque 2006; Wurmbrand 2003, Williams 2004).

5.5.1.4 Predicates that subcategorize for nominals: AIt verbs

As Grimshaw (1979) points out, some predicates can be characterized as picking out a semantic object (such as a proposition), regardless of its syntactic category. For example, the predicate *ask* in English is said to semantically select for a question, but that question can be syntactically realized as a CP, an NP, or even a null pronominal form (Grimshaw 1979, Lahiri 2002).

(93) a. John asked me [$_{CP}$ what the time is].

b. John asked me [$_{NP}$ the time].

c. John wanted to know what the time was, so he asked [⊘].

(Lahiri 2002:245)

Restrictions on what a predicate can introduce can thus in principle be framed in terms of categorial-selection or semantic-selection. In Plains Cree, there is a class of predicates which are s-selectionally neutral, but which syntactically select only for a nominal argument, never a clausal argument. An example of this is given in (94) with the predicate *mâcihtâ-* 'begin': the nominal is fine, but the clause cannot be construed with the predicate.

(94) a. mâcihtâw **wîyâkana**
mâcihtâ -w wîyâkan-a
begin.VAI-3 dish -PL
'He started the dishes.'

b. * mâcihtâw ê-**pâhpit**
mâcihtâ -w ê- pâhpi -t
begin.VAI-3 C1-laugh.VAI-3
---(*intended*: 'He started laughing.')

All of these predicates which have this behaviour share the intransitive transitivizer *-ihtâ* 'do/make': that is, they are one of the classes of predicates in which there is a mismatch between the morphology (which indicates that the predicate is intransitive) and the syntax (which allows for an object) (cf. Wolfart 1973, Dahlstrom 1991 on AIt 'Animate Intransitive transitive' predicates). Thus the predicates such as *kocihtâ-* 'try.VAI' (95) and *kîsihtâ-* 'finish.VAI' (96) below may take a nominal argument, including English loanwords like *cookies*, and demonstratives like *ôma* 'that', but no dependent clause.

(95) a. kocihtâw **cookies**
kocihtâ-w cookies
try.VAI -3 cookies
'S/he tried the cookies.'

b. * kocihtâw **ka-nipât**
kocihtâ-w ka- nipâ -t
try.VAI -3 IRR- sleep.VAI-3
--- (*intended:* 'S/he is trying to sleep.')

(96) a. kîsihtâw **ôma**
kîsihtâ -w ôma
finish.VAI-3 DEM
'S/he finished this.'

b. * kîsihtâw **ê-nimihitot**
kîsihtâ -w ê- nimihito -t
finish.VAI-3 C1-dance.VAI-3
--- (*intended*: 'S/he finished dancing.')

c. * kîsihtâw ôma ê-nimihitot
kîsihtâ -w ôma ê- nimihito -t
finish.VAI-3 DEM.INAN C1-dance.VAI-3
--- (*intended*: 'S/he finished dancing.')

The last example, which shows that the demonstrative *ôma* can function as an argument of the predicate, is particularly important, because we recall that *ôma* was used to introduce propositions of transitive predicates like *tapwêwakêyihtam* 's/he believes it'. If the dependent CP were a complement of D (here instantiated by the demonstrative *ôma*), then the grammaticality of *ôma* would predict the grammaticality of the complement CP. Here, however, while *ôma* is grammatical, the CP is not; the result is that we do not want to analyze the dependent CPs as complements of D.

Nominal arguments have a privileged relationship to the verb that propositions do not share.

5.5.1.5 Incorporation is nominal

A final diagnostic for separating nominal and clausal elements is specific to Plains Cree: noun-incorporation, a process whereby some "noun" may occur internal to the verbal complex, excludes clauses but not nominal arguments.

Most widely known are examples like (97), where the object *awâsis* 'child' may occur external to the verbal complex as in (97a), but may be 'incorporated'[11] into the verbal complex as in (97b).

(97) a. nikanawêyimâw **awâsis**
ni-kanawêyim -â -w awâsis
1-watch.over.VTA-DIR-3 child
'I watched over a/the kid.'

b. nikanawêyim**âwas**on
ni-kanawêyim -awâs-o -n
1- watch.over.VTA-child-INTR-SAP
'I babysat.' (from Hirose 2000:132)

This is a highly productive process in Plains Cree (Wolfart 2008), and can target morphosyntactically-complex nouns like nominalizations. However, inflected stems like *maskisina* 'shoes' in (98a) cannot be incorporated unless the inflection is removed, as in (98b).

(98) a. postinam **masksin<u>a</u>**
postinam -w maskisin -a
put.on.VTI-3 shoe -PL
'He put shoes on.'

b. post**askisin**êw
[post-askisin]ê -w
put.on-shoe.VAI-3
'He put his shoes on.'

[11] Notice that the 'incorporation' terminology assumes a transformational relation between these two forms. While I continue to use this term since it is the most recognizable term, it is not at all clear that Plains Cree incorporation should be analyzed as a transformational process; the incorporated for could also be analyzed as a base-generated form (cf. Hirose 2001). This is a topic for further research.

This type of incorporation is completely unavailable to clauses.

(99) * nikisk-**ê-itohtêt**-ê-w
ni- kisk- ê- itohtê -t -ê -w
1- know-C1-go.VAI-3-DIR-3
--- (*intended*: 'I know that s/he went.')

The impossibility of incorporation here may be attributed to independent factors, since the incorporated form is often a truncated or even suppletive form of the unincorporated form.

Of more particular interest to the present discussion is a second type of incorporation which does not have the categorial or prosodic restrictions that stem-incorporation has. In this type of incorporation, the incorporated element can be subject or object, and can include quantifiers, demonstratives, and possessed forms. For example, in (100a) we have an indefinite object *kîkway* 'something', and in (100b) we have the inferential evidential *êtokwê*, and 1st-person possessed subject *nisis* 'my father-in-law/uncle':

(100) a. êkoni ê-masinihtatâyâhk kâ-wî-aya-**kîkway**-osîhtâyâhk, OBJECT
êkoni ê- masinihtatâ -yân-k kâ -wî- aya- kîkway- osîhtâ -yân-k
TOPIC.ref C1-pattern.VAI -1 -PL C2-INT-CONN-something- make.VAI-1 -PL
'...we would use these as patterns when we were going to make something, ...'
(EM 68)

b. ê-kî-**êtokwê-nisis**-kakwê-miskamawât iskwêwa aya, SUBJECT
ê- kî- êtokwê-ni-sis- kakwê-miskamaw-â -t iskwêw-a aya
C1-PREV-EVID- 1- uncle-try- find.VTA -DIR-3 woman-OBV CONN
'My **father-in-law must have** tried to find a wife for him, …' (EM 40)

If clauses behaved as arguments, this is a place where we could expect clauses to show up, but they are ungrammatical.

(101) a. nikî-tâpwêwakêyihtên **ê-miyosit**
ni-kî- tâpwêwakêyihtê -n ê- miyosi -t
1-PREV-believe.VTI -SAP C1- good.VAI-3
'I believed she was pretty.'

b. * nikî-**ê-miyosit**-tapwêwakêyihtên
ni-kî- ê- miyosi -t- tapwêwakêyihtê-n
1-PREV-C1-good.VAI-3-believe.VTI -SAP

From this I conclude that mediated argument clauses have a special status syntactically as opposed to true arguments.

5.5.1.6 Summary: Clauses do not sit in argument positions

Together, the noun-incorporation facts, the subcategorization facts about this class of "intransitive-transitive" verbs, and the facts about subjects provide language-internal evidence that propositions do not function as arguments: they are not complements, but rather they must be adjoined.

The analysis of mediated argument clauses makes them formally similar to right-dislocated nominals. In fact, when we compare the two constructions in Plains Cree, we see that they have similar characteristics. For example, in (102a), we have the pronominal form *kîkwây* 'what' preceding the verbal complex and the clause associated with and modifying it following the main clause; a prosodic break precedes the dependent clause. Similarly, in (102b), *kîkway* 'thing' is associated with right-dislocated arguments *maskisina* 'moccasins' and *astisa* 'mittens' (cf. Mühlbauer 2003, Wolvengrey 2007).

(102) a. **kîkwây** ê-kî-kitimahikot niwîkimâkan, [**ê-kî-minihkwêskit**];
kîkwây ê- kî- kitimah -iko -t ni- wîkimâkan ê- kî- minihkwê -ski -t
thing C1-PREV-trouble.VTA-INV-3 1- spouse C1-PREV-drink.VAI -HAB-3
'What used to give my husband trouble was that he used to drink;' (EM 28)

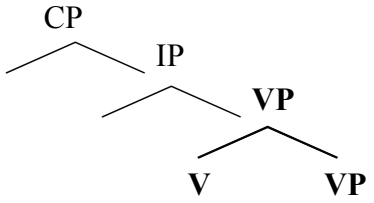
b. … **kîkway** k-ôsîhtâcik, **maskisina** êkwa aya **astisa**.
kîkway kâ- osîhtâ -t -k maskisin -a êkwa aya astis -a
thing C2- make.VAI-3 -PL moccasin-PL and CONN mitten-PL
'… the things they made, moccasins and mittens.' (EM48)

This right-dislocation position is associated with restriction: here the things being made are more narrowly identified as moccasins and mittens.

5.5.2 VP-complementation involves restructuring

In the last section I argued that CPs were never in argument positions; this means they are never in a complement position. In this section I show that there is a verbal complementation structure available. I argue this is VP-complementation as in (103).

(103)



This kind of complementation involves restructuring, where two predicates are integrated into a single clause. There are approximately a dozen preverbs which have restructuring properties.[12] Table 5.11 summarizes two properties that subclassify them: (i) whether they can occur in a non-restructuring environment (i.e., a position other than the preverbal one); and (ii) whether they can occur with an inanimate subject.

[12] Preverbs are a heterogenous class consisting also of clause-typing tense/aspectual, adverbial, and resumptive proforms (cf. Wolfart 1973, Cook 2003a, b; 2004),

Restructured (mono-clausal)	Full predicate Doublet?	Inanim subject
pôn- 'stop'	*pônihtâ-* (w/ nominal)	✔
kîs- 'finish / complete'	*kîsîhtâ-* (w/ nominal)	✔
mâci- 'start'	*mâcihtâ-* (w/ nominal)	✔
nitawi- 'go and do X'	✖	✔
wî- 'intend / going to'	✖	✔
nîhtâ- 'do habitually well'	✖	restricted
nôhtê- 'want'	✖	restricted
kwê- 'try'	*kocîhtâ-* (w/ nominal) *koci-* (w/ clause)	restricted

Table 5.11. Restructuring preverbs in Plains Cree

In this section I present evidence that restructuring in Plains Cree involves a single CP (i.e., is mono-clausal), and then I present evidence that restructuring involves a VP-complement.

5.5.2.1 Restructuring involves a single set of agreement

Restructured clauses have only a single set of agreement. In (104a) we have an object-mediated clause which carries an independent set of agreement (e.g., the third-person *-w* and third-person *-t*); (10b) shows that the absence of *-w* results in ungrammaticality.

(104) a. Jeff wanikiskisi**w** ka-asamâ**t** atimwa
J wanikiskisi-w ka- asam -â -t atimw-a
J forget.VAI -3 IRR-feed.VTA-DIR-3 dog -OBV
'Jeff forgot to feed the dog.'

b. * Jeff wanikiskisi_ ka-asamât atimwa
J wanikiskisi_ ka-asam -â -t atimw-a
J forget.VAI_ IRR-feed.VTA-DIR-3 dog -OBV

In restructured clauses, there is only one set of agreement (105a); adding another agreement marker to the preverb results in ungrammaticality.

(105) a. Jeff ê-kwê-asam**ât** atimwa
J ê- kwê- asam -â -t atimw -a
J C1-TRY- feed.VTA-DIR-3 dog -OBV
'Jeff is trying to feed the dog.'

b. * Jeff ê-kwê**t**-asamâ**t** atimwa
J ê- kwê -t -asam -â -t atimw-a
J C1-TRY -3-feed.VTA-DIR-3 dog -OBV

Given that agreement is always and only associated with a CP (see the discussion in chapter 2), the single set of agreement provides evidence that the the verbal complex forms a single CP.

5.5.2.2 Independent-order agreement is possible

Full dependent clauses require CONJUNCT-order agreement as shown in (106).

(106) a. nikiskisin **ê-pâhpiyân** CONJUNCT
ni-kiskisi -n ê- pâhpi -yân
1-remember.VAI-SAP C1-laugh.VAI-1
'I remember that I laughed.'

b. * nikiskisin **nipâhpin** INDEPENDENT
ni- kiskisi -n ni- pâhpi -n
1- remember.VAI-SAP 1- laugh.VAI-SAP

If the agreement in a restructured clause were agreement for a dependent clause, we would therefore expect that it would necessarily be in the CONJUNCT order (e.g., 107a). However, the agreement of a restructured clause can be INDEPENDENT order agreement (e.g., 107b).

(107) a. **ê**-nîhtâ-pâhpi**t** Lisa CONJUNCT
ê- nîhtâ- pâhpi -t L
C1-good.at-laugh.VAI-3 L
'Lisa is good at laughing/laughs a lot.'

b. **n**îhtâ-pâhpi**w** Lisa INDEPENDENT
nîhtâ- pâhpi -w L
good.at-laugh.VAI-3 L
'Lisa is good at laughing/laughs a lot'

The fact that conjunct-mode agreement is unnecessary provides evidence that restructuring yields a single clause, and thus that the complement phrase is smaller than a CP.

5.5.2.3 Restructuring allows only one set of temporal marking

Restructured clauses also have only one set of preverbal temporal/realis marking (*kî-; ka-; wî-*). This is shown for the irrealis *ka-* in (108), and shifting preverb *kî-* in (109).

(108) a. ni**ka**-pôn-mâton wîpac
ni- ka- pôn- mâto -n wîpac
1- IRR-stop- cry.VAI-SAP soon
'I will stop crying soon.'

b. * ni**ka**-pôn-**ka**-mâton wîpac
ni- ka- pôn- mâto -n wîpac
1- IRR-stop-cry.VAI-SAP soon
---

(109) a. ni**kî**-pôn-mâton
ni- kî- pôn- mâto -n
1- PREV-stop- cry.VAI-SAP
'I stopped crying.'

b. * ni**kî-**pôn-**kî**-mâton
*ni- **kî-** pôn- **kî-** mâto -n*
*1- **PREV**-stop- **PREV**- cry.VAI-SAP*

Further, the temporal marking must precede the matrix predicate (110a); it cannot occur between the higher predicate and the stem predicate (110b).

(110) a. ê-**kî**-kwê-wîcihak awa awâsis
ê- kî- kwê- wîcih -ak awa awâsis
C2-PREV-TRY- help.VTA-1>3 DEM.AN child
'I had tried helping this child'

b. * ê-kwê-**kî**-wîcihak
ê- kwê-kî- wîcih -ak
C1-TRY- PREV-help.VTA-1>3
'I had tried helping him'

(111) a. Jeff **kî**-pôn-mîcisow
J kî- pôn- mîciso -w
J PREV-stop-eat.VAI -3
'Jeff had stopped eating'

b. * Jeff pôn-**kî**-mîcisow
J pôn- kî- mîciso -w
J stop-PREV-eat.VAI -3

The inability for temporal elements to modify the complement provides evidence that the complement is smaller than IP.

5.5.2.4 Restructured clauses introduce a single set of arguments

Plains Cree verbal predicates are syntactically decomposable into lexical information (the root), temporal structure, and argument structure (Hirose 1999, Déchaine 2002, 2003). The morpho-phonological unit 'stem' corresponds to 'predicate': it consists of a root, plus one or more manner suffixes and one or more valency markers that correspond with argument structure (cf. Wolfart 1973, Hirose 1999, Déchaine 2003). A root without a manner suffix cannot be a stem, even with the appropriate agreement.

(112) a. nikino**si**n INTRANSITIVE
*ni- kino**si** -n*
*1- tall.**VAI**-SAP*
'I am tall.'

b. * nikinon
ni- kino -n
1- tall -SAP
--- (*intended*: 'I am tall.')

(113) a. nipîko**n**ên TRANSITIVE
*ni- pîkw**n**ê -n*
*1- break.**by.hand**.VTI-SAP*
'I broke it.'

b. * nipîkwên
ni- pîkwê -n
1- break.VTI-SAP
--- (*intended*: 'I broke it.') (Adapted from Hirose 1999; 17a & 18a)

In restructuring contexts, however, the matrix 'predicate' consists of a bare root.[13] In fact, a bare root is obligatory – no manner suffixes (temporal/argument structure) or theme signs (argument structure) are allowed.

(114) a. Toni ê-**kîsi**-mîcisot pahkwêsikana
T ê- kîsi- mîciso -t pahkwêskan -a
T C1-finish-eat.VAI-3 bread -OBV
'Toni finished eating the bread.'

b. * Toni ê-kîs**iso**-mîcisot pahkwêsikana
T ê- kîsiso -mîciso -t pahkwêsikan -a
T C1-finish.VAI-eat.VAI-3 bread -OBV

When these roots are used to form simple (non-restructured) clauses, they are like every other predicate in Plains Cree – they must take a manner suffix (valency marker). All of the aspectual roots take the neutral manner suffix *-îhtâ-* 'do', while non-aspectual roots take other

[13] Sometimes an *-i* appears suffixed to these roots. Historically, this was a morphological marker of an element in preverb position (see Pentland 1979); synchronically, it is completely absent from some preverbs, and appears, contingent on syllabic and foot structure, with other preverbs. It does not appear to have any impact on the predicate status of these roots.

transitivizers, including but not limited to -*êyim* 'by mind' and -*im* 'by mouth', and the neutral transitivizer -*ih*.

(115) a. * kîsw
kîs -w
finish-3
---

b. kîs**ihtâ**w
*kîs**ihtâ** -w*
*finish.**VAI**-3*
'S/he finishes it.'

(116) a. * nihtâw
nihtâ -w
want -3
---

b. nihtâw**êyihtam**
*nihtâw**êyiht**am -w*
*good.**by.mind**.VTI-3*
'S/he is clever/resourceful (at that).' (Wolvengrey 2001)

5.5.2.5 Restructured clauses only permit a single subject

Restructured clauses in Plains Cree have obligatory subject control. This is true even when the non-restructured clausal complement is allowed to have a disjoint subject, as in the case of *nitawêyiht-* 'want' (i.e., disjoint subjects should be allowed on semantic grounds):

(117) Bi-clausal constructions allow distinct subjects

a. ninitawêyihtên niya ka-nikamoyân SAME SUBJECT
ni- nitawêyihtê -n niya ka- nikamo -yân
1- want.VTI -SAP 1.EMPH IRR-sing.VAI-1
'I want for myself to sing.' / 'I want for myself to be able to sing.'

b. ninitawêyihtên Rose-Marie ka-nikamot DISTINCT SUBJECT
ni- nitawêyihtê -n RM ka- nikamo -t
1- want.VTI -SAP RM IRR-sing.VAI-3
'I want Rose-Marie to sing.'

(118) Restructured constructions do not allow distinct subjects

a. ni**nôhtê**-cihkêyihtên SAME SUBJECT
ni- nôhtê- cihkêyihtê -n
1- want- happy.VTI -SAP
'I want to be happy.'

b. * ni**nôhtê**-cihkêyihtên Laura DISTINCT SUBJECT
ni- nôhtê- cihkêyihtê -n L
1- want- happy.VTI -SAP L
--- (*intended:* 'I want Laura to be happy.')

This piece of evidence supports my claim that the complement phrase is a VP (rather than an IP or CP, both of which should allow disjoint subjects).

5.5.2.6 Restructuring preverbs are category-sensitive

Restructuring preverbs are category-sensitive: they can only select for verbal complements, not nominal complements.

(119) a. * pôn-**atim**
pôn-atim
stop-dog
---

b. pôn-**pâhpiw**
pôn-pâhpi -w
stop-laugh.VAI-3
'S/he stopped laughing.'

Notice that restructuring preverbs are different from adverbial preverbs, which are category neutral and can modify both nominal and verbal predicates.

(120) a. ni**misi**-mîcison
ni- misi- mîciso -n
1- lot- eat.VAI-SAP
'I ate a lot.'

b. ni**misi**-minôsim
ni- misi- minôs -im
1- big- cat -DSJ
'my big cat'

Thus, it is in restructuring environments that we find the categorial selection we were looking for with 'complement-clauses.' This means that argument-structure morphology in Plains Cree stems selects for DPs, stem-external verbal morphology selects for VPs. CPs by contrast, are never selected; they are always adjoined.

5.5.3 Copy-to-object constructions must be local agreement

In the copy-to-object phenomenon, first discussed for Plains Cree by Dahlstrom (1991), we have exactly a minimal pair: in one case the higher clause is inflected for an inanimate object, in the other case, it is inflected for an animate object, and this object must be coreferential with the subject of the lower clause.[14]

[14] "Copy-to-object" is also known as "raising-to-object" (Frantz 1978, 1980) and "cross-clausal-agreement" (Branigan & McKenzie 2002). Note that copy-to-object is, at least in Plains Cree, explicitly restricted to subjects (cf. Dahlstrom's 1991 discussion on *Tests for subjecthood*), and cannot be applied to objects (*contra* the claims made in Long 1999 (Plains & Swampy Cree), Bruening 2001 (Passamaquoddy), Branigan & MacKenzie 2002 (Innu-Aimun), Ritter & Rosen 2005 (Algonquian family), Bliss 2007 (Blackfoot)). Thus for example, in a direct verb form the higher verb may agree only with George (ia-b), while in an inverse verb form the higher verb form may agree only with *okosisa* 'his sons'(iia-b) (data from Dahlstrom 1986).

(i) a. nikiskêyimâw George ê-sâkih**â**t okosisa — agree with George
ni- kiskêyim -â -w G ê- sâkih -â -t o- kosis -a
1- know.VTA-DIR-3 G C1-love.VTA-DIR-3 3- son -OBV
'I know George loves his sons.'

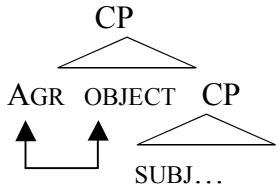
b. * nikiskêyim**im**âw**a** George ê-sâkih**â**t okosisa — agree with *okosisa*
ni- kiskêyim -im -â -w -a G ê- sâkih -â -t o- kosis -a
1- know.VTA-DISJ-DIR-3 -OBV G C1-love.VTA-DIR-3 3- son -OBV
---

(121) a. Mary kiskêyi**htam** George-a ê-âhkosiyit NON-COPY-TO-OBJECT
M kiskêyihtam -w G -a ê- âhkosi -yi -t
M know.VTI -3 G -OBV C1-sick.VAI-DS-3
'Mary knows George is sick.'

b. Mary kiskêyi**mêw** George-a ê-âhkosiyit COPY-TO-OBJECT
M kiskêyim -ê -w G -a ê- ahkosi -yi -t
M know.VTA-DIR-3 G -OBV C1-sick.VAI-DS-3
'Mary knows George is sick.' (Dahlstrom 1986:85)

There are two positions in the literature on the relation between these two forms. The first position is that in non-copy-to-object constructions, the main clause agrees with a proposition, while in copy-to-object constructions it agrees with an animate object, which then must be co-referent with the subject of the lower clause (Dahlstrom 1991, 1995). I will call this the object-agreement hypothesis.

(122)



This thesis takes the position that the object-agreement in these cases is always a case of local object agreeent.

The second position, argued for by Branigan & MacKenzie (2002), is that copy-to-object constructions have long-distance agreement with the topic of the embedded clause. On this view, object-agreement agrees with two types of elements: arguments, and non-arguments that are "altruistically check[ed] … to allow a topicalization structure to be established in the embedded clause that could not otherwise occur" (Branigan & MacKenzie 2002:386). This means that the argument of the lower clause escapes into some higher position where it can license agreement. I call this the long-distance agreement hypothesis; the relevant structure is

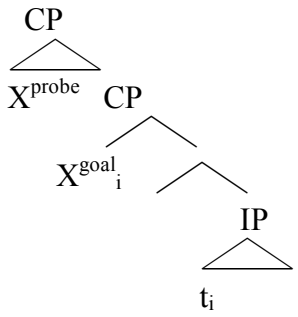
---

(ii) a. * nikiskêyimâw George ê-sâkih**iko**t okosisa agree with George
ni- kiskêyim -â -w G ê- sâkih -iko -t o- kosis -a
1- know.VTA-DIR-3 G C1-love.VTA-INV -3 3- son -OBV
---

b. nikiskêyim**im**âw**a** George ê-sâkih**iko**t okosisa agree with *okosisa*
ni-kiskêyim -im -â -w -a G ê- sâkih -iko -t o- kosis -a
1- know.VTA-DISJ-DIR-3 -OBV G C1-love.VTA-INV -3 3- son -OBV
'I know that his sons love George.'

given in (123). Here the agreement in the upper clause (X^{probe}) targets the subject of the lower clause (X^{goal}), even though this crosses a CP-boundary.

(123) Structure for cross-clausal agreement (Branigan & MacKenzie 2002)



Branigan & MacKenzie posit this structure because they believe there are a number of problems with the local agreement hypothesis that cannot be overcome. However, as they themselves point out, this analysis means that object-agreement in Innu-Aimun must be able to code two different kinds of relations – one regular local object agreement, and one long-distance agreement, although there is no independent evidence that it is doing both. Thus, if the problems with the local object agreement turn out not to be problems, the local object agreement is more economic.

I believe the local object agreement analysis can be maintained, at least in Plains Cree.

First, many of arguments used to argue against the local object agreement hypothesis show that there may be more divergence between the so-called 'dialects' of Cree than is usually assumed. The syntax of copy-to-object constructions (and cross-clausal syntax more generally) in Innu-Aimun is quite different than Plains Cree on a number of grounds. For example, Branigan & MacKenzie show that in Innu-Aimun, discontinuous quantifiers are only allowed in copy-to-object constructions, but in Plains Cree, as we have already seen, quantifiers may be discontinuous in any mediated argument clause (§5.4.2). Thus, in Plains Cree there is nothing special about copy-to-object constructions.

Similarly, the evidence that the prothetic object analysis cannot work is based on cases where plural referents are used in conjunction with singular agreement on the verb to get a distributive interpretation; in copy-to-object constructions, the agreement must match in both clauses, a fact which Branigan & MacKenzie claim cannot be accounted for by a prothetic object analysis.

(124) Pûn mâk Mânî nikamûpan
Paul and Mary sing.3SG
= Paul sang and Mary sang. (Branigan & MacKenzie 2002 (27b))

(125) a. N-uî -tshissenim-âu tshekuânnu kuet mûpishtût Pûn mâk Mânî.
*1-want-know-**3SG** why visited-2SG/**3SG** Paul and Marie*
'I want to know why you visited Paul and Marie.' (B&M 2002 (28b))

b. * N-uî-tshissenim-âu tshekuânnu kuet mûpishtût-âu Pûn mâk Mânî.
1-want-know-3SG why visited-2SG/3PL Paul and Marie
--- (B&M 2002 (29))

In Plains Cree, however, singular agreement is impossible in this context, and thus this test is inapplicable.

(126) a. Paul êkwa Mary nikamowak
P êkwa M nikamo-w-ak
P and M sing.VAI -3-PL
'Paul and Mary sang.'

b. * Paul êkwa Mary nikamow
P êkwa M nikamo-w
P and M sing.VAI -3
--- (*intended*: 'Paul and Mary sang.')

A final place where Plains Cree seems to diverge from Innu-Aimun is with respect to the linear position of the overt nominal associated with both clauses. Branigan & MacKenzie point out that the overt nominal is sometimes linearized within the lower clause, and conclude that the prothetic object analysis (or any local object agreement analysis) would predict this to be a violation of condition C, since the pronominal in the matrix clause would presumably bind the R-expression in the dependent clause.

However, as we have seen earlier, there are reasons to think that at least some overt nominals are introduced at the text-level in the sense of McCawley (1970). In fact, in general, Plains Cree nominals are much free-er in their linearization than English (or Innu-Aimun) appear to be. For example, in (128) the nominal associated with the initial (embedded) clause is discontinuous across a superordinate intransitive clause.

(127) " '**miskahkwâwi**, nika-misihon, **maskihkîwiyiniwak**,' nititik …"
miskam -k-wâw-i ni-ka-misiho -n maskihkîwiyiniw-ak ni(t)-it -ik -w
find.VTI-0-3PL -SUBJ 1- IRR-trouble.VAI-SAP doctor -PL 1- say.VTA-INV-3
' " 'If the doctors find it, I'll be in trouble,' he said to me ..." ' (AA 4.8)
(Lit: **if they find it**, I'll be in trouble, **(the) doctors**,' he said to me.)

Conversely, the fact that the overt nominal can appear in the higher clause in Innu-Aimun's copy-to-object construction is not limited to copy-to-object constructions in Plains Cree. As we saw earlier, overt nominals can be productively be situated to the left of an intervening clause. In Plains Cree, the position of the overt nominal is simply not sensitive to copy-to-object, and does not tell us much about local- vs. long-distance agreement.

Some of the other arguments that Branigan & MacKenzie use to argue against the local agreement anlaysis are in fact arguments against the *prothetic object* hypothesis, based on a construction that occurs in English. There are, in fact, several constructions in English that have what also looks like object agreement. These include the *prothetic object* construction (128a), the *exceptional case-marking (ECM)* construction (128b), and the *direct percept* constructions (128c).

(128) a. I saw of Mary that she was sleeping *prothetic object*

b. I saw Mary sleeping. *ECM*

c. I saw Mary – she was sleeping. *direct percept*

Branigan & McKenzie (2002) argue that copy-to-object cannot be local object agreement paralleling either of the structures in (128a-b).

For example, *prothetic object* constructions do not allow conjoined embedded clauses, but copy-to-object constructions do.

(129) a. * Peter believed of her that Marie fixed the car and Paula washed it

b. Peter believed of them that Marie fixed the car and Paula washed it.

(130) a. Pien uîtshi-**eu** Mânîua niâtiniminitshî utâpânnu âku Ânîua uîtshinit kîe Pûna
*Peter help-**3** Marie push truck rear Annie house and Paul*
'Peter helped Marie push the truck behind Annie's house and Paul

uieueshtânitshî ishkîtûnnu.
fix Ski-Doo
(to) fix the Ski-Doo.'

b. * N-uîtshi**âuat** Pien uieueshtât ishkîtûnnu mâk Ânî
*1-help-**3PL** Peter fix Ski-Doo and Annie*

niâtinâk utâpânnu âku Ânî uîtshît.
push truck rear Annie house
--- (no intended translation given)

Conversely, prothetic object clauses allow the prothetic object to be coreferential with embedded DPs (e.g., a possessor), but copy-to-object constructions do not.

The problem above, however, seems to be a problem with associating the copy-to-object construction in Innu-Aimun (or other Algonquian languages) with the prothetic object construction in English. It is clear that there is more than one way to have object agreement – even within English there are multiple object-agreement constructions (cf. 128a-c). Plains Cree's copy-to-object constructions share some properties with each of the English constructions, but the fact that Plains Cree does not share all of the properties of any of English's object-agreement constructions does not rule out the possibility that Plains Cree's object-agreement is local.

Summing up, then, the analysis of mediated argument clauses adopted here, where there is a uniform object-agreement syntax for Plains Cree copy-to-object and non-copy-to-object constructions, can be maintained.

5.6 Summary

In this chapter I argued that anaphoric clauses in Plains Cree subclassify into three types based on their syntactic properties:

(i) **CHAINS**, which are sensitive to precedence but not c-command;

(ii) **ADJUNCTS**, which are sensitive to c-command but not precedence;

(iii) **MEDIATED ARGUMENTS**, which are sensitive to both c-command and precedence.

I presented 2 kinds of diagnostics to motivate this classification. First, exclusion tests consistently fail with chained clauses, picking out sensitivity to c-command. Second, fronting tests consistently pick out mediated argument clauses.

Finally, I reported on a variety of consequences for this typology of clausal relations, including the lack of argument clauses, the lack of complementation, and uniform object agreement.

If there is no clausal complementation in Plains Cree, then we have to conclude that the term 'complementizer' (i.e., element that creates a complement) in Plains Cree is misleading: the CP layer of clauses in Plains Cree does not create complements. This result is in line with Reinholtz (2007) who claims that the function of C is parameterized and that the Cree complementizer system does not have functions that other, more studied systems have: for example, Plains Cree's complementizer system lacks the illocutionary distinctions between declarative, interrogative and imperative, made in a language like English.

On a broader view, Plains Cree's complementizer system is doing exactly what we might expect: "[it is] the interface between a propositional content (expressed by the IP) and the superordinate structure (a higher clause, or, possibly, the articulation of discourse, if we consider a root clause)" (Rizzi 1997:283). Rather than coding a syntactic relation of complementation, Plains Cree's clause-typing system codes a relation of anaphora, which is subject to the general properties of anaphora.

CHAPTER 6
THE SEMANTICS OF ANAPHORIC CLAUSES

6.1 Proposal: Presuppositional, a-veridical, and unspecified clauses

Up until now, I have developed an analysis that captures the distinction between indexical clauses (instantiated by Plains Cree's INDEPENDENT order) and anaphoric clauses (instantiated by Plains Cree's CONJUNCT order). In chapter 5, we saw that anaphoric clauses come in three different syntactic 'flavours': (i) they may be in an anaphoric chain; (ii) they may be adjoined to a CP; or (iii) they may be introduced via a mediated argument and adjoined to VP or IP. We further saw that this syntactic classification cross-cut the morpho-syntactic classification (i.e., the form of the clause-typing proclitic) of the CONJUNCT order.

In this chapter I turn to the classification of semantic functions of anaphoric clauses. I argue that there are three semantic 'flavours' of Plains Cree CONJUNCT clauses, corresponding to the three forms of the clause-typing proclitic: *kâ-* introduces a presuppositional clause; the covert ⃠ introduces a a-veridical clause, and *ê-* is an elsewhere case, i.e., introduces a semantically-unspecified clause.

	FUNCTION	FORM
(i)	**Presuppositionality** To presuppose a proposition in the pragmatic sense is to take its truth for granted, and to assume that others involved in the context do the same. (Stalnaker 1999:38)	*kâ*-CONJUNCT
(ii)	**A-veridicality** A proposition is a-veridical if and only if there is no possible entailment of p or ¬p in any individual's epistemic model ME(x).	⃠-CONJUNCT (simple CONJUNCT)
(iii)	**Elsewhere** To be elsewhere is to be unspecified, occurring in the absence of a specified element.	*ê*-CONJUNCT

There is therefore a one-to-one mapping between the semantic function of the clause and the form of the clause-typing proclitic.

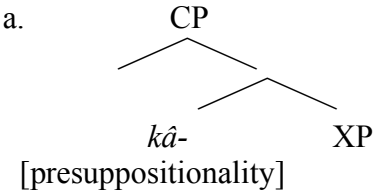
Almost nothing has been said in the Plains Cree literature about the function and distribution of CONJUNCT clauses. Wolfart (1973, 1996) provides a cursory summary of the function of each clause type. Blain (1997) provides a syntactic account of clause-typing with respect to wh-constructions but does not discuss how the analysis she proposes generalizes to other constructions with the same clause-typing. She also does not discuss the interpretational differences between different kinds of wh-questions. Long (1999) provides a syntactic analysis of complement-like clauses, but limits herself to discussing only CONJUNCT clauses with the complementizer *ê-*, and does not discuss the semantics of the complementizer. This chapter, therefore, marks the first time these generalizations have been presented, and the first attempt to develop an analysis.

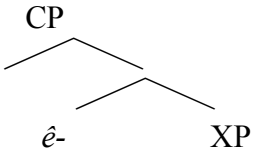
I will start by introducing the clause-type I am claiming is semantically unspecified (§6.2). I then examine each of two specified types of CONJUNCT clauses: the presuppositionality of *kâ-* (§6.3) and the a-veridicality of the simple CONJUNCT (§6.4).

6.2 *ê-* as the unspecified complementizer

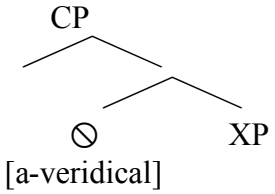
Clauses introduced by the *ê*-complementizer are by far the most ubiquitous in Plains Cree: they occur most frequently, and are in the widest distribution. When we consider all of the possible contexts *ê*-clauses can appear in, there seems little hope of providing a single property that unifies these contexts. Here I take the position that *ê-* is a semantically unspecified complementizer: its interpretation is a function of the contrast it provides to some other clause-type (cf. Goddard 2004 on animacy). In terms of its distribution, it occurs where the more-specified clause-type is infelicitous, and its distribution acquires the meaning that the specified clause-type doesn't have.

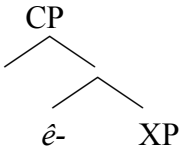
We then end up with three different contrasts. First, there is the contrast between *ê-* and *kâ-* clauses; this is a contrast between two overt complementizers. The *kâ-* complementizer is specified for presuppositionality (§6.3).

(1) a. 

b. 

Second, there is a contrast between *ê-* and ⃠-clauses. This contrast is between an overt complementizer and a null complementizer.

(2) a. 

b. 

As with *kâ-*, ⃠ is the specified member of the pair. The ⃠-clause (simple CONJUNCT) codes a-veridicality (§6.4), while the *ê*-clause is unspecified.

In the next section, I show how positing *ê-* as an unspecified complementizer accounts for its behaviour.

6.2.1 Distributional evidence for *ê-* being unspecified

In terms of their distribution, unspecified elements are predicted to occur in a wider set of contexts than their specified counterparts (Battistella 1990:37; see also Fort 1919, Jakobsen 1929, Trubetzkoy 1969, Aronoff 1976, Williams 1997). Distribution can be divided into two parts: the contexts that the element occurs in, and the other elements it combines with[1].

If we consider the distribution of clauses in Plains Cree, it is clear that the *ê-* clauses have the widest distribution: they occur in unembedded contexts, in relative clause contexts, and in mediated argument contexts. It is the only clause-type in the language that can do this. Further, every time two or more clause-types are grammatically possible, the *ê-* clause is one of the possibilities.

[1] Some linguists use frequency as another distribution measure. Since frequency alone provides only limited information, I do not include it here, but a quick glance through any Plains Cree text will suffice to show that the *ê-* clause-type is by far the most ubiquitous.

In unembedded contexts, we have indexical INDEPENDENT clauses, and anaphoric CONJUNCT clauses: the anaphoric CONJUNCT clauses have the complementizer *ê-*, as summarized in table 6.1.

CLAUSE RELATION		IND	Ê-	KÂ-	⊘
unembedded	Indexical	✔	✖	✖	✖
	Elsewhere (=anaphoric)	✖	✔	✖	✖

Table 6.1. *ê*-clauses are anaphoric in unembedded contexts

In relative-clause contexts, both *kâ-* and *ê-* clauses are possible. The *kâ-* complementizer occurs in presuppositional relative clauses, and the *ê-* complementizer occurs in the other, non-presuppositional relative clauses.

CLAUSE RELATION			KÂ	Ê-	IND	⊘
relative clause: argument modification	presuppositional		✔	✖	✖	✖
	non-presuppositional		✖	✔	✖	✖
wh-clefts	presuppositional		✔	✖	✖	✖
	non-presuppositional		✖	✔	✖	✖
correlatives	clause 1	presuppositional	✔	✖	✖	✖
	clause 2	non-presuppositional	✖	✔	✖	✖

Table 6.2. *ê*-clauses are non-presuppositional in relative-clause contexts

Finally, in mediated argument clauses, both simple CONJUNCT and *ê-* clauses are possible. The simple CONJUNCT specifies a-veridicality, and the *ê-* clause is again unspecified.

CLAUSE RELATION		⊘	Ê-	IND	KÂ-
mediated argument clauses	a-veridical	✔	✖	✖	✖
	veridical	✖	✔	✖	✖

Table 6.3. *ê*-clauses are veridical in mediated argument clauses

Similarly, *ê-* clauses have the widest ability to combine with other elements. For example the particle *osâm* has two functions: it can be a intensify the quantifier *mistahi* 'much' (*osâm mistahi* 'too much'), or it can be a subordinator indicating 'because'. As an intensifier, we find it in both indexical INDEPENDENT clauses (3a), and anaphoric CONJUNCT clauses (3b).

(3) a. – êkosi mân ê-itwêyân, INDEPENDENT
êkosi mâna ê- itwê -yân
TOP usually C1-say.VAI-1
'– that is what I usually say,

osâm mistah âtiht **ayiwâkêyimêwak** sôniyâwa.
osâm mistahi atiht ayiwâkêyim -ê -w -ak sôniyâw-a
too much some emphasize.VTA-DIR-3 -PL money -OBV
some people put too much emphasis on money.' (EM 63)

b. ..., **osâm** mâna **mistahi** mîn **ê-kî-atoskêt** aya wâsakâm nîkin-~ CONJUNCT
osâm mâna mistahi mîna ê- kî- atoskê -t aya wâsakâm n- îkin
too usually much also C1-PREV-work.VAI-3 CONN around 1- house
'..., and she also worked too hard around our house –~ …' (EM 56)

As a subordinator, however, it occurs with only one clause-type. That clause-type is the unspecified one: the *ê-* CONJUNCT, as exemplified in (4).

(4) ..., êwako ôma, **osâm ê-nêhiyawêyân** mitoni, ... *ê*-CONJUNCT
êwakw ôma osâm ê- nêhiyawê -yân mitoni
TOP DEM.INAN because C1-speak.Cree.VAI -1 really
'..., that is the reason, because I truly speak Cree, …' (SW 1.2)

Assuming that this is not a case of homophony, anaphoric *ê*-clauses thus allow both interpretations (i.e., they do not restrict the interpretation), while other clause-types restrict the meaning to one part of the term. In the following discussion, we will see in greater detail the interaction of the function of particles with clause-typing.

6.2.2 Interpretational evidence that *ê-* is unspecified

The interpretational evidence for determining specification has to do with the fact that a semantically unspecified form does not have any dedicated interpretation. Where the grammar prohibits one member of the contrast from occurring, the contrast is neutralized, and we expect that the unspecified member will lose its contextual value[2].

[2] Marked elements, on the other hand, should retain their specification is contexts where the contrast is neutralized. This is accurate for *kâ-* and simple-CONJUNCT clauses; see §6.3 and §6.4 for details.

Applying this criteria to the clause-typing system in Plains Cree, the prediction is that there will be contexts where *ê-* clauses lack non-presuppositional force (which it has in opposition to *kâ-*) and contexts where they lack veridical force (which it has in opposition to ⊘). Specifically, the *ê*-clauses' contextually-given force will disappear when the other clause-type is grammatically impossible.

This prediction is borne out for both the presuppositional contrast and the veridicality contrast. For example, in (5), the simple CONJUNCT introduces an a-veridical proposition, and the *ê-* CONJUNCT, which is occurring in the same syntactic context, introduces a veridical proposition; here the *ê-* clause is in contrast with the simple CONJUNCT, and has the complementary interpretation.

(5) a. **piko** ka-wâpamak nâpêw SIMPLE CONJUNCT
piko ka- wâpam -ak nâpêw
be.necessary IRR-see.VTA-1>3 man
'I have to see that man.'
= (i) I have not necessarily seen that man, but it is necessary that I do at some point.
≠ (ii) I have seen that man and it was necessary.

b. **piko** ê-wâpamak nâpêw Ê-CONJUNCT
piko ê- wâpam -ak nâpêw
be.necessary C1-see.VTA -1>3 man
'I have to see that man.'
≠ (i) I have not seen that man, but it is necessary that I do at some point
= (ii) I have seen that man and it was necessary.

However, when a simple CONJUNCT clause is impossible, *ê-* can be used in an a-veridical context; for example, an irrealis concessive clause introduced by *kiyâm* 'although' (6a). This means crucially that we cannot assign a particular veridicality value to the *ê*-clause: rather, it is unspecified.

(6) a. * **kiyâm ka**-mamâyîyêk ê-pîkiskwêyêk SIMPLE CONJUNCT
kiyâm ê- mamâyî -yêk ê- pîkiskwê -yêk
even C1-make.mistake.VAI-2PL C1-speak.VAI -2PL
--- (*intended*: '…**even if** you make mistakes when you speak.')

b. ..., **kiyâm ê**-mamâyîyêk ê-pîkiskwêyêk, ... Ê-CONJUNCT
kiyâm ê-mamâyî -yêk ê- pîkiskwê -yêk
even C1-make.mistake.VAI-2PL C1-speak.VAI-2PL
'…, **even if** you make mistakes when you speak, ...' (SW 1.2)

Likewise, the presuppositionality contrast shows that *ê-* does not have a fixed value. In particular, when a *kâ-* clause is syntactically impossible, an *ê-* clause is used to introduce clauses that look presuppositional, e.g., factive mediated argument clauses.

(7) a. * Laura **kiskêyihtam** Sam **kâ**-mîcisoyit cookies
L kiskêyihtam -w S kâ- mîciso -yi -t cookies
L know.VTI -3 S C1- eat.VAI-DS-3 cookies
--- (*intended*: 'Laura knows that Sam ate the cookies.')

b. Laura **kiskêyihtam** Sam **ê**-mîcisoyit cookies
L kiskêyihtam -w S ê- mîciso -yi -t cookies
L know.VTI -3 S C1-eat.VAI-DS -3 cookies
'Laura knows that Sam ate the cookies.'

This data argues against analyzing *ê-* as having a dedicated non-presuppositional semantic value. The most we can say is that *ê-* is non-presuppositional when it occurs in a context where a marked presuppositional *kâ-* clause is also possible.

The criteria of 'indeterminateness' also gets at the semantic value of the unmarked member of the value (i.e., that it doesn't have one). This means that there are places where the unmarked member of the opposition can be substituted for the marked one in some contexts.

Taking this criteria seriously may help think about the cases where the *ê-* clause and some other clause occur in contexts that are difficult to tease apart. For example, some of the temporal sequencers, such as *ispî* 'at.that.time' or *mayaw* 'as.soon.as' can introduce both *ê-* and *kâ-* clauses (exemplified in (8)). I am not implying that there is no difference between these two forms, but rather saying that the presupposition / non-presupposition distinction seems to have disappeared.

(8) a. …, sêmâk aya ê-kî-kiskinohamawit, **mayaw kâ**-pê-wîcêwakik, …
sêmâk aya ê- kî- kiskinhoamaw-it
right.away CONN *C1-PREV-teach.VTA -3>1*

mayaw kâ- pê- wîcêw -ak -ik
as.soon.as C2-come-dwell.VTA-1>3-PL
'… she taught me right away, as soon as I came to live with them, …' (EM 48)

b. ..., ê-kî-kakêskimit ana sêmâk aya, **mayaw ê**-kîsi-kihci-wîkihtoyâhk aya, …
ê- kî- kakêskim -it ana sêmâk aya
C1-PREV-counsel.VTA-3>1 DEM.AN *right.away* CONN
'…, [she] immediately began to counsel me,

mayaw ê- kîsi- kihciwîkih-to -yân-k aya
as.soon.as C1-finish-marry.VTA -REFL-1 -PL CONN
as soon as we had gotten married, …' (EM 42)

6.3 *kâ-* as a presuppositional complementizer

In this section I argue that the complementizer *kâ-* introduces a presuppositional clause: the proposition is presupposed.

(9) To presuppose a proposition in the pragmatic sense is to take its truth for granted, and to assume that others involved in the context do the same. (Stalnaker 1999:38)

According to this definition, presupposed propositions differ from non-presupposed ones in terms of how they relate to the speaker and hearer. In a non-presupposed proposition, part of the information being conveyed is an explicit claim about the truth of the proposition[3]. In a presupposed proposition, no such explicit claim is being made; the truth is assumed.

One test for the presuppositionality of a proposition is whether the assumed truth of the proposition survives under negation. If negation can deny the truth of the proposition, the proposition is taken to be non-presupposed; if negation cannot deny the truth of the proposition, the proposition is taken to be presupposed. For example, in (10), the factive verb *remember* introduces a factive presupposed complement (Kiparsky & Kiparksy 1971). In (10b), the

[3] Regardless of whether this truth is relative to an individual (Lasersohn 2005, Stephenson 2007, Kölbel 2003; see also Déchaine 2007, Mühlbauer 2008 for Plains Cree).

negation in the main clause denies the main clause proposition, but not the embedded clause proposition.

(10) a. John remembered that Bill left for Chicago yesterday.

Presupposition: Bill left for Chicago yesterday.

b. John didn't remember that Bill left for Chicago yesterday.

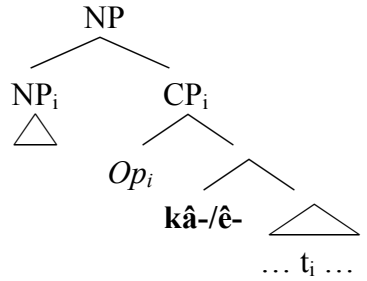
Presupposition: Bill left for Chicago yesterday.

In the following sections I show that *kâ-* clauses are found in a range of presuppositional contexts, including relative clauses (§6.3.1), wh-clauses (§6.3.2), temporal modification clauses (§6.3.3), concessive clauses (§6.3.4) and correlative constructions (§6.3.5).

6.3.1 Relative clauses: *kâ-* and *ê-*

Relative clauses – clauses which modify and restrict a nominal – are abundant in Plains Cree, particularly since adjectival modification is usually expressed via a full clause. I take a relative clause to be a CP with an operator in spec, CP that is adjoined to the NP serving as its antecedent, as in (11) (Heim & Kratzer 1998, Alexiadou *et al.* 2000, Bhatt 2002, Bianchi 1999, 2000).

(11)



As the examples in (12a-b) illustrate, a relative clause can modify both subjects and objects of the predicate.

(12) a. ana apisis-iskwêsis **kâ-miyosit** ê-pâhpit SUBJECT RC
ana apisis-iskwês -is kâ-miyosi -t ê- pâhpi -t
DEM.AN little- girl -DIM C2-pretty.VAI-3 C1-laugh.VAI-3
'The little girl who is pretty smiled.'

b. ni-nistawêyimâw ana iskwêw **kâ-mâtot** OBJECT RC
ninistawêyim -â -w ana iskwêw kâ-mâto -t
1-know.VTA -DIR-3 DEM.AN woman C2-cry.VAI-3
'I know that woman who is crying.'

While the relative clause follows the noun in both examples above, this is not by any means necessary; as with other adjoined clauses, both orderings are possible. (13) shows the preceding/following alternation for object relative clauses.

(13) a. Misti wâpamêw **kâ-wâpiskisiyit** minôs[4] PRENOMINAL RC
M wâpam -ê -w kâ- wâpiskisi -yi -t minôs
M see.VTA-DIR-3 C2- white.VAI -DS-3 cat
'Misti saw that cat that is white.'

b. ninistawêyimâw ana nâpêw **kâ-maskisit** POSTNOMINAL RC
ni-nistawêyim -â -w ana nâpêw kâ-maskisi -t
1-know.VTA -DIR-3 DEM.AN man C2-lame.VAI-3
'I know the man who's lame.'

I claim that when a relative *kâ-* clause is used, the proposition restricting the referent is presupposed. This analysis is used to capture the contrast between relative clauses introduced by the *kâ-* complementizer, and those introduced by the *ê-* conjunct clauses, which are also used in modificational structures. For example, in (14a-b) below, which differ minimally in the choice of complementizer of the relative clause, *kâ-* clauses cannot be used to introduce referents into a discourse: thus speakers reject *kâ-* relative clauses in contexts where the referent is previously unknown to the hearer.

[4] Note that the object of the transitive verb, *minôs* 'cat', in (37a and 38a-b) is not marked for obviation, although the corresponding verb is marked for dependent reference. This is a common occurrence in elicitation contexts; cf. Cook & Mühlbauer (2006).

(14) *context*: want to tell someone about a cat that Misti saw

a. ?# wâpamêw Misti **kâ-wâpiskisiyit** pôsîsa
wâpam -ê -w M kâ-wâpiskisi -yi -t pôsîs-a
see.VTA -DIR-3 M C2-white.VAI -DS-3 cat -OBV
'Misti saw the cat that was white.'

b. wâpamêw Misti **ê**-wâpiskisiyit pôsîsa
*wâpam -ê -w M **ê**- wâpiskisi -yi -t pôsîs -a*
*see.VTA -DIR-3 M **C1**-white.VAI -DEP-3 cat -OBV*
'Misti sees a cat that's white.'

(15) *context*: Hearer comes up and asks Speaker what happened to an injured girl

a. # iskwêsis ê-wîhtamawit **kâ-kaskitêsiyit** atim ê-tahkamikot
iskwêsis ê- wîhtamaw -it kâ- kaskitêsi -yi -t atim ê- tahkam -iko -t
girl C1-tell.VTA -3>1 C2- black.VAI-DS-3 dog C1- bite.VTA-INV -3
--- (*intended*: 'The girl told me a black dog bit her.')

b. iskwêsis ê-wîhtamawit atim **ê-kaskitesiyit** ê-tahkamikot
iskwêsis ê- wîhtamaw -it ê- kaskitêsi -yi -t atim ê- tahkam -iko -t
girl C1-tell.VTA -3>1 C1- black.VAI-DS-3 dog C1- bite.VTA-INV -3
'The girl told me that a dog that's black bit her.'

This is consistent with there being a presupposition on the *kâ-* relative clause: in order for the information about the referent to be presupposed, the referent itself must already exist in the discourse.

By contrast, if the referent and the relevant proposition already exist either in the immediate spatio-temporal context, or in the previous discourse, then the *kâ-* relative clause is felicitous and the *ê-* relative clause is not.

(16) *context*: specifically pointing at the white cat Misti saw

a. Misti wâpamêw **kâ-**wâpiskisiyit minôs
M wâpam -ê -w kâ-wâpiskisi -yi -t minôs
M see.VTA-DIR-3 C2-white.VAI -DS-3 cat
'Misti saw **that cat** that is white.'

b. # Misti wâpamêw **ê-**wâpiskisiyit minôs
M wâpam -ê -w ê-wâpiskisi -yi -t minôs
M see.VTA-DIR-3 C1-white.VAI -DS-3 cat
--- (*intended:* 'Misti saw **that cat** that is white.')

(17) *context*: picking the black cat out of a set of two cats that have been established in discourse

a. John wâpamêw anhi **kâ**-kastêsiyit minôs
J wâpam -ê -w anihi kâ- kastêsi -yi -t minôs
J see.VTA -DIR-3 DEM.OBV C2-black.VAI-DS-3 cat
'John saw the black cat.'

b. # John wâpamêw anhi **ê**-kastêsiyit minôs
J wâpam -ê -w anihi ê- kastêsi -yi -t minôs
J see.VTA -DIR-3 DEM.OBV C1-black.VAI-DS-3 cat
---(*intended:* 'John saw the black cat.')

(18) *context*: Rosie's been telling me about this big black dog she's been seeing; after some time, I finally see this dog, and want to tell Rosie about it[5]

a. niwâpamâw ana atim **kâ**-kastêsit
*ni- wâpam -â -w ana atim **kâ**-kastêsi -t*
*1- see.VTA-DIR-3 DEM.AN dog **C2**-black.VAI-3*
'I saw that black dog (that you've been talking about in the neighborhood).'

b. # niwâpamâw atim **ê**-kastêsit
*ni- wâpam -â -w atim **ê**-kastêsi -t*
*1- see.VTA-DIR-3 dog **C1**-black.VAI-3*
'I saw that black dog.'

As the difference in interpretation and necessity for context in the above example implies, the choice of complementizer correlates a contrast in definiteness (cf. Blain 1999). More specifically, because *kâ-* CONJUNCT clauses are presupposed the referent must also exist in the discourse (i.e., with respect to both speaker and hearer).[6] Thus, when introducing a referent that is previously unknown to the hearer, modificational *kâ-* clauses are infelicitous. Another example is given in (19), where the main verb *nakiskaw-* 'meet someone' facilitates a context for introducing a new referent; only the modificational *ê-* clause is felicitous.

---

[5] As a side note, when I asked about using an *ê-* clause with the deictic demonstrative, this was also ruled infelicitous by the consultant but given a different translation (one that suggests the *ê-* clause is being interpreted as mediated complement clause).

(i) # niwâpamâw ana atim ê-kastêsit
ni- wâpam -â -w ana atim ê- kastêsi -t
1- see.VTA-DIR-3 DEM.AN dog C1-black.VAI-3
'I saw the dog is black.'

[6] The implicational relationship between presupposition of the proposition and existence of the referent goes only one direction, i.e., it is possible for a referent to exist without the proposition with which it is associated to be presupposed.

(19) a. ninakiskawâw anohc toni **ê**-âhkosit nâpêw
ni-nakiskaw -â -w anohc mitoni ê- ahkosi -t nâpêw
1-meet.VTA -DIR-3 today very C1-sick.VAI-3 man
'Today I met a very sick man.'

b. # ninakiskawâw anohc toni **kâ**-âhkosit nâpêw
ni- nakiskaw -â -w anohc mitoni kâ- ahkosi -t nâpêw
1- meet.VTA -DIR-3 today very C2-sick.VAI-3 man
'Today I met a very sick man.'

comment: bad because we haven't been talking about this guy, and [the listener] doesn't know him

On the other hand, if the speaker is talking to the hearer about a referent who is known to the hearer, and referring to properties known by both the speaker and hearer, then the modificational *ê-* clause is no longer felicitous; a *kâ-* CONJUNCT clause must be used.

(20) a. nikiyokawâw kistês **kâ**-mâskisit
ni-kiyokaw -â -w ki-stês kâ- mâskisi -t
1-visit.VTA -DIR-3 2- brother C2-lame.VAI-3
'I visited your lame brother.'

b. # nikiyokawâw kistês **ê**-mâskisit
ni-kiyokaw -â -w ki-stês ê- mâskisi -t
1-visit.VTA -DIR-3 2- brother C1-lame.VAI-3
'I visited your lame brother.'

comment: funny, because [if you say it that way] you're announcing that he's lame, but they would already know that

In this context, the noun phrase containing the *ê-* clause has an indefinite interpretation, but notice that we don't have to say that the *ê-* clause is inherently specified. Under the principles of blocking, the use of an *ê-* form in a context where *kâ-* is felicitous induces a complementary interpretation for *ê-*; the indefinite meaning is derived from its context (cf. Heim 1982, Diesing 1992, Matthewson 1999 on the non-specification of indefinites). These two analyses (i.e., specification of indefinite vs. derived indefiniteness) make different predictions: the former predicts that *ê-* will always be indefinite (or more generally, non-presupposed); the latter predicts that *ê-* will be interpreted differently when it is part of a different contrast set (cf. §6.4).

6.3.2 Wh-questions

In Plains Cree, wh-questions systematically use *ê-* or *kâ-* CONJUNCT forms, rather than INDEPENDENT forms (Blain 1997). Thus, for example, a reason wh-question has the form in (21): an initial wh-word, an 'optional' demonstrative[7], and the *kâ-* CONJUNCT clause-type.

(21) tânîhkê (ôma) kâ-têpayan
tân-ihkê ôma kâ -têpa -yan
Q -why DEM.INAN C2-yell.VAI -2
'Why did you yell?'

In Blain's (1997) work on argument wh-questions, she found that all wh-questions tested alternated between the clause-typing proclitics *ê-* and *kâ-*.

(22) a. awîna **kâ**-ocêmât John-a
awîna kâ-ocêm -â -t J -a
who C2-kiss.VTA-DIR-3 J -OBV
'Who is it that kissed John / Who kissed John?'

b. awîna **ê**-ocêmât John-a
awîna ê- ocêm -â -t J -a
who C1-kiss.VTA-DIR-3 J -OBV
'Who kissed John?' (from Blain 1997:66)

Based on the arguments made in Blain (1997) and adopting her proposal, I take the structure of wh-questions to be as in (23): the wh-word is generated in a higher nominal predicate, and there is null operator movement to spec, CP within the dependent clause.

(23) $[\ \mathrm{WH}_i\ ]_{\mathrm{PRED}}\ [_{\mathrm{SUBJ}}\ \textit{pro}\ [_{\mathrm{CP}}\ \textit{Op}_i\ [_{\mathrm{C}}\ \textbf{kâ-}\ [_{\mathrm{IP}}\ \ldots\ \mathrm{t}_i\ \ldots\ ]$

There are several pieces of evidence for this structure; here I review two of the arguments (see Blain 1997 for fuller discussion). First, the wh-word cannot be 'in-situ', which would be surprising if the wh-word were moved (cf. English in-situ).

[7] The presence/absence of the demonstrative is determined by discourse-context; its presence seems to correlate with discourse-linking in the sense of Pesetsky (1987). When no overt demonstrative appears, I assume that there is a null *pro* argument (cf. Blain 1997).

(24) a. **What** did you see?

b. You saw **WHAT**?

(25) a. **awîniwa** John kâ-ocêmât
awîni-wa J kâ-ocêm -â -t
who -OBV J C2-kiss.VTA-DIR-3
'Who did John kiss?'

b. * John kâ-ocêmât **awîniwa** (Blain 1997: 60)
J kâ-ocêm -â -t awîni-wa
J C2-kiss.VTA-DIR-3 who -OBV

This is especially surprising given that Plains Cree word order is generally much free-er than that of English. However, if the wh-word is in a separate clause, then the ordering restrictions make sense.

Second, in languages where the wh-words undergo movement, multiple wh-questions are possible (with the second and third wh-words either in-situ or moved; cf. Richards 1997), as illustrated for English in (26).

(26) a. Who said what?

b. Who spoke to who?

However, this is impossible in Plains Cree. The examples in (27) show sentences constructed analogously to the English examples immediately above.

(27) a. * awîna ê-itwêt kîkwây
awîna ê- itwê -t kîkwây
who C1-thus.say.VAI-3 what
--- (*intended*: 'Who said what?')

b. * awîna kâ-pîkiskwâtât awîna
awîna kâ-pîkiskwât -â -t awîna
who C2-speak.VTA-DIR-3 who
--- (*intended*: 'Who spoke to who?') (from Blain 1997:90, (52a-b))

Neither can multiple wh-words be in initial position, as shown in (28).

(28) * awîna kîkwây ê-itwêt
awîna kîkwây ê- itwê -t
who what C1-say.VAI-3
--- (*intended*: 'Who said what?')

In the cleft structure, however, the wh-word is a predicate, rather than an argument, and given that there can only be one predicate per predication (Calabrese 1984, 1987), the ban on multiple wh-questions is explained.

Now, although Blain (1997) makes a claim about the syntax of Plains Cree wh-questions, she does not address their semantics. Here I argue that, although clefts in English are generally treated as inherently presuppositional, and questions are also sometimes treated as inherently presuppositional (Katz & Postal 1964, Karttunen & Peters 1976, among others) only the *kâ-* wh-questions are presuppositional in Plains Cree (cf. Rooth 1996, Déchaine 2002b; Davis, Matthewson, and Shank 2004 on non-presuppositional clefts). Wh-questions using *ê-* are non-presupposed even though they have the same syntactic structure as their *kâ-* counterparts.

6.3.2.1 *kâ-* wh-questions as presuppositional

The distributional differences between *ê-* clauses and *kâ-* clauses have not received much discussion in the literature for Plains Cree (see e.g., Blain 1997). On the account that the *kâ-* proclitic is marked for a presupposition, it may be surprising at first that there is any variation at all, given that many linguists consider questions to have an existential presupposition in them (cf. Katz & Postal 1964, Postal 1971, Karttunen & Peters 1976, Comorovski 1996). For example, Katz (1972) claims that "a presupposition of a question is a necessary condition for a successful interrogative speech act."

On the other hand, Fitzpatrick 2005 argues that there is no inherent presupposition for any wh-question except *how come* wh-questions. He shows that *how come* wh-questions have systematic presuppositional asymmetries with other wh-questions, such as the inability to be used in rhetorical questions where a negative answer is expected, and the inability of *how come*, but not other wh-questions to license negative polarity items (see also Chang 1997 on presuppositional and non-presuppositional wh-questions in French). On this account, a

syntactically marked structure (in English, a cleft with a definite determiner *it*, cf. Rooth 1996) is necessary to code a presupposition in other wh-questions.

If we take seriously that there are presuppositional and non-presuppositional questions, my claim that *kâ-* is presuppositional leads us to expect that presuppositional questions in Plains Cree will have the *kâ-* clause-typing, and by extension, that non-presuppositional questions will have the *ê-* clause-typing. This analysis helps to explain several otherwise puzzling asymmetries in the distribution of *ê-* vs. *kâ-* wh-questions.

Property	ê-	kâ-
out-of-the-blue context	✔	✖
presuppositional context	✖	✔
allows overt demonstrative	✖	✔

Table 6.4. Asymmetries between two wh-clause types

First, in wh-questions that have an alternation between an *ê-* proclitic and a *kâ-* proclitic, the *kâ-* version is rejected in out-of-the-blue contexts. For example, when consultants are asked to form a wh-question using *awîna* 'who', they give the *ê-* form (29a); when presented with the *kâ-* form, they react to it as 'funny'.

(29) *context*: out-of-the-blue translation of 'Who's tired?'

a. ? awîna **kâ**-nêstosit
awîna kâ- nêstosi -t
who C2- tired.VAI-3
---

b. awîna **ê**-nêstosit
awîna ê- nêstosi -t
who C1-tired.VAI-3
'Who is tired?'

(30) *context:* out-of-the-blue translation of 'Who's sleeping?'

a. *? awîna **kâ**-nipât
awîna kâ- nipâ -t
who C2-sleep.VAI-3
---

b. awîna **ê**-nipât
awîna ê- nipâ -t
who C1-sleep.VAI-3
'Who is sleeping?'

However, the 'funniness' can be fixed by introducing a presuppositional context. In (31), the speaker has in mind that someone is tired, and is trying to identify that person out of a group. Here, in a converse context, the clause-typing flips: the *kâ-* form is entirely natural.

(31) *context*: you know someone is tired, but you don't know who it is

a. awîn âwa **kâ**-nêstosit
awîna awa kâ-nêstosi -t
who DEM.AN C2-tired.VAI-3
'Who is this person that is tired?' (Does anybody know this person that is tired?)

b. # awîna **ê**-nêstosit
awîna ê- nêstosi -t
who C1-tired.VAI-3
'Who is tired?'@

Likewise, in (32), speaker A reports that he found speaker B's hat, whereupon speaker B asks about the time that this hat was found. In such cases, consultants volunteer the *kâ-* clause.

(32) A. kitastotin nikî-miskên
ki(t)- astotin ni- kî- miskê -n
2- hat 1- PREV-find.VTI-SAP
'I found your hat.'

B. tânispî kâ-niskaman[8]
tân-ispî kâ-miskam -an
Q- TEMP C2-find.VTI -2
'When did you find it?'

[8] The form in elicitation was *kâ-**n**iskaman* with a stem-initial [n], rather than the expected [m].

In one of the above examples, a demonstrative intervenes between the question word and the verbal complex (*awa* 'this.AN' in (31a)). A third difference between wh-questions with the *kâ-* clause-type and those with the *ê-* clause-type is that *kâ-* clauses readily permit the overt demonstrative, but *ê-* clauses do not. Blain reports that they are impossible for the consultants she worked with (33).

(33) a. awîna ana **kâ**-ocêmât John-a
awîna ana kâ- ocêm -â -t J-a
who DEM.AN C2- kiss.VTA-DIR-3 J-OBV
'Who is it that kissed John?'

b. * awîna ana **ê**-ocêmât John-a
awîna ana ê- ocêm -â -t J-a
who DEM.AN C1-kiss.VTA-DIR-3 J-OBV
---(*intended:* 'Who is it that kissed John?') (Blain 1997:68)

While there are examples like (33b) in running speech, they are quite rare, and it is not clear what conditions the choice of *ê-* as opposed to *kâ-*. In the following example, the speaker used an *ê-* clause, hesitated, and then immediately repeated the question with a *kâ-* clause.

(34) ... (-- tânis **ôm ê**-isiyîhkâtêk anima kotak, aya nikî-~, -- â,
tân -isi ôma ê- isiyîhkâtê -k anima kotak aya ni- kî â
Q -THUS DEM.INAN C1-be.called.VII-0 DEM.INAN other CONN 1- PREV HES
'... (what is that other place called – well,

tânis **ôma k**-êsiyîhkâtêk, niwanikiskisin --);
tân -isi ôma kâ- isiyîhkâtê -k ni-wanikiski -n
Q -THUS DEM.INAN C2- be.called.VII-0 1- forget.VAI-SAP
what is it called, I have forgotten);' (AA 3.4)

I do not have an analysis that captures exactly why *ê-* clauses cannot be used with a demonstrative; however, I believe using an demonstrative as an overt subject of the nominal predicate also has a discourse-linking effect that works in tandem with the *kâ-* clause-typing, and I suspect that because of the non-presuppositional interpretation that *ê-* clauses have *in this context* (i.e., as a result of their contrast with the *kâ-* clauses), it is difficult to use the overt demonstrative with them.

Fourth, reason wh-questions seem to only allow the *kâ-* clause-type, as in (35).

(35) a. tânêhki **kâ**-mâtot Tomio REASON
tân -êhki kâ- mâto -t T
Q -RAT C2-cry.VAI-3 T
'Why was Tomio crying?'

b. * tânêhki **ê**-mâtot Tomio
tân -êhki ê- mâto -t T
Q -RAT C1-cry.VAI-3 T

Reason wh-questions are restricted in particular ways across many languages (Huang 1982, Cheng 1991, among others). Lawler (1971) and Collins (1991) argue that *why* questions in English are somehow more presuppositional than other wh-questions, and Fitzpatrick (2005) argues that *how come* wh-questions are the only ones that have a presupposition at all. If this is correct, then *tânêhki* wh-questions in Plains Cree appear to behave exactly like English *how come* wh-questions in being inherently presuppositional.

Finally, for other adjunct wh-questions there is a systematic difference in translation: the *ê-* wh-questions are translated as simple English wh-questions, but the *kâ-* wh-questions are translated as English definite clefts.

(36) a. tânisi **kâ**-isi-sipwêhtêt Wâpastim MANNER
tân -isi kâ -isi -sipwêhtê -t W
Q -THUS C2 -THUS-leave.VAI-3 W
'How **was it** that Wâpastim left?'

b. tânisi **ê**-isi-sipwêhtêt Wâpastim
tân -isi ê- isi- sipwêhtê -t W
Q -THUS C1-THUS-leave.VAI-3 W
'How **did** Wâpastim leave?'

(37) a. tânispî **kâ**-sipwêhtêt Wâpastim TEMPORAL
tân -ispî kâ- sipwêhtê -t W
Q -TEMP C2-leave.VAI -3 W
'When **was it** that Wâpastim left?'

b. tânispî **ê**-sipwêhtêt Wâpastim
tân -ispî ê- sipwêhtê -t W
Q -TEMP C1-leave.VAI -3 W
'When **did** Wâpastim leave?'

(38) a. tânitê **kâ**-pâhpit Wâpastim LOCATIVE
tân -itê kâ- pâhpi -t W
Q -LOC C2-laugh.VAI-3 W
'Where is Wâpastim laughing **from**?'[9]

b. tânitê **ê**-pâhpit Wâpastim
tân -itê ê- pâhpi -t W
Q -LOC C1-laugh.VAI-3 W
'Where is Wâpastim laughing?'

6.3.3 Temporal modification

A third construction in which *kâ-* clauses are used is temporal modification, which gives a temporal relation between one event and another. In English, temporal modification is usually coded by the subordinators *while* (for overlap relations) and *when* (more general); both introduce a presupposed proposition (Declerck 1991).

The temporal relations expressed by English *when* and *while* are expressed in Plains Cree by means of the clause-typing *kâ-*. A *kâ-* clause, without any additional subordination elements, is interpreted as giving an unspecified temporal relation between the two clauses[10].

(39) a. iskwêw êsa **kâ-pimohtêt**, piyêsîs wâpamêw kâ-clause, IND
iskwêw êsa kâ- pimohtê -t piyêsîs wâpam -ê -w
woman EVID C2- walk.VAI -3 bird see.VTA -DIR-3
'**As** the woman was walking, she saw a bird.'

b. wâpahtam cikâstêpayin 'Survivor' **kâ-nêstosit**. IND, kâ-clause
wâpahtam -w cikâstêpayin S kâ- nêstosi -t
see.VTI -3 show S C2-tired.VAI-3
'He watches the show 'Survivor' **when** he's tired.'

---

[9] I do not know exactly where the locative preposition in the English translation is coming from, but I suspect the consultant is adding some sort of overt locative element to correspond to the question word; i.e., something like 'Wâpastim cried somewhere; where is that place?' which would be an alternative way (as opposed to English clefting) to mark the presupposition in English.

[10] Usually the aspectual value of the predicate yields a 'default' relation between the two clauses (cf. Hinrichs 1986, Kamp & Rohrer 1983, Declerck 1991), but these can be reversed by setting up a context. The relation can also be specified in a variety of ways: for example, the preverb *mêkwâ-* provides an explicit overlap relation; the preverb *kî-* provides a sequencing relation.

(40) a. **kâ-pê-pîhtikoyân**, nikosis ê-mîcit cookies kâ-clause, CONJUNCT
kâ-pê- pîhtiko-yân ni-kosis ê- mîci -t cookies
C2-COME-inside -1 1- son C1-eat.VTI-3 cookies
'**When** I came in, he was eating the cookies.'

b. nâpêw ê-pimpâhtât **kâ-itohtêt** atawêwikamikohk CONJUNCT, kâ-clause
nâpêw ê- pimpâhtâ-t kâ-itohtê -t atawêw-kamikw -hk
man C1-run.VAI -3 C2-go.VAI-3 buy- building-LOC
'The man ran **when** he went to the store.'

Notice that *ê-* clauses are rejected when translating *when* or *while* clauses into Plains Cree.

(41) *context:* English-to-Cree translation task: 'I was sleeping when he arrived.'

a. ninipân **kâ**-takosinit
ni- nipâ -n kâ- takosin -t
1- sleep.VAI-SAP C2- arrive.VAI-3
'I was sleeping **when** s/he arrived.'

b. * ninipân **ê**-takosinit
ni- nipâ -n ê- takosin -t
1- sleep.VAI-SAP C1-arrive.VAI-3

This doesn't have to do with temporal sequencing; *ê-* clauses can provide temporal sequencing just fine. Rather, it has to do with the presupposition: when translating a presuppositional clause, *ê-* is an infelicitous choice. The difference between the two is illustrated in the minimal pair of (42) and (43). If the *kâ-* clause is used, only denial of the *ê-* clause is possible.

(42) A. nâpêw ê-pimpâhtât **kâ-itohtêt** atawêwikamikohk
nâpêw ê- pimpâhtâ -t kâ- itohtê -t atawêwi- kamikw -hk
man C1-run.VAI -3 C2-go.VAI-3 buy- building -LOC
'The man ran when he went to the store.'

B. môya
NEG
'No.'
= I disagree that he ran
≠ I disagree that he went to the store

If the *kâ-* clause is replaced by an *ê-* clause, *môya* 'no' can negate either clause.

(43) A. nâpêw ê-pimpâhtât **ê-itôhtêt** atawêwikamikohk
nâpêw ê-pimpâhtâ-t ê- itôhtê -t âtawêw-i -kamikw-hk
man C1-run.VAI -3 C1-go.VAI-3 buy.VAI-PV-building-LOC
'The man is running to the store.'

B. môya
NEG
'No.'
= I disagree that he ran
= I disagree that he went to the store

comment: could be no to both; could be either one.

6.3.4 Concessive clauses

Concessive clauses "indicate that the situation in the matrix clause is contrary to expectation in the light of what is said in the concessive clause" (Quirk et al. 1985:1098). Relevant for our purposes is the fact that concessive clause is also presupposed: in a sentence like (44) the clause introduced by *although* concedes the allergy.

(44) Although I'm allergic to them, I love peanuts.

Concessive clauses in Plains Cree are often introduced by the particle sequence *kiyâm* (*âta)*. Like other particles we have seen in Plains Cree (see for example the discussion of *êsa* 'evidential' in chapter 3), the meaning of these particles is not fixed; rather, it is determined by a combination of its position and the clause-type that it introduces. For example, when *kiyâm* combines with a simple CONJUNCT or INDEPENDENT clause, the (presuppositional) concessive meaning is gone. With a simple CONJUNCT clause, the result is a type of weak imperative (45a), and with an INDEPENDENT clause it has a modifier role (45b)[11].

[11] Out of four texts, this was the only example of *kiyâm* occurring with the INDEPENDENT order that I could find, and my consultants were unable to give me an interpretation that demonstrated the role of *kiyâm* in such a clause. At any rate, it is not acting as a concessive.

(45) a. ..., "**kiyâm** êkota ka-nipahâhkatosocik," ê-itihcik. SIMPLE CONJ.
kiyâm êkota ka-nipahâhkatoso -t -k ê- it -ih -t -k
HORT there IRR-starve.VAI -3 -PL C1-say.VTA-USC-3 -PL
'..., "Let them starve to death there," it was said of them.' (AA 9.7)

b. ..., **kiyâm** kikâh-nanâskomitinâwâw, INDEPENDENT
kiyâm ki- kâh- nanâskom -iti -nâwâw
MOD 2- would-thank.VTA -1>2 -PL
'... and I would thank you ...' (SW 1.2)

The data in (45) above shows that the particle *kiyâm* does not inherently have presuppositional force. When *kiyâm (âta)* is combined with a *kâ-* clause, however, the clause has a concessive force and a representative gloss would be 'although'. In (46), the *kiyâm* clause describes a situation that the speaker presents as given information: she is not stating that the father sometimes spoke to the son in anger, but rather taking it for granted, and making a statement about what the son did in those circumstances.

(46) ..., **kiyâm âta** kâ-kisîkitotikot, kî-manâcihêw ôhtâwiya, ...
kiyâm âta kâ- kisîkitot -iko -t kî- manâcih -ê -w o- ohtâwiy -a
although even C2-speak.angrily.VTA-INV-3 PREV-respect.VTA-DIR-3 3- father -OBV
'..., even when [his father] spoke to him in anger, he used to respect his father ...' (EM 30)

The distribution of *kiyâm (âta*) 'although' clauses in corpus sources is given in table 6.5. For all speakers where this form is attested (EM, AA, and SW), the clause type introduced by *kiyâm (âta)* can be *kâ-*; for two of the speakers, *kâ-* is the only choice. This is expected by an analysis of *kâ-* where it introduces a presupposition: there is a one-to-one mapping between the presuppositional interpretation of the clause and the clause-type.

kiyâm (âta) 'although'	IND	ê-	kâ-	⊘	IC
EM	✖	✖	✔	✖	✖
AA	✖	✖	✔	✖	✖
SW	✖	✔	✔	✖	✖
JKN	--	--	--	--	--

Table 6.5. Clause-typing and *kiyâm*

Notice that one text illustrates *kiyâm* introducing concessive clauses with the clause-typing proclitic *ê-*. However, there is a difference in interpretation: the *ê-* clause is irrealis (*even if*), and

the *kâ-* clause is realis. In an irrealis clause, the event has not been realized, and so its truth cannot be evaluated (cf. §6.4); thus the proposition (47a) is not classified as presupposed.

(47) a. ..., **kiyâm ê**-mamâyîyêk ê-pîkiskwêyêk, ...
kiyâm ê- mamâyî -yêk ê- pîkiskwê -yêk
even C1-make.mistake.VAI-2PL C1-speak.VAI-2PL
'..., **even if** you make mistakes when you speak, ...' (SW 1.2)

b. êkwa mîna **kiyâm** awiyak **kâ**-kakwê-kakêskimiht, ...
êkwa mîna kiyâm awiyak kâ- kakwê- kakêskim -ih -t
and also even someone C2- TRY- counsel.VTA-USC-3
'And **even when** one tries to counsel them, …' ('Jean' in SW 31)

Finally, notice that although *kiyâm* often occurs with *âta*, and although *âta* is sometimes defined as a concessive (W&A 2000:200), we cannot say that *âta* is responsible for the concessive interpretation. First, we see examples where *âta* is not present (e.g., 47b above) and the concessive meaning is still there. Second, when we compare the clauses it occurs in, we see that the concessive meaning shows up in *kâ*-clauses (47b), but not in other clause types, such as the INDEPENDENT clause in (48b) where it is part of an emphatic phrase.

(48) a. ..., akâmaskîhk **âta** kîkway **k**-ôhpikik aya, KÂ-CONJUNCT
akâmaskî -hk âta kîkway kâ- ohpiki -k aya
overseas -LOC although something C2-grow.VII-0 CONN
..., **even** when something grows in these places overseas,

manicôsak êsa mân ê-kitâcik kistikâna, ...
manicôs -ak êsa mâna ê- kitâ -t -k kistikân -a
insect -PL EVID usually C1-eat.VAI-3 -PL crop -PL
insects eat the entire crops, ... (EM 63)

b. **âta** wiya nîsta piyisk **nikî-tôtên** êwakw ânima, ... INDEPENDENT
âta wiya nîsta piyisk ni- kî- tôtê -n êwakw anima
indeed EMPH 1.EMPH finally 1- PREV-do.VTI-SAP TOP DEM.INAN
'I, too, finally used to do that, …' (EM 50)

6.3.5 Correlatives

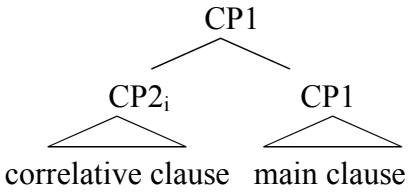
The identifying feature of a correlative structure is that it is a relative clause that is dissociated from the nominal it modifies in the main clause. These occur in many languages, though they are perhaps most widely discussed for Hindi (Srivastav 1991). For example, in (49) the relative clause *jo khaRii hai* 'who is standing' which occurs with its head *laRkii* 'girl' in (49a), can be separated from it as in (49b). The two clauses are linked morphologically, by a demonstrative (here *vo*) on the main clause and a relative clause marker (here *jo*) on the relative clause.

(49) a. [**jo** laRkii **khaRii** **hai**] [vo lambii hai] Hindi
REL girl standing is DEM tall is
'The girl who is standing is tall.'

b. [vo laRkii lambii hai] [**jo** **khaRii** **hai**]
DEM girl tall is REL standing is
'The girl who is standing is tall.'
(Srivastav 1991:639-40)

Srivastav argues that in a structure like (49b), the relative clause is adjoined to the main clause. She argues that this an IP for Hindi, but since nothing crucial hinges on that (p. 674) and the data she gives justifying it in Hindi does not extend to Plains Cree, we can say that it is adjoined to CP (i.e., like any other clausal adjunct).

(50)



In Plains Cree we get parallel structures to the Hindi examples. (51a-b) provides an example: the predicate that the relative clause modifies has a manner component, and both clauses are marked with *isi-* 'thus'. The initial clause has a head (e.g., *pêyakwan* 'same' and/or *isi-* 'thus'), and is clause-typed with the proclitic *kâ-*; the second clause has a topic marker *êkosi* 'that way' and is clause-typed with the proclitic *ê-*.

(51) a. **pêyakwan** kâ-kî-**isi**-wîhtamawit, **êkos** ê-**isi**-wîhtamawit awa kisêyiniw, ...
pêyakwan kâ- kî- isi- wîhtamaw-it
same C2-PREV-THUS-*tell*.VTA -3>1

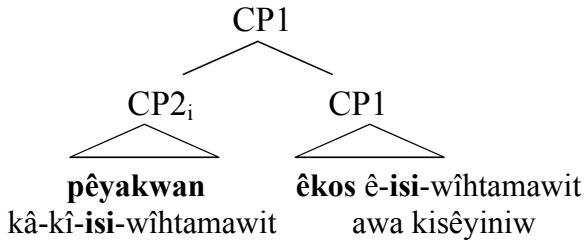
êkosi ê- isi- wîhtamaw-it awa kisêyiniw
TOPIC C1-THUS-*tell*.VTA -3>1 DEM.AN *old.man*
'this old man ... told me the same thing as my father had told me:' (JKN 1.5)
(lit.: '**the same** as he **thus** told me, **so** did this old man tell me')

b. kisê-manitow **k-êsi**-kitâpamikoyahk, **êkos** ânim **ê-isi**-kitâpamât;
kisê-manitow kâ- isi- kitâpam -iko -yahk
God C2-THUS-*look*.VTA-INV -1/2.PL

êkosi anima ê- isi- kitâpam -â -t
TOPIC DEM.INAN C1-THUS-*look*.VTA-DIR-3
'**the way** God looks upon us, **that is the way** she looks upon them;' (EM 38)

Adopting Srivastav's analysis, we represent these clauses as in (52).

(52)



Of particular interest here is the clause typing of each clause. While both clauses introduce an open variable that must be bound (hence, both are anaphoric CONJUNCT clauses), in particular the relative clause is represented by the *kâ-* clause – this is the clause which is presupposed. This property fits both with the independent facts we find about *kâ-* clauses as relative clauses, and with the more general semantic properties of *kâ-* as introducing presuppositional content.

6.4 ⊘ as a-veridical

I now turn to the semantics of the simple CONJUNCT, which I am claiming has a null complementizer (⊘). Whereas *kâ-* codes a preupposition of the truth of the proposition, I claim that the simple CONJUNCT codes that the truth of the proposition cannot be established at all.

Consider the following four sentences in English. In (53a), the proposition 'I like apples' is entailed to be true relative to me (the speaker). In (53b) and (53c), there is no entailment that the proposition 'you like apples' is true. And in (53d), there is an entailment that the proposition 'I like apples' is false.

(53) a. I like apples

b. Do you like apples?

c. Eat an apple!

d. I don't like apples.

There are two ways we could subclassify these sentences. On the basis of negative polarity items in a number of languages, Giannakidou (1998, 2008) proposes that the relevant feature is whether there is an entailment of truth or not. This means that the basic division is between (53a), which she terms *veridical* and (53b-d), which she terms *nonveridical*; the nonveridical class is an 'elsewhere' class. The relevant definition is given in (54).

(54) **Veridical**$_{def}$: a propositional operator F is veridical if and only if F(p) entails or presupposes that p is true in some individual's epistemic model ME(x); otherwise F is nonveridical (Giannakidou 2008:13)

The utterance in (53d), which entails that the proposition is false, is a subclass of nonveridical cases, and is defined as in (55).

(55) **Anti-veridical**$_{def}$: a nonveridical operator F is antiveridical if and only if F(p) entails that *not p* in some individual's epistemic model: Fp → ¬p in some ME(x) (Giannakidou 2008:13)

Since anti-veridicality is a subclass of nonveridicality, this analysis predicts that nonveridical elements will be triggered in antiveridical contexts (for example, in the context of negation).

However, in Plains Cree's clause-typing system, there is evidence that the distinction is between propositions which have an entailment (whether that is veridical or antiveridical) and those which do not. Simple CONJUNCT clauses are found in contexts where there is no entailment of truth, as in the dependent clause in (56), where there is no entailment that Jeff either did or did not smile.

(56) niwîhtamawâw Jeff **ka-pâhpit**
ni- wîhtamaw -â -w J ka- pâhpi -t
1- tell.VTA -DIR-3 J IRR-laugh.VAI-3
'I told Jeff to smile.'

Crucially, the simple CONJUNCT cannot be used in antiveridical contexts (i.e., when there is an entailment of falsehood). For example, in (57) we have the predicate *wîhtamaw-* 'tell.x.to.y.VTA' introducing a negated embedded clause. The simple CONJUNCT cannot be used here (57b).

(57) a. niwîhtamâk Laura **êkâ ê-mâtoyit** Martha
ni-wîhtam-aw-ikw L êkâ ê- mâto -yi -t M
1-tell.VTA-BEN-INV L NEG C1-cry.VAI-DS-3 M
'Laura told me that Martha isn't crying.'

b. ! niwîhtamâk Laura **êkâ ka-mâtoyit** Martha
ni-wîhtam-aw-ikw L êkâ ka- mâto -yi -t M
1-tell.VTA-BEN-INV L NEG IRR-cry.VAI-DS-3 M
--- (*intended*: 'Laura told me that Martha isn't crying.')

Giannakidou (1998:117) also comments that there are polarity items that have this distribution, and suggests that they are licensed by nonveridicality but anti-licensed by anti-veridicality.

As an alternative to Giannakidou's (1998, 2008) classification, I suggest on the basis of Plains Cree's data that veridicality could be organized in some languages around whether there is an entailment or not. I propose the term a-veridicality to talk about those things which do not have an entailment of any kind.

(58) **A-veridical**$_{def}$: a proposition is a-veridical if and only if there is no possible entailment of p or ¬p in any individual's epistemic model ME(x)

In terms of the English sentences above, the proposed organization would class (53a) and (53d) together in one subclass, and (53b-c) in a second subclass.

In the following subsections I show that this definition accounts for the distribution of Plains Cree simple CONJUNCT clauses in a variety of contexts. These include mediated argument clauses, corresponding in much detail to the subjunctive of Romance (specifically, Romanian) (§6.4.1), purpose clauses (§6.4.2), and the antecedents of conditionals (§6.4.3).

6.4.1 Mediated argument clauses split along a-veridicality

As we saw in chapter five, mediated argument clauses (associated with an argument position) sometimes were realized by a clause with the complementizer *ê-*, and sometimes with just the irrealis marker *ka-*. Returning to the distributional criteria that distinguish these two clauses, we see that they parallel very closely the distributional difference between indicative and subjunctive clauses in Indo-European (and specifically, in Romanian, based on Farkas 1985, 1992). Like the Romanian subjunctive, Plains Cree simple CONJUNCT clauses occur (i) under weak intensional predicates; (ii) with the weak intensional meaning of an intensionally ambiguous predicate; (iii) under certain negated strong intensional predicates. Also like the Romanian subjunctive (but unlike other Romance languages), simple CONJUNCT clauses cannot occur (iv) under factive-emotive predicates; or (v) to indicate lack of speaker knowledge.

The veridicality analysis of the Romanian subjunctive, here extended to Plains Cree, thus captures both the idea that the subjunctive mood is marked for a semantic property, and the identity of that property (i.e., *a-veridicality*).

6.4.1.1 Sensitivity to weak intensional predicates

In Romance, verbal predicates can be systematically categorized according to whether they introduce an indicative or subjunctive clause (see, e.g., Farkas 1985, 1992). In chapter 5, we saw that verbal predicates in Plains Cree can also be classified according to whether the embedded clause has the complementizer *ê-* or is simple CONJUNCT. If we compare the two classification systems, we see that the Romanian subjunctive is triggered by the same class of predicates that triggers the *ka-* prefixed form of the simple CONJUNCT clause[12].

[12] I have excluded some Romanian contexts, such as predicates of uncertainty, that do not apply to Plains Cree (i.e., Plains Cree does not have a comparable predicate of uncertainty).

Class of superordinate predicates	Romanian Subjunctive	Plains Cree *ka-* simple CONJUNCT
declaratives (say, tell, announce)	✖	✖
epistemic (know, believe, be sure)	✖	✖
perceptual (see, hear, smell, taste)	✖	✖
fiction (dream, imagine)	✖	✖
factive-emotives (regret, be sad)	✖	✖
desideratives (try, want, wish, desire)	✔	✔
directives (order, ask, request)	✔	✔
fear (be afraid of)	✔	✔

Table 6.6. Comparison of Plains Cree simple CONJUNCT and Romanian subjunctive

The individual predicates falling into these classes includes the following members (this is not an exhaustive list, but includes all predicates I had data for).

Class of predicates	Cree class members	Clause-type
declaratives	*itwê-* 'say.VAI'; *it-* 'say.to.VTA' *wîhtamaw-* 'tell.VTA'	*ê-*
epistemic	*tâpwêwakêyiht-* 'believe.VTI' *kiskêyiht-* 'know.VTI' *itêyiht-* 'think.VTI' *kiskisi-* 'remember.VAI' *wânkiskisi-* 'forget.VAI'	*ê-*
perceptual	*wâpaht-* 'see.VTI' *pêht-* 'hear.VTI'	*ê-*
fiction	*pakwat-* 'dream.VTI'	*ê-*
factive-emotives	*miywêyiht-* 'be.glad.VTI' *kost-* 'be.afraid.VTI' *takahkêyiht-* 'approve.VTI' *miywâsin* 'be.good.VII' *kisî-* 'angry'	*ê-*
desideratives	*nitawêyiht-* 'want.VTI' *nitawêyim-* 'want.VTA' *koci-* 'try.VAI'	SIMPLE w/ *ka-*
directives	*kawêcim-* 'ask.VTA' *nitotamâ-* 'request.VAI' *kakêskim-* 'counsel.VTA'	SIMPLE w/ *ka-*
fear	*kost-* 'fear.VTI' *sêkisi-* 'fear.VAI'??	SIMPLE w/ *ka-*

Table 6.7. Classification of predicates by clause-type of subordinate clause

6.4.1.2 Sensitivity to weak intensional meanings

A second property of the indicative/subjunctive split in Romance is that there are a number of verbs which can take either kind of embedded clause. In these cases, the form of the clause correlates with the weak vs. strong intensional meaning of the higher verb. For example, Farkas (1992:70) reports "in [59a] the verb is a declarative: it reports an assertion made by Ion; in (59b) the verb is a directive: it reports a directive of Ion's."

(59) a. Ion a spus [că Maria a plecat].
I. has said that M. has left.

b. Ion a spus [că Maria să plece imediat].
I. has said that M. SUBJ leave immediately. (Farkas 1992:70)

Plains Cree likewise has predicates which can introduce either kind of embedded clause, including verbs of speaking and generic verbs. Table 6.8 presents the predicates I have found with such an alternation.

Verb	ê- clause	ka- CONJUNCT clause
wîhtamaw- (tell.VTA)	'tell Y that X'	directive 'tell Y to X'
it- (say.to.VTA)	'say to Y that X'	directive 'say to Y to X'
miywêyiht- (be.happy.VTI)	factive-emotive 'happy that X'	generic-emotive 'happy Xing'
wânkiskisi- (forget.VAI)	factive	a-veridical
kiskisi- (remember.VAI)	factive	a-veridical
kost- (afraid.VTI); *sêkisi*- (afraid.VAI)	factive-emotive	fear of unknown

Table 6.8. Unselective predicates

The behaviour of speech predicates is exemplified in (60): when the embedded clause is marked by *ê-,* the predicate *wihtamaw*- 'tell' presents information (predicting what Jeff will do); when the embedded clause has no overt marking, *wihtamaw*- 'tell' directs someone to do something (telling Jeff what he must do).

(60) a. niwîhtamawâw Jeff **ê**-wî-pâhpit
ni-wîhtamaw -â -w J ê- wî- pâhpi -t
1- tell.VTA -DIR-3 J C1-INT-laugh.VAI-3
'I'm telling Jeff he's going to laugh.'

comment: you're going to tell him a joke that will make him laugh

b. niwîhtamawâw Jeff **ka**-pâhpit
ni- wîhtamaw -â -w J ka- pâhpi -t
1- tell.VTA -DIR-3 J IRR-laugh.VAI-3
'I told Jeff to smile.'

With psychological predicates, the embedded simple CONJUNCT clause gets an a-veridical interpretation, while the embedded *ê-* clause consistently gets a factive (veridical) interpretation. For example, in (61), the simple CONJUNCT form (61a) does not entail anything about Jeff's eating, while *ê-* clause entails (61b) that he did eat.

(61) a. Jeff ê-wanikiskisit **ka**-mîcisot
J ê- wanikiskisi -t ka- mîciso -t
J C1-forget.VAI -3 IRR-eat.VAI-3
'Jeff forgot to eat.'

b. Jeff ê-wanikiskisit **ê**-mîcisot
J ê- wanikiskisi -t ê- mîciso -t
J C1-forget.VAI -3 C1-eat.VAI -3
'Jeff forgot that he had eaten.'

Likewise, in (62), the simple CONJUNCT does not entail that the speaker has ever been left home alone. The *ê-* CONJUNCT does entail that the speaker is alone.

(62) a. nisêkisin **ka-**pêyakwapiyân
ni-sêkisi -n ka- pêyokwâpi -yân
1- afraid.VAI-SAP IRR-be.alone.VAI-1
'I'm afraid to be home alone.'

comment: you would say this even if you've never been left alone before

b. nisêkisin **ê**-pêyakwapiyân
ni-sêkisi -n ê- pêyokwâpi -yân
1- afraid.VAI-SAP C1-be.alone.VAI-1
'I was afraid being home alone.'

comment: I'm home alone right now

6.4.1.3 Sensitivity to negation

A third piece of evidence for the semantic properties of the Romance clause-typing is its sensitivity to negation. An epistemic predicate that introduces the indicative (63a), can introduce the subjunctive if it is negated (64a-b).

(63) Epistemic predicates in Romanian introduce indicative

Ion crede [că a venit Ana].
I. believes that has come A
'Ion believes Ana came.'

(64) Negative epistemic predicates in Romanian introduce indicative or subjunctive

a. Nu cred [**să** fi venit Ana].
no believe.1 SUBJ *past come A.*
'I don't believe Ana came.'

b. Nu cred [**că** a veniit Ana].
no believe.1 that has come A
'I don't believe Ana came.' (from Farkas 1992:70)

Likewise, negation introduces the possibility for either clause-type in Plains Cree. As we saw in chapter 5, the two clause-types correspond to two distinct contexts that are not distinguished in English clause-typing. In (65) the simple CONJUNCT expresses a proposition whose truth is not entailed according to any individual, while in (66) the *ê-* CONJUNCT expresses a proposition whose truth is entailed, but not relative to the speaker's visual perception (i.e., the higher predicate).

(65) *context:* when no-one knows where little brother is, someone asks if you saw him

môya ê-wâpamak nisîmis wayawîhtamihk **ka-mêtawêt**
môya ê- wâpam -ak ni- sîmis wayawîhtamihk ka- mêtawê -t
NEG C*1-see.*VTA*-1>3 1- sibling outside* IRR*-play.*VAI*-3*
'I didn't see my little brother playing outside.'

comment: **nobody knows if he's playing outside or not**

(66) *context*: if some accident happened outside where your brother got hurt through you not seeing him. You say this afterwards

môya ê-wâpamak nisîmis wayawîhtamihk **ê-mêtawêt**
môya ê- wâpam -ak ni- sîmis wayawîhtamihk ê- mêtawê -t
NEG C1-see.VTA -1>3 1- sibling outside C1-play.VAI-3
'I didn't see my little brother playing outside.'

comment: **he was playing outside, but you didn't see him**

6.4.1.4 Insensitivity to factive-emotive predicates

So far, I have compared Plains Cree only to Romanian. If we broaden our perspective to include other Romance languages (e.g., French, Spanish, & Italian), and German, we see that in crucial places where Romance languages show variation, Plains Cree patterns with Romanian.

One such context is clauses embedded under a factive-emotive predicate like *be sad* (*that*), or *be glad* (*that*). Farkas (2003) reports that in Romanian, these clauses are always indicative, while in French (and Spanish), they vary with the subjunctive clause being preferred.

(67) a. Ion e trist că Maria **e** bolnavă. Romanian
Ion is sad that Maria is.**INDIC** sick
'Ion is sad that Maria is sick.' (Farkas 2003:2)

(68) a. Jean regrette que Marie **est** mal
Jean regrets that Marie **is.INDIC** badly
'Jean regrets that Marie is sick.'

b. Jean regrette que Marie **soit** mal. French
Jean regrets that Marie **is**.**SUBJ** badly
'Jean regrets that Marie is sick.' (Farkas 2003:2)

Plains Cree patterns with Romanian here. For example, when a predicate like *miywêyiht-* 'like.VTI' introduces an embedded factive proposition, the dependent clause is introduced by *ê-*.

(69) êwak ôhci mistahi **nimiywêyihtên** ayisiyiniw êkotowahk **ê**-nitôskahk.
êwakw ohci mistahi ni- miywêyihtê -n ayisiyiniw êkotowahk ê- nitôskam -k
TOP ORIG much 1- glad.VTI -SAP person that.kind C1-search.VTI-0
'For this reason I am very glad that people are searching for this kind.' (JKN 3.16)

A list of the relevant predicates whose dependent-clause-typing I have documented is in Table 6.9.

	Predicate	Clause-type
factive-emotives	*miywêyiht-* 'be.glad.VTI' *kost-* 'be.afraid.VTI' *takahkêyiht-* 'approve.VTI' *miywâsin* 'be.good.VII'	*ê-*

Table 6.9. Factive-emotive predicates in Plains Cree

These are a subset of the psychological predicates that we saw above; the important point here is that when the embedded proposition is factive, simple CONJUNCT clause-typing cannot be used.

(70) *context*: my brother came to visit me; I want to express my approval

a. nitakahkêyihtên **ê-**pê-kiyokêt nisîmis
ni- takahkêyihtê -n ê- pê- kiyokê -t ni- sîmis
1- approve.VTI -SAP C1-COME-visit.VAI-3 1- sibling
'I'm glad my brother came to visit.'

b. ! nitakahkêyihtên **ka-pê-kiyokêt** nisîms
ni- takahkêyihtê -n ka- pê- kiyokê -t ni- sîmis
1- approve.VTI -SAP IRR-COME-visit.VAI-3 1- sibling
--- (*intended*: 'I'm glad my brother came to visit.')

To account for the difference between the subjunctive in Romanian versus the subjunctive in French and Spanish, Farkas proposes that the subjunctive is triggered by different semantic contexts. For French and Spanish, the subjunctive occurs in contexts where the proposition must be *evaluated* (i.e., judged as good or bad; cf. Heim 1992) by some individual (either the subject or the speaker). Since factive-emotives, desideratives, and directives all have this evaluation component, they all introduce the subjunctive. Analyzing Plains Cree's simple CONJUNCT clauses as a-veridical correctly predicts that they cannot occur in this context.

6.4.1.5 Insensitivity to lack-of-speaker-knowledge

The other context where variation in mood selection has been widely discussed is with clauses introduced by epistemic (perceptual & belief) and communcative predicates (cf. Farkas 2003,

Schlenker 2003, Giorgi & Pianesi 1997, among others). In German and Italian, these predicates introduce a subjunctive clause "to mark the the absence of speaker commitment to the complement" (Farkas 2003:17). In (70a), the indicative is used and the proposition is represented as true according to the speaker; in (70b) the subjunctive indicates that the truth of the proposition cannot be determined relative to the speaker (even if its truth can be determined relative to another individual).

(71) a. Ich habe gehört, daß er krank **ist**. German
I have heard that he sick is.INDIC
'I heard that he's sick.' (I do not doubt it.)

b. Ich habe gehört, daß er krank **sei**/**wäre**.
I have heard that he sick is.SUBJ1/is.SUBJ2
'I heard that he's sick. (I don't know whether this is true.)
(Lederer 1969:118)

Here again, Plains Cree does not make a distinction. Epistemic predicates introduce a proposition whose truth can be judged according to someone: in (71) the truth of 'Jeff is sick' is judged according to whoever the speaker heard this from. The a-veridicality analysis correctly predicts that the simple CONJUNCT is unavailable.

(72) a. ê-pêhtamân Jeff ê-nikamot otâkosihk
ê- pêhtam -ân J ê- nikamo -t otâkosin -k
C1-hear.VTI -1 J C1-sing.VAI-3 be.evening.VII -0
'I heard that Jeff sang yesterday'

b. * ê-pêhtamân Jeff, ka-nikamot otâkosihk
ê- pêhtam -ân J ê- nikamo -t otâkosin -k
C1-hear.VTI -1 J C1-sing.VAI-3 be.evening.VII -0
--- (*intended*: 'I heard that Jeff sang yesterday (I don't know whether it's true).')

Farkas points out that in a language like German, the subjunctive is sensitive to the speaker's knowledge or belief state; thus veridicality must either be (re-)defined in terms of the speaker or veridicality is not the right way to talk about the subjunctive in German.

For Romanian and Plains Cree, however, a-veridicality correctly excludes the subjunctive in contexts where there is some individual (e.g., the subject of a higher verb) that the truth of the proposition can be judged according to.

6.4.2 Adverbial clauses split along a-veridicality

Adverbial clauses (i.e., clauses adjoined to CP; cf. Chapter 5) in the simple CONJUNCT are also used for clauses that express an a-veridical event: i.e., an event that cannot be judged as true or false with respect to any individual. These include irrealis temporal modification clauses (if/when), purpose/future result clauses, the antecedents of conditionals, and before-clauses.

6.4.2.1 Irrealis temporal modification

Just as there is a realis/irrealis split in Plains Cree's matrix clauses (with irreality needing to be overtly marked, e.g., via *ka-*), there is also a realis/irrealis split in dependent clauses. For example, clauses that provide a temporal relation to an irrealis event must use the simple CONJUNCT with subjunctive *-i*. In (72a) the temporal relation is overtly marked with the temporal sequencer *ispî* 'then' and is related to a clause marked with *wî* 'going to'; in (72b) we get the same sequencer *ispî,* but the main clause is in the past (note the preverb *kî-*), so the clause-type is *ê-*.

(73) a. " '…, êkonik aniki piko … ê-**wî**-pimâtisicik ôtê ati-nîkân,
êkonik aniki piko ê- wî- pimâtisi -t -k ôtê ati- nîkân
TOPIC.AN DEM.AN QUANT C1-INT-live.VAI -3-PL LOC DIR- future
' " '…, only they are going to be alive then in the future,

ispî âyimahki mistahi,' kâ-isit," itwêw.
ispî ayiman -k -i mistahi kâ- it -it itwê -w
TEMP difficult.VII-0 -SUBJ very C2-say.to.VTA-3>1 say.VAI-3
when life will become very hard,' he said to me," she said.' (AA 10.7)

b. **kî**-âyiman mâk âya, **ispî ê**-kakwêcimit aya nôhtâwiy aya, …
kî- âyiman mâka aya ispî ê- kakwêcim -it aya n- ôhtâwiy aya
PREV-difficult.VII but CONN TEMP C1-ask.VTA -3>1 CONN 1- father CONN
'But it was difficult then, when my father asked me, …' (EM 40)

The same pattern is seen for *mayaw* 'as soon as'. If the *mayaw* clause is subordinated to an irrealis clause (marked with *ka-*; 73a), it is in the simple CONJUNCT. If the *mayaw* clause is subordinated to a realis clause (e.g., marked with *kî-*; 73b), it has the complementizer *ê-*.

(74) a. [ka-IND [mayaw CONJ]]

..., "**ka**-pê-kîwêhtahitin sêmâk, **mayaw** pôni-**nîmihitohk[i]**," ...
ki-ka- pê- kîwêhtah -iti -n sêmâk mayaw pôni-nîmihit -oh -k -i
2-IRR-DIR-home.VTA-1>2-SAP immediately as.soon.as stop-dance.VAI-USC-3 -SUBJ
'..., "I will bring you home right away, as soon as the dance is over," …' (AA 2.2)

b. [[mayaw ê-CONJ] kî-IND]

êwak ôhci, **mayaw ê-wâpahtahkik** êkotowahk, **kî**-otinamwak kisêyiniwak, …
êwakw ohci mayaw ê- wâpahtam -k -k êkotawahk
TOP ORIG as.soon.as C1-see.VTI -0 -PL that.kind

kî- otinam -w-ak kisêyiniw-ak
PREV-take.VTI-3-PL old.man -PL
'For this reason the old men used to take it, **as soon as** they saw that kind, …'
(JKN 3.9)

6.4.2.2 Unrealized alternatives

The particle *iyikohk* is also sensitive to clause-typing. When it introduces an *ê-* or *kâ-* clause, it is a degree marker akin to English *so/such*. An example is given in (74).

(75) ... **iyikohk ê**-kî-miyokihtâyâhk askipwâwa, êkosi mân ê-kî-isi-tipahamâhk, …
iyikohk ê- kî- miyokihtâ -yân-k askipwâw-a
so C1-PREV-good.grow.VAI-1 -PL potato -PL

êkosi mâna ê- kî- isi- tipaham -ân-k
TOPIC usually C1-PREV-THUS-measure.VTI-1 -PL
'… we grew **such** a good crop of potatoes, that is how we measured them, …' (EM 54)

However, when *iyikohk* introduces a simple CONJUNCT clause, it presents an unrealized alternative to the realized event. For example, in (75), the alternatives are letting the meat spoil, and sharing it with other people (mentioned earlier in the discourse).

(76) **iyikohk ka**-misiwanâtaniyik anima wiyâs, êkos ânima mân ê-kî-tôtahkik, …
iyikohk ka- misiwanâtan-yi -k anima wiyâs
instead.of IRR-spoil.VII -DS-0 DEM.INAN meat

êkosi anima mâna ê- kî- tôtam -k –k
TOPIC DEM.INAN usually C1-PREV-do.VTI-0-PL
'**Instead** of letting the meat spoil, that is what they used to do, … ' (EM 57)

In this case, the function of the preverb is determined on the basis of the clause-type it combines with: with *ê-* clauses, the event is realis, and the *iyikohk* functions as a degree-marker, while with *ka-* clauses, the event is irrealis. This is consistent with analyzing the simple CONJUNCT as having an a-veridical meaning – the subordinating particles it combines with must have an a-veridical function.

6.4.2.3 'before' clauses

'Before' clauses are a slightly more complicated case. 'Before' clauses in English are ambiguous between a reading where the event in the 'before' clause temporally follows the event in the main clause (i.e., this is just a case of adverbial temporal sequencing, akin to *after, when*, and *while* clauses), and a case where there is no statement that the event in the 'before' clause happened at all. These two readings are illustrated by the utterance in (76).

(77) I left before I started crying.
= I left, then I started crying.
= I left in order to stop from crying (implies I didn't cry).

As many linguists have pointed out, 'before' clauses cannot be simple inverses of 'after' clauses. For example, regardless of whether the event in the 'before' clause is realized or not, *before* licenses negative polarity items (NPIs), while *after* does not (Landman 1991, Giannakidou 1998, Condorovdi & Beaver 2003):

(78) a. I wrote John before he told anyone the news.
b. * I wrote John after he told anyone the news.

In (77a), *anyone* is fine in a context where I wrote John, and then he started telling people the news (e.g., I gave him instructions on what to say); it is also fine in a context where my writing prevented him from telling people the news (e.g., I wrote as a warning).

Thus a system could be sensitive to *before* in one of two different ways. It could be sensitive to the distinction between whether the event is realized or not, in which case we would expect the two contexts in (77) to be grammatically coded in distinct ways: (a-)veridicality would depend on context. Alternatively, *before* could always trigger the a-veridical operator,

regardless of context, as happens with NPIs in English and many other languages (Giannakidou 1998).

In Plains Cree, both possibilities are attested, depending on the speaker (i.e., there are two subgrammars). Some speakers treat clauses introduced by *pamwâyês* 'before' as typed for a-veridicality: they are always simple conjunct clauses, regardless of whether the event is realized or not. This is illustrated in (78a-b); in (78a) the narrator did convince her husband of her point. In (78b), on the other hand, a command is given about something in the future; the event is not realized. Both clause are simple conjunct: they lack an overt complementizer.

(79) a. realized event → a-veridical clause-typing

kinwês nikî-tasimâw, **pâmwayês** ta-kaskimak anima;
kinwês ni- kî- tasim -â -w pâmwayês ta- kaskim -ak anima
long.time 1- PREV-persevere.VTA-DIR-3 before IRR-convince.VTA-1>3 DEM.INAN
'I kept at it a long time before I convinced him of it;' (AA 4.6)

b. unrealized event → a-veridical clause-typing

… kisîpêkinihkok kipihêmiwâwak, **pâmwayês** pê-nitaw-âyamihâyêk!"
kisîpêkin -ihkok ki- pihêm -wâw -ak pâmwayês pê- nitaw- âyamihâ -yêk
wash.VTA-2PL>3 2- bird -2PL -PL before COME-GO- pray.VAI -2PL
… wash your prairie-chickens before you come here to church!" (AA 7.2)

Here the clause is being typed as a-veridical by the operator and thus it lacks the overt complementizer. In this system, we expect that *pâmwâyês* 'before' will not introduce other clause-types; this is borne out in both narratives I checked where the narrator had this grammar (Minde 1997, Ahenakew 2000).

Other speakers, by contrast, differentiate the two clauses according to whether the event in the dependent clause is simply temporally sequenced (and therefore veridical), or a-veridical. For such a speaker, the veridical clause is marked as presuppositional and is clause-typed with *kâ-*, analogously to the other temporally sequenced clauses (cf. §6.3).

(80) realized event → presuppositional clause-typing

a. êkwa pôn-mispon **pâmwayês kâ**-kiskôpayit
êkwa pôn-mispon pâmwayês kâ-kiskôpayi -t
and stop-snow.VII before C2-awake.VAI-3
'It stopped snowing before he woke up.'

b. nâpêw ana ê-ôcêmit, **pâmwayês kâ**-sipwêhtêt
nâpêw ana ê-ocêm -it pâmwayês kâ-sipwêhtê -t
man DEM C1-kiss.VTA-3>1 before C2-leave.VAI-3
'The man kissed me before he left.'

The other clause gets the default clause-typing of *ê-*, as for example in (80), where I take the knife away and thereby prevent a young girl from hurting herself. Here *ê-* is functioning in contrast to *kâ-*: *kâ-* presupposes that the event did occur, and *ê-*, by blocking, does not.

(81) unrealized event → elsewhere clause-typing

nimaskamâw môhkomân apsîs iskwêsis **pamwayês ê**-mânsisot.
ni- maskam -â -w môhkomân apsîs iskwêsis pâmwayês ê- mâniso -t
1- take.away.VTA-DIR-3 knife little girl before C1-cut.self.VAI-3
'I forcefully took away the knife from the little girl before she cut herself.'

In this second type of system, we correctly predict that a context where it is not possible that the second event happened will exclude the *kâ-* form.

(82) *context*: out on the town for fun, but knowing I should save some of my money, return home early and still have some left

a. nikîwân **pâmwayês** nisôniyâs kahkiyaw **ê**-mêstopayiyân[13]
ni- kîwê -n pâmwayês ni-sôniyâs kahkiyaw ê- mêstopayi -yân
1- go.home.VAI-SAP before 1- money all C1-spend.VAI -1
'I went home before I spent all my money.'

b. # nikîwân **pâmwayês** nisôniyâs kahkiyaw **kâ**-mêstopayiyân
ni- kîwê -n pâmwayês ni-sôniyâs kahkiyaw kâ- mêstopayi-yân
1- go.home.VAI-SAP before 1- money all C2- spend.VAI -1
intended: I went home before I spent all my money.

comment: that kâ- has to do with past, … so you wouldn't use it here… Kâ-mestopayiyân is 'When I spent it' '…it's all gone'

[13] I do not know why the quantifier follows the noun it quantifies over in these examples, although it was relatively common for this speaker.

Thus, Plains Cree provides examples of both kinds of sensitivity to *before* in its clause-typing system.

6.4.2.4 Antecedents of conditionals

The antecedent of a conditional must be typed as such in one of two ways in Plains Cree: either it must be introduced by the conditional particle *kîspin* 'if', which can introduce any clause-type[14], or the clause must be in the simple CONJUNCT (cf. Déchaine & Wolfart 2005, Barczak *et. al* 2006). Put another way, *kîspin* can be omitted from the antecedent only if the clause-typing is simple CONJUNCT. Notice that for antecedents of conditionals, the clause may either be in the subjunctive[15] (marked with the suffix *-i*) or not[16].

(83) *kîspin* is optional in simple CONJUNCT clauses

a. mummy, (**kîspin**) ka-pê-kiyokâwiyan, tônitôni nika-cihkêyihtên
M kîspin ka- pê- kiyokâwi -yan mitoni ni-ka- cîhkêyihtê -n
M if IRR-COME-visit.VAI -2 very 1- IRR-happy.VTI -SAP
'Mom, if you came to visit (me), I would be very happy.'

b. (**kîspin**) wâpamaki John, nika-wîhtamawâw kâ-itwêyan
kîspin wâpam -ak -i J ni- ka- wîhtamaw -â -w kâ- itwê -yan
if see.VTA -1>3-SUBJ J 1- IRR- tell.VTA -DIR-3 C2- say.VAI-2
'Should I see John, I'll tell him what you said.'

If the antecedent is, for example, an indexical INDEPENDENT clause, *kîspin* 'if' is obligatory.

---

[14] Syntactically, conditionals have been analyzed as topic/comment structures in Plains Cree (Déchaine & Wolfart 2005). The choice of clause-type with *kîspin* depends on the kind of conditional being used. INDEPENDENT clauses are used in indicative conditionals, changed (*ê-* or *kâ-*) CONJ for realis non-subjunctive conditionals, and simple CONJ for realis subjunctive and irrealis conditionals. See Déchaine & Wolfart 2005, Barczak *et. al* 2006 for details.

[15] In Plains Cree, the term subjunctive is used for simple CONJUNCT forms that are suffixed with *-i* (Wolfart 1973). Unlike the Indo-European subjunctive, it is used (almost?) exclusively in *if/when* clauses.

[16] One of the consultants I worked with noted that the subjunctive form carries more certainty about the antecedent being fulfilled than the *ka*-prefixed form.

(84) a. **kîspin** niwâpamâw Jeff, nika-cihkêyihtên
kîspin ni- wâpam -â -w J ni- ka- cîhkêyihtê -n
if 1- see.VTA-DIR-3 J 1- IRR-happy.VTI -SAP
'If/when I see Jeff, I'll be happy.'

b. ! niwâpamâw Jeff, nika-cihkêyihtên
kîspin ni- wâpam -â -w J ni- ka- cîhkêyihtê -n
if 1- see.VTA-DIR-3 J 1- IRR-happy.VTI -SAP
--- (*intended*: 'If/when I see Jeff, I'll be happy.')

Since the antecedent of the conditional is only stating a condition on some other event, and says nothing about whether that condition has been realized or not, the clause-typing pattern is fully consistent with claiming that simple CONJUNCT clauses are a-veridical.

6.4.2.5 Purpose clauses

Purpose clauses indicate the (perhaps unfilled) purpose that some event happens in order to fulfill. In (85) the purpose of being in graduate school is getting a PhD; purpose clauses in English are introduced by either just the infinitival *to* or by the more extended *in order to*.

(85) I was in graduate school (in order) to get a PhD.

Like with the mediated argument clauses we saw above, there is no way to evaluate the truth of propositions introduced by the purpose clause. There is no way to judge from (85) the truth or the falsity of the proposition 'I got a PhD.'

These clauses, like other a-veridical clauses, lack the overt complementizer. In (86a-b), we see two examples of purpose clauses: the purpose of the man in waiting [to take the narrator home], and the purpose of the twin in training [to be a pilot].

(86) a. ..., ê-pêhit **ta**-naskomak **ka**-pê-kîwîhtahit.
ê- pêh -it ta- naskom -ak ka- pê- kîwîhtah -it
C1-wait.VTA-3>1 IRR-respond.VTA-1>3 IRR-COME-take.home.VTA-3>1
'..., waiting for my response **so that** he could take me home.' (AA 2.1)

b. êkwa ana pêyak wiy âna nîsôtêw ana, ê-kî-~ ê-kî-kiskinohamâht **ta**-pimihât, ...
êkwa ana pêyak wiya ana nîsôtê -w ana
and DEM.AN *one* EMPH DEM.AN *twin.*VAI*-3* DEM.AN

ê- kî- kiskinoham -âh -t ta- pimihâ -t
C*1-*PREV*-train.*VTA -USC*-3* IRR*-pilot.*VAI *-3*
'And one of the twins trained **to be** a pilot, …' (AA 5.2)

When speakers are asked how to express a purpose clause, they volunteer the simple CONJUNCT and reject other clause-types like *ê*-clauses.

(87) *context:* translation task: 'I did it to make her happy.'

a. ê-itôtamân êwakw ânima, **ka**-cihkêyihtâhk
ê- itôtam -ân êwakw anima ka- cikêyihtam -k
C*1-do.*VTI *-1* TOPIC DEM.INAN IRR*-* *happy.*VTI *-0*
'I did this so in order for her to be happy.'

b. # ê-itôtamân êwakw ânima, **ê**-cihkêyihtâhk
ê- itôtam -ân êwakw anima ê- cikêyihtam -k
C*1-do.*VTI *-1* TOPIC DEM.INAN C*1-happy.*VTI *-0*
'I did it, she was happy.'

comment: these are two separate sentences, they're not connected

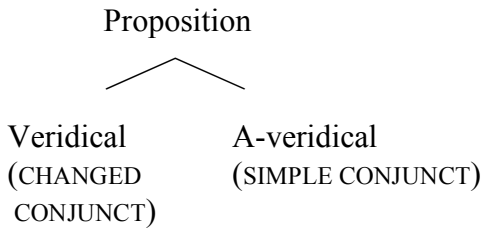
6.5 Summary

There are three robust clause-typing alternations in Plains Cree embedded clauses. I have shown that *kâ-* clauses introduce a presupposed proposition, simple CONJUNCT clauses introduce an a-veridical proposition, and that *ê-* clauses are an elsewhere case, where the semantics of the proposition depends on the context in which it is introduced. I showed that these characterizations help us understand more about the distribution and function of Plains Cree clause-types.

A final question to be addressed is: why this division? Why do the clause-types in Plains Cree have the functions they do? Is there a higher-order principle that can derive this split? I do not have a full answer to this question. However, we do see that the system can be thought of as organized around the issue of the truth of the proposition relative to the discourse.

According to the proposal in this chapter, (a-)veridicality distinguishes between propositions that have an entailment (of either truth or falsity), and those who don't.

(88)



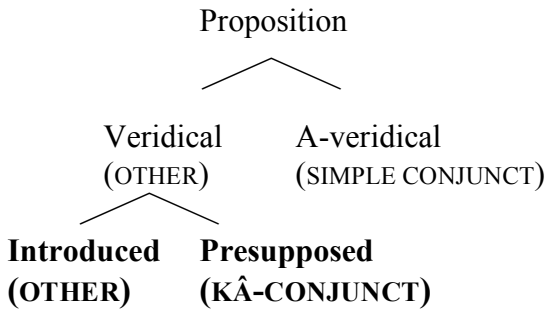
The distinction between a-veridicality and the more familiar non-veridicality, was made on the basis of data like (57), repeated here as (89), where negation, entailing the falsity of p does not license the clause-type under discussion.

(89) a. niwîhtamâk Laura **êkâ ê-mâtoyit** Martha
ni-wîhtam-aw-ikw L êkâ ê- mâto -yi -t M
1-tell.VTA-BEN-INV L NEG C1-cry.VAI-DS-3 M
'Laura told me that Martha isn't crying.'

b. ! niwîhtamâk Laura **êkâ ka-mâtoyit** Martha
ni-wîhtam-aw-ikw L êkâ ka- mâto -yi -t M
1-tell.VTA-BEN-INV L NEG IRR-cry.VAI-DS-3 M
--- (*intended*: 'Laura told me that Martha isn't crying.')

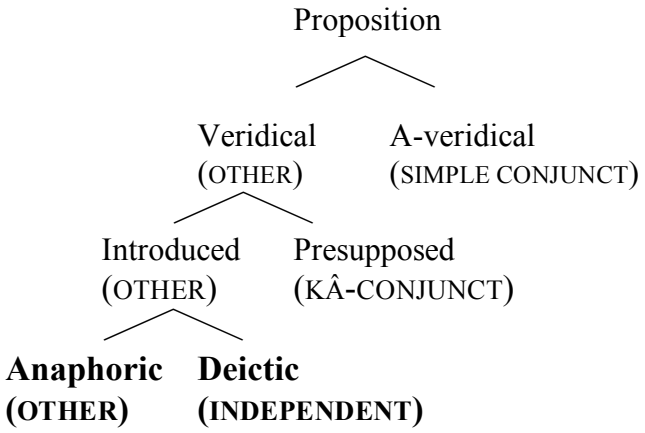
Among veridical propositions, the clause-typing system in Plains Cree distinguishes among those whose truth is presupposed, and those whose truth is introduced.

(90)



Finally, returning to the contrast between CONJUNCT and INDEPENDENT order clauses that we examined in chapters 3 and 4, those propositions whose truth is introduced into the discourse divide between those whose truth conditions are evaluated with respect to the speech situation, and those whose truth conditions are evaluated relative to an anaphorically given situation.

(91)



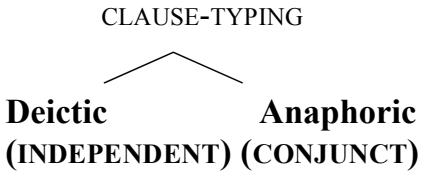
On this view, the clause-typing system in Plains Cree, then, is fundamentally concerned with the evaluation of the truth of a proposition by the participants in a discourse.

CHAPTER 7
CONCLUSIONS

7.1 The syntax and semantics of clause-typing in Plains Cree

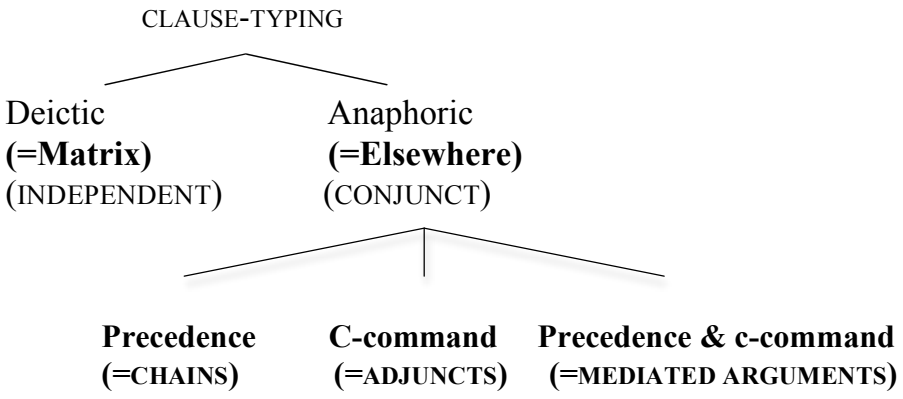
In this thesis, I have argued that clause-typing in Plains Cree codes a fundamental distinction between indexical CPs, which are anchored to the speech act, and anaphoric CPs, which are not anchored, and thus must be licensed by general principles of anaphora. Chapters 2, 3, and 4 were concerned with arguing for the CP-status of both INDEPENDENT and CONJUNCT clauses, the indexical status of INDEPENDENT clauses, and the anaphoric status of CONJUNCT clauses, respectively. This yields the split in (1).

(1)



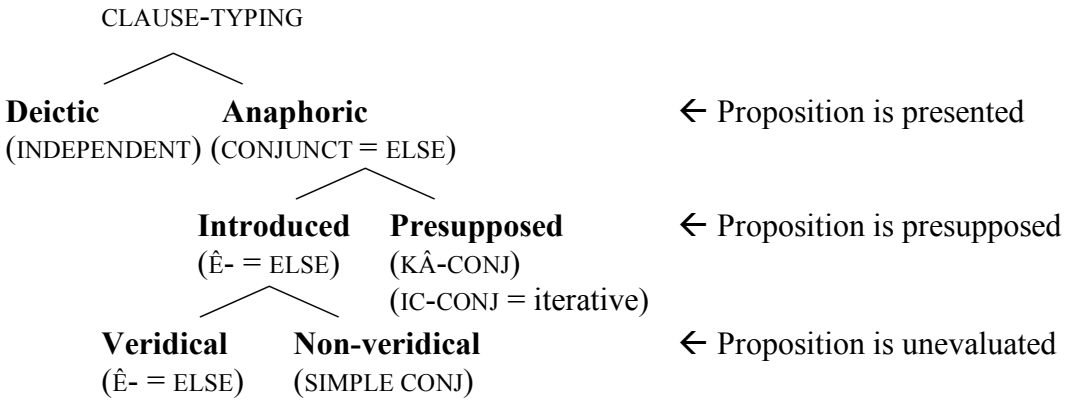
In the last two chapters, I developed the syntax and semantics of anaphoric clauses in more detail. Syntactically we end up with the typology in (2), which is based on their distribution and island-like tests.

(2)



The semantics of anaphoric clauses cross-cuts their syntactic classification and corresponds to the choice of complementizer. I claimed there were two specified values (presupposed and a-veridical), as well as an elsewhere complementizer whose meaning is determined by the context it appears in. We can organize the classification of anaphoric clauses based on how the proposition is introduced into the discourse.

(3)



There are many ways in which this work could be expanded.

One important line of research concerns how the clause-typing system presented here maps onto systems that use the other clause-typing divisions discussed in the literature. In Plains Cree, these other divisions (matrix vs. embedded, declarative vs. interrogative, etc.) overlay the indexical/anaphoric split, but some of the diagnostics developed here could be applied to other languages which lack the overt morpho-syntactic coding Plains Cree exhibits.

The notions of 'indexicality' and 'anaphora' have traditionally been applied to argument expressions (DPs). In §7.2, I briefly discuss some further lines of research that could be pursued with respect to the parallel between CPs and DPs; I also discuss the link between the syntax and semantics of indexicals.

Within Plains Cree, the current analysis both offers a new analytic possibility for *kî-* (§7.3), and opens up questions with respect to the construction of modality (§7.4)

A third line of research is to examine the range of variation in clause-typing found in languages closely-related to Plains Cree. This thesis concentrated closely on Plains Cree; in §7.5 I lay out how the forms that play a role in Plains Cree's clause-typing are the same or different in Ojibwe and Blackfoot.

7.2 The parallels between CPs and DPs

In this thesis, I used the property of *indexicality* to drive the syntax and semantics of the clause-type that is morpho-syntactically represented by Plains Cree's INDEPENDENT order. In particular, an indexical expression is obligatorily free – it cannot be bound. With respect to Plains Cree's INDEPENDENT order, I showed that indexical clauses could not be either c-commanded or preceded by some other clause. In this respect, indexical clauses behave like R-expressions in the nominal domain; compare the conditions on indexical clauses with condition C of binding theory (Chomsky 1981), given in (4).

(4) **Condition C**: R-expressions must be free

Likewise, the property of *anaphoricity* can account for the distribution and interpretation of Plains Cree's CONJUNCT order. Thus, parallel to anaphoric pronominals, we have evidence for anaphoric clauses. Just as an anaphoric pronominal is infelicitous without having a referent supplied, so an anaphoric clause is infelicitous without having a context supplied.

Notice that in both domains (CP and DP) we have a syntactic requirement (i.e., "must be free" vs. "cannot be free") proceeding in hand with a semantic function (i.e., deixis vs. non-deixis). The parallel between these two separate domains of the grammar provides support for the idea that the syntax and semantics of notions like indexicality and anaphoricity are inextricable. Thus, although a systematic contrast and comparison of CPs and DPs is beyond the scope of this thesis, the overarching similarities warrant further research.

7.3 (Im)possible analyses of *kî-*

In the discussion of temporal relations in chapter 3, I made frequent use of the contrast between a bare clause and one with the preverbal element *kî-* added. I would like to say a few words about what I think *kî-* is, and what I am quite sure it is not.

There are generally two – or three, depending on how you count – hypotheses of *kî-*. One is that it is a past tense marker; the other is that it is an aspectual marker (i.e., perfect or

perfective). Previous literature for these analyses include Edwards 1954; Wolfart 1973; Dahlstrom 1986, 1991; and Hunter & Karpinski 1991. The hypothesis taken here is closer to the tense analysis then the aspect analysis, but crucially does not involve specification of speech time.

(5) *Hypotheses for* kî-

H1: disjunction and precedence	PRECEDE (T_{ref}, T_{eval})
H2: deictic past tense	PRECEDE (T_{ref}, T_0)
H3: aspect (perfect)	INCLUDE (T_{ref}, T_0) *and* PRECEDE (T_{sit}, T_{ref})
H4: aspect (perfective)	

7.3.1 *kî-* marks disjunction and precedence

I model *kî-* as marking a temporal non-coincidence relation between the reference time and the evaluation time. In the INDEPENDENT order, this is non-coincidence between the reference time and the speech time; in the CONJUNCT order, the non-coincidence is between the reference time and whatever time is given by the antecedent of the anaphoric time.

In addition, as I briefly noted, but abstracted away from in chapter 3, we need to specify an ordering relation between the two times, since *kî-* always marks a relation of precedence.

(6) - COIN (T_{ref}, T_{eval})

$T_{ref} < T_0$	INDEPENDENT
$T_{ref} < T$	CONJUNCT

This captures the fixed 'simple past' interpretation of *kî-* marked INDEPENDENT clauses (§3.3.1), and the shifting 'past/pluperfect' interpretation of *kî-* marked CONJUNCT clauses (§4.4.1).

Syntactically, *kî-* is modelled as a functional head very high in the clause (e.g., as a 'low complementizer' in the sense of Rizzi 1997)[1]. This reflects not only its function, but also captures its linear order and (in)sensitivity to other elements in the clause.

Linearly, *kî-* can only be preceded by clause-typing and the irrealis marker *ka-*. All other temporal elements and adverbials must follow it (cf. Edwards 1954, Wolfart 1973, Dahlstrom 1991, Cook 2004). A schematized template is given in (7); elements with a star '*' can be iterated.

(7) [CLAUSE-TYPE] [IRREALIS] [**kî-**] [restructure*] [pê-] [restructure*] [adverbial*] [STEM]

The interpretation of *kî-* is not only sensitive to clause-typing (e.g., the contrast between INDEPENDENT and CONJUNCT), but also to irrealis operators. If negation appears in the clause, the temporal operator has a suppletive form *oh(ci)* (cf. chapter 3).

(8) a. **kî**-wâpamêwak
kî- wâpam -ê -w -ak
PREV-see.VTA-DIR-3 -PL
'They saw him/her.'

b. namôya **ohci**-wâpamêwak
namôya ohci- wâpam -ê -w -ak
NEG ORIG-see.VTA -DIR-3 -PL
'They never saw him.'

If *kî-* is left under negation (or under the irrealis *ka-*) it gives rise to a modal reading.

(9) a. namôya kî-wâpamêwak
namôya kî- wâpam -ê -w -ak
NEG PREV-see.VTA -DIR-3 -PL
'They can't see him/her.'

b. ka-kî-wâpamêwak
ka- kî- wâpam -ê -w -ak
IRR-PREV-see.VTA-DIR-3 -PL
'They can see him/her.'

[1] I do not discuss the relation between Plains Cree's clause-typing system proper (i.e., those complementizers that relate the proposition to the superstructure of the discourse, and other elements which seem to be low complementizers having to do with mood/modality/finiteness. This is a question for further research.

Finally, as I show down below, *kî-* is completely *insensitive* to aspectual information such as predicate class or other aspectual operators. This is consistent with *kî-* being associated with tense & modality, but surprising if *kî-* being an aspectual operator.

7.3.2 *kî-* is not a deictic past tense

When one talks about whether an element is an instantiation of 'tense', there are often quite different criteria used to make the decision; although these criteria are related, at this point there is not much agreement in the literature as to which are necessary and/or sufficient.

With respect to the semantic treatments of tense, it is important to distinguish between existential theories of tense which claim that tense involves existential quantification over times (e.g., Prior 1957, 1967, Montague 1973, Dowty 1979, Ogihara 1995), and deictic theories of tense that claim tense is referential (akin to pronouns) and is the relation of some time relative to speech time (Partee 1973, Enc 1987, Klein 1994, Kratzer 1998).

Plains Cree's *kî-* cannot be analyzed as a deictic past tense, since it crucially has only an ordering relation, with no inherent reference to speech time. Recall from the discussion in chapter 3 that in CONJUNCT clauses, *kî-* can sequence one event with respect to an event in a preceding or superordinating clause. The relevant data is repeated in (10): when there is no dedicated temporal marking, the linear order of events reflects their temporal sequencing (cf. Kamp & Rohrer 1983, Hinrichs 1986 for English); but the presence of *kî-* on the second clause reverses the temporal ordering (similar to a past perfect in English).

(10) a. ê-pê-kîwêt Jeff, ê-mîcisoyâhk
ê- pê- kîwê -t J ê- mîciso -yân -k
C1-come-go.home.VAI-3 J C1-eat.vai -1 -PL
'…Jeff came home, we had eaten.' (we = speaker & someone else)
= come home < **eat**

b. ê-pê-kîwêt Jeff, ê-**kî**-mîcisoyâhk
ê- pê- kîwê -t J ê- kî- mîciso -yân -k
C1-come-go.home.VAI-3 J C1-PREV-eat.vai -1 -PL
'…Jeff came home, we had eaten.' (we = speaker & someone else)
= **eat** < come home

If *kî-* were a deictic past tense marker, it should always shift with respect to T_0, but here it behaves like a past perfect and shifts with respect to the time established in the previous clause.

If we compare Plains Cree's *kî-* with, for example, English's past tense marker (the analysis of which itself is the subject of much debate), we also see a difference between the two in modal constructions. In English, past tense (*-ed*) is used in antecedents of conditionals to indicate hypothetical situations (*If I talk**ed** that way...*) (cf. James 1982, Iatridou 2000, von Fintel 2005, among others). Plains Cree *kî-* is also sensitive to modal constructions (cf. §7.3 for discussion), but it corresponds with existential quantificational force. For example, in (11a), we have an irrealis marker in an INDEPENDENT order clause, and the interpretation is a future tense, which corresponds to a universally quantified circumstantial modal. (11b) provides a minimal contrast: *kî-* has been added, and the resulting interpretation is an ability interpretation, corresponding to an existentially quantified circumstantial modal.

(11) a. ka-tâhkonêw acimôsisa UNIVERSAL
ka- tâhkon -ê -w atimw -sis -a
IRR-carry.VTA-DIR-3 dog -DIM-OBV
'S/he will carry the puppies.'

b. ka-**kî**-tâhkonêw acimôsisa I EXISTENTIAL
ka- kî- tâhkon -ê -w atimw -sis -a
IRR-PREV-carry.VTA-DIR-3 dog -DIM-OBV
'S/he is able to carry the puppies.'

While this interpretation appears to be compatible with an existential quantificational analysis of tense (here the effect of *kî-* unambiguously contributes existential force), it is hard to see how such data would straightforwardly be accounted for with a deictic theory of tense.

There is also a great deal of variation in the literature on the syntax of tense. Based on English, tense is often taken to be (cross-linguistically, and (semi-)independent of its interpretation) a functional head located in the IP-domain and the assigner of nominative case. If we take these diagnostics to be criterial, then I do not believe that *kî-* can be treated as tense in the syntactic sense. First, it does not assign nominative case (case-assignment, if it is a property of Algonquian languages, seems most closely to relate to the theme-sign system; see Déchaine & Reinholtz 1997, 2008 for discussion). Second, the pervasive syntactic conditioning of *kî-* by CP-level elements including the INDEPENDENT/CONJUNCT clause-typing distinction, modality, and CP-level negation, paired with the complete lack of syntactic conditioning by IP-level elements like the direct-inverse system and switch-reference, strongly suggest that *kî-* is external to the IP-domain. If this is accurate, and if *kî-* nevertheless has a semantic tense function, then Plains Cree's grammar opens the door to a rethinking of the relation between the syntax and semantics of tense.

7.3.3 *kî-* is not a perfect

Recall that a perfect tense is a combination of tense and aspect (Comrie 1976; Fenn 1987; Klein 1994): it sequences the reference time both with respect to the speech time and with respect to the situation time.

(12) $+ \text{COIN}\ (T_{ref}, T_0)$
$- \text{COIN}\ (T_{sit}, T_{ref})$

If we compare the distribution of *kî-* marked clauses to the distribution of the present perfect in English, we see that they are, in the contexts discussed for English, in complete complementary distribution.

Property	kî-	ENGLISH PERFECT
co-occur w/ 'yesterday'	✔	✖
perfect of result	✖	✔
experiential perfect	✖	✔
recent perfect (news)	✖	✔
persistent perfect	✖	✔

Table 7.1. Patterning of *kî-* relative to the English perfect

First, *kî-* is compatible with both *otâkosihk* 'yesterday' and *anohc* 'today.'

(13) a. **otâkosihk** nikî-wâpamâw atim minôsa
otâkosin -k ni-kî- wâpam -â -w atim minôs-a
be.evening.VII-0 1-PREV-see.VTA-DIR-3 dog cat -OBV
'Yesterday I saw a dog kill a cat.' (cf. * 'Yesterday I have seen a dog kill a cat.')

b. **anohc** nikî-itohtân atawêwikamikohk
anohc ni-kî- itohtâ-n atawêw-kamikw -hk
today 1- PREV-go.VAI-SAP buy- building-LOC
'Today I went to the store.'

Second, *kî-* is not appropriate in 'perfect of result' contexts.

(14) A: Tom cî pê-takosin
T cî pê- takosin -3
T Q COME-arrive.VAI-3
'Has Tom arrived yet?'

B1: êhâ, âsay pê-takosin
êhâ âsay pê- takosin -w
yes already COME-arrive.VAI-3
'Yes, he has arrived'

comment: this one is implying that he's still here, that we're ready to dance

B2: # êhâ, âsay kî-pê-takosin
êhâ âsay kî- pê- takosin -w
yes already PREV-COME-arrive.VAI-3
'Yes, he had already arrived.' (before, previously, some time ago)

comment: it could imply that he had already come and gone. I would probably be tempted to say "well, he is still here?"

Third, *kî-* is at best marginal with the experiential perfect. Experiential perfects describe an event that happened at some time previous to now, so depending on how the context is set, even in English there is variation between the past and perfect. For example, the context for (15) is

vague enough to allow both in English (cf. 15b). In this context, consultants find *kî*-marked clauses appropriate.

(15) *context*: talking about big things we've done in our lives

a. Jeff (kî-)itohtêw akâmaskiy
J kî- itohtê -w akâmaskiy
J PREV-go.VAI-3 across.land
'Jeff went overseas (e.g., to Europe).'

b. Jeff went overseas vs. Jeff has gone overseas

But if the context is more specified, the bare clause is used instead. For example, in asking an open question as in (16), with *wîhkac* 'ever', the bare form is used for both the question and the answer.

(16) A: wihkâc kitayimîhtân ôma masinahikan[2]?
wihkâc ki(t)- ayimîhtâ -n ôma masinahikan
ever 2- read.VAI -SAP DEM.INAN book
'Have you ever read this book?'

B: êhâ, nitayimîhtân mîhcêtwâw
êhâ ni(t)- ayimîhtâ -n mîhcetwâw
yes 1- read.VAI -SAP many.times
'Yes, I have read it many times.'

Similarly, when the extra-linguistic context is more carefully specified, *kî-* is completely bad for conveying a present perfect meaning. In (17), a young child John is gravely ill, and other people are outside talking about experiences John has not yet had (here holding puppies). The bare form leaves open the possibility that he still could have this experience; the *kî*-marked form does not.

[2] This was volunteered as a Y/N question. It lacks the Y/N interrogative *cî*, which was quite standard for this particular consultant. The question form can be independently identified by a combination of the negative polarity element *wîhkâc* 'ever', and a rising pitch on the final syllable of *masinahikan* 'book', which can be used to implicate a phonologically null syllable (cf. Mühlbauer 2006).

(17) *context*: John is very gravely ill in the hospital

a. môhkâc John ê-tâhkonât acimosisa BARE CLAUSE
môya wihkac J ê- tâhkon -â -t atim -sis -a
NEG ever J C1-carry.VTA-DIR-3 dog -DIM-OBV
'John never carries puppies/small dogs.'
'John has never held a small dog.'

b. môhkâc John ê-**kî**-tâhkonât acimosisa CLAUSE W/ *kî-*
môya wihkac J ê- kî- tâhkon -â -t atim -sis -a
NEG ever J C1-PREV-carry.VTA-DIR-3 dog -DIM -OBV
'John had never carried a puppy.'

comment: the person thinks he's gonna die

Turning next to the 'perfect of recent events', we see that *kî-* is again not appropriate, as illustrated by (18).

(18) *context*: a child's father has just broken his leg; child runs in to tell the news/get help

a. nipâpa **wîsakisin**, **pîkonam** oskât, pê-wîcihinân BARE CLAUSE
ni- pâpa wîsakisin -w pîkonam -w o- skât pê- wîcihi -nân
1- papa fall.VAI -3 break.VTI-3 3- leg come-help.VTA-1.PL
'My dad got hurt, he broke his leg, come and help us!'

b. # npâpa **kî-wisaksin**, **kî-pîkonam** oskât, pê-wîcihinân CLAUSE W/ *kî-*
ni- pâpa kî- wîsakisin -w kî- pîkonam -w o- skât pê- wîcihi -nân
1- papa PREV-fall.VAI -3 PREV-break.VTI-3 3- leg come-help.VTA-1.PL
'My dad got hurt, he broke his leg, come and help us!'

Finally, *kî-* cannot be used for events that still hold, often termed 'persistent perfect' contexts. This is shown in by the example in (19).

(19) *context*: talking about house I'm living in right now

a. **niwîkin** ôta ôma wâskahikan nêwaskiy BARE CLAUSE
ni-wîki -n ôta ôma wâskahikan nêwo askiy
1-live.AI-SAP here DEM house four year
'I've lived in this house for four year.'

b. # **ni**kî-**wîkin** ôta ôma wâskahikan nêwaskiy CLAUSE W/ *kî-*
ni-kî- wîki -n ôta ôma wâskahikan nêwo askiy
1-prev-live.AI-SAP here DEM house four year
'I lived at this house for four years.'

comment: can't use this to talk about the house you're still living in; you'd use this if you were showing someone the house you used to live in

Since *kî-* fails to be felicitous in any of the 'perfect' contexts, I conclude that *kî-* is not a perfect.

7.3.4 *kî-* is not a perfective

Perfectivity is an aspectual distinction that focuses on the endpoint of an event or treats an event as a whole (Comrie 1976; Bybee 1985; etc.), and is in opposition to imperfective aspect, which look at the internal structure of the event.

Since they are sensitive to endpoints, they characteristically differentiate between aspectual classes of predicates, which are defined in large part dependent on the presence or absence of such endpoints. Thus, if *kî-* were a perfective, we would expect in some form the following properties. Again, *kî-* behaves exactly contrary to expectations.

Property	kî-	PERFECTIVE
Sensitivity to verb classes	✖	✔
co-occur with imperfective?	✔	✖
co-occur with inceptive	✔	✖

Table 7.2. Patterning of *kî-* relative to perfective aspect

First, *kî-* attaches to verbs of all aspectual classes. More importantly, perhaps, it does not act sensitive to the aspectual class at all – e.g., it is not interpreted differently on different predicates. This is shown for permanent statives (20a), temporary statives (20b), activities (20c), and accomplishments (20d) below.

(20) a. Jeff ê-**kî**-kinosit, êkwa ê-**kî**-takâhkâpêwit.
J ê- kî- kinosi -t êkwa ê- kî- takâhkâpêwi -t
J C1-PREV-tall.VAI-3 and C1-PREV-beautiful.man.VAI-3
'Jeff was/had been tall, and he was/had been a good-looking man.'

b. **kî**-cihkêyihtam Betilo
kî- cihkêyihtam -3 B
PREV-happy.VTI -3 B
'Betilo was happy/Betilo had been happy.'

c. **kî**-pâhpiw nipâpa
kî- pâhpi -w ni- pâpa
PREV-laugh.VAI-3 1- dad
'My dad laughed/My dad had laughed.'

d. ni**kî**-kisipêkinên ôma wîyâkan
ni- kî- kisipêkinam -n ôma wîyâkan
1- PREV-wash.VTI -SAP DEM.INAN dish
'I washed this dish/I had washed this dish.'

Second, *kî-* is compatible with the preverb *mêkwâ-* 'midst'. In (21a) we see *mêkwâ-*[3] being used to denote imperfectivity in the temporal modifying clause. In (21b) we see *kî-* co-occurring with *mêkwâ-*; notice that *kî-* does not change the imperfectivity of the clause it occurs in.

(21) a. Jen kâ-**mêkwâc**-atoskêt âhkosiwipayiw.
J kâ- mêkwâc- atoskê -t âhkosiwipayi -w
J C2-MIDST- work.VAI-3 get.sick.VAI -3
'While Jen was working, she got ill / sick'

b. Jen kâ-**kî-mêkwâc**-mâyi-tôtahk,
J kâ- kî- mêkwâc- mâyi- tôtam -k
J C2-PREV-MIDST- bad- do.VTI-3

moy ê-kiskêyihtahk ayisiyiniwak ê-miyo-mâmitonêyihtahk
môya ê- kiskêyihtam -k ayisiyiniw-ak ê- miyo- mâmitoniêyihtam -k
NEG C1-know.VTI -3 person -PL C1-good-think.of.VTI -3
'While Jen was doing bad things she didn't know people were wishing her well.'

Given that a predicate cannot simultaneously be perfective and continuous, this is evidence that *kî-* is not perfective.

Another aspectual preverb that *kî-* co-occurs with is *ati-* 'start/become/in.process'. For

[3] Or, as in the case of this speaker, the particle form *mêkwâc*.

example, in (22) the unmarked stative is interpreted as holding at speech time; the *ati-* marked stative is interpreted as coming into being at speech time.

(22) a. Jane kinosiw
J kinosi -w
J tall.VAI-3
'Jane is tall.'

b. Jane **ât**-kinosiw
J ati- kinosi -w
J INCEP-tall.VAI-3
'Jane is getting taller'

In (23), we see that *kî-* can be combined with *ati-* without chainging the inchoative interpretation of the predicate. Rather the change seems to be in the temporal anchoring of the clause. This again provides evidence that *kî-* is not a perfective marker.

(23) a. Clare êkwa Jeff ati-mâtowak
C êkwa J ati- mâto -w -ak
C and J INCEP-cry.VAI-3 -PL
'Clare and Jeff **are** teary-eyed/just starting to cry/almost crying.'

b. Clare êkwa Jeff ê-**kî**-ati-mâtocik
C êkwa J ê- kî- ati- mâto -t -k
C and J C1-PREV-INCEP-cry.VAI-3-PL
'Clare and Jeff **were** going to start crying.'

All other aspectual morphemes are also compatible with *kî-*; there is no known morpheme that is incompatible with *kî-*.

7.4 Deconstructing modality: Clause-typing, irreality, and *kî-*

More evidence for the a-veridicality analysis of simple CONJ clauses – for which, however, I do not have a full analysis – comes from their role in the construction of modalized propositions. I take modality here to describe what is possible or necessary (or somewhere in between) given some state-of-affairs (or situation, or context) (Kratzer 1981, 1991, von Fintel 2006).

The purpose of this section is three-fold. First, it provides an initial descriptive characterization of the expression of modality in Plains Cree. Second, it makes the point that

modality is constructed via the interaction of several components of the grammar (i.e., there are no dedicated modal morphemes in Plains Cree), and that one of these components is clause-typing. Third, it shows that, among the anaphoric CONJUNCT clause-types, the a-veridical simple CONJUNCT is used for modality, Since modality is about what is possible or necessary, rather than about what exists, the fact that simple CONJUNCT clauses are used in modal contexts supports the generalization that the simple CONJUNCT introduces a-veridical propositions.

A particular modal interpretation in Cree depends on (i) clause-typing; (ii) the preverbal markers *ka-* and *kî-*; and (iii) negation. Putting these together, we get the modal interpretations in table 7.3.

Quantificational Force	Modal Base	
	Circumstantial	Deontic
∃ (existential)	ABILITY	PERMISSION
∀ (universal)	FUTURE	INTERNAL OBLIGATION
	UNSTOPPABLE	EXTERNAL NECESSITY

Table 7.3. Modal interpretations

These interpretations map onto specific sets of forms in Plains Cree, as shown in table 7.4.

Quantificational Force	Modal Base	
	Circumstantial	Deontic
∃ (existential)	ABILITY	PERMISSION
	ka- + kî- + IND	**ka- + kî- + A-VERIDICAL**
∀ (universal)	FUTURE	INTERNAL OBLIGATION
	ka- + IND	**ka- + A-VERIDICAL**
	UNSTOPPABLE	EXTERNAL NECESSITY
	piko + ka- + A-VERIDICAL	**piko + ka + A-VERIDICAL**

Table 7.4. Mapping of Plains Cree forms to modal interpretations

In the following sections I consider the role of each formal contrast in turn.

7.4.1 The role of clause-typing: Circumstantial vs. deontic modality[4]

Recall that the simple CONJUNCT either has the prefix *ka-* or the suffix *-i* (Plains Cree's subjunctive). The *ka-* prefix also occurs in the INDEPENDENT order, but is ungrammatical with

[4] Thanks to Lisa Matthewson for discussion of this point.

other CONJUNCT clause-types.[5] The presence of irrealis *ka-* has different effects on INDEPENDENT vs. CONJUNCT clauses.

Modal Base	**Clause-type**
circumstantial	INDEPENDENT
deontic	simple CONJUNCT

Table 7.5. Clause-typing affects modal base

In the INDEPENDENT order, the result is a future expression, as in (24); this is usually considered a type of universal circumstantial modality in that it conveys what must necessarily happen given a particular set of circumstances (Kratzer 1991, Copley 2002, Davis et. al *to appear*).

(24) *ka-* + INDEPENDENT = 'future' (universal circumstantial)

a. ..., "mâka pikw îspî **ka**-takosin," ...
mâka piko ispî ka- takosin -w
but all TEMP IRR-arrive.VAI-3
'..., "but he will be back any time now," ... ' (AA 4.11)

b. "ni**ka**-mâkohikwak kiskêyihtahkwâwi," ...
ni-ka- mâkoh -ikw-ak kiskêyihtam-k-wâw-i
1- IRR-trouble.VTA-INV-PL know.VTI -0-PL -SUBJ
' "they will give me trouble if they find out," ...' (AA 4.8)

By contrast, in simple CONJUNCT clauses, the result is an expression of necessary obligation. I take this to be a kind of universal deontic modal construction (where deontic modality expresses what is possible or necessary given some set of laws, rules, or other context). In elicitation, a simple CONJUNCT clause is dispreferred without an overt higher predicate (cf. Ahenakew 1987); this is consistent with what we have seen about CONJUNCT clauses being embedded. In running speech, where more long-distance dependencies are found, *ka-* prefixed CONJUNCT forms are found, not frequently, but regularly.

[5] For some speakers, the prefix *ka-* alternates with *(ki)ta-*. The latter form seems to be restricted to third-persons and the *ka-/kita-* alternation is in fact often analyzed as a person-split (Wolfart 1973, Wolvengrey 2006). However, the distribution seems to be more complicated than that: (i) both *ka-* and *(ki)ta-* occur with third-persons (cf. Ahenakew 2000); (ii) speakers report that the *ta-* form has a stronger sense of obligation. I leave this for further research.

(25) ka-p-~ **ka**-pâhpiyahk **ka**-pîkiskwâtâyahkik,
ka- pâhpi -yahk ka- pîkiskwâtâ -yahk -k
IRR-laugh.VAI-21PL IRR-speak.VTA -21PL -3PL
'We should laugh and speak to these young people,

ka-wâpahtihâyahkik ê-kitimâkêyimâyahkik.
ka- wâpahtihâ-yahk -k ê- kitimâkêyimâ -yahk -k
IRR-show.vta -21PL-3PL c1-care.VTA -21PL -3PL
we should show them that we care for them.' (EM 35)

Thus, both INDEPENDENT clauses and simple CONJUNCT clauses express universal quantification, but the modal force is different.

The preverb *kî-* 'PREVIOUS', which otherwise has a temporal shifting function, can be added to a modal clause to change the quantificational force. Table 7.6 summarizes; *kî-* is used in existential quantification contexts; universal quantification contexts have no morphological exponent.

Quantificational Force	Morphology
∃ (existential)	*kî-*
∀ (universal)	⊘

Table 7.6. *kî-* codes existential force in modal contexts

In (26) there is still a contrast between INDEPENDENT and SIMPLE CONJUNCT, and it can still be characterized as a difference between circumstantial and deontic modality. With the addition of *kî-*, however, the circumstantial modality is existential (*ability*) rather than universal (*future*), and the deontic modality is more akin to *should* than *have to* (cf. below for relevant contexts). Notice that other forms of the CONJUNCT are ungrammatical.

(26) a. *ka-* + *kî-* + INDEPENDENT = existential circumstantial

ka-**kî**-tâhkonêw acimôsisa INDEPENDENT
ka- kî- tâhkon -ê -w atimw -isis -a
IRR-PREV-carry.VTA-DIR-3 dog -DIM-OBV
'S/he is able to carry the puppies.'

b. *ka-* + *kî-* + CONJUNCT = existential deontic

ka-**kî**-tâhkonât acimôsisa SIMPLE CONJUNCT
ka- kî- tâhkon -â -t atimw -isis -a
IRR-PREV-carry.VTA-DIR-3 dog -DIM-OBV
'S/he is supposed to carry the puppies.'

c. * ê-ka-**kî**-tâhkonât acimôsisa CHANGED CONJUNCT
ê- ka- kî- tâhkon -â -t atimw -isis -a
C1-IRR-PREV-carry.VTA-DIR-3 dog -DIM-OBV
---

(27) *context*: asking permission to go to party (existential deontic)

a. # nika-kî-itohtân cî
ni-ka- kî- itohtê -n cî
1- IRR-PREV-go.VAI-SAP Q
'Can I go?'

b. nika-kî-itohtêyân cî
ni- ka- kî- itohtê -yân cî
1- IRR- PREV-go.VAI-1 Q
'Can I go?'

7.4.2 *kî-* has existential modal force under negation

The interpretation of *kî-* when it co-occurs with irrealis *ka-* is not the only place where *kî-* interacts with modality. It also has modal force under negation, in both INDEPENDENT and CONJUNCT clauses.[6] These negated modal clauses always have a circumstantial interpretation, not a deontic interpretation.

[6] The scope of negation over *kî-* is clause-bound. Consider the minimal pair in (i): in (ia) negation is in the higher clause, but the *kî-* in the lower mediated argument clause still acts as an anaphoric temporal shifting device. In (ib), the negation is in the same clause and men are *unable* to leave.

(28) a. NEG + kî- + INDEPENDENT = negative existential circumstantial

môy ni**kî**-kiskisin
môy ni- kî- kiskisi -n
NEG 1- PREV-remember.VAI-SAP
'I can't remember.'

b. NEG + kî- + Ê- CONJUNCT = negative existential circumstantial

môy ê-**kî**-tâhkonât acimôsisa
môy ê- kî- tâhkon -â -t atimw -isis -a
NEG C1-PREV-carry.VTA-DIR-3 dog -DIM -OBV
'S/he can't carry the puppies.' (too small, not strong enough)

7.4.3 Negation widens possible interpretations

The addition of negation to a simple CONJUNCT clause, which already has a deontic modal force, introduces the possibility of a circumstantial modal force. This construction is ambiguous, as illustrated by the pair of data points in (29a-b).

(29) NEG + ka- + kî- + CONJUNCT = negative existential circumstantial OR deontic modality

a. ..., "tâpiskôt, tâpiskôc **môy ka-kî**-miyw-âyâ**cik**,"... CIRCUMST.
tâpiskôt tâpiskôt-i môy ka- kî- miyw- âyâ -t -k
seem seem NEG IRR-PREV-good- be.VAI-3-PL
' ..., "it seems, it seems as though they **cannot** recover," ... '(AA 4.10)

b. ..., êwakw ânim âyisiyiniwak, **namôy ka-kî**-wanikiskisi**cik**; DEONTIC
êwakw anima ayisiyiniw -ak namôy ka- kî- wanikiskisi -t -k
TOPIC DEM.INAN person -PL NEG IRR-PREV-forget.VAI -3-PL
'..., that is something people **should not** forget;' (EM 42)

(i) a. [$_{CP}$ neg … [$_{CP}$ … kî- …]]
nâpêwak **môy** kiskêyihtamwak ê-**kî**-sipwêhtêcik
nâpêw -ak môy kiskêyihtam -w -ak ê- kî- sipwêhtê -t -k
man -PL NEG know.VTI -3 -PL C1-PREV-leave.VAI -3 -PL
'the men didn't know they had left.'
comment: laughing – they didn't know that they left – like they're drunk

b. [$_{CP}$ … [$_{CP}$ neg … kî- …]]
nâpêwak kiskêyihtamwak **môy** ê-**kî**-sipwêhtêcik
nâpêw -ak kiskêyihtam -w -ak môy ê- kî- sipwêhtê -t -k
man -PL know.VTI -3 -PL NEG C1-PREV-leave.VAI -3 -PL
'The men knew they couldn't go.'
comment: they were in jail, where it is impossible to get out

Conversely, the addition of negation to an INDEPENDENT clause, which already has circumstantial modal force, introduces the possibility of a deontic force.

(30) NEG + ka- + kî- + CONJUNCT = negative existential circumstantial/deontic modality

a. ..., **môy** pikw îspî **ka-kî-kâhcitinâwak**, ... CIRCUMST.
môy pikw ispî ka- kî- kâhcitin -â -w -ak
NEG Q TEMP IRR-PREV-take.hold.VTA-USC-3 -PL
'..., you cannot get ahold of that kind just any time, ...' (AA 4.6)

b. ... (**môy** nika-kî-âkayâsîmon aya), ... DEONTIC
môy ni-ka- kî- âkayâsimo -n aya
NEG 1- IRR-PREV-English.VAI-SAP CONN
'... (I must not say it in English), ...' (EM 32)

(31) moy ka-ki-mâtow Sarah
môy ka- kî- mâto -w S
NEG IRR-PREV-cry.VAI -3 S
'Sarah can't cry.'

context: Sarah is unable to cry.
context: Sarah is not allowed to cry.

In both of these cases, the quantificational force is not changing, but the modal base is.

7.4.4 Embedding neutralizes modal distinctions

Recall that INDEPENDENT clauses, which we have seen express circumstantial modality, cannot occur in embedded contexts. In embedded contexts, the circumstantial/deontic distinction in CONJUNCT clauses is neutralized. For example, (32) provides examples of the CONJUNCT being interpreted as an ability modal. In both of these cases, we have both the irrealis *ka-* and the preverb *kî-*; consistent with what we saw earlier, these are modal constructions involving existential quantification.

(32) a. [$_{CP}$ ê-itêyihtahkik [$_{CP}$ ka-kî-wîcihakik]] EXISTENTIAL CIRCUM.

êkwa, **ê-itêyihtahkik** êtokwê, ka-kî-wîcihakik ohc âya, ...
êkwa ê- itêyihtam -k -k êtokwê ka- kî- wîcih -ak -k ohci aya
and C1-think.VTI -3 -PL DUB IRR-PREV-help.VTA-1>3-pl ORIG CONN
'And perhaps they think I can help them ...' (EM 7)

b. [$_{CP}$ kiskêyihtamwak [$_{CP}$ ka-kî-sipwêhtêcik]] EXISTENTIAL CIRCUM.

nâpêwak môy **kiskêyihtamwak** ka-kî-sipwêhtêcik
nâpêw -ak môy kiskêyihtam -w -ak ka- kî- sipwêhtê -t -k
man -PL NEG know.VTI -3 -PL IRR-PREV-leave.VAI -3-PL
'The men didn't know they could leave.'

context: men think they are prisoners, but the door is open

The particle *piko* as a predicative element also introduces a modal clause whose type of modality is neutralized. I take *piko* to be a universal quantifier[7]: in non-predicative positions it has a meaning of 'all' (preceding the element it quantifies over) or 'only' (in second position). All of its uses are exemplified in the following example taken from Minde (1998).

(33) a. ..., **pik** ôma ka-mâmawôhkamâtoyahk,	..., we must work together
kwayask ka-kakwê-isi-pimâtisiyahk,	to try to lead a good life
nowâhc ka-kakwê-isi-pimâtisiyahk;	to try to lead a better life
b. êkosi **piko** k-ês-âya-miyawâtênânaw,	that is the only way we will be happy
c. **pikw** âwiyak nawaswâtam miyawâtamowin;	and everyone chases after happiness; (EM37)

On independent grounds, (the modal form of) *piko* seems to be a predicator (i.e., something that introduces a dependent clause) (cf. Wolfart 1973, 1998). Evidence for this analysis comes from the strict requirement that it be in initial position, and the fact that it can never introduce an IND clause. When we look at the modal interpretations, they pattern with other locally-embedded clauses: *piko* combined with a simple CONJUNCT clause appears to be compatible with either circumstantial or deontic force.

[7] Thanks to Lisa Matthewson for pointing out the connection between these different uses of *piko* and universal quantification.

(34) Universal deontic modal

a. **piko** ka-kanâcihcikêyân,
piko ka- kanâcihtcikê-yân
necessary IRR-clean.VAI -1

ayis nisîmsak, oskinîkiwak, ê-wî-pê-kîyokêcik
ayis ni-sîmis -ak oskinîkiw-ak ê- wî- pê- kîyokê -t -k
for 1- sibling-PL youth -PL C1-int-DIR-visit.VAI-3-PL
'I **have to** clean the house, because my siblings, young men, are coming to visit.'

b. *context*: I am scheduled to work today; if I don't go in, they fire me

piko ka-nitawi-atoskêyân anohc
piko ka-nitawi- atoskê -yân anohc
be.necessary IRR-go- work.VAI-1 today
'I have to go to work.'

(35) Universal circumstantial

a. *context*: on the phone, feel cough coming on, say this to excuse yourself

piko ka-atohoyân
piko ka- atoho -yân
necessary IRR-cough.VAI-1
'I have to cough.'

b. *context*: falling asleep while talking to someone, keep falling forward, can't stay awake any longer, about to pass out

piko ka-nipâyân
piko ka- nipâ -yân
necessary IRR-sleep.VAI-1
'I have to sleep.'

This is unexpected if the *ka-* clause is not locally-embedded, but looks familiar when considered with other locally-embedded clauses. Thus, this data provides additional support for analyzing *piko* as a predicative element, and provides another instance of neutralization of modal force.

7.4.5 Summary

One of the key aspects to modal interpretation in Plains Cree is the clause-typing system: in matrix clauses, the indexical INDEPENDENT order expresses circumstantial modality, and a-veridical CONJUNCT clauses express deontic modality. In the CONJUNCT order, the simple CONJ is used to express modality, which is consistent with my claim that the simple CONJUNCT is used to introduce a-veridical propositions.

In order to have a full semantic account of modality in Plains Cree, there are several puzzles that remain unsolved. I here raise two such questions, leaving the answers for further research.

First, what are the contributions of each piece of Plains Cree's modal constructions to the overall meaning? For example, clause-typing distinguishes modal force, but in negated and embedded clauses, this distinction is neutralized. In terms of quantificational force, *kî-* seems to specify existential quantification, but there is no morphological marking of universal quantification. In addition, the irrealis marker *ka-* is a key component of modal constructions, but crosses both the circumstantial/deontic modal distinction and the existential/universal quantificational distinction.

Second, putting the distinction between modal base and quantificational force together, we expect the following four-way typology, all of which are attested in Plains Cree:

Quantification	Circumstantial	Deontic
Existential	✔	✔
Universal	✔	✔

Table 7.7. Modal base vs. quantification in Plains Cree

In fact, Plains Cree exhibits more contrasts than this model would lead us to expect; in particular, we saw that Cree had two ways of constructing a universal circumstantial, and two ways of constructing an existential deontic.

Quantification	Circumstantial	Deontic
Existential	ABILITY	PERMISSION
		OBLIGATION
Universal	FUTURE	NECESSITY
	UNSTOPPABLE	

Table 7.8. Modal interpretations in Plains Cree

Thus, in order to fully capture Cree's system, we need a more fine-grained analysis of modality.

7.5 Variation in clause-typing across Algonquian

Documentation of the microvariation between Algonquian languages at the syntactic and semantic level remains very coarse-grained at this point, but the relatively detailed analysis developed here for Plains Cree offers a good starting point for understanding much more about the clausal domain of this family.

In this section, I want to particularly address in more detail some of the variation that was briefly mentioned in chapter two about the mapping of forms, such as the pronominal proclitics and initial change, to syntax and semantics across Algonquian.

7.5.1 Variation of the pronominal proclitics: Plains Cree vs. Blackfoot

With respect to forms in the INDEPENDENT order, I have claimed that the pronominal proclitics *ni-* and *ki-* are in spec, CP. Working on Blackfoot, a somewhat distantly related but geographically adjacent Algonquian language, Ritter & Wiltschko (2005, 2007) have argued that the pronominal proclitics sit head the IP layer of the clause. Ignoring for the moment the difference between the spec and head position, there are several crucial ways that Plains Cree and Blackfoot forms differ in their distribution. Table 7.9 shows five diagnostics that could theoretically distinguish between an IP-level element and a CP-level element; we see that Plains Cree and Blackfoot differ on three of the five diagnostics.

Properties of INDEPENDENT proclitics	Plains Cree	Blackfoot
Peripheral position?	✔	✔
Sensitive to temporal value?	✖	✖
Interacts with inverse?	✖	✔
Sensitive to embedding?	✔	✖
Complementary with clause-typing?	✔	✖

Table 7.9. Diagnostics for determining the position of pronominal proclitics

Both Plains Cree and Blackfoot pronominal proclitics occur on the far left-peripheral position of the verbal complex, and neither set of proclitics are sensitive to temporal value. However, on at least three counts they differ. First, Blackfoot pronominal proclitics have a particular interaction with the inverse marker of the theme system that Plains Cree (and, to my knowledge, all other Algonquian languages) lack. In (35), we see that the Blackfoot inverse marker is used when a third person acts on a first person (35a) or when a first person acts on a second person (35b).

(36) a. nitsikákomimm**ok**innaani
nits- ikákomimm-ok -innaan -i
1- love -INV-1PL -3PL
'They love us(excl).' (Déchaine 1999, (70a))

b. kitsikákomimm**oki**
kits- ikákomimm -oki
2- love -INV
'I love you.' (Déchaine 1999 (72c), translation corrected)

In (36) we see that the Plains Cree inverse marker is used when a third person acts on a first person, but that a different form, *-iti*, is used when a first person acts on a second person (36b).

(37) a. nisâkih**ik**
ni- sâkih -ikw
1- love.VTA-INV
'S/he loves me.'

b. kisâkih**iti**n
ki- sâkih -iti -n
2- love.VTA-1>2-SAP
'I love you.'

Given that the theme-sign system is sensitive to case (Déchaine & Reinholtz 1997, 2007), and more generally that the inverse-marker involves a raising operation (Bruening 2001), the data in (35-36) suggests that pronominal proclitics are lower down in Blackfoot than in Plains Cree.

Second, as we saw in chapter 2, verbal stems carrying pronominal proclitics cannot be embedded clauses in Plains Cree. In Blackfoot, however, there is no such prohibition.

Third, while the pronominal proclitics in Plains Cree are in complementary distribution with clause-typing elements (in Plains Cree, these are the left-edge elements *ê-* and *kâ-*), the pronominal proclitics in Blackfoot are not in complementary distribution with clause-typing elements. For example, the pronominal proclitics occur in matrix clauses, which do not have any other clause-typing (37a); in factive embedded clauses with the *-hsi* clause-typing suffix (37b), and in non-affirmative clauses with the *-hpa* clause-typing suffix (37c).

(38) a. **ni**táakahkayi
nit- áak- ahkayi
1- will- go^home
'I'm going home.' (Frantz 1991:21)

b. **ni**tsíkohtaahsí'taki **ki**káó'toohsi
nit- ik- oht- yaahs -i'taki k- ikáá- o'too -hs -yi
1- very-source-good -feel.VAI 2- PERF- arrive.VAI-conj-conj
'I'm glad that you have arrived.' (Frantz 1991:112)

c. **ki**káta'yáaka'po'taki**hpa**
k- Ikáta'- yáak- a'p- o'taki -hpa
2-interrog-FUT- PREF-work -nonaffirm
'Will you work?' (Frantz 1991:133)

Taken together, the facts above indicate that although Plains Cree and Blackfoot share the same forms, the way these forms are mapped into the syntax can be quite different from language to language. Thus, when working on the clause-typing system of one of these languages, it is important to understand not just what the forms are, but the larger distributional patterns.

7.5.2 Variation in initial change: Plains Cree vs. Blackfoot vs. Ojibwe

Within anaphoric clauses, I claimed that there was both syntactic and semantic subclassification; in particular, we saw that there was a direct mapping between the semantics of the proposition and the form of a Plains Cree CONJUNCT order clause.

If we look at this set of forms paradigmatically, we see that the relevant distinctions have to do with the presence/absence of a morpho-phonological process termed *initial change* in the Algonquianist literature, and whether this process targets the initial syllable of the word (very rare), is realized over some underlyingly contentless preverb (form: *ê-*), or realized on the preverb *kî-* (form: *kâ-*).

The process of initial change is attested across the Algonquian language. It is posited for Proto-Algonquian, cf. Costa 1996; for discussion of individual languages see the following (incomplete) list: Blackfoot (Taylor 1967, Proulx 2005); Cree/Montaignais/Naskapi (MacKenzie 1980); Menominee (Bloomfield 1962:98); Ojibwe (Bloomfield 1958, Valentine 2004); Passamaquoddy (Mitchell 1921); Plains Cree (Wolfart 1973; Rogers 1978), among many others.

Despite the significant literature on the form of initial change, its syntax and function in different Algonquian languages remains poorly understood. The below table summarizes five properties of initial change which differ from language to language.

Properties of initial change	Plains Cree	Blackfoot	Ojibwe
Peripheral position of verbal complex?	✔	✖ (Frantz 1991:36)	✔ (Valentine 2004:156)
Co-occurs with pronominal proclitics	✖	✔ (Proulx 2005:17)	✖ (Valentine 2004:156)
Cued to realis/irrealis	✔	✔ (Proulx 2005:17)	✖ (Valentine 2004:166)
Used in forms with nominal morphology?	✖	✔ (Frantz 1991:36)	✔ (Valentine 2004: 510)
Able to iterate?	✖	✔ (Taylor 1967:125)	✖ (Valentine 2004)

Table 7.10. Properties of initial change in Plains Cree, Blackfoot, and Ojibwe

Significantly, I could find no literature that systematically describes the relation of initial change to clausal relations, although it is widely acknowledged that there is some relation. It is

hoped that the current observations and claims made about the syntax and semantics of initial change in Plains Cree will provide a broader backdrop as well as a set of more specific diagnostics and contexts for understanding initial change in other Algonquian languages.

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