Chapter I

Introduction

1.0   Aim

The core objective of this work is to describe the phonological operation of two

synchronic linguistic processes, initial change and reduplication, within the dialect of

Innu-aimun spoken in the community of Sheshatshiu, Labrador.

This introductory chapter will, first of all, provide background information

concerning the community and the language spoken there, situating the dialect within the

Algonquian language family. Another aim of this introduction is to delineate the scope of

this work by clearly defining the focus of the description and analysis. Subsection *1.3*

includes a general account of the linguistic processes under examination in order to

establish ideas fundamental to the ensuing discussion. Having identified the domain

relevant to this study, the introduction follows with a description of the methodology

used to gather and process linguistic material, from both primary and secondary sources,

for analysis. Finally, this chapter concludes by outlining a thesis structure designed to

present the research findings in a logical sequence.

1.1   *The Community*

The placename Sheshatshiu, which is a contraction of *Tshishe-shatshu,* refers to the outlet for a river, or the "great opening" (Mailhot 1993: 17). This community is located on a narrow inlet on Grand Lake in central Labrador and is approximately 40 kilometers northwest of Happy Valley-Goose Bay. At one time, the nomadic Innu, who lived inland most of the year, fishing, hunting, and trapping, used the area as a summer gathering place. In the late 1950s and the 1960s, under pressure from both government and religious institutions to assimilate and become part of mainstream society, the Innu began to settle permanently in Sheshatshiu, radically changing their traditional nomadic lifestyle. The present community has a school, which educates children from kindergarten to high school; in addition, Sheshatshiu has an arena, a church, a clinic, and a youth treatment centre. Currently, the community has a population of about 1200 (Our Labrador). According to Indian and Northern Affairs Canada, as of December 2006, the registered Innu population in Sheshatshiu is 995. Although there are concerns about language decline, in contrast to the relatively low rates of aboriginal language retention throughout Canada, virtually all the Innu of Sheshatshiu speak their traditional language, Innu-aimun, as their mother tongue (Burnaby 2004: 35). Most are bilingual in Innu-aimun and English and, although children are primarily educated in English, Innu-aimun is still learned at home (Thorburn 2005: 77).

1.2   *The Language*

Sheshatshiu Innu-aimun belongs to the Algonquian language family; it is more narrowly categorized as a Central Algonquian language, although this classification is considered geographical rather than genetic (Rhodes & Todd 1981: 52). As a dialect of Montagnais, Sheshatshiu Innu-aimun is a part of the Cree-Montagnais-Naskapi dialect continuum, which extends from Labrador in the east to as far west as the Rocky Mountains (MacKenzie 1980: 1). Other Montagnais Innu-aimun dialects, related to the Sheshatshiu variety, are spoken by about 12,000 people in nine Quebec communities located throughout the Quebec Lower North Shore and the Quebec-Labrador peninsula (see Appendix I). It should also be noted that the other Innu community in Labrador, Natuashish, uses a dialect referred to as Naskapi; this type of Innu-aimun is less closely related to the Sheshatshiu dialect than are the Montagnais varieties spoken in Quebec.

Montagnais dialects can be differentiated from more westerly members of the Algonquian language family by the palatalization of the Proto-Algonquian velar stop *k to [ᶜ]. These dialects can be further distinguished from one another according to their reflexes of Proto-Algonquian *l; Sheshatshiu Innu-aimun is classified as an 'n-dialect' (Clarke 1982: 1-2). This difference is reflected in the contrast between *mî**n**eu* 's/he gives it to someone', from Sheshatshiu Innu-aimun, and *mîleu,* from the Betsiamites dialect, a variety of Innu-aimun from Quebec, in which Proto-Algonquian *l is found as *l*.

The consonant inventory of Sheshatshiu Innu-aimun contains stops, fricatives, an affricate, and nasals. The stops, fricatives, and affricate are non-distinctive for voicing. The sound system also has vowels which are traditionally classified as 'long' and 'short'.

The length distinction is arguably only one of the parameters for defining vowel distinctiveness for this dialect. Chapter II presents a much more complete discussion of this issue and of the overall sound system of Sheshatshiu Innu-aimun.

Structurally, Sheshatshiu Innu-aimun, like other Algonquian languages, can be described as polysynthetic (Mithun 1999), allowing for very complex words which often carry as much meaning as a complete English sentence; an inflected verb may function as a complete clause. The basic grammatical categories of Innu-aimun are nominals, verbals and particles (Clarke and MacKenzie 2007). Nouns, which may be simple, compound, or derived, are classified as having animate or inanimate gender. Verbs are distinguished for several conjugations, or orders: Independent, used mainly for declarative sentences; Conjunct, used primarily in dependent clauses; and Imperative, used for commands (MacKenzie 1982). Verb stems are classified according to transitivity; transitive verbs are further categorized for the animacy of the object while intransitive verbs are classified according to the animacy of the subject. Verbs in Innu-aimun are thus categorized as Transitive Animate (TA), Transitive Inanimate (TI), Animate Intransitive (AI), and Inanimate Intransitive (II). Particles, unlike nouns and verbs, are uninflected; the members of this category correspond to numbers, adverbs, prepositions, and conjunctions.

1.3   The Scope of this Work

This sub-section identifies the focus of the thesis. An overview of the two linguistic processes under investigation is first presented. Next, the discussion turns to narrowly demarcating which aspects of reduplication and initial change will be described in this work for Sheshatshiu Innu-aimun.

1.3.1   Reduplication

Reduplication may be defined as a linguistic process "whereby a root, stem, or word is repeated in its entirety or, more often, in part" (Mithun 1999: 42). It appears to be especially prominent in Algonquian languages; for example, in Fox, just one text of about 2500 clauses contains 456 reduplicated forms (Dahlstrom 1997:206). Other researchers note the productive use of reduplication in a variety of Algonquian languages, such as Plains Cree (Ahenakew and Wolfart 1983), East Cree (Junker and Blacksmith 1994), and Innu-aimun (Drapeau 2006).

Reduplication is an iconic process signifying some kind of multiplicity or, in verbs, pluractionality. Reduplication may be applied to verbs in order to convey the idea of continuous or repeated actions.

(1)   utâmueu[1]   "s/he hits him/her"   **ut**-utâmueu   "s/he hits him/her repeatedly"

(Mailhot 1999b: 2-4)

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[1]

Orthographic convention differentiates between long and short vowels by placing a diacritic above vowels designated as long.

In (1), the reduplication of *utâmueu* to **ut***utâmueu* extends the meaning of "hitting" to a repeated action.

Reduplication may also express the distribution of participants in an event, or events themselves, over space or time; this is seen in (2).

(2)   mîtshishu "s/he eats"   **ma**-mîtshishu "s/he eats from different piles, plates"

(MacKenzie field notes)

In example (2), the operation of reduplication distributes the event, the action of *eating,* over physical space.

Investigation into the reduplicative process in other Algonquian languages, such as Arapaho (Conathan 2005: 96), Ojibwa (Malone 1997: 443), and Fox (Dahlstrom 1997: 205), indicates that reduplication appears to be most productive on verbs. Ahenakew and Wolfart assert that, in Plains Cree, "practically any verb may be reduplicated" (Ahenakew and Wolfart 1982: 369). Nevertheless, this process is not limited to verbs exclusively but also occurs with such grammatical categories as nouns, numbers, and preverbs. The following reduplicated forms illustrate the application of reduplication to diverse categories of words:

(3)   meme   "woodpecker"

(4)   gaagaagshiinh   "crow, raven"   (Valentine 2001:508)

(5)   mawi wîseniwa   "he goes to eat" **mâ**mawi wîseniwa   "he goes often to eat"

(Dahlstrom 1997: 210)

(6)   nîsh^ᵁ   "two"   **nâ**-nîsh^ᵁ "two each"
(MacKenzie field notes)

(7)   pessish   "close, near"   **pâ**pessish "closer and closer"

(Mailhot 1999a:1-5)

Nishnaabemwin (3) *meme* and Innu-aimun (4) *gaagaagshiinh* exemplify the apparent

reduplication sometimes found on words naming animals, birds mainly. Example (5)

shows the reduplicative prefix attached to the Fox preverb *mawi* "go (in order to)". In

example (6), a number undergoes reduplication to signal distributivity, while the data in

(7) demonstrate how reduplication may intensify the meaning of a particle.

The work of diverse researchers demonstrates that the general pattern for

Algonquian reduplication is the prefixation of a partial copy of the base form to that base.

This phonologically separate reduplicative prefix may take a variety of shapes, each of

which may correlate with a particular semantic interpretation. The forms assumed by the

reduplicant may be language-specific, with individual languages making use of particular

reduplication types. For instance, the evidence of fully-productive verb reduplications

shows two basic patterns of reduplication for Plains Cree: light reduplication, meaning an

ongoing state or action, and heavy reduplication, meaning discontinuous or intermittent

action (Ahenakew and Wolfart 1983: 370). These may combine to create a meaning of

something ongoing and intermittent at the same time. Light reduplication is realized as

(C)a(y)-[2]; the reduplicative prefix has a short vowel, prespecified as /a/. Heavy reduplication exhibits the pattern (C)âh-, with a prespecified long vowel /â/ and /h/.

In contrast to the reduplication types found in Plains Cree, East Cree does not use two patterns of reduplication to provide semantic contrast. Junker and Blacksmith (1994), describing verb reduplication where only a short vowel is allowed, conclude that East Cree does not have two morphological types of reduplication (269). Fox, on the other hand, has two different patterns of reduplication: monosyllabic, with a continuative or habitual meaning, and bisyllabic, signifying distributed action. A doubly-reduplicated form is also possible, with the output of monosyllabic reduplication acting as a base for the bisyllabic type (Dahlstrom 1997). Drapeau (2006) identifies three types of reduplication for Betsiamites Innu-aimun: light reduplication (a monosyllable with a short vowel), heavy reduplication (a monosyllable with a long vowel), and the non-productive disyllabic type.

The preceding brief description gives a general picture of reduplication and some of the possibilities for realizing this process in Algonquian languages.

1.3.2   Initial Change

Initial change (hereafter referred to as IC) is "a modification of the first vowel of the verb stem" (Bloomfield 1946: 100). This phonological change of the stem-initial syllable is "systematic, depending on the quality of the initial vowel" (Campana 1996: 211). The process can apply to any verb in the conjunct order, with the structure of the

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[2] (C)a(y)- C is the first consonant of the reduplicant; ( ) means optional; (y) is an optional epenthetic element.

vowel change varying according to the language. As an alternative to internal vowel change, Algonquian IC forms may simply be marked by the prefixation of an invariant vowel, which Bloomfield (1946: 100) identifies as a changed particle whose simple form does not occur. As with the internal vowel change, the form of the prefix manifesting IC varies from language to language.

Examples (8) and (9) illustrate typical outcomes for the operation of IC.

(8)   kâshînam$^{\text{U}}$ k**iâ**shinak   **e** kâshinak
        "s/he wipes"   "(who) wipes it?"   "(who) wipes?"

(9)   nashkumeu   n**e**shkumât   **e** nashkumât
        "s/he thanks him/her"   "(who) is s/he thanking?"   "while s/he is thanking him/her"

As shown in these examples from Sheshatshiu Innu-aimun, IC normally has two types of outcomes. In example (8), the application of IC to a base whose initial syllable contains a long vowel creates a disyllabic outcome: *â > iâ*. IC affects short vowels differently; in (9), the result remains monosyllabic after the ablaut change of the short vowel *a* to *e*. Both these examples also demonstrate prefixation as an alternative to internal change for manifesting IC.

There are a number of grammatical contexts where IC forms may be found. For instance, IC is seen regularly in question-word questions (those beginning with question-words such as "who", *tshekuen/auen*, "what", *tshekuân,* etc.) and in certain types of subordinate clauses, such as embedded clauses of time or wh- sentence complements. Changed forms may not only be linked to specific contexts; semantically, they may be

used to indicate a change of state, to highlight events that start the real action (Cyr 1996:193).

Clarke (1982) provides an in-depth discussion of the distribution of changed forms for Sheshatshiu Innu-aimun. The following examples from her description of IC demonstrate contexts requiring the use of a changed conjunct verb; this data further reinforces the variety of phonological outcomes used to manifest IC.

(10) p**i**mûteu "s/he walks" Auen p**e**mûtet? "who is walking?" (Clarke 1982:85)

(11) tshissenitam t**iû**tâk   "he knows what he's doing"   (Clarke 1982:134)

(12) tshissenitam **e** t**û**tâk "he knows what he's doing"   (Clarke 1982:134)

Example (10) demonstrates a typical context requiring the use of a changed conjunct verb form. The use of a wh- question word such as *auen* motivates the application of IC; in this instance, IC results in a monosyllabic, ablauted outcome with the initial vowel *i > e*. In (11), the verb in a subordinate clause also requires a changed form; the application of IC modifies the initial vowel, *û,* in *tûtâk* to *iû*. In this case, the outcome of IC is bisyllabic; material has been added to the original vowel.[3] Example (12) presents an alternative for the context exemplified in (11); rather than exhibiting an internal change, the verb uses *e* to carry the IC meaning.

This very cursory introduction to IC lays the groundwork for the ensuing in-depth discussion of this process by identifying it as a productive grammatical operation whose

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[3] For Sheshatshiu Innu-aimun, this bisyllabic change outcome for the long vowel /u:/ is not the usual result of IC; this will be further discussed in Chapter III.

range of outcomes may exhibit considerable variation throughout the Algonquian language family. The subsequent analysis of the collected data from this research discloses patterns for manifesting IC which are shared with other Algonquian languages, as well as those particular to the Sheshatshiu Innu-aimun dialect.

1.3.3   Defining the Focus of this Research

Research into the operation of reduplication and IC opens up intriguing avenues for comprehensive investigation into various aspects of phonology, semantics, and morphology. This thesis concentrates on describing the phonological patterning of reduplication and initial change, individually and in combination, for the Sheshatshiu dialect of Innu-aimun.

The research for this project has been conducted with the specific goal of gathering phonological data for analysis. Nevertheless, the collected material does allow certain observations to be made regarding other aspects of these processes; for example, particular items from the data do lead to some comments about the semantics of IC and reduplication. Such commentary, however, is not intended as part of exhaustive analysis since it is peripheral to the main goal of describing the phonology of these processes in the Sheshatshiu dialect. For an insightful analysis into relevant semantic concerns, the reader should refer to other sources such as Drapeau, who not only describes the form of

reduplicants[4] but also addresses issues relating to the semantics of productive

Innu/Algonquian reduplication (Drapeau 2006).

At this point, it should be stressed that this thesis is primarily descriptive in

nature. References will be made to theoretical analyses that might offer some insights

into the processes under investigation; however, the current work will not address the

theoretical issues in any great detail. The references to linguistic theory will suggest

potential avenues for future in-depth analysis of the theoretical issues raised by the

patterns described in this work.

Another item to note concerns empirical coverage. The limitations of the collected

data preclude quantitative detail; instead, as previously emphasized, this project

concentrates on qualitative description.

1.4   *Methodology*

The description of reduplication and IC in this work is derived from data collected

from both primary and secondary sources. The collection of original phonological data

was a multi-step process which involved gathering material first from textual sources,

organizing this material in a usable format in preparation for fieldwork, eliciting relevant

linguistic forms from native speakers during fieldwork, and then collating all the

collected forms in a database for subsequent analysis.

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[4] As a point of clarification, *reduplicant* refers to the reduplicated segment in a word resulting from the process of reduplication; *base* is the term used for the form to which an affix is added.

1.4.1 Preparation for Fieldwork

As a preliminary to collecting data from primary sources, I set out to gather significant material upon which to base future elicitations. Texts held in the Native Languages Archive at Memorial provided a rich source for such material. Sources consulted include: MacKenzie's (in progress) Labrador Innu Lexicon Database; Mailhot et al. (1999a & b): *Myths and Tales from Sheshatshit*; Clarke and MacKenzie's (2007) Sheshatshiu Sociolinguistic Variability Project, Clarke and MacKenzie (2004), Clarke (1982), Drapeau and Mailhot's (1991) orthographic guide , MacKenzie's (n.d.) field notes, and Baraby and Bedard's (1979) field notes.

I proceeded to conduct an exhaustive investigation of the textual material, gleaning approximately 800 Innu-aimun words, both non-reduplicated unchanged forms and forms already affected by reduplication and IC. Most of the forms gathered from these textual sources are verbs, but preverbs, numerals and particles are also included.

This collected material was organized into phonological categories according to the structure of the initial syllable, that is, the type of onset, if there was one, and quality and quantity of the initial vowel. Specifically, each word was grouped according to the following categories:

(a)   <p> followed by various short/long vowels: <pa>-, < pâ>-, <pe>-, <pei->, <pi>-, < pî >-, <pû>-, <pu>-,

(b)   <t> followed by various short/long vowels: <ta>-, <tâ>-, <te>-, <ti>-, <tû>-,

(c)   <k> followed by various short/long vowels: <kâ>-, <ka>-, <ku>C-,

(d)   <m> followed by various short/long vowels: <mâ>-, <ma>-, < mâu>-, <me>-, <mi>-, <mî >-, <mû>-, <mu>-,

(e)   <n> followed by various short/long vowels: <na>-, <nâ>-, <ne>-, <nî>-, <ni>-, <nû>-,

(f)   <sh> followed by various short/long vowels: <sha>-, <shâ>-, <she>-, <shî>-, <shi>-,

(g)   <tshî>-, <tshi>-,

(h)   consonants followed by <u> and various short/long vowels: <puâ >-, <pue>-, <tue>-, <tua>-, <kua>-, <kue>-, <nue>-,

(i)   <u> followed by various short/long vowels: <uâ >, <ua>-, <ue>-, and <uî>-

(j)   various short/long vowels: <â>-, <a>-, <ai>-, <âi>-, < î >-, <i>-, <û>-, <u>-.

Using this categorized textual data, I worked with a native speaker at Memorial University to record spoken tokens of each of the base forms in order to both facilitate working with potentially non-literate speakers and also to compensate for my own non-native pronunciation. Next, working with the collected and recorded material, I prepared individual elicitation sheets for each base form to aid in keeping track of information gathered during fieldwork (see Appendix II). These sheets contained hypothesized reduplicated and IC forms and also helped focus on the variables under investigation,

including the type of reduplicative templates, prespecification in reduplicants[5], and the ordering of reduplication and IC in forms combining these features.

1.4.2 Linguistic Fieldwork

Linguistic fieldwork to collect original data for subsequent analysis was an integral component of this research. During fieldwork in Sheshatshiu, from October 27 to November 10, 2005, I worked with native speakers of Sheshatshiu Innu-aimun, conducting sessions aimed at eliciting forms relevant to reduplication and initial change.

The material prepared prior to fieldwork provided a framework for each elicitation session. The previously recorded words from textual sources were played back to the language consultant and set in IC/reduplication contexts; the prepared elicitation charts outlining the research variables guided the questions posed during elicitation. I used a DAT recorder to record speaker responses; the recorded sessions were downloaded daily to a computer and the material reviewed in preparation for the next day's work.

Subsequent to gathering data from primary sources during fieldwork, I carefully analyzed all the collected material and painstakingly isolated discrete linguistic forms using the CLAN (Computerized Language Analysis) program. A double-blind transcription process, in which Dr. Dyck and I independently transcribed each of the individual forms, ensured optimal accuracy of the material for phonological analysis. After comparing and checking the two sets of transcriptions, I organized the final

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[5] *Prespecification* refers to reduplicants which are specified in advance rather than being solely defined by the nature of the reduplicative base.

transcriptions into a database categorized according to variables relevant to the processes under investigation. Of the 1049 transcribed words in the database, 269 are base forms, 232 are IC forms, 419 are reduplications, and 129 words exemplify a combination of both IC and reduplication. The description and analysis of reduplication and IC in this work are based on this transcribed material laid out in the database. As a resource for the reader, I have set out the collected, transcribed forms in Appendix III. These forms have been grouped according to the same categories of initial syllable structure used for classifying the data from textual sources, which guided the collection of original material.

1.4.2.1 The Language Consultants

Three native Innu-aimun speakers contributed their time and expertise to this project. Speaker 1, the primary language consultant who provided the majority of the original material, is a life-long resident of Sheshatshiu. As a young adult woman in her 30s, she gives invaluable insight into the current language of this community. This mother of three school-aged children is committed to maintaining her native language; she speaks Innu-aimun at home and encourages her children's use of the language. She continues to learn new vocabulary from her own mother and defers to her language expertise for judgements concerning usage. Speaker 1's mother, referred to henceforth as Speaker 2, also contributed to the fieldwork. This elder of the community, now in her early 60s, moved to Sheshatshiu from Sept-Iles in the 1960s, when her family was encouraged to settle there as part of the move to integrate the Innu into mainstream Canadian society. Some interesting points of contrast arise between her production of IC

and reduplication, and that of Speaker 1; these will be addressed as they become relevant in later sections. The third native speaker is in her late 40s; although she has lived in Sept-Iles for a number of years, she is originally from Sheshatshiu and maintains ties with family from there. This speaker assisted me on campus in the preparation for the fieldwork; she recorded the previously described wordlist used in the elicitation sessions with the other native speakers in Sheshatshiu. She also contributed a few items included in the database.

1.5   *Thesis Organization*

Following this chapter, which gives a basic introduction to the topics covered in this work, Chapter II examines the sound system, concentrating on the phonemic inventory in particular. This section establishes information fundamental to an examination of the phonological processes under investigation. Chapter III describes the operation of IC in Sheshatshiu Innu-aimun, recognizing the patterns signifying IC that are particular to this dialect. A description of reduplication follows in Chapter IV. This chapter lays out the reduplication material from the database in order to identify the language-particular patterns for this linguistic process. An exploration of forms containing both reduplication and IC logically proceeds from these descriptions. The next chapter brings together the operations of reduplication and IC, addressing issues arising from their interaction when applied to the same word. Finally, the work concludes by summarizing the major findings of this work and noting areas which merit further research.

Chapter II

Background Phonological Information for Sheshatshiu Innu-aimun

2.0   Introduction

An understanding of the fundamental characteristics of the Sheshatshiu Innu-aimun phonological system is a prerequisite to any discussion of specific phonological operations for this dialect. This section focuses on establishing basic information concerning the phonemic inventory of Sheshatshiu Innu-aimun; this foundation will be pertinent to the later analysis of reduplication and IC. Unless otherwise noted, all examples are from the data collected during fieldwork in Sheshatshiu. The exemplary material follows the convention of using square brackets, [_], to enclose phonetic transcriptions and slashes , / _ /, for phonemic transcriptions; orthographic representations are enclosed by angle brackets, < _ >.

2.1.   Phonemic Inventory – Vowels

This section describes the vowel system for Sheshatshiu Innu-aimun, concentrating on the phonemic inventory but also outlining the phonetic possibilities for the individual vowel phonemes.

2.1.1   Table of Vowel Phonemes

The vowel system of Innu-aimun is traditionally grouped into pairs distinguished according to length; that is, <î, i>, <â, a> and <û, u>. The long vowel <e>[6] has no opposing correspondent in Innu-aimun. The vowel system laid out in Table 1 includes both the phonemic representations and the symbols corresponding to these distinctive vowel phonemes in the orthography.

Table 1: <u>Vowel Phonemes in Sheshatshiu Innu-aimun</u>

'Long' Vowels		*'Short' Vowels*	
Orthography	Phoneme	Orthography	Phoneme
<î>	/iː/	<i>/<a>	/I/
<e>	/eː/		
<â>	/aː/		
<û>	/uː/	<u>	/u/

The phonemic vowel system presented in Table 1 includes the usual 'long' vowel phonemes /iː/, /eː/, /aː/, and /uː/ , as well as the 'short' /u/. It also uses /I/ as a symbol to signify an unrounded short vowel phoneme which reflects the merger of the short vowels represented orthographically as <i> and <a> in this dialect of Innu-aimun. The next

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[6] There is no opposition between *ê* and *e* in Innu-aimun; the vowel represented in the orthography by <e> comes from the Proto-Algonquian **ê* while PA**e* became *i* in Innu-aimun. (Clarke 1982: 3).

section will discuss each vowel individually and comment on the merger of <i/a> as a single phoneme. The symbol /I/, as shown in Table 1, will be used throughout this work to represent this phoneme.

2.1.2   *Vowels*

The following sets of examples lay out each phoneme according to orthography, phonemic representation, and phonetic realizations of the vowels as found in the data. Illustrative words, with their phonetic transcriptions, demonstrate possible phonetic realizations for distinct vowels.

The following examples illustrate the manifestation of long <î>, /iː/.

(13)   î   /iː/   [iː]   mîneu   "s/he gives it to someone"   [miːnɨw]

(14)   [i]   tshîtûteu   "s/he leaves (by foot)"   [dʒiduːdɛw]

The phoneme /iː/ is usually phonetically realized as a long vowel [iː], as seen in (13), [miːnɨw]. However, (14), [dʒiduːdɛw], indicates that it may also be heard as a shorter variant [i]. The orthography for these examples reflects the underlying phonemic length distinction. Section *2.1.3* expounds further upon the issue of length distinction.

Examples (15) – (22) display a range of possible realizations for long <â>, /aː/.

(15)	â	/aː/	[aː]	**â**kushu	"s/he is sick"	[**aː**gʊʃuː]
(16)			[a]	k**â**shk**â**shkâueu	"s/he scrapes it with an instrument"	[gaʃgaʃgawɨw]
(17)			[æː]	k**â**ssipiteu	"s/he scratches him/her/it"	[g**æː**sɨbɨtɛw]
(18)			[æ]	m**â**manâtshinamᵁ	"s/he manages, handles it carefully"	[m**æ**mɪnæːdn̩ʊm]
(19)			[ɑ]	m**â**ushu	"s/he is picking berries"	[m**ɑ**wʃuː]
(20)			[ɔ]	e m**â**ushut	"(while) s/he is picking berries"	[eː m**ɔ**wʃut]
(21)			[aː]	m**â**mâkuâtamᵁ	"s/he chews it"	[m**a**ːmaːgwaːdʊm]
(22)			[æː]			[m**æ**ːmæːgwæːdʊm]

The phoneme /aː/ has a number of possible allophonic variants. Firstly, like the phoneme /iː/, the 'long' phoneme /aː/ may be realized as phonetically long or short; for instance, /aː/ is heard as relatively long in (15), [aːgʊʃuː], and (17), [gæːsɨbɨtɛw], but as a shorter variant in (16), [gaʃgaʃgawɨw], and (18), [mæmɪnæːdn̩ʊm]. The phonetic realization of /aː/ as a more backed vowel [ɑ] or backed and rounded [ɔ] is conditioned by the assimilation to adjacent [w], as exhibited in (19), [mɑwʃuː], and (20), [eː mɔwʃut]. Vowels whose quality is [a/ æ] seem to vary freely in this data; for instance,

mâmâkuâtam ᵁ, is heard as both [ʍaːmaːgwaːdʊm] in example (21) and

[mæːmæːgwæːdʊm] in (22).

The long vowel <e>, /eː/, is illustrated in examples (23) – (25).

(23)	e	/eː/	[eː]	p**e**tamᵁ	"s/he hears him/her"	[p**eː**dʊm]
(24)			[ɛ]	ku**e**ssipanu	"turn things over"	[kw**ɛ**sːɨpɨnuː]
(25)			[e]	p**e**shtaik	"(who) strikes it"	[p**e**steykʰ]

As previously noted, there is no longer an opposition between /e/ and /eː/ in Innu-

aimun (Clarke 1982: 3). The above examples indicate that, like other long vowels, this

phoneme may be produced as phonetically long, with [eː], or relatively shorter, with [e];

this vowel is also realized with lax (24) or tense (25) variants. Clarke (1982: 4) suggests

that syllable structure may influence vowel quality, so that /eː/ is usually heard as a tense

[e] in an open syllable, and as a lax variant [ɛ] in a closed syllable. The data generally

support this, but only as a tendency; for example, the /eː/ in *peshtaik* (25) occurs in a

closed syllable but is realized with a tense variation, [e].

Examples (26) – (28) demonstrate two dimensions of variation for the long round

vowel <û>, /uː/.

(26)	û	/uː/	[uː]	nûkushu	"it appears"		[nuːɡʊʃuː]
(27)			[u]	e tûtâk	"(who) is doing it"		[eːtudakʰ]
(28)			[o]	ninânûtshikuâu	"I keep bothering him/her"		[nɪnæːnoːʤigwɔw]

As already recognized for the other long vowels, the realizations for the 'long' vowel phoneme /uː/ may vary for length, as demonstrated in the contrast between the production of /uː/ in (26), nûkushu [nuːɡʊʃuː], and (27), e tûtâk [eːtudakʰ]. The above set of examples also point to variation along the dimension of height, with /uː/ realized with a lower variant, [o], seen in (28) as well as the high [u(ː)], as found in (26) and (27).

The following sets of examples show the vowels symbolized orthographically as <i,a>. These orthographic symbols represent a single unrounded short vowel phoneme /I/, which was historically two separate vowels *i <i> and *a <a>.

(29)	<i>	/I/	[ɪ]	mishkam^ᵁ	"s/he finds it"	[mɪʃːkʊm]
(30)			[ɪ]	nipâu	"s/he is sleeping"	[nɪpɔwʰ]
(31)			[ə]	nipâu	"s/he is sleeping"	[nəpːɔw]
(32)			[ɨ]	nikamu	"s/he sings"	[nɨkːəmuː]

(33)		[ə]	n**i**kamu	"s/he sings"	[nəkɨmuːʰ]

(34)		[ə]	tsh**i**muan	"it's raining"	[ʤəmːʊn]

(35)		[æ]	n**i**kamu	"s/he sings"	[nækɨmuːʰ]

(36)	\<i\> [I]	[i]	**i**shinamᵁ	"s/he sees it in a dream"	[iʃɪnʌm]

(38)		[ə]	man**i**pitamᵁ	"pull out, tear out s.t. (e.g. a page)"	[manəpətʊm]

(39)		[a]	menip**i**tak	"(who) tears out a page"	[menəp**a**tæk]

(40)		[iː]	n**i**shâshîpin	"I am stretching (many times)"	[niːʃaːʃiːbɪn]

Examples (29) to (40) demonstrate that the vowel \<i\> has a diverse range of possible phonetic realizations; it is variably produced in this data as [ɪ], [ɨ], [ə], [æ], [i], [iː] and [a]. Examples (31), [nəpːɔw], (33), [nəkɨmuːʰ], (34), [ʤəmːʊn], and (38), [manəpətʊm], show the neutral [ə] as a common phonetic alternate for \<i\>. Example (39), [menəp**a**tæk], an IC form based on (38), man**i**pitamᵁ [manəpətʊm], shows [a] varying with [ə] as another realization for \<i\>. This vowel may also exhibit some variation in phonetic length, as seen in the relatively longer production of \<i\> in (40), n**i**shâshîpin, [niːʃaːʃiːbɪn]. As was noted for the long vowel phonemes, the underlying length of this vowel is not necessarily reflected in its phonetic realization. (The issue of using length to define phonemic distinctions will be addressed in *2.1.3*.)

It is also worth noting that the short vowel <i> plays a unique role in word formation, acting as a connective element in many words. The literature contains various references to the use of <i> epenthetically between consonants. In his description of Algonquian, Bloomfield (1946: 90) describes connective *i* as appearing between a word-forming element ending in a non-syllabic segment and one beginning with another non-syllabic segment, or a cluster; Wolfart notes that, in Plains Cree, the consonant following connective *i* cannot be a semi-vowel (Wolfart 1973: 80). For Sheshatshiu Innu-aimun, Clarke notes the use of connective *i* between consonants at a morpheme boundary (Clarke 1982: 13). Goddard describes the use of connective *i* at a morpheme boundary as a rule of internal combination or internal sandhi (Wolfart 1996: 433). Sandhi phenomena in Sheshatshiu Innu-aimun, both internal and external, will be expanded upon in *2.2.6*.

The following group of data, (41) to (51), samples the range of alternations found for <a>.

(41) <a> /I/ [I] m**a**shineimueu "s/he writes, owes money" [mɪʃɪneɪmwew]

(42)   [I] n**a**shkumeu "s/he thanks him/her" [nɪʃkumew]

(43)   [ə] n**a**shkumeu "s/he thanks him/her" [nəʃkʊmɛw]

(44)   [ɨ] m**a**tshitûtam^ᵁ "s/he does s.t. wrong" [miʤɪduːdəm]

(45)   [ə] n**a**n**a**mutâmu "s/he has a shaky voice" [nənəmutæːmu]

(46)   [æ] n**a**n**a**mutâmu "s/he has a shaky voice" [næn**æ**mʊtaːmuː]

(47)	[æː]	n**a**tau	"s/he hunts"	[n**æː**ntaw]
(48)	[ʌ]	**a**kûtin	"it floats"	[**ʌ**kuːdn̩]
(49)	[a]	**a**kûtin	"it floats"	[**a**kuːtn̩]
(50)	[a]	n**a**n**a**matshu	"s/he shivers with cold"	[n**a**n**a**mɨtʃu]
(51)	[ə]	ni**na**n**a**matshin	"I'm shivering with cold"	[n**ə**n**ə**n**ə**mətʃɪn]

Examples (41) to (51) indicate that <a> may be realized as [ɪ], [ɨ], [ə], [æ], [æː], [a] or [ʌ]. As with <i>, the more centralized, neutral vowel [ə], appears commonly as an alternate phonetic realization for <a>. In (43), [nəʃkʊmɛw], (45), [nənəmutæːmu], and (51), [nənənəmətʃɪn], [ə] is seen to vary freely with other realizations for [a] found in (42), [nɪʃkumew] , (46), n**a**n**a**mutâmu [n**æ**n**æ**mʊtaːmuː], and (50), [n**a**n**a**mɨtʃu]. Note that in (51), ni**na**n**a**matshin, [nənənəmətʃɪn], both <a> and <i> are produced with the same neutral vowel [ə]. Examples (46), [n**æ**n**æ**mʊtaːmuː], and (47), n**a**tau [n**æː**ntaw], point out that although <a> represents a phonemically short vowel, it may be produced as a relatively longer alternate.

A comparison of the short non-round vowels <i> and <a> reveals a number of similarities in their phonetic realizations. As observed from examples (29) to (51), these vowels are both produced as [ɪ], [ɨ], [æ], [a] or [ə]; each regularly appears as [ə] or [ɨ].

There are also a few phonetic differences: <i> has the allophones [i], [iː] and <a> has [ʌ] in addition to their shared realizations. Nevertheless, the examples above demonstrate that, for the most part, <i> and <a> are phonetically indistinguishable from each other. This is comparable to the situation of the short non-round vowels in Betsiamites Innu-aimun, where /i/ and /a/ have fallen together as [ə]; Drapeau also observes that this absolute neutralization of /i/ and /a/ is ongoing in several other Montagnais dialects as well (Drapeau 1981a: 33). MacKenzie (1980: 135) also discusses the process of short vowel neutralisation in Cree-Montagnais-Naskapi dialects, noting that, in certain communities, younger speakers neutralise these vowels in all contexts. Clarke and MacKenzie (2004: 5) state that these vowels have almost completely fallen together, rendering the initial syllable in words like *nimish* and *namesh* indistinguishable from each other. The phonetic non-distinctiveness of these vowels, as discussed for the data, points to their merger as a single phoneme.

The phonetic evidence indicative of a merger of the historically distinct /i/ and /a/ is reinforced by the phonological patterns shared by these vowels. The evidence of common phonemic patterning includes, but is not limited to, the phonological processes of vowel deletion and IC.

First of all, both these vowels are subject to deletion in many environments (MacKenzie 1980: 116), including word-initial position and between homorganic stops and nasal consonants (Clarke 1982: 11). Examples (52) – (55) are illustrative.

(52)   **a**kûp   "coat"   [gʊp]

(53) **i**shkuess "girl" [sʰkwɛs]

(Clarke & MacKenzie 1982:221)

(54) nananikut**i**ni "sometimes, from time to time" [nænænəgʊtn̩]

(55) uâuâp**a**meu "s/he is checking on it" [waːwaːbm̩ew]

In (52) and (53) <a> and <i> are deleted word-initially. In (54), <i> undergoes deletion between homorganic consonants, an alveolar stop and an alveolar nasal; <a>, in (55), also occurs in an environment conducive to the deletion of this short vowel.

The type of change for these vowels in IC contexts demonstrates another commonality: an identical pattern of vowel shift occurs, with <i, a> changing to <e>, as seen below.

(56) m**a**nipitam[U] [manəpətʊm]   m**e**nipitak [menəpatæk]
"pull out, tear out something,   "(who) tears out a page?"
e.g. a page"

(57) tsh**i**muan [ʤəmːʊn]   tsh**e**muâk [ʤemwak[h]]
"it's raining"   "(I know) it's raining"

Examples (56) and (57) show that the short unrounded vowels symbolized orthographically as <a> and <i> manifest IC identically, by changing to <e>.

It should be noted that some instances of word-initial <i> are distinct since they do not conform to the usual behaviour for this vowel. In this position, <i> does show the expected IC pattern of change to <e>. However, Drapeau (1981b), describing the

situation for the Betsiamites dialect, says that not all instances of word initial <i> are subject to the procope which is usual for short unrounded vowels; she suggests that the initial <i> of some words is underlyingly /i:/ rather than /i/. This issue will be revisited in Sections *3.3.2* and *4.2.11* as it becomes relevant to the description of the IC and reduplication processes.

Overall, notwithstanding the different patterning found in particular instances of word-initial <i>, the evidence of shared phonetic realizations coupled with common behaviour related to phonemic patterning validates the classification of the short unrounded vowels, <a> and <i>, as a single distinctive phoneme within the sound system. This work assumes this classification and refers to this phoneme as /I/.

Examples (58) – (61) outline possible variations for realizing the short round vowel <u>, /u/.

(58)	u	/u/	[ʊ]	**ku**sseu	"s/he is fishing"	[kʊsːɨw]
(59)			[u]	**u**tâmueu	"s/he is hitting him/her"	[utæːmwew]
(60)			[o]	puâm**u**	"s/he dreams"	[puaːmo]
(61)			[ə]	ut**u**tâmueu	"hit repeatedly"	[utətamwew]
(62)			[ø]	**u**tâpân	"car"	[daban]

As seen from these examples, the short rounded vowel /u/ has a number of allophonic variations: [ʊ], [u], [o], and [ə]. Its realization as [ʊ] typically occurs in a

closed syllable, as in (58), while it may be neutralized with < û> in a final open syllable,

where both /u/ and /u:/ can be heard as [o], as found in (60), (Clarke & MacKenzie 2004:

5). The vowel /u/ is typically rounded but there are a few instances of [ə] as a variant, as

seen in *ututâmueu*, [utətamwew], in (61); this is a rare occurrence, unlike the ubiquitous

realization of <i,a> as [ə] in the data. Example (62), from Clarke & MacKenzie (2004: 7),

shows that the short vowel /u/, like /I/, may be subject to processes such as word-initial

short vowel deletion; however, /u/ is comparatively more stable and is less affected by

deletion than the non-round short vowels (MacKenzie 1982: 103).

The vowel inventory of Sheshatshiu Innu-aimun is summarized in Table 2.

Table 2: <u>Vowel Inventory</u>

Orthography	Phonemic Representation	Phonetic Realizations
<î>	/i:/	[i:, i]
<e>	/e/	[e:, e, ɛ]
<â>	/a:/	[a:, a, æ:, æ, ɑ, ɔ,]
<û>	/u:/	[u:, u, o]
<i>	/I/	[ɪ, ə, ɨ, æ, a, i:, i]
<a>		[ɪ, ə, ɨ, æ, a, æ:, ʌ]
<u>	/u/	[u, o, ʊ, ə]

2.1.3   *Phonemic Length Distinction in Sheshatshiu Innu-aimun*

Section *2.1.2* has shown that 'long' vowels are realized as tense, and optionally long, while 'short' vowels are realized as lax and sometimes long. These observations raise the issue of whether length is still a basis for phonemic distinction in Sheshatshiu Innu-aimun. MacKenzie (1980: 93), for one, discusses the possibility of using 'tenseness' as a replacement for 'length'. The relationship between a vowel system based on distinctive length and one which uses tense/lax distinctions may parallel attested changes in the vowel systems of certain other languages. For instance, Algeo & Pyles claim that in English vowels a difference based on tenseness has generally replaced an historical difference in duration. (1982: 34). Also, LeSourd (1993) proposes that the Passamaquoddy vowel system has replaced the traditional vowel-length contrast with a distinction based on stressable versus unstressable vowels.

The sound system of Sheshatshiu Innu-aimun contains, underlyingly, both long and short vowels. This distinction is supported by phonetic evidence. Phonetically, 'long' vowels tend to be heard as relatively longer in duration than 'short' vowels. In word-medial syllables, long vowels are typically longer than short vowels although long vowels can be shortened. Short vowels are not typically lengthened synchronically. There is also a certain correlation between vowel length and tenseness, with long vowels being tense while short vowels are non-tense.

Phonetic evidence alone may be inadequate for defining phonemic status. A recurring theme in the previous descriptions of each Innu-aimun vowel is that the phonetic realization may not reliably identify a vowel as underlyingly long or short. As

Goddard (1991) notes for Fox, the perception of vowel length can be problematic. A case

in point is *mâmanâtshinam*ᵁ which, as exemplified in (18), can be realized as

[mæmɪnæːdn̩ʊm], with the phonetically short vowel [æ]; the orthography, however,

recognizes this vowel as phonemically 'long' /aː/. The orthography of such examples is

accurate, since the actual phonetic realization of a vowel's length may sometimes be at

odds with its long/short phonemic classification. Criteria other than phonetic length or

quantity can sometimes be used to distinguish 'long' vowels from 'short'.

Phonological patterning is an important source for evidence of phonemic

distinction. For example, word-initial short vowels tend to be deleted (Clarke 1982: 11).

Syncope applies solely to vowels classified as short; in contrast, long vowels are not

subject to deletion. As well, when vowels come together at morpheme boundaries, long

vowels tend to be maintained while short are less likely to be preserved (Clarke 1982:13).

Another piece of phonological evidence for distinctive vowel length concerns the

placement of pitch accent. Regarding dialects with non-final accent (which includes

Sheshatshiu Innu-aimun), MacKenzie (1980) states that:

> In di-syllables the long vowel receives the stress, the penultimate one in the case
>
> of a word having two long vowels. Where the word has two short vowels, one or
>
> the other carries stress. In words of three syllables or more, stress usually falls on
>
> the rightmost underlying long vowel. … If the long vowel stands more than third
>
> from the end, the penultimate or ante-penultimate short vowel will receive stress.
>
> (p. 48)

The fact that the placement of pitch accent depends on the distinction between long and short vowels supports the existence of underlying long/short vowels.

The morphophonological patterns manifested by the process of IC also support the phonemic length classifications. Initial change patterns are the same, or similar to, patterns observed in languages that still maintain a length distinction. These patterns show underlying length even when phonetic length is contradictory. In (63) and (64), IC confirms underlying vowel length.

(63)   m**â**manâtshinam^ᵁ [mæmɪnæːdn̩ʊm]   m**iâ**manâtshinak   [miyæːmɨnæːdn̩akʰ]
       "s/he manages it carefully"   "(who) manages it carefully"

(64)   m**a**mâtueu   [mæmæːt(u)wɨw]   m**e**matuit   [meːmæːduwɪtʰ]
       "s/he moans"   "(who) is moaning"

In (63), *m**â**manâtshinam^ᵁ*, phonetically realized as [mæmɪnæːdn̩ʊm], the

orthography represents the initial vowel as a long <â**>;** however, the phonetic quality and

quantity of [æ] are more indicative of a short vowel. Nevertheless, the patterning

particular to IC verifies that this vowel is actually a long <â>. The process of IC modifies

the initial vowel in the verb *m**â**manâtshinam^ᵁ* to <iâ >-; this is the regular vowel shift that

affects an unchanged long vowel <â> within a grammatical context requiring IC. In

contrast, if such a change were based on the speaker's identification of the initial vowel

as a short, unrounded vowel /I/, IC would have a different outcome, with [æ] showing an

ablaut change to /e/, as it does in (64). In this example, the initial vowel of *mamâtueu* is

also realized phonetically with a short vowel [æ]; the IC process confirms that this vowel

is, indeed, underlyingly short. (Table 5 in Section *2.4* may be referenced for details of the

IC patterns found for particular vowels.) Examples such as these indicate that the IC form

is not dependent on the phonetic realization, but on the abstract phoneme it corresponds

to as reflected in the orthographic representation.

Overall, phonemic length for Innu-aimun vowels is supported by both phonetic

evidence and phonological patterning. The phonemic distinction is 'long' versus 'short'.

Phonetically, the correlated distinctions are tense, and often long, versus lax, and often

short.

2.2   *Phonemic Inventory - Consonants*

The phonemic consonant inventory of Sheshatshiu Innu-aimun includes several

oral stops, fricatives, a single affricate, and two nasals. The following table outlines the

consonant system for this dialect. The orthographic and phonemic representations are

identical, unless otherwise noted.

Table 3: Consonants of Sheshatshiu Innu-aimun

Stop	p	t		k	(k^{υ})
Nasal	m	n			
Fricative			ʃ <sh>		h
Affricate			tʃ <tsh>		

As can be observed in Table 3, Sheshatshiu Innu-aimun has no voiced oral stop, affricate, or fricative phonemes. There are also no liquids: Proto-Algonquian *l and *n have merged as /n/ in this dialect so that Sheshatshiu Innu-aimun is considered an n-dialect. (Clarke 1982: 2). A closer examination of the individual phonemes will enable a more detailed description of the consonant system.

2.2.1   *Stops and Affricate*

The following description outlines the phonetic realizations of the stops /p/, /t/, /k/ and the affricate /tʃ/ (*k*ᵘ will be discussed later). Each phoneme is shown with its corresponding orthography; representative data illustrate possible phonetic realizations for each consonant.

(65)	\<p\>	/p/	[p]	**p**âpu	"s/he laughs"	[**p**aːbuː]
				mish**p**un	"it's snowing"	[mɪʃ**p**ʊn]
			[b]	pâ**p**u	"s/he laughs"	[paː**b**uː]
(66)	\<t\>	/t/	[t]	**t**epueu	"s/he yells"	[**t**eːbwew]
				u**t**âmueu	"s/he hits him/her"	[u**t**æːmwew]
			[d]	**t**â**t**inamᵘ	"s/he touches it"	[**d**aː**d**n̩ʊm]

(67)	<k>	/k/	[k]	**k**âshinâkanu	"s/he it is wiped"	[**k**æːʃinæːgənu]
				shash**k**aimᵁ	"s/he lights it"	[**g**æːʃiːnəgənu]
						[ʃəʃ**k**eymʰ]
			[g]	â**k**ushu	"s/he is sick"	[aː**g**ʊʃuː]
				kuâsh**k**uetu	"s/he jumps up"	[**g**wɑːʃ**g**weːduː]
(68)	<tʃ>	/tʃ/	[tʃ]	**tsh**îtâpauteu	"it drifts away"	[**tʃ**iːdaːbʊdɛw]
				a**tsh**imeu	"s/he counts them"	[a**tʃ**ɪmɨw]
				papassi**tsh**eu	"shooting one after the other"	[paːpaːsːi**tʃ**ɛw]
			[ʤ]	**tsh**ishtâpautâu	"s/he washes it"	[**ʤ**ɪstaːbʊtaw]
				kue**tsh**imeu	"s/he asks him/her"	[gweː**ʤ**ɪmɛw]
				passipassi**tsh**eu	"s/he shoots repeatedly"	[baːsɪbaːsɪ**ʤ**ɨw]

As the examples in (65) to (68) illustrate, the oral stop or affricate phonemes are phonemically voiceless; however, the three oral stops, /p/, /t/ and /k/, and the affricate /tʃ/ have both voiceless and voiced allophones in free variation. The consonant /p/ is heard as both [p] and [b] even in the same word, as in (65). Example (66) shows /t/ realized as [t] and [d]; /k/, as seen in (67), occurs as [k] and [g]. Example (68) has both voiceless and voiced variants, [tʃ] and [ʤ], for the affricate /tʃ/.

Voicing of stops and affricates is not distinctive and is in part contextually conditioned (MacKenzie 1980: 86). Voiced allophones are favoured intervocalically but are not exclusive to this environment. Pentland (1979) notes that Cree /p/, /t/ and /k/ can be voiced in intervocalic position. Wolfart (1996) describes free variation for Cree voiced and voiceless stops between vowels; however, stops between two short vowels are

realized as voiceless geminates (Wolfart 1996: 430). MacKenzie (1980: 87) also notes the tendency to voice word-initial stops while word-final stops tend to be devoiced. In contrast, Wolfart (1996: 430) states that, in Cree, stops in word-initial position are always voiceless.

The data for Sheshatshiu Innu-aimun suggest that, although certain voicing alternatives are favoured in specific environments, the choice of voiceless/voiced allophones is not necessarily restricted to particular contexts; speakers exhibit free variation in producing these consonants in word-initial and intervocalic environments. For instance, in (67), *kâshinâkanu* shows that /k/ may be pronounced as either [k] or [g] ([**k**æːʃinæːgənu] vs. [ɡæːʃiːnəgənu]) in word-initial position, unlike Cree stops in that environment (Wolfart 1996: 430). Example (68) demonstrates the same sort of free variation intervocalically, as in [paːpaːsːɪtʃɛw] vs. [baːsɪbaːsɪʤɨw]); this agrees with Wolfart's description for Cree, as mentioned above, without the proviso for short vowels (note that the voiced alternate in [baːsɪbaːsɪʤɨw] occurs between short vowels).

One stop, not discussed until now, is represented either as < ku > , [kw], or < kᵁ>, [kʷ]. This sound (or sequence of sounds) is present in a variety of environments; the examples in (69) to (71) indicate their range of distribution.

(69)   **ku**essipanu   "it turns over by itself"   [**kw**ɛsːɨpɨnuː]

(70)   âshi**ku**âteu   "s/he scolds him/her (once)" [aːʃiɡwɑːdɨw]

37

(71) âtshi**kᵁ**   "seal"   [atʃʊ **kʷ**]   (Clarke 1982: 5)

As seen in (69) and (70), the sequence <ku> is found word-initially and medially. The <kᵁ>, illustrated in (71), occurs word-finally.

Some researchers (such as Clarke 1982: 8) analyze <kᵁ> as a word-final labialized velar stop. However, it is unclear whether this sound combination represents one or two phonemes. Even word-final <kᵁ> could be analyzed as a word-final consonant <k> followed by a word-final vowel <u>. Similarly, the status of word-initial *ku-* followed by a vowel either as a complex segment of consonant + glide or as separate segments of consonant + vowel is ambiguous. Note, for example, the reduplicated forms in (72) and (73).

(72) **kue**kuessipanu   "it keeps turning over"   [**gwe:**gwɛːsːɨpənu]

(73) **ku**kuessipanu   "it keeps turning over"   [**guː**gweːsəbənuː]

The reduplicated forms in (72) and (73) are from the same speaker and demonstrate two possibilities for reduplicating *kuessipanu*. The reduplication in (72) treats <ku> as a single labialized consonant; that is, *ku-* is non-syllabic and requires vocalic material to complete a reduplicant. In contrast to this, the reduplication in (73) treats the same <ku> spelling as a sequence of <k> plus the vowel <u>. This issue will be

discussed in greater depth in Chapter IV as it becomes relevant to the analysis of

reduplication for Sheshatsiu Innu-aimun.

2.2.2   *Pre-aspirated Consonants*

Sheshatshiu Innu-aimun does not have the pre-aspirated consonants[7] that are

found in some other Algonquian languages, such as Plains Cree (Pentland 1979). In

Sheshatsiu Innu-aimun, the pre-aspirated consonants, *hp, *ht, *hk*, of Pre-Cree have

been lost, with compensatory lengthening of short vowels (MacKenzie 1980: 68), as

illustrated in (74).

(74)   *Vhp > V:p   *Vht > V:t   *Vhk > V:k

The result of the loss of pre-aspirated consonants is seen in Sheshatsiu Innu-aimun words

such as *aku:p*, which corresponds to *akuhp* in Mistassini (MacKenzie 1980:64).

2.2.3   *Fricatives*

This dialect has two phonemic fricatives: alveopalatal /ʃ/ and glottal /h/; /ɦ/,

which has a very limited distribution, will be described first.

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[7] The data does show the presence of pre-aspiration in the word *ueûpinak,* '(who) is lifting it up', [weo(h)pənakʰ]. This example may represent a residue of pre-aspiration for this dialect.

2.2.3.1 Phonemic /h/

Although most of the other consonants of this dialect occur in a range of environments, phonemic /h/, which is phonetically realized as an invariant [h], is found only intervocalically. This consonant is derived from Proto-Algonquian *h and is unrelated to the phonetic [h] which is one of the variants of /ʃ/; this will be described later in the discussion.

The limited distribution of /h/ is illustrated in the following example.

(75) < h >   /h/   [h]   e**h**e   "yes"   [eː**h**eː]

       û**h**u   "owl"   [uː**h**uː]

In addition to its restriction to an intervocalic environment, the distinctive consonant /h/ is further constrained to occurring between identical vowels, as it does in (75). The eastern palatalized dialects, such as Sheshatshiu Innu-aimun, characterized by the palatalization of Proto-Algonquian *k to [tʃ], lose /h/ between vowels of different quality (MacKenzie 1980: 65).

2.2.3.2 Phonemic / ʃ/

The other phonemic fricative of Sheshatshiu Innu-aimun, /ʃ/, resulted from the merger of Proto-Algonquian *s and *ʃ. While *s and *ʃ remain separate phonemes in the central area of the Cree-Montagnais-Naskapi dialect continuum, they fall together as /s/

or /ʃ/ in the peripheral areas, including dialects such as Sheshatshiu Innu-aimun,

(MacKenzie 1980: 72); *s and *ʃ have merged as a single distinctive sibilant in

Sheshatshiu Innu-aimun as shown by free variation between [s] and [ʃ].

(76)   ni**sh**tᵁ   "three"   [nɪʃtʰ]

(77)   nâni**sh**tᵁ   "three each"   [naːnɪstʰ]

(78)   mi**sh**kamᵁ   "s/he finds it"   [mɪʃːkʊm]

(79)   mami**sh**kamᵁ   "s/he finds things scattered around"   [mamɪskʊm]

(80)   u**sh**puâkan   "pipe"   [ʊspwagn̩]

(81)   u**sh**puâkan   "pipe"   [ʊʃpwagn̩]

(82)   shâ**sh**îpiu   "s/he is stretching"   [ʃaːʃiːbɨw]

(83)   shîpi**sh**îpanu   "s/he is stretching quickly   [ʃiːbɨsɪbənuʔ]
                            (it stretches on its own)"

Free variation of [s] and [ʃ] is common in many environments. For instance, the

pairs of words in (76) to (81), show both [s] and [ʃ] as acceptable pronunciations of <sh>

in pre-stop position. Clarke (1982: 8) describes the fricative in fricative + stop clusters as

varying between [s] and [ʃ]. The alternation exhibited by the related examples in (82) and

(83) also suggests the possibility of free variation with [s] and [ʃ] intervocalically. These

examples show monosyllabic (82) and bisyllabic (83) reduplicated forms of the same

base; the resultant intervocalic /ʃ/ in each case is realized variably as [ʃ] or [s].

While [s] and [ʃ] vary freely in many environments, it should be noted that the

word-initial environment is more limited. The [s] variation is not produced word-initially

although both [ʃ] and [h], which will be discussed later, are. In essence, the allophone [ʃ]

has a wider distribution than the variant [s].

Notwithstanding the non-distinctiveness of [s] and [ʃ], certain relic contrasts do

exist. For instance, contrastive sibilants enable the distinction between the diminutive and

pejorative suffixes; the diminutive suffix <-iss> is always realized as [s], while the

pejorative suffix <-ish> is always realized as [ʃ]. Examples (84) and (85) are illustrative.

(84)   utâpâni**ss**   "little car"   [dabanɪs]

(85)   utâpâni**sh**   "old car"   [dabanɪʃ] [8]

The minimal pair in (84) and (85) achieves the diminutive/pejorative meanings by

contrasting [s] and [ʃ]. This usage is the only instance in which the historical contrast

between *s and *ʃ still exists.

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[8] The phonetic realizations in (84) and (85) are not part of the elicited material; these forms are
extrapolations based on the expected pronunciation of the base and the diminutive suffix.

Apart from the examples just discussed, certain reduplicated forms also confirm the non-distinctiveness of [ʃ]/[s]; note the variations between base and reduplicant in these examples.

(86)   kâ**ss**ipiteu   [gæːsɨbɨtɛw]   kâ**sh**kâ**ss**ipiteu   [gæːʃgæːsɨbɨtɛw]
        "s/he scratches him/her/it once"   "s/he scratches him/her/it (anim) repeatedly"

(87)   kâ**ss**ipitsheu   [gaːsɨpɨtʃɨw]   kâ**sh**kâ**ss**ipitsheu   [gaːsgaːsɨpɨtʃɨw]
        "s/he rakes (not repeated,   "s/he is raking"
        scratches once)"

(88)   ka**sh**katashteu   [gəʃgədɪstɛw]   ka**sh**ka**sh**katashteu   [gəʃgəsgadəstɨw]
        "drawing a square"   "it is placed, drawn in squares; it has a
                                                     checked pattern"

In (86) and (87) the initial <kâ**ss**>- is reduplicated. However, despite the reduplication being based on the same forms, the reduplicant is [gæːʃ] in (86) and [gaː**s**] in (87). These reduplicative alternations demonstrate free variation between [s] and [ʃ]. Similarly, the initial syllable <ka**sh**>- in (88) is realized in the base form as [gəʃ], and in the base of the reduplicated form as [gə**s**] but as [gəʃ] in the reduplicant. The sounds [s] and [ʃ] seem to be normally interchangeable. These examples imply that the speaker recognizes [s] and [ʃ] as variants of a single phoneme rather than as distinctive consonants.

Unlike the other fricative, /h/, the phoneme /ʃ/ appears in a wide range of environments and exhibits a range of phonetic variations. In addition to the [s] and [ʃ] variants, <sh> /ʃ/ can also be realized as [h], which, as seen in (89) to (91), is not limited to the intervocalic environment of phonemic /h/.

(89)   menua**sh**u   "(who) is sneezing"   [mɛnuwɑ**h**u]

(90)   **sh**î**sh**îp   "duck"   [ʃi**h**ip]/ [**h**i**h**ip]

(91)   **sh**â**sh**   "already"   [**h**a**h**]

These examples in demonstrate the tendency, especially amongst younger speakers, for /ʃ/ to be realized as a phonetic [h], especially in intervocalic position (Clarke 1982: 18). The examples *shîshîp* and *shâsh* demonstrate that this realization is also possible word-initially and finally. This pronunciation is optional and creates no contrast; /ʃ/ and /h/ occur in free variation.

One consonant cluster, symbolized orthographically as <ss>, is always realized as [s]; this is illustrated in the following words.

(92)   pe**ss**ish   "close"   [peːsɪʃ]

(93)   kâshkâ**ss**ipiteu[9]   "s/he scratches him/her/it   [gæːʃgæːsɨbɨtɛw]
                                        repeatedly"

(94)   kâshkâ**ss**ipitsheu   "s/he is raking"   [gaːsgaːsɨpɨtʃɨw]

(95)   ishkue**ss**   "girl"   [ʃkwɛs]

The <ss> cluster occurs intervocalically in (92) to (94); (93) and (94) have been

already discussed as evidence for free variation with [s] and [ʃ]. In (95), word-final <ss>

signifies the diminutive, which has also been previously addressed in this section.

Historically, <ss> has resulted from the effect of palatalization on certain clusters, with

*sk*V $_{front}$ > *sch* > *ss*. In synchronic terms, <ss>[10] is not contrastive; it will be treated as a

consonant cluster that is realized as [s].

2.2.3.3 Synopsis of [ʃ] and [s]

Sheshatshiu Innu-aimun has two fricative phonemes, /h/ and /ʃ/. The /h/ is a relic

reflex of *h and is restricted to occurring between identical vowels. The sibilant fricative

/ʃ/ results from the merger of *s and *ʃ; only relic contrasts between [s] and [ʃ] have been

retained. The phoneme /ʃ/ is otherwise realized with the allophones [ʃ], [s], and [h], which

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[9] It should be noted that my use of the orthography is not always phonemic. For example, in <kâ**ss**ipiteu>, the <ss> "reflects a stage of the language when ss < shch < shk" (Mackenzie 2008: personal communication).

[10] <ss> and its spelling variants pose some problems for orthographic standards; this issue is addressed in Drapeau & Mailhot (1991).

occur in a range of environments and demonstrate a great deal of free variation in their usage. Finally, an historical consonant cluster found as <ss> synchronically is consistently realized as [s] phonetically.

2.2.4   *Nasals*

Sheshatshiu Innu-aimun has two nasals, /m/ and /n/, which appear in a wide range of environments. The following examples are illustrative.

(96)	<m>	/m/	[m]	**m**inuâshu	"s/he is sneezing"	[**m**ɪnuwɑːʃuː]
				itâshkuai**m**ᵁ	"s/he pushes it with a stick"	[idæːʃgwey**m**]
				mâm**â**kuâtam**ᵁ**	"s/he chews"	[**m**æː**m**æːgwæːdʊm]
(97)	<n>	/n/	[n]	**n**â**n**eu	"four at a time"	[**n**æː**n**eːw]
				mishpu**n**	"it's snowing"	[mɪʃpʊ**n**]

As demonstrated in examples (96) and (97), nasal consonants may appear word-initially, medially, and finally; in each case, they are realized simply as [m] and [n].

Nasals are also syllabic after the process of short vowel syncope. The following data in examples (98) to (100) show the realization of /m/ and /n/ as the syllabic nasals [m̩] and [n̩].

(98)　**pi**mishinu　　　"s/he is lying down"　　　[pm̩ɪʃɪnuː]

(99)　**ni**tâtipânin　　　"I separate, sort things"　　　[n̩tæːtɨbæːnɪn]

(100)　**ni**tassî　　　"my land"　　　[n̩tǝsi]　(Clarke & MacKenzie 2004:7)

Examples (98) to (100) illustrate the regular deletion of a short unrounded vowel between homorganic nasal and stop consonants; in each case, the nasal has become syllabic as a result. In example (99), the first person prefix <ni-> is affixed to a word beginning with an alveolar stop, /t/, while (100) shows the affixation of <ni-> to a vowel-initial word, which necessitates *t-* epenthesis. The affixation of the prefix <ni-> in these types of environments provides evidence for both syncope and the resulting realization of /n/ as a syllabic nasal.

(101)　**ni**tâtâkushkâtin　　　"I'm stepping on something repeatedly"　[n̩taːtaːguʃgaːdɪn]

(102)　**ni**shâshâssikuâtin　　　"I'm frying something"　　　[nɪʃæːʃæːsigwɑːdɪn]

The examples in (101) and (102) show the syllabic nasal as only one option for realizing the first person prefix. First person <ni> /nI/ or <nit> /nIt/, is variably realized as [nɪ-, nǝ-, nɨ-, ni-, niː-, n̩, n̩t-, n̩d-]. The <ni-> alternant appears before consonant- initial verbs while <nit-> occurs when the verb is vowel-initial (this variation is discussed further in Section *2.2.6*, page 50). In (101), the prefixation of <ni-> to a word beginning

with *t*, a stop homorganic with the prefix nasal, produces vowel deletion; the resultant syllabic nasal, [n̩-], is a variant for the morpheme /nI/, signalling first-person singular. For comparison, if the conditions for nasal syllabification are not present, as in (102), other variants, such as [nɪ-], are used.

2.2.5   Glides

The inventory of sounds in Innu-aimun also includes two glides, or semivowels, [w] and [y]. These are heard preceding or following vowels as in the following tautosyllabic sequences.

(103)   wi-   wi:-   we-   wa-   wa:-   -ew   -aw

         yi-   yi:-   ye-   ya-   ya:-   yu-   -ey

I assume that the glides are functioning as non-syllabic vocalic elements, /u/ or /i/, occurring before or after vowels. The *y-* glide also functions epenthetically, being inserted as a transitional sound between two vowels, as discussed in the next section.

2.2.6   Epenthetic Consonants

The sounds [h], [y], and [t] are used epenthetically, providing transition between sequences of vowels. The contexts of their occurrence coincide with grammatical boundaries and show junctural patterns of external and internal sandhi. External sandhi

48

occurs at phonological word boundaries; in contrast, internal sandhi takes place within the word (Wolfart 1996: 432). The insertion of [h] at word boundaries demonstrates the operation of external sandhi, while the insertion of [y] at morpheme boundaries indicates internal sandhi (Proulx 2005b: 196). The language (dialect)-specific patterns for using epenthetic consonants may lead to insights regarding the prosodic status of particular morphemes, including reduplicants, within that language.

In various Algonquian languages, the contexts in which [h] is epenthetic are indicative of word boundaries. In Cree, epenthetic [h] occurs optionally after a final vowel, V#_, or before an initial vowel, _#V, (Wolfart 1996: 431). The word boundary may be realized by the gradual devoicing of the word-final vowel, shown by a transitional [h] (Wolfart 1996: 433). Epenthetic [h] may also be found marking boundaries in Plains Cree compound words; the final vowels of compound members, which are treated as phonological words even if they do not occur separately, are also subject to gradual devoicing, symbolized by [h] (Wolfart 1973: 75). There is limited evidence for epenthetic [h] in Sheshatshiu Innu-aimun. An [h] sound sometimes appears word-finally, _#.

(104) pâbû   "s/he is laughing"   [paːbuː^{h}]

(105) nipâu   "s/he is sleeping"   [nɪpɔw^{h}]

(106) miâushut   "(who) is picking berries"   [miyɑwʃut^{h}]

Example (104) has a transitional [h] sound following a word-final vowel, as described for Cree. However, (105) and (106) also apply the [h] of external sandhi to words ending in a consonant or glide.

Reduplication provides another context for the appearance of epenthetic [h]. For instance, in Plains Cree heavy reduplication, [h] is the transitional sound between a reduplicant vowel and a stem-initial vowel (Ahenakew & Wolfart 1983: 371). In Fox (Mesquakie), bisyllabic reduplication of a vowel- initial base also requires epenthetic [h]. This supports Dahlstrom's insight that the bisyllabic reduplicant is a minimal word (Dahlstrom 1997: 216); [h] marks a phonological word boundary between a bisyllabic reduplicant and its vowel-initial base. In contrast, the bisyllabic reduplication data for Sheshatshiu Innu-aimun provide no comparable evidence of external sandhi (see Section *4.3*).

Epenthetic [y] is also used to provide transition between contiguous vowels. It commonly occurs in the environment, V_V, marking morpheme boundaries within words. Clarke (1982: 13-16) describes the processes involved when vowels occur together at morpheme boundaries in Sheshatshiu Innu-aimun; the insertion of [y] is typical between long vowels, Vː_Vː, as it also is in Cree (Wolfart 1973: 81). The examples below provide representative data from Sheshatshiu Innu-aimun.

(107) âiâkushu   "s/he keeps getting sick"   [æ**y**æːɡʊʃuː]

(108) uâ âpashtat   "(who) needs it"   [wa**y**æːbɨstatʰ]

The glide [y] is used epenthetically to connect vowels in each example. In (107), [y] occurs at the juncture of a reduplicative prefix and its base; in (108), [y] epenthesis marks the boundary between a preverb and a verb.

Although [y] usually manifests internal sandhi, it may also be found in Cree in the environment V#_, or _#V, if the word-final or word-initial vowel affected by external sandhi is a front vowel (Wolfart 1996:433). Certain examples, such as those that follow, indicate that [y] may also appear word-initially in Sheshatshiu Innu-aimun.

(109)   e âkushit   "while s/he is sick"   [e **y**æːgʊʃɨtʰ]

(110)   e âpashtât   "while s/he is using it"   [e **y**æːbəʃtatʰ]

Examples (109) and (110) show word-initial transitional [y] appearing between the front vowel of the e-conjunct and a non-round back vowel, <a> (or <â>).

As observed for [h] epenthesis, reduplication provides another context for [y]. Hockett (1981: 68) describes [y] insertion as part of the commonest pattern of Algonquian reduplication. For instance, epenthetic [y] occurs in the environment V_V, providing transition between reduplicants and vowel-initial bases in Plains Cree light reduplication (Ahenakew & Wolfart 1983:371), Fox (Mesquakie) monosyllabic reduplication (Dahlstrom 1997:213), and in Menominee (Hockett 1981: 68). The use of epenthetic [y] in Sheshatshiu Innu-aimun reduplication will be described in Chapter 4.

Another type of epenthesis, with [t], is found in particular grammatical contexts, ni + _V, as exemplified below.

51

(111) ni + assî   nitassî   "my land"   [n̩təsi]

(112) nitâiâshikuâtau   "I am scolding him/her"   [n̩dæːyæːʃigwaːdɔw]

In (111), epenthetic [t] marks the boundary between a possessive prefix and the possessed noun. When the possessive prefixes *ni-*(my), *tshi-* (your), and *u-* (his/her) are attached to nouns beginning with any vowel other than *u*, the consonant <t> is inserted between the noun and prefix. Personal prefixes attached to verbs in the independent order also require <t> epenthesis if the verb begins with a vowel other than *u*. In (112), <t> is inserted between the personal prefix, which identifies the subject, and the vowel-initial verb. The use of epenthetic <t> feeds nasal syllabification, as previously discussed in *2.2.4*; in the above example, the elision of the short vowel in the prefix *ni-,* after the epenthesis of the homorganic stop [t], results in a syllabic nasal, [n̩].

There are a few examples contradicting the expected assignment of [t] rather than [y] as the morphologically required epenthetic element used with personal prefixes.

(113) niâkushunan   "we're getting sick"   [ni**y**æːgʊʰnan]

(114) niaiatussin   "I'm working here and there"   [ni**y**eytʊssɪn]

In both examples (113) and (114), the grammatical conditions should trigger [t] epenthesis; however, rather than applying a morphological rule, the speaker appears to have reinterpreted the rule and applied a phonetic rule calling for [y] epenthesis.

2.3   Summary

The consonant and vowel inventories of Sheshatshiu Innu-aimun are summarized orthographically in the following chart.

Table 4: <u>Orthographic Vowels and Consonants</u>

Vowels   <î>   <û>   <i,a>   <u>
              <e>
                  <â>

Consonants   <p>   <t>   <k>   (<ku> < k^{u}>)
                              <tsh>
                              <sh>   <h>
              <m>   <n>

The evidence from phonetic realization and phonemic patterning supports a sound system for Sheshatshiu Innu-aimun which contains the six distinctive vowels outlined in Table 4: four long vowels, <î> /iː/, < â > /aː/, <û> /uː/, and <e> /eː/; and two short vowels, <u> /u/, and <a,i> /I/. The /I/, resulting from the merger of the short vowels /a/ and /i/, is commonly realized as a centralized [ə]. The consonant system has three oral stops: <p> /p/, <t> /t/, and <k> /k/, and one affricate <tsh> /tʃ/. There are no phonemic voicing distinctions for the stops and affricate; each has, however, both voiced and voiceless allophones. As well, there are two voiceless fricative phonemes, <h> /h/, and <sh> /ʃ/; of these, /h/ occurs only between identical vowels, while [ʃ], [s], and [h], the allophones of

sibilant /ʃ/, are widely distributed. The nasals<m> /m/ and <n> /n/ also appear in a range

of environments. The sound system includes the glides [w] and [y], which are heard

preceding or following vowels; [y] is used commonly as an epenthetic consonant between

vowels at morpheme boundaries. The proposed analysis of reduplication and initial

change in this work will assume the sound system which has been outlined in this

chapter.

Chapter III

Description of Initial Change in Sheshatshiu Innu-aimun

3.0.   Introduction

This chapter aims to provide a detailed phonological description of the process of IC as it is realized in the variety of Innu-aimun spoken in the community of Sheshatshiu. As the description unfolds, one can see that IC in Sheshatshiu Innu-aimun shares many commonalities with the operation of that process in other Algonquian languages; however, it also becomes apparent that Sheshatshiu Innu-aimun IC has certain features not found in other dialects.

3.1   Initial Change Strategies in Algonquian Languages

IC is defined most simply as "the traditional term used by Algonquianists for a process of first-syllable ablaut in verb stems" (Costa 1996: 39). As previously described in the introductory chapter, this process applies to verbs in the Conjunct order; IC is used in certain grammatical contexts, being commonly used with "wh-" questions and subordinate clauses. The application of IC to Conjunct verbs makes use of two basic strategies for realizing the changed form: a synthetic, idiosyncratic type involving internal change; and an analytic type which employs an invariant affix.

The internal change approach modifies the vowel in the initial syllable of a conjunct verb and may involve ablaut, lengthening, or *–iy-* augmentation. The forms of

the alterations not only vary according to the affected vowel, but also are particular to specific languages.

The affix characteristic of the analytic approach is variably referred to as a prefix or preverb; according to Costa (1996), it appears to be the changed form of an aorist preverb *a-* (42). The unchanged form of this preverb is only documented for Ojibwa; James (1991) states that it "no longer exists in Cree" (p.4). This affix seems to function solely as a "bearer of initial change" and is only used with conjunct verbs (Bloomfield 1958:62). For some dialects, the use of an invariant affix may constitute an innovation which simplifies the more traditional internal change strategy; Costa observes that younger speakers of the Ottawa dialect have reanalyzed IC in favour of the prefixation strategy, thus reducing stem allomorphy (Costa 1996:42). Proulx agrees, suggesting that the use of this preverb may be "a sign of language simplification" (Proulx 2005a: 18). Drapeau also notes a tendency in Betsiamites to replace the internally changed forms with the preverb *e:-* (Drapeau 1981:43). According to James, this preverb, common in Moose and in other Cree dialects, appears in place of a change in the initial syllable (James 1991: 4). Overall, however, the particular contexts in which each method is used are unclear and tend to vary from dialect to dialect.

The phonological shape of the internal change resulting from the operation of IC has been described for many Algonquian languages and dialects. Costa (1996), as part of his reconstruction of IC, summarizes the changes for a variety of Algonquian languages; MacKenzie (1980) details the patterns of change for the Cree-Montagnais-Naskapi dialects specifically. The process of IC has also been described for individual languages;

for instance, Brittain (2001) and Brittain and Dyck (2005) examine IC in Western Naskapi; LeSourd (1993) looks at Passamaquoddy; and Proulx (2005a), Blackfoot. These descriptions illustrate that IC may be realized with a variety of outcomes; a comparison of the outcomes points to similarities in the approaches leading to the vowel mutations.

Table 5 outlines some of the internal change patterns for IC described by Costa (1996) for a sampling of Algonquian languages.

Table 5: <u>Initial Change Patterns</u> (Costa 1996:41-48)

Unchanged	Ojibwa	Potawatomi	Miami-Illinois	Fox-Kickapoo	Shawnee **productive**/ (relic)
a	e:	(no change)	e:	e:	(e:)
i	e:	a			
o	we:	we/a	we:	we:	**we:**
a:	aya:		(no change)		(aya:)
e:	aye:		(no change)		(aye:)
i:	a:		e:	V: > V:	(a:)
o:	wa:		(no change)		no known change
e		(no change)		e:	(e:)
ə		e			
Ce			Ce:		
Ci			Ce:		
#e			i:	ye:/e: Kickapoo	**ye:**
#i			i:		

The information in this table points out that, despite the differences observed for the outcomes of IC in different languages, there are obvious similarities in the methods employed to achieve these outcomes. Common strategies include qualitative ablaut, lengthening, augmentation, and even no overt change at all. Unchanged short vowels are typically lengthened with the application of IC. Of the languages outlined in Table 5, only Potawatomi, whose historical vowel system based on length oppositions has been replaced by a system of quality oppositions, shows no lengthening of short vowels. Ablaut is also very much in evidence as vowels change qualitatively; for example, the change of *a* → *e:* is found in most of the examples. Augmentation is a common method used when IC involves long vowels. As seen in Table 5, Ojibwa uses *ay-* as an augment for IC with the long vowels *a:* and *e:*; the *ay-* augment is also seen in relic forms of Shawnee. In some instances, no change is effected by the operation of IC; for example, Miami-Illinois *a:*, *e:*, and *o:* show no change with IC.

It should also be noted that IC may not always be productive; in Shawnee, IC is becoming lexicalized with only *o* and *#e* showing productive initial change. Interestingly, a productive pattern of change for Shawnee participles is reduplication, as in *nepêwa*, "he is asleep", whose changed form is the reduplicated **nê**nepâta, "one who is asleep" (Costa 1996:46).

The outcomes for IC in the Cree-Montagnais-Naskapi dialects reiterate the internal change patterns as previously discussed for other Algonquian languages. Table 6 outlines the outcomes of IC for a variety of these dialects.

Table 6: <u>Cree-Montagnais-Naskapi Initial Change</u>

(modified from MacKenzie 1980:187)

Vowel	PA*	Plains	Moose	Atikamekw	Moisie	Sheshatshiu[11]	Natuashish[12]
i	*e:	e:	e:	e:	e:	e:	e:
a	*e:	e:	e:	e:	e:	e:	e:
u	*we:	we:	we:	we:	we:	we:	we:
i:	*(y)a:	a:/iyi:	a:	a:	a:	a:/iyi:	a:
e:	*eye:	iye:	iye:	iye:	iye:	iye:	ine:[13]
a:	*eya:	iya:	iya:/e:ya	iya:	iya:	iya:	ina:
u:	*wa:	iyu:	wa:	wa:	e:Cu:	iyu:	u:

As Table 6 shows, the outcomes for IC in the Cree-Montagnais-Naskapi dialects result from the same strategies used to realize IC in Algonquian languages generally. Unchanged short vowels are lengthened and qualitatively ablauted: *i/a* commonly become *e:*; *u* becomes *we:*. Initial change for the long vowels shows more evidence of change than was seen in the previously discussed languages. As seen in Table 6, all the long vowels change; *e:* and *a:* prefix the augment *iy-*, and *i:* and *u:* in Plains and NWR use the augment as an alternative form of change. Note that this results in a two-syllable

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[11] Northwest River is the name formerly used to refer to the Sheshatshiu dialect.

[12] Natuashish – formerly Davis Inlet.

[13] The realization as *n* is the result of y ~ n alternation (MacKenzie 1980: 188).

outcome. Costa (1996: 49) considers the *iy-* to be cognate with the *ay-* augment used in IC for languages such as Ojibwa, as previously discussed. The change for *û* shows the most variability, with only Davis Inlet showing no change. MacKenzie (1980:188) suggests that the *iyuː* in some dialects results from analogy with other long vowels.

As Tables 5 and 6 show, the outcomes for manifesting IC through internal change vary across languages. Comparably, the prefixation approach may demonstrate cross-language variability in the phonological shape of the preverb, sometimes referred to as the 'dummy conjunct', which is used to carry the IC meaning. For instance, this prefix is *â-* in Western Naskapi, *ê-* in Plains Cree and most other Cree-Montagnais-Naskapi dialects, and *î-* in Woods Cree (Brittain and Dyck 2006: 2-3); Ojibwa uses *ê-*, Potawatomi *e-*, while Shawnee prefixes *ye(ː)h-* to produce changed conjuncts and, in Cheyenne, the invariant preverb *tséh-* functions like these prefixes. Like most members of the Cree-Montagnais-Naskapi dialect continuum, Sheshatshiu Innu-aimun prefixes the invariant vowel *eː-*.

3.1.1   *Summary*

The process of IC, which is signified by the basic strategies of internal change or prefixation, is used productively throughout the Algonquian language family. The outcomes for IC are not homogeneous across languages and dialects but may have a variety of possible language-specific morphophonological alternations. Nevertheless, despite the variations in the shape of the changes, the languages use common morphological processes to create IC outcomes; these include ablaut, vowel lengthening,

augmentation of an infix, and prefixation of an invariant element. The following description of IC in Sheshatshiu Innu-aimun shows that this dialect also makes use of these common strategies to signal IC, resulting in patterns of IC particular to this dialect.

3.2   *Overview of Initial Change in Sheshatshiu Innu-aimun*

IC in Sheshatshiu Innu-aimun is a productive process signalled by predictable changes to both long and short vowels in response to contexts requiring IC. Grammatical contexts such as questions containing question words (for example, *auen, tshekuen,* "who", and *tshekuân*, "what") and subordinate clauses representing partially or totally completed events motivate the application of IC with a conjunct verb. As is the case for other Algonquian languages, verbs in the Conjunct Order in Sheshatshiu Innu-aimun may undergo IC by using one of the two strategies described in *3.1*: a synthetic type involving internal change or an analytic approach requiring the affixation of a 'dummy conjunct'. Internal change, affecting the vowel in the first syllable of a conjunct verb, involves ablaut, lengthening, or *–iy-* augmentation. The alternate strategy appends an invariant prefix which, in Sheshatshiu Innu-aimun, takes the form of a "dummy" preverb <e->.

Defining the grammatical conditions for the employment of these individual strategies is beyond the capacity of this work, but a few observations can be made for Sheshatshiu Innu-aimun. Internal vowel change in verbs is the consistent strategy for

61

questions formed with an interrogative particle and, with a few exceptions[14], is not interchangeable with the e-conjunct. Clarke (1982: 127) notes that the prefixation strategy can be used with wh- questions when the initial vowel of the verb is *û*; this suggests the possibility of phonological conditioning. The data collected for this work has only a few examples demonstrating this; most verbs with *û* do not employ the e-conjunct strategy in this environment. The 'dummy' (e-) conjunct occurs consistently with subordinate clauses; during fieldwork, the elicitation of sentences introduced by 'while, when, whenever (iterative)…' almost invariably yielded an e-conjunct as the first response. Although e-conjunct is generally the preferred strategy for this context, in some cases substitution with a changed conjunct is also possible. In summary, the clearest employment of these strategies seems to relate more to grammatical contexts than to correlate with any other criteria for usage.

3.3   *Description of IC Outcomes – Internal Change Approach*

This section gives a detailed description of how the outcomes of IC vary relative to the types of bases affected by the process. These alternations are seen to be the result of the diverse internal change methods (ablaut, lengthening and augmentation) used to realize IC on individual vowel phonemes in Sheshatshiu Innu-aimun. The following representative examples illustrate the effect of IC by presenting the variable outcomes observed in the data. Comparisons of the phonetic realizations for the changed and

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[14] One such example is the verb *tûtam ͧ*. The speaker accepted both *tiûtâk* and *e tûtâk* for "Who is doing it?"; however, *e tûtâk* was the preferred option.

unchanged forms allow clearer insights into the exact nature of the changes involved in the process.

3.3.1   Initial Change with /aː/

Examples (55) to (62) illustrate the application of internal change for signalling IC in words with /aː/ as the leftmost vowel of the verb base. In each example, the unchanged forms, represented orthographically and phonetically, are followed by the changed forms resulting from the application of IC.

(115)   **â**pinamᵁ   [**aː**bɨnʊm]   **iâ**pinak   [**iyæː**bənakʰ]
        "unscrew it"

(116)   n**â**shikupanu   [n**æː**ʃɨgʊbɨnuː]   n**iâ**shikupanit   [n**iyæː**ʃɨgʊbɨntʰ]
        "s/he falls down"

(117)   p**â**pâtshiku   [p**a**paːʤɪguː]   p**iâ**pâtshikut   [p**iyæː**bæːʤəgʊtʰ]
        "it drips a lot"

(118)   t**â**kunamᵁ   [**dæː**gunʊm]   t**iâ**kunak   [d**iyæː**gʊnakʰ]
        "s/he holds it"   [d**iyæ**gʊnækʰ]

(119)   pu**â**mu   [pu**aː**mo]   pu**iâ**mut   [pw**iyæ**mʊtʰ]
        "s/he dreams"

(120)   ku**â**shkuetu   [gw**ɑː**ʃgweːduː]   ku**iâ**shkuetit   [kw**iya**ːʃkwetɪtʰ]
        "s/he jumps up"

(121)   m**â**ushu   [m**ɑ**wʃuː]   m**iâ**ushut   [m**iyɑ**wʃutʰ]
        "s/he picks berries"

(122) sh**â**shassikuâtamᵁ [ʃ**æː**hæːsigwɑdʊm] sh**iâ**shassikuâtak [ʃ**iyə**hæːsiːgwɑːdʌkʰ]
"s/he fries things"

Several facts can be noted from this representative data. First of all, IC affects the initial, or leftmost, vowel of the verb. The operation of IC bypasses consonantal material, including consonant-semivowel combinations such as those in (119) and (120), and applies to the first vowel. If a verb is reduplicated, as are examples (117) *pâpâtshiku* and (122) *shâshassikuâtam*ᵁ, the effects of IC are seen in the reduplicant, which is prefixed to the left edge of the verb stem.

Secondly, as a general rule, the operation of IC on bases with /aː/ as the first vowel results in a consistent output, comparable to the changes to /aː/ in other Cree-Montagnais-Naskapi dialects, as discussed in Section *2.2*: the *-iy-* is appended to /aː/, which is realized by a vowel whose length may show phonetic variation. Variable length is illustrated in example (118); the speaker varies the surface length of /a**ː**/ in the IC forms [d**iyæː**gʊnakʰ] and [d**iyæ**gʊnækʰ].

It is also apparent that the phonemic status of the unchanged vowel, rather than the phonetic length, is the determinant for the pattern of change. Example (117), *pâpâtshiku* [p**a**paːʤɪguː], shows the IC output for a verb whose leftmost vowel is phonetically short, though recognized in the orthography as long. In example (117), although the unchanged vowel is phonetically realized as [a], a short vowel, the result of

IC is –*iy*- plus a variant of /aː/, consistent with an output for a bases with a phonemically

long vowel.

Example (122) departs slightly from the usual pattern for this group. Whereas the

other examples maintain the integrity of the vowel following the *iy*- augment, the IC

form, sh**iâ**shassikuâtak [ʃ**iyə**hæːsiːgwɑːdʌkʰ], has a vowel realized as [ə].

3.3.2   Initial Change with /iː/

The following set of representative examples illustrates the operation of IC on

verb bases whose leftmost vowel is the long phoneme /iː/. For the most part, the data

exhibit the changes, î > iâ or â, employing augmentation and ablaut to create an IC form.

(123)	tsh**î**tûteu	[ʤiduːdɛw]	tsh**iâ**tûtit	[ʤ**iyæː**duːdɪtʰ]
	's/he leaves by foot'			
(124)	m**î**neu	[miːnɨw]	m**iâ**nat	[m**iyæ**natʰ]
	's/he gives something to him/her'			
(125)	p**î**tapîtuâu	[piːdəpiːdwɔw]	p**iâ**tapîtuat	[p**iyæ**dəbɪːduwatʰ]
	's/he smokes repeatedly'			
(126)	n**î**tautshin	[niːtawʤɨn]	n**iâ**tautshik	[n**iya**tawʤɪkʰ]
	'it grows'			
(127)	m**î**tâteu	[miːdæːdɨw]	m**iâ**tâtat	[m**iya**ːdæːdatʰ]
	"s/he misses him/her"			
(128)	p**î**kupanu	[piːgʊbɨnuː]	p**iâ**kupanit	[b**iyə**gubṇtʰ]
	"it breaks down"			

(129) tshînitshînikuânitshimeu [ʤiːnʤiːnʊgwɑːnʤɨmɨw] tshânitshînikuânitshimit
       "s/he is going around and around"   [ʤaːnʤiːnugwɑːnʤimɪtʰ]

(130) uî mînamîneu [wiː miːnəmiːnɛʷ]   uâ mînamînat   [waː miːnəmiːnatʰ]
       "s/he wants to keep giving things to s.o."

These examples confirm the two internal change forms expected for verbs with /iː/

as the leftmost vowel: augmentation of –iy- plus ablaut, with î >i[y]â, as in (123) to

(127); or ablaut, with î > â, illustrated in (129) and (130). When augmentation is used,

the iy- affix is completed by the vowel /aː/, whose length is variably realized. There is

also evidence that IC with /iː/ may employ the -iy- augmentation strategy with a neutral

vowel [ə], as it does in (128).

The ablaut strategy, î > â, has already been observed several times in Section 3.1;

Costa (1996) discusses this change for Ojibwa, while MacKenzie (1980) identifies it as a

means for signalling IC in several Cree-Montagnais-Naskapi dialects. However, this

strategy appears to be employed much less commonly in Sheshatshiu Innu-aimun than is

-iy- augmentation. While the â alternation shows up in all changed occurrences of the

preverb <uî>, this data contains only a single instance of its use with a verb; this is seen

above in example (129), tshânitshînikuânitshimit, "(who) went round and round".

As was shown for /aː/, IC looks beyond the surface phonetic realization to

determine the appropriate change to the relevant vowel. In (123), although the leftmost

vowel of tshîtûteu, [ʤiduːdɛw], is not phonetically realized as a long vowel, IC deems the

vowel to be underlyingly /iː/ and applies the augmentation plus ablaut method suitable for

this long vowel phoneme, resulting in the changed outcome *tshiâtûtit*, [ʤiyæːduːdɪtʰ].

Example (130) shows that IC recognizes a preverb as part of the verb complex,

applying the change to the first vowel of the preverb. The example below is also

illustrative.

(131) u**î** kuekuetshimeu [w**iː**gweːgweːʤɨmew] u**â** kukuetshimat [w**aː** gugweːʤɨmatʰ]
       "s/he wants to ask him/her"

In (131), the leftmost vowel of the verb complex occurs in the preverb; IC ignores the

onset and modifies the unchanged *î* in the preverb to the changed *â*.

Certain examples show what appears to be an atypical change for word-initial /iː/.

(132) **î**teu   [**i**ːtew]   **e**tûtit   [**e**tuːdɪtʰ]
       '(I know where) he is going'

(133) **i**shpishpanu   [**iː**ʃpiːʃpənu]   **e**shpishpanit   [**e**ʃpiːʃbəntʰ]
       'it keeps going'

Example (132) is obviously unusual; its initial vowel is clearly a long /iː/ as

shown by both the orthography and the phonetic realization. However, the IC form *etûtit*

suggests that the initial vowel is actually a short vowel underlyingly, since /eː/ is the

expected IC output for /I/. In (133), the initial vowel of the unchanged form also displays the phonetic quality and quantity indicative of a long vowel /iː/. As observed for (132), the result of IC is [e], an outcome ordinarily expected for a short vowel. Given this analysis, [iː] could be another allophone for /I/. The explanation for these anomalies may lie in Drapeau's insights into /i/ in Betsiamites Innu-aimun. This issue was previously introduced in Section *2.1.2*, p.27.

Drapeau (1981b) describes apheresis (the loss of sounds at the beginning of a word) for the short unrounded vowels /a/ and /i/, which are centralised as [ə], and asserts that not all instances of word-initial /i/ in the Betsiamites dialect are subject to procope because some words have /iː/ underlyingly instead of the historically expected short vowel /i/. However, the evidence of IC presents a counter-argument to this analysis, since the outcome of this process is /eː/, indicative of an underlying short vowel. Drapeau answers this by proposing to add a condition to the formation of IC outputs: in the case where /iː/ is in word-initial position, IC creates the mutation #/iː/ → /eː/ (Drapeau 1981b: 44). This analysis provides a logical explanation for examples (132) and (133) by recognizing that an alternative changed form exists for /iː/ in a word-initial environment. This type of positional conditioning involving IC is attested in other Algonquian

languages; as seen in Section *3.1*, Costa draws attention to IC variations dependent on word-initial or post-consonantal environments in such languages as Miami-Illinois[15].

3.3.3 Initial Change with /e/

The next group of examples illustrates the effect of IC on bases whose leftmost vowel is the phoneme /eː/.

(134) **ne**neu   [**ne**new]   **nie**net   [**niye**ːnit]
       "s/he breathes"

(135) **te**pueu   [**te**ːbwewʰ]   **tie**puet   [**tiye**bwɪtʰ]
       "s/he is yelling"

(136) **ne**nekâtshu   [**ne**ːnɛgadʒuː]   **nie**nekâtshut   [**niye**neːgæːdʒutʰ]
       "s/he suffers"

(137) pu**e**tshitu   [bw**e**ːdʒɪduː]   pu**ie**tshitut   [pw**iye**dʒitʊtʰ]
       "s/he farts"

(138) p**e**tamᵁ   [p**e**ːdʊm]   p**ie**tâk   [p**iye**ɛtakʰ]
       "s/he hears him/her"

(139) ku**e**ssipanu   [kw**ɛ**ːɨpɨnuː]   ku**ie**ssipanit   [kw**iye**ɛːɨpɨnɪtʰ]
       "s/he turns things over"

(140) u**e**pinamᵁ   [w**e**ːpɪnʊm]   u**ie**pinâk   [w**iye**əpɪnakʰ]
       "throws it away"

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[15]In some languages, the choice of IC strategy may vary according to the position of the initial vowel. For example, Costa (1996) shows that, in Miami-Illinois, word-initial *e>iː*, showing both quantitative and qualitative ablaut, while *e* preceded by an onset uses lengthening, with *e>eː*; on the other hand, # *i >iː,* signalling IC by lengthening, but *Ci->Ceː-,* using the ablaut strategy. Shawnee and Kickapoo have another variation; IC not only lengthens word-initial *e*-but also appends *y-* initially, so that *#e->yeː-*.

As shown in the above data, the method of appending -iy- to a stable long vowel phoneme dominates the internal changes resulting from the application of IC to verbs whose leftmost vowel is /eː/. The output of IC for bases with /e/ is <ie>; the augment -iy- precedes the phoneme /eː/, which is variably realized as [e,eː] or a lax allophone [ɛ]. This pattern reflects that exhibited for the Cree-Montagnais-Naskapi dialects outlined in Table 6, p.57. Example (140) presents another possible alternation. Rather than maintaining the integrity of the long vowel phoneme /eː/, this option involves a change in vowel quality and quantity, realizing /eː/ as [ə]. Examples (122) and (128) show that this alternative approach is also found for the long vowels /aː/ and /iː/.

3.3.4   Initial Change with /uː/

Data representative of IC involving the phoneme /uː/ illustrate the unique behaviour of this rounded vowel. The examples below lay out possible outputs for the /uː/ in an IC context.

(141) mûpu   [muːpu]   mûpit   [muːpɨtʰ]
       "s/he visits'

(142) kûtaimᵁ   [guːdeymʰ]   kûtekᵁ   [guːdeykʰ]
       "s/he knocks something over"   "(who) knocks s.t. over?"

(143) ûnu   [uːnuː]   ûnut   [uːnʊtʰ]
       "it howls"   "(what) is howling?"

(144) p**û**pûtâtam$^{\text{U}}$ [**pu꞉**pu꞉tæ꞉tʊm]   p**û**pûtâtak   [**pu꞉**pu꞉dæ꞉dak$^{\text{h}}$]
      "s/he blows on it repeatedly"   "(who) is blowing repeatedly?"

(145) n**û**kushu^{16} [**nu꞉**gʊʃu꞉]   n**û**kuâk   [**nu꞉**gwak$^{\text{h}}$]
                                                            [**niyu꞉**gak]
      "it appears"   "what is appearing?"

(146) t**û**tam$^{\text{U}}$ [d**u꞉**dʊm]   ti**û**tâk   [**tiu꞉**dak$^{\text{h}}$]
      "s/he does it"   "(who) is doing it?"

(147) **û**pûpitam$^{\text{U}}$ [**u꞉**bu꞉bədʊm]   **û**pûpitâk   [**u꞉**pu꞉pədak$^{\text{h}}$]
      "s/he lifts something again and again"   "(who) is lifting it up, again &
                                                    again?"

These examples illustrate the atypical behaviour of *û*. This long vowel usually manifests no overt change in IC contexts requiring the internal change approach. However, a few examples from the data express the possibility of utilizing *-iy-* augmentation, which commonly signals IC for the other long vowels. As seen in (145), the speaker provides both no-change and *-iy-* outcomes; this suggests some optionality in the choice of internal change approaches for marking IC for verbs with initial *û*. Example (146), *tûtam$^{\,U}$*, uses the *-iy-* augment option; this IC form is considered acceptable although the e-conjunct form of this verb, *e tûtâk,* is used preferentially. The long vowel /u꞉/ also stands apart from the other long vowels in the absence of a surface *-iyə-* form showing IC.

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[16] *Nûkushu*, an AI verb, was the form used during elicitation; the reply, *nûkuâk*, seems to come from *nûkuan*, an II verb.

3.3.5 *Initial Change with /u/*

The following data exemplifies the operation of IC on bases whose leftmost

vowel is the short vowel phoneme /u/.

(148) **ku**tueu   [kʊtuwew]   **kue**tuet   [kweːtuwɪtʰ]
       "s/he makes a fire"   "(who) is building, making a fire?"

(149) **ku**kuânitshineu   [kʊkwɑːnɨdənew]   **kue**kuânitshinikut   [kwekwaːnɨdənəgʊtʰ]
       "s/he tickles him/her"   "(who) is tickling him/her?"

(150) **u**shinu   [uːʃɪnuː]   **ue**shinâk   [weʃɪnakʰ]
       "s/he is smiling"   "(what) is she smiling at?"

(151) **ku**sseu   [kʊsːɨw]   **kue**sset   [kwɛsːɪt]
       "s/he is fishing"   "(where) s/he is fishing"

(152) **u**nîu   [uːnyuː]   **ue**nît   [wɛnɪtʰ]
       "s/he gets up from bed"   "(when) does s/he get up from bed?"

(153) **u**shtushtamᵁ   [uʃtɪʃtʊm]   **ue**shtushtâk   [weːstɪstakʰ]

       "s/he is coughing"   **ue**ushtushtak   [weyuʃtəʃtakʷ]
                                                        "(who) is coughing?"

As illustrated by the representative examples provided above, the short vowel /u/,

like its counterpart, /û/, behaves uniquely in IC contexts. IC of bases with /u/, using the

internal change strategy, causes both lengthening and ablaut in the vowel, as found

consistently in the changed vowel <ue>. The changed form maintains the labial quality of

its unchanged base with [w] but exhibits a change with the long vowel /e/, which may be

realized as tense or lax.

As previously noted for the other vowels, the output of IC is not influenced by the actual realized length of the vowels but depends on the speaker's recognition of the underlying nature of the vowel. For instance, although in (150) *ushinu* is pronounced with a long vowel sound [uː], the application of IC creates a change appropriate to an underlyingly short vowel /u/.

Example (153) offers another unusual instance of IC. The operation of IC on the base form ***u****shtushtam*^{U} offers two options. The first signals IC with the expected change *u-* → *ue-* . The alternative changed form has *ue* appended to the beginning of the verb with the original initial *u* remaining unchanged. This is suggestive of a reduplicated form to which IC has been applied, affecting the vowel of the reduplicative prefix. Thus, IC analyzes the base form as if it were *u* + ***u****shtushtam*^{U} (note that ***u****shtushtam*^{U} is an already reduplicated word); epenthetic *y* plays an internal sandhi role, separating the vowels at a morphemic boundary.

3.3.6 *Initial change with /I/*

The next set of representative data shows the effect of IC on verbs whose leftmost vowel is <a,i>, merged as a short, unrounded vowel phoneme /I/. As already observed for the other short vowel, /u/, the vowel /eː/ appears in the outcome of changed /I/; unlike the changes required for IC with labial vowel /u/, the /eː/ alone is sufficient to signify the changed form for this phoneme.

(154) **a**shameu   [**æ**ʃːəmɛw]   **e**shamât   [**e**ʃɪmatʰ]
       "s/he feeds him/her"   "(who) is feeding him/her?"

(155) **a**tshimeu   [**a**tʃɪmɨw]   **e**tshimât   [**ɛ**tʃɪmatʰ]
       "s/he counts them"   "(who) is counting them?"

(156) **i**shinamᵁ   [**i**ʃɪnʌm]   **e**shinâk   [**eː**ʃɪnakʰ]
       "sees it in a dream"   "(what) does s/he see in a dream?"

(157) m**a**nipitamᵁ   [m**a**nəpətʊm]   m**e**nipitâk   [m**e**nəpatæk]
       "s/he tears out s.t.(e.g. a page)"   "(who) tears out a page?"

(158) m**a**mashinaimueu   [m**a**mɪʃɪneimwew]   m**e**mashinaimuat
                                                                           [m**eː**məʃəneymwatʰ]
       "s/he writes to everybody;   (who) is writing to everyone/ owes
       s/he owes money to everybody"   money to everyone?"

(159) m**i**nu   [m**ɪ**nuː]   m**e**nit   [m**ɛ**nːtʰ]
       "s/he is drinking"   "(who) is drinking?"

(160) k**a**sseuet   [k**ə**sːeːwɪtʰ]   k**e**sseuet   [k**ɛ**sːeːwɪtʰ]
       "s/he uses a shortcut"   "(who) is using a shortcut?"

(161) n**a**shkumeu   [n**ə**ʃkʊmɛw]   n**e**shkumât   [n**ɛ**ʃkumatʰ]
       "s/he thanks him/her"   "(who) is s/he thanking?"

(162) p**i**mishinu   [p**m̩**ɪʃɪnuː]   p**e**mishinit   [b**eː**məʃn̩tʰ]
       "s/he is lying down"   "(who) is lying down?"

(163) m**i**shta-tshîkâueu   [m**ɪ**ʃtə ʤiːkaːwew]   m**e**shta-tshîkâuetshi [m**ɛː**ʃtə ʤiːkaːweʤi]
       "s/he speaks loudly"   "when s/he speaks loudly"

These examples point to a single approach used during the process of IC with the

short vowels <a> and <i>, merged as /I/. An unchanged vowel /I/ in a context requiring

IC becomes /e/, which may vary phonetically for length or tenseness; the lax variant often

74

appears in, but is not confined to, the environment of a closed syllable. Although the unchanged vowel itself displays considerable phonetic variation, as seen in the representative examples above, IC involving a short non-round vowel is consistently signalled by an ablaut strategy with the outcome /e/. This pattern of change appears to be widespread throughout Algonquian languages generally, as shown in data from Costa (1996) in Table 5, and in Cree-Montagnais-Naskapi dialects, as laid out in Table 6, which is based on MacKenzie's (1980) description. The status of the leftmost vowel of the verb as word-initial or post-consonantal does not alter this strategy for realizing IC; in example (154), *a*shameu , the word-initial vowel displays the same mutation under IC as do the post-consonantal vowels in the other examples.

Certain examples indicate that the process of IC operates on underlying rather than on surface elements. Example (162) is illustrative. The phonetic realization of *pimishinu* in (162) employs a phonological process of short-vowel deletion characteristic of this dialect (Clarke 1982:11); this feeds a syllabic nasalization process, resulting in [pm̩ʃɪnuː]. Nevertheless, the operation of IC results in *pemishinit,* [beːməʃn̩tʰ]; IC effects a change recognizing the deleted vowel, /I/, as the leftmost vowel, rather than affecting the initial vowel of the surface form, [pm̩ɪ̯ʃɪnuː].

When IC involves a verb preceded by a preverb, the appropriate change strategy is applied to the initial vowel of the preverb, that is, the leftmost vowel of the verb complex. Example (164), restated for convenience from the above data, shows the effects of IC on a preverb plus a verb.

(164) m**i**shta-tshîkâueu   [mɪʃtə ʤiːkaːwew]   m**e**shta-tshîkâuetshi   [mɛːʃtə ʤiːkaːweʤi]
       "s/he speaks loudly"   "when s/he speaks loudly"

The preverb *mishta* is considered part of the domain to which IC applies; the first vowel of the preverb stands as the leftmost vowel of the verb complex and is affected by IC, with /I/ > /e/.

3.3.7 *Summary – Internal Change Strategy*

Like other Algonquian languages, Sheshatshiu Innu-aimun utilizes several diverse approaches to create the internal changes which indicate IC. These include vowel ablaut, lengthening, *–iy-* augmentation, or even no change at all. The representative data lay out several outcomes (*iy+â, iy+e, iy+ə, â, û, e, ue*) arising from the operation of IC on particular vowels. Certain examples also indicate that the outcome of IC is dependent on the underlying nature of the affected vowel, rather than the surface phonetic realization.

IC affects the left edge of the verb complex, applying to the initial, or leftmost vowel. Preverbs are considered part of the whole verb complex; if a verb in an IC context is preceded by a preverb, the change method is applied to the leftmost vowel of the preverb. The examples also show that, in the case of reduplicated forms, IC affects the initial vowel of the reduplicative prefix.

3.4   Patterns of Initial Change

Section *3.3* observes the effects of the internal change strategy for IC on various types of bases and identifies the potential outcomes of the process. This section analyzes the alternations comprising patterns for realizing IC; each pattern will be described separately.

Table 7 is an overview of the mutations previously described for signalling IC through the internal change approach and also sets out the prefixation strategy. Each unchanged vowel is presented with the form(s) required by an IC context; the changed vowels show a range of possible phonetic realizations as observed in the data.

Table 7: <u>Patterns of Initial Change in Sheshatshiu Innu-aimun</u>

Unchanged	Changed I		Changed II	Changed III
/aː/	iâ	[iyaː], [iyæː], [iya], [iyæ], [iyɑ]	[iyə]	e + conjunct [e], [eː]
/iː/	iâ	[iyæː], [iyaː], [iyæ], [iya]	[iyə]	e + conjunct
	â	[aː]		
/uː/	û, iû	[uː], [iyuː]	[iyuː]	e + conjunct
/e/	ie	[iye], [iyɛ]	[iyə]	e + conjunct
/I/	e	[e], [ɛ]	[iyə]	e + conjunct
/u/	ue	[we], [wɛ]	[weyu]	e + conjunct

IC in Sheshatshiu Innu-aimun has outcomes which may be divided into three distinct patterns, as laid out in Table 7. The first pattern, referred to in this work as the Changed I type, is attested in the literature (MacKenzie (1980), Clarke (1982), Costa (1996), Clarke and MacKenzie (2004)). The vowels are changed by ablaut, lengthening or augmentation; there may even be no overt change, as seen with /uː/.

The outcomes observed in this data as comprising the second pattern, identified here as the Changed II type, are unattested by other sources but may represent an innovation for IC in this dialect. This strategy has a single outcome, [iyə], for changes observed with the long vowels /aː/, /iː/ and /e/ as well as with the short vowel /I/. The surface forms for /uː/ and /u/ in Table 7 manifest the same change type but also retain the character of the rounded vowel /u(ː)/.

While the first two patterns use a synthetic type strategy, the Changed III pattern takes an analytic approach. This involves the affixation of a prefix, *e-*, to a conjunct form of the affected verb; the prefix remains invariant whatever the quality of the initial vowel.

The remainder of this chapter examines the Changed I, Changed II, and Changed III stratagems for marking IC in detail, focussing on describing the types of changes observed within each pattern.

3.4.1   Changed I Patterns

The Changed I pattern utilizes strategies previously discussed as common to other Algonquian languages, as well as to Sheshatshiu Innu-aimun: unchanged long vowels are

either ablauted (for example, î > â), augmented by an infix such as [iy-], or even display

no overt change (û > û); unchanged short vowels are ablauted and lengthened.

Each Changed I strategy tends to correspond with specific environments. For

example, the *-iy-* strategy is typically used with long vowels â, î, ê, and û, resulting in the

outcomes iâ (for both â and î), iê, and iû. The following looks within the Changed I

pattern to describe the contexts relevant to each strategy.

3.4.1.1 Changed I Pattern – Initial Change Realized with -iy-V

The following examples illustrate the domain appropriate to the augmentation of -

iy- to the leftmost vowel of a verb, in order to signal IC internally. For purposes of

comparison, each example provides the orthographic and phonetically realized

representations for both unchanged and changed forms.

(165) n**û**kushu[17]   [n**u:**gʊʃuː]   ni**û**kuak   [n**iyu:**gak]
       "it appears"   "what is appearing?"

(166) m**â**kuâtamᵁ   [m**æ:**gwæːdʊm]   mi**â**kuâtak   [m**iya**kwaːdækʰ]
       "s/he bites it"   "(who) is biting it?"

(167) p**â**kumu   [b**aː**gəmu]   pi**â**kumut   [p**iya:**gumʊtʰ]
       "s/he vomits"   "(who) is vomiting?"

(168) n**î**tautshin   [n**iː**tawdʒɨn]   ni**â**tautshik   [n**iya**tawdʒɪkʰ]
       "it grows"   "(what) is growing?"

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[17] As already noted for example (145), *nûkushu*, an AI verb, was the form used during elicitation; however, the outcomes [n**u:**gwakʰ] аnd [n**iyu:**gak], seem to come from *nûkuan*, an II verb.

79

(169) mîtâteu   [mi:dæ:dɨw]   miâtâtat   [miya:dæ:datʰ]
       "s/he misses him/her"   "(who) is missing him/her?"

(170) shepanu   [ʃebənu]   shiepanit   [ʃiyebənt]
       "it opens by itself"   "(what) is opening by itself?"

The above examples show that one type of change, *iyV-*, a bisyllabic output,
results from the application of IC in a particular phonological environment - each base
has an unchanged vowel which is classified as long. The vowel completing the changed
form may vary phonetically, but is phonemically identical to the base vowel for all but
one vowel type, unchanged *î*, which combines *iy-* augmentation with ablaut resulting in
the *–iya:-* seen in examples (168) and (169).

Optionality of IC outcomes is also possible for some long vowels. Consider
(171), restated for convenience from Section *3.3.4*.

(171) nûkushu   [nu:gʊʃu:]   nûkuak   [nu:gwakʰ]
       "it appears"   niûkuak   [niyu:gak]
                                               "what is appearing?"

Both augmentation and no overt change are given as equivalents for signifying IC in this
example. However, *iy-* augmentation is an uncommon option in this data for marking IC
with unchanged *û*; no change at all is a more usual stratagem.

There is no evidence in this data supporting a role for optionality in the choice
between the alternations, *–iyâ* or *â,* which mark the changed forms for the base vowel /i:/.

The context for their use is not clear. As discussed in *3.3.2*, only one example of a simple verb, the changed form *tshânitshînikuânitshimit,* utilizes this option; finally, all IC occurrences involving the abstract preverb *uî* use the ablaut strategy with the outcome *uâ.*

3.4.1.2 Changed I Patterns – Ablaut/Lengthening

Ablaut and lengthening of the initial base vowel typically mark the realization of IC with short vowels. The next set of representative examples typifies these changes.

(172) m**i**nâtamᵁ   [mɪnæːdʊm]   m**e**nâtâk   [meːnæːdakʰ]
       "s/he smells it"   "(who) smells it?"

(173) m**a**tshenimeu   [mɪtʃːenɪmɛw]   m**e**tshenimikut   [metʃenɨmɨgʊtʰ]
       "s/he hates him/her"   "(who) hates them?"

(174) n**a**shkumeu   [nəʃkʊmɛw]   n**e**shkumât   [nɛʃkumatʰ]
       "s/he thanks him/her"   "(who) is he thanking?"

(175) **a**shameu   [æʃːəmɛw]   **e**shamât   [eʃımatʰ]
       "s/he feeds him/her"   "(who) is feeding him/her?"

(176) **u**nîu   [uːnyuː]   **ue**nît   [wɛnɪtʰ]
       "s/he gets up from bed"   "(when) does s/he get up from bed?"

(177) k**u**tueu   [kʊtuwew]   k**ue**tuet   [kweːtuwɪtʰ]
       "s/he makes a fire"   "(who) is building, making a fire?"

As observed in examples (172) to (177), the operation of IC on short vowels employs both ablaut and vowel lengthening. The long vowel /e/ exists as a changed outcome common to verb bases with short leftmost vowels. This result is not influenced

by the fact that the unchanged vowels may be realized phonetically as short or long. In

(176), *unîu*, the short vowel /u/ influenced by IC is phonetically long [u:], in [**u:**nyu:]; IC

applies a change appropriate to recognizing the underlying vowel as short.

Examples (176) and (177) reiterate the unique nature of /u/. The changed form of

this short vowel retains the labial feature of the unchanged vowel while also realizing the

/e/ outcome found for the other non-round short vowels.

3.4.2   Changed II Pattern for Marking IC

The data collected for this project also suggests the existence of an alternate type

of internal change strategy for marking an IC form. This pattern, shown as Changed II in

Table 7, has a single outcome [iyə] for changes observed with the long vowels /a:/, /i:/

and /e:/ as well as with the short vowel /I/. The Changed II type applies a single strategy

to all non-rounded vowels; the unchanged vowel is augmented with [iy-] but the usually

stable vowel completing the structure (/a:/, /i:/, /e/, or /I/) is realized as [ə]. The surface

forms for /u:/ and /u/ in Table 7 manifest the same type of change but also retain the

character of the rounded vowel /u(:)/. The Changed II approach to internal change may be

signalling a move towards regularization for the IC process in this dialect.

These illustrative examples outline a variety of environments for the employment

of this alternate strategy for signifying IC.

(178) sh**î**pashiu   [ʃiːbæːʃuʔ]   shi**â**pashut   [ʃ**iyə**baːʃutʰ]
       's/he is going under s.t.'

(179) m**î**nueu   [miːnuwew]   mi**â**nuet   [m**iyə**nuwɪtʰ]
       "s/he gives things away"   "(who) gives things away?"

(180) n**i**pâu   [nɪpɔwʰ]   ni**â**pât   [nɪ**yə**pætʰ]
       "s/he is sleeping"   "(who) is sleeping?"

(181) p**i**mishkâu   [bɪmɨsgʌw]   pi**â**mishkât   [b**ɪyə**mɪʃgʌtʰ]
       "s/he paddles"   "(who) is paddling?"

(182) tsh**i**mikaitsheu   [ʤɪməgeyʤɛw]   tshi**a**mikaik   [ʤ**iyə**məgeːkʰ]
       "s/he cuts wood"   "(what) is s/he cutting with an axe?"

(183) ku**e**kuetshimeu   [gweːgweːʤɨmew]   ku**ie**kuetshimât   [kw**iyə**kweːʤɨmatʰ]
       "s/he is questioning him/her"   "(I know) s/he's questioning
                                                 him/her"

(184) u**e**pinam^ᵁ   [weːpɪnʊm]   u**ie**pinâk   [w**iyə**pɪnakʰ]
       "s/he throws it away"   "(what) is s/he throwing away?"

(185) sh**â**shassikuâtam^ᵁ [ʃæːhæːsigwɑdʊm]   shi**â**shassikuâtâk [ʃ**iyə**hæːsiːgwɑːdʌkʰ]
       "s/he fries things"   "(what) is s/he frying?"

(186) n**û**kushu   [nuːgʊʃuː]   ni**û**kuâk   [n**iyu**ːgak]
       "it appears"   "(what) is appearing?"
       (see Note 9)

(187) **u**shtushtam^ᵁ   [uʃtɪʃtʊm]   **ue**ushtushtâk   [**wey**uʃtəʃtakʷ]
       "s/he is coughing"   "(who) is coughing?"

The Changed II pattern represents a novel approach to signalling IC. Typically,

the IC pattern for long vowels utilizes the *iy-* augment and maintains the length of the

associated vowel; that is, î > iy**â**; â > iy**â**, ê > iy**ê**, and û > iy**û**. Ablaut and/or lengthening

are common changes found with short vowels. Examples (178) to (187) show the

regularization of IC by realizing the change for both long and short vowels as [*iyə*-]. The

pattern surfaces slightly differently for *û* and *u*. In (186), the application of IC to *û* results

in *iyû*; this, arguably, uses the Changed I strategy of *iy*- augmentation with a long vowel

which is maintained. Alternatively, this may be the result of *iyə*- + *û*. The speaker may

recognize *iyə*- as the appropriate change for marking IC, but the application of this

process to an initial rounded vowel conforms to a preference for retaining the vowel's

labial quality in the surface form. Analysis as a Changed II type form may also offer

insight into the unusual output of IC observed in (187). Again, the speaker may be

applying a regularized IC morpheme, but the quality of *u*- surfaces in the output, such

that *w* + *iyə*- + *u*→ *weyu*-.

The innovative Changed II type strategy is found in a number of examples

throughout this data, but the established Changed I pattern still dominates internal

change. Nevertheless, the example below suggests some optionality in choosing between

these patterns.

(188) tsh**i**mikaitsheu   ʤ**ɪ**məgeyʤɛw   tsh**ia**mikaik   ʤ**iyə**məgeːkʰ
     "s/he is cutting wood(with an axe)"   "(what) is s/he cutting (with an axe)"

                                        tsh**e**mikaitshit   ʤ**e**məgeːsɪtʰ
                                        "(who) is cutting wood (with an axe)"

In Example (188) the application of IC yields both Changed I (i > e) and Changed II (i > iyə) patterns. For the verb *tshimikaitsheu*, the Changed II outcome, *iyə-*, appears as an alternate stratagem to the traditional ablaut approach for marking initial change.

3.4.3   Changed III Pattern - Prefixation Strategy: ê-Conjunct

Internal change is one method used to represent IC; the other basic strategy employs the prefixation of a 'dummy' *e*-conjunct prefix to a verb in the conjunct order. Costa (1996) identifies *e-* as originating from the changed form of a preverb *a-*, which is found in Ojibwa, though not in Cree (Wolfart 1973). The *e-* conjunct, which is variously referred to as a prefix (Clarke 1982) or an aorist preverb (Costa 1996), "indicates subordination in an entirely neutral way" (Wolfart 1973: 77). The presence of the *e-* conjunct does not affect the adjacent vowel of the verb; that is, the initial vowel of the verb remains unchanged. The following table illustrates the employment of this strategy with various base types.

(189)   mînueu   [m**i:**nuwew]   **e** mînuet   [**e** m**i:**nuwɨtʰ]
        "s/he gives things away"   "(when) she gives things away"

(190)   p**e**tamᵁ   [p**e:**dʊm]   **e** p**e**tâk   [**e:** p**e**tækʰ]
        "s/he hears him/her"   "(when) he hears it"

(191)   **â**kushu   [**a:**gʊʃu:]   **e** **â**kushit   [**e** y**æ:**gʊʃɨtʰ]
        "s/he is sick"   "while s/he is sick"

(192)   ku**â**shkuetu   [gw**ɑ:**ʃgwe:du:]   **e** ku**â**shkuetit [**e** kw**a:**ʃkwetɪtʰ]
        "s/he jumps up"   "(while) s/he is bouncing"

(193) mûpu   [muːpu]   **e** mûpit   [e muːpɨtʰ]
       "s/he visits"   "(while) s/he is visiting"

(194) nikamu   [nɨkːəmuː]   **e** nikamut   [eː nɪkəmʊtʰ]
       "s/he sings"   "while s/he is singing"

(195) nashkumeu   [nəʃkʊmɛw]   **e** nashkumât   [eː nɪʃkumatʰ]
       "s/he thanks him/her"   "while s/he is thanking him/her"

(196) kusseu   [kʊsːɨw]   **e** kusset   [e gʊssɪtʰ]
       "s/he is fishing"   "(he is good at) fishing"

(197) kukuetshimu   [kʊkwedʒɪmuː]   **e** kukuetshimut   [eː kʊkweːdʒɨmʊtʰ]
       "s/he asks a question"   "(while) s/he is asking a question"

(198) mishta-neneu   [mɪsːtə nenew]   **e** mishta-nenet   [e mɪsːtə nenɪtʰ]
       "s/he is breathing hard"   "when he's breathing hard"

The preceding examples show that the prefixation of the *e*-conjunct is sufficient to signal IC. Example (191) illustrates that, in cases with vowel-initial verbs, the affixation of the *e*-conjunct triggers *y*- epenthesis, which separates the morpheme carrying IC from the unchanged conjunct verb. Other than epenthesis, the dummy-conjunct prefix has no effect on the verb; that is, the vowel that would normally be modified under an internal change strategy is unaffected by the prefixation of a dummy conjunct. The prefix occurs at the leftmost edge of the verb; if another element, such as a preverb or reduplicative prefix, becomes part of the whole verb complex, the dummy conjunct precedes these elements. For instance, in example (198), the concrete preverb, *mishta,* precedes the verb as part of the verb complex; the dummy-conjunct is prefixed to the preverb, standing left

of the complete verb. In the case of reduplicated forms, the *e*-conjunct is prefixed to the

reduplicant. This will be further discussed in Chapter *5* when the interaction between IC

and reduplication is examined.

3.4.4   Summary

IC in Sheshatshiu Innu-aimun applies one of two basic strategies to conjunct

verbs: a synthetic approach involving internal change to the initial vowel of the verb, or

an analytic method using an invariant prefix.

The outcomes of IC using the internal change strategy are distinguishable as two

separate patterns, equivalent semantically but representing a trend towards

morphophonological simplification. The outputs of what is referred to as the Changed I

pattern result from the application of strategies appropriate to the underlying nature of the

affected vowels. On the other hand, the innovative Changed II pattern realizes IC with a

single output common to all non-round vowels, regardless of quality or quantity. This

strategy applies, as well, to rounded /uː/ and /u/, notwithstanding the surface variations

which recognize the essential labial character of these vowels. The Changed II pattern

may be a sign of a tendency towards regularization of the internal change strategy for

realizing IC in Sheshatshiu Innu-aimun.

The Changed III pattern, unlike the internal change approaches, is

straightforward. An invariant *e*-, whose sole purpose is to mark IC, is prefixed to the

leftmost edge of the affected verb. The initial vowel of the verb remains unaffected by the

application of the IC process.

Despite the diversity of their outputs, the IC strategies identified in this work as the Changed I, II and III patterns share a common domain of application. Regardless of the approach taken, IC affects the leftmost edge of the verb. If a preverb or reduplicant is involved, IC recognizes them as part of the complete verb complex and, typically, applies the chosen method to their left edge.

The next section focusses on the reduplication process for this dialect. The following chapter will then address the interaction of IC and reduplication in the same forms. Certain anomalous outcomes of this interaction will raise further issues concerning the operation of IC in Sheshatshiu Innu-aimun.

Chapter IV

Description of Reduplication in Sheshatshiu Innu-aimun

4.0. Introduction

Each section in this chapter contributes to a detailed description of the operation of reduplication in Sheshatshiu Innu-aimun, with a focus on the phonology characteristic of this linguistic process. Chapter I has already recognized that reduplication in Algonquian languages can apply to a range of grammatical categories but is especially productive with verbs. The reflection of this in Innu-aimun renders the reduplication of verbs central to this work, although the data to be examined do demonstrate instances of reduplication involving non-verbal categories. The description begins with some broad observations regarding the operation of reduplication in this dialect and then concentrates on the phonological patterns observed in the collected data.

4.1 Preliminary Observations

First of all, like IC, reduplication is a process which targets the left edge of words. As is typical for reduplication in other Algonquian languages, in Sheshatshiu Innu-aimun prefixal reduplicants attach to the left edge of the verb stem. The co-occurrence of reduplication with other elements such as preverbs and pronominal prefixes, which are also applied to the left edge of a verb, may give some insights into the construction of Algonquian verbs.

Preverbs in Sheshatshiu Innu-aimun appear to be added to the verb after the application of reduplication, as illustrated in (199).

(199)   **uî mîna**mîneu   "s/he wants to keep giving things to someone"

In (199), the reduplicant is prefixed to the verb stem, with the preverb preceding the reduplicative prefix. This is comparable to reduplication in Western Naskapi, where preverbs are unaffected by reduplication since it applies to the left edge of the verb stem rather than the verb complex (Brittain 2003: 12). However, Arapaho (Conathan 2005: 100) and Fox (Mesquakie) (Dahlstrom 1997: 210) also demonstrate the possibility of creating a reduplicated form by attaching a reduplicant to a preverb. The following example indicates that this may also be an option for Innu-aimun.

(200)   matshitûtam$^\text{U}$ **ma**matshitûtam$^\text{U}$
        "s/he does something wrong"   "s/he does something really wrong"

In (200), the concrete preverb <matshi>, "bad", and the verb <tûtam$^\text{U}$>, "s/he does it", form a verb complex. Reduplication applies at the left edge of the verb complex rather than the verb stem, copying material from a specific morphological constituent in order to modify it semantically. Thus, in the above example, reduplication operates on the preverb in order to intensify its particular meaning.

The interaction of reduplicants with pronominal prefixes provides further insights into the composition of a reduplicated verb. The literature describing reduplication throughout a variety of Algonquian languages, such as Ojibwa (Nichols 1980), Potawatomi (Hockett 1939), Western Naskapi (Brittain 2003), Fox (Dahlstrom 1997), invariably shows that pronominal prefixes are attached to the left of the reduplicant; Innu-aimun also displays this inflectional morphology.

As a rule, pronominal prefixes are never copied (Dahlstrom: 1997); nevertheless, the Sheshatshiu data includes these curious instances of reduplicated first-person verb forms.

(201) pishtaim^U [pəsːteym^h]   "s/he strikes it"

       pa-pishtaim^U [**pə**pɪʃteym]   "s/he strikes off one thing then another"

(202) **ni**-ni**pa**pishtain [**niː**nəpəpəsteyn] "I am striking off one thing then another"

(203) nutshitatshimâu   [nuʤɪdæʤɪmɔw]   "I'm dragging someone"

       n-**utsh**-utshitatshimâu [n**uʤ**uʤɪdæʤɪmɔw]   "I keep dragging someone"

(204) **nâ**-ni-utshitatshimâu [**næː**niwɪdæːʤɪmɔw]   "I keep dragging someone"

Examples (201) and (202) display reduplications associated with <pishtaim^U>. The third-person reduplicated form predictably uses a common reduplicant, *Ca-*, which is prefixed to the verb stem. The reduplicated first-person form in (202), however, has an unexpected copy of the prefix, *ni-*, in addition to the copy of material from the verb stem;

other than a change in person, there appears to be no difference in the reduplicative

meaning. Of course, the initial <nin-> may actually be the emphatic pronoun <nîn> rather

than a reduplication. The next example is clearer. The reduplication of the first person

form, <nutshitatshimâu>, in example (203) is not unusual; the reduplicant is a copy of

initial base material and *ni-* is prefixed to the reduplicant. Example (204), on the other

hand, demonstrates an atypical reduplication of <nutshitatshimâu>; <**nâ**niutshitatshimâu>

is an iterative form generated by reduplicating the personal prefix. Such anomalous forms

may represent isolated incidences in the construction of reduplicated verbs; however,

they may also be evidence of the predominantly phonological nature of reduplication,

reflected in the speaker's automatic repetition of any initial phonological material,

regardless of its morphemic origin, in order to communicate a reduplicative meaning.

Whatever their source, reduplicative prefixes are monosyllabic or bisyllabic in

structure. This typology is not unique to Sheshatshiu Innu-aimun; for instance,

monosyllabic and bisyllabic reduplication patterns are also described for Fox (Dahlstrom

1997), Yurok (Garrett 2001; Conathan and Wood 2003), Western Naskapi (Brittain

2003), and Betsiamites Innu-aimun (Drapeau 2006).

Each reduplication type potentially indicates particular semantic distinctions. For

example, Fox distinguishes between the monosyllabic pattern of reduplication, denoting a

continuative, habitual aspect, and the bisyllabic pattern, signifying an action distributed

over a period of time or over a group of subjects or objects (Dahlstrom 1997: 206). In

contrast, Drapeau (2006) claims that the bisyllabic pattern is not currently productive in

Betsiamites Innu-aimun and that the distinctions[18] within the monosyllabic pattern are between the event-internal semantics of heavy reduplication and the event-external meaning of light reduplication.

Monosyllabic reduplication seems to be quite productive in Sheshatshiu Innu-aimun, appearing much more commonly than the bisyllabic type. The existence of semantic distinctiveness between these reduplication types becomes apparent in the following examples which illustrate the application of monosyllabic and bisyllabic reduplicants to identical bases.

(205)	**ku**kussikuâtam^{ʊ}	[**gʊ**gʊsːɨgwaːdʌm]	"s/he sews it many times, in different places"
(206)	**kussi**kussikuâtam^{ʊ}	[**gʊsə**gʊsəgwaːdʊm]	"s/he sews it many times"
(207)	**pa**pishikuâpu	[**bə**bɪʃəgwaːbuː]	"s/he closes her/his eyes suddenly"
(208)	**pishi**pishikuâpaniu	[**bɪʃə**bɪʃəgwaːbɪnyu]	"s/he blinks her/his own eyes repeatedly"

In (205) and (206), both structural types of reduplication apply to a single verb base, *kussikuâtam^{ʊ}*, The monosyllabic reduplication, <**ku**kussikuâtam^{ʊ}>, "s/he sews it", conveys a meaning of repeated, distributed action while the bisyllabic reduplication, <**kussi**kussikuâtam^{ʊ}>, centres on the repetition of the action. In example (207) and (208),

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[18] Drapeau (2006) follows Cusic (1981) in categorizing pluractionality with event-internal repetition as a single event on a single occasion consisting of repeated internal phases and event-external as an action repeated on a single occasion or on separate occasions.

the choice of a monosyllabic or bisyllabic reduplicant with the base <pishikuâpu>, "she closes eyes", also establishes a semantic distinction. The monosyllabic reduplication seen in <**pa**pishikuâpu> represents sudden action; in contrast, the bisyllabic reduplication seen in <**pishi**pishikuâpaniu> suggests repeated action. Such semantic distinctions are not necessarily maintained throughout all the data. Although monosyllabic reduplication can convey a meaning of an action distributed over time or space, it may also express continuation, repetitiveness, or intensity. The bisyllabic reduplication data carries such meanings as repetitiveness, intermittency, and distributed action; it is often semantically similar to the monosyllabic type.

The illustrative material in (205) to (208) comes from the oldest contributor to the data. Indeed, semantic distinctions between the monosyllabic and bisyllabic sorts of reduplication seem to be clearer for the older speaker. In certain instances the younger speaker provided both monosyllabic and bisyllabic reduplications in response to the same elicitation, which may imply a blurring of semantic contrast between these methods for marking reduplication. There are also examples of monosyllabic reduplication being used for a third-person form while elicitation of the first-person form for the same base yields bisyllabic reduplication. The following illustrates this usage:

(209) **pû**pûtâtam[U]   "s/he blows on it repeatedly"

(210) ni**pû**pûtaten   "I am blowing repeatedly"

(211) ni**pû**tapûtaten   "I am blowing repeatedly"

94

In example (209) a monosyllabic prefix marks reduplication with a third-person form. However, the speaker provides two options for reduplication with the first-person form: monosyllabic, as in (210), <ni**pû**pûtaten>, and bisyllabic, as in (211), <ni**pû**tapûtaten>; both these variants have identical meanings for this speaker.

Examples such as these may be indicative of a change in progress for the semantics associated with reduplication for this dialect or may even possibly reflect a change in language competence in the younger generation. The latter concern was raised by the primary language consultant for this research, the youngest speaker, who attributed discrepancies between her language and that of her mother to language loss. It is also worth noting that bisyllabic reduplication is considered synchronically non-productive for Betsiamites Innu-aimun (Drapeau 2006: 6); comparably, Sheshatshiu Innu-aimun could be moving towards a system in which only monosyllabic reduplication is available for productive reduplication. The majority of reduplicative prefixes contained in this data are monosyllabic; furthermore, as a point of observation, the youngest speaker most readily provided monosyllabic rather than bisyllabic reduplications during elicitation. Issues such as those noted above relating to language change and the semantics of reduplication are well beyond the scope of this study. Notwithstanding this, many observations gleaned during the course of this research, while peripheral to the focus on reduplicative phonology, certainly do raise questions worth pursuing in future research.

The remainder of this chapter focusses on describing Sheshatshiu Innu-aimun reduplication as a phonological operation. Separate descriptions of monosyllabic and bisyllabic reduplication provide detailed representative data which outline the range of

phonological variants marking reduplication. Analysis of these variants enables the identification of the patterns of reduplication particular to this dialect.

4.2   *Monosyllabic Reduplication*

This section describes reduplication applied to varying base types resulting in reduplicated forms prefixed by monosyllabic reduplicants. In order to capture a comprehensive picture of the reduplicative process for this dialect, the representative data are examined separately according to phonological criteria such as the vowel quality/quantity of the initial base vowel, the presence or absence of an onset for the base, and the complexity of the base onset.

The individual data samples include both base and reduplicated forms; a comparison of their phonetic realizations isolates the reduplicant for the specified form. Descriptions of patterns arising from the outlined data follow each example set. A few facts concerning the data as presented should be noted. First of all, the orthography for many of the reduplications is based on the forms as provided by the speakers; the majority of these forms are not found in formal sources. Secondly, there are a few examples of reduplication where the base form is unavailable either because it was missed during elicitation, or a speaker indicated that a particular word existed only in a reduplicated form. These bases, marked as (?) in the examples, are extrapolated from the reduplications.

4.2.1 Monosyllabic Reduplication with <Cî-> /Ci:/ Bases

Three types of monosyllabic prefixes, <Câ> /Ca:/; <Ca> /Ca/; <Cî> /Ci:/, signal

reduplication for bases beginning with an onset and the long vowel /i:/. The heavy <Câ>

/Ca:/ type is illustrated in examples (212) to (216).

(212) mîshaim^ᵁ   [mi:ʃeym]   **mâ**mîshaim^ᵁ [**ma:**mi:ʃim]   [ma:-]
       "add a piece to something"   "s/he patches it"

(213) shîpiu   [ʃi:bɨw]   **shâ**shîpîu   [**ʃa:**ʃi:bɨw]   [ʃa:-]
       "s/he stretches"   "s/he keeps stretching"

(214) uîneu   [wi:nɛw]   **uâ**uîneu   [**wa:**wi:nɛw]   [wa:-]
       "s/he names someone"   "s/he talks about him/her"

(215) nîpâteu(?)   [ni:bæ:dew] **nâ**nîpâteu   [**næ:**ni:bæ:dew]   [næ:-]
       "s/he walks around at night"

(216) nîsh^ᵁ   [ni:ʃʰ]   **nâ**nîsh^ᵁ   [**næ:**ni:ʃ]   [næ:-]
       "two"   "two each"

The heavy monosyllabic reduplicant, <Câ-> (C/a:/-), illustrated in the above

examples, contains an onset which copies the initial non-syllabic of the base form and a

vowel realized as [a:, æ:]. This vowel does not maintain identity with the initial vowel

from the base; instead, it appears to be prespecified for quality, while its length mirrors

that of the base vowel. The C<â-> reduplicative prefix occurs in the context of C + /i:/

bases throughout Algonquian reduplication, appearing as a dominant pattern in such languages as Fox (Dahlstrom 1997), Ojibwe (Nichols), and Menominee (Hockett 1981).

The light <Ca-> /CI/- prefix also marks reduplication with C<î-> base forms, as illustrated in the next set of examples.

(217) mînueu   [miːnuwew]   **ma**mînueu   [**ma**miːnuwew]   [ma-]
       "s/he gives things away"   "s/he gives things to different people"

(218) pîminam^U   [biːmɨnʊm]   **pa**pîminam^U [**pa**biːmɨnʊm]   [pa-]
       "s/he turns something (once)" "s/he turns something, e.g. taps, (over & over)"

(219) mîtshishu   [miːtʃuː]   **ma**mîtshishen [**mæ**miːdʒɨn]   [mæ-]
       "s/he is eating"   "s/he is eating everywhere"

(220) nîtâutshin   [niːtawdʒɨn] **na**nîtâutshin [**næ**niːtawdn̩]   [næ-]
       "it grows"   "it keeps growing"

(221) mînueu   [miːnuwew]   ni**ma**mînuen   [nə**mə**miːnuwɛn]   [mə-]
       "s/he gives things away"   "I give things to different people"

(222) nîmu   [niːmuː]   **na**nîmu   [**nə**nːiːmuː]   [nə-]
       "s/he dances"   "s/he dances all the time"

(223) pîminam^U   [biːmɨnʊm]   ni**pa**pîminen [nə**pə**piːmənɪn]   [pə-]
       "turn something   "I turn it over & over"
       (e.g. taps) once"

As seen previously for the C<â-> C/aː/- reduplicative template, the light

monosyllabic reduplicant, C<a-> C/I/-, shown with C<î-> bases in examples (217) to

(223), also includes an initial consonant which is a copy of the base onset. The vowel, /I/,

is realized phonetically as the short vowel sounds [a, æ, or ə] (recall that /I/ is the

phoneme representing the merged short vowels <i>, <a> and is often heard as [ə]). The

reduplicative prefix contrasts with the base vowel for both quality and length,

demonstrating prespecification for this light reduplicant.

Prefixation of the heavy syllable C<î-> C/iː/, as in (224), is another option for

achieving monosyllabic reduplication with C<î-> C/iː/ base types.

(224) tîtapanîu   [tiːtəpənyu]   **tîtîtapanîu**   [**tiː**tiːtəpənyuː]   [tiː-]
       "s/he rolls up   "s/he is rolling up (in blanket)"
        once (in blanket)"

The realization of reduplication with a <Cî-> /Ciː/- reduplicant, as in example (224),

involves the exact copying of both consonant and vowel from the initial base material. In

Sheshatshiu Innu-aimun, <Cî-> /Ciː/- appears to be rare as a reduplicative prefix;

tîtîpaniu, as found in (224), is the only example of this pattern found in the data.

This option also seems to have limited productivity throughout other Algonquian

languages; for instance, both Dahlstrom (1997: 214), for Fox, and Drapeau (2006: 4), for

Betsiamites Innu-aimun, identify this reduplicant shape as irregular. However, in

Arapaho C<î->is included in the basic pattern for forming a reduplicated form (Conathan

2005: 96); as well, it is identified as a regular reduplicant for Western Naskapi, which

does not have predetermined vowels (Brittain 2003: 7).

4.2.2 Monosyllabic Reduplication with <C â-> /Caː/ Bases

The outcomes of monosyllabic reduplication applied to bases beginning with <Câ->
/Caː/- show three types of monosyllabic reduplicants. These are <Câ-> /Caː-/ and <Ca->
/Ca/-, the heavy and light open monosyllabic reduplicants already observed for <Cî->
/Ciː/ bases, as well as <CâC->, a closed type. The heavy <Câ-> /Caː/- reduplicative prefix
is illustrated in examples (225) to (230).

(225) kâtipâu   [gaːdɨbʌw]   **kâ**kâtipâu   [**gaː**gaːdɨbʌw]   [gaː]
      "it has one ridge"   "it is in ridges, terraced"

(226) tâtshishkueu   [daːdɪʃkwɔː]   **tâ**tâtshishkueu [**daː**dadʒɨskwɨw]   [daː-]
      "s/he kicks him/her (once)"   "s/he kicks him/her repeatedly"

(227) uâpameu   [waːpəmhew]   **uâ**uâpâmeu   [**waː**waːbm̩ew]   [waː-]
      "s/he sees him/her"   "s/he is checking on it (anim.)"

(228) mâkuâtam^ᵁ   [mæːgwæːdʊm]   **mâ**mâkuâtam^ᵁ [**maː**maːgwaːdʊm]   [maː-]
      "s/he bites it"   "s/he chews it" [**mæː**mæːgwæːdʊm] [mæː]

(229) shâtshikatshipanîu   **shâ**shâtshikatshipanîu
      [ʃæːdʒɪgədʒɪbənyuː]   [**ʃæː**ʃæːdʒɪgədʒɪbənyuː]   [ʃæː-]
      "s/he sits on the floor & falls back"   "s/he is sitting on a floor & falling back
                                   (repeatedly)"

(230) tâkushkâtam^ᵁ [dæːgʊʃgæːdʊm]   **tâ**tâkushkâtam^ᵁ [**dæː**dæːgʊʃgæːdʊm] [dæː-]
      "s/he steps on it"   "s/he steps on it one after another"

(231) pâtshiku   [paːʤɪɡuː]   **pâ**pâtshiku[19]   [**pa**paːʤɪɡuː]   [pa-]
       "drip once"   "it drips a lot"

Examples (225) to (231) achieve reduplication with a <Câ-> /Caː/- prefix composed of an onset matching the initial consonant of the reduplicative base and a vowel /aː/, realized phonetically as [aː, æː, a]. The heavy monosyllable <Câ-> (C/aː/) is the most common reduplicative prefix used with the C<â-> base type in the data. This reduplicant also occurs with this base in such languages as Betsiamites Innu-aimun (Drapeau 2006), Western Naskapi (Brittain 2003), and Ojibwe (Blain 1992). On the surface, this type of reduplication seems to maintain identity between base and reduplicant with an exact copy of the initial base material, specifically, the base onset and initial vowel. Even so, the possibility of prespecification, as found for reduplication with <Cî-> bases, cannot be completely ruled out, despite being obscured by base/reduplicant identity.

Examples (232) to (236) illustrate the light C<a-> /CI/- type reduplicant with C<â-> bases.

(232) nâshueu   [næːʃːwew]   **na**nâshueu   [**næ**næːʃːwew]   [næ-]
       "s/he follows him/her"   "s/he keeps following him/her"

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[19] It should be noted that in some examples, such as (231) *pâpâtshiku* [**pa**paːʤɪɡuː], the orthography seems at odds with the phonetic realization of vowel length. An examination of the IC form for *pâpâtshiku* yields *piâpâtshikut* [piyæːbæːʤəɡʊtʰ], a changed form indicative of an underlyingly long initial vowel, revealing that the phonemic vowel length of the reduplicant vowel is as recognized by the orthography.

(233) mâtisham^U   [maːtːɨʃːʌm]   **ma**mâtisham^U   [**mæ**mæːtɨʃʊm]   [mæ-]
"s/he cuts it"   "cut over & over in different places"

(234) kâshinâkanu   [gæːʃiːnəgənu]   **ka**kâshînu   [**gə**gæːʃinu]   [gə-]
"s/he wipes"   "s/he wipes here & there"

(235) nânatu-pûshu [næntuːpuːʃuː]   **na**nânatu pûshu   [**nə**naːntuːpuːʃuʔ] [nə-]
"s/he is looking for a ride"   "s/he is looking everywhere for a ride"

(236) pâshtaim^U   [baːʃteym]   **pa**pâshtaim^U   [**bə**bæːsteym]   [bə-]
"s/he cracks it "   "s/he cracks it here and there"

    The light monosyllabic reduplicant, C<a-> (C/I/-) seen in (232) to (236), contains a

consonant mirroring the base onset and a short vowel, usually rendered phonetically as

[ə]; this vowel matches the initial base vowel for quality, though not for quantity.

Reduplication in East Cree (Junker and Blacksmith 1994) and light reduplication in

Plains Cree (Ahenakew and Wolfart 1983) and Betsiamites Innu-aimun (Drapeau 2006)

demonstrate the same reduplication pattern in this context.

    The third reduplicant type, which appears to be a closed <CâC-> syllable, appears

in (237) to (240).

(237) kâshkâueu   [gaːʃgawɨw]   **kâsh**kâshkâueu   [**gaʃ**gaʃgawɨw]   [gaʃ-]
"s/he strikes, scratches it"   "s/he scrapes it (with an instrument)"

(238) kâshkâueu   [gaːʃgawɨw]   ni**kâsh**kâshkâuau [nə**gaːʃ**gaːʃgaʷɔw] [gaːʃ-]
"s/he strikes, scratches it"   "I'm scraping it (with an instrument)"

(239) kâssipiteu   [gæːsɨbɨtɛw]   **kâsh**kâssipiteu   [**gæːʃ**gæːsɨbɨtɛw]   [gæːʃ-]
"s/he scratches him/her/it once"   "s/he scratches him/her/it repeatedly"

(240) uâshtepanu   [wastɛbɨnuː]   **uâsht**uâshtepanu [**wast**wastɛbɨnuː] [wast-]
       "it flashes once"   "there is repeated lightning"

Each of these examples shows a closed monosyllabic prefix, <CâC->, marking

reduplication on a <Câ-> base. The reduplicant vowel reflects the initial vowel of the

base form. The phonetic identity between reduplicant and base is emphasised by example

(237); although the reduplicative base has a long vowel, /aː/ [aː], the base vowel within

the reduplicated form is phonetically realized as short, echoing the phonetic length of the

reduplicant vowel. The reduplicant consonants also maintain identity with the stem; the

onset matches the base onset, while the second consonant is a copy of the second

consonant in the base. <CaːC-> reduplicants are also found for this environment in

Betsiamites Innu-aimun (Drapeau 2006: 4) and, as an irregular form, in Fox (Dahlstrom

1997: 214). Example (240) is unusual in that the reduplicated form contains an

unexpected consonant cluster as the coda for the reduplicative prefix. The reduplicant is

an apparent monosyllable closed by two consonants, one copied from the first syllable of

the base, the other from the second syllable.

Significantly, examples (239) and (240) express a different approach to creating a

reduplicated form. The previous examples show monosyllabic reduplicants which copy

material from a single syllable of the base. However, in (239) and (240), reduplication

copies more than just a single syllable; both reduplicants copy material from the initial

base syllable but are completed by copying from the second syllable. The analysis of

<CVC-> type reduplicants will be further discussed in Section *4.4.1.4*.

4.2.3 Monosyllabic Reduplication with C + /uː/ Bases

The data reveal three types of monosyllabic reduplicants with <C û-> /Cuː/- bases:

the <Câ-> /Caː/- and <Ca-> /Ca/- prefixes, demonstrating prespecification in

reduplication; and the <C û-> /Cuː/- reduplicant, showing reduplication as exact copying.

The heavy <Câ-> /Caː/- type is shown in (241).

(241) mûssineu   [muːsɪnew]   **mâ**mûssineu   [**maː**muːsənew]   [maː-]
                                       "gather things together"

In example (241) a heavy monosyllable prefixed to the reduplicative base signals

reduplication. The C<â-> prefix has an onset copied from the base while the vowel,

contrasting with the quality of the initial syllabic of the base, appears to be prespecified.

The next group of examples illustrates reduplication with a light monosyllabic

reduplicant, <Ca-> /Ca/-.

(242) mûpishtueu   [muːpɨʃːtwew] **ma**mûpishtueu   [**ma**muːpɪʃtuwew]   [ma-]
       "s/he visits him/her"   "s/he visits many people, going from one place to
                                            another"

(243) nûtin   [nuːtn̩]   **na**nûtin   [**næ**nuːdn̩]   [næ-]
       "it's windy"   "it keeps being windy"

(244) nûkushu   [nuːgʊʃuː]   **na**nûkushu   [**nɨ**nuːgʊʃuː]   [nɨ-]
       "it appears"   "s/he appears here and there"

(245) nûkushu   [nuːɡʊʃuː]   tshi**na**nûkushin   [ʤənənuːɡʊʃɪn]   [nə-]
"it appears"   "you appear here and there"

(246) pûtâtam^U [puːtæːtʊm]   **pa**pûtâtam^U [**pə**puːtæːtʊm]   [pə-]
"s/he blows on it"   "s/he blows on it repeatedly"

(247) mûpu   [muːpu]   **ma**mûpu   [**mə**muːbuʔ]   [mə-]
"s/he is visiting"   "s/he keeps visiting"

As with its heavy counterparts, the light monosyllabic reduplicant, C<a->,

illustrated in (242) to (247), has an onset mirroring that of the reduplicative base. Its

vowel, symbolized orthographically as <a>, is the short, non-rounded vowel phoneme

represented here as /I/; in these examples, its realization varies phonetically as [a, æ, ɨ, ə]

and is regularly heard as [ə]. The contrast in quality and quantity between the vowel of

this reduplicant and that of the base implies prespecification of the reduplicative prefix.

Example (248) shows the third type of monosyllabic reduplicant, <C û-> /Cuː/-,

found with this base.

(248) pûtâtam^U [puːtæːtʊm]   **pû**pûtâtam^U [**puː**puːtæːtʊm]   [puː-]
"s/he blows on it"   "s/he blows on it repeatedly"

As seen in (248), the C<û-> /Cuː/ reduplicant is an exact copy of the initial syllable

of the base, prefixed to that base. This occurs infrequently as a method for signalling

reduplication with C<û-> bases.

The following examples, restated for convenience from (246) and (248), suggest that there may be options in choosing which prefix to mark reduplication on *C + /u:/* bases.

(249) pûtâtam^ᵁ   [puːtæːtʊm]   **pû**pûtâtam^ᵁ   [**puː**puːtæːtʊm]
       "s/he blows on it"   "s/he blows on it repeatedly"

(250)   **pa**pûtâtam^ᵁ   [**pə**puːtæːtʊm]
                                                "s/he blows on it repeatedly"

The data in (249) and (250) show that more than one monosyllabic reduplicant may signal reduplication for a single form. The variants for the reduplications, which come from the same speaker for the same elicitation, show the optionality for C + /u:/ bases of choosing either a C< û > (C/u:/-) reduplicative template, exactly copying the initial syllable of the base, or a prespecified monosyllabic C<a-> (C/I/-) type.

4.2.4 Monosyllabic Reduplication with <Ce-> /Ce/ Bases

Reduplication with <Ce-> /Ce-/ bases employs three types of monosyllabic reduplicants: the open monosyllables <Ce-> /Ce/- and <Ca-> /C/I/-; and the closed <CeC-> /CeC/-. Examples (251) to (255) show the heavy <Ce-> /Ce/- type reduplicant.

(251) nekâtshîu   [neːgaːʤuː]   **ne**nekâtshîu   [**neː**nɛgaʤuː]   [neː-]
       "s/he is abusing animals, children"   "s/he suffers (emotionally)"

(252) shepanu   [ʃebənu]   **she**shepanu   [ʃeʃebənuː]   [ʃe-]
       "it opens by itself"   "it keeps opening by itself"

(253) pekâtaushu?   [peːgæːdawʃuː]?   **pe**pekâtaushu [peːpeːgæːdawʃuː]   [pe-]
                                            "s/he is singing a lullaby to the baby"

(254) uepinamᵁ   [weːpɪnʊm]   **ue**uepinamᵁ   [weːweːpɪnʊm]   [weː-]
       "s/he throws it away"   "s/he throws away stuff"

(255) teuekaitshu (?) [tewegeʤuː]   **te**teuekaitshu [tɛtːewegeʤuː]   [tɛ-]
                                            "knock over and over (e.g. on wall)"

In (251) to (255), the <Ce-> reduplicative prefix is composed of an onset mirroring the base onset and a vowel varying phonetically as [eː, e, ɛ]. As with the <Cu-> reduplicant observed in Section *4.2.3*, <Ce-> /Ce/- is an exact copy of base material, satisfying a need for identity between the reduplicative prefix and the initial syllable of the stem. This identity is phonemic, though not necessarily phonetic, as observed in variations between the base/reduplicant vowels. For instance, in the reduplicated form in (251), [*neːnɛgaʤuː*], the lax vowel, [ɛ], differs slightly from the long, tense vowel in the original base form, [eː], and now contrasts with the reduplicant vowel, [eː]; despite these variations, phonemic identity is preserved between the reduplicant and base vowel.

The light <Ca-> /C/I/- reduplicant appears with <Ce-> bases in (256) to (260).

(256) teuetsheu   [deːwiːʤɨw]   **ta**teuetsheu   [dædeːweːʤɨw]   [dæ-]
       "s/he is playing a drum (knocks on it)"   "knock over and over"

(257) peshkushikuâu [beʃgʊʃugʷɔw]   **pa**peshkushikuâu [**bə**beʃgʊʃugʷɔw] [bə-]
        "the ice is bumpy"

(258) pessish   [peːsɪʃ]   **pa**pessish   [**pə**peːsɪʃ]   [pə-]
        "close"   "closer and closer"

(259) pekutâtamᵁ   [peyəgʊdæːdʊm]   **pa**pekutâtamᵁ [**pə**peygʊdæːdʊm] [pə-]
        "s/he makes a hole in it with teeth"   "s/he is biting holes in something"

(260) petamᵁ   [peːdʊm]   **pa**petamᵁ   [**pə**pːeːdʊm]   [pə-]
        "s/he hears him/her"   "s/he hears over and over"

Examples (256) to (260) employ the light monosyllable C<a-> to mark the

reduplicated forms. In each case, the reduplicant has a consonant matching the base onset

and a short vowel, which is usually realized as [ə]. This reduplicative option suggests the

possibility of using a predetermined vowel in the reduplicant rather than creating an exact

copy of base vocalic material.

    There is also a third reduplicant type, seen in (261), for C<e-> bases.

(261) shepanu   [ʃebənu]   **shep**ishepanu[20]   [ʃebʃebənuː]   [ʃeb-]
        "it opens by itself"   "it keeps opening by itself"

---

[20] By orthographic convention, the <psh> consonant combination is not allowed but requires the use of an epenthetic vowel to provide a transition between the consonants, as seen in *shep**i**shepanu*. Connective /i/ is usually inserted between consonants at morpheme boundaries (Wolfart 1973: 80); Proulx (1977) ties connective /i/ to primary derivation. However, the reduplicated form *shep**i**shepanu* is rendered phonetically as [ʃebʃebənuː], with no evidence of an epenthetic vowel. This form will be analysed further in Section *4.4.1.4.*

Example (261) presents the closed syllable, <CeC->, as an alternative to the open syllable template, <Ce-> or <Ca->. The reduplicative prefix [ʃeb-] copies the initial consonants and vowels of the base but does not respect the syllable structure of the base. As already observed in previous examples of <CVC-> reduplicant types, reduplication not only copies the consonant and vowel of the first syllable, but also material from the second syllable.

As discussed for reduplication with *C + /uː/* bases, the results of the operation of reduplication on *C + /e/* bases also suggest some optionality in the choice of reduplicants. The Sheshatshiu data contain instances of reduplication applied to a single base and resulting in two outcomes, with identical meanings. In (262) and (263), restated from previous examples, the same base is prefixed by a <Ce-> or <CeC-> reduplicant.

(262) shepanu   [ʃebənu]   **she**shepanu   [ʃeʃebənuː]
       "it opens by itself"   "it keeps opening by itself"

(263) shepanu   [ʃebənu]   **shepi**shepanu   [ʃebʃebənuː]
       "it opens by itself"   "it keeps opening by itself"

Reduplication applied to the base *shepanu* is signified in these examples by prefixing either of the reduplicants *<she->* /ʃe/ or *<shep->* /ʃep/ to the base. The choice of <Ce-> or <CeC-> reduplicant does not signal a change in meaning.

The next example, also from the above data, echoes the optionality illustrated in Section *4.2.3* for C<û-> /Cuː/- bases; that is, a <Ce-> base may be prefixed by either a <Ce-> or a <Ca-> reduplicant.

(264) teuekaitshu (?) [tewegeʤuː]   **te**teuekaitshu [**tɛ**ːewegeʤuː]   [tɛ-]
                                                           "s/he knocks over and over (e.g. on wall)"

(265) teuetsheu   [deːwiːʤɨw]   **ta**teuetsheu   [**dæ**deːweːʤɨw]   [dæ-]
          "s/he is playing a drum (knocks on it)" "s/he knocks over and over"

Examples (264) and (265) suggest some optionality in choosing either a C<e-> reduplicant, which copies the base exactly, or a <Ca-> prefix which employs a prespecified vowel.

While there may be a choice of which reduplicative template to apply to <Ce-> bases in Sheshatshiu Innu-aimun, this may not be the case for other Algonquian languages. For Betsiamites Innu-aimun, reduplication involving a base with /eː/ as the initial vowel also employs /eː/ as the reduplicant vowel (Drapeau 2006: 4). In Fox monosyllabic reduplication, if the initial vowel of the base is /e(ː)/, the reduplicant vowel is /eː/, as well (Dahlstrom 1997:211). Ojibwe reduplication with /e/ bases uses the same pattern, prefixing a copy of the base consonant followed by /e/ (Nichols 1980: 256). The descriptions of reduplication for these languages do not refer to the use of the common reduplicative prefix <Ca-> as an alternative for marking reduplication with <Ce-> bases.

4.2.5   *Monosyllabic Reduplication with <Cu-> /Cu/ Bases*

The few examples in this data of reduplication involving C<u-> (C/u/-) bases, as laid out below, suggest that there may be two possible types of monosyllabic reduplication for these bases.

(266) kussikuâshu [gʊsəgwɑːʃuː] **ku**kussikuâtamᵁ [**g**ʊgʊsːɨgwaːdʌm] [gʊ-]
   "s/he is sewing" "s/he sews it many times, in different places"

(267) kushpu(?) [kuʃpu](?) **ku**kushpin [**ku**($^\mathbf{h}$)kuʃpɨn] [ku(^{h})-]
   "going to the country"

Example (266) clearly identifies a *CV-* syllable marking monosyllabic reduplication with <Cu-> bases. This light reduplicative prefix, realized in the above example as <ku-> [gʊ-], copies the onset and initial vowel of the base form. The few available examples show no evidence of the ubiquitous C<a(ː)-> reduplicative prefix; nevertheless, due to the paucity of relevant data, other reduplicants cannot be totally ruled out as options for signifying reduplication in this environment.

In (267), <**ku**kushpin>, the reduplicant, realized as [ku(^{h})-], could be recognized as a <Cu-> /Cu-/ type, as shown by the orthography, with some pre-aspiration of the following stop. Note that this reduplicative prefix is not an exact copy of the initial base syllable, *kush-*, which is a closed *CVC-* syllable. However, there may be an alternate interpretation for the structure of the reduplicant. The [h] sound completing the reduplicant [ku(^{h})-] could correspond to the [h] alternate of [ʃ], as discussed in Chapter II.

111

This possibility may offer further insights into the nature of monosyllabic reduplication for this dialect. Assuming the possibility that the [h] sound in this example represents /ʃ/, the reduplicative prefix is actually /kuʃ-/, a closed syllable identical to the initial syllable of the base. So, the reduplicated form of <**kush**pu> is <**kush**kushpi-> [**ku**ʃkuʃpɨ-], which is realized as <**ku**kushpin> [**ku**(ʰ)kuʃpɨn]. The [h] variant of /ʃ/ seems unusual in this pre-stop position, where [s] would be expected, but it would be more plausible if this consonant were considered to be at a word-boundary – in addition to its occurrence intervocalically, this variant also happens word-initially and word-finally. Although this single example does not constitute adequate evidence to label the monosyllabic reduplicant as a word, it does raise questions concerning the nature of the boundary between a reduplicant and its base.

4.2.6 Monosyllabic Reduplication with <Ca-> <Ci-> /CI/ Bases

As previously discussed, <a> and <i> represent a single unrounded short vowel phoneme, /I/, often realized as [ə]. Data representative of reduplication for /CI/ bases reveal four types of monosyllabic reduplicants: <Ca/i-> /CI/-, <Câ-> /Caː/-, <CaC->, and <Ca-> plus an ablauted base. Examples (268) to (280) feature the <Ca/i-> type of reduplicative prefix.

(268) manipitamᵁ   [manəpətʊm]   **ma**manipitamᵁ[**ma**manəpətʊm]   [ma-]
        "tear out something"   "s/he tears up things"

112

(269) mashineimueu[mɪʃɪneɪmwew]   **ma**mashineimueu [**ma**mɪʃɪneɪmwew] [ma-]
"s/he writes; owes money"   "s/he writes to, owes money to everyone"

(270) mishkam^ᴜ   [mɪʃːkʊm]   **ma**mishkam^ᴜ [**ma**mɪskʊm]   [ma-]
"s/he finds it"   "s/he finds things scattered around"

(271) namutâmû (?) [næmʊtaːmuː](?)   **na**namutâmû [**næ**næmʊtaːmuː]   [næ-]
                                   "s/he has a shaky voice"

(272) shiniku   [ʃɪnɨguː]   **shi**shiniku   [ʃɪʃɪnəguː]   [ʃɪ-]
"s/he blows his/her nose"   "s/he keeps blowing his/her nose"

(273) pimûteu   [pɨmuːtew]   **pi**pimûteu   [**pi**pimuːtew]   [pi-]
"s/he walks"   "s/he's walking around, not straight"

(274) matshitûtam^ᴜ [mɨʤɪduːdəm]   **ma**matshitûtam^ᴜ [**mə**mɨʤɪduːdəm]   [mə-]
"s/he does something wrong'   "s/he does something really wrong"

(275) pishikuâpu   [bɪʃəgwɑːbuː]   **pa**pishikuâpu   [**bə**bɪʃəgwɑːbuː]   [bə-]
"s/he closes his/her eyes"   "s/he closes his/her eyes suddenly"

(276) pishtaim^ᴜ   [pəsːteɪm^h]   **pa**pishtaim^ᴜ   [**pə**pɪʃteym]   [pə-]
"s/he strikes it (by accident)"   "s/he strikes one thing after another"

(277) nashkumeu   [nəʃkʊmɛw]   **na**nashkumeu   [**nə**nɪʃkʊmew]   [nə-]
"s/he thanks him/her"   "s/he thanks one after another"

(278) shashkaim^ᴜ   [ʃəʃkeym^h]   **sha**shashkaim^ᴜ   [ʃəʃəʃkeym]   [ʃə-]
"s/he lights it"   "s/he lights a fire, one then another"

(279) nikamu   [nəkɨmuː^h]   **na**nikamu   [**nə**nɪkəmuː]   [nə-]
"s/he sings"   "s/he keeps singing"

(280) nikamu   [nɨkːəmuː]   **ni**nikamuteu   [**nɨ**nɪkəmʊdew]   [nɨ-]
"s/he sings"   "walking along singing"

The predominant template for monosyllabic reduplication with /CI/ bases is a light

CV- (/CI/) syllable, as exemplified above, prefixed to the reduplicative base. The onset

matches the initial consonant of the base; the short vowel, matching the length and the

unrounded quality of the initial base vowel, is phonetically realized as [a, æ, i, ɪ, ɨ, ə],

with [ə] heard most frequently. The possibility of predetermined vowels in the light

reduplicants is obscured by the non-distinctiveness of <i, a>; the reduplicant vowel may

be a copy of base material rather than a prespecification.

In the following set of examples an alternate type of monosyllabic reduplicant,

<Câ-> /Ca: /-, also marks reduplication with <Ca> <Ci> bases.

(281) tipânamᵁ   [tɨbæːnəm]   **tâ**tipânamᵁ   [**tæː**tɨbæːnəm]   [tæː-]
       "separate one or two things"   "s/he separates or sorts it"

(282) minâtamᵁ   [mɪnæːdʊm]   **mâ**minâtamᵁ   [**mæː**mɨnæːdʊm]   [mæː]
       "s/he smells it"   "s/he keeps smelling something"

(283) nishtᵁ   [nɪstʰ]   **nâ**nishtᵁ   [**naː**nɪstʰ]   [naː]
       "three"   "three each"

In contrast to its light counterpart, the heavy monosyllabic reduplicant, /Caː/-,

appearing in (281) to (283) as [æː, aː], does not match the length of the base vowel. This

prefix may represent a prespecified reduplicant as already described for other vowels.

Example (284) illustrates another option for marking reduplication, the <CaC-> reduplicant type.

(284) kashkatashteu [gəʃgədɪstɛw]   **kash**kashkatashteu [**gəʃ**gəsgadəstɨw] [gəʃ-]
       "drawing a square"   "it is placed, drawn in squares"

In example (284), the initial syllable of the base is structured as a closed CVC-syllable; the reduplicative prefix, <CaC->, copies this syllable in its entirety, including the coda.

The final group of examples for the /CI/- bases shows reduplication signalled by a <Ca-> reduplicant plus an ablauted base.

Non-ablauted root   *Ablauted root*

(285) pimûteu   [pɨmuːtɛw]   **pa-**pâmûteu[21] [**pə**paːmuːdew]   [pə-]
       "s/he walks"   "s/he walks around"

(286) pimishkau   [bɪmɨsgʌw]   **pa-**pâmishkau [**bə**baːmɨʃgʌw]   [bə-]
       "s/he paddles"   "s/he paddles around"

(287) pimishinu   [pmɪʃɪnuː]   **pa-**pâmishinu [**pə**paːmɪʃɨnuʔ]   [pə-]
       "s/he is lying down"   "moving here and there in bed"

---

[21] This is one of two options for monosyllabic reduplication with *pimûteu*. The other, **pi**pimûteu, seen in (273), displays exact identity between the reduplicant and the initial base syllable. Yet, although the speaker accepted this reduplicated form as a possible reduplication, it did not come readily to her as a natural usage. Instead, she spontaneously volunteered the second reduplication, *pa*pâmûteu, with the common C<a>- reduplicative prefix and the change to the initial vowel of the reduplicative base; this is the normal form for all dialects.

In each of these examples the reduplicated form demonstrates not only the prefixation of a <Ca-> monosyllabic reduplicant, but also a change to the initial vowel of the base, with <i> lengthening to <â>. This ablauted root appears consistently for bases with <*pim-*>, as illustrated in (285) to (287).

Various studies of Algonquian languages comment on such changes to this base with the application of reduplication. Bloomfield (1930: 6) considers this to be an archaic sort of reduplication. Wolfart (1973: 66) identifies a type of reduplication in Plains Cree that involves a change of the reduplicative root but considers it rare and non-productive. Siebert (1985: 587-588) examines a specific reduplication of this type, found in this data as (285) <**pa**pâmûteu>, and claims that PA *papâm-* is a root and not just an irregular

reduplication of *pem-*. He cites Voegelin's (1938:92-93) separation of these roots for Shawnee and also notes that Eastern Abenaki clearly distinguishes between and provides distinct reduplications for the two roots. Drapeau (2006: 4) provides an explanation for ablauted root alternations; her insight is that a number of roots have reduplicative alternates to the base roots, which will always be used in reduplication. This may also be a logical explanation for the variety of changes to reduplicative bases found in Sheshatshiu Innu-aimun.

Example (287), <pimishinu>, offers further insight into the reduplication process. The tendency to delete the short vowel between homorganic stop and nasal consonants results in this word being phonetically realized as [pmɪʃɪnuː]. Reduplication recognizes the underlying form, rather than the surface realization, as the reduplicative base; the

reduplicated form, <**pa**pâmishinu>, shows the same pattern used by other <pim-> bases

which have not undergone short vowel deletion.

4.2.7 Monosyllabic Reduplication with /tʃ/- Bases

Reduplication involving bases beginning with /tʃ/ is worth noting separately since it

exhibits a pattern unique to this category. In contrast to the previously discussed

reduplicants, which invariably contain consonants exactly matching their bases, /tʃ/-

bases show a different reduplication strategy.

Overall, there are four types of monosyllabic reduplicants found with /tʃ/- bases:

<tshî-> /tʃiː-/; <tshîC-> /tʃiːC-/; <ka-> /ka-/; <kaka-> /kaka-/. The <tshî-> type is

illustrated in (288) and (289).

(288) tshîkâtueu   [ʤikaːdwɨw]   **tshî**tshîkâtueu   [ʤiʤikaːdwɨw]   [ʤi-]
       "cut branches with axe"   "cut many branches with an axe"

(289) tshîtâpâtam^ᵁ   [ʤiːdaːbadʊm]   **tshî**tshîtâpâtam^ᵁ [ʤiʤidæːbæːdʊm]   [ʤi-]
       "s/he looks at it, reads it"   "s/he keeps looking at it"

Examples (288) and (289) illustrate how reduplication maintains identity between

reduplicant and base. In each case, reduplication copies the initial material from the base

so that the *CV-* reduplicative prefix, /tʃi-/, is an exact phonological copy of the first

syllable of the base.

The <tshîC-> type reduplication in the following example extends the idea of copying base material.

(290)   tshînikuânitshmeu   [ʤiːnʊɡwɑːnɨʤimɨw]   **tshîn**tshînikuânitshimeu

                                            [**ʤiːn**ʤiːnʊɡwɑːnʤimɨw]   [ʤiːn-]

     "s/he goes round once"   "s/he goes round and round (on a boat)"

The single example of a closed-syllable reduplicant, seen in (290), reiterates the strategy of creating a reduplicant composed of base phonological material; the *CVC*-reduplicant contains consonants and a vowel which are faithful to the initial elements of the base. However, unlike the *CV-* reduplicative template, <tshî->, this copy exceeds syllable boundaries; the second consonant is copied from the onset of the second syllable.

Examples (291) and (292) show the <ka-> type reduplicant, a departure from the exact copying clearly displayed by the <tshî-> and <tshîC-> types.

(291)   tshimikaitsheu [ʤɪməɡeyʤɛw]   ni-**ka-**tshimikaitshin   [nəkəʤɪməɡeyʤɪn]
       "s/he cuts wood with an axe"   "I keep cutting wood"   [kə-]

(292)   tshishtâputâu [ʤɪstaːbʊtaw]   **ka-**kashtâputau   [**gə**ɡəstaːbudaw]   [ɡə-]
       "s/he washes it"   "s/he washes one after another"

In these examples, reduplication with <tshi-> bases diverges from the expected pattern for copying; the reduplicant <ka-> contains the consonant <k>, which does not copy the surface representation [ʤ] of initial base consonant <tsh>. Instead, <ka->

appears as a reduplicant, reflecting the historical rather than the synchronic forms. The

analysis of <ka-> as a relic reduplicant will be discussed in the next subsection.

Example (292) *ka*kashtâputau, "s/he washes one after another", utilizes the <ka->

reduplicant but exhibits a further anomalous change; the base form is itself altered,

creating a match with the reduplicant and maintaining phonological identity between the

reduplicant and the reduplicative base.

The following examples show <ka-> doubled, creating <kaka-> as an apparent

bisyllabic reduplicative prefix with <tshi-> bases.

(293) tshîtâpâtam^ᵁ [ʤiːdaːbadʊm]   **kaka**tshitâpâtam^ᵁ   [**kəkə**ʤidæːbæːdʊm]
       "s/he looks at it, reads it"   "s/he reads one thing after another"
                                                                       [kə(kə)-]

(294) tshimikaitsheu [ʤɪməgeyʤɛw]   **kaka**tshimikaitsheu   [**kəkə**ʤɪməgeyʤɛw]
       "s/he cuts wood with an axe"   "s/he keeps cutting wood with an axe"
                                                                       [kə(kə)-]

(295) tshîueshkuepanu [ʤiːweːʃgweːbənu] **kaka**tshîueshkuepanu
                                                           [**gəgə**ʤiːweːʃgweːbənyu]
       "s/he turns his/her head"   "s/he turns his/her head again and again"   [gə-]

In (293) to (295), the structure of the reduplicant <kaka-> indicates that the

speaker does consider base/reduplicant identity to be a hallmark of the reduplication

process. Each of these examples contains what appear to be double reduplications. The

speaker first applies reduplication by the expected prefixation of the *<ka->* reduplicant

prespecified for *<tshi->* bases. This is sufficient for marking reduplication; however, the

119

already reduplicated form now becomes the base for a further reduplication. Examples (291), <ni**ka**tshimikaitshin>, and (294), <**kaka**tshimikaitsheu>, are assigned the same meaning of repetitive action, despite the configuration of the prefix as a single or a double reduplication; reduplication is not reapplied in order to modify meaning. Instead, the speaker appears to be following a phonological imperative of reduplication, one which requires that the reduplicant be a copy of material from the reduplicative base.

It is also worth noting that the use of <ka-> as a reduplicative prefix may involve some optionality; the examples in (289), <**tshî**tshîtâpâtamᵁ> [ʤiʤidæːbæːdʊm], and (293), <**kaka**tshitâpâtamᵁ> [kəkəʤidæːbæːdʊm], have the same base form <tshîtâpâtamᵁ> but employ either <tshî-> or <kaka-> reduplicants. Interestingly, for this particular example, the choice of reduplicant seems to involve a change in semantics, with <tshî-> signifying repetition and <kaka-> distribution. This distinction does not apply consistently to the other examples of reduplication with /tʃ/- bases. This particular instance may be pointing out the potential for refining reduplicative semantics by assigning functional meanings to individual reduplicant types such as <tshî-> and the relic <ka->.

4.2.7.1 Further Discussion of /tʃ/- and /ka/-

In Section *4.2.7,* reduplication for bases beginning with <tshî> shows a departure from expected monosyllabic reduplication patterns. The reduplicant occurs as <ka->, which does not appear to be a copy of the surface representation of the reduplicative base.

Recall that Sheshatshiu Innu-aimun is characterized by the palatalization of *k to <tsh> /tʃ/; <tshî> /tʃiː/ is historically derived from *kî. Synchronically, <tshî> /tʃiː/ is the underlying form; this reflects the historical palatalization but this process is no longer synchronic. The appearance of *kî as an underlying representation is a historical relic of the pre-palatalization form. Reduplication may recognize the historical base for <tshî-> forms, copying *kî as <ka->; this reduplicant resembles <Ca-> (light) reduplication. . In summary, the <ka->, <kaka-> type reduplicants make sense as historical relics which remain synchronically faithful to historical reduplicative bases. Reduplication displays morphologization; as a semi-regular phonological operation it may become increasingly more arbitrary over time.

The existence of <ka-> as a reduplicant prefixing <tshî> bases suggests some possibilities for theoretical analysis. Firstly, the lack of phonological identity between reduplicant and base can be explained by considering reduplication as essentially a morphological operation, which is in accord with arguments such as that proposed by Inkelas and Zoll (2005). They claim that "reduplication results when the morphology calls twice for a constituent of a given semantic description" (Inkelas and Zoll 2005: 7). Semantic identity is the core of reduplication; surface phonological identity is not required (Inkelas and Zoll 2005: 18).

On the other hand, certain anomalous data suggest that an alternate theoretical approach, such as that developed by McCarthy and Prince (1986, 1994b, 1995, 1999, 2003) might be applicable to Sheshatshiu Innu-aimun reduplication. Their phonological model hypothesizes that reduplication realizes a reduplicative morpheme, RED, which is

unspecified for segmental content. The RED morpheme, which is in a relationship of correspondence with the base, is faithful to the phonological structure of the reduplicative base. Simply put, "Reduplication is a matter of identity: the reduplicant copies the base" (McCarthy and Prince 2003: 77).

The idea that reduplication is phonological copying is validated by evidence from the use of the <ka-> reduplicant with <tshî>-type bases. There are instances where the <ka-> prefix is reapplied to the base (see examples (293) to (295)), resulting in an apparent double reduplication, <kaka->, which is unmotivated by semantics. This double copy seems to be triggered solely by the requirement for phonological faithfulness between the reduplicant and its base.

4.2.8 Monosyllabic Reduplication with <kuV-> Bases

The unique patterns associated with the application of reduplication to <kuV-> bases also require separate consideration. The process of reduplication in this context may give some insights into whether <ku> is a single segment, /kʷ/, or two segments, /k/ and /u/. In fact, Dahlstrom (1997) uses evidence from reduplicated forms in Fox to argue for the / kʷ/ complex consonant analysis. The data for Sheshatshiu Innu-aimun favour both interpretations. Three types of monosyllabic reduplicants occur with <kuV-> bases: <ku->, which points to a two segment analysis, and <kuV-> and <kuVC->, which suggest a single segment.

Examples (296) to (298) show reduplication manifested by the monosyllabic prefix, <ku->.

(296) kuânitshineu [kwɑːnɨdənew] **ku**kuânitshineu [**kʊ**kwɑːnɨdənew] [kʊ-]
"s/he tickles him/her in one place" "s/he tickles him/her all over"

(297) kuessipanu [kwɛːɨpɨnuː] **ku**kuessipanu [**guː**gweːsəbənuː] [guː-]
"it is turning over" "it keeps turning over"

(298) kuetshimu [gweːʤɪmɛw] **ku**kuetshimu [**kʊ**kweʤɪmuː] [kʊ-]
"s/he is asking a question"

As seen above, bases beginning with <kuV-> are realized with a consonant-glide sequence [kw(gw)] plus the vowel. In (296) to (298), the reduplication process copies /k/ as the consonant onset and identifies /u/ as the syllabic element to be copied for the reduplicant vowel. On the surface, it appears that reduplication identifies the initial consonant-glide of the base as sufficient for creating a *CV-* reduplicative prefix.

The <kuV-> type of monosyllabic reduplicant is illustrated in (299) to (301).

(299) kuâpishkau(?) [gwaːpɨʃkʌw](?) **ku**âkuâpishkau [**gwaː**gwaːpɨʃkʌw] [gwaː-]
"it (e.g. cooking pot) is rusted"

(300) kuetshimeu [gweːʤɪmɛw] **kue**kuetshimeu [**gweː**gweːʤɨmew] [gweː-]
"she asks him/her" "s/he questions him/her"

(301) kuessipanu [kwɛːɨpɨnuː] **kue**kuessipanu [**gweː**gwɛːsɨpənu]
"it is turning over" "it keeps turning over" [gweː-]

These examples employ <kuV-> /kuV/ [kw(gw)V-] as an appropriate prefix to mark reduplication with this base type. The reduplicants are exact copies of the initial

syllable of their bases, recognizing /aː/ in (299) or /e/ in (300) and (301) as the vowel

elements for copying.

Examples (302) and (303) show <kuVC-> [kwVC] as another reduplicant option.

(302) kuessipanu   [kwɛsːɨpɨnuː] ni**kuess**kuessipatin [nə**gwɛːs**gwɛːsɨbɨdɪn]   [gwɛːs-]
       "it is turning over"   "I keep turning over"

(303) kuâshkuetu [gwɑːʃgweːduː] **kuâsh**kuâshkuetu [**gwaːʃ**gwaːʃgweːdu]   [gwaːʃ-]
       "s/he jumps up"   "s/he is jumping here and there"

The closed syllable reduplicants are invariably copies of the complete initial

consonant-glide sequence from the base and the vocalic material following the glide plus

one more consonant from the base. Note, also, that in (302) reduplication does not respect

base syllable structure; the reduplicant [**gwɛːs**] copies the consonant from the second base

syllable but does not include vocalic material to complete a second syllable.

Various Algonquian languages employ comparable methods for handling

reduplication with this base category. For instance, in contrast to the patterns for

Sheshatshiu Innu-aimun, Ojibwa retains *kw-* in the reduplicant when the base vowel is

long, but loses post-consonantal *w* from the reduplicative prefix when the base vowel is

short (Nichols 1980: 258-259). In Fox, the [w] is always copied to the reduplicative

prefix, implying that kʷ is a single segment (Dahlstrom 1997: 212). Betsiamites Innu-

aimun uses both kwV- and ku- reduplicants with this type of base. Drapeau's (2006: 3-5)

description includes examples which retain [kw-] in the reduplicant; an example showing a ku- reduplicative prefix is identified as arising from an ablauted root.

The Sheshatshiu Innu-aimun data exhibits variation in the analysis of initial <ku->; as demonstrated in previous examples, reduplication either retains /kʷ/ as a single segment that forms the onset for the reduplicant and completes the prefix with the following vowel, or copies only the /k/ as the onset and /u/ as the syllabic element in the reduplicative prefix. Some examples show this variation occurring for the same base. The examples below, restated for convenience, show evidence of the optionality of using either the <ku-> or <kuV-> type reduplicant.

(304) kuetshimeu   [gweːʤɪmɛw]   **ku**kuetshimeu   [**ku**kweʤɪmuː]
       "s/he asks him/her"   **kue**kuetshimeu   [**gwe**ːgweːʤɨmew]
                                        "s/he questions him/her"

(305) kuessipanu   [kwɛsːɨpɨnuː]   **ku**kuessipanu   [**gu**ːgweːsəbənuː]
       "it turns over"   **kue**kuessipanu   [**gwe**ːgwɛːsːɨpənu]
                                        "it keeps turning over"

In (304) and (305), one of the reduplicated forms has a prefix exactly matching the surface representation of the initial syllable of the base; the consonant-glide and vowel are maintained in the <kuV-> reduplicant. The alternate form manifests the reduplicant as <ku->, which, on the surface, is not a complete copy of the first syllable of the base.

Further evidence of optionality in the choice of prefixes used to mark reduplication with this base type appears in (306).

(306) kuessipanu   [kwɛsːɨpɨnuː]   **kue**kuessipanu   [**gwe**ːgwɛːsːɨpənu]
       "it turns over"   "it keeps turning over"
                                            ni**kuess**kuessipatin   [nə**gwɛːs**gwɛːsɨbɨdɪn]
                                            "I keep turning over"

Example (306) shows that the the <kuVC-> reduplicant type may also alternate with other reduplicant options for the same base. Both these reduplications illustrate the /kʷ/ analysis of <ku->, although one uses an open monosyllable reduplicant type, <kuV->, while the other has a closed monosyllable type <kuVC->. Despite the variations, each reduplicated form carries the same meaning of repeated action.

In summary, the evidence from reduplication data for Sheshatshiu Innu-aimun suggest that in a <kuV-> sequence the <ku-> can be analyzed either as a complex consonant, /kʷ/, or as a consonant followed by a vowel, /ku-/.

4.2.9   *Monosyllabic Reduplication with <muV->, <puV -> and <tuV->Bases*

There are only a few examples of reduplications with these base types; nevertheless, like <kuV-> bases, they do possibly illustrate a type of dual analysis for <mu>, <pu>, and <tu>. The following examples show the range of reduplicant types, <Ca->, <CuV->, and <CV->, available for these bases.

(307) mueu   [mwew]   **ma**mueu   [**m**ʌmwew]   [mʌ-]
       "s/he eats it"   "s/he keeps eating it"

126

(308) puetshitu   [bweːʤɪduː]   **pue**puetshitu   [**bweː**bweːʤɪduː]   [bweː-]
       "s/he farts'   "s/he keeps farting"

(309) tuepanu(?)   [tueːpənuː](?)   **te**tuepanu   [**tɛ**tueːpənuː]   [tɛ-]
                                        "clock ticking"

Example (307) uses the <Ca-> reduplicant already shown for many of the

previously discussed base types, though not apparently available for <kuV-> bases. In

this example, the <mu-> of the base is treated as two separate segments; the <u> is not

copied and the <m> is copied onto a <Ca-> template. This option is not unique to

Sheshatshiu Innu-aimun but is also found, for instance, in East Cree verb reduplication

(Junker and Blacksmith 1994: 269). The reduplicated syllable contains an onset copied

from the base and a prespecified low vowel.

In contrast to (307), in example (308), the <u> is copied; reduplication treats <pu->

as a complex segment, /pʷ/, and the following vowel is copied as the vocalic material in

<CuV-> / CʷV-/, a <CV-> reduplicant.

Example (309) also uses a <CV-> reduplicant type; however, there is one striking

difference from the <CV-> reduplicant of (308). The <u-> is not copied either as an

element of a complex consonant or as the vowel of the reduplicant; instead, the

reduplicant copies the simple consonant /t-/ and the /e-/ which follows /u/ in the base.[22]

This process has a parallel in Ojibwa, where a *Cw-* cluster, other than *kw-*, loses the *w* in

the reduplicated syllable (Nichols 1980: 258). As well, in Fox, bases beginning with a

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[22] There is another possible analysis for the reduplicated form in (309), <**te**tuepanu> [tɛtueːpənuː]. The
initial sequence of the base form may be *tawe-*, which is masked by the orthography <tue> (MacKenzie,
personal communication).

consonant-glide sequence, other than <ku->, only optionally copy the glide (Dahlstrom 1997: 212). The reduplication in (309) suggests a comparable contrast between the patterning for <ku->, which always copies the <u-> in some form, and other <Cu-> base types in Sheshatshiu Innu-aimun.

To sum up, despite the scarceness of exemplary material, the evidence from these base types shows both <Ca-> and <CV-> reduplicant types. The CV- type reveals a possible dual analysis, either copying the <Cu-> sequence as a complex segment, /C^w/, or as a simple consonant, /C/; in each case, the reduplicant is completed by the vowel following <u->.

The next sections move from a focus on consonant-initial bases to a concentration on forms beginning with vowels. Reduplication with vowel-initial bases results in contiguous vowels, V_{red} + V_{base}, at the morpheme boundary between reduplicant and base. The examination of individual vowel-initial base types shows a common approach to dealing with this hiatus: the use of epenthetic [y] (internal sandhi) between these vowels. Epenthesis with -*y*- is common in Algonquian reduplication; it is found, for instance, in Fox (Dahlstrom 1997:213), Western Naskapi (Brittain 2003:7), and Betsiamites Innu-aimun (Drapeau 2006: 4) monosyllabic reduplication and in Plains Cree (Ahenakew and Wolfart 1983:376) light reduplication.

Note that this data has no examples of monosyllabic reduplication for forms beginning with /e/ or /iː/; only /aː/, /uː/, /u/,and /I/ base types are discussed. This sort of limitation is not without precedent; Dahlstrom (1997: 213) comments on the range of

available examples for Fox reduplication with vowel-initial bases, noting that

monosyllabic reduplication has not been found for bases beginning in *eː, i, iː,* or *oː* .

4.2.10 *Monosyllabic Reduplication with Vowel-Initial Bases: <â> /aː/-*

Monosyllabic reduplication with <â> /aː/- initial bases is marked by the prefixation

of <âi->, which exhibits three phonetic subtypes: [aːy-aː] (also heard as [æː y-a]);

[yaːy-aː] ([y æːy-a]); and [iyaːy-aː] ([iyeːy-aː], [iy-aː]). The [aːy-aː] subtype is shown in

(310) to (313).

(310) âshikuâteu   [aːʃigwɑːdɨw]   **âi**âshikuâteu   [**æːyæ**ːʃigwɑːdɨw]   [æː + y-]
        "s/he scolds him/her (once)"   "s/he scolds him/her"

(311) âkuetunamᵁ(?) [æːgweːdunʊm](?) **âi**âkuetunamᵁ   [**æːy**æːgweːdunʊm]   [æː + y-]
                                          "carries it piled up one on top of the other"

(312) âshtemeu   [æːʃteːmew]   **âi**âshtemeu   [**æy**æːʃteːmew]   [æ + y-]
        "s/he argues, answers back"   "s/he keeps answering back"

(313) âtshiû   [yæːʤɨw]   **âi**âtshiû   [**aːy**aːʤuː]   [aː + y-]
        "s/he moves"   "s/he moves around"

Examples (310) to (313) illustrate the most common pattern for signalling

monosyllabic reduplication with /aː/ initial bases - the prefixation of [aːy-], also realized

as [æːy-, æy-]. The reduplicant, /Vː-/, contains a copy of the initial base vowel; an

epenthetic [y] breaks the hiatus between the reduplicant and base vowels, acting as an

onset for the initial syllable of the base. This insertion of [y] indicates internal sandhi

marking the morpheme boundary between reduplicant and base.

The [yaːy-aː] type is found in example (314).

(314)　âtshipanu　　　　[aːʤɨbɨnuː]　　　　**âi**âtshipanu　　　[**yæːy**æːʤɨbɨnu]　　　[yæː + y-]
　　　　"shake,move"　　　　　　　　　　　　　"shake, move back and forth"

In example (314), epenthetic [y] occurs not only at the boundary between base and

reduplicant, but also as an onset for the reduplicant. Epenthetic [y] is analyzed in the

reduplication as an underlying consonant, as if it were the onset of a base beginning with

/iaː/. The resulting reduplicant is a /CV/- syllable.

The third phonetic sub-type, [iyaːy-aː], is found in the following reduplicated forms.

(315)　âkushu　　　　　[aːgʊʃuː]　　　　　**ai**âkushut　　　[**iyeːy**aːgʊʃutʰ]　　　[iyeː + y-]
　　　　"s/he is sick"　　　　　　　　　　　　"they're all getting sick"

(316)　âtutsheu　　　　[æːtʊtʃɛw]　　　　　**ai**âtutsheu　　　[**iyæː**dʊʤɛw]　　　[i + y-]
　　　　"s/he moves house"　　　　　　　　　"s/he changes house, moves camp often"

The reduplicated forms in (315) and (316) illustrate a minor variation on the

/CV-/ type reduplicant discussed above – the initial [y] sound is lengthened, producing

[iy-]. In addition, these examples point out the potential for variations in vowels coming

together at morpheme boundaries. In (315), the reduplicant for the base <âkushu> is

phonetically realized with a vowel [e], raised from the expected [a] under the influence of [y]. This reduplicative prefix has an onset [y]; the speaker slightly lengthens the pronunciation of this onset, as noted by the initial [iy-] in the reduplicant. In (316), the reduplicant vowel is copied as a short [a]; the combination of this short vowel and the long initial vowel [æː] at the boundary between reduplicant and base results in the short vowel becoming a glide, while the long vowel is preserved in the base.

4.2.11 Monosyllabic Reduplication with Vowel- Initial Bases: <a> /I/ and <i> /I/

The data show a variety of types of monosyllabic reduplicants associated with bases beginning with short, unrounded vowels. These are <ai->, <ia->, <VCC>, and <VC>. The <ai-> type is found in (317) and (318).

(317) ashameu   [æʃːəmɛw]   **ai-**ashameu   [**iye**ːʃːɪmew]   [i+y-]
       "s/he feeds him/her"   "s/he feeds them, one at a time"

(318) atusseu   [atʊsːɨw]   **ai-**atusseu   [**iye**ːdɨsɨw]   [i+y-]
       "s/he works"   "s/he works here and there"

Monosyllabic reduplication in (317) and (318) is shown as $<a>_{red} + <i> + <a>_{base}$, a strategy comparable to that observed in Section *4.2.10* for bases beginning with <â>. The process is laid out more clearly in (319).

(319) Base   atusseu   [atʊsːɨw]

       Reduplication: Prefix [a]   [**a** - atʊsːɨw]

       y-Epenthesis   [**a** - **y** - atʊsːɨw]

       [ay-] > [iy-]   [**iy**- atʊsːɨw]

       Assimilation of [a] to [y][23]: [a] raises to [e] [**iyeː**- dɨsɨw]

Internal sandhi is evidenced by the presence of epenthetic [y] at the boundary between reduplicant and base. The adjacency of reduplicant vowel and base vowel also affects the phonetic realization of the reduplicated form, such that the speaker implements the vowel combination as [iye-].

Example (320) shows a slight variation on this reduplication strategy.

(320) ishinamᵁ   [iʃɪnʌm]   **ia-**ishinamᵁ   [ɪyeːɪʃɨnəm]   [ɪyeː-]

       "s/he sees it in a dream"   "s/he sees it in a dream,

                                          bits here and there"

Example (320) is comparable to (319) in marking reduplication with a common [iye] reduplicative prefix. In contrast, however, the reduplicated form in (320) shows no coalescence of the initial base vowel. Also, epenthetic *y* does not seem to be at the boundary of reduplicant and base, that is, immediately preceding the base vowel <i> [ɪ], but it is positioned instead before the reduplicant.

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[23] Vowel raising under the influence of [y] is a common type of assimilation. Its presence in other Algonquian languages is documented, for example, by Bloomfield (1962) for Menomini.

The <VCC-> type of reduplicant demonstrates an alternate approach for producing reduplication.

(321) ishpanu   [iːʃpənu]   **ishp**ishpanu   [**iːʃp**iːʃpənu]   [iːʃp-]
       "it keeps going"   "it keeps going, here and there"

In (321), reduplication is structured as <VCC>$_{red}$ + <VCC>$_{base}$. In other words, the reduplicated form contains a closed syllable <VCC-> reduplicant in which the initial vowel of the base is copied together with the consonant which closes the first syllable in the base and the consonant which forms the onset of the second syllable. It should be noted that the <VCC-> type of reduplicant may be more specifically characterized as /VʃC/ since the few examples have /ʃ/ as the first consonant.

Example (322) shows a similar <VC-> reduplicant.

(322) itâshkuaimᵁ   [idæːʃgweym]   **it**itashkuaimᵁ[24]   [**iːd**iːdæːʃgweym]   [iːd-]
       "s/he pushes it with a stick"   "s/he's pushing it with a stick"

Reduplication in example (321) has a <VC>$_{red}$ + <VC>$_{base}$ configuration. As also seen for the <VCC> type of reduplication, the process copies the initial vowel and,

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[24] It should also be noted that the initial vowels for the bases <ishpanu> and <itâshkuaimᵁ>, exemplified in (321) and (322) as employing the VC(C)- reduplication pattern, may be underlyingly long. The possibility of certain <i> initial Innu-aimun words actually having underlying /iː/ (Drapeau 1981: 44) is discussed for IC in Section *3.3.2*, p.66. This broaches the idea that the long vowel /iː/, though obscured as an initial surface representation, is associated with the <VC(C)-> reduplicative prefix, while the short, non-round vowel patterns differently for reduplication.

despite the syllable structure of the base, also copies the following consonants. In (322) the initial base vowel is copied together with one non-initial consonant.

This sort of closed syllable pattern is not unique to Sheshatshiu Innu-aimun. It also occurs in Menominee (Hockett 1981: 68). In Plains Cree there is an alternate reduplicated form, **itiːtweːw**, for the stem *itweː-*; Wolfart describes this *VC-* pattern as a "deviant type of reduplication"(Wolfart 1973:66). Proulx (2005: 205) identifies *(C)VC-* reduplication as a Proto-Central Algonquian pattern associated with verbs indicating violent actions; this semantic categorization does not appear to be relevant for Sheshatshiu Innu-aimun. The closed syllable reduplicant is a common pattern with /I/ or /u(ː)/ initial bases (as will be described in Section *4.2.12*) but it is not evident for /aː/ initial base types. The fact that a particular reduplicant type is confined to certain vowel base-types suggests that there may be a phonological rather than semantic basis for its occurrence.

4.2.12 *Monosyllabic Reduplication with Vowel-Initial Bases <û> /uː/ or <u> /u/ + C*

Bases beginning with <û> or <u> followed by a consonant share common patterns for monosyllabic reduplication. The data reveal a number of types of reduplicant: <ûC->red or <uC->red, <uCC->red, <ua->red, and an anomalous type which treats the first-person prefix as if it were the initial base material.

Examples (322) to (324) illustrate the most common type of reduplicant for this base: <ûC->red or <uC->red.

(323)　ûpitamᵁ　　　[uːbɪdʊm]　　　　**ûp**ûpitamᵁ　　　[**uːb**uːbədʊm]　　　　[uːb-]
　　　　"s/he lifts it"　　　　　　　　　　"s/he lifts the same thing again and again"

(324)　ûnipanu　　　　[uːnəpənu]　　　**ûn**ûnipanu　　　[**uːn**uːnəpənu]　　　[uːn-]
　　　　"s/he wakes up at night (once)"　　"s/he keeps waking"

(325)　utâmueu　　　　[utæːmwew]　　　**ut**utâmueu　　　[**ut**ətamwew]　　　　[ut-]
　　　　"s/he hits him/her"　　　　　　　"s/he hits him/her repeatedly"

　　　In each of these examples, reduplication copies the initial vowel, /uː/ or /u/, of the

base and completes a closed monosyllable with a copy of the initial consonant from the

base. The length of the vowel realized in the reduplicant matches the length of the

corresponding base vowel. The next set of examples has a slight variation on this pattern.

(326)　ushtamᵁ (?)　　[uʃtʊm] (?)　　**usht**ushtamᵁ　　[**uʃt**ɪʃtʊm]　　　[uʃt-]
　　　　　　　　　　　　　　　　　　　　"s/he coughs"

(327)　　　　　　　　　　　　　　　　**nusht**ushtin　　　[n**uːʃt**əʃtɪn]　　　[uːʃt-]
　　　　　　　　　　　　　　　　　　　　"I'm coughing"

　　　Examples (326) and (327) use <uCC-> as a reduplicant to signal reduplication; this

<VCC-> reduplicant type was already encountered in Section *4.2.11*. In these instances,

reduplication copies the initial vowel and two consonants from the base – in essence, the

total consonantal material preceding the second base vowel. Note also in (327) the vowel

in the reduplicant and the initial vowel of the base show a surface contrast for length.

The data in (328) show another means for marking reduplication with this base: a <ua-> monosyllabic reduplicant.

(328)   ushinueu   [uːʃɪnuwɨw]   **ua**ushinueu   [**waː**uːʃɪnwɨw]   [waː-]
        "s/he laughs"   "s/he makes fun of, mocks him/her"

Although this reduplicant type is a rarity in this data, it occurs as a regular pattern for heavy reduplication in Betsiamites Innu-aimun (Drapeau 2006: 4). The reduplicative prefix may represent the familiar /Ca(ː)/- template; the vowel is predetermined, while the [w] functions as an onset echoing the quality of the /u/ from the base. It is also plausible that this reduplicant is underlyingly an exact copy of the base initial /u/, which is realized as [waː-], comparable to the free alternation of *wa- and o- at word boundaries in Cree (Pentland 1979:108). As a point of observation, it is noteworthy that example (328) not only demonstrates an alternative reduplication strategy phonologically, but also in the meaning the speaker assigns to the reduplicated form. Whereas the other reduplications signify repetitive actions, <ushinueu>, "s/he laughs", reduplicates as <**ua**ushinueu>, "s/he makes fun of, mocks him/her", to express an emotional intensification rather than a repetition of the action.

The next set of examples point out a divergence from the usual recognition of the composition of the reduplicative base; reduplication treats the first-person prefix as initial base material for copying.

(329) nutshitâtshimâu [nuʤɪdæʤɪmɔw]   n**utsh**utshitâtshimâu [n**uʤ**uʤɪdæʤɪmɔw]
  "I'm dragging someone"   "I keep dragging someone"   [uʤ-]

(330)   **nâ**niuitâtshimâu [**næ**:niwɪdæ:ʤɪmɔw] [næ:-]
                              "I keep dragging someone"

As previously noted in Section *4.1*, person prefixes are not usually considered as part of the reduplicative base and are not copied under reduplication. Example (329) illustrates the usual application of reduplication to a base with a person prefix; the base, minus the person prefix, is recognized as the appropriate foundation for reduplication and the person prefix is not copied. However, in (330), <**nâ**niuitatshimau>, reduplication has identified the first-person form, <nutshitatshimau>, (<ni> + <utshitatshimau>), as the reduplicative base. The <Câ-> reduplicant is a copy of the consonant from the personal prefix plus a prespecified vowel.

Overall, the Sheshatshiu Innu-aimun reduplication data show a variety of monosyllabic reduplicant types with <u>-, <û>- initial bases : <ûC->$_{red}$ or <uC->$_{red}$, <uCC->$_{red}$, <ua->$_{red}$, and one which recognizes the first-person prefix as part of the reduplicative base; some of these occur rarely. This range of variation suggests that certain types may be non-productive and unavailable for widespread use in the reduplicative process.

4.3. *Bisyllabic Reduplication*

Bisyllabic reduplication seems to be a rarer phenomenon than monosyllabic reduplication in Algonquian languages. Nevertheless, a number of languages do utilize the bisyllabic pattern as a reduplication method. For instance, Dahlstrom identifies it as a distinct and extremely productive pattern in Fox (Dahlstrom 1997: 214). Western Naskapi also contrasts monosyllabic and bisyllabic reduplication types (Brittain 2003: 6). This strategy occurs in Illinois (Proulx 2005: 209) and also in Yurok repetitive reduplication as a bimoraic reduplicant realized as two light syllables (Garrett 2001: 271).

Bisyllabic reduplication appears much less commonly than does the monosyllabic type in Sheshatshiu Innu-aimun. As will be later discussed, there may be some optionality involved in expressing a reduplicative meaning by means of a bisyllabic or monosyllabic prefix; I also explore the possibility that some bisyllabic reduplicants are being phonetically realized, and therefore misidentified, as monosyllabic prefixes.

The patterns for bisyllabic reduplication are somewhat simpler than those for the monosyllabic type since they are much less variable. The representative data provided below are not divided according to base types as the examples yield only one basic pattern for marking bisyllabic reduplication.

(331) uîtamueu   [wiːtəmwew]   **uîta**uîtamueu [**wiːtə**wiːtəmwew]   [wiːtə-]
       "s/he says"   "s/he tells him/her over & over again"

(332) kussikuâshu   [gʊsəgwɑːʃuː]   **kussi**kussikuâshu [**gʊsə**gʊsəgwɑːhuː] [gʊsə-]
       "s/he is sewing"   "s/he sews many times"

(333) matuekâteu   [mɪtuweːgæːdɨw]   **mata**matauekâteu [**mɪttə**mɪttəwegæːdɨw]
"a fire is starting, crackling once"   "the fire is going well, crackling"   [mɪttə-]

(334) kuessishinu   [gwɛːsɪʃinuʔ]   **kuessi**kuessishinu [**gwɛːsə**gwɛːsəʃinuʔ]
"turn over once" (e.g. in bed)   "turning over & over, tossing & turning"
[gwɛːsə-]

(335) pishikuâpanîu [pəʃʊgwɑːbɪnyu]   **pishi**pishikuâpanîu [**bɪʃə**bɪʃəgwɑːbɪnyu]
"s/he blinks once"   "s/he blinks her/his own eyes repeatedly"
[bɪʃə-]

(336) mânâtueu   [mæːnæːdwew]   **mâna**mânâtueu   [**mæːnə**mæːnæːdwɨw]
"s/he is swearing"   "s/he keeps swearing"   [mæːnə-]

(337) pâshtaim^U   [baːʃteym]   **pâshta**pâshtaim^U [**bæːʃtə**bæːsteym]
"s/he cracks it"   "s/he keeps cracking it"   [bæːʃtə-]

(338) mîtâteu   [miːdæːdɨw]   **mîta**tmîtâteu   [**miːdə**miːdæːdew]
"s/he misses him/her'   "s/he keeps missing him/her"   [miːdə-]

(339) tepueu   [teːbwewʰ]   **tepu**tepueu   [**debə**deːbwew] [debə-]
"s/he is yelling"   "s/he is yelling over and over"

(340) mûssipiteu   [muːsɨbɨdɨw]   **mûssi**mûssipiteu   [**muːsɨ**muːsɨbɨdɨw]
"take something out to show to someone"   "showing off many things" [muːsɨ-]

(341) shîpanu (?)   [sɪbənuʔ]   **shî**pishîpanu   [**ʃiːbɨ**sɪbənuʔ]   [ʃiːbɨ-]
"s/he is stretching something (a fabric)

(342) kutueu   [kʊtuwew]   **kutu**kutueu   [**gʊtːʊ**gʊtːuwew]
"s/he builds, makes a fire"   "s/he adds logs to the fire"   [gʊtːʊ-]

(343) mâtamashtâu [mæːdəmæːʃtʌwʰ]   **mâti**mâtamashtâu   [**mæːdi**mæːdəmæːstaw]
"the pain is starting again"   "s/he has throbbing pains"   [mæːdi-]

(344) pâssitsheu   [paːsɨdʒew]   **pâssi**pâssitsheu   [**baːsɪ**baːsɪdʒɨw]
      "s/he shoots"   "s/he shoots repeatedly"   [baːsɪ-]

(345) âusseimᵁ   [yæwsɛym]   **âussi**âusseimᵁ [**awsi**awsɛym]   [awsi-]
                  [awsɛym]
     "s/he stirs once"   "s/he keeps stirring"

This example set shows that, for all base types, bisyllabic reduplication prefixes a reduplicant with the bisyllabic structure *(C)V(ː)C(C)V-* to a base form. The bisyllabic reduplicant most usually conforms to a heavy + light syllable pattern.

In contrast to monosyllabic reduplication, which may prespecify the reduplicant vowel, bisyllabic reduplication does not use predetermined vowels. Examples (331) to (345) show that the first syllable of the bisyllabic reduplicant is an exact copy of the initial syllable of the base. The second syllable is not necessarily completely identical to the second base syllable; although the consonant onset copies the second consonant of the base, the vowel may exhibit some variation. Generally, this vowel, unlike that of the first syllable, shows some simplification. Long vowels are shortened, as in example (336), **<mâna**mânâtueu> [**mæːnə**mæːnæːdwɨw]; this sort of simplification also takes place in Fox bisyllabic reduplication (Dahlstrom 1997:215). These bisyllabic prefixes can be identified as trochaic reduplicants, each consisting of a stressed syllable followed by an unstressed one. Recognizing the bisyllabic reduplicant as a trochee may have consequences for the analysis of the metrical structure of Innu-aimun.

In the Sheshatshiu data, most vowels in the second syllable of the reduplicant are realized as a variation of the short non-round /I/, usually [ə], as illustrated by (331) to

(339). This is a logical result for originally long non-round vowels /iː/ and /aː/;

simplification neutralizes the length feature distinguishing them from short non-round

vowels. Example (342), <**kutu**kutueu> [**gʊtːʊ**gʊtːuwew], suggests that if the second

vowel is labial, the original vowel quality may be preserved when copied into the

reduplicant. Consonant-glide sequences in the second syllable of the base are also subject

to simplification under reduplication; example (339), <**tepu**tepueu> [**debə**deːbwew],

demonstrates that the consonant onset from the second syllable is preserved, but the glide

is not copied into the reduplicant.

This data has only one unambiguous example, (345), <**âussi**âusseimᵁ>

[**awsi**awsɛym], of bisyllabic reduplication involving a vowel initial base. In this instance,

there is no evidence of the *h-* sandhi that appears at a phonological word boundary in Fox

bisyllabic reduplication (Dahlstrom 1997:215). Epenthesis is not used to break the hiatus

between vowels and provide an onset for the initial base vowel. This contrasts with

monosyllabic reduplication, which regularly inserts epenthetic [y] at the morpheme

boundary between a monosyllabic reduplicant and a vowel initial base.

4.4 *Revisiting Reduplication: The Reduplicants*

The previous sections concentrate on describing reduplication from the perspective

of the reduplicative bases. The application of reduplication to different base types results

in the derivation of various reduplicative templates employed in signalling reduplication.

This section revisits monosyllabic and bisyllabic reduplication by focussing on the

individual reduplicant types and summarizing the patterns relating to their use in the

reduplication process. A reexamination of one particular type, the <CVC-> reduplicant,

draws into question the monosyllabic analysis of this pattern, suggesting instead that

most <CVC-> reduplicants are actually bisyllabic.

4.4.1 Revisiting Monosyllabic Reduplication

Section *4.2* observes the effect of monosyllabic reduplication on varying types of

reduplicative bases. This examination shows that the phonological characteristics of the

base may affect the structure of the monosyllabic prefix chosen to signal reduplication;

furthermore, the reduplicants themselves vary in the degree to which they maintain

identity with the related bases. These reduplicants can be described according to the

patterns relating to their application and according to their own phonological

characteristics. The variety of reduplicant types observed in the last section may be

grouped into the basic monosyllabic reduplicative templates: CV(ː), (C)/aː/-, (C)/I/- ,and

(C)V(ː)C; the remainder of this section examines reduplication from the perspective of

these reduplicants.

4.4.1.1 CV(ː)- Reduplicant Pattern

The following representative data illustrate the method of applying reduplication by

prefixing a CV(ː) syllable which is a copy of initial base material to the reduplicative

base.

(346) kussikuâshu [gʊsəgwɑːʃuː] **ku**kussikuâtam\u1D41 [**gʊ**gʊsːɨgwaːdʌm] [gʊ-]
"s/he is sewing' "s/he sews it many times in different places"

(347) kuessipanu [kwɛsːɨpɨnuː] **kue**kuessipanu [**gweː**gwɛːsːɨpənu] [gweː-]
"it turns over by itself" "it keeps turning over"

(348) kâtipâu [gaːdɨbʌw] **kâ**kâtipâu [**gaː**gaːdɨbʌw] [gaː-]
"it has one ridge" "it is in steps, terraced"

(349) pekâtâushu (?)[peːgæːdawʃuː] **pe**pekâtâushu [**peː**peːgæːdawʃuː] [pe-]
"s/he sings a lullaby"

(350) nekâtshîu [neːgaːʤuː] **ne**nekâtshîu [**neː**nɛgaʤuː] [neː-]
"abusing animals, children" "s/he is suffering"

(351) pâkumu [baːgəmu] **pâ**pâkumu [**pæː**pæːgəmuː] [pæː-]
"s/he is vomiting" "s/he is vomiting repeatedly"

(352) pûtâtam\u1D41 [puːtæːtʊm] **pû**pûtâtam\u1D41 [**puː**puːtæːtʊm] [puː-]
"s/he blows on it" "s/he blows on it repeatedly"

(353) tîtipiniu [tiːtəpənyuː] **tî**tîtipiniu [**tiː**tiːtəpənyuː] [tiː-]
"roll once (in blanket)" "rolling in blanket"

(354) tipâtshimu [tiːpaːʤɪmuː] **ti**tipâtam\u1D41 [**dɨ**dɨbaːdʊm] [dɨ-]
"s/he tells a story" "s/he tells a story about it over and over"

(355) tshîtâpâtam\u1D41 [ʤiːdaːbadʊm] **tshî**tshîtâpâtam\u1D41 [**ʤi**ʤidæːbæːdʊm] [ʤi-]
"s/he looks at it, reads it" "s/he looks at it, reads it"

Examples (346) to (355) share a common method for realizing reduplication: the prefixation of a CV(:)- reduplicant to the base. This reduplicative prefix is a copy of the onset and initial vowel from the base; the reduplicated form displays identity between reduplicant and base. Despite allophonic variations found in surface phonetic forms, the

vowels involved in reduplication, in such examples as (347), <ku**e**ku**e**ssipanu>

[gweːgwɛːsɨpənu], and (350), <**ne**nekâtshîu> [neːnɛgadʒuː], are still recognized as

identical.

Recognizing base-reduplicant identity is not necessarily straightforward. On the one

hand, the reduplicated forms in (346) <**ku**kussikuâtamᵁ>, (347) <**kue**kuessipanu>,

(349) **pe**pekâtâushu, (350) <**ne**nekâtshîu>, (352) <**pû**pûtâtamᵁ>, (353) <**tî**tîtipinîu>, and

(355) <**tshî**tshîtâpâtamᵁ> clearly contain reduplicants which match base material exactly;

note, however, that these forms are all built from <C(G)u->, <Ce->, or <Cî->

reduplicative bases. On the other hand, although certain reduplications, such as (348)

<**kâ**kâtipâu> and (351) <**pâ**pâkumu>, apparently exhibit base-reduplicant identity, the

underlying origin of the reduplicant is ambiguous. Instead of being wholly copied from

the base, this prefix may be the common <Ca-> reduplicant, containing a prespecified

low vowel as well as a copy of the base onset.

For some reduplicated forms, recognizing unequivocal identity between base and

reduplicant may require establishing the exact nature of the base used for reduplication.

Example (354), repeated below in examples (356) and (357), illustrates the possibility

that the base for reduplication may sometimes be different from the non-reduplicated

base. IC forms are provided for both non-reduplicated and reduplicated forms to support

the phonetic evidence of vowel length.

	(non-IC form)		(IC form)	
(356)	tipâtshimu	[tiːpaːʤɪmuː]	t-**iâ**-pâtshimut	[t**iyæ**baːʤɪmʊtʰ]
	"s/he tells a story"		"(who) tells a story"	

| (357) | **ti**tipâtamᵁ | [**dɨ**dɨbaːdʊm] | t**e**-tipâtak | [d**eː**dəbaːdækʰ] |
| | "s/he tells a story over and over" | | "(who) tells a story over and over" | |

As shown in (356), the initial vowel of the unreduplicated base is phonetically

realized as a long vowel. IC patterning, as seen in the IC form, <**ti**â̂pâtshimut>

[t**iyæ**baːʤɪmʊtʰ], which shows a change appropriate to a long vowel /aː/, further supports

the recognition of this vowel as long. However, as seen in (357), when the base form

<tipâtshimu> undergoes reduplication, the result is <**ti**tipâtam> [**dɨ**dɨbaːdʊm], a

reduplicated form whose base and reduplicant clearly have identical short vowels. Again,

IC patterning supports the phonetic realization, since the IC form, <t**e**tipâtak>

[d**eː**dəbaːdækʰ], shows a change befitting a short vowel, as as appropriate for the

reduplication, <**ti**tipâtamᵁ>. While the reduplicated form has identical vowels in

reduplicant and base, neither of these vowels matches the long vowel underlying the

changed form. The differences suggest that, in this instance, reduplication and IC may be

operating on different bases, one which has been ablauted from the original base. This

variation may reflect Drapeau's (2006:4) insight into ablauted root alternation as an

explanation for certain deviations within reduplication; the base root has a reduplicative

alternant which acts as a base for the process of reduplication.

The CV(ː)- reduplicant is widespread throughout the Algonquian language family.

Betsiamites Innu-aimun uses this reduplicative approach irregularly in heavy

monosyllabic reuplication (Drapeau 2006: 4). Brittain (2003: 7-8) notes that Western

Naskapi reduplication does not use predetermined vowels; the reduplicative prefix copies

the onset and vowel of the base. Yurok employs a CVː- syllable as one of the types of

bimoraic reduplicants used to signal repetitive reduplication (Garrett 2001: 271).

Nishnaabemwin nouns referring to various fauna show evidence of the same

reduplication pattern (Valentine 2001: 508-509). In Plains Cree, reduplication with

certain stems prefixes a CVː- reduplicant (Ahenakew and Wolfart 1983: 373). The

reduplicated forms related to Arapaho bases with *e* or *o* have reduplicant vowels which

are copies of base vowels, conforming to a basic CVː- reduplicative prefix (Conathan

2005: 98). This template is also found in Fox monosyllabic reduplication with *Ce(ː)-*

bases; other than this usage, its occurrence is irregular (Dahlstrom 1997: 211; 214).

Ojibwe distributive reduplication shares this particular use of the CVː- pattern for stems

beginning with *Ce-* (Nichols 1980: 256).

In Sheshatshiu Innu-aimun, despite its applicability to a range of bases, the CV(ː)-

reduplicant pattern appears to be most productive with <Ce-> base types, a reduplication

method comparable to Fox and Ojibwe. The Sheshatshiu data contains a few examples of

reduplicated forms employing this template for bases beginning with <Ciː> or <Cuː>, but

alternate reduplicative strategies seem to be preferred with these bases.

4.4.1.2 Heavy <(C)â-> Reduplicant Type

The heavy monosyllabic reduplicative prefix, (C)aː-, occurs ubiquitously

throughout Algonquian reduplication. Bloomfield (1946: 122) recognizes it as the pattern

for the regular type of reduplication; Hockett identifies this reduplicant as "the

commonest pattern, undoubtedly of PA [Proto-Algonquian] age" (Hockett 1981: 68).

Pentland considers the prefixation of Caː- to a root CV- as the most common

reduplicative rule that Cree has taken from Proto-Algonquian (Pentland 1979: 99). This

approach dominates the reduplication process in Fox (Mesquakie) monosyllabic

reduplication (Dahlstrom 1997: 211), in Ojibwa distributive reduplication with long

vowel stems (Blain 1992: 27), in Menominee (Hockett 1981: 68), in East Cree

reduplication of numerals (Junker and Blacksmith 1994: 265), and in productive

reduplication in Plains Cree (Wolfart 1973: 66).

The (C)aː- template also occurs as a major reduplication strategy in Sheshatshiu

Innu-aimun. The data below illustrate the creation of a reduplicated form in this dialect

by prefixing a (C)aː- syllable to a base.

(358) pâpû   [paːbuːʰ]   **pâ**pâpu   [**paː**paːbu]   [paː-]
       "s/he is laughing"   "s/he keeps laughing"

(359) mâkuâtamᵁ   [mæːgwæːdʊm]   **mâ**mâkuâtamᵁ [**mæː**mæːgwæːdʊm]   [mæː]
       "s/he bites it"   "s/he chews it"

(360) nâshikupanu [næːʃigʊbɨnuː]   **nâ**nâshikupanu [**næː**næːʃʊkʊpɨnu] [næː-]
       "it comes slowly down (e.g. elevator)" "it keeps falling, dropping down"

147

(361) pâtshiku [paːʤɪguː] **pâ**pâtshiku [**pa**paːʤɪguː] [pa-]
"it drips once" "it drips, trickles a lot"

(362) peikᵁ [peykʷ] **pâ**peikᵁ [**pæː**beykʷ] [pæː-]
"one" "one each"

(363) pîkupanu [piːgʊbɨnuː] **pâ**pîkupanu [**baː**biːgʊbɨnuː] [paː-]
"it breaks down" "it's breaking down in different parts"

(364) nîpâteu (?) [niːbæːdew] **nâ**nîpâteu [**næː**niːbæːdew] [næː-]
"s/he walks around at night"

(365) uîneu [wiːnɛw] **uâ**uîneu [**waː**wiːnɛw] [waː-]
"s/he names someone" "s/he talks about him/her"

(366) nishtᵁ [nɪʃtʰ] **nâ**nishtᵁ [**naː**nɪstʰ] [naː-]
"three" "three each"

(367) mûssineu [muːsɪnew] **mâ**mûssineu [**maː**muːsənew] [maː-]
"showing off something" "gathering things together"

(368) tipânamᵁ [tɨbæːnəm] **tâ**tipânamᵁ [**tæː**tɨbæːnəm] [tæː-]
"separate one or two things" "s/he separates, sorts it"

(369) âshikuâteu [aːʃigwɑːdɨw] **âi**âshikuâteu [**æːyæː**ʃigwɑːdɨw] [æːy-]
"s/he scolds him/her" "s/he is scolding him/her; complaining and complaining"

(370) âtshipanu [aːʤɨbɨnuː] **âi**âtshipanu [**yæːyæː**ʤɨbɨnu] [yæːy-]
"s/he/it moves" "shake, move repeatedly (e.g. trees moving back and forth)"

This example set shows that <(C)â-> is a common reduplicative prefix with a broad range of applicability. It is found in reduplication with most base contexts although there are no examples showing <(C)â-> as a reduplicant with a <*Cu-*> type base. The only

clear evidence of <â-> as a reduplicant is with <â-> initial bases, as in (369) and (370);

<î-> and <û/u- > bases tend to use other reduplicative patterns, as already discussed in

Section *4.2*.

Examples (358) to (368) show the prefixation of a heavy monosyllable, <Câ->, to a

consonant-initial reduplicative base. In each of these cases, reduplication copies the base

onset and completes the syllable with a predetermined low vowel <-â->. The length of the

reduplicant vowel usually mirrors the quantity, though not necessarily the quality, of the

base vowel. There are instances, however, such as in (368), <tâtipânamᵁ>, where the

heavy reduplicant contrasts with the light initial syllable of the base. In (369) and (370),

bases beginning with <â> use <â-> as a reduplicative prefix and epenthetic [y] as a

transitional element between the reduplicant and vowel-initial base.

The status of /aː-/ as either a prespecified vowel or as a copy of the base vowel

may be unclear due to the nature of the base vowel. The <Câ-> reduplicant's coupling

with <Câ-> bases, as observed in (360), <n**ân**âshikupanu> [næːnæːʃʊkʊpɨnu], could be

analyzed as an example of a CVː- reduplicative prefix which is an exact copy of initial

base material. Nevertheless, the occurrence of the <Câ-> reduplicant with bases such as

<C î->, <Ce->, or <Cû/u- > , whose vowels definitely contrast with /aː/, substantiate a role

for /aː-/ as a predetermined vowel commonly used in reduplication.

Reduplication of numbers, as in (365), <nânishtᵁ>, always uses the <Câ->

approach. This parallels East Cree numeral reduplication, which prefixes <Câ-> no

matter what vowel the base contains (Junker and Blacksmith 1994). However, while East

Cree freely reduplicates numerals, it is interesting to note that Sheshatshiu Innu-aimun

seems to limit this sort of reduplication. The contributors to this data restrict numeral

reduplication to numbers up to <neu>, "four"; a reduplicated form for <patetât>, "five"

was given only reluctantly by the younger speaker, while reduplications of higher

numerals were considered unacceptable. Reduplication is again possible for *100, 200,*

300, 400, numbers which contain <peikᵁ> , "one", <nîshᵁ>, "two", <nishtᵁ>, "three", and

<neu>, "four".

4.4.1.3 Light <(C)a/i-> Reduplicant

This category includes those reduplicants containing short vowels noted

orthographically as <a,i> and which may be identified as /I/, the phoneme representing

the merger of /a/ and /i/. The next set of examples illustrates the range of application of

this reduplicative prefix.

(371) petamᵁ [peːdʊm] **pa**petamᵁ [**pə**pːeːdʊm] [pə-]
"s/he hears it" "s/he hears something over and over (e.g. ringing in ears)"

(372) pakâu (?) [bəgaw] (?) **pa**pakâu [**b**əbəgaw] [bə-]
"it's flat"

(373) pimishinu [pmɪʃɪnuː] **pa**pâmishinu [**pə**paːmɪʃɨnuʔ] [pə]
"s/he is lying down" "moving here and there in bed"

(374) pishtishu [bɪstɨʃuː] **pa**pishtishu [**b**əbɪstɨʃuː] [bə-]
"s/he cuts accidentally" "s/he cuts here and there"

(375) mûpu   [muːpu]   **ma**mûpu   [**mə**muːbuʔ]   [mə-]
     "s/he visits"   "s/he keeps visiting"

(376) nashkumeu   [nəʃkʊmɛw]   **na**nashkumeu   [**nə**nɪʃkʊmew] [nə-]
     "s/he thanks him/her"   "s/he thanks one after another"

(377) mâushu   [mɑwʃuː]   **ma**mâushu   [**mə**mawʃu]   [mə-]
     "s/he is picking berries"   "s/he picks berries from different patches"

(378) mâushu   [mɑwʃuː]   **ma**mâushu   [**ma**mawʃu]   [ma-]
     "s/he is picking berries"   "s/he picks berries from different patches"

(379) mashinaimueu [mɪʃɪneɪmwew]   **ma**mashinaimueu [**ma**mɪʃɪneɪmwew] [ma-]
     "s/he writes; owes money"   "s/he writes to, owes money to everyone"

(380) pîminam^U   [biːmɨnʊm]   **pa**pîminam^U   [**pa**biːmɨnʊm] [pa-]
     "turns something, doorknob, taps" "turns something over and over"

(381) mûpishtueu [muːpɨʃːtwew]   **ma**mûpishtueu   [**ma**muːpɪʃtuwew] [ma-]
     "s/he visits him/her"   "s/he visits many people, going from one
                                        place to another"

(382) tipâtshimu [tiːpaːʤɪmuː]   **ti**tipâtam^U   [**dɨ**dɨbaːdʊm]   [dɨ-]
     "s/he tells a story"   "s/he tells a story over and over again"

(383)   ni**ti**tipâten   [ntətəbaːdɪn]   [tə-]
                                       "I'm telling a story over and over"

(384) nikamuteu(?) [nɪkəmʊdew](?)   **ni**nikamuteu   [**nɨ**nɪkəmʊdew] [nɨ-]
                                       "s/he's walking along singing"

The data in examples (371) to (384) indicate that <(C)a/i-> type reduplicants occur

with most base types, including those whose initial syllables contain long vowels. This

prefix copies the onset, if there is one, from the base and completes the light syllable with

151

a short unrounded vowel. This vowel is often realized as [ə], as in (371) to (377) and

(383), and less frequently as [ɨ], exemplified in (382) and (384). The reduplications in

(377), (378), and (382), (383) draw attention to phonetic variation with the same forms.

Example (371), <petamᵁ> [peːdʊm], reduplicated as <**pa**petamᵁ> [**pə**pːeːdʊm], points out

that the short vowel in the reduplicant does not always match the length of the initial

vowel in the base.

As discussed for the <(C)â-> type, the <(C)a/i-> reduplicant may be a copy of the

initial base elements or may involve prespecification. Despite the difficulty in assessing

vowel prespecification for reduplication with such base types, there is some clear

evidence supporting <(C)a/i-> as a reduplicative prefix with a prespecified vowel. In

(380), the base, *pîminam ᵁ* [biːmɨnʊm], contains a long initial vowel /iː/; reduplication

prefixes a <Ca-> reduplicant, containing a vowel which does not match the first vowel of

the base. Examples (381), <**ma**mûpishtueu> [**ma**muːpɪʃtuwew], and (375), <**ma**mûpu>

[**mə**muːbuʔ], combine a <Ca-> reduplicant with <Cû-> bases. This method is also

employed in (371), <**pa**petamᵁ> [**pə**pːeːdʊm], with a <Ce-> base. Each of these examples

has a reduplicant vowel which clearly contrasts the base vowel in both quality and

quantity. This suggests that, at least for these cases, the vowel in the reduplicant is

predetermined.

The existence of a predetermined light reduplicative syllable is not without

precedent within the Algonquian language family. Dahlstrom identifies a light *Ca-*

reduplicant as an irregular form of monosyllabic reduplication in Fox (Dahlstrom 1997:

214). East Cree has a single type of verb reduplication, a light prefix *Ca-* syllable,

containing an onset copied from the base and a prespecified short vowel

(Junker and Blacksmith 1994: 269). Plains Cree has both a heavy reduplication pattern,

which prefixes *Caː-*, and a light type, which uses the *Ca-* pattern (Ahenakew and Wolfart

1983: 371). Like Plains Cree, Betsiamites Innu-aimun uses both a heavy and a light

reduplication pattern productively; the light reduplicant contains a prespecified vowel,

<a> (Drapeau 2006: 4). In Plains Cree and in Betsiamites Innu-aimun, the choice of a

heavy or light reduplication pattern provides semantic contrast. There is no evidence in

this data to adequately define such a contrast for Sheshatshiu Innu-aimun since the data

collection process did not concentrate on the semantics of reduplication. The only

indication of reduplicant types being tied to particular semantics is the contrast observed

between the meanings of monosyllabic and bisyllabic reduplications.

4.4.1.4 <(C)VC-> Reduplicants

The data contains a number of reduplicated forms prefixed by a closed

monosyllable functioning as a reduplicant. This pattern has also been described for

Menominee (Hockett 1981: 680), for Betsiamites Innu-aimun, where a closed initial base

syllable is copied with the coda (Drapeau 2006:4) and for Fox, with a specific limitation

to *kVʃ-* initial verbs, (Dahlstrom 1997: 214). The following group of representative

examples demonstrates the manifestation of the <(C)VC-> reduplication pattern in

Sheshatshiu Innu-aimun. Later, an examination of other data relevant to these forms will call into question the exact structure of this reduplicative prefix.

(385) kashkatashteu [gəʃgədɪstɛw] **kash**kashkâtashteu [**gəʃ**gəsgadəstɨw] [gəʃ-]
"it is drawn in squares" "it is placed, drawn in squares"

(386) shepanu [ʃebənu] **shep**ishepanu [**ʃeb**ʃebənuː] [ʃeb-]
"it opens by itself" "it keeps opening by itself"

(387) kâssipiteu [gæːsɨbɨtɛw] **kâsh**kâssipiteu [**gæːʃ**gæːsɨbɨtɛw] [gæːʃ-]
"s/he scratches him/her/it once" "s/he scratches him/her/it repeatedly"

(388) tshînikuânitshimeu [ʤiːnʊgwɑːnɨʤimɨw] **tshîni**tshînikuânitshimeu
"s/he went round once" [**ʤiːn**ʤiːnʊgwɑːnʤimɨw] [ʤiːn-]
"s/he went round & round (on a boat)"

(389) uâshtepanu [wastɛbɨnuː] **uâs**htuâshtepanu [**wast**wastɛbɨnuː] [wast-]
"it flashes once" "there is repeated lightning"

(390) ûpitamᵁ [uːbɪdʊm] **ûp**ûpitamᵁ [**uːb**uːbədʊm] [uːb-]
"s/he lifts it" "s/he lifts the same thing again and again"

(391) itâshkuaimᵁ [idæːʃgweym] **it**itâshkuaimᵁ [**iːd**iːdæːʃgweym] [iːd-]
"s/he pushes it with a stick (once)" "s/he's pushing it with a stick"

(392) ûnipanu [uːnəpənu] **ûn**ûnipanu [**uːn**uːnəpənu] [uːn-]
"s/he wakes up at night (once)" "s/he keeps waking up"

(393) ishpanu [iːʃpənu] **ishp**ishpanu [**iːʃp**iːʃpənu] [iːʃp-]
"it keeps going" "it keeps going here and there"

   The reduplicated forms in examples (385) to (393) signal reduplication by means of prefixes which are phonetically realized as closed monosyllables. These *(C)VC-* reduplicants are exact copies of initial material from the base. The reduplication in (384),

<**kash**kashkâtashteu>, [**ɡəʃ**ɡəsɡadəstɨw] provides an example of a *(C)VC-* reduplicant as a copy of the closed initial base syllable. This parallels an irregular reduplication in Fox (Mesquakie) where verbs with *kVʃ-* as an initial closed syllable copy this complete syllable as a reduplicant (Dahlstrom 1997: 214). However, in Sheshatshiu Innu-aimun, not all *(C)VC-* reduplicants seem to derive from the operation of reduplication on a syllabic level; in many of the examples, the reduplicative prefix is a copy of the whole initial base syllable, and the onset of the second. For consonant initial, *CV*-type bases, exemplified in (386) to (388), the onset of the *(C)VC-* reduplicant matches the base onset, the reduplicant vowel matches the initial base vowel, and the coda of the reduplicant replicates the next base consonant. In example (389), <**uâs**htuâshtepanu>, [**wast**wastɛbɨnuː], the reduplicant, [wast-], is composed of a copy of the initial syllable, including its coda, as well as the onset of the second syllable. For vowel-initial bases, such as those in (390) to (393), the reduplicant vowel is a copy of the initial base vowel and the consonant matches the first consonant in the base, that is, the onset of the second syllable. The reduplicative prefix, [iːʃp], in (393), <**ishp**ishpanu>, [**iːʃp**iːʃpənu], is structured as *VCC-*; the initial base syllable is copied and supplemented with the onset from the second syllable.

While reduplicated forms such as (385), <**kash**kashkâtashteu>, [**ɡəʃ**ɡəsɡadəstɨw], seem to illustrate a true *(C)VC-* reduplication pattern, at least some of the apparent *(C)VC-* reduplicants may be only surface realizations of what are actually bisyllabic reduplications. Certain examples from the data suggest this possibility.

(394)   shepishepanu   [ʃebʃebənuː]
                                              [ʃeːbəʃeːbənuː]

        "it keeps opening by itself"

(395)   tshînitshînikuânitshimet   [tʃiːnətʃiːnəgʷɑːnəsːɨmɛtʰ]
        tshînitshînikuânitshimeu   [ʤiːnʤiːnʊgwɑːnʤɨmɨw]
        "s/he is going around on a boat"

Each of these sets of examples provides both a monosyllabic *(C)VC-* type reduplication and a bisyllabic *CVCV-* reduplication for the same base. The speaker provided both variants in response to the same elicitation; regardless of reduplicant type, each pair expresses a single reduplicative meaning.

These examples could suggest optionality in the choice of reduplicant. This would not necessarily affect meaning since, as previously discussed, the current semantic distinction between monosyllabic and bisyllabic reduplicated forms seems to be blurring. Yet, it is also quite possible that these options only reflect variations in the pronunciation of what are actually bisyllabic reduplications. The second vowels of the bisyllabic reduplicants above are rendered phonetically as the vowel [ə]. In rapid speech this short vowel may be subject to deletion, leaving what is phonetically realized as an apparent *CVC-* reduplication. The *VC-* reduplicants with vowel initial bases may also actually represent reduplication with *VC(C)V-* bisyllabic reduplicants. For instance, the reduplicated form in (393), **ishp**ishpanu [iːʃpiːʃpənu], may be composed of [iːʃpə] as a reduplicant prefixed to [iːʃpənu]. Example (396) lays out the process.

(396)   Non-reduplicated form   <ishpanu>   [iːʃpənu]

        Bisyllabic Reduplication   <ishpa-> + <**ishpanu**>   [iːʃpə] + [**iːʃpənu**]
        (prefix *VC(C)V*- copy)

        Vowel Deletion   <ishp-> + <**ishpanu**>   [iːʃp] + [**iːʃpənu**]

        Reduplicated Form   <**ishp**ishpanu>   [**iːʃp**iːʃpənu]

In (396), the prefixation of a bisyllabic reduplicant creates vowel hiatus at the boundary between reduplicant and base. The contiguity of the reduplicant vowel and the initial base vowel results in the preservation of only the second vowel; on the surface, the reduplicant appears to be monosyllabic.

4.4.2.   Revisiting Bisyllabic Reduplication

Bisyllabic reduplication involves only one basic template, *(C)VC(C)V-*, which can apply to any base type. As previously described, the first syllable copies the initial base syllable and is never simplified; the second syllable has a consonant copied from the base and a vowel which is usually realized as /I/ [ə]. The closer examination of *(C)VC-* monosyllabic reduplication in Section *4.4.1.4* has further implications for variations in the phonetic shape of the bisyllabic reduplicant. Yet, despite the possibility of such variation, underlyingly, these reduplicants are composed of two syllables. This is evident when certain stems are considered. If the verb stem does not contain sufficient material for two full syllables, bisyllabic reduplication supplements the reduplicant with a vocalic element to fill the bisyllabic template. The following examples outline the variations

157

realized for the bisyllabic reduplicative prefix but also reiterate the constancy of the

(C)VC(C)V- reduplicant shape.

(397) mûtshitshipanîu [muːʤɪʤɪbənyuʔ] **mûtshi**mûtshitshipanîu
      "bends over" [**muːʤə**muːʤəʤɪbənyuʔ] [muːʤə-]
      "keeps bending over"

(398) mîtâteu [miːdæːdɨw] **mîta**mîtâteu [**miːdə**miːdæːdew] [miːdə-]
      "s/he misses him/her" "s/he keeps missing him/her"

(399) pîtuâu [piːtuwɔw] **pîta**pîtuâu [**piːdə**piːdwɔw] [piːdə-]
      "s/he smokes" "s/he is smoking over and over"

(400) minu [mɪnuː] **mini**minu [**mɪnə**mɪnuː] [mɪnə-]
      "s/he drinks" "she drinks a couple of sips now and then"

(401) petamᵁ [peːdʊm] **peta**petamᵁ [**beːdə**beːdəm] [beːdə-]
      "s/he hears him/her" "hears it over and over"

(402) pâssitsheu [paːsɨʤew] **pâssi**pâssitsheu [**baːsɪ**baːsɪʤɨw] [baːsɪ-]
      "s/he shoots" "s/he shoots repeatedly"

(403) kuessishinu [gwɛːsɪʃinuʔ] ni**kuessi**kuessishin [nə**gwɛːsə**gwɛsɨʃn̩]
      "turn over once (e.g. in bed)" "I am tossing and turning" [gwɛːsə-]

(404) kutueu [kʊtuwew] **kutu**kutueu [**gʊtːʊ**gʊtːuwew] [gʊtːʊ-]
      "s/he builds, makes a fire" "s/he adds logs to the fire"

(405) shepanu [ʃebənu] **shepi**shepanu [**ʃeb**ʃebənuː] [ʃeb-]
      "it opens by itself" "it keeps opening by itself"

(406) **shepi**shepanu [**ʃeːbə**ʃeːbənuː] [ʃeːbə-]
      "it keeps opening by itself"

(407) uâshtepanu   [wastɛbɨnuː]   **uâs**htuâshtepanu   [**wast**wastɛbɨnuː] [wast-]
       "it flashes once"   "there is repeated lightning"

(408)   [**waʃtu**wastebɨnuː] [waʃtu-]

(409) tshikatshinâssimau   [ʤɪgətnæːsimɔw]   **tshika**tshikatshinâssimau
       "s/he lies to her/him(once)"   [**ʤɪgəd**ʤɪgədnæːsimɔw]   [ʤɪgəd-]
                                                        "s/he lies to her/him over and over"

Examples (397) to (409) show the operation of reduplication creating a reduplicant composed of two syllables which, apart from a simplification of the vowel in the second syllable, are identical to the initial base material.

This simplification, typical of long unrounded vowels involved in this process, is discussed in Section *4.3*. From the above data set, one type of simplification, also characteristic of Fox bisyllabic reduplication (Dahlstrom 1997: 215), is long vowel shortening. In (398), <**mîta**mîtâteu> [**miːd**əmiːdæːdew], reduplication copies the initial two base syllables; the first is unchanged but the second syllable shortens its copy of the original long vowel [æː] to a short vowel heard as [ə]. Rounded vowels may retain their quality in the second syllable of the reduplicant. For instance, in (404), <**kutu**kutueu> [**gʊtːʊ**gʊtːuwew], the second reduplicant vowel, realized as a lax variant of /u/, still reflects the rounded character of the original.

In Fox, simplification in the context of bisyllabic reduplication also requires coda deletion (Dahlstrom 1997: 218). Example (409), <**tshika**tshikatshinâssimau>

[ʤɪgədʤɪgədnæːsimɔw]²⁵, suggests that Sheshatshiu Innu-aimun does not employ this

type of simplification. The reduplicant contains more material than is strictly necessary to

complete the bisyllabic foot. In this case, the second reduplicant syllable has copied the

complete syllable from the base, including the coda. This necessitates a slight addendum

to the usual *(C)VC(C)V-* reduplicant template; in this case, the reduplicative prefix would

have the shape *CVCVC-*. ²⁶

    If the verb stem is less than two syllables and, therefore, inadequate as a base for

bisyllabic reduplication, the second syllable can be supplemented with /I/ to complete the

reduplicant. In example (401), <**peta**petamᵘ⟩> [**beːdə**bːeːdəm], the stem, <pet->, falls

short of two complete syllables. Reduplication copies the initial syllable and the next

consonant as an onset for the second syllable; the template for bisyllabic reduplication is

completed with the short vowel [ə]. The origin of this vocalic supplement is unclear; the

derivations in (410) and (411) illustrate possible explanations for the source of this

vowel.

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²⁵ [dn] is a regular pronunciation of <tshin> after the process of vowel deletion (Clarke and MacKenzie 2004: 8).

²⁶ There is an alternative analysis of (409) [ʤɪgəd-ʤɪgədnæːsimɔw]. Rather than [d] being a coda to the second syllable of the reduplicant, [dʤ] may instead be considered as a long [ʤ]. The word is now analysed as [ʤɪgə-dʤɪgədnæːsimɔw], with the reduplicant conforming to the usual bisyllabic pattern.

(410)   Verb Stem   <pet->   [peːd-]

        Add Inflectional Suffix <-amᵁ>   [bːeːdəm]

        Bisyllabic Reduplication:
          Copy initial bisyllable from base   <**peta**petamᵁ>   [**beːdə**bːeːdəm]

 (411) Verb Stem   <pet->   [peːd-]

        Bisyllabic Reduplication:
          Supplement bisyllable with [ə]   [**beː də**-bːeːd-]

        Add Inflectional Suffix <-amᵁ>   <**peta**petamᵁ>   [**beːdə**bːeːdəm]

The derivation of the bisyllabic reduplication <**peta**petamᵁ> in (410) shows that

the reduplicant may be a copy of material from the inflectional suffix, <-amᵁ> , as

Dahlstrom asserts for Fox (Dahlstrom 1997: 208). If this is so, reduplication must apply

after the addition of inflectional suffixes. Based on the evidence from Fox, Brittain

concludes that "reduplication in Algonquian is thus not sensitive to morphological

structure" (Brittain 2003:12).

   On the other hand, this vowel may be an epenthetic vocalic element functioning as

phonological filler material or even be a simplified form of the common connective

element, <i>. The process outlined in (411) does not require inflectional material to fill

out a bisyllabic reduplicant. Unfortunately, there are too few examples of bisyllabic

reduplicants with monosyllabic stems to justify any definitive conclusion as to the source

of this supplementary vowel.

The examination of *(C)VC-* reduplicants in Section *4.4.1.4* promotes the idea that at least some of these apparently monosyllabic reduplicative prefixes might actually be bisyllabic reduplicants which have undergone a process of vowel deletion. The identification of *(C)VC-* reduplicants as underlyingly bisyllabic fits Drapeau's description of a disyllabic reduplicant as containing a copy of the first syllable and the onset of the second (Drapeau 2006:4). In the data above, examples (405) to (408) have phonetic realizations exhibiting both variations for the same base. The bisyllabic reduplicant variant in (407), <**uâs**htuâshtepanu> [**waʃtu**wastebɨnuː], clearly exhibits the reduplication of two syllables. The initial syllable of the reduplicative prefix is an exact copy of the initial base syllable, including the coda; the second syllable copies the onset from the next syllable of the base, while the short vowel completing the bisyllabic foot harmonizes with the labial onset. The *(C)VC-* variation, [**wast**wastɛbɨnuː], also copies the onset of the second syllable but appears to have deleted the second short vowel which completes the underlying bisyllabic foot of the reduplicant.

The reanalysis of the *(C)VC-* pattern, coupled with the evidence of supplemented bisyllabic reduplications, raises the possibility of an alternative description for bisyllabic reduplication which, by not invoking vowel simplification, provides a simpler, more encompassing description of bisyllabic reduplication. In essence, the appearance of [ə] as the syllabic element of the second syllable of the bisyllabic reduplicant may represent a prespecified neutral vocalic element necessary to complete the bisyllable, rather than a

simplified copy of base material; the occurrence of labial vowels such as [ʊ] or [u] in this

position is simply attributable to harmony with adjacent vowels. If this is accurate, the

inadequacy of sufficient base material to fill out a bisyllabic template in words such as

<petamᵁ> is irrelevant, since the bisyllabic reduplicant is the same as that for other,

more well-endowed words: the bisyllabic reduplicant is *(C)VCI-* .

4.5   *Optionality*

The examination of reduplication demonstrates that various reduplicant types, both

monosyllabic and bisyllabic, can be prefixed to a base to signify reduplication. While it

must be reiterated that semantics is beyond the purview of this work, there are certain

examples from the data which, nevertheless, do raise the issue of optionality; that is, the

same reduplicative meaning may be created by affixing different reduplicative

morphemes to a single base. Keeping in mind the limitations of this data, the following

set of examples is still worth considering for the possibility of such optionality within the

reduplication system of Sheshatshiu Innu-aimun.

(412)   petamᵁ   [peːdʊm]   **pa**petamᵁ   [**bə**bːeːdəm]   [bə-]
                                        "s/he hears it over and over"

(413)   **peta**petamᵁ   [**beːd**əbːeːdəm]   [beːdə-]
                                        "s/he hears it over and over"

(414)   shepanu   [ʃebənu]   **she**shepanu   [ʃeʃebənuː]   [ʃe-]
        "it opens by itself"   "it keeps opening by itself"

(415) shepanu **shepi**shepanua [ʃebəʃebɪnuaʰ] [ʃebə-]
"they keep opening by themselves"

(416) pâshtaimᵁ [baːʃteym] **pa**pâshtaimᵁ [**bə**bæːsteym] [bə-]
"s/he cracks it" "s/he cracks it here and there"

(417) **ni**pâshta**p**âshtain [nə**bæːʃtə**bæːsteyn] [bæːʃtə-]
"I crack it here and there"

(418) pûtâtamᵁ [puːtæːtʊm] **pû**pûtâtamᵁ [**puː**puːtæːtʊm] [puː]
"s/he blows on it" "s/he blows on it repeatedly"

(419) **ni**pûta pûtatin [nə**puːdə**puːdæːdɪn] [puːdə-]
"I am blowing repeatedly"

(420) **ni**pû pûtatin [nə**puː**puːdæːdɪn] [puː-]
"I am blowing repeatedly"

(421) pûtâtamᵁ [puːtæːtʊm] **pa**pûtâtamᵁ [**pə**puːtæːtʊm] [pə-]
"s/he blows on it repeatedly"

(422) kuessipanu [kwɛsːɪpɪnuː] **ku**kuessipanu [**guː**gweːsəbənuː] [guː-]
"things turning over "it keeps turning over"
by themselves"

(423) **kue**kuessipanu [**gweː**gwɛːsːɪpənu] [gweː-]
"it keeps turning over"

(424) **ni**kuess kuessipatin [nə**gwɛːs**gwɛːsɨbɨdɪn] [gwɛːs-]
"I keep turning over"

(425) tshîtâpâtamᵁ [ʤiːdaːbadʊm] **tshî**tshîtâpâtamᵁ [**ʤi**ʤidæːbæːdʊm] [ʤi-]
"s/he looks at it, reads it" "s/he keeps looking at it"

(426) **kaka**tshitâpâtamᵁ [**kəkə**ʤidæːbæːdʊm][kə(kə)-]
"s/he reads one thing after another"

Examples (412) to (426) suggest that speakers have access to options in choosing a prefix to signify reduplicative semantics. The data present evidence for various types of options: optionality between monosyllabic and bisyllabic reduplicants (412 to 420) ; the choice of a *CV(ː)-* exact copy reduplicant (418 and 420), or a *Ca-* prefix with a predetermined vowel (418); and optionality involving specific phonological categories such as *kw-* initial bases and *tshi*-bases (422 to 426).

Certain examples in this data imply that there is some optionality in choosing either a monosyllabic or bisyllabic prefix to signal reduplication; this may be possible due to the blurring of semantic distinctions between these reduplicant types. Reduplicated forms such as examples (412), <**pa**petam^{u}>, (413), <**peta**petam^{u}> and (414), <**she**shepanu>, (415), <**shepi**shepanua>, illustrate the speaker's optional use of either type of reduplicant to create the same reduplicative meaning. In a number of instances, the speaker uses a monosyllabic reduplicant to express reduplication with a verb in the third-person but prefers a bisyllabic prefix for first-person. The reduplicated third-person form in (416), <**pa**pâshtaim^{u}>, compared to the first-person in (417), <ni**pâshta**pâshtain>, exemplifies this usage. For certain examples, the speaker not only prefers a bisyllabic reduplicant with a first-person verb, as in <ni**pâshta**pâshtain>, but judges a monosyllabic reduplicant, as in <*ni**pa**pâshtain>, completely unacceptable. Yet, with the same base, the monosyllabic prefix, as affixed in <**pa**pâshtaim^{u}>, is the preferred option for third-person verb forms. Such data hint at a particular division of duties for monosyllabic and bisyllabic prefixes based on person, rather than on reduplicative semantics. However, this

pattern is not consistent throughout the data but occurs only with a limited number of

bases. Its use may be indicative of a reduplication system in transition, as monosyllabic/

bisyllabic distinctions are becoming less productive although, at this point, they are still

existent within the language.

Evidence from certain reduplications suggests that the speaker also has options in

selecting which monosyllabic pattern will be used as a reduplicative prefix. Example

(420), <**pû**pûtâtam^{U}>, presents a *CV(:)*- type reduplication in which the reduplicant

matches the base exactly; (421), <**pa**pûtâtam^{U}>, exhibits the *Ca-* reduplication pattern,

an option with a predetermined vowel rather than one copied from base material. The

speaker uses both options to express the same meaning of repeated action.

In addition to this sort of direct evidence of optionality, there are also more subtle

proofs attesting to this possibility. A number of forms combining reduplication and IC

exhibit anomalies that are explainable by recognizing optionality in reduplication. Note

the data below:

(427)   nâshueu   [næːʃwew]   "s/he follows him/her"

(428)   **ne**-nâshakut   [neːnaːhagʊtʰ]   "(who) keeps following him/her"

(429)   **niâ-**nâshakut [niyaːnaːhagʊtʰ]   "(who) keeps following him/her"

Examples (427) – (429) show two possibilities for realizing IC when it is applied to

reduplicated forms of <nâshueu>. These IC variations may result from applying the

166

process to two different reduplicants. First of all, if the reduplicant is <na->, a light *Ca-*

syllable with a copy of the base onset and prespecified short vowel, the application of IC

ablauts this vowel to <e>, as seen in <**ne**nâshakut>. This is an appropriate changed form

for the reduplicated form, <**na**nâshueu> [**næ**næːʃːwew], found in this data. Alternatively,

if the reduplicative prefix is <nâ->, a heavy syllable which is an exact copy of the initial

CV:- syllable, IC would result in the bisyllabic outcome <niâ->. Although <**n**ânâshueu>

does not appear in the collected data, the presence of <**niâ**nâshakut> as an IC form

implies the existence of the *CV:-* type reduplicant. It is possible that an ablauted

alternative for the reduplicative base underlies the variations; nevertheless, the

occurrence of both <**ne**nâshakut> and <**niâ**nâshakut> suggests the use of optional

reduplicants.

    Examples (422) to (426) illustrate other instances of reduplicative choice. In (422)

and (423), <**ku**kuessipanu> and <**kue**kuessipanu> show the optional copying of the glide

when reduplicating [kw-] initial bases; the implications of such optionality for the status

of <ku-> is discussed in Section *4.2.8*. Example (424), <ni**kuess**kuessipatin>, shows a

CVC- reduplicant as a further option. In (425) and (426), <**tshî**tshîtâpâtam^U> and

<**kaka**tshitâpâtam^U>, suggest that, with a <tshi-> base, the speaker also has options for

choosing either <ka->, a predetermined relic reduplicative prefix, or <tshi->, an exact

copy of the initial syllable of the base. The apparent semantic contrast between the

repetitive reduplication in (425), "s/he keeps looking at it", and the distributive meaning

in (426), "s/he reads one thing after another", is not so clear when one considers

<**kaka**tshimikaitsheu>, "s/he keeps cutting", in which the reduplicant signals the same repetitive meaning of <tshî-> in <**tshî**tshîtâpâtam^U>, "s/he keeps looking at it".

The evidence for optionality in the choice of reduplicants indicates a flexible system of reduplication which allows a speaker to express reduplicative semantics with a variety of possible reduplicants.

4.5.1   The Implications of Optionality

Optionality has been a consistent theme throughout the examination of both reduplication and IC. Optional forms suggest some intriguing theoretical possibilities. First of all, the existence of reduplicative options suggests that reduplication may be undergoing change. During the transition, older forms co-exist with newer reduplicative options; optionality enables the speaker to cope with language change by recognizing the validity of competing reduplicative forms within a functional system. Similarly, the Changed II pattern for IC, which may represent a move towards regularization of the process, is also evidence of change in Sheshatshiu Innu-aimun. The optional use of either the traditional approach to IC, which is still dominant, or the alternate strategy, which appears to be an innovation, is a requisite part of the transition as the language continues to refine the process.

Current linguistic theory may offer some explanation for the acceptability of optional forms. Synchronic alternations, such as those observed for reduplicative and IC forms, can be accounted for within the framework of Optimality Theory (Prince & Smolensky 1993 and McCarthy & Prince 1993). Unlike rule-based approaches, OT views

language as "the domain of conflicting requirements" (Kager & Zonneveld 1999: 15),

where well-formedness is not absolute but decided according to the individual merits of

competing possibilities. OT assumes a system of universal, violable constraints.

Languages show similarities because constraints are universal; however, the ranking of

constraints is unique to each language, thus allowing language variation. Though

violable, higher-ranked constraints tolerate less violation than lower-ranked.

OT recognizes that "[language] change occurs when there is imperfect transmission

from one generation to the next" (Archangeli 1997: 31). Essentially, change comes about

when there is no longer significant evidence for a constraint's place in the hierarchy; as a

result, constraints are reranked. While the reranking is in process, competing options may

be judged as equally acceptable since both fit into a particular constraint ranking and

tolerate violations equally well. Presumably, when the reranking of a constraint has been

well-established, only one option will be recognized as grammatical, because it incurs

fewer violations than the alternatives.

4.6 Summary

Reduplication in Sheshatshiu Innu-aimun involves the prefixation of material

copied from the left edge of a reduplicative base. These reduplicative prefixes can be

categorized according to their syllabic structure, as either monosyllabic or bisyllabic.

Monosyllabic reduplicants are structured as CV(ː)-, (C)/aː/-, (C)/I/-, and (C)V(ː)C-

syllables, while the bisyllabic type exhibits less variation with the form (C)VC(C)V-.

Reduplicants vary in the degree of identity maintained with the base. While some match

base material exactly, others may contain a prespecified low vowel <a> as the vocalic

element. As well, reduplicant vowel length may not necessarily match the length of the

relevant base vowel. A recurrent theme throughout the investigation of reduplication is

the flexibility of the system, which allows the speaker some optionality in the choice of

reduplicant type.

Chapter V

The Interaction of Reduplication and Initial Change

5.0 Introduction

Reduplication and Initial Change are productive processes occurring throughout

Sheshatshiu Innu-aimun. Since their contexts for employment have the potential to

intersect in the same words and both processes make reference to the left edge of the

verb, the effects of their interaction offer an intriguing avenue for investigation.

5.1 Typical Patterns of Interaction

The following representative data illustrate the simultaneous operation of these

processes on single forms. Each example shows a reduplicated form and a form which

combines IC and reduplication.

(430) **nâ**nîpâteu   [**næː**niːbæːdew]   **niâ**nîpâtit   [**niyæː**niːpæːdɪt]
       "s/he walks around at night"   "(who) is walking around at night?"

(431) **kâsh**kâssipiteu   [**gæːʃ**gæːsɨbɨtɛw]   **kiâsh**kâssipitishk   [**giyæːʃ**gaːsɨbɨdɪʃkʰ]
       "s/he scratches him/her/it"   "(who) is scratching someone?"

(432) **kâsh**kâshkâueu   [**gaʃ**gaʃgawɨw]   **kiâsh**kâshkâuât   [**giyæːʃ**gaːʃgawatʰ]
       "s/he scrapes with an instrument"   "(who) is scraping it with an instrument?"

(433) **kuâ**kuâpishkau   [**gwaː**gwaːpɨʃkʌw] **kuiâ**kuâpishkât   [**gwiyaː**gwaːbʃːkætʰ]
       "it is rusted"   "(what) is rusted?"

(434) **mîna**mîneu   [**miːnə**miːnɨw]   **miâna**mînat   [**miyænə**miːnatʰ]
       "s/he keeps giving something to him/her"   "(who) keeps giving s.t to him/her?"

(435) **tshîni**tshînikuânitshimeu [ʤiːnʤiːnʊgwɑːnʤɨmɨw]   **tshâni**tshînikuânitshimit [ʤaːnʤiːnʊgwɑːnʤɨmɪtʰ]
"s/he is going around (on a boat)"   "(who) is going around on a boat?"

(436) **kuessi**kuessishinu [gwɛːsəgwɛːsəʃɨnu]   **kuiessi**kuessishinit [gwiyɛːsəgweːsəʃn̩tʰ]
"s/he is turning over and over"   "(who) is tossing & turning?"

(437) **ku**kuetshimu [kʊkweʤɪmuː]   **kue**kuetshimikut [kweːkweːʤɨmʊgʊtʰ]
"s/he asks a question"   "(who) asks a question?"

(438) **it**itashkuaimᵁ [iːdiːdæːʃgweym]   **et**îtâshkuaik [eːdiːdæːʃgwɪkʰ]
"s/he keeps pushing it with a stick"   "(who) keeps moving it with a stick?"

(439) **ma**mashinaimueu [mamɪʃɪneimwew]   **me**mashinaimuat [meːməʃəneymwatʰ]
"s/he writes to everyone,   "(who, pl.) is writing to everyone,
owes money to everyone"   owes money to everyone?"

(440) **mini**minu [mɪnəmɪnuː]   **meni**mint [meːnəmɪntʰ]
"s/he drinks a couple of sips   "(who) is drinking a couple of sips
now and then"   now & then?"

(441) **mâ**mâkuâtamᵁ [maːmaːgwaːdʊm]   **e mâ**mâkuâtshit [e mæːmæːgwaʤɪtʰ]
"s/he is chewing"   "(while) s/he is chewing"

(442) uî **tâ**tipânamᵁ [wiː dæːdɨbæːnʊm]   uâ **tâ**tipânâk [waː daːdɨbaːnakʰ]
"s/he is trying to separate it"   (who) is trying to separate it?"

    This set of examples illustrates the application of both reduplication and IC to the

same base concurrently. As demonstrated in the data, each process operates on the

leftmost syllable of the verb. The typical pattern for applying both processes to the same

word is outlined in (430) to (442) for a variety of base types; this pattern applies IC to

already reduplicated forms, so that IC applies the appropriate change to the leftmost

syllable created by reduplication. Example (439), containing the reduplicated

<mamashinaimueu > and the changed form <memashinaimuat>, epitomizes the combination of these processes in a single word. While the base for reduplication remains unchanged, the reduplicant displays the effects of IC. The correct outcome of applying both reduplication and IC is obtained by applying IC to the reduplicative prefix, <ma-> which is at the left edge of the verb, and not to the reduplicative base. This implies a sequential order for these processes such that reduplication applies before IC. This rule ordering is paralleled in Western Naskapi (Brittain 2003:10) and Fox (Dahlstrom 1997: 222).

In the case of the *e-* conjunct strategy for recognizing IC, the prefixation of <e-> does not affect the reduplicated conjunct verb. Like the person prefixes, which are not normally considered as part of a reduplicative base, the *e*-conjunct occurs at the left edge of the reduplicative prefix. Example (441), <**mâ**mâkuâtam^U> , < **e mâ**mâkuâtshit>, is illustrative; the reduplicative prefix, which stands at the edge of the verb, is unaffected by the prefixation of the dummy-conjunct prefix <e>.

When a preverb is present, IC recognizes that preverb as part of the verb complex and applies the appropriate change to its first syllable. Example (442), <**uî tâ**tipânam^U>, < **uâ tâ**tipânak>, demonstrates that when a preverb precedes a reduplicated verb, the verb itself is unaffected by IC. Instead, the preverb, which stands as the first element of the verb complex, is subject to the operation of IC; in this case <u**î**-> becomes <u**â**->.

5.2   Exceptions to Typical Interactions

Despite the overall regularities noted for the interaction of reduplication and IC, there are some notable exceptions to the attested patterns for applying these operations to the same word. Examples (443) to (448) are representative of a number of aberrant forms observed in the collected material; in each of these cases, the results of IC are seen in both the reduplicant and its base, and not just in the leftmost syllable of the reduplicated verb.

(443) **kue**kuetshimeu   [**gwe**ːgweːʤɨmew]   **kuiekuie**tshimât   [**gwiyəgwiyə**ʤɨmatʰ]
"s/he asks him/her"   "(I know) s/he's questioning him/her"

(444) **mâ**mâshiku   [**ma**ːmaːʃigu]   **miâmiâ**shikut   [**miyamiya**ʃigʊtʰ]
"s/he is doubled over in pain"   "(who) is doubled over in pain?"

(445) **pâ**pâpu   [**pa**ːpaːbu]   **piâpiâ**pit   [**piyæːpiyæ**ːbɨtʰ]
"she keeps laughing"   "(who) keeps laughing?"

(446) **kâsh**kâssipiteu   [**gæ**ːʃgæːsɨbɨtɛw]   **kiâshkiâssi**pitât   [**giyæːsgiyæːsə**bədatʰ]
"s/he scratches it"   "(who) scratches him/her/it (repeatedly)?"

(447) **kuâsh**kuâshkuetu [**gwa**ːʃgwaːʃgweːdu]   **kuiâshkuiâsh**kuetit
"s/he is jumping here and there"   [**gwiyaʃgwiya**ʃgwedɪtʰ]
                                      "(I know) s/he is jumping over & over"

(448) **pishi**pishikuâpanîu [**bɪ**ʃəbɪʃəgwɑːbɪnyu] **peshi**peshikuâpaniut
"s/he blinks his/her own eyes"   [**be**ːʃəbeːʃəgwɑːbɪnyutʰ]
                                      "(who) is blinking?"

In contrast to the usual pattern, the combined reduplication/IC forms in (443) to (448) reflect the effects of IC in both the reduplicant and in the base. Typically, these forms would be manifested with the changed vowel appearing only in the reduplicant; that is, IC would be seen only in the leftmost syllable of the verb. Thus, the expected IC outcome for (443), <**kue**kuetshimeu>, would be <**kuie**kuetshimat>, which does appear in the collected data, rather than the anomalous <**kuiekuie**tshimât>, which also occurs.

This unexpected result signifies a disruption of the typical pattern, which applies reduplication before IC. For each of the above examples, it appears that IC first operates on the left syllable of a non-reduplicated form; reduplication then uses the IC form as a reduplicative base and produces an exact copy of the initial material from the changed base. The derivations in (449) and (450) are illustrative.

(449)   Base   <kuâshkuetu>   [gwɑːʃgweːduː]

        Reduplication   <**kuâsh**-kuâshkuetu>   [**gwaːʃ**-gwaːʃgweːdu]

        IC   <**kuiâsh**-kuâshkuetit>   [**gwiyaʃ**-gwaːʃgwedɪtʰ]

In (449), reduplication and IC are applied to the same verb, <kuâshkuetu>; this example demonstrates the typical pattern for this interaction. Reduplication operates on the unchanged base and, then, IC applies to the reduplicated form, yielding the expected outcome <**kuiâsh**-kuâshkuetit>. This result does not occur in this data.

(450) Base   <kuâshkuetu>   [gwɑːʃgweːduː]

       IC   < ku**iâ**shkuetit>   [kw**iyaː**ʃkwetɪtʰ]

       Reduplication   <**kuiâsh**-ku**iâ**shkuetit>   [**gwiyaʃ**-gwiyaʃgwedɪtʰ]

The unusual outcome in (450) is contained in the collected data. As illustrated, IC operates on the initial syllable of the base form <**kuâsh**kuetu>, producing the changed <**kuiâsh**kuetit>. Bisyllabic reduplication then applies to the changed form, creating the atypical <**kuiâshkuiâsh**kuetit> as a combination of both IC and reduplication. The bisyllabicity of the reduplicants in these examples does not seem to create any distinctions in meaning associated with a monosyllabic/bisyllabic semantic contrast.

Underlying the departure from the usual order for applying reduplication and IC may be the fundamental requirement for identity between reduplicant and base. When IC compromises this identity, it is possible that the base itself is modified to match the changed reduplicative prefix. Nevertheless, considering the few occurrences of this atypical pattern, the strict maintenance of reduplicative identity appears less important than the ordered application of IC and reduplication.

These unusual outputs for the operation of reduplication and IC on the same word may suggest that the order for their application is not rigid or that the identity between base and reduplicant is of paramount importance. These anomalies may also reflect how on-going language change is affecting the process of word-formation for this dialect. However, such conjecture should be tempered by the fact that, although the younger

176

speaker supplied a number of these exceptional forms, she judged them as marginal when they were brought to her attention. She preferred the older speaker's more traditional versions of the combined reduplication/IC forms, in which IC operated on the initial syllable produced by reduplication; she attributed her own deviations to language loss in the younger generation. While the issue of language competence may indeed be a factor influencing these anomalies, the role of changing language patterns in accounting for the irregular data certainly should be considered worth investigating in future research.

5.3 *IC and Reduplication Interaction – Support for Reduplicative Identity*

The significance of phonological identity as defining reduplication, as previously discussed in *4.2.7.1*, is further reiterated by data related to the interaction of IC and reduplication. In contrast to the typical pattern which shows IC affecting only the initial syllable, that is, the first syllable of the reduplicant, of a reduplicated form, some atypical reduplications show the effects of IC on both reduplicant and base. As discussed in Section *5.2,* these unexpected results, seen in examples such as (445) *piâpiâpit*, suggest that the speaker understands base-reduplicant identity as fundamental to the process of reduplication. The IC morpheme is not copied for semantic effect, but rather to optimize phonological correspondence between reduplicative prefix and base.

Chapter VI

Conclusion

6.0   Summary

This thesis described the processes of reduplication and initial change in Sheshatshiu Innu-aimun from a phonological perspective using original data gathered during fieldwork.

The thesis began by introducing the community, the language, and the linguistic processes to be investigated. Chapter II outlined the sound system underlying the subsequent analysis of the phonological data. The next chapter delved into Initial Change, first giving an overview of that process in Algonquian languages in general and, then, examining the Sheshatshiu data to derive the IC patterns specific to that dialect. Chapter IV provided a detailed description of reduplication. Initially, reduplicated forms were analysed according to the phonological category of each reduplicative base, revealing a range of phonological variants used to signal reduplicative semantics. Next, the chapter focussed on the individual reduplicant types to describe their patterns of usage. Chapter V investigated the interaction of IC and reduplication when applied to the same word, since both processes target the left edge of the word.

The remainder of this chapter recapitulates the findings of this thesis, summarizing the typical patterns for reduplication and IC, and drawing attention to the atypical data. The work concludes by suggesting areas for further research.

6.1 *Typical Patterns for Initial Change in Sheshatshiu Innu-aimun*

Comparable to other Algonquian languages, Sheshatshiu Innu-aimun uses two basic patterns to mark IC on verbs in the conjunct order. The first of these is a synthetic approach involving internal change to the leftmost vowel of the verb; the second is an analytic method using an invariant prefix.

The various outcomes of IC using the synthetic approach are achieved by modifying the initial vowel through qualitative ablaut, lengthening, or augmentation; there may even be no overt change at all. The type of change varies according to vowel length and quality. A complete list of the typical vowel changes resulting from applying the synthetic approach to IC is found in Table 7, page 75.

In contrast to the synthetic approach, the analytic method does not affect the initial vowel of a verb. Instead, a 'dummy' *e*-conjunct, an invariant preverb whose sole purpose is to mark IC, is prefixed to the leftmost edge of a verb in the conjunct order. Like the synthetic strategy, if a preverb or reduplicant are part of the verb complex, its left edge becomes the domain of application for the process.

6.2 *Typical Patterns for Reduplication in Sheshatshiu Innu-aimun*

Reduplication in Sheshatshiu Innu-aimun, like IC, targets the leftmost edge of words. This process prefixes material copied from the initial elements of a reduplicative base. The reduplicants may be monosyllabic or bisyllabic; the monosyllabic type is quite productive, occurring much more frequently than the bisyllabic type.

Monosyllabic reduplicants are structured as (C)/a:/-, (C)/I/-, (C)V(:)-, and (C)V(:)C- syllables. These reduplicative prefixes vary in the degree of identity maintained between reduplicants and their bases. While the consonants are copies of base material, the vocalic elements may be prespecified as a low, non-round vowel.

Reduplication with prespecified vowels is found with all base types. The (C)a:- template, ubiquitous throughout Algonquian languages as a reduplicative prefix containing a predetermined vowel, is a dominant reduplication strategy in Sheshatshiu Innu-aimun. The light reduplicant, (C)/I/-, also occurs as a predetermined reduplicative syllable. The occurrence of reduplicants such as these, which make use of invariant segments rather than copying from base material, reiterates the phonological character of reduplication by demonstrating the emergence of the unmarked. As Alderete et al. (1999) posit, the "non-copying of a base segment, with substitution of some fixed, default segment, decreases phonological markedness" (1). The prespecified low, non-round vowel that commonly surfaces in reduplicants is less marked than vowels such as /i/, /u(:)/, or /e/, which would be expected to be copied from the base in reduplication. Using this vowel effectively reduces markedness[27], although sacrificing identity between base and reduplicant.

 In contrast to reduplicants containing prespecified segments, the (C)V(:)- and (C)V:(C)- reduplicant types display exact identity with material from their reduplicative bases. With these types of reduplicative prefixes, maintaining faithfulness to base

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[27] The link between markedness and fixed segmentism in reduplication is explored in depth by a number of researchers such as Alderete et al. (1999), McCarthy & Prince (1994a), and Yip (1993).

segments appears to take precedence over limiting the markedness of reduplicants. As previously discussed in *4.4.1.4*, even though the (C)V:(C)- prefix does occur as a monosyllable, it may, in many instances, be analysed as an actual bisyllabic reduplicant.

Bisyllabic reduplicants are structured as (C)VC(C)V- syllables composed of elements copied from the left edge of a reduplicative base. This type of reduplicant is a trochee, with a stressed/unstressed syllable composition. The first syllable is identical to the first syllable of the reduplicative base. The vowel in the second syllable is usually heard as [ə], which may be a prespecified neutral vocalic element used to complete the bisyllabic structure, rather than a simplified form of a base vowel.

6.3   *The Interaction of IC and Reduplication*

IC and reduplication have the potential to intersect when they apply concurrently to the same verb. The interaction of these processes is interesting since both have the same domain for application, that is, at the leftmost edge of verbs. Typically, IC applies to already reduplicated forms, so that the effects of IC are manifested in the reduplicant. If the analytic e-conjunct strategy is used, the *e-* prefixes the reduplicated form; the reduplicant is unaffected by the presence of the *e-* preverb. These outcomes suggest rule-ordering for the two processes, with reduplication applying before IC.

6.4   *Interesting Facts about Sheshatshiu Innu-aimun*

In addition to the typical patterns associated with IC and reduplication, there are also certain atypical results arising from the collected material. These outcomes not only

suggest some interesting facts about Sheshatshiu Innu-aimun but may also have theoretical implications. The concluding chapter touches on only a few of the unexpected findings. Other interesting findings, such as those concerning <tshi-> bases in Chapter 4, are noted in the relevant sections throughout this work.

6.4.1 *An Innovative Pattern for IC*

The typical patterns for marking IC are a synthetic approach with a variety of outcomes and an analytic strategy with an invariant prefix. A number of examples in the data indicate that there is a third alternative – a more regular synthetic approach. For non-round vowels, IC is applied by augmenting the leftmost vowel of the base with [iy-] and realizing this vowel as [ə]; rounded vowels are also augmented with [iy-] but retain the rounded quality of the base vowel.

Given the evidence in the data for this alternative synthetic IC strategy, this research divides the outcomes of IC into three distinct patterns: Changed I and II, which take a synthetic approach, and Changed III, which uses the analytic approach. The variety of outcomes in the Changed I pattern and the single invariant prefix of the Changed III pattern are attested in the literature and are comparable to IC in other Algonquian languages. However, the Changed II pattern, the alternative synthetic method, is unattested. This approach may represent an innovation in the language, indicative of a regularization of IC outcomes, as the IC process moves towards morphophonological simplification. This trend appears to be in an early stage, since the typical synthetic approach, the Changed I pattern, is still the dominant strategy for realizing IC. As well,

some examples suggest optionality in choosing between the alternate synthetic strategies, with either type of outcome being acceptable.

6.4.2 Optional Forms

A consistent theme throughout the examination of both IC and reduplication has been the flexibility that allows a speaker some optionality in choosing a form to produce a specific meaning. For instance, certain items from the data, such as *nipûtapûtatin*, *nipûpûtatin*, "I am blowing repeatedly", show that the same reduplicative meaning can be achieved by prefixing either a monosyllabic or a bisyllabic reduplicant. Other examples show the equivalence of using either a *CV(:)-* reduplicant such as in *pûpûtâtam*ᵘ, which is an exact copy of base elements, or a *Ca-* prefix with a prespecified vowel, as seen in *papûtâtam*ᵘ; the speaker recognized both these options as meaning "s/he blows on it repeatedly".

The IC process also demonstrates this sort of flexibility in choosing between which pattern to apply for realizing internal change. A number of examples raise the possibility of optionality in using either the predominant Changed I pattern, with its idiosyncratic ablaut strategy, or the innovative Changed II type with its consistent *iyə-* outcome. The reality of such optionality for IC, as well as for reduplication, implies that these processes are not static but exist within the dynamic framework of a living language.

As discussed in *4.5.1*, the existence of options for reduplication and also for IC suggests that these processes may be undergoing change. During the transition, older

forms as well as newer options are accessible; optionality enables the speaker to cope with language change by recognizing the validity of competing reduplicative and IC forms within a functional system.

6.4.3 Exceptions to Typical IC and Reduplication Interactions

Although the interaction between IC and reduplication typically conforms to regular patterns, there are some atypical results. In contrast to the usual pattern with IC affecting only the reduplicant, certain combined reduplication/IC forms reflect the effects of IC in both the reduplicant and in the base. As discussed in *5.2* and *5.3*, these atypical results may be reiterating the significance of phonological identity in defining reduplication.

6.5   The Need for Future Research

This thesis began with the aim of describing the processes of reduplication and IC in Sheshatshiu Innu-aimun from a phonological perspective. This goal was accomplished by analyzing original data and identifying the patterns defining the operation of these processes for native speakers. However, as the work has progressed, the investigation of IC and reduplication has brought forward intriguing questions which are, necessarily, outside the purview of this thesis. A number of the issues raised should be recognized as meriting in-depth study by future researchers.

Since this work concentrated on phonological description, theory was only touched upon cursorily. More exhaustive research is needed to investigate the linguistic theory defining the operation of IC and reduplication. This sort of work might be able to answer

questions such as whether these processes operate on underlying phonological or morphological principles, or a combination of both.

A thorough discussion of the semantics of IC and reduplication also does not lie within the parameters of this thesis. Although certain semantic observations were made based upon intriguing data, such commentary was limited by the phonological focus of data acquisition. In-depth semantic study of these processes would be a valuable avenue for research, especially to address issues such as the distinction between monosyllabic and bisyllabic reduplication considering the evidence for optionality in choosing between these reduplicant types.

The latter example concerning the choice available to the speaker for using either monosyllabic or bisyllabic reduplicative prefixes to provide the same meaning naturally leads to a very significant area for future study – language change and loss. Interesting results from the data include an apparent lack of strong distinctions between monosyllabic and bisyllabic reduplicants, the appearance of the innovative Changed II pattern for IC, and instances demonstrating a disruption in the typical order of application for IC and reduplication to the same verb. These facts may suggest that Sheshatshiu Innu-aimun is experiencing on-going language change, particularly in the patterns of usage for IC and reduplication.

Further research may even show that an actual loss of language competence underlies some of the anomalous outcomes. Indeed, such study may validate the feeling voiced by the younger language consultant that her mastery of her mother tongue was far short of that of the older people in her community. She attributed the differences in usage

between her and her mother to language loss and lamented the many words lost to the younger generation. Whether such differences arise from changes in the Sheshatshiu Innu-aimun or from language loss could be answered by research focussing on these issues.

6.6   Final Comments

This thesis has described the patterns of the phonological application of IC and reduplication synchronically in Sheshatshiu Innu-aimun and discovered some interesting facts concerning their operation. Certain results from the data point to the need for further linguistic research in various areas, especially regarding the subject of language change. Nevertheless, it is evident from the research in this work that reduplication and IC are productive linguistic processes which are continuously evolving within the framework of a dynamic language.

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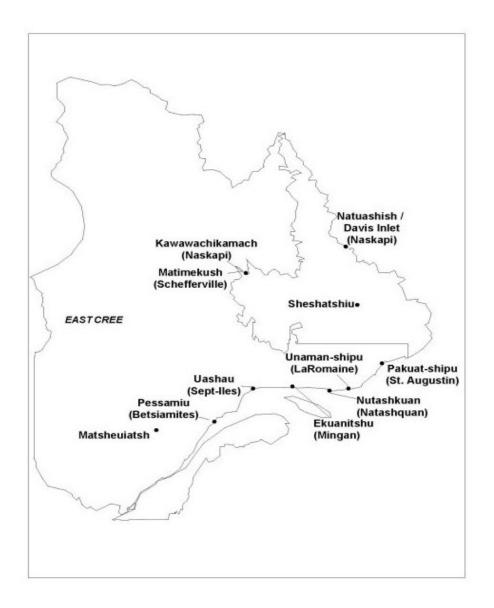
Appendix I

Figure 1: Innu Communities in Quebec-Labrador
Source: www. innu-aimun.ca

Appendix II
Sample Elicitation Sheet

pâtshiku *vii* *mdb* *'it drips, trickles'*

Monosyllabic *?(pâpâtshiku)*	*3rd* *1st* *preverb*	
Bisyllabic *?(pâtshipâtshi-)*	*3rd* *1st* *preverb*	
Initial Change *?(piâ-)* *?(piâpâ-)* *?(piâtshipâtshi-)* *?(e pâtshi-)* *?(pâpâtshi-)*	 *+ Mono. Redup.* *+ Bisyllabic Redup* *preverb* *e-conjunct*	