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The semantics of Creek morphosyntax

Hardy, Donald Edward, Ph.D.

Rice University, 1988
RICE UNIVERSITY

THE SEMANTICS OF CREEK MORPHOSYNTAX

by

DONALD E. HARDY

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE

DOCTOR OF PHILOSOPHY

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April, 1988
Abstract
The Semantics of Creek Morphosyntax
Donald E. Hardy

In Creek, a Muskogean language, nominalization is formally signalled by a loss of inflectional morphology and the occurrence of derivational morphology. A nominalization may be taken to be a concrete interpretation of the event itself or one of its participants.

The verbal derivational morpheme [ip] signals medio-passive voice, in which the executor of the event is not the agent of the event. The verbal derivational morpheme [ec] signals increased transitivity, by which transitive verbs are derived from intransitive, transitive verbs are made more transitive through an increase of some parameter of transitivity, and causatives are created with the help of the medio-passive morpheme. The middle-voice [k] morpheme signals that the executor of the event is affected by the action of the event, as in statives, intransitives, and reflexives.

Participant agreement type is lexically marked for verbs, but paradigmatic contrast shows the markers to be semantically motivated. Types I and II marking vary with respect to control of the event, and Types II and III marking vary with respect to envelopment by the event.

When the dependent verb of a modificational clause is non-tensed, the [ii] and [aa] suffixes differentiate non-
identifiable from identifiable participants, respectively. When the dependent verb is tensed, the [ii] and [aa] suffixes differentiate mentioned events from asserted events, respectively. The semantic connection between the two uses of [ii] and [aa] are backgrounding and foregrounding, respectively. Non-identifiable participants and mentioned events are united in backgrounding and are suffixed with [ii]. Identifiable participants and asserted events are united in foregrounding and are suffixed with [aa].

[t] and [n] signal foregrounding and backgrounding, respectively, within the proposition; that is, they determine how a participant or event is foregrounded or backgrounded with respect to other participants or events within the same proposition. The [ooM] suffix backgrounds participants and events either with respect to other propositions, as in answering questions, or with respect to the ontology of the participant or event itself.
Acknowledgements

My first and deepest thanks go to all the Creek people who taught me so patiently about their language. They are Mr. Ben Beaver and Mrs. Susy Randall of Morris, Oklahoma; Mrs. Lowena Birdsong of Irving, Texas; Mrs. Milly Yardy of Henrietta, Oklahoma; and Mrs. Helen Bunny, Mrs. Martha Chalakee, Mr. Roosevelt Deersol, Mrs. Hepsey Gilroy, Mr. Henry Tarpalechee, and Mr. Raymond Yargee, all of Okmulgee, Oklahoma.

Mr. George Tiger, liaison officer for the Creek Nation, was kind enough to introduce me to most of the people that I worked with in Oklahoma. Without his help, this work would not have proceeded as quickly and efficiently as it did. I also thank Mr. Claude A. Cox, Chief of the Muskogee Creek Nation, for kindly granting me permission in the name of the Muskogee Creek Nation to collect data in Oklahoma.

I thank the members of my dissertation committee for the corrections and suggestions that they have made. James Copeland and Stephen Tyler have been encouraging from beginning to end. Roy Jones and I have spent many enjoyable and fruitful hours comparing Coushatta and Creek.

Philip Davis, my dissertation advisor, has been an insightful critic and tireless debator about the fine points of my analyses. His knowledge of Muskogean and many years of firsthand experience with data collection and
analysis have been a source of energy and insight in the entire process of writing this work. And his views on language typology, semantics, and pragmatics have for the five years of my stay at Rice University been the source of much of the pleasure that I have in doing this work.

I thank Timothy Montler for reading and making comments on an early draft of Chapter 2 on Creek phonology and Heather Hardy and Bill Spruill for engaging in invaluable discussion with me on many of the more problematic areas of the data.

I thank my parents for their emotional and financial support in times when they were needed most.

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I thank Heather Hardy for creating in me an interest in linguistics, fieldwork, and Muskogean. She has been a source of inspiration and encouragement, both professionally and personally. This work would not have been begun without her influence.

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Abbreviations Used in this Work

= infix or portmanteau
I Type I
II Type II
III Type III
1 first-person
2 second-person
3 third-person
Ø g. zero grade
ag agentive
aug augmentative
aux auxiliary
caus causative
dec declarative
dim diminutive
dir directional
fc focus
f.t.g. falling tone grade
fut future
ger gerundive
h g. H grade
imp imperative
indef indefinite
inf infinitive
inst instrumental
l.g. lengthening grade
loc locative
m.p. medio-passive
m.v. middle voice
neg negative
obl. oblique
pI past I
pII past II
pIII past III
p plural
pass passive
pl plural
p.n. prefixal nominal
pot potential
recip reciprocal
refl. reflexive
rem remote
r.t.g rising tone grade
s singular
sg. subj. singular subject
st stative
trs transitive
wh wh-question
yes/no yes/no question
Semantic Terms

agent
animate
assertion
background
benefactee
causee
casurer
control
envelopment
event
executor
experiencer
focus
foreground
given
identifiable
instrument
involvement
known
locative
mention
motile
new
participant
patient
proposition
recipient
resultative
Chapter 1
Introduction

1.1 Subjects of Dissertation

This work is a study of selected topics in the semantics of Creek morphosyntax. Creek is a Muskogean language, originally spoken primarily in Alabama and Georgia, and now since the Indian removal of 1836-40, spoken primarily in eastern Oklahoma (once Indian Territory) within the Creek Nation. In an important sense, this work is heavily descriptive in that there are much data and in that no theoretical stance is consistently taken that is allied with any one theory of semantics or morphosyntax. This work also makes no attempt to be comparative in any real sense, even within Muskogean, simply citing other analyses of relevant constructions in either Creek or Seminole. The major semantic/pragmatic indices that will recur in chapters in this work are assertion/mention, control/non-control, envelopment/non-envelopment, identifiable/non-identifiable, given/new, foreground/background.

This chapter outlines the topics addressed in this study (1.1), briefly reviews some of the more important work published on Creek (1.2), places Creek within the Muskogean family (1.3), describes the type and extent of the fieldwork on which this work is based (1.4), and provides information on possible numbers and ages of Creek
speakers (1.5).

Chapter 2 on Creek phonology provides justification for the transcription used in this study, with discussions of phonemic inventory, allophonic rules, phonotactics, and important morphophonemic rules.

Chapter 3 on derivational noun morphosyntax discusses the semantics and forms of both simple and derived nominals, making an explicit attempt to formulate the semantic framework within which nominalization occurs. Nominalization itself is seen as a metaphorical process in which something abstract (an event) is taken to be something concrete (a participant). The metaphorical process is formally signalled by a loss of inflectional morphology which signals an asserted event and the occurrence of derivational morphology which signals a mentioned participant. Much of the approach to nominalization in Chapter 3 is indebted to Hopper and Thompson's (1984) discussion of the semantics and pragmatics of nominalization. The framework for the metaphorical operation of nominalization procedures in Creek is the proposition, in which a nominalization may be taken to be a concrete interpretation of the event itself or one of its participants.

Chapter 4 is a survey of the semantics of some of the more important and problematic derivational verb morphology. This includes verb grades, which signal verbal
aspect, participant number formation in the verb, the medio-passive [ip] morpheme, the increased transitivity [ec] morpheme, the middle-voice [k] morpheme, and the stative [ii] morpheme. Where my interpretation of these morphemes differs from others' analyses, particularly of the medio-passive [ip], the increased transitivity [ec], and the middle-voice [k], I have included discussion of the data motivating these alternatives.

Chapter 5 is a discussion of Types I, II, and III participant agreement on the verb. These paradigms correspond, but not in any one-to-one fashion, to familiar case roles such as agent, executor, experiencer, patient, recipient, benefactee. It is shown that one cannot predict which Type marker will be taken by a particular verb stem to record either subject or object(s). Thus, if one bases one's analysis of these markers on prediction, the semantics become highly problematic and one is forced to conclude that agreement Type is lexically marked. The analysis in this work begins with the assumption that agreement Type is lexically marked, but then continues with a semantic analysis of the markers based on paradigmatic contrast on the same verb stem. It is shown that Type I and Type II marking vary with respect to control of the event and that Type II and Type III marking vary with respect to envelopment by the event. This analysis of Creek agreement morphology is similar to but not identical
with Payne's (1982) analysis of Chickasaw agreement morphology with respect to the participant's involvement in the event.

Chapter 6 is an analysis of the form and semantics of Creek modificational constructions, specifically adjectives and relative clauses, both restrictive and non-restrictive. Fundamentally, there are two suffixes that create adjectives and relative clauses, the [ii] and [aa]. These suffixes have differing functions based on whether the modificational clause is tensed or not. When non-tensed, the [ii] and [aa] suffixes differentiate non-identifiable from identifiable participants, respectively. When tensed, the [ii] and [aa] suffixes differentiate mentioned events from asserted events. It is shown that the semantic connection between the two uses of [ii] and [aa] are backgrounding and foregrounding, respectively. Non-identifiable participants and mentioned events are united in backgrounding and are suffixed with [ii]. Identifiable participants and asserted events are united in foregrounding and are suffixed with [aa]. Finally, Chapter 6 examines the question of whether the constructions that create English glosses of adjectives and relative clauses are adjective and relative clause specific, that is, whether these constructions do or do not have other functions in Creek grammar.

Chapter 7 explores the semantics of the uses of the
auxiliary \{ooM\} suffix and the \{t\}, \{n\}, and \{∅\} suffixes. The \{ooM\} suffix is found to serve a function of backgrounding an event or participant either with respect to itself or some other event. The case use and the switch-reference use of \{t\} and \{n\} are found to be united in their semantics. But the semantic sameness of these uses is only discernible in uses in which neither case nor switch-reference is a viable motivation for their use. \{t\} and \{n\} function with respect to foregrounding and backgrounding, respectively, within the proposition; that is, they determine how a participant or event is foregrounded or backgrounded with respect to other participants or events within the same proposition. The \{ooM\} suffix is different in backgrounding participants and events either with respect to other propositions, as in answering questions, or with respect to the ontology of the participant or event itself.

1.2 Previous and Current Work on Creek

Work on the Creek language has included text collection, collection of lexical items, grammatical descriptions, and diachronic studies. The following condensed bibliography, some of which is gleaned from Crawford (1975) and Nathan (1977), outlines the history of this scholarship. The first grammatical description of Creek was published in 1860 by H.F. Buckner, a Baptist
missionary, and Goliath Herrod, a Creek (Filling 1889.14).
Rev. Robert McGill Loughridge's English-Creek dictionary
was published in 1890 (Swanton 1928.472). It was reprinted
in 1964 (Loughridge and Hodge 1964). Frank G. Speck
(1911;1907-15) collected Creek songs and lexical items.
John R. Swanton (1928) published lexical items also. Mary
R. Haas has done much data collection on Creek and has
published a number of articles based on that work. The
specific topics covered by those papers are as follows:
geminate consonant clusters (1938), ablaut (1940), noun
incorporation (1941b), etymology (1941c), dialects (1945),
proto-Muskogean paradigms (1946), classificatory verbs
(1948), historical development of long vowels (1950),
nasals (1977b), and tonal accent (1977c). Michele Nathan's
(1977) dissertation is a comprehensive grammar of Florida
Seminole. Amelia Rector Bell (1983, 1985) has published a
number of papers on Creek discourse. Karen M. Booker
(1984) has examined Creek directional prefixes. Jack B.
Martin has examined Creek interrogatives (1986) and Creek
agreement morphology (1987a). Abigail Cohn (1987) has
discussed causatives in Seminole. David Cline (1987) has
discussed the Muskogean H grade and its realization in
Seminole. Michel T.T. Jackson (1987) has done a metrical
analysis of tone in the Seminole verb. Mari Sakaguchi
(1987) has examined adjectives in Seminole. Stephan
Schuetze-Coburn (1987) has discussed exceptional [t] and
[n] marking in Seminole. And James J. Tyhurst (1987) has examined accent shift in Seminole nouns. Karen M. Booker's (1980) dissertation on comparative Muskogean has been invaluable in providing backgrounding reading in general Muskogean, reading that in part helped in the decision as to what was and was not important to explore in Creek morphosyntax.

1.3 Suggested Positions for Creek in the Muskogean Language Family

Creek is one of eight Muskogean languages, the others being Alabama, Chickasaw, Choctaw, Hitchiti, Koasati (Coushatta), Mikasuki, and Seminole. Haas (1949) and Kimball (1987) also include Apalachee as a Muskogean language. Haas (1941a) argues for the grouping and subgrouping of the Muskogean languages that are reflected in the following figure:
Haas (1941a) argues that because of consonant and vowel differences in cognates between Choctaw and Chickasaw on the one hand and the other Muskogean languages on the other hand, the primary distinction in the Muskogean family is between the Western branch, comprised of Choctaw and Chickasaw, and the Eastern branch, comprised of the other languages, including Creek. For example, the Eastern branch has /i/ where the Western branch has /n/, and the Eastern branch sometimes has in word-final position in noun stems /o/ where the Western branch has /i/. The Eastern languages are further grouped into three pairs that are more similar to each other than to the other four languages in the Eastern group in term of lexical and phonological similarities.
Haas's (1947) paper on Proto-Muskogean *k shows that this proto-phoneme developed into /b/ in all Muskogean languages but Creek and Seminole, which alone lack a phonemic /b/, and developed into /k/ in Creek and Seminole. Haas (1979.306) argues that after the East/West split took place in Muskogean, all Muskogean languages but Creek 'remained in fairly close contact and gradually a shift of *k to b took place in all of them.' Although she does not adopt the following tree, and in fact attributes its structure to Swanton (1922), the development of Proto-
Muskogean *k suggests a split into a Southern branch and a Northern branch:

![Diagram]

Figure 2: A Muskogean family tree corresponding to Swanton's (1922) grouping and Haas' (1979) Stage 2 in the history of the Muskogean family

More recently, Munro (1987) argues that the Southern branch in Figure 2 can be further subdivided, as in the
following tree:

```
    Proto-Muskogean
     /       \
   /         \
Southern Muskogean   Northern Muskogean
     /            /
Southwestern Muskogean Western Muskogean
     /               /
       /             /
      Choc Chic Apal Alab Koas Hitch Mikas Creek Semin
```

Figure 3: Muskogean family tree taken from Munro (1987)

Apalachee (Apal in Figure 3), an extinct language, is grouped with Alabama and Koasati (Haas 1949, Kimball 1987). Munro's (1987) arguments for splitting a Southwestern Muskogean branch from Hitchiti and Mikasuki and further a Western Muskogean branch, comprised of Choctaw and Chickasaw, from the other Southwestern Muskogean languages are based on complex morphological and phonological evidence, which will not be reviewed here.

Figures 1-3 are provided merely to report on the suggested relationships among the Muskogean languages. One is not chosen over the others here since this work is not comparative in nature.
1.4 Description of Fieldwork

The data on which this work is based were gathered in a period of one year and six months, from July 1986 to December 1987. The data are recorded in notebooks as well as on cassette audio-tapes. Most data were gathered in the form of elicitation and volunteered utterances. There are in my data three texts, though they do not figure in the analyses presented in this work. Speakers from whom most of these data were collected ranged in ages from their early 60's to their early 80's, and lived within the Creek Nation, primarily in and around Okmulgee, Oklahoma; Morris, Oklahoma; and Henrietta, Oklahoma. All were bilingual in Creek and English and had been so since childhood, though all learned Creek at an earlier age than English.

1.5 Numbers of Creek Speakers

Chafe (1965.346) estimates the number of Creek speakers to be 10,000. Of course, I would estimate that currently the number of fluent Creek speakers is considerably fewer than 10,000. Most of the speakers who worked with me were in their 60's or older, and I did not personally meet fluent speakers who were younger than that. Though I did not make a determined effort to find younger speakers, I have heard reports of small children being fluent in Creek. The following table, provided by Ms. Georgeann DeLaune (1987) of the Creek Nation's Citizenship Board, contains figures on numbers and ages of
people enrolled in the Creek Nation as Creek citizens.

<table>
<thead>
<tr>
<th>AGE</th>
<th>ENTIRE FILE</th>
<th>OKLAHOMA</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-5</td>
<td>1251</td>
<td>1147</td>
</tr>
<tr>
<td>6-18</td>
<td>6823</td>
<td>5863</td>
</tr>
<tr>
<td>19-35</td>
<td>6915</td>
<td>6197</td>
</tr>
<tr>
<td>36-49</td>
<td>3480</td>
<td>3023</td>
</tr>
<tr>
<td>50-69</td>
<td>2817</td>
<td>2384</td>
</tr>
<tr>
<td>70-over</td>
<td>1226</td>
<td>1075</td>
</tr>
</tbody>
</table>

Figure 4: Numbers of enrolled Creek citizens

Not all Creek people are enrolled in the Creek Nation, but there are no data that I know of that would provide figures on them. According to figures provided by Ms. DeLaune, states other than Oklahoma that have the most Creek citizens are California, Texas, and Arizona.
Chapter 2
Phonology

2.1 Introduction

This chapter on Creek phonology provides justification for the transcription used in this study. Though the phonological system of Creek invites argument about current theoretical issues in phonology, especially whether a prosodic analysis is apt for Creek's tonal system, all theoretical arguments are skirted in favor of a practical, though certainly not absolutely theoretically neutral, phonemic analysis. In section 2.2, all segmental phonemes are listed with examples. Section 2.3 is a discussion of the allophones of segmental phonemes. Suprasegmental tonal phonemes will be introduced in section 2.4. The allophones of tone will be discussed in the lengthy section 2.6, after a discussion of phonotactics and syllable types in section 2.5, since the allophones of tone depend on syllable types and the sequencing of these syllable types within the word. Only two morphophonemic rules will be discussed in detail in this chapter, in section 2.7, and those will be discussed only because they bear on an analysis of the phonemic inventory and hence the transcription used. Other morphophonemic rules will be briefly explained as problems are encountered in analysis of the morphosyntax. In the main, the normal transcription will be phonemic, made as a compromise between a too
abstract morphophonemic transcription and a too specific phonetic transcription, with the goal being a transcription that is recognizably Creek to anyone who has heard the language. Only one morphophonemic symbol will be used in normal transcription, that of the M in the auxiliary /ooM/. The reasoning for the use of this symbol will be explained in section 2.7.

2.2 Segmental Phonemes

There are eighteen Creek segmental phonemes—fourteen consonants and four vowels.

2.2.1 Consonant Phonemes

The following is a table of the fourteen consonant phonemes of Creek indicating place and manner of articulation:

<table>
<thead>
<tr>
<th></th>
<th>Labial</th>
<th>Dental</th>
<th>Palatal</th>
<th>Velar</th>
<th>Glottal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stop</td>
<td>p</td>
<td>t</td>
<td></td>
<td>k</td>
<td></td>
</tr>
<tr>
<td>Affricate</td>
<td></td>
<td></td>
<td></td>
<td>c</td>
<td></td>
</tr>
<tr>
<td>Fricative</td>
<td>f</td>
<td>ñ</td>
<td>s</td>
<td></td>
<td>h</td>
</tr>
<tr>
<td>Liquid</td>
<td></td>
<td>l</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nasal</td>
<td>m</td>
<td>n</td>
<td></td>
<td></td>
<td>ñ</td>
</tr>
<tr>
<td>Glide</td>
<td>w</td>
<td></td>
<td></td>
<td>y</td>
<td></td>
</tr>
</tbody>
</table>

Table 1

All Creek consonant phonemes have conditioned allophones, some of the rules for which will be discussed
in section 2.3.1. The phonetic variants discussed in this section are generally the 'elsewhere' cases, the ones that have the widest distributions. All three stops are lenis and voiceless. They have the articulatory positions as shown in Table 1.

There is only one affricate—/c/—, which is voiceless and lenis like the stops. /c/ and /s/ are written /c/ and /s/ for typographical ease. /c/ is on a line by itself in Table 1 instead of with the stops because it shares phonetic characteristics equally with both /t/ and /s/. Phonetically it is [ʨʃ]. And when geminated it is [ʨtʃʃ], with gemination realized as lengthened closure. Frequently, when //c// is intervocalic, especially when it is part of the diminutive nominal suffix {oci}, the stop portion of the affricate is not realized. See the following data:

(1) /icca/ → [Itʃca] 'gun'
(2)a. //itoci// → /itoci/ → [idvʃi] 'stick, small tree'
or b. " → /itosi/ → [idvʃi] 'stick, small tree'

In (1), it is assumed that [ʨ] is an allophone of /c/ rather than an allophone of /t/ because it is retracted to the same articulatory position as [ɕ] and because /t/ does not assimilate to other following stops. Haas (1938) presents these and other convincing arguments for analyzing [ʨʃ] as /cc/ rather than /tc/. In (2), the morphophoneme
//c// may be optionally realized as /c/ or /s/, which is then realized as phonetically voiced, as is shown in Rule 1, discussed below in 2.3.1.

The four fricatives are fortis and voiceless. They have the articulatory positions as shown in Table 1. /ɬ/ is the symbol used here for a lateral fricative. Haas (1940.149) reports that her older speakers used a bilabial articulatory position for /f/, while her younger speakers, all bilingual, used a labio-dental articulation. As would be expected, all contemporary speakers use the labio-dental articulation and are all bilingual in Creek and English. All of the stops, the affricate, and the fricatives except /h/ I will classify as obstruents. The liquid, the nasals, the glides, and /h/ I will classify as sonorants. It is true that /h/ is voiceless like the obstruents. But /h/ assumes the articulatory position of a following vowel in an open syllable and a preceding vowel in a closed syllable. Thus, in terms of articulation, though there is some constriction at the glottis, the vocal tract assumes the shapes of the conditioning vowels, that is, the conditioning sonorants. Furthermore, there are three allophonic rules that either exclude /h/ from the obstruent class or include it in the sonorant class. Rule 1, discussed in section 2.3.1, states that all obstruents are voiced in a completely voiced environment. /h/ is not voiced in the same environment. Rule 5, also discussed in
section 2.3.1, states that nasals and glides preceding /hC/ are voiceless. The /h/ is deleted phonetically except for the devoicing of the preceding sonorant. And Rule 6, discussed in section 2.3.2, states that a vowel followed by a sonorant or an /h/ plus a nasal consonant is nasalized along with that sonorant or /h/. There are particular limitations on applying Rules 5 and 6 to all sonorants, but these limitations, as will be pointed out later, are results of either historical accident or limitations in my data.

All six of the remaining sonorant consonants besides /h/ in Creek are voiced. They have the articulatory positions as shown in Table 1.

The following list of words illustrates the use of each of the consonant phonemes. The illustrative consonants in the examples all occur word-initially, except for /θ/, which never occurs word-initially. The phonotactics of segmental Creek phonemes will be discussed in section 2.5.

(3) /p/ /piŋko/ 'boat'
(4) /t/ /toŋwa/ 'eye'
(5) /k/ /kiŋita/ 'to know'
(6) /c/ /cokwa/ 'mouth'
(7) /f/ /falaasko/ 'bottle'
(8) /ɬ/ /ɬaọko/ 'fish'
(9) /s/ /sopaakta/ 'frog'
2.2.2 Vowel Phonemes

The following is a table of the four vowel phonemes of Creek indicating relative degree of height and fronting:

\[
\begin{array}{c}
  & i & e & o & a \\
\end{array}
\]

Table 2

/i/ is high, front, tense, and unrounded. /e/ is mid, front, lax, and unrounded. /a/ is low, back, lax, and unrounded. And /o/ is mid, back, lax, and rounded. All four vowels can be geminates phonemically. I will analyze geminates as a result of the phonotactics rather than as four long vowel phonemes in addition to those in the table above because I consider the gemination of vowels as being parallel to the gemination of consonants. The following list of words illustrates the use of each of the vowel phonemes. Vowel allophones will be discussed in section 2.3.2.

(17) /i/ /isti/ 'person'
(18) /e/    /pahey/       'grass, hay'
(19) /a/    /sata/       'apple'
(20) /o/    /pokko/      'ball'

2.3 Allophones of Segmental Phonemes

In this section, fundamental allophonic rules will be presented. The rules will be simple and the phonetic notation broad since my major goal is to motivate the segmental phonemic inventory presented in section 2.2. All of the allophonic rules that are discussed here might more accurately be called strong allophonic tendencies. Each 'rule' has its occasional exception, caused by what for our broad purposes could be called limited free variation, though more detailed study in a work devoted to Creek phonology would probably reveal conditioning environments. For convenience sake, only phonemic, or unpredictable, tone will be marked in the examples in this section and that only in the phonemic notation. The problem of predictable and unpredictable tone will be discussed in detail in section 2.6.

2.3.1 Allophones of Consonant Phonemes

Rule 1:

/obstruent ---> voiced / voiced __ vocalic

/ ---> voiceless / elsewhere
Rule 1 simply formulates the observation that all obstruents are voiced when surrounded by voiced phonemes, except a following glide. Elsewhere these consonants are voiceless. In fact, a good test for obstruent gemination is voicelessness. Even though the glides, /w/ and /y/, are voiced, when they follow an obstruent, the obstruent is not voiced even if there is a preceding voiced phoneme. If a glide precedes the obstruent and any voiced phoneme other than a glide follows, the obstruent is voiced. This is why in the formalization of Rule 1 the conditioning environment following the obstruent must be a vocalic phoneme. Glides are non-vocalic.

Examples of Rule 1:

In (21)-(27), the (a) examples illustrate the effect of a surrounding voiced environment, while the (b) examples illustrate 'elsewhere' cases. In (28), the (a)-(d) examples illustrate the special elsewhere case of a following glide. The (e) and (f) examples illustrate the voicing effect of a preceding glide. Examples (21b), (28d), and (28e) illustrate that /h/ remains unvoiced even if surrounded by voiced vocalics. The diacritic [m] in (26a) and elsewhere in this chapter indicates voicing of the dental fricative /ʃ/. Again, for the reasons outlined in section 2.2.1, I consider /h/ not an obstruent but a sonorant.

/p/ (21)a. hompas ---> [hōmbàš] 'Eat (sg.subj.)'
b. pahey ----> [pahey] 'grass'
/t/ (22)a. hompita ----> [h∔mbida] 'to eat'
b. hoktii ----> [hoqtii] 'woman'
/k/ (23)a. ika ----> [iga] 'head'
b. akkopanita ----> [aqqobănida] 'to play'
/c/ (24)a. itoci ----> [idvji] 'small tree, stick'
b. iccaaswa ----> [Itčaašwa] 'beaver'
/f/ (25)a. cofi ----> [čvvi] 'rabbit'
b. paffaniidoMs ----> [pěffaniidoos] 'He is fast'
/l/ (26)a. tooloofa ----> [tvɔeova] 'face'
b. caike ----> [čaečki] 'my father'
/s/ (27)a. hasi ----> [haži] 'sun'
b. iskita ----> [Iškida] 'to drink'
/s/ (28)a. iccaaswa ----> [Itčaašwa] 'beaver'
/s/ b. apiswa ----> [abišwa] 'meat'
/k/ c. šaaomakweyya ----> [šaaomaqweyya] 'fisherman'
/k/ d. atokyihattii ----> [advkyiibattii] 'lightening'
/k/ e. ahawki ----> [aŋawgi] 'door'
/k/ f. aweykita ----> [aweygida] 'to throw'

Rule 2:

dental ----> palatal / palatal obstruent __

----> dental / elsewhere

Rule 2 formulates the tendency for dentals to be
realized as palatals after the palatal obstruents /c/ and /s/. Elsewhere dentals are realized as dentals.

Examples of Rule 2:

Examples (29a)-(29d) and (30) illustrate Rule 2, while the remaining examples in (29) illustrate the 'elsewhere' case. I do not have examples of /c/ before /t/, /l/, and /n/ because these combinations do not occur in my data. In (30), the /c/ occurs before the frequently used [t] suffix. The reason I have /s/ before all four dental consonants is that in most cases the /s/ is the realization of the frequently used instrument prefix [is]. This is the case with /s/ in (29b)-(29d). Only /isti/ in (29a) is morphologically simple. In fact, the only reason that this rule is included in this section on consonant allophonic is that the [is] instrument prefix is used frequently. Hence, the retroflexing of dentals after this morpheme is frequent.

(29a)

a. isti ---→ [Ištɪ] 'person'
b. šlaafka ---→ [šlaafka] 'knife'
c. slitkita ---→ [šlItkida] 'motorcycle, bicycle'
d. snafkita ---→ [šnafkida] 'bat, club'
e. ito ---→ [ido] 'wood, tree'
f. atakša ---→ [adaqša] 'cat'
g. takleyki ---→ [taGleygi] 'bread'
h. palakna ---→ [palaGna] 'plate'

(30) nooctoomes ---→ [nooc̪tōomes] 'I slept'
Rule 3:

c ---\(\rightarrow\) [t\(\ddot{c}\)] / ___ c

Again, the reasoning behind analyzing phonetic [t\(\ddot{c}\)] as /cc/ is presented at length in Haas (1938). Rule 3 states the generalization that geminate /c/ is realized as [t\(\ddot{c}\)] with the gemination specifically being realized as extra long closure. /c/ is realized elsewhere as outlined in Allophonic Rule 1.

Examples of Rule 3:

(31)a. icca ---\(\rightarrow\) [I\(\ddot{t}\)\(\ddot{c}\)a] 'gun'
   b. iccaaswa ---\(\rightarrow\) [I\(\ddot{t}\)\(\ddot{c}\)aaswa] 'beaver'

Rule 4:

\[
\text{velar stop ---\(\rightarrow\) uvular stop} / \quad o \quad \{\text{non-high vowel}\} / \quad a \quad c
\]

---\(\rightarrow\) uvular fricative / a ___ non-high vowel

---\(\rightarrow\) velar stop / elsewhere

Rule 4 states that /k/, realized as a [k] or [g] depending on voicing environment, will be phonetically uvular [g] or [G] in the environment of a preceding /o/ and a following consonant or vowel that is not /i/ or in the environment of a preceding /a/ and a following consonant.
The second portion of Rule 4 states that /k/ is further realized as a [χ] or [ŋ], again depending on voicing environment, in the environment of a preceding /a/ and a following vowel that is not /i/. /k/ is realized as a velar elsewhere.

Examples of Rule 4:

Set (32) contains examples of conditioning /o/, (33) examples of conditioning /a/, and (34) examples of 'elsewhere' conditioning, including three examples in (d)-(f) of a following /i/ and a preceding /o/ or /a/:  

(32)a. cokwa  --->  [χwqwa]  'mouth'
b. pokko  --->  [poqqo]  'ball'
c. cooka  --->  [χwqwa]  'paper'
d. coko  --->  [χGo]  'house'
(33)a. isakpa  --->  [ižaqpa]  'arm'
b. sopaaqta  --->  [χvaqta]  'frog'
c. waaka  --->  [waawaa]  'cow'
d. caka  --->  [χawaa]  'my head'
e. hakeykkakaq #k#  --->  [hagëykkakaq] 'They are crying'
(34)a. miskii  --->  [miškii]  'summer'
b. ickoci  --->  [iškoji]  'aunt'
c. iŋkaa  --->  [iŋgaa]  'yes'
d. ahookii  --->  [ahoogii]  'cough'
e. yaacaakiis  --->  [yaaŋgii] 'They want it'
f. naakin  --->  [naagIn]  'something (obl.)'
Rule 5:
\[
\{ \text{nasal} \} \quad \longrightarrow \quad \text{voiceless} / \quad \_\_\_ \; hC
\]
\[
\{ \text{glide} \} \quad \longrightarrow \quad \text{voiced} / \quad \text{elsewhere}
\]

Rule 5 formalizes the observation that all of the voiced sonorants except /l/ are voiceless when followed by /h/ and another consonant. Haas (1977b.200) speculates that the reason /l/ does not occur voiceless is that 'a hypothetical combination *1h (in *1hC) has been replaced by the spirantal voiceless lateral ɨ which belongs strictly to the class of spirants along with f, s, and h.' Elsewhere the sonorants /m/, /n/, /ŋ/, /w/, and /y/ are voiced. In the following, a small circle beneath the affected sonorant is used for voiceless allophones.

Examples of Rule 5:

The examples in (35) illustrate Rule 5. 'Elsewhere' cases are not provided here as they are available throughout this chapter. Example (35e) is not in my data. It is from Haas (1977b.200), and I include it only because it is reasonable to assume that Rule 5 extends to the sonorant /w/ as well. I have no voiceless /w/ in my data, probably because the sequence /awC/ is extremely rare in Creek. The only such sequence that I have is in the noun /ahawki/ 'door'. It is originally Haas' (1977b.194) idea to use /h/ to avoid positing voiceless sonorant phonemes
that would contrast with voiced sonorant phonemes. Haas does not say why she uses the inter-consonantal /h/, i.e., whether it derives from morphophonemics, comparative data, or simple analytic convenience. But there is morphophonemic evidence for this /h/. The plural subject stem for 'to cry' is [hakeyh-ic-ita], in which the final /k/ of the singular subject stem [hakeyhk-ita] (35d) does not occur and a plural [ic] suffix occurs. But note that the /h/ does occur, even in the absence of the /k/.

(35)a. camhcaaka ---› [camcaaka] 'bell'
   b. wanhkita ---› [wṹŋkida] 'to thirst'
   c. moŋhkos ---› [moŋkoŋ] 'It is not'
   d. hakeyhkita ---› [hakeykida] 'to cry'
   e. akcawhko ---› [akcawko] 'least bittern (bird)'

As our examples have shown thus far, the phoneme /ŋ/ precedes only the velar /k/ (example [34c]) or the sequence /hk/ (example [35c]). This would be an appropriate place to discuss the velarization of nasals being an allophonic process, if it were an allophonic process, but it isn't. See the following examples of nasal phonemes along with their phonetic realizations:

(36)a. iŋki ---› [ĩŋgi] 'hand'
   b. yaloŋka ---› [yaloŋga] 'root'
   c. paksåŋkii ---› [pakšåŋgii] 'yesterday'
   d. moŋks ---› [moŋkš] 'No'
(37)a. imka ---› [ĩmga] 'gift'
b. hamkin \(\rightarrow [\text{h}\tilde{\text{m}}\text{gǐn}]\) 'one'

c. ahamkatita \(\rightarrow [\text{ah}\tilde{\text{m}}\text{gadida}]\) 'to count'

d. tamkita \(\rightarrow [\text{t}\tilde{\text{m}}\text{gida}]\) 'to fly'

(38)a. afankita \(\rightarrow [\text{av}\tilde{\text{u}}\text{ngida}]\) 'to kiss'

b. panka \(\rightarrow [\text{p}\tilde{\text{u}}\text{nga}]\) 'dance'

c. hopanka \(\rightarrow [\text{hob}\tilde{\text{u}}\text{nga}]\) 'break'

d. acinkita \(\rightarrow [\text{a}\tilde{\text{u}}\text{ngida}]\) 'to climb'

Because both \([m]\) and \([n]\) occur phonetically before /k/ in (37) and (38), \([\eta]\) cannot be an allophone of /m/ or /n/.

Examples (35b)-(35c) show us that /n/ and /n/ contrast before the cluster /hk/ as well.

2.3.2 Vowel Allophonics

Rule 6:

\[ \mathcal{V}(\mathcal{V}) ([h, y]) \rightarrow \tilde{\mathcal{V}}(\tilde{\mathcal{V}}) ([\tilde{h}, \tilde{y}]) / \_ \_ \_ \_ C^\mathcal{M} \]

Rule 6 generalizes the observation that vowels, whether geminate or not, are nasalized before a nasal consonant optionally preceded by the sonorants /h/ or /y/ and that these optional sonorants are nasalized as well before a nasal consonant. I suspect that this rule extends to any sonorant before a nasal consonant, but since these consonant clusters are rare, I do not have the data to illustrate the case. Elsewhere these vowels are oral.

Examples of Rule 6:

(39)a. campa \(\rightarrow [\text{c}\tilde{\text{m}}\text{ba}]\) 'sweet'

b. foni \(\rightarrow [\text{f}\tilde{\text{u}}\text{ni}]\) 'bone'
c. laani ---+ [l̂aːni] 'yellow'
d. mosinnita ---+ [moʃ̊íːnɪtta] 'today'
e. yokseynita ---+ [yɔq̊ʃəynɪdə] 'flu, bad cold'
f. imtooMeyŋks ---+ [ɪmdɔoweyŋks] 'I gave it away'
g. cincahmaciis ---+ [cʰɪncəhməciɨʃ] 'I am mad at you'
h. ohmillita ---+ [ɔhmɪllɪdə] 'to appoint'

In each of the examples of (39), except (39f), there is an 'elsewhere' case either following a nasal consonant or preceding or following a non-nasal consonant. Examples (25b), (30), and (39f) deserve comment here since each contains phonetic nasalization of the sequence /oo/ in the absence of a following nasal. The [ʊʊ] or [ʊʊw] sequence in each of these examples is a realization of the auxiliary morpheme [ooM], whose semantics is discussed at length in Chapter 7. The realization of the //m// morphophoneme in /ooM/ is either ø, [w̃], [m], or [n] plus nasalization of the preceding /oo/. Note in (30) and (39f) that the [w̃] is nasalized and in (30) that the [e] phone following [w̃] is nasalized as well. When the realization is [w̃] or ø, a segmental nasal conditioning nasalization is not present. In section 2.7, we will discuss with further examples whether this is a problem of allophonic or morphophonemic variation.

The most widespread generalization, besides Rule 6, that we can make about Creek vowels is that when they are geminated, only /oo/ has phonetic realizations, discussed
in Rule 9 below, in addition to the oral and nasal variants
discussed as a result of Rule 6. If we exclude the glide
effect that a following /y/ has on /e/, /e/ has no phonetic
realizations, geminated or not, other than the oral and
nasal variants discussed as a result of Rule 6. Because I
will discuss /e/ in some detail in section 2.7 and because
it has no realizations other than the oral and nasal
variants, I will ignore it here.

Rule 7:

/i/ ----> [I] / ___ {CC, C#}

----> [i] / elsewhere

The allophones of /i/ is simpler than any of the
other vowels except /e/, the latter of which Haas
(1940:149) aptly labels a 'defective phoneme'. Rule 7
formalizes the observation that /i/ is realized as [I] in
closed syllables and as [i] in open syllables. [I] is
high, front, lax, and unrounded.

Examples of Rule 7:

The examples of (40) illustrate the conditioning
environments CC and C#, and those of (41) illustrate
'elsewhere' conditioning.

(40)a. niskacoko ----> [nIska^vGo] 'store'
    b. citto ----> [cItto] 'snake'
    c. oostin ----> [ooSTIn] 'four'
d. naakin  --->  [naagĩn]  'something (obl.)'
(41)a. caskita  --->  [čaŋkida]  'to chop'
b. ifa  --->  [iva]  'dog'
c. foni  --->  [fɔnĩ]  'bone'
d. kasappiiš  --->  [kaŋappiiʃ]  'It's cold'

Rule 8:

/a/  --->  [ə]  /  CC, C# (first C of coda is non-back)

    --->  [a]  /  elsewhere

Rule 8 shows that /a/ is realized as [ə] in a closed syllable in which the first consonant of the coda is not a back consonant. [ə] is the centralized allophone of /a/. Elsewhere /a/ is realized as [a].

Examples of Rule 8:

The forms of (42) illustrate the realization of /a/ as [ə], and those of (43) show the realization of /a/ as [a] due to a coda in which the first consonant is a back consonant. The other elsewhere case, in which the syllable containing /a/ is open, is provided in (44).

(42)a. maskokii  --->  [məskɔ̃i]  'Muskogee'
b. kalfo  --->  [kəlvo]  'catfish'
c. santalakoci  --->  [səndalaʃɔj]  'perch' (fish)
d. cacki  --->  [çaŋkĩ]  'my mother'
e. tackii  --->  [təŋkĩi]  'cut'
f. inwaarias  --->  [ĩnwaariaŋ]  'Cut it (sg.subj.)'
g. anhilapkiis ——> [ʔ̃n̩hɪl̩a̱pkiis] 'I'm in a hurry'

h. opaswa ——> [ɔbəʃwa] 'juice'

i. hatki ——> [hɑ̂tki] 'white'

(43)a. isakpa ——> [iʃakpa] 'arm'

b. ɬakko ——> [ɿl̩akko] 'big'

c. caŋki ——> [çaŋgi] 'my hand'

d. cahkiipin ——> [ʧ̃hkiib̩ɪn] 'five'

(44)a. hasi ——> [hɑ̂zi] 'sun'

b. hatikpeyka ——> [hɑ̃ɪkpeyoŋa] 'pants'

c. całoofa ——> [ʧ̃aboovə] 'field'

d. tacita ——> [tajida] 'to cut'

Rule 9:

/o/ ——> [ʊ] / [t, c, s] ____ C

--- > [o] / elsewhere

Rule 9 makes the generalization that /o/ is realized as [ʊ] in the environment of preceding /t/, /c/, or /s/ and a following consonant. The syllable may be open or closed. [ʊ] is back, high, lax, and rounded. Elsewhere /o/ is realized as [o].

Examples of Rule 9:

Examples of a preceding /t/, /c/, and /s/ conditioning [ʊ] are provided in (45). Note from (45e)-(45g) that geminated /o/ can have a conditioned long allomorph in addition to the oral and nasal variants discussed as a
result of Rule 6. As has been already pointed out, /o/ is unique among the Creek vowel phonemes in this respect. The forms of (45a), (45b), and (45f) have a conditioned [u] in a closed syllable; the remainder are in open syllables. Note from (46a) and (46b) that final open syllables do not produce the [u] allophone. Evidence is provided in (47) that the remaining dental and palatal consonants, /i/, /l/, /n/, and /y/, do not condition [u], and (48) provides a variety of 'elsewhere' cases.

(45)a. toknaawa ---\> [tvGnaawa] 'money'
   b. cotkosi ---\> [čvtkozi] 'something small'
   c. itoci ---\> [idvji] 'little tree, stick'
   d. coko ---\> [čvGo] 'house'
   e. cooka ---\> [čvGa] 'paper'
   f. soolki ---\> [svulg]i] 'many'
   g. sooyapka ---\> [svvyapka] 'pillow'

(46)a. ico ---\> [iyo] 'deer'
   b. ito ---\> [ido] 'tree'

(47)a. ohloloii ---\> [ohlolobii] 'year'
   b. taloofa ---\> [taloova] 'town'
   c. nočecita ---\> [nočejida] 'to cook'
   d. yoopoo ---\> [yooboo] 'nose'

(48)a. mokkecka ---\> [mooqcečka] 'smoke'
   b. capoofa ---\> [čabooova] 'field'
   c. ahocita ---\> [ahočida] 'to plant'
   d. oponaka ---\> [obōnač]a 'language'
2.4 Tonal Phonemes

In Creek, high tone /\/, falling tone /\/_/, and rising tone /\/_/ are phonemic. My understanding of Creek tone would be considerably less than it is if it were not for Haas' (1977c) detailed and, as I will argue, nearly complete discussion of the subject. Except for monosyllabic words with the structure of CV or V, what will be called light syllables, every Creek word will have at least one syllable with high, falling, or rising tone. However, with many words the distribution and particular values of high tone are entirely predictable based on syllabic structure. This is why none of the examples in section 2.2 is marked for tone. The placement of tone is predictable in each of them. Discussion of the rules of predictable tone will occur in section 2.6.1 on phonotactics, and discussion of the behavior of unpredictable tone will occur in section 2.6.2. Haas (1977c) makes these distinctions between predictable and unpredictable tone. I will rely heavily on her rules for both predictable and unpredictable tone in my discussion. Sections 2.6.1 and 2.6.2 will contain discussion of what could be called tonal allophonics. Tone is phonemic in Creek because some words have inherent unpredictable tone patterns and because tone is of central importance in the marking of aspect. The following examples illustrate both
predictable and unpredictable tone:

(49) /a./ [hokti] 'woman'
    b. /yaacakicos/ 'They don't want it'

(50) /ʌ/ /toloösι/ 'chicken'

(51) /v/ /cahaktiiśkiś/ 'I'm sneezing all the time'

The Creek word for 'woman' (49a) has what Haas (1977c) calls predictable tonal accent on the final syllable, while (49b) has unpredictable high tone associated with the first syllable of the negative morpheme /̄i ko/. The word for 'chicken' (50) has inherent unpredictable falling tone. And (51) has unpredictable high rising tone as part of the realization of the rising tone grade, discussed in detail in Chapter 4. Falling tone is associated with both lexemes and verbal tense-aspect marking. High tone and rising tone mark grammatical morphemes and tense-aspect distinctions. Rising tone cooccurs with nasalization, never realized as a segmentable nasal phoneme.

2.5 Phonotactics of Segmental Phonemes

This section contains discussion of syllable and word phonotactics for Creek segmental phonemes.

2.5.1 Phonotactics of the Syllable

The following types of syllables occur in Creek words:

(52) v itoci 'stick'
(53) v v iipaaxkin 'six'
| (54) CV   | pahey   | 'grass'        |
| (55) CVV  | laani   | 'green, yellow'|
| (56) VC   | isti    | 'person'       |
| (57) VVC  | aafka   | 'rice'         |
| (58) CVC  | pakko   | 'grape'        |
| (59) CVVC | footkitoom | 'He's whistling'|
| (60) CCV  | swanaaka | 'rope'        |
| (61) CCVV | staapoosiiska | 'explosives' |
| (62) CCVC | slitkita | 'motorcycle, bicycle' |
| (63) CCVVC | slaafka | 'knife'        |
| (64) CVCC | hompaks | 'Eat (pl.subj.)' |
| (65) CVVCC | wohkaaks | 'They are barking' |
| (66) CVCCC | paanayāŋŋk | 'I danced (yesterday)' |
| (67) CVCCCC | haaATOOMEVŋŋk | 'I built it' |

As yet, the following patterns are unattested in my data or in anyone else's published data: V(V)CC; CCV(V)CC; CCV(V)CCC; and four-consonant clusters other than that of (67).

2.5.2 Phonotactics of the Word

There are two remarkable patterns revealed in the data of (52)-(67). First, the only complex onsets that occur have as the first consonant /s/. See (60)-(63). This consonant is the allomorphic realization of //is/; the instrument prefix. In (60) for example, /wanaaka/ means
'tying'. Thus, /swanaaka/ means, analytically, 'instrument by which tying is done'. The forms of (60)-(63) all have a variant in which an initial //i// is realized, though the allomorph without /i/ is by far the more common. /s/- initial clusters are the only clusters allowed word-initially. Within words, syllable clusters, excepting those produced by juxtaposing the single coda of one syllable and the single onset of another are rare. There are no word-internal onset clusters. In (58) and (61), for example, the syllable stress for the ultimate syllable begins on /k/. The second remarkable fact revealed by the data in (52)-(67) is that coda clusters word-finally seem not to vary much either. Only /ks/ in (64) and (65), /ŋks/ in (66), and /yŋks/ in (67) are evident. Besides these, there are only five other two-consonant cluster possibilities: /nt/, /nk/, /yt/, /ys/, and /yn/, all of which involve either /n/ or /y/. The following are examples of the few word-internal coda clusters that occur in my data or any other published data:

(68) wahətooMɛs 'I cut it'
(69) yahevŋka 'singer'
(70) nokleyŋktooMɛs 'He's choking'
(71) satookkahančŋkā 'Are you going to drive?'

In all of these either /h/, /y/, or /n/ is involved. Word-internally, any consonant may be geminated across syllable
boundaries. There is evidence in the data only for the vowel sequence /ao(o)/ across syllable boundaries. The following examples demonstrate these two possibilities:

(72) hasi acoossitooms 'The sun is coming up.'
(73) nanolecikos 'Don't bother it'

2.6 Allophonicis (Phonotactics) of Tonal Phonemes

This two-part section contains discussion of the allophonics, which depend on phonotactics, of both predictable and unpredictable tone.

2.6.1 Phonotactics of Predictable Tone

As already indicated, none of the examples in (1)-(20) is marked for tone, because the placement of tone in each of the words is predictable given the syllable structure of each word. Thus far in this chapter, /\, /\, or /\ occurs only in the phonemic notation of those words in which tone is unpredictable. Unpredictable tone is much more common than it may appear to be at this point. This is because most unpredictable tone occurs in inflected verb forms, and most forms cited thus far are uninflected nouns and verbs.

It is clear from section 2.5.1 that the basic syllable structure in Creek is (C)V(V)(C). It is on the basis of variations in this basic syllable structure that placement of non-phonemic tone depends. As Haas (1977c.196) argues, there are three basic variations in Creek syllable
structure: light (L), heavy (H), and aphaeretic (A). Aphaeretic syllables are non-realized initial syllables that may be heavy or light. Their underlying presence is detectable if the new phonemic initial syllable, which results from the non-realization of the initial morphophonemic syllable, is light. Essentially in Haas' notation, the following examples both give the notation for and define the different types of light and heavy syllables. Though the segmental symbols are phonemic in the following examples, the tone markings are predictable and thus not phonemic. Aphaeretic syllables are noted with an apostrophe. Predictable tonal accent is marked by '.

<table>
<thead>
<tr>
<th>EXAMPLE</th>
<th>WEIGHT</th>
<th>GLOSS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Light</td>
<td>#V</td>
<td>(74) ifa'</td>
</tr>
<tr>
<td>CV</td>
<td>(75) oko'</td>
<td>LL</td>
</tr>
<tr>
<td>Heavy</td>
<td>#VV</td>
<td>(76) aaci</td>
</tr>
<tr>
<td>CVV</td>
<td>(77) cooka</td>
<td>HL</td>
</tr>
<tr>
<td>#VC</td>
<td>(78) illi</td>
<td>HL</td>
</tr>
<tr>
<td>#VVC</td>
<td>(79) aafka</td>
<td>HL</td>
</tr>
<tr>
<td>CVC</td>
<td>(80) hacc</td>
<td>HL</td>
</tr>
<tr>
<td>CVVC</td>
<td>(81) miikko</td>
<td>HL</td>
</tr>
<tr>
<td>Aphaeretic</td>
<td>(82)a. 'salita'</td>
<td>ALLL</td>
</tr>
<tr>
<td></td>
<td>b. 'panita'</td>
<td>ALLL</td>
</tr>
</tbody>
</table>

Thus, a light syllable is essentially an open syllable with a short vowel. A heavy syllable is either a closed syllable or an open syllable with a long vowel. Examples
(74)-(82) are marked for tone, though in each it is predictable from syllable weight. Briefly and incompletely, the rule is that relatively high tone falls on the last heavy syllable if there is one, and if not, tone falls on the last even-numbered light syllable. The tone marked in (74-82) is that of what Haas (1977c.197) calls the 'key syllable'. Only high tone /'/ is sometimes predictable. Both rising tone /\!/ and falling tone /\!/ are always phonemic. Falling tone occurs occasionally with nouns, but its most frequent use is for tense-aspect distinctions in an inflected verb. The aphaeretic syllables in (82), whose type I will not explore further, are detectable because the tonal accent falls on the third syllables of the 'surface' forms. If the aphaeretic syllables were not there on the lexemic level, the tonal accent would fall on the second syllables of the 'surface' forms of (82). Thus, one of the revisions, to be discussed in more detail later, of the brief and incomplete rule given above for the prediction of tonal accent is that the tonal accent falls on the last even-numbered light syllable of the lexemic form. What is deleted in (82a) is an initial /i/ of the phonemic realization of [is], the instrumental prefix. This is the most common aphaeretic syllable in my data. An initial /o/ is deleted in (82b).

Inflected verbs normally have phonemic tone marking tense-aspect distinctions and/or phonemic tone that is
inherent for particular morphemes. Rules for the prediction of non-phonemic tone apply only to nouns without phonemic tone, whether morphologically complex or not, and to verbs and participles without phonemic tone.

All of Haas' (1977c.202-04) rules for the prediction of non-phonemic tone are descriptively accurate for current Creek, though they do not provide a maximally integrated account of tone placement. The following, lettered by me, are Haas' rules. Examples are from my own data though they overlap with Haas' sometimes. The numbers and letters in the third column of each set of examples relate to relative tonal levels, which will be discussed after a presentation of Haas' rules. The data illustrating each rule have tonal accent marked with a '. The following is the first of four, labeled A through D:

A. 'In any string of L syllables containing no fixed accents the tonal accent will be placed on the last even-numbered syllable.'

Examples of A:

(83) ifa'    LL    i-3    'dog'
(84) ifoci'  LLL   i-2-d  'puppy'
(85) amifoci' LLLL  i-3-m-3 'my puppy'
(86) coko'   LL    i-3    'house'
(87) yanasa' LLL   i-2-d  'buffalo'
(88) ahocita' LLLL  i-3-m-3 'to plant'
B. 'If the penult is an H syllable and the ultima a L one, the tonal accent will be placed on the penult.'

Examples of B:

(89) isti  
      HL  
      2-d  
      'person'

(90) waaka  
      HL  
      2-d  
      'cow'

(91) capoofa  
      LHL  
      i-2-d  
      'field'

(92) kanhalwi  
      HHL  
      3-2-d  
      'hill'

(93) piixo  
      HL  
      2-d  
      'boat'

(94) tamka  
      HL  
      2-d  
      'to fly'

(95) piixotamka  
      HLHL  
      3-m-2-d  
      'airplane'

(96) akkopanka  
      HLHL  
      3-m-2-d  
      'play'

(97) takleykcampaa  
      HHHL  
      3-3-2-d  
      'cake'

C. 'Furthermore, if there is a string of L syllables following a H syllable, the rule of placing the tonal accent on the last even-numbered L syllable will apply.'

Examples of C:

(98) istoci  
      HLL  
      3-m-3  
      'baby'

(99) hompita  
      HLL  
      3-m-3  
      'food'

(100) nisvakoko  
      HLLL  
      3-m-2-d  
      'store'

(101) timponaka  
      HLLL  
      3-m-2-d  
      'conversation'

(102) akkopanita  
      HLLLL  
      3-m-3-m-3  
      'to play'

(103) santalakosi  
      HLLLL  
      3-m-3-m-3  
      'perch' (fish)

D. Finally, Haas writes, 'if the ultima is a H syllable, then the placement of the tonal accent is no longer automatic. Instead morphological rules come into play at this point. Hence the tonal accent may be on the
penult or on the ultima depending on nonphonetic factors.

Examples of D:

(104) a. hoktie
      b. hatki

(105) nittaa

(106) yoopoo

(107) iŋkaa

(108) miskii

(109) tinitkii

Inspection of the examples of (104)-(109) seems to show them to be more patterned than Haas' Rule D suggests. In (104)-(109), the placement of tonal accent is entirely predictable. It occurs on the last H syllable. In Rule D, it is not clear whether Haas means to include in it structures in which the penultimate is a light syllable. All of her examples have an HH structure. In my data, lexemic words with the structure such that the last two syllables are LH have the tonal accent on the ultima.

Examples:

(110) niįii

(111) hapoo

(112) nihaa

(113) castalii

(114) hockakii

(115) takocaɑ
Haas provides only two examples of words with HH syllable structure in which the tonal accent does not occur on the last H syllable. One of these I have not been able to elicit from any of my speakers. The other is the Creek word for 'white', given in (104b). In Haas' data, the word ends in a geminated /i/, making the syllable structure HH, and she records the tonal accent on the first heavy syllable. Haas (1977c.204) does not indicate what the morphological rules are that cancel the predictable assignment of relatively high tone to the ultimate H syllable. I will discuss what I have found to be the morphological rules and data that show Haas' Rule D to be accurate after I discuss Rules A-C.

Haas's first three rules accurately describe the placement of primary tone in words where this can be predicted due to the lack of morphemes with inherent tone. Her description (1977c.202) of the tonal pattern of the whole word is based on the position of the tonal accent. Haas (1977c.196) writes, 'there is a pitch-defined key syllable which determines the pitches of surrounding syllables unless another key syllable follows.' This, I believe, is the proper way to analyze Creek tone when non-predictable, and thus phonemic tone, is involved because the presence of phonemic tone will influence the tonal patterning of every syllable to the right of it, whether it has phonemic or non-phonemic tone. But when in a word
there is only predictable tone, it seems most natural to describe first the general rules of total tonal assignment, which are based on prosodic principles, and then describe the rather simple rule for the placement of Haas' tonal accent. It seems that the basic problem with Haas' analysis is that it equates the 'key syllables' of a predictable tonal accent with a non-predictable tonal accent.

The major problem in reanalyzing non-phonemic tone is that there is not yet an integrated principle to account for the patterning described in Haas' Rules A-C and my observation about examples (104)-(115). A solution to this problem is suggested by the tonal patterning of all syllables in each word. That patterning is revealed for examples (83)-(115) by the numbers and letters of the third column in each set of examples. This notation, developed by Haas (1977c.197), uses a 'descending scale of 1 (highest) through 5 or more to d ("deep"). (The "deep" pitch is the lowest in the word, no matter how many syllables precede.)' The letter 'i' indicates an 'initial' tone, which is slightly lower than the tone of the immediately following syllable, whatever that might be. The letter 'm' indicates a 'medial' tone, which is likewise slightly lower than the tone of the immediately following syllable. A syllable with 'm' tone may also have a tone which is equal in level to that of the following syllable.
Thus in (85) the third syllable, which is marked for 'm' tone, may have level 3 tone. This variation is expected as a result of common tonal assimilation. Whether a syllable with primary tone has 2 or 3 level tone depends on whether it is final or non-final. Thus, (83) with primary tone on the final syllable has a primary tone of 3, and (84) with primary tone on a non-final syllable has a primary tone of 2. These and other fine phonetic distinctions, fully detailed by Haas, need not concern us here. We are primarily interested in relative differences in tone between adjacent syllables. If we look at the relative tonal differences between adjacent syllables in (83)-(88), we see that the basic pattern is iambic, with relatively high tone falling on every other syllable. Haas reasonably assigns primary tone to the last syllable of (85) on the basis that tone does not come down on the final syllable of (85). That the second syllable of (85) has the same '3' tone of the final syllable is a result of both the second syllable being a non-initial L syllable and the final syllable being a final L syllable with primary tone. Compare (85) with (100) and (101) where different conditioning environments—an initial H syllable and a non-final L syllable with primary tone—produce a tonal contour such that the syllable with primary tone has a higher tone than any other syllable in the word.

Looking simply at the examples of (83)-(88), we have
the rule that high tone is assigned on the basis of an iambic foot, with no syllable in a two foot word having the highest tone. See (85) and (88) again. Examples (89)-(97) show us that tone is not simply iambic; (91) and (92) are iambic but the remaining of (89)-(97) are not. The first pattern that we recognize is that of Haas' rule in B. It holds for all the examples of (89)-(97). None of the ultima L syllables have primary tone. They all have the deepest tone, marked by 'd'. Note that even for (95) and (96), with L syllables as the second syllable of the word, the L syllables do not take primary tone or even relatively high tone. They take a medial tone. Even (97), with an H syllable as the second syllable of the word, does not have an iambic pattern. The second H syllable has the same tone as the first syllable but lower than the third and final H syllable. Haas' observation in B, like that of A, is accurate but stops short of a significant generalization—that H syllables attract relatively high tone, though as I have said, she accurately predicts the tone of H syllables elsewhere. Examples (89)-(91), (93), and (94), all with only one H syllable, have primary tone on that H syllable. Contrast these with the two- and three-syllable words of (83), (84), (86), and (87). Thus, the presence of an H syllable in a disyllabic foot destroys the iambic pattern evident in a disyllabic foot with L syllables. If we compare the trisyllabic (92) with the trisyllabic (84) and
(87), it looks as if an initial H syllable is no different with respect to tone than an initial L syllable, both taking slightly lower tone than the following syllable. But contrast (95) and (96) with (85) and (88). The initial L syllables of (85) and (88) take 'initial' tone, while the initial H syllables of (95) and (96) take level 3 tone, higher than the following medial L syllables. And (97), with two H syllables beginning the word, shows us that two H syllables without primary tone equally attract relatively high tone. Examples (95)–(97) show us that if the last syllable that takes high tone is non-word-final, that syllable takes higher tone than any other syllable that takes high tone. The penultimate H syllables in these words take level 2 tone while the other H syllables take level 3 tone. Examples (100) and (101) with level 2 tone on penultimate L syllables show that this pattern is not peculiar to H syllables.

Haas' Rule C states correctly that Rule A still holds when the string of L syllables follows an H syllable. Examples (98)–(103) demonstrate the interaction of the placement of high tone on H syllables and the iambic placement of high tone in strings of L syllables. In (98) and (99), the initial H syllables as well as the second and final L syllables attract high tone. The pattern is the same in (100) and (101) except that there is an extra L syllable and thus the final high tone is higher than the
other high tones. Examples (102) and (103) pattern the same as (98) and (99) except that they have an extra disyllabic foot with L syllables and thus an extra high tone.

By now, the rules for placement of predictable tonal accent in Creek are apparent:

(1) In a series of L syllables, tonal placement is iambic with relatively high tone falling on every other L syllable.

(2) Every H syllable attracts high tone.

(3) If the last syllable to receive high tone is non-word final, it receives level 2 tone, whether it is a heavy or a light syllable.

(4) If the last syllable to receive high tone is word-final it receives level 3 tone, as do all other syllables that receive relatively high tone.

The problems of tonal placement revealed in examples (83)-(115) are among the simplest in Creek, first, in that they do not involve multiple morphemes with various inherent tonal accents. We will need to discuss these more troublesome morphemes before it is all over. These examples are non-problematic for a second reason also. They do not have any inflectional morphemes. The following examples touch the heart of the problem involved in marking tone--what to mark, what not to mark, and at what level of 'abstraction' to make or not make these marks:
(116)a. paksin HH 2-d 'tommorrow'
   b. aneckan LHH i-2-d 'help'

(117)a. hompas HH 2-d 'Eat (sg.subj.)'
   b. takpaasas HHH 3-2-d 'Sweep the floor (sg.subj.)'

(118)a. poosit HH 2-d 'cat'
   b. nokosit LLH i-2-d 'bear'

All of these examples behave with respect to tonal assignment as if the final syllable in each were light. The tone of each final syllable should be 3, with readjustments to other tones as they would be called for. For example the tonal contour of (116b) should be i-3-3, not i-2-d. The first thing to notice about these examples that do not reveal predictable tone is that they all end in a consonant. All of these word-final consonants are either part of or in themselves suffixal inflectional morphemes. The /n/ in (116a) and (116b) is a realization of the oblique case suffix [n]. These words occur in my data not alone as in citation form but as oblique arguments of complete sentences. And the /t/ of (118a) and (118b) is a realization of the subject case morpheme [t]. The /s/ in (117a) and (117b) is part of the [as] morpheme meaning 'imperative, sg. subj.'.

Adherence to a strictly phonemic solution to the problems of Creek phonology would demand that tone be marked for every word that ends in a consonant since in those words, placement of tone is not fully predictable.
This solution would produce the following type of inconsistency:

(119)a. canotit nokhokiis  'My teeth hurt.'
   b. canoti nokhokiis  'My teeth hurt.'

The addition of the 'optional' subject marker [t] in (119a) somehow makes tone phonemic even though the tone predictably falls on the same syllable in (119b). The transcription in (119a) clearly underestimates what speakers know about /canotit/. It is, in spite of its phonological form, the same word as /canoti/.

A second solution is to say that /n, t, s/ as word-final codas do not create H syllables. Thus the last syllable of /canotit/ would behave as a L syllable. The problem is that this solution is completely unmotivated phonologically. It is true that word-final consonants are rare unless they are inflectional morphemes. The following are among the few examples that I have of word-final consonants that are not inflectional morphemes:

(120) meyt  H  3  'that'
(121) iyaac  LH  i-3  'He needs'
(122) incallah  HHH  3-3-3  'wheel'

Since (120) is monosyllabic and the ultimate of (121) has a geminate peak, only (122) provides absolute evidence that a word-final consonant can make a syllable heavy so that it attracts high tone. The most common word-final consonants are /n, t, s/, and they always occur as inflectional
morphemes.

There is a final clue as to how we should think about the absence of high tone on final syllables made heavy by the addition of /n, t, s/. Speakers will not accept as a citation form example (123a). The (+) marks a morphemic boundary, explained below.

(123)a. canóti+t  LLH  i-2-d  'tooth'
    b. canóti   LLL  i-2-d  'tooth'
(124)a. hoktií   HH  3-3  'woman'
    b. hoktoci  HLL  3-m-3  'small (woman, girl)'

But they will accept /canoti/ in (123b) as a citation form. And both (124a) and (124b) are accepted as citation forms. Note that tonal assignment in (124b) is perfectly regular. This indicates that speakers assign predictable tone on the basis of syllable structure in morphophonemic realizations of lexemes. The subject marker //t// in (123a) is not part of the lexeme //canoti// while the diminutive //oci// combines with //hoktií// in (124b) to form a new lexeme on the basis of which tone may be assigned in a predictable way. A clear distinction between tonal assignment in inflectional and derivational morphemes is more difficult to draw than it might seem here. As we will see in the following section, many 'inflectional' morphemes carry inherent tone and thus affect the placement of predictable tone.
In the practical business of transcription, I will not mark predictable lexemic tone for the very reason that it is predictable. In terms of the lexeme, Haas' Rule D is not applicable, though strictly it is accurate for cases in which the addition of some inflectional morphemes destroys the predictable pattern. The presence of these inflectional morphemes is apparently what Haas means in Rule D when she states that 'morphological rules come into play at this point' (1977c.204).

2.6.2 Phonotactics of Unpredictable Tone

Haas argues that Creek has lexical and inflectional morphemes with fixed tonal accents. As Haas (1977c.204) says, 'This means that under all circumstances this morpheme will retain this accent no matter how many other accents also occur within the word.' Note the following examples of words with such morphemes:

(125) nąak-haay-a HHL 24-3-d 'maker of things'

(126) toloosi √ LHL i-24-d 'chicken'

(127) a. hiiit-aa-t √ HH 21-3 'the good one'
   b. naafk-it-ooM-s HIL 21-m-3 'He can really hit'

(128) niis-ick-ąŋ-k-à HHHH 24-3-4-54 'Did you buy it?'

(129) ca-yaac-ik-ąŋ-k-s LHLH i-24-3-4 'I didn't want it'

(130) ląaf-ay-ąŋ-k-s HIL 24-m-3 'I cut it'
(131)  yaac-ak-tk-so  HLLH   3-m-2-d   'They don't want it'

The transcription above is fully phonemic—except for the morphophoneme $\ddot{m}$ in (127b)—both for segmental phonemes and tonal phonemes. Before we consider tonal patterns in verbal inflection, we should notice from (125) and (126) that inherent tone is not totally restricted to verbal inflection. In (125), the nominalizing prefix $\ddot{n}\ddot{aak}$, here meaning 'something', has an inherent falling tone, specifically starting here at level 2 and falling to level 4. The following $\ddot{m}$ syllable in /haay$/ predictably receives level 3 tone. In (126), falling tone is inherent to the second syllable of $\ddot{t}o\ddot{oos}$, which is morphemically simple. The initial $\ddot{L}$ syllable receives 'i' tone and the final $\ddot{L}$ syllable receives 'd' tone, both according to regular predictable rules for lexical tone assignment.

Only falling tone is ever inherent in lexemes. High level tone and rising tone never are. And in my data I have no examples of inherent falling tone in verbal lexemes. It occurs only in nominal ones.

In (127a) in /hiiita/, the rising tone plus nasalization is not inherent to the morpheme $\ddot{h}i\ddot{i}ita$ 'to be good' but is part of a separate morpheme itself meaning 'continuative or intensive' (Haas 1940). The same is true of the rising tone plus nasalization in (127b). The total realization of this 'continuative or intensive' morpheme includes not only rising tone but vowel lengthening and
nasalization of the final vowel of the root. This rising tone, as I have said, occurs only with inflected verbs as in (127b) or as in example (127a), with participles. This use of the rising tone will be referred to as the 'rising tone grade'. Rising tone and nasalization also occur in questions, as in (128), but this use has nothing to do with the 'continuative or intensive' use. The participial morpheme [aa] in (127a) has no tone but as a final heavy syllable is assigned level 3 tone by regular predictable tonal rules. The same is true in (127b), /naafkitooM/,

Examples (128)-(130) all contain the falling tone grade, meaning here something like 'completive aspect' (Haas 1940). The falling tone grade is realized not only by falling tone but by vowel lengthening of the final vowel of the root. In (128), that root is /nis/ 'to buy', in (129) it is /yac/ 'to want', and in (130) it is /laf/ 'to cut'. In (128), /ick/ 'second-person singular active subject' and /áŋk/ 'past tense' are both marked for inherent tone. In (128), there is evident what Haas (1977c:200) recognizes as a 'downdrift' pattern. Each successive syllable with inherent tone is one step lower than the previous syllable with inherent tone. The initial falling tone of (128) starts at level 2, so the next high tone is 3 and the next 4. The rising tone of the final syllable thus starts with 5 and rises to 4. Note in (129)
that [ca] 'first-person singular stative subject' has no inherent tone and thus has 'i' tone. /ík/ with inherent high tone is a realization of [íko] meaning 'negative'. And /áŋľ/ is the same past tense marker as that in (128). Sentence (129) has the same downdrift pattern as (128) except that it lacks a final rising tone syllable. Sentence (130) also has a downdrift pattern from the initial 2 of the first syllable to the 3 of the last. Note that the /ay/ sequence, here a realization of the 'first-person singular active subject' morpheme, receives 'm' tone, while in (128) /íck/, a realization of the 'second-person singular active subject' morpheme has inherent high tone. This shows us that not all inflectional morphemes, even when they are part of the same paradigm, receive inherent tone. Note also that the light structure of /ay/ has nothing to do with its not receiving inherent tone.

The first syllable of [íko] 'negation', seen in (129) and (131), always is a L syllable and always nevertheless receives inherent high tone. Sentence (131) provides an example, in addition to the [ca] of (129) and the [ay] of (130), of an inflectional morpheme without inherent tone--[ak] 'plural'. Because the vowel of [ak] occurs as the peak of a L syllable /ca/, it receives 'm' tone. Only the /í/ of the morpheme [íko] 'negative' receives inherent high tone in (131). The final H syllable without inherent tone receives 'd' tone. This discussion of inherent tone is
limited in scope since many of the morphemes with inherent
tone will be presented in detail later in the body of this
dissertation. The goal of the discussion here was to
present the basics of tonal patterning, both phonemic and
non-phonemic and to justify the marking only of phonemic,
or as I have called it, inherent tone, non-inherent tone
being predictable, however complicated its rules might be.

2.7 Morphophonemics

In section 2.2.2, I stated that all four vowels in
Creek may be geminated. I have postponed the proof of that
until now because the status of /e/ as a vowel and its
ability to be geminated must be demonstrated with reference
to vowel morphophonemics. The behavior of /e/ must also be
understood within an historical perspective. First, see
the following examples of gemination involving each of
Creek's four vowels:

(132)a. iikana 'land'                  c. nihaa 'fat'
       b. aneecka 'help'                d. cooka 'paper'

There seems to be little that is remarkable about the
examples of (132). But (132b) has an alternate
realization. Note the following data:

(133)a. anecka 'help'
       b. aneecka 'help'
(134)a. anecita 'to help'
       b. anecita 'to help'
(135)a. mokkecka 'smoke'
b. mokkecka 'smoke'

(136)a. mokkecita 'to smoke'
b. mokkecita 'to smoke'

The (a) and (b) words in (133)-(136) are allomorphic variants of one another. The /e/ in the (a) words is non-geminated. In the (b) words, it is geminated. From a comparison of (133) to (134) and (135) to (136), we see that gemination does not depend on the syllable being closed or open. Examples (132a), (132c), and (132d) do not have alternates in which the geminated vowels are non-geminated.

To see why /e/ can be alternately geminated or non-geminated in (133)-(136), we must first look at the historical connection between /e/ and /a/. Note the following distribution pattern of /e/ and /a/:

(137)a. takleyki --- [taGleygi] 'bread'
b. nokleyktoos --- [noGleyktoos] 'He's choking'
c. faayita --- [faayida] 'to hunt'
d. hak Eyhkya Tks --- [ha keykya Tks] 'I cried'

(138)a. hak Eyhkit Tks --- [ha keykita] 'to cry'
b. haykita --- [haykida] 'to yell, yodel'

(139)a. kii Eyt Tks --- [kii Eyd Tks] 'I know'
b. kii Tks --- [kii Tks] 'I know'
c. ki Tks --- [ki Tks] 'Learn (sg.subj.)'

If we look only at the phonetic examples of (137), it looks
as if [e] and [a] are allophonic variants of one another, with [e] occurring before /yC/ and [a] occurring before /yV/. This is the case for most occurrences of [a] and [e] before /y/. Haas (1940,149) credits this distribution to an umlauting of /a/ when it occurs before /y/ in the same syllable, an environment provided by a C following the /y/. Because in her data /e/ occurs only before /yC/, Haas considered calling /e/ an allophone of /a/. But forms like those in my (138) prevented her from doing this. In (138a) and (138b), we have the same conditioning environment following the vowels in question, yet one is [e] and one is [a]. Haas attributes this contrast to the result of dialect mixture. Haas writes, 'Were it not for this fact, it would be unnecessary to set up the phoneme e.'

As the data show in (138), dialect mixture seems still a compelling force in positing the phoneme /e/. But today there is yet another reason to have a phoneme /e/—secondary phonemic splitting. In (139a), the /ey/ sequence realizes the 'first-person singular active subject' morpheme. The morphophonemic variant of this is /ay/ in (137d), conditioned by a vowel following //y/>. In (139b), the active subject morpheme is realized by /e/ with no /y/ following. This morphophonemic variant is conditioned by a following //s/>. With the loss of the conditioning environment //y//, we have contrast, as is demonstrated in the difference between (139b) and (139c).
Sentence (139b) has an alternate, just as the (a) words in (133)-(136) have alternates. Note the following:

(140)a. kiiłes    "I'm learning"
b. kiiłees    "I'm learning"

(141)a. naafkes    "I'm hitting"
b. naafkees    "I'm hitting"

(142)a. hombes    "I'm eating"
b. hombees    "I'm eating"

In (140)-(142), the /e/ in the (a) sentences and the /ee/ in the (b) sentences are both realizations of the [ay] 'first-person singular active subject' morpheme. Note that in none of the examples of (133)-(136) and (140)-(142) does /y/ follow the /e/ or /ee/. It appears, then, that morphophonemically the //y// of (133)-(136) and (140)-(142) is not realized as /y/ preceding a palatal obstruent, either //c// or //s//. Optionally the //y// may be realized as Ø or as /e/ through compensatory lengthening.

If it is realized as /e/, we then have the gemination evident in the (b) examples of (133)-(136) and (140)-(142). In my data, /y/ does not occur as a coda glide for any vowel other than /e/ or /a/. And I have no examples of //y// preceded by //a// and not realized in the presence of a following palatal obstruent. In the remainder of this dissertation, I will transcribe all /e/’s as non-geminated, unless they are required to be geminated by one of the aspectual grades that involve lengthening. All /e/’s have
the option through free variation of being geminated.

Thus our first formalized morphophonemic rule in this chapter is as follows:

MP Rule 1:

//y// ---> [e, ø] / / ___ palatal obstruent

  ---> /y/ / / ___ elsewhere

Note that this rule says nothing about the alternation of /ey/ and /ay/, since it is not fully predictable.

As indicated in section 2.1 of this chapter, the only morphophonemic symbol that is used in normal transcription throughout this dissertation is M, and this will occur only as part of the auxiliary {ooM} morpheme. And in section 2.3.2, I commented briefly on the problems involved in a strictly phonemic transcription of the {ooM} morpheme when it occurs. I now recapitulate that discussion and expand on it with additional examples. Note the following phonemic and phonetic transcriptions:

(143)a. naafkayiitooms ---> [naafkayiidooʃ] 'I'm hitting him'
  b. kasappiitooms ---> [kaʃappiidoʊʃ] 'It's cold'
  c. cacafikniitooms ---> [caʃajigniidoʊʃ] 'I'm healthy'

The examples in (143), like that of (25b), discussed earlier, illustrate the heart of the problem with the
analysis of the phonemic and phonetic realizations of the morpheme [oom]. The /m/ is realized as nasalization of the preceding geminate vowel. Since there is no conditioning nasal environment, one conclusion is that /ɔ/ is a phoneme with an extremely limited distribution—before /s/ and as a realization of the [oom] auxiliary.

We could argue that nasals are realized as nasalization of a preceding vowel before /s/ and therefore say that the nasalization is an allophone of /m/, but the following data show this not to be the case:

(144)a. ifa ansonkiitooms ---> [iva ɔnɔŋgiidɔɔs]
   'I've lost my dog'

b. ansakaaska ---> [ɔnɔGaaska]
   'My razor'

c. anstiimiikiitooms ---> [ɔnɔt̪imIkiidɔɔs]
   'I'm suffering'

Note that the phoneme /n/ in the first-person prefix /an/ in each of these examples does not become only phonetic nasalization of the preceding /a/, though such nasalization does occur. The segmental nasal phoneme is realized as [n] as well. This occurs in three closed syllables in (144). The /n/ in each of these prefixes is actually a realization of the morphophoneme //m//, as the following example shows:

(145) //amifa// ---> /amifa/ ---> [ãmiva]
   'my dog'

Possession can be shown, as in (145) and (144b), by a prefix on the NP or, as in (144a), by a verbal prefix which actually shows affect by the event. In each of the
examples of (144), the morphophoneme //m//, which is realized as /m/ in (145) before a vowel, is realized as /n/, as a result of assimilation to the following spirant.

In Oklahoma Seminole (Nathan 1977.30), the /n/'s of the prefixes in (144) would be realized simply as nasalization of the preceding vowel. But in Creek, the nasalization of //m// before //s// in (143), and incidently in (144a) and (144c), creates a nasal phoneme of extremely limited distribution. To avoid this problem in transcription, as well as some others to be discussed next, I will use M to transcribe the nasal in [oom] and simply not worry further about the phonemic realization.

Once we accept this limitation in our analysis, the following data become non-problematic:

\[(146)\]
\[
\begin{align*}
\text{a. } & \text{ naakitoomâ} & \quad \longrightarrow & \quad \text{[naagidóóowâ]} \\
\text{or } & \text{ b. } & \text{ 'What is it?'} & \quad \longrightarrow & \quad \text{[naagidóóomâ]} \\
\text{or } & \text{ 'I'm a singer'} & \quad \longrightarrow & \quad \text{[yaheygadóóowês]} \\
\text{or } & \text{ c. } & \text{ 'You slept'} & \quad \longrightarrow & \quad \text{[nooj̑g̑któó wikiš]} \\
\text{or } & \text{ d. } & \text{ 'He just hit him'} & \quad \longrightarrow & \quad \text{[naafkidóómiš]}
\end{align*}
\]

As the examples in (146) and (147) show, the morphophoneme
//m// is optionally realized as [ˀw] and nasalization of the preceding and following vowel or [m] and nasalization of the preceding vowel. These realizations are in free variation, though [ˀw] and nasalization is the more common variant. In (146) the following /āā/ is nasalized anyway since the nasalization is part of the realization of the rising tone grade. But (147a), (148a), (149a), and (30) earlier all show that if the //m// is realized as [ˀw] then nasalization spreads not only to preceding vowels and the sonorant /h/ but also to following vowels. These examples show that without the morphophoneme  McK in our transcription we would have to posit at least the following phonemes of limited distribution: /ð/, /i/, /ɛ/, /h/, and /ˀw/. As the examples in (148) show, the morpheme [ooM] has three variants before the 'second-person singular active subject' marker [ɪck]. In (a) and (b) we have the familiar [ˀw] or [m] plus nasalization. In (c) we have reduction both of the [ooM] morpheme and the [ɪck] morpheme. The /i/ is deleted from [ɪck] and an /o/ is deleted from [ooM]. The //m// of the [ooM] morpheme assimilates to the following spirant. And the remaining /o/ is realized as [ˀu]. It is another characteristic of the [ooM] morpheme that it is not realized as [ˀuu] if the vowel is geminate, though elsewhere /oo/ is realized as [u] if following /t/. See Rule 9 again. The morphophonemic shape of the final morpheme in each of the examples in (143) and (147)-(149) is [is]. In
(143) this morpheme is reduced to /s/. The examples in (149) show that this reduction does not occur if an //h//, a realization of the H grade, which we will discuss in Chapter 4, is infixed before the //m// of the [ooM]. The nasal may be realized as either [w] or [m] plus nasalization as in (146), (147), (148a), and (148b). The nasalization is spread across the [h] as well. See Rule 6 again. When the nasal is realized only as vowel nasalization and when it is realized as [w] and nasalization, we have evidence of an additional /o/ phoneme and a number of other nasal phonemes listed above, but again, to avoid having to transcribe the [ooM] morpheme with these phonemes of limited distribution, I will use the symbol M.

The following morphophonemic rule formalizes most of what we know about the realization of the [ooM] morpheme:

MP Rule 2:

{ooM} \rightarrow /\tilde{o}/ / \_ \_ \ s# \ (obl.)

\rightarrow /\tilde{o}\tilde{w}/ / \_ \_ \ V \ (opt.)

\rightarrow /\tilde{o}hw/ / \_ \_ \ V \ (opt.)

\rightarrow /oom/ / elsewhere

Morphophonemic Rule 2 is stated as an allomorph rule for
convenience. The first statement is obligatory. The next two are optional. And the elsewhere case is taken if the first obligatory condition is not met and if the next two optional realizations are not taken. Haas (1977b.198-201) recognizes and describes this loss of the segmental /m/ before /s/ in /oom/, but she finds that the nasalization of the /oo/ is unstable with frequent non-realization of the nasalization on /oo/. All speakers who worked with me consistently nasalized the /oo/.
Notes

1 Both Michel T.T. Jackson (1987) and James J. Tyhurst (1987) have published recent papers on Seminole accent within a bracketed grid theory (Hammond 1984, Halle and Vergnaud 1987, Prince 1983). Hayes (1985) discusses Haas' (1977c) Creek data with relation to a metrical theory. My analysis of Creek tone is atheoretical, though prosodic, with the goals being simply to check the status of Haas' (1977c) rules for tonal placement and to simplify her rules a bit. My major discussion of tone is in section 2.6.

2 Notation of examples within [ ] is to be understood as phonetic, within / / as phonemic, within // // as morphophonemic, and within { } as morphemic. If notation is not put within any marks at all, as is the case with most data in this work, it is to be understood as phonemic. The symbol ---, used throughout this chapter, is meant to be read as 'is normally realized as'.

3 In the formal statement of phonological rules, I will generally use articulatory features to characterize the affected phonemes, conditioning phonemes, and the resulting phones if more than one phoneme is affected or conditioning or more than one phone results from the application of the rule. If only one phoneme is affected, or conditioning, or only one phone results, I will simply use the symbol for that phoneme or phone.
Chapter 3
Derivational Noun Morphosyntax

3.1 Introduction

This chapter examines the morphosyntax and semantics of both non-derived and derived 'simple nouns', by which is meant nominals that are not modified by either 'adjectives' or 'relative clauses'. We will explore the issue of nominal modification in Chapter 6. An absolutely simple nominal is one without any derivational morphology at all. But these 'absolutely simple nominals' will be of relatively little concern to us in this chapter since our major goal here is to investigate the derivational relationships between nouns and verbs.

Much of the terminology used in this dissertation is borrowed from Nathan (1977) and others. For example, following Nathan, the [ita] suffix is labeled as an 'infinitive' and the [ka] suffix a 'gerundive'. The terminology of others has been adopted at times for two reasons. First, those familiar with previous work on Muskogean languages will find this work easier reading with familiar terminology. Second, where the terminology which is borrowed is semantically relevant, it is accurate for the general picture of this morphology in Creek. In this and later chapters, I will justify either my keeping Nathan's and others' terminology and applying it to Creek or my changing the terminology to better approximate the
general semantics of this morphology in Creek.

This chapter will begin with a discussion of the form of simple nouns (section 3.2). Then common forms of noun derivation will be presented. These are the suffixal nominal (3.3), diminutive and augmentative (3.4), infinitive (3.5), gerundive (3.6), instrumental (3.7), locative (3.8), agentive (3.9), causative (3.10), executor/experiencer (3.11), compounding (3.12), and prefixal nominal (3.13). Combinatory possibilities will then be examined (section 3.14). All but the first three of the twelve derivational patterns examined in this chapter require the use of verb stems, verbal morphology, and/or syntactically verbal patterns. The semantic patterns of the morphology shared by nouns and verbs will be of extreme interest since derivational patterns reveal that metaphorical process which Hopper and Thompson (1984.746) discuss as making possible the category shift from verbs, or events, to nouns, or participants. (In this work, 'verb' and 'noun' are grammatical terms, and 'event' and 'participant' are semantic terms.) And this is where this work on nominalization differs from Nathan's (1977) description of Seminole nominalization. Since Seminole and Creek are very close dialects, all the formal derivational 'processes' discussed here, except the causative, have already been identified by Nathan in Seminole, though I present more examples in more detail. The description in
this chapter is different from Nathan's in that it is set within a framework of propositional semantics and the assertion--mention continuum with respect to reported events. By 'the framework of propositional semantics' I mean the framework in which one may nominalize an event to produce a participant that is particularized within the proposition as either an agent, causer, executor/experiencer, event, patient, instrument, etc. And by 'the framework of the assertion--mention continuum' I mean the framework in which a fully asserted event will be fully verbal in taking characteristically verbal morphology while a mentioned event will lose some of this verbal morphology and will thereby be free to be interpreted as a nominal participant. Though I save most of my arguments about propositional semantics and the assertion--mention continuum for the conclusion to this chapter in section 3.15, the data and discussion of semantics that are presented in the body of this chapter are crucial to understanding the conclusion.

1 Creek is an SOV language:

(1)a. hompita-t an-Ø-kasapp-ii-s
   food-T    1sIII-3II-cold-ii-dec
   'My food is cold'

   b. acool-ii-t aatami cin-Ø-hoolkohp-Ø-is
      old-ii-T    car   2sIII-3II-steal h g.-3I-dec
      'An old man stole your car'

The examples in (1) present many classic problems of Muskogean verbal agreement, but their discussion will be
postponed to Chapter 5. Though I have fully glossed the verb forms in (1), I will gloss other verb forms in this chapter only in so far as particular morphemes are important to the discussion. With one-noun clauses, like the intransitive clause in (1a), the subject precedes the verb. With two-noun clauses, like the transitive clause in (1b), the subject and object precede the verb in that order.

3.2 Simple Nouns

The following data are simple nouns in Creek:

(2)a. illi 'leg'
    b. hafi 'thigh'
    c. hapi 'skin'
    d. hissi 'hair'
    e. isti 'person'
    f. fakki 'dirt'
    g. kapi 'soap'

(3)a. isakpa 'arm'
    b. yalaaha 'orange'
    c. ika 'head'
    d. ifa 'dog'
    e. waaka 'cow'
    f. sata 'apple'
    g. palakna 'plate'

(4)a. ico 'deer'
    b. coko 'house'
    c. piko 'boat'
    d. hacko 'ear'
    e. ito 'tree'
    f. cato 'rock'
    g. citto 'snake'

As simple nouns, the nouns in (2)–(4) are, at least synchronically, unaltered derivationally and inflectionally. They are in no way, grammatically or
semantically, related to verbs. But as I will show in my conclusion, some of them may be 'verbalized' with causative morphology to form semantic events. The nouns in (2)-(4), without causative morphology, may function in a Creek utterance to express participants in some separate event. Forms like those in (2)-(4) are the simplest in the Creek language. As I will demonstrate later, all verb forms, even when they are citation forms, are always complex derivationally and/or inflectionally. What the noun forms in (2)-(4) have in common is that they all end in a vowel, either /i/ in (2), /a/ in (3), or /o/ in (4). As I explained in Chapter 2, /e/ is always followed by either /y/, /c/, or /s/. Thus it is impossible for /e/ to be the peak of an open ultimate syllable. Even the /ey/ sequence is rarely root-final in Creek. To date, I have only one example of it in my data:

(5a. pahey  'grass'
b. pahi  'grass'

Example (5a) is a dialectal variant of (5b), and the latter is in fact more common among the speakers from whom these data are taken. Since /e/ originated historically from an umlauting of /a/ before /y/ in the same syllable (Haas 1940.149) and since there is no /pahay/ variant for 'grass' in Creek, it is difficult to explain the /pahey/ variant.
3.3 Suffixal Nominal \{wa\}

The suffix \{wa\} occurs on many nouns which are otherwise simple, both derivationally and inflectionally.

See the following examples:

(6) a. to\l\iwa \quad 'eye' 
b. cokwa \quad 'mouth' 
c. nokwa \quad 'neck' 
d. to\l\i\k\o\w\a \quad 'knee' 
e. foocowa \quad 'bellybutton'

(7) a. iwanwa \quad 'sister' 
b. ici\l\iwa \quad 'brother' 
c. ipowa \quad 'uncle' 
d. mosasaw\a \quad 'grandchild' 
e. heyyawa \quad 'wife'

(8) a. saasakwa \quad 'goose' 
b. foswa \quad 'bird' 
c. iccaasawa \quad 'beaver' 
d. pinwa \quad 'turkey' 
e. osahwa \quad 'crow'

(9) a. hiliswa \quad 'medicine' 
b. apiswa \quad 'meat' 
c. okcanwa \quad 'salt' 
d. ooposwa \quad 'soup' 
e. anizaawa \quad 'enemy' 
f. talwa \quad 'nation' 
g. toknaawa \quad 'money' 
h. oposwa \quad 'juice' 
i. cofonwa \quad 'fork' 
j. pociswa \quad 'ax' 
k. anizaawa \quad 'wilderness' 
l. tohahawa \quad 'box'

The suffix \{wa\} occurs on many, but not all, bodypart terms (6), many, but not all, kinship terms (7), many, but not all, animal terms (8), and a variety of other nouns (9).

This suffix apparently has no synchronic meaning. None of the nouns above is derivationally related to a verb, though some of these \{wa\}-suffixed nouns can take the causative morphology mentioned in section 3.2 as sometimes occurring
with simple nominals. We will discuss this problem in the conclusion to this chapter. [wa] cannot be suffixed to a verbal root. We know that [wa] is a suffix in (6)-(9) because if a noun which normally takes the [wa] suffix occurs in a non-final position in a compound, the [wa] does not occur, as in the following:

(10)a. cok-haŋpi 'lips'
cokwa 'mouth' + haŋpi 'skin'

b. mosas-hoktti 'girl grandchild'
mosaswa 'grandchild' + hoktti 'female'

c. nok-hasakita 'mumps'
nokwa 'neck' + hasakita 'to swell'

d. apis-laafa 'meatcutter'
apiswa 'meat' + laafa 'cutter'

e. hilis-haaya 'doctor'
hiliswa 'medicine' + haaya 'maker'

f. oopos-caati 'stew'
ooposwa 'soup' + caati 'red'

As the examples in (10) show, nouns which occur with the [wa] suffix in citation form can occur, without the [wa], compounded in non-final position with noun stems (a and b), verbs in infinitive form (c), verbs in agentive form (d and e), and stative verbs (f).

As the following examples show, each of the examples in (10) may occur with the [wa] suffix, but the semantics of the juxtaposition is frequently altered:

(11)a. cokwa haŋpi
'mouth skin'

b. mosaswa hoktti
'girl grandchild'
c. nokwa hasafkita
'neck swelling'

d. apiswa laafa
'meatcutter'

e. hiliswa haaya
'doctor'

f. ooposwa caati
'red soup'

None of the examples in (11) were volunteered by Creek speakers. They were offered to them, and the speakers produced the resultant English glosses. In general, the semantic result of including the [wa] suffix is a weakening of the semantic bond between the two constituents such that they are not viewed as a single lexeme, but instead two lexemes. This has a further formal realization in that the forms in (10) have tonal contours that indicate that the constituent lexemes are viewed as one phonological word while the forms in (11) have tonal contours that indicate that the constituent lexemes are viewed as two phonological words. For example, the tonal contour of (10a) [cok-ha̱pi] is [3 2 d] while that of (11a) [cokwa ha̱pi] is [2 d 2 d].

As I indicated in Chapter 2, in a word with only predictable tone, heavy syllables take level 3 tone unless they are the last syllable to take relatively high tone and they occur before a final light syllable, in which case they take level 2 tone. This is what happens in (10a). But note that in (11a) the tonal contour indicates the existence of two words, each of whose non-final heavy
syllables take level 2 tone. The remaining corresponding
examples in (10) and (11) also have differing tonal
contours indicating the existence of one phonological word
in (10) and two phonological words in (11). Thus (11a) is
glossed as 'mouth skin', not 'lips' as in (10a), (11c) is
glossed as 'neck swelling', not 'mumps' as in (10c), and
(11f) is glossed as 'red soup', not 'stew' as in (10f).
The glosses for (11b), (11d), and (11e) are the same as
they are in (10). However, Creek speakers prefer the forms
in (10b), (10d), and (10e) to the corresponding forms in
(11).

This section does not exhaust the compounding
possibilities in Creek, as we will see in section 3.12 of
this chapter.

3.4 Diminutive [oci] and Augmentative [iąakkö]

The diminutive and augmentative suffixes are here
grouped together because of their semantic connection
through opposition. The following data contain examples of
each, paired with their nominal roots. The diminutives are
in (12-16), the augmentatives in (17-21):

(12)a. isti  'person
   b. istoci  'baby'

(13)a. icki  'mother
   b. ickoci  'aunt'

(14)a. ito  'wood, tree'
   b. itoci  'little tree, stick'
(15) a. yalaaha 'orange'
b. yalaahoci 'small orange'

(16) a. toknaawa 'money'
b. toknaawoci 'small money, not much money'

(17) a. cooka 'book, paper'
b. cookałakko 'big book, Bible'

(18) a. poosi 'cat'
b. poosilakko 'big cat'

(19) a. foo 'bee, wasp'
b. foołakko 'big bee, big wasp'

(20) a. yalaaha 'orange'
b. yalaahałakko 'grapefruit'

(21) a. toknaawa 'money'
b. toknaawałakko 'large money, much money'

The diminutive [oci] is clearly a suffix since final vowels of the root noun are not realized when /oci/ follows.

Compare the (b) examples with the (a) examples in (12-16).

Note from (16) that the [wa] suffix on [toknaawa] occurs when [oci] is suffixed but that the //a// vowel is not realized because of the following //o//. The occurrence of the /w/ in (16b) and the /wa/ in (21b) as realizations of [wa] is evidence that [oci]- and [łakko]-suffixations are in a different formal class of derivation than the compounding which we will encounter in section 3.12.

Remember from section 3.3 that [wa] is not realized when the [wa]-suffixed root noun occurs non-finally in a compound.

In many cases, the addition of [oci], (12)-(13), seems to change the denotation of the noun to which it is suffixed. In other cases, (14) for example, [oci]
alternately changes denotation or simply references a small size of the item denoted by the noun to which it is suffixed. Still in other cases, (15) here, [oci] seems simply to reference a small item of the kind denoted by the noun to which it is suffixed. As (16) shows, [oci] may even reference a small amount of a mass noun. The same variation seems characteristic of the augmentative suffix [iłakko]. See examples (17)-(21). Although there is no morphophonemic variation in the use of [iłakko] to tell us that it is a suffix, instead of an independent word, the tonal contour of words suffixed with [iłakko] indicates that this suffixation produces one phonological word and the /ʔ/ is phonetically voiced, as is characteristic of intervocalic obstruents within phonological words. See the following example of two phonologically independent words that are nevertheless united in a single sentence utterance:

(22) naak-campa ca-yaac
    p.n.-sweet IstII-want
    'I want sweets'

As the phonetic transcription indicates, the /c/ of the IstII prefix is realized as [ç], not [ʢ], indicating a word boundary before /c/.

The difference between 'denotation' and 'reference' in these Creek examples is not simply an illusion created by the difference in English between the form (and sense) of different lexemes, 'person' and 'baby', and the form (and
sense) of attribution, 'orange' and 'small orange'. Only those derived augmentatives and diminutives which denote objects different from their simple nominal counterparts, in other words those that are lexicalized, may occur in combination with an additional augmentative or diminutive suffix. See the following data:

(23)a. cokaļakk-oci
    Bible-dim
    'small Bible'

   b. yalaahaļakk-oci
      grapefruit-dim
      'small grapefruit'

(24)a. istoci-ļakko
    baby-aug
    'large baby'

   b. ickoci-ļakko
      aunt-aug
      'large aunt'

(25)a.*poosi-ļakko-oci
    cat-aug-dim

   b.*yalaah-oci-ļakko
    orange-dim-aug

(26)a. cokaļakk-ļakko
    Bible-aug
    'large Bible'

   b. yalaahaļakk-ļakko
      grapefruit-aug
      'large grapefruit'

   c.*poosi-ļakko-ļakko
      cat-aug-aug

(27)a.*istoc-oci
    baby-dim

   b.*ickoc-oci
    aunt-dim
(28)a. piip-oci
    baby-dim
    'small baby'

    b. ickoci cotkosii
    aunt small
    'small aunt'

When the suffixation of [ɪakko] to a noun stem changes the
denotation of that noun, the suffixation of [oci] is
possible to reference a small sized exemplar of that
denotation, as in (23). The same is true of the
suffixation of [ɪakko] to reference a large sized instance
of a new denotation created by the suffixation of [oci], as
in (24). The examples in (25) show that if the first
suffixation of the augmentative or diminutive does not
create a new denotation but only references a large or
small size of the item denoted by the noun stem, an
additional suffixation of the diminutive or augmentative as
in (23) and (24) is contradictory and not acceptable. In
other words, it makes no sense to say in (25a) 'a small
large cat' and in (25b) 'a large small orange'. One
speaker explains the unacceptability of (25a) by saying
that Creek has separate words to name the big cats, such as
the tiger, panther, etc. Examples (26a) and (26b)
demonstrate that the suffixation of [ɪakko] to a noun stem
already suffixed with [ɪakko] is possible if the first
suffixation changes the denotation of the noun stem.
Example (26c) shows that this double suffixation is
unacceptable if the first suffixation does not change the
denotation. It makes no sense in Creek to say 'a large, large cat' for the same reasons the examples in (25) are unacceptable. The examples in (27) demonstrate that the suffixation of {oci} to a noun stem already suffixed with {oci} is unacceptable even if the first suffixation changes the denotation of the bare noun stem. To reference a diminutive of a diminutive-suffixed noun in Creek, one uses either a different stem lexeme, as in (28a), or the same {oci}-suffixed lexeme but with a participial modifier, as in (28b) with {cotkosii} 'small'.

As might be expected, the diminutive {oci} may be used with proper nouns to indicate endearment, as in the following:

(29)a. soos-oci
   suzy-dim
   'Little Suzy'

b. maai-oci
   martha-dim
   'Little Martha'

c. saan-oci
   sean-dim
   'Little Sean'

The diminutives in (29) may be understood either as terms of endearment for persons of any age or as descriptions of size for persons of any age. The augmentative {ičakko} may also be suffixed to proper nouns, as in the following:

(30) soosi-ičakko
    suzy-aug
    'Big Suzy'

The augmentative as it is used in (30) may be understood
only as indexing the size of a person, of whatever age.

3.5 Infinitive [ita]

There are no morphologically simple verb citation forms as there are for nouns. Verb citation forms are suffixed with [ita] 'infinitive'. The following data are typical verb citation forms:

<table>
<thead>
<tr>
<th>Infinitive</th>
<th>Nominal</th>
</tr>
</thead>
<tbody>
<tr>
<td>(31)a. atotkita</td>
<td>'to work'</td>
</tr>
<tr>
<td>b. iskitka</td>
<td>'to drink'</td>
</tr>
<tr>
<td>c. yaheykita</td>
<td>'to sing'</td>
</tr>
<tr>
<td>d. tipkita</td>
<td>'to slap'</td>
</tr>
<tr>
<td>e. poofkita</td>
<td>'to blow'</td>
</tr>
<tr>
<td>f. peyhkita</td>
<td>'to yell'</td>
</tr>
<tr>
<td>g. naoitkita</td>
<td>'to destroy'</td>
</tr>
<tr>
<td>h. afankita</td>
<td>'to kiss'</td>
</tr>
<tr>
<td>i. capakhita</td>
<td>'to be angry'</td>
</tr>
<tr>
<td>j. caskita</td>
<td>'to chop'</td>
</tr>
<tr>
<td>k. ayootkita</td>
<td>'to get stuck'</td>
</tr>
<tr>
<td>l. aafackita</td>
<td>'to be happy'</td>
</tr>
<tr>
<td>m. miskita</td>
<td>'to sweat'</td>
</tr>
<tr>
<td>n. sifikta</td>
<td>'to smell'</td>
</tr>
<tr>
<td>o. hoolwakita</td>
<td>'to be ugly'</td>
</tr>
<tr>
<td>p. waswaakita</td>
<td>'to whisper'</td>
</tr>
<tr>
<td>q. ohokita</td>
<td>'to cough'</td>
</tr>
<tr>
<td>r. hisakita</td>
<td>'to breathe'</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Infinitive</th>
<th>Nominal</th>
</tr>
</thead>
<tbody>
<tr>
<td>(32)a. hompita</td>
<td>'to eat'</td>
</tr>
<tr>
<td>b. hokcita</td>
<td>'to fart'</td>
</tr>
<tr>
<td>c. mihinwita</td>
<td>'to be honest'</td>
</tr>
<tr>
<td>d. ōpottita</td>
<td>'to go through'</td>
</tr>
<tr>
<td>e. faccita</td>
<td>'to be truthful'</td>
</tr>
<tr>
<td>f. accita</td>
<td>'to wear'</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Infinitive</th>
<th>Nominal</th>
</tr>
</thead>
<tbody>
<tr>
<td>(33)a. haayita</td>
<td>'to make'</td>
</tr>
<tr>
<td>b. ponayita</td>
<td>'to talk'</td>
</tr>
<tr>
<td>c. cooyita</td>
<td>'to write'</td>
</tr>
<tr>
<td>d. ilawita</td>
<td>'to be hungry'</td>
</tr>
<tr>
<td>e. akkopenita</td>
<td>'to play'</td>
</tr>
<tr>
<td>f. anecita</td>
<td>'to help'</td>
</tr>
<tr>
<td>g. panita</td>
<td>'to dance'</td>
</tr>
<tr>
<td>h. hocifita</td>
<td>'to name'</td>
</tr>
<tr>
<td>i. hotosita</td>
<td>'to be tired'</td>
</tr>
<tr>
<td>j. apwicita</td>
<td>'to dream'</td>
</tr>
</tbody>
</table>
k. nocita 'to sleep' 
1. apilita 'to laugh' 
2. hoottopita 'to itch' 
3. ilita 'to die' 
4. imita 'to give' 
5. ahamkatita 'to count' 
6. hopanita 'to break'

The formal similarity among most verbs is that their roots end in a consonant. There are exceptions. For example, the stem of /haayita/ in (33a) is /haa/, not /haay/. The /y/ is a morphophonemic variant conditioned by a following vowel in the infinitive morpheme. When suffixes with consonants occur immediately following the stem, the /y/ does not occur, as in /in-haa-tooM-ay-an-ik-s/ 'I built it for him'. The same is true of {ponayita} 'to talk' in (33b), as in {ponaka} 'language', and {cooyita} 'to write' in (33c), as in {cooka} 'writing, paper'. This is characteristic of the glide /y/, that it cannot occur root-final in a verb. Note from (31c) that the sequence /yk/ can occur root-final. The other glide, /w/, does occur root-final, for example, {ilawita} 'to be hungry' in (33d), as in {ilawka} 'hunger'. The verb forms in (32)-(33), excepting the {ita} suffix, are morphologically simple. Some of the stem-final {k}'s in the examples of (31) are productive, but this will be largely an issue for Chapter 4 on verbal morphology.

The focus of this chapter is noun derivation, not verb forms, but because practically all nominal derivations remaining to be treated are derivations from verbs, we must
at least begin to consider verbs and their morphology. We note first that only the verbs in (31) and (32) have nominal as well as verbal glosses. The verbs in (33), typical of many verbs in Creek, have no nominal glosses, but only their infinitive glosses.

The following examples demonstrate that those 'infinitive' forms in (31) and (32) can be used in sentences as both subject and object nominal arguments:

(34)a. am-atotkita acaafaciceciiitoMs
    1sIII-work makes me happy
    'My work makes me happy'

b. am-iskita campiitooMs
    1sIII-drink is sweet
    'My drink is sweet'

c. an-capahkita hoolwakiis
    1sIII-anger is bad
    'My anger is bad'

d. am-poofkita ahopankiis
    1sIII-flute is broken
    'My flute is broken'

e. poofkita ahopantooMickis
    flute you broke
    'You broke the flute'

f. am-atotkita is-acaaaackiiitoMs
    1sIII-work inst-I'm happy
    'I am happy with my work'

(35)a. cim-mihinwita acaafaciceciiitoMs
    2sIII-honesty makes me happy
    'Your honesty makes me happy'

b. an-hompita kasappiis
    1sIII-food is cold
    'My food is cold'

c. łopottita akhotkiiis
    entrance is closed
    'The entrance is closed'
d. cim-accita likotkiis
    2sIII-blanket is warm
    'Your blanket is warm'

e. ma istit hompita laaktooMs
    that person food ate up
    'That person ate the food up'

Because of the inanimacy of these derived nouns, most uses of them are as subjects of stative verbs. But as we see in (34a) and (35a), they can be used as subjects of causative stative verbs. In all examples of (34) and (35), the nominals are segmented and glossed for only the infinitive stem and the possessive prefixes when they occur. In (34a) and elsewhere, 'III' indicates a Type III person marker, to be explained in detail in Chapter 5. When prefixed to nominals, the Type III markers indicate possession. Munro and Gordon (1982) were the first to label the three paradigms of Western Muskogean pronominal affixes as Type I, II, and III. Sentences (34b)-(34d) and (35b)-(35d) contain examples of 'infinitive' nominals used as subjects of stative verbs. The examples in (34e) and (35e) contain 'infinitive' nominals used as objects of active verbs. Example (34f) contains an 'infinitive' nominal used as an instrumental object, whose presence is signalled on the verb by the 'inst' prefix [is].

The formal similarity among the verb roots in (31), all of which have both verbal and nominal glosses, is that they end in a consonant cluster with /k/ as the final consonant (31a-n), or they end in a single /k/ (31o-r).
This /k/ is the modern reflex of an auxiliary which Haas has variously labeled a mediopassive auxiliary (1969.55) and an intransitive auxiliary (1977a.528-29). As we will see in Chapter 4 when we explore the problem of /k/ in detail, some of these /k/\'s can be removed to affect verbal semantics while some cannot be. The formal similarity among those verbs in (32) is simply that their roots all end in a consonant cluster, whether it be a geminate cluster or not. /k/ does not occur root-final with these verbs, yet they, like those in (31), have nominal as well as verbal glosses. The verbs in (33), which have neither a root-final consonant cluster nor a root-final /k/, do not have nominal glosses but have only infinitive glosses. Hence, the requisite form for a verb citation to have both nominal and verbal glosses seems to be a final consonant cluster or a final /k/ in the root. I will not speculate here on why an accident of phonological shape should correlate with a semantic contrast since it is so obviously a diachronic problem.

Semantically, there seems to be a variety of nominal glosses possible for these citation forms with root-final consonant clusters or /k/\'s. In truth, the nominal glosses for the infinitives in (31) and (32) reveal an ungradable continuum, leading from naming the event itself to naming a central object participant of the event. Note the following regrouping of the data in (31) and (32):
<table>
<thead>
<tr>
<th>Infinitive</th>
<th>Nominal</th>
</tr>
</thead>
<tbody>
<tr>
<td>(36)a. capahkita</td>
<td>'to be angry'</td>
</tr>
<tr>
<td>b. aafackita</td>
<td>'to be happy'</td>
</tr>
<tr>
<td>c. mhinwita</td>
<td>'to be honest'</td>
</tr>
<tr>
<td>d. faccita</td>
<td>'to be truthful'</td>
</tr>
<tr>
<td>e. hoolwakita</td>
<td>'to be ugly'</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Infinitive</th>
<th>Nominal</th>
</tr>
</thead>
<tbody>
<tr>
<td>(37)a. tipkita</td>
<td>'to slap'</td>
</tr>
<tr>
<td>b. afankita</td>
<td>'to kiss'</td>
</tr>
<tr>
<td>c. caskita</td>
<td>'to chop'</td>
</tr>
<tr>
<td>d. hokcita</td>
<td>'to fart'</td>
</tr>
<tr>
<td>e. waswaakita</td>
<td>'to whisper'</td>
</tr>
<tr>
<td>f. ohokita</td>
<td>'to cough'</td>
</tr>
<tr>
<td>g. hisakita</td>
<td>'to breathe'</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Infinitive</th>
<th>Nominal</th>
</tr>
</thead>
<tbody>
<tr>
<td>(38)a. atotkita</td>
<td>'to work'</td>
</tr>
<tr>
<td>b. yahey kita</td>
<td>'to sing'</td>
</tr>
<tr>
<td>c. peyh kita</td>
<td>'to yell'</td>
</tr>
<tr>
<td>d. misk kita</td>
<td>'to sweat'</td>
</tr>
<tr>
<td>e. naoj kita</td>
<td>'to destroy'</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Infinitive</th>
<th>Nominal</th>
</tr>
</thead>
<tbody>
<tr>
<td>(39)a. poof kita</td>
<td>'to blow'</td>
</tr>
<tr>
<td>b. hompita</td>
<td>'to eat'</td>
</tr>
<tr>
<td>c. accita</td>
<td>'to wear'</td>
</tr>
<tr>
<td>d. ipoottita</td>
<td>'to go through'</td>
</tr>
<tr>
<td>e. ayootkita</td>
<td>'to get stuck'</td>
</tr>
<tr>
<td>f. isk kita</td>
<td>'to drink'</td>
</tr>
<tr>
<td>g. sif kita</td>
<td>'to smell'</td>
</tr>
</tbody>
</table>

In (36), there is little, if any, difference between the activity of the event and the nominal interpretation of that event. Anger, happiness, honesty, truth, and ugliness cannot be easily conceived of without the stative verbs that make them possible. The same is true of the events and nominals of (37). The infinitives in (37) are set apart from those in (36) only because it is easier in English to conceive the nominals of (37) existing apart from their events than the nominals of (36) existing apart from their events. The reason for this is fairly clear in
that the nominals of (37) refer to easily observable physical objects or activities, while the nominals of (36) are nominal interpretations of states, though anger, happiness, honesty, truth, and ugliness can and do have physical manifestations. Those nominals of (37) are easier to conceive of as observable objects, but in truth there is no slap, kiss, chop, fart, whisper, cough, or breath without the corresponding events. They exist only in their performance/experience. The infinitives in (38) are set apart because it is especially easy at least in English to view the nominals interpreted as existing apart from their events. Each is an object that continues to exist after if not before its event. But again each can be seen as a nominalized interpretation of its event. The infinitives in (39) are set apart because the nominal interpretation of each is not a nominalized version of the event, but a central object of the event. There is no method of nominalization in Creek that is specifically devoted to such particularization of objects as is evident in the nominalizations of (39). There is a procedure for object nominalization, the prefixal nominalization, to be discussed in section 3.13, but as we will see, it allows for widely varying general reference, unlike the particularized interpretations of (39).

Those Creek verbs whose root structure (final consonant cluster, or final /k/) allows for a nominal
interpretation have nominal interpretations that are if not nominal versions of the event itself then central particularized objects of the events. The morpheme [ita] may create particulars which are coincidental with the event itself; particulars which are the result of the event and which exist after it (which follow from the event, but are not coincidental with it); and particulars which are typically circumstantially involved concomitants of the event. That is, the nominalizations may be scaled by the degree of extraction from their respective events, by the ontological independence from those events. This independence at one extreme is confirmed by the presence of lexical specialization: 'to blow' versus 'flute', 'to eat' versus 'food', etc. In terms of both form and semantics, the 'infinitive' nominalization is very close if not identical to the 'infinitive' event. This is especially clear where the English glosses allow both nominal and verbal interpretation, as in the following:

(40)a. aafackita cayaac
to be happy I want
'I want to be happy'
'I want happiness'

b. afankita cayaac
to kiss I want
'I want to kiss'
'I want a kiss'

c. atotkita cayaac
to work I want
'I want to work'
'I want a job'
d. hompita cayaac
to eat I want
'I want to eat'
'I want food'

In each of the examples in (40), the verbal interpretation is very close to the nominal interpretation.

I have, of course, prejudiced the glosses by choosing a matrix verb of cognition that takes infinitival complements.

3.6 Gerundive [ka]

As might be expected, there is a method of nominalizing the verb stems in (33) which, in their infinitive form have no nominal interpretation. That method is [ka] suffixation, as in the following examples:

<table>
<thead>
<tr>
<th>Gerundive</th>
<th>Infinitive</th>
</tr>
</thead>
<tbody>
<tr>
<td>(41)a. ponaka</td>
<td>'language'</td>
</tr>
<tr>
<td>b. akkopanka</td>
<td>'play'</td>
</tr>
<tr>
<td>c. aneka</td>
<td>'help'</td>
</tr>
<tr>
<td>d. panka</td>
<td>'dance'</td>
</tr>
<tr>
<td>e. ilawka</td>
<td>'hunger'</td>
</tr>
<tr>
<td>f. hotoska</td>
<td>'fatigue'</td>
</tr>
<tr>
<td>g. apwicka</td>
<td>'dream'</td>
</tr>
<tr>
<td>h. nocka</td>
<td>'sleep'</td>
</tr>
<tr>
<td>i. apilka</td>
<td>'laughter'</td>
</tr>
<tr>
<td>j. hoottopka</td>
<td>'itch'</td>
</tr>
<tr>
<td>k. ilka</td>
<td>'death'</td>
</tr>
</tbody>
</table>

(42)a. naak-haaka  | 'thing made'       | haayita    | 'to make'     |
| b. hocifka       | 'name'             | hocifita   | 'to name'     |
| c. imka          | 'gift'             | imita      | 'to give'     |
| d. ahamkatka     | 'number'           | ahamkatita | 'to count'    |
| e. hopanka       | 'break'            | hopanita   | 'to break'    |
| f. cooka         | 'paper, writing'   | cooyita    | 'to write'    |

Examples (41)-(42) are nominalizations of the infinitive forms in (33). By suffixing [ka] to the stems
of the infinitive forms in the right column of (41) and (42), nominalization results. In the case of {haayita} 'to make' in (42a), one must also use the nominalizing prefix {nāak}. I will discuss {nāak} in section 3.13. In general, the {ka} suffix provides a way of creating a nominalized form of the event that is coincidental with the event (examples in 41), like those infinitive nominals of (36), or a nominal resultative object that is less coincidental with the event (examples in 42), like those infinitive nominals of (37). If the {ka} suffixation is taken to be a rough equivalent of the gerundive form in English, then in (41) 'talking' is 'language' (a), 'playing' is 'play' (b), 'helping' is 'help' (c), 'dancing' is 'dance' (d), 'being hungry' is 'hunger' (e), and so on. These nominals are completely coincidental with the event. But the nominalizations in (42) are less coincidental with the event. A 'thing made' (a) is not 'making' but a result of that event. A 'name' (b) is not 'naming' but a result of that event, and so on. Only in (42f) with {cooka} interpreted as 'paper' do the data reveal that the central-object nominal interpretations of the infinitives in (39) are possible for {ka}-suffixed verb stems. This is the only example in my data of this type of lexical specialization with the {ka} suffix.

There are, of course, many verbs which when suffixed with {ka} or {ita} refuse to yield reasonable nominal
interpretations, as with the following examples:

(43)a. *folot-ka
b. *kiif-ka
c. *licoop-ka
d. leykita
e. wakkita
f. alikcita

folot-ita 'to turn'
kiif-ita 'to shovel'
licoop-ita 'to untie'
'to sit'
'to lie down'
'to doctor'

The infinitives in (d-f) have only the infinitive verbal
interpretation. It should not be surprising that some
verbs refuse to yield nominal interpretations when [ka] or
[ita] are suffixed. After all, it is difficult to find
specific non-genitive nominal glosses for 'turning',
'shoveling', 'untying', 'sitting', 'lying', and 'doctoring'
in English as well. This is not to say that the forms in
(43) could not be used in a text as nominals. It is just
that in citation form, Creek speakers find it difficult to
view them as lexical nominals.

The following examples indicate some of the variety in
semantics possible in using an infinitive form versus using
a gerundive form of the verbs in (41) and (42):

(44)a. anec-ita cayaac
      help-inf I want
      'I want to help'

b. anec-ka cayaac
      help-ger I want
      'I need help'

(45)a. ci-hocif-ita kiišes
      2sII-name-inf I know
      'I know how to name you'

b. ci-hocif-ka kiišes
      2sII-name-ger I know
      'I know your name'
(46)a. cim-ponay-ita cayaaciitooMs
   2sIII-talk-inf I like
   'I like to talk to you'

b. cim-pona-ka cayaaciitooMs
   2sIII-talk-ger I like
   'I like your language'

In (44), (45), and (46), it is clear that the suffixation of [ka] makes the verb stem nominal. With these verbs, the [ita] suffix makes the verb infinitive, but the verb is still an event. The [ka] suffix makes the event a participant. The [ci] prefix on the stem [hocif] 'name' in (45a) and (45b) is a Type II person prefix that is used both for event participants such as experiencers of stative verbs and patients of active verbs, the latter in (45a), as well as for inalienable possessor participants, as in (45b). The [cim] prefix on the stem [pona] 'talk' in (46a) and (46b) is also used for experiencers of stative verbs and patients of active verbs, the latter in (46a), as well as for alienable possessor participants, as in (46b).

3.7 Instrumental [is]

The instrumental prefix [is] is frequently added to verb stems that have either the [ka] suffix or a root-final consonant cluster/final /k/ and the [ita] suffix. Thus, the instrument nominalization is built on more basic nominalization procedures. See the following examples of this instrument nominalization:
<table>
<thead>
<tr>
<th>Instrument</th>
<th>Infinitive</th>
</tr>
</thead>
<tbody>
<tr>
<td>(47a. is-litk-ita</td>
<td>'bicycle'</td>
</tr>
<tr>
<td>b. is-nafk-ita</td>
<td>litkita 'to run'</td>
</tr>
<tr>
<td>c. is-isk-ita</td>
<td>'bat, club'</td>
</tr>
<tr>
<td>d. is-atotk-ita</td>
<td>nafkita 'to hit'</td>
</tr>
<tr>
<td>e. is-camk-ita</td>
<td>'cup, glass'</td>
</tr>
<tr>
<td>f. is-itimicc-ita</td>
<td>iskita 'to drink'</td>
</tr>
<tr>
<td>g. is-cask-ita</td>
<td>'tool'</td>
</tr>
<tr>
<td>h. is-sotk-ita</td>
<td>atotkita 'to work'</td>
</tr>
<tr>
<td>(48a. is-paas-ka</td>
<td>'ladder, rope'</td>
</tr>
<tr>
<td>b. is-hic-ka</td>
<td>camkita 'to climb'</td>
</tr>
<tr>
<td>c. is-kikka</td>
<td>'marble'</td>
</tr>
<tr>
<td>d. is-wana-ka</td>
<td>itimiccita 'to play'</td>
</tr>
<tr>
<td>e. is-laf-ka</td>
<td>'ax, hatchet'</td>
</tr>
<tr>
<td>f. is-kaas-ka</td>
<td>caskita 'to chop'</td>
</tr>
<tr>
<td>g. is-cais-ka</td>
<td>'broom'</td>
</tr>
<tr>
<td>h. is-sotk-ka</td>
<td>paasita 'to sweep'</td>
</tr>
<tr>
<td>i. is-kaas-ka</td>
<td>'eyeglasses'</td>
</tr>
<tr>
<td>j. is-lii-ka</td>
<td>hicit 'to see'</td>
</tr>
<tr>
<td>k. is-coo-ka</td>
<td>'sign'</td>
</tr>
<tr>
<td>l. is-akkopan-ka</td>
<td>kiiita 'to know'</td>
</tr>
<tr>
<td>n. is-sotk-ka</td>
<td>'rope'</td>
</tr>
<tr>
<td>o. is-sotk-ka</td>
<td>wanayita 'to tie'</td>
</tr>
<tr>
<td>p. is-sotk-ka</td>
<td>'knife'</td>
</tr>
<tr>
<td>q. is-sotk-ka</td>
<td>lafit 'to cut'</td>
</tr>
<tr>
<td>r. is-sotk-ka</td>
<td>'comb'</td>
</tr>
<tr>
<td>s. is-sotk-ka</td>
<td>kaasita 'to scrape'</td>
</tr>
<tr>
<td>t. is-sotk-ka</td>
<td>'rake'</td>
</tr>
<tr>
<td>u. is-sotk-ka</td>
<td>caasita 'to rake'</td>
</tr>
<tr>
<td>v. is-sotk-ka</td>
<td>'saw'</td>
</tr>
<tr>
<td>w. is-sotk-ka</td>
<td>fooyita 'to saw'</td>
</tr>
<tr>
<td>x. is-sotk-ka</td>
<td>'thread'</td>
</tr>
<tr>
<td>y. is-sotk-ka</td>
<td>ahoita 'to sew'</td>
</tr>
<tr>
<td>z. is-sotk-ka</td>
<td>'hose'</td>
</tr>
<tr>
<td>A. is-sotk-ka</td>
<td>lii-ita 'to hoe'</td>
</tr>
<tr>
<td>B. is-sotk-ka</td>
<td>'pen'</td>
</tr>
<tr>
<td>C. is-sotk-ka</td>
<td>cooy-ita 'to write'</td>
</tr>
<tr>
<td>D. is-sotk-ka</td>
<td>akkopana 'to play'</td>
</tr>
</tbody>
</table>

Each of these words has an alternate pronunciation in which the initial //i// is not realized. The instrument prefix derives a nominal whose meaning can most generally be paraphrased 'instrument by means of which the event of the verb is performed'. The opposition of [ita] and [ka] is not meaningful in itself with the instrument nominalization. The only thing that is required is a nominal to which to prefix the [is] morpheme. Both the [ita] or the [ka] nominalizations are acceptable, one being chosen over the other on the basis of the phonological form of the verb stem, as explained in sections 3.5 and 3.6.

If we compare the list of infinitive nominals in (36)-(39) to the instrumental nominals in (47), we note that we have [iscaskita] 'ax, hatchet' in (47g) from [caskita] 'to
chop' in (37c), [isatotkita] 'tool' in (47d) from [atotkita] 'to work' in (38a), and [isiskita] 'cup, glass' in (47c) from [iskita] 'to drink' in (39f). Thus, we have an instrumental nominal in (47) from each of the groups of infinitive nominals in (36)-(39) except those in (36). The following attempts at creating instrumental nominals of those verbs in (36) are not acceptable to Creek speakers:

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Infinitive</th>
<th>Verb/Nominal</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. *is-capahk-ita</td>
<td>capahkita</td>
<td>'to be angry, anger'</td>
</tr>
<tr>
<td>b. *is-aafack-ita</td>
<td>aafackita</td>
<td>'to be happy, happiness'</td>
</tr>
<tr>
<td>c. *is-mhinw-ita</td>
<td>mhinwita</td>
<td>'to be honest, honesty'</td>
</tr>
<tr>
<td>d. *is-facc-ita</td>
<td>faccita</td>
<td>'to be truthful, truth'</td>
</tr>
<tr>
<td>e. *is-hoolwak-ita</td>
<td>hoolwakita</td>
<td>'to be ugly, ugliness'</td>
</tr>
</tbody>
</table>

As we remember from our discussion of the infinitive nominalizations, those verbs in (49) have nominals that are closely coincidental with the event itself. They are nominalized interpretations of the event.

If we compare the instrument nominalizations in (48) with those of (41) and (42), we see that we can create instrument nominalizations of both types of [ka] nominalizations, those in which the nominalization is a nominal interpretation of the event (41) and a resultative object or central object of the event (42). We have [isakkopanka] 'toy' in (48l) from [akkopanka] 'play' in (41b), and we have [iscooka] 'pen' in (48k) from [cooka] 'paper, writing' in (42f). Because we can create an instrumental nominal from [akkopanka] 'play', which is coincidental with the event, it cannot be coincidence with
the event that determines whether an instrumental nominalization can be created or not. It is rather whether it is perceived that there can be an instrument present in the performance of the event, that is, whether there can be an instrument participant in the proposition containing the event in question, and whether that participant is lexicalized as an instrument. Thus there is no instrument nominalization possible for the following events taken from (37), (38), and (42), all of which have nominalizations that are not coincidental with the event:

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Infinitive</th>
<th>Verb/Nominal</th>
</tr>
</thead>
<tbody>
<tr>
<td>*is-afank-ita</td>
<td>afankita</td>
<td>'to kiss, kiss'</td>
</tr>
<tr>
<td>*is-peykh-ita</td>
<td>peykhita</td>
<td>'to yell, yell'</td>
</tr>
<tr>
<td>*is-hocif-ka</td>
<td>hocifka</td>
<td>'to name, name'</td>
</tr>
</tbody>
</table>

It is possible to get sentences with the instrumental prefix used on some of the verbs in (49) and (50) so that the {is} prefix does not index an 'instrument' but rather another participant which is just as peripheral to the event. Note the following:

(51)a. joo-n is-capahkiis
     Joe-N inst-he's angry
     'He's angry about Joe'

b. joo-n is-peykhis
     Joe-N inst-he's yelling
     'He's yelling about Joe'

c. joo-n is-apwihces
     Joe-N inst-I dreamed
     'I dreamed about Joe'

d. joo-n is-ahocifikayiitooMs
     Joe-N inst-I'm named
     'I'm named after Joe'
The examples in (51) contain some asserted events using verbs that do not have lexicalized instrumental nominals. The instrumental prefix {is} marks peripheral arguments on the asserted events of (51). There are some verbs, such as {afankita} 'to kiss', for which I do not have even instrumentally marked participants in asserted events as in (51).

3.8 Locative {oh}

The locative prefix {oh}, frequently meaning 'on', is used with both {ita} and {ka} suffixed verb stems to create nouns, as in the following examples:

<table>
<thead>
<tr>
<th>Locative</th>
<th>Infinitive</th>
</tr>
</thead>
<tbody>
<tr>
<td>(52)a. oh-homp-ita 'table'</td>
<td>hompita 'to eat'</td>
</tr>
<tr>
<td>b. oh-leyk-ita 'chair'</td>
<td>leykita 'to sit'</td>
</tr>
<tr>
<td>c. oh-wakk-ita 'couch'</td>
<td>wakkita 'to lie'</td>
</tr>
<tr>
<td>d. oh-yakap-ka 'sidewalk'</td>
<td>yakapita 'to walk'</td>
</tr>
<tr>
<td>e. oh- quàan-ka 'tablecloth'</td>
<td>oh quàanita 'to cover'</td>
</tr>
</tbody>
</table>

In my data, the {oh} prefix is used on nominalizations much less frequently than the {is} instrument prefix. As with the {is} prefix, the {oh} is prefixed to a stem that is suffixed with either {ita} or {ka}, again depending on phonological structure, as explained in sections 3.5 and 3.6. As we will see in Chapter 4 on verbal morphology, the {oh} prefix when used with verbs means 'on' or 'towards'. With nominals as in (52), this locative semantics is interpreted in a nominal way as 'the place where the event of the bare verb stem occurs'. And as with the
instrumental nominalization, there are many verbs with which [oh] is not acceptable since there is no lexicalized locative nominalization with those verbs.

3.9 Agentive [a]

The suffix [a] is added to active verb roots to form a noun denoting the agent of the event. The vowel of the ultimate syllable of the root is lengthened (53, 54, and 55f-55h) unless it is already long (55b-55e) or is followed by a voiced sonorant in the same syllable (55a, 56a, and 56b below). See the following examples of nouns formed with the use of the agentive suffix and the lengthening grade:

<table>
<thead>
<tr>
<th>Agentive</th>
<th>Infinitive</th>
</tr>
</thead>
<tbody>
<tr>
<td>(53)a. wanaay-a</td>
<td>'roper'</td>
</tr>
<tr>
<td>b. mahaay-a</td>
<td>'teacher'</td>
</tr>
<tr>
<td>c. aneecc-a</td>
<td>'helper'</td>
</tr>
<tr>
<td></td>
<td>wanayita</td>
</tr>
<tr>
<td></td>
<td>mahayita</td>
</tr>
<tr>
<td></td>
<td>aneeccita</td>
</tr>
<tr>
<td></td>
<td>'to tie'</td>
</tr>
<tr>
<td></td>
<td>'to teach'</td>
</tr>
<tr>
<td></td>
<td>'to help'</td>
</tr>
<tr>
<td>(54)a. afaast-a</td>
<td>'caretaker'</td>
</tr>
<tr>
<td>b. alikc-a</td>
<td>'doctor'</td>
</tr>
<tr>
<td>c. caask-a</td>
<td>'chopper'</td>
</tr>
<tr>
<td></td>
<td>afaastita</td>
</tr>
<tr>
<td></td>
<td>alikcita</td>
</tr>
<tr>
<td></td>
<td>caaskita</td>
</tr>
<tr>
<td></td>
<td>'to care for'</td>
</tr>
<tr>
<td></td>
<td>'to doctor'</td>
</tr>
<tr>
<td></td>
<td>'to chop'</td>
</tr>
<tr>
<td>(55)a. tamk-a</td>
<td>'flyer'</td>
</tr>
<tr>
<td>b. ipooy-a</td>
<td>'winner'</td>
</tr>
<tr>
<td>c. faay-a</td>
<td>'hunter'</td>
</tr>
<tr>
<td>d. haay-a</td>
<td>'maker'</td>
</tr>
<tr>
<td>e. katoon-a</td>
<td>'barber'</td>
</tr>
<tr>
<td>f. paan-a</td>
<td>'dancer'</td>
</tr>
<tr>
<td>g. akkopaan-a</td>
<td>'player'</td>
</tr>
<tr>
<td>h. paal-a</td>
<td>'lender'</td>
</tr>
<tr>
<td></td>
<td>tamkita</td>
</tr>
<tr>
<td></td>
<td>ipooyita</td>
</tr>
<tr>
<td></td>
<td>faayita</td>
</tr>
<tr>
<td></td>
<td>haayita</td>
</tr>
<tr>
<td></td>
<td>katoonita</td>
</tr>
<tr>
<td></td>
<td>paanita</td>
</tr>
<tr>
<td></td>
<td>akkopanita</td>
</tr>
<tr>
<td></td>
<td>palita</td>
</tr>
<tr>
<td></td>
<td>'to fly'</td>
</tr>
<tr>
<td></td>
<td>'to win'</td>
</tr>
<tr>
<td></td>
<td>'to hunt'</td>
</tr>
<tr>
<td></td>
<td>'to make'</td>
</tr>
<tr>
<td></td>
<td>'to cut hair'</td>
</tr>
<tr>
<td></td>
<td>'to dance'</td>
</tr>
<tr>
<td></td>
<td>'to play'</td>
</tr>
<tr>
<td></td>
<td>'to loan'</td>
</tr>
</tbody>
</table>

Note from the examples of (53) and (55b)-(55h) that the agentive nominalization does not use the [ka] suffix on verbs which do not end in a consonant cluster. The forms of (54) and (55a) show that the agentive nominalization is
possible when the verb stem ends in a consonant cluster, even if in (54c) and (55a) that stem ends in a /k/. The formation of agentive nouns from verb stems is complicated by the use of the vowel lengthening grade, which is also used in verb aspectual distinctions. Semantically, its use with the agentive nominalization is appropriate in that the lengthening grade is used to signal imperfective aspect. Thus, the lengthening grade with agentives signals that the agents are perceived as being always in the process of imperfectively, or continuously, performing their events. This component of imperfectivity is even clearer in Creek agentives that sometimes have unusual English glosses, as in the following:

(56)a. homp-a 'eater' hompita 'to eat'
    b. hakeyhk-a 'crier' hakeyhkita 'to cry'
    c. apwiic-a 'dreamer' apwicita 'to dream'
    d. nooc-a 'sleeper' nocita 'to sleep'
    e. iim-a 'giver' imita 'to give'
    f. laatk-a 'faller' latkita 'to fall'

The agentives in (56), both in Creek and English, refer not to agentives of professions or organized activities, but to agentives who are simply perceived as always performing the event of the root verb. Each of these Creek examples was actually glossed in English by Creek speakers as 'the one who verbs all the time'. Thus, imperfectivity, as signalled by the lengthening grade, seems to be an important component of the agentive nominalization.

In (53)-(56) all examples of the agentive nominalization are formed with active verbs. The following
shows that the same morphology with non-active verbs results in similar semantics:

(57)a. capaahk-a 'angry person' capahkita 'to be angry'
b. aafaack-a 'happy person' aafackita 'to be happy'
c. haac-a 'drunkard' haacita 'to be drunk'
d. lowaak-a 'limber person' lowakita 'to be limber'
e. hasaafk-a 'swollen person' hasafkita 'to be swollen'
f. hoolwaak-a 'depressed person' hoolwakita 'to be ugly'

None of the 'agentives' in (57) perform an active event. They all are perceived as continually being in the state of the non-active event of their verb roots. Only for [haaca] 'drunkard' do we have in English a single lexeme to gloss these agentives. Because of the forms in (57), it is clear that the term 'agentive' is inadequate for the core semantics of the lengthening grade and suffix [a] in combination with a verb root. Rather, it is something like 'imperfective agent/experiencer', or 'imperfective subject', if one prefers. Broadwell (1987.10) labels it a 'subject' nominalization, as does Martin (1987b.13). Only in (57f) is the meaning of the nominalization not clear from the English gloss. An [hoolwaaka] is a person who always has bad feelings, feelings of depression for example. Chapter 4 will present a detailed discussion of all verb grades and their semantics.

3.10 Causative {ec}

The causative morpheme, used in causative verbal constructions, which use will be covered in detail in
Chapter 4, is also used for causative nominalizations, whereby the causer of an active or non-active event is taken as an entity, as in the following:

<table>
<thead>
<tr>
<th>Causative</th>
<th>Infinitive</th>
</tr>
</thead>
<tbody>
<tr>
<td>(58)a. hotal-iic-a 'fan'</td>
<td>hotalita 'to be windy'</td>
</tr>
<tr>
<td>b. kasapp-iic-a 'ice box'</td>
<td>kasappita 'to be cold'</td>
</tr>
<tr>
<td>c. hasat-iic-a 'cleaner'</td>
<td>hasatkita 'to be clean'</td>
</tr>
<tr>
<td>d. camp-iic-a 'sweetener'</td>
<td>campita 'to be sweet'</td>
</tr>
</tbody>
</table>

(59)a. yikc-eec-a 'strengthenen' yikcita 'to be strong'  
b. hitot-eec-a 'icemaker' hitotita 'to freeze up'  
c. hayiy-eec-a 'heater' hayiyita 'to be hot'  
d. il-eec-a 'killer' ilita 'to die'  

The causative morpheme is realized as /ic/ if the vowel in the preceding syllable is /a/, as in (58), and realized as /ec/ in the elsewhere case, as in (59). The causative morpheme is part of the stem to which grades apply. Thus, because the realization of the causative nominalization is {ec}, the lengthening grade, and the {a} suffix, the {ec} is always lengthened in a causative nominalization. Because the presence of the causative {ec} precludes there being any experiencer reading for the participant nominalized by this method, all glosses in (58) and (59) refer to, if not conscious agents, causers of some state. Both (58c) and (59d) may refer to human causers. The remainder refer to inanimate causers. Only (59a) is not transparent in the English gloss. A {yikceec} could be 'exercise', 'food', 'vitamins', in short, anything that makes one strong. The presence of the lengthening grade in the realization of the causative nominalization, like its
presence in the agentive nominalization, indicates that the nominal is perceived as being 'imperfectively' in the act of causing the event of the root verb.

3.11 Executor/Experiencer [ii]

The first of this two-part section will present the semantics of 'result' inherent in the use of the [ii] suffix in nominalizations (3.11.1). Then section 3.11.2 will characterize the difference in the semantics of 'result' between the [ii] nominalization and the [ita]-{ka} nominalizations, with the conclusions that 'result' is common to both, and that [ii] is more specifically 'executor/experiencer' while [ita]-{ka} are more 'nominalized interpretations of the event'.

3.11.1 Resultative Semantics of the [ii] Nominalization

The suffix [ii] is frequently suffixed to intransitive verbs of weather conditions (60), stative verbs (61), and derived stative verbs (62) to yield nominalizations whose semantics seems to be something like 'that which is a result of the event'. The [ii] morpheme has a function in main clause verbal morphology, which we will discuss in Chapter 4 on the verb phrase, and a function in relative clause formation, which we will discuss in Chapter 6 on modification. Note the following examples of [ii] nominals and the infinitive forms of their verb stems:
<table>
<thead>
<tr>
<th>Resultative</th>
<th>Infinitive</th>
</tr>
</thead>
<tbody>
<tr>
<td>(60a) hitot-ii</td>
<td>'snow, ice'</td>
</tr>
<tr>
<td>(60b) hotal-ii</td>
<td>'wind'</td>
</tr>
<tr>
<td>(60c) oosk-ii</td>
<td>'rain'</td>
</tr>
<tr>
<td></td>
<td>hitotita</td>
</tr>
<tr>
<td></td>
<td>'to snow'</td>
</tr>
<tr>
<td></td>
<td>hotalita</td>
</tr>
<tr>
<td></td>
<td>'to blow'</td>
</tr>
<tr>
<td></td>
<td>ooskita</td>
</tr>
<tr>
<td></td>
<td>'to rain'</td>
</tr>
<tr>
<td>(61a) nokk-ii</td>
<td>'pain, something in pain'</td>
</tr>
<tr>
<td>(61b) kasapp-ii</td>
<td>'cold'</td>
</tr>
<tr>
<td>(61c) acol-ii</td>
<td>'elderly person'</td>
</tr>
<tr>
<td>(61d) hoolwag-ii</td>
<td>'something ugly'</td>
</tr>
<tr>
<td>(61e) yikc-ii</td>
<td>'strong person'</td>
</tr>
<tr>
<td>(61f) hatk-ii</td>
<td>'white person'</td>
</tr>
<tr>
<td></td>
<td>nokkita</td>
</tr>
<tr>
<td></td>
<td>'to be hurt'</td>
</tr>
<tr>
<td></td>
<td>kasappita</td>
</tr>
<tr>
<td></td>
<td>'to be cold'</td>
</tr>
<tr>
<td></td>
<td>acolita</td>
</tr>
<tr>
<td></td>
<td>'to be old'</td>
</tr>
<tr>
<td></td>
<td>hoolwagita</td>
</tr>
<tr>
<td></td>
<td>'to be ugly'</td>
</tr>
<tr>
<td></td>
<td>yikcita</td>
</tr>
<tr>
<td></td>
<td>'to be strong'</td>
</tr>
<tr>
<td></td>
<td>hatkita</td>
</tr>
<tr>
<td></td>
<td>'to be white'</td>
</tr>
<tr>
<td>(62a) tac-k-ii</td>
<td>'cut, something cut'</td>
</tr>
<tr>
<td>(62b) tonof-k-ii</td>
<td>'bruise, something bruised'</td>
</tr>
<tr>
<td>(62c) kool-k-ii</td>
<td>'light, something lighted'</td>
</tr>
<tr>
<td>(62d) tipaa-k-ii</td>
<td>'married person'</td>
</tr>
<tr>
<td></td>
<td>tacita</td>
</tr>
<tr>
<td></td>
<td>'to cut'</td>
</tr>
<tr>
<td></td>
<td>tonofita</td>
</tr>
<tr>
<td></td>
<td>'to bruise'</td>
</tr>
<tr>
<td></td>
<td>koolita</td>
</tr>
<tr>
<td></td>
<td>'to light'</td>
</tr>
<tr>
<td></td>
<td>tipaayita</td>
</tr>
<tr>
<td></td>
<td>'to marry'</td>
</tr>
</tbody>
</table>

Note that with the [ii] nominalization, there is no ablaut modification of the verb stem, as there is for the agentive nominalization, discussed in section 3.9, and the causative nominalization, discussed in section 3.10. In (60) 'snow' is that thing that results when it 'snows', 'wind' when it 'blows', and 'rain' when it 'rains'. The [ii] nominals of (61a) and (61b) are nominalized executors/experiencers of their events, but they may be viewed as results of the events. And the remaining examples in (61) are nominalized experiencers of their stative events, but they also may be seen as embodied results of the events. The [ii] nominals of (62) have a more complex relationship to their verb roots represented in the infinitives in the right column. Note that not only [ii] but [k] is suffixed to the verb.
stems. The interpretations in (62) are, again, experiencers, or results. Each of the active verb stems in the right column has a stative verb counterpart formed by the suffixation of [k]:

(63)a. tac-k-ita 'to be cut'
b. tonof-k-ita 'to be bruised'
c. kool-k-ita 'to be lighted'
d. tipaa-k-ita 'to be married'

The relation between active verb roots and stative verbs derived by the suffixation of [k] will be covered in detail in Chapter 4.

3.11.2 Executor/Experiencer Semantics in [ii] versus Nominalized Event Semantics in [ita]–[ka].

In section 3.11.1, the [ii] nominalization is characterized as producing the semantics of the result of the event. The problem with this is that many of the [ita] nominalizations as well as [ka] nominalizations discussed in sections 3.5 and 3.6 can just as easily be interpreted as producing the semantics of the result of the event. Or alternatively, I have characterized many of the [ita] and [ka] nominalizations as producing the semantics of a nominalized version of the event. But many of the [ii] nominalizations may also be interpreted as nominalized versions of their events, for example those of (60), (61), and (62a–62c). Note the following juxtapositions of [ii] nominalizations with [ita] nominalizations:

(64)a. capahk-ii 'angry person'
b. capahk-ita 'anger'
(65) a. aafack-ii 'happy person'
b. aafack-ita 'happiness'

(66) a. tipk-ii 'person who slapped'
b. tipk-ita 'slap'

(67) a. afank-ii 'person who kissed'
b. afank-ita 'kiss'

(68) a. atotk-ii 'person who worked'
b. atotk-ita 'work'

(69) a. yaheyk-ii 'person who sang'
b. yaheyk-ita 'song'

The examples in (64)-(69) contain both [ii] nominalizations (a) and [ita] nominalizations (b) of the first two verbs in each of (36)-(38), which have [ita] nominalizations that can be interpreted either as nominalized versions of their events or resultative nominalizations of their event. The difference between the (a) and (b) nominalizations in (64)-(69) is that the [ii] nominalizations are interpretations of executors/experiencers of the event, while the [ita] nominalizations are interpretations of the event taken as an entity in itself. The reason that the (a) nominalizations in (64), (65), and (68) do not have experiencer interpretations is that these verbs may not have experiencers without extra prefixal morphology.

The same semantic difference is operant with respect to [ii] nominalizations and [ka] nominalizations with the added wrinkle that the [ii] suffix may or may not be preceded by [k], as in the following:
(70) a. pona-k-ii 'that which was spoken'  
b. ponay-ii 'person who spoke'  
c. pona-ka 'language'

(71) a. akkopan-k-ii 'that which was played'  
b. akkopan-ii 'person who played'  
c. akkopan-ka 'play'

(72) a. naak-haa-k-ii 'something that was made'  
b. naak-haay-ii 'person who made something'  
c. naak-haa-ka 'something made'

(73) a. hocif-k-ii 'something that was named'  
b. hocif-ii 'person who named'  
c. hocif-ka 'name'

In each of (70)-(73) are two versions of [ii]
nominalization, one with [k] and one without, as well as a
[ka] nominalization of the first two verbs presented in
(41)-(42) as gerundive nominalizations, which result in
either a nominalized interpretation of the event or a
resultative of the event. The difference here between the
[ii] and [ka] nominalizations is the same as the difference
between the [ii] nominalizations and the [ita]
nominalizations. The [ii] nominalizations result in
interpretations that are either experiencers of the event
or executors of the event. The [ka] nominalizations result
in interpretations that are either nominalized versions of
the event itself or resultative objects of that event. The
[k]'s in the (a) examples of (70)-(73) are productive in
deriving experiencer nominalizations from executor
nominalizations. The [k]'s in (64)-(69) are not productive
in this derivation and are thus ambiguous between
experiencer and executor nominalizations.
The following examples contrast [ii] nominalizations with [ita]-[ka] nominalizations for the resultatives of (60)-(62):

(74)a. hitot-ii  'snow, ice'
b. *hitot-ka

(75)a. oosk-ii  'rain'
b. oosk-ita  'to rain'

(76)a. kasapp-ii  'cold, something that is cold'
b. kasapp-ita  'winter'

(77)a. acol-ii  'old person'
b. acol-ka  'old age'

(78)a. tac-ii  'something that cut'
b. tac-k-ii  'cut, something that was cut'
c. iikan-tac-ka  'acre of land, allotment of land'

The examples of (74)-(78) contain verbs that were presented as resultative nominalizations in (60)-(62). Note that for [hitotita] 'to snow' in (74) there is no [ka] nominalization possible. Only the [ii] nominalization is possible and the interpretation is that of the 'executor' of the event, that is, the 'snow' or 'ice' itself. In (75), there is no nominal interpretation of [ooskita] 'to rain', even though it has a stem-final consonant cluster. The [ii] nominalization in (75a) is that of the 'executor' of the event, the 'rain' itself. In (76), [kasappita] 'to be cold' may be interpreted as 'winter', though there is another lexeme specifically devoted to this meaning—[ daß afo]. The [ii] nominalization in (76a) is of the 'executor' of the event or an experiencer of the event. In (77a) the [ii] nominalization of [acolita] 'to be old'
produces a gloss referring to the experiencer of the event. Example (77b), with [ka], produces a gloss that is a nominalized interpretation of the event itself. And (78) is complicated by the presence of the productive [k]. In (78a), without the [k], the [ii] nominalization produces a gloss that refers to the executor of the event. In (78b), with the [k], the [ii] produces a gloss that refers to the result of the event or the experiencer of the event. Example (78c) is the only use of [tac-ka] that I have found acceptable to Creek speakers. It is a lexemic reference to an 'acre' or 'allotment of land'. It is less a specific experiencer of cutting and more a generalized instantiation of an nominal interpretation of the event.

Throughout this discussion of the difference between [ii] nominalizations and [ita]-[ka] nominalizations, we have seen that that [ii] nominalizations invoke interpretations of the executors or experiencers of an event, which may be further interpreted as results of the event, while the [ita]-[ka] nominalizations invoke nominal interpretations of the event itself, which also may be further interpreted as results of the event.

3.12 Compound Nominals

Many nouns in Creek are compounds formed with simple nouns, nominalized verbs, and stative verbs. See the following examples of such compounds:
(79)a. isti-caati
  man-red
  'Indian'
b. ito-tapiksi
  tree-flat
  'board'
c. isti-hatki
  person-white
  'caucasian'
d. nok-capki
  neck-long
  'giraffe'
e. yoopoo-lowaaki
  nose-limber
  'elephant'
f. oopos-caati
  soup-red
  'stew'

(80)a. cok-hissi
  mouth-hair
  'whiskers'
b. waaka-hoti
  cow-place
  'dairy barn'
c. palko-oposwa
  grape-juice
  'grape juice'
d. citto-miikko
  snake-king
  'king snake'
e. toknaa-hoti
  money-place
  'billfold, purse'
f. ito-haapi
  tree-skin
  'tree bark'

(81)a. hasi-kii-ka
  sun-know-ger
  'watch, clock'
b. cooka-hic-ka
  paper-look-ger
  'school'
c. ito-foo-ka
  wood-saw-ger
  'sawed timber'
d. ḋii-kac-ka
  arrow-break-ger
  'Broken Arrow'

(82)a. hatteytki-homp-itaita
  morning-eat-inf
  'breakfast'
b. nok-hasafk-itita
  neck-swell-inf
  'mumps'

(83)a. hilis-haay-a
  medicine-make l.g.-ag
  'doctor'
b. hompita-haay-a
  food-make l.g.-ag
  'cook'
c. isti-wanaay-a
  person-tie l.g.-ag
  'police'
d. cooka-haay-a
  paper-make l.g.-ag
  'secretary'
e. pokko-awayk-a
  ball-throw l.g.-ag
  'pitcher'
f. ika-toon-a
  head-cut l.g.-ag
  'barber'

The data above show five ways to form a compound noun. In
(79), each noun is followed by an uninflected stative verb.
In (80), nouns are followed by nouns that serve semantically as parts or possessions of the first nouns. In (81), nouns are followed by gerundive forms. In (82), nouns are followed by infinitive forms. And in (83), nouns are followed by agentive forms. Note the uses of the 'nominal' [homp-ita] in (82a) and (83b). The ways we know that compounding creates one phonological word from two are the voicing of obstruents that are put in voiced environments by compounding; the non-realization of a non-productive 'nominal' suffix [wa] in words such as [cok-wa] 'mouth' in (80a), [nok-wa] 'neck' in (82b), and [hilis-wa] 'medicine' in (83a); and tonal contours, such as we discussed in section 3.3. The semantic pattern evident in this SOV language is for the more participant-like part of the compound to be the first word of the compound and the more event-like part to be the second word. Davis and Hardy (1988.10) note the same pattern for Alabama (cf. Hopper and Thompson 1984.705-06). What we have then here at least in (79), (81), (82), and (83) are not just nouns modified by nominals derived from verbs, but nominals derived from propositions including a participant and an event. We can conclude this from the fact that it is only in this compounding nominalization that syntax is used in nominalization. Certainly, the order of morphemes in morphology involves a syntax, but not the sentence syntax that is evident in the compounding nominalization.
Metaphorically, then, in (80) the possessor is the participant and the possessed the event. We remember from (45) and (46) that possessor marking, identical to verbal experiencer marking, occurs on the possessed NP.

The function of syntax in the creation of compound nominals accounts for what seems to be unpredictable ordering in some compounds, as in the following:

(84)a. nis-ka-coko
       'store'

(85)a. halwi-taloofa
       'heaven'

(84)b. *coko-nis-ka
       'bought house'

(85)b. taloofa-halwi
       'town that sits on a hill'

Examples (84a) and (85a) are in Nathan's (1977.45-46) data on compounding, and it is apparently these two that she refers to in part to when she says that the syntax of compounding can be 'idiosyncratic'. She finds pattern in other compounds in her data, but these two seem odd, even in the light of my own analysis above. The elements seem to be reversed in (84a) and (85a) with the event coming first and the participant second. This is only apparent since both {niska} and {halwi} can have nominal interpretations. {niska} can be glossed as 'buying' and {halwi} as 'the heavens'. Thus (84a) can be paraphrased as 'buying's house', or 'store', and (85a) as 'heaven's town', or 'heaven', paralleling the possessor-possessed order in (80). When the syntax is reversed in (84b) and (85b), the semantics are predictable. In (84b), a 'bought house' is
not easily conceivable as a viable nominal. One speaker
glossed (84b) as marginally meaning 'a house to buy', but
rejected the Creek form as unacceptable. But in (85b), a
'town on a hill' seems easily conceived of. In both these
cases, the first word in the compound is interpreted as the
more participant-like and the second as the more event-
like.

3.13 Prefixal \[^{\text{n\text{\`a}a\text{k}}}]\n
In contrast to the suffixal nominal \[{\text{w}a}\], discussed in
section 3.3, the prefixal nominal \[^{\text{n\text{\`a}a\text{k}}}]\ has a clear
synchrone meaning. \[^{\text{n\text{\`a}a\text{k}}}]\ is the prefixal form of the
simple nominal \[^{\text{n\text{\`a}a\text{k}i}}]\ 'something', which is used quite
frequently in Creek. See the following examples of nouns
derived with the use of \[^{\text{n\text{\`a}a\text{k}}}]\:

(86)a. \[^{\text{n\text{\`a}a\text{k}}}-\text{homp}-\text{ita}\]
    p.n.-eat-inf
    'something to eat'

(87)a. \[^{\text{n\text{\`a}a\text{k}}}-\text{hic}-\text{ka}\]
    p.n.-see-ger
    'movie, theater'

(88)a. \[^{\text{n\text{\`a}a\text{k}}}-\text{paal}-\text{a}\]
    p.n.-borrow 1.g.-ag
    'borrower'

This nominalizer is not used very frequently in my data.
The reason is perhaps that it adds little, if any, specific
content to a nominalization. Each of the nominalizations
in (86)-(88) is possible without the prefix \[^{\text{n\text{\`a}a\text{k}}}]\.
Its
presence seems to make more general the reference of the
nominalization. \[^{\text{n\text{\`a}a\text{k}}}-\text{hompita}\] is not food, but 'anything,
something to eat'. \( \hat{\text{n\text{\textae}k-hicka}} \) is not specifically 'movie' or 'theater' but simply 'something to see'. And \( \hat{\text{n\text{\textae}k-paala}} \) is not a borrower of a specific thing, but a 'borrower of something'. Without the \( \hat{\text{n\text{\textae}k}} \) prefix, these nominalizations leave unspecified whether the object is specific or non-specific. \( \hat{\text{n\text{\textae}k}} \) specifies that the object is non-specific, in contrast to a specific object, as is possible with \( \hat{\text{hilis-haaya}} \) 'medicine maker', or any of the other specific nominalizations of (81)-(83).

The prefixal nominalization is in terms of syntax no different from the compounding nominalization. In each of the nominalizations of (86)-(88), the participant-like element comes first and the event-like element comes second. We will discuss this in more detail in the conclusion to this chapter.

3.14 Combinatory Possibilities

Up to this point we have considered Creek nominalization procedures as they apply one at a time to Creek roots. But there are combinatorial possibilities and impossibilities. To begin the discussion consider the following data:

(89)a. atotk-it-oci  b. atotk-ita-\( \hat{\text{\textae}lakko} \\
work-inf-dim       work-inf-aug  \\
'small job'        'big job'        \\

(90)a. pona-k-oci  b. pona-ka-\( \hat{\text{\textae}lakko} \\
talk-ger-dim       talk-ger-aug  \\
'small talk, language'    'big talk, language'
Examples (89-95) demonstrate that the diminutive {oci} and augmentative {lakko} suffixes are productive in use with every nominalization procedure discussed in this chapter. The examples of (89) contain {oci} and {lakko} in use with an infinitive {ita} nominalization; (90) in use with a gerundive {ka} nominalization; (91) in use with an instrument {is} nominalization; (92) in use with a locative {oh} nominalization. In (93), examples of {oci} and {lakko} are used with an agentive nominalization. Note that because the presence of {oci} triggers a morphophonemic rule that blocks the realization of a stem-final vowel, the agentive {a} is not realized with the {oci} suffix though the lengthening grade remains and helps to signal the agentive nominalization. Similarly in (94), {oci} and {lakko} are both used with the executor/experiencer nominalization though the {ii} suffix
is not realized when [oci] follows. In (95), [oci] and [žakko] are suffixed to a compounding nominalization.

Another ready combinatory possibility is the further prefixation of the instrumental [is] to nominalizations already prefixed with the locative [oh], as in the following:

(96)a. is-oh-homp-ita
    inst-loc-eat-inf
    'something to use as a table'

b. is-oh-leyk-ita
    inst-loc-sit-inf
    'something to use as a chair'

c. is-oh-wakk-ita
    inst-loc-lie-inf
    'something to use as a couch'

d. is-oh-yakap-ka
    inst-loc-walk-ger
    'something handy to walk on'

e. is-oh-žaan-ka
    inst-loc-cover-ger
    'something to use as a cover'

The addition of the instrumental prefix to nominals already formed with the locative prefix [oh] makes reference to something that can be used as a substitute for the reference of the original locative nominalization. Thus in (96a), [ohhompita] means 'table', and [isohhompita] means 'something that can be used as a table', for instance the top of a briefcase. And in (96d), [ohyakapka] means 'sidewalk', and [isohyakapka] means 'something handy to walk on', for instance a board placed across a muddy spot in a road.
The addition of the [oh] prefix to instrumental nominalizations seems to be impossible:

(97)a. *ohh-is-litk-ita
    loc-inst-run-inf

b. *ohh-is-paas-ka
    loc-inst-sweep-ger

The /h/ of [oh] is geminated morphophonemically when the stem has an initial vowel, as in [ohh-atotkita] 'to work on something'.

The addition of the [is] instrumental prefix to agentive nominalizations is possible, but not frequent:

(98)a. is-wanaay-a
    inst-tie l.g.-ag
    'a person who ties packages'

b. is-afaast-a
    inst-care l.g.-ag
    'a caretaker that uses medicine'

c. is-hakeeyhk-a
    inst-cry l.g.-ag
    'a person who cries about something'

The three interpretations of the instrumental prefix occurring on the agentive nominalizations in (98) correspond to three common interpretations of the instrumental prefix as it occurs on events: referring to containers (98a), to instruments (98b), and to oblique causes (98c), as in the following, respectively:

(99)a. is-hitotiitooms
    inst-it's frozen
    'It's frozen'

b. hitotiitooms
    it's frozen
    'It's frozen'
The examples of (100) and (101) are self-evident as clauses with instrument and oblique cause participants as the instrumental [is] participant referents, but (99) requires more comment. Both (99a) and (99b) mean 'It's frozen', but they have different possible referents. In (99a), the thing that is frozen is something that must be in a container, typically water that has been left in a container like a bowl. In (99b), the thing that has been frozen is something not in a container, like a tomato left sitting outside by itself.

As with the agentive nominalization, it is sometimes possible to add the instrument prefix to causative nominalizations:

(102)a. is-hotal-iic-a
    inst-blow-caus l.g.-ag
    'something handy to make wind with'

b. is-hitot-eec-a
    inst-freeze-caus l.g.-ag
    'something handy to make ice with'

The use of the instrumental prefix on causative nominalizations has the same effect as the instrumental prefix on locative nominalizations, that of making reference to something that can be used as a substitute for the reference of the original nominalization. Thus, in
(102a) the nominalization does not refer to a 'fan' but to something that can substitute for a fan, such as a piece of paper that one can wave to make a breeze; and in (102b) the nominalization does not refer to an 'icemaker' but to something that can substitute for an icemaker, such as an 'icecream freezer'.

I have found only two examples of the {oh} prefix occurring on agentive or causative nominalizations, one each, which are the following:

(103)a. ohh-afaast-a
     loc-care l.g.-ag
     'waiter, waitress'

     b. oh-hasat-iic-a
     loc-clean-caus l.g.-ag
     'table cleaner'

The use of the locative prefix on the agentive nominalization in (103a) and the causative nominalization in (103b) indicates the place toward which the agent or causer directs its action, specifically in both examples in (103) 'towards' or 'on' a table.

The instrumental and locative prefixes are unacceptable alone or in any combination with the executor/experiencer {ii} nominalizations. This section exhausts the combinatory possibilities for nominalization procedures that I have in my data.

3.15 Conclusions

One of the most interesting conclusions to be made about Creek nominalization procedures is that they seem to
support the notion that a nominalization is a metaphorical process in which something abstract (an event) is taken to be something concrete (a participant). Hopper and Thompson (1984.745-46) state, for example, in the context of a discussion of the differences between nominalization (from event to participant) and verbalization (from participant to event),

a nominalization names an event taken as an entity . . . . the metaphorical process [from event to participant, DEH] takes something abstract and treats it as if it were concrete precisely because human cognition can deal with concrete entities more easily than with abstractions; this process is thus unidirectional. This is why languages have nominalization processes, where an abstract event is treated as a concrete entity; this results in a form which is BOTH an event and an entity, and tends to be marked with signals of this fact.

In Creek, the proposition—comprised of the event and its possible participants—is the field within which nominalization procedures operate metaphorically. Quite simply, Creek speakers can nominalize certain participants in an event. If we take the proposition as a frame for nominalization, then the following schema seems relevant:
<table>
<thead>
<tr>
<th>SEMANTICS</th>
<th>FORM</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMPERFECTIVE AGENT/EXPERIENCER</td>
<td>l.g. + -a</td>
</tr>
<tr>
<td>CAUSER</td>
<td>-ec + l.g. + -a</td>
</tr>
<tr>
<td>EXECUTOR/EXPERIENCER</td>
<td>-ii</td>
</tr>
<tr>
<td>LOCATIVE</td>
<td>oh- + [ita, ka]</td>
</tr>
<tr>
<td>INSTRUMENT</td>
<td>is- + [ita, ka]</td>
</tr>
<tr>
<td>VARIED</td>
<td>compounding</td>
</tr>
<tr>
<td>EVENT, CENTRAL OBJECT</td>
<td>{ita, ka}</td>
</tr>
</tbody>
</table>

**Figure 1**

The diminutive and augmentative methods are also available, but these only derive nouns from nouns or nouns from verbs that are nominalized by one of the methods given above. In terms of Creek aspectual grades, only the agentive and causer nominalizations are imperfective by virtue of the lengthening grade. The remaining nominalizations available in Creek take the $\emptyset$ grade, signalling that the nominal which it qualifies is without an historical experienced inception. We will see in Chapter 6 that the [ii] executor/experiencer nominalization can take grades other than the $\emptyset$ grade, but this nominalization is of fundamental use in relative clauses. I have included here only the $\emptyset$ grade in use with [ii] because this is the grade with which it occurs in nominal citation forms. In addition to the nominalizations listed above except the agentive and causative, the $\emptyset$ grade is used, as we will see in the next chapter, with verbs inflected for the future tense as well.
as negatives.

Another opposition that is relevant in Creek nominalizations is that between those nominalizations which require either a consonant cluster stem finally, a consonant cluster with a /k/, or a simple /k/--the locative, instrumental, experiencer {ii}, and event/central object nominalizations--and nominalizations which do not require these stem-final clusters or /k/--the agentive, causative, and executor {ii} nominalizations. Only the agent, causer, and executor actually perform the event.

The final formal opposition relevant in Creek nominalization is that between the executor/experiencer nominalization, which takes an {ii} suffix and the remaining nominalizations, all of which take an {a} suffix. The semantic opposition is that only the executor/experiencer nominalization produces a participant which is actually a participant in an actual event. All other nominalizations produce participants which are more abstract representations of types of participants.

There are, of course, possible participant nominalizations which are missing from Figure 1. I have yet to find, for example, a recipient or benefactee nominalization. When it is necessary to refer to these participants as they are generated by a particular event, Creek uses relative clauses or other modificational procedures which we will discuss in Chapter 6.
The compounding and {nâak} nominalizations, both syntactically the same nominalization, do not escape the confines of the proposition in that the nominalizations produced are various participants in the proposition ruled by the event that is nominalized. It is not necessary that an event be nominalized with this method. Note again the examples in (80), which are composed of two simple nouns rather than a noun and a nominalization. But the second simple noun is interpreted to be more event-like than the first. In (79) the resulting nominalizations are experiencers of the stative events. In (80), the nominalizations are results of the participation of the first compounding nominal with the second. 'Whiskers' are a result of the 'mouth' having 'hair', a 'dairy barn' is a result of the 'cow' having a 'place', 'grapejuice' is a result of a 'grape' having 'juice', and so on. In (81), the nominalizations are also results, this time of the first nominal undergoing the event of the second. This is obvious with (81c) and (81d), but a 'watch' is an artifact of 'knowing' the 'sun' (81a) and 'school' takes its ontological justification from 'looking' at 'paper' (81b). The same resultative semantics are operative in (82). The sentences of (81) and (82) differ only in the form that the event nominalization must take as a result of the phonological form of the stem. The nominalizations of (83) are obviously agentives which are so specified by the
patient-like first nominal undergoing the event of the second agentive nominal. The agentive nominal interpretations of these compounds take their ontological justification from the interaction of the event-like nominal and the participant-like nominal. The prefixal [n̂aak] nominalizations in (86-88) are semantically parallel to the compounding nominalization except for the very general semantics that results from [n̂aak] meaning 'something' rather than a specific participant.

To further explore the phenomenon of nominalization in Creek, we must first understand what Hopper and Thompson (1984) call the discourse basis for lexical categories. They argue that 'linguistic forms are in principle to be considered as LACKING CATEGORIALITY completely unless nounhood or verbhood is forced on them by their discourse function' (1984.747). The discourse function of a noun is to refer to a 'discourse-manipulable participant', that of a verb is to refer to a 'reported event' (703). Another way to look at this phenomenon is through the continuum of assertion--mention as it is applied to an event. A 'reported event' is an asserted event. A 'discourse-manipulable participant', if it is a nominalization, is not an asserted event but a mentioned event.

This is not to say that there are not in many languages pure nominal roots, which can only be used to refer to a 'discourse-manipulable participant'. Hopper and
Thompson (744) write, 'Every language has roots whose semantic content makes them more likely to be realized as N's rather than V's; and other roots for which the reverse is true.' Regardless of the correctness of this claim applied universally, it is the case with those simple Creek nominals in (2)-(5) and the suffixal {wa} nominals in (6)-(9), all of which are not synchronically derived from verbs.

In many languages, it is possible to use a 'nominal root' as an event, as in the following English examples:

(104)a. He is garaging the car.
    b. He squirrels away all his money.
    c. You would probably like to know how this impacts you.

'Garage', 'squirrel', and 'impact' are all primarily 'nominal roots' but may be used metaphorically to report events. In Creek this type of metaphor from a purely nominal root to an event seems also to be possible, given causative morphology. See the following data:

(105)a. kap-ic-éc-ay-āŋk-s
    ^    kapi 'soap'
    soap-caus-caus f.t.g.-lsI-pII-dec
    'I made it soapy'

b. yalaah-ic-éc-ay-āŋk-s
    ^    yalaaha 'orange'
    orange-caus-caus f.t.g.-lsI-pII-dec
    'I made it orangy'

c. cat-ic-éc-ay-āŋk-s
    ^    cato 'rock'
    rock-caus-caus f.t.g.-lsI-pII-dec
    'I made it rocky'

(106)a. apisw-éc-ay-āŋk-s
    ^    apiswa 'meat'
    meat-caus f.t.g.-lsI-pII-dec
    'I made it meaty'
b. okcanw-^iic-ay-^ank-s
    salt-caus f.t.g.-1sI-pII-dec
    'I made it salty'

c. oposw-^eec-ay-^ank-s
    juice-caus f.t.g.-1sI-pII-dec
    'I made it juicy'

The examples in (105) contain stems that are simple nouns. The addition of causative morphology allows these stems to be interpreted as events. The double causative is necessary with the simple nominals of (105), while a single causative is sufficient for the [wa]-suffixed nominals of (106). This difference in causative formation will be explored in Chapter 4.

Only the causative morphology is adequate to make verbs of nouns. See the following data:

(107)a. kapi-t-ooM-s
    soap-T-aux-dec
    'That's soap'

b. okcanwa-t-ooM-s
    salt-T-aux-dec
    'That's salt'

Each of the examples in (107) was offered to a Creek speaker in the hopes that it would produce event glosses like 'He's soaping it' and 'He's salting it'. But instead each of these forms produces an identification of a 'discourse-manipulable' participant. That the [t-ooM-s] sequence can help produce a 'reported event' given a verbal root is shown by the following:

(108)a. atootk-it-ooM-s
    work l.g.-T-aux-dec
    'He's working'
b. akkopaan-it-o0M-s
   play l.g.-T-aux-dec
   'He's playing'

The one thing that the forms in (108) have that those in
(107) don't have, beside verbal roots, is the lengthening
grade, which as we have seen in the agentive
nominalization, signals imperfective aspect. Speakers
reject the forms in (107) with the lengthening grade as
being mispronounced.

Of course, all the remaining roots in
nominalizations discussed in this chapter are also used to
report events, to assert events. And it is just where
these roots lose their assertive status that they can be
interpreted as nominals, or discourse-manipulable
participants, or mentioned events. Note the following
examples:

(109)a. atootk-e-s
   work l.g.-lsI-dec
   'I'm working'
   atotkita  'to work, work'

   b. iisk-e-s
   drink l.g.-lsI-dec
   'I'm drinking'
   iskita 'to drink, drink'

   c. ca-capaaakh-is
   lsII-angry l.g.-dec
   'I'm getting angry'
   capahkita 'to be angry anger'

When we contrast the inflected forms to the left with the
non-inflected forms to the right, the first thing we notice
is the presence of the lengthening grade in the inflected
forms and its absence in the uninflected forms. But
because both the lengthening grade and the falling tone
grade are used in nominals, agentive ([faaya] 'hunter') and lexically ([toloosi] 'chicken') respectively, the presence or absence of the lengthening grade or the falling tone grade cannot be used as a formal criterion to separate events from participants. The next difference we notice in (109a) and (109b) is the presence of Type I participant marking in the inflected forms and its absence in the uninflected forms. This also is not a true criterion of difference because relative clauses functioning as participants can use the Type I marking, as we will see in Chapter 6. The use in (109c) of Type II participant marking is not a criterion of difference because of examples like the following:

(110)a. ci-cki
    2s-II-mother
    'your mother'

    b. ca-lli
    1s-II-leg
    'my leg'

Both Type II and Type III participant markings are used for indexing possession on nominals.

The next and only reliable criterion is the presence on the inflected forms of the 'declarative' suffix [s], which is the sign of an asserted event. A discourse-manipulable participant never takes this morpheme. Hopper and Thompson (1984) go into great detail to discuss the phenomenon that as a verb loses assertive status it loses the morphology of assertion. The one sure mark of
assertion in Creek is the presence of the 'declarative' [s]. In Chapter 6 where I will discuss modification, we will explore in detail the continuum of assertion—mention and its morphosyntactic realizations. For now I simply make the observation that the absence of the assertive [s] frees a verb root from asserting a reported event and allows the event to be mentioned. Because the event is then mentioned, it may be interpreted either as a nominalized version of that event or some participant involved in that event according to the schema presented in Figure 1. Note the following data:

(111)a. aafack-ii-s
    happy-ii-dec
    'He/She's happy'

b. aafack-ii-n pahl-e-s
    happy-ii-N hired-1sI-dec
    'I hired a happy person'

In (111a), the event of someone being happy is asserted with the help of the declarative [s] suffix and the executor/experiencer [ii] suffix. In (111b), the [s] is missing from the event of [aafack-ii] and the oblique case [n] suffix occurs in its place. The form [aafackiin] serves as a patient participant in the main clause. It is mentioned.

We have already explored the various interpretations of the [ita] and [ka] nominalizations. As I indicated, these interpretations range from nominal versions of the events themselves to possible objects of the events. As
for the remaining nominalizations in this chapter, the
morphology in each, except the [a] suffix, is used in
deriving reported events. Note the following examples:

(112)a. is-liitk-e-s
    inst-run 1.g.-1sI-dec
    'I'm running with it'

b. is-naafk-e-s
    inst-hit 1.g.-1sI-dec
    'I'm hitting with it'

islitkita
'to run with it, bicycle'

isnafkita
'to hit with it, bat, club'

(113)a. oh-homp-e-s
    loc-eat-1sI-dec
    'I'm eating on it'

b. oh-leyk-e-s
    loc-sit 1.g.-1sI-dec
    'I'm sitting on it'

ohhompita
'to eat on it, table'

ohleygita
'to sit on it, chair'

(114)a. faay-e-s
    hunt 1.g.-1sI-dec.
    'I'm hunting'

b. am-mahaay-‘ick-is
    1sIII-teach 1.g.-2sI-dec
    'You're teaching me'

faayita
'to hunt'

faaya
'hunter'

mahayita
'to teach'

mahaaya
'teacher'

(115)a. an-nokk-ii-s
    1sIII-hurt 0 g.-ii-dec
    'I hurt'

b. ci-hatk-ii-s
    2sII-white 0 g.-ii-dec
    'You're white'

nokkita
'to hurt'

nokki
'pain, someone hurt'

hatkita
'to be white'

hatkii
'a white person'

(116)a. ma isti caat-ii-s
    that person red 0 g.-ii-dec
    'That person is red'

b. ca-yoopoo-t lowaak-ii-s
    1sII-nose-T limber 0 g.-ii-dec
    'My nose is limber'

caatita
'to be red'

isticaati
'Indian'

lowaakita
'to be limber'

yoopoolowaaki
'elephant'
Each of the forms to the left in (112)-(116) has the assertive [s] morpheme. Those to the right do not. In (112), all forms have the instrument prefix [is]. In (112a), if one strips the inflected form of the lengthening grade, the Type I participant agreement, and the [s] suffix, the resulting form is ambiguously 'to run with it' and 'vehicle'. It is because both the infinitive interpretation and the nominal interpretation are non-assertive that the form [islitkita] is ambiguous in citation. The absence of inflectional morphology used to signal asserted events and the presence of the [ita] nominal morphology free the root for a nominal interpretation. But note that the [is] prefix places the resulting nominal in a particular place in the proposition, that of the instrument. The same is true of (112b). The absence of inflectional morphology and the presence of [ita] allow the form [isnafkita] to be ambiguously interpreted as 'to hit with something' or 'bat, club'. In (113), the [oh] 'loc' prefix functions in both reported events and discourse-manipulable participants. And again it is only the absence of inflectional morphology that allows the forms to have nominal interpretations. In (114), the forms [faayita] and [mahayita] do not have nominal glosses because they do not have the requisite root-final CC or /k/ structure. But with the addition of the lengthening grade and the [a] suffix, the agentive
nominalization is created. In (115), the forms on the left again have the [s] assertion morpheme. They also have the executor/experiencer [ii] suffix to indicate that the subject of the verb is an experiencer in this case. The infinitive forms of these verbs do not have nominal glosses though they do have the requisite CC root-final structure. But with the addition of the [ii] morpheme without the assertive [s], they have nominal glosses appropriate to a stative verb, as either the executor itself 'pain' or the experiencer 'someone hurt' and 'a white person'. Again, it is the absence of the assertive [s] that allows these interpretations. To the left in (116), we have two assertive clauses each with a subject and a verb suffixed with [s]. Neither of the infinitive forms of the verb to the right has nominal glosses, but when suffixed with [i] and prefixed with the participants of the assertive clauses to the left, each yields compound nominal glosses. The [i] suffix is the mark of a stative verb functioning in a compound. If the verbs are suffixed with [ii], they produce the following glosses:

(117)a. isti caat-ii
    person red Ø g.-ii
    'a person who is red'

b. yoopoo lowaak-ii
    nose limber Ø g.-ii
    'a nose that is limber'

The [ii] suffix signals an experience of the stative event. Thus, one must experience 'redness' and 'limberness'. They
may not simply be qualities of a participant 'Indian' or qualities of part of a participant 'elephant'. See (79) again for more examples of compounding with stative verbs suffixed with [i]. The complex problem of relative independence of events and participants will be treated in detail in Chapter 6.

We have in this chapter explored in detail the major forms of nominalization in Creek and have found with Hopper and Thompson (1984) that as a verb loses prototypical verbal morphology, it loses assertive status and is then free to be interpreted in nominal ways. Creek has two separate marks that are devoted to nominals and asserted events, [a] and [s] respectively. All asserted events have the [s] suffix. And only the executor/experiencer nominalization does not have the [a] suffix. Because it does not have this [a], forms like those in (117) are possible where the [ii]-suffixed verbs function to identify semantically independent participants. The [ii] nominalization is then the first wrinkle in complexity that we have discussed thus far. In Chapter 4, we will discuss in detail the remaining verbal morphology--except participant agreement--that helps the assertion of events. In Chapter 7, we will sort out the issue of complexity in the sense of a continuum of assertion--mention along which is arrayed the problem of modification.
Notes

1
A list of abbreviations used for the grammatical
glosses of the following sentences and all sentences in this
work is given at the beginning of this work on page x. A
list of semantic terms used in this work is given on page
xi.

2
Munro (1986) examines the diminutive suffix as it
occurs in verbal morphology in Oklahoma Seminole, a use that
I will not consider since it is rare in my data and has no
place in my argumentation.

3
This [ka] is another modern reflex of the auxiliary
which Haas variously labels a mediopassive auxiliary
(1969.55) and an intransitive auxiliary (1977b.528–29),
whose other reflex is the /k/ of the stems of the verbs in
(31). Broadwell (1987) reconstructs *ka as a Proto-
Muskogean nominal affix.
Chapter 4
Verb Derivation

4.1 Introduction

This chapter presents patterns of derivational morphology which form the verb stem in Creek. Derivation and inflection can be formally distinguished, and the verb stem will be defined as the root verb plus morphology to which verb grades apply, as well as those verb grades themselves. Inflectional morphology is then defined as all morphology not within the scope of the verb grades. This chapter contains sections on verb grades (4.2.1), participant number formation in the verb (4.2.2), the medio-passive \([ip]\) (4.2.3), the transitive \([ec]\) (4.2.4), the middle-voice \([k]\) (4.2.5), and the stative \([ii]\) (4.3). All of these sections, except the one on the stative \([ii]\), are concerned with derivational morphology. The derivational morphemes chosen to be discussed are included for either of two reasons. First, their frequent occurrence makes an understanding of them necessary for the discussion in following chapters. The morphology of verb grades and number formation are examples of this. Second, where my interpretation differs from others' analysis, I have included discussion of the data motivating these alternatives. Examples here include the medio-passive \([ip]\), the transitive \([ec]\), and the middle-voice \([k]\). The only inflectional morpheme that I discuss in detail in this
chapter is the stative (ii). This is because its semantics is helpful in determining the semantic difference between active and non-active verb roots and because of its frequent use in assertions, nominalizations, and modification. In this chapter, I will omit detailed discussion of both prefixal and suffixal participant markers. This includes agent, patient, recipient, benefactee, and other participant marking. This morphology and the complex semantics involved will form the subject matter of Chapter 5. Other derivational and inflectional morphology that is important and/or problematic has already been adequately treated by other scholars. This includes the tense suffixes (Nathan 1977.110-15; Haas 1940), directional prefixes (Booker 1984), interrogation (Martin 1986), among others. Tense suffixes, directional prefixes, and interrogative suffixes may be briefly noted as they occur in this work.

4.2 Derivation of the Verb Stem

As noted above, the verb stem is defined as the verb root plus all morphology to which verb grades may apply. There are five verb grades in Creek, whose functions are related to aspeccual differences. These grades, called ablaut by Haas (1940) and themes by Nathan (1977), are formally manifest as tonal, vocalic, and consonantal alternations applied to the ultimate syllable of the verb
stem. Because the application of verb grades delimits the verb stem, this section will begin with a presentation of the forms of each of the grades along with a preliminary characterization of their function. It is necessary to present at least the form and an estimation of the function of each of the grades because they are a necessary part of every verb form, even of those citation forms that we have already encountered, including the nominalizations of Chapter 3. Haas's (1940) detailed work on Creek ablaut has not been exceeded here, but has served as an invaluable guide in my checking these grades in present-day Creek. Cline (1986) examines the H grade in Oklahoma Seminole, and of course, Nathan (1977) discusses all grades in Florida Seminole. The discussion here of Creek grades is consistent with that work and is included to serve as a guide to interpreting the semantics of grade forms in the remainder of this work.

4.2.1 Verb Grades

To help in contrasting the forms for the five grades, I present in Table 1 an example of each of the five grades applied to the verb root of [nafk-ita] 'to hit'. In (v), the H grade is applied to [tac-ita] 'to cut' as well because the form of the H grade depends on the phonological structure of the stem to which it is applied.
(i) the zero grade
   * nafk-aii-s
   \[ hit \emptyset g.\text{-fut-dec} \]
   'He will hit it'

(ii) the lengthening grade
    * nafk-is
    \[ hit l.g.\text{-dec} \]
    'He is hitting it'

(iii) the falling tone grade
    * nafk-an\'k-s
    \[ hit f.t.g.\text{-pII-dec} \]
    'He hit it' (yesterday or before)

(iv) the rising tone grade
    * nafk-it-oom-s
    \[ hit r.t.g.\text{-T-aux-dec} \]
    'He hits it all the time'
    'He can really hit it'

(v) the H grade
    * naf=ev=k-s
    \[ hit=h g.\text{-dec} \]
    'He hit it' (moments ago)

    * ta=h=ci-s
    \[ cut=h g.\text{-dec} \]
    'He cut it' (moments ago)

Table 1

In each of the examples in Table 1, the third-person
singular Type I subject agreement and the third-person
singular Type II object agreement, ambiguous for gender and
animacy, are realized by zero. As in Table 1, in the
remainder of this work, I will not segment or gloss the
zero realization of these morphemes, except when needed for
specific discussion of participant agreement morphology.
What follows is a discussion of the form and function of
each of the five grades.

4.2.1.1 The Ø Grade

The Ø grade has zero realization. There are no
'changes' at all in the verb stem. The general semantics
of the Ø grade seems to be irrealis mood. It is used for
infinitives, gerundives, and all nominalizations built on
them (1); verbs inflected for the future tense (2);
imperatives (3); and negatives (4), as is shown below.

(1)a. ay-it\(a\)
go Ø g.-inf
'to go'

b. pona-\(k\)a
talk Ø g.-ger
'language'

                           Stem: pona-

                           From: ponayita
                           'to talk'

                           Stem: a-

                           Stem: islik-ita
                           'to run with it'

c. is-like-\(k\)ita
inst-run Ø g.-inf
'bicycle'

                           Stem: islik-

                           Stem: ohyakapita
                           'to walk on it'

d. ohyakap-\(k\)a
loc-walk Ø g.-ger
'sidewalk'

                           Stem: ohyakap-

                           Stem: nafk-\(k\)a
                           'to walk on it'

                           Stem: nafk-

                           Stem: nafk-\(k\)i-\(\ddot{a}\)\(z\)it\(a\)
                           'to hit'

                           Stem: nafk-

                           Stem: ki\(\ddot{i}\)-\(a\)
                           'to learn'

                           Stem: ki\(\ddot{i}\)-

                           Stem: pohi-\(t\)a
                           'to hear'

                           Stem: poh-

                           Stem: poh-

                           Stem: poh-

Neither the infinitive morpheme, nor the gerundive
morpheme, nor the future tense morpheme, nor the imperative
morpheme, nor the negative morpheme is part of the verb
stem. What all four morphemes have in common semantically
is that they specify that the event which they qualify is
without an historical, experienced inception. In none of
the specific uses of the Ø grade in (1)-(4) is the event of
the verb begun to be realized. The event is either without
a time frame at all (1), to happen in the future sometime (2)-(3), or without an effective agent (4). The Ø grade is appropriate for the nominalizations in (1b)-(1d) in that these nominalizations lack the semantics of a realized event. The 'events' of these nominalizations do not occur in (1b)-(1d). In Chapter 3, I indicated that the [ii] executor/experiencer nominalization can cooccur with the Ø grade as well as the other four grades. Discussion of the effect of grades on this nominalization is postponed to Chapter 6 on modification, in which [ii] has a major role.

4.2.1.2 The Lengthening Grade

The lengthening grade is realized as a long vowel in the final syllable of the stem unless the vowel of that final syllable is followed by a voiced sonorant in the same syllable. If the vowel of that syllable is already long in the verb root, then the vowel is neither longer nor shorter in the lengthening grade. There is no unpredictable tone associated with the lengthening grade, though the lengthening of the final vowel of the stem may predictably draw relatively high tone to that syllable. The semantic content of the lengthening grade is imperfective aspect. The lengthening grade is used in the imperfective agent/experiencer nominalization (5), the causative nominalization (6), and events (7), as in the following examples:
(5a) wanaay-a
  rope l.g.-ag
  'roper'
  From: wanayita
  'to rope'
  Stem: wana-

  b. capahk-a
  angry l.g.-ag
  'angry person'
  From: capahkita
  'to be angry'
  Stem: capahk-

(6) il-eec-a
  die-caus l.g.-ag
  'killer'
  From: ilita
  'to die'
  Stem: il-ec-

(7a) ahooc-e-s
  plant l.g.-1sI-dec
  'I'm planting'
  From: ahocita
  'to plant'
  Stem: ahoc-

  b. nooc-ay-e-s
  sleep l.g.-1sI-pI-dec
  'I was sleeping'
  From: nocita
  'to sleep'
  Stem: noc-

  c. yakaap-āŋk-s
  walk l.g.-pII-dec
  'He was walking'
  From: yakapita
  'to walk'
  Stem: yakap-

  d. tamk-it-oM-s
  fly l.g.-T-aux-dec
  'It flies'
  From: tamkita
  'to fly'
  Stem: tamk-

  e. hisaak-it-oM-s
  breathe l.g.-T-aux-dec
  'He's breathing'
  From: hisaakita
  'to breathe'
  Stem: hisaak-

In (5), though the [a] suffix is a derivational morpheme, it is purely a nominal derivational morpheme, and the lengthening grade applies to the ultimate vowel of the verb root. In (6), though the [ec] suffix is used here to derive a noun, the lengthening grade applies to it and not [il] because [ec] is also a verbal derivational morpheme. The stem for (6) is hence /ilec/, and the lengthening grade applies to the ultimate vowel of this stem. In (7a), the first-person singular subject marker is not part of the stem, so the grade applies to the stem /ahoc/. The same is
true of the subject marker and recent-past tense marker /[^e]/ with inherent falling tone in (7b). The stem to which the lengthening grade applies is /noc/. In (7c), the past tense marker /[^a]nk/, meaning something like 'prior to today', is not part of the stem. The lengthening grade applies to the stem /yakap/. Stems which are derived with the lengthening grade and which do not have an overt tense morpheme are interpreted as present tense. Thus (7a) is present imperfective, whereas (7b) is recent imperfective and (7c) is past imperfective. Examples of the lengthening grade in combination with other tenses will be encountered later in this work. Because the vowel of the final syllable of the stem /tamk/ in (7d) is followed by a voiced sonorant in its own syllable, that vowel is not lengthened for the lengthening grade. And because the vowel of the final syllable of the stem /hisaak/ in (7e) is already long, it remains the same for the lengthening grade. The lengthening grade is semantically distinguished from the Ø grade by signalling realis, yet imperfective aspect. Contrast (i) with (ii) in Table 1. As already demonstrated in sections 3.9 and 3.10 in Chapter 3, the imperfective aspect semantics of the lengthening grade is compatible with its use as part of the realization of agent/experiencer and causative nominalizations, as in the examples in (5)-(6) above. An agent, such as a 'roper', or an experiencer, such as an 'angry person', or a causer,
such as a 'killer' imperfectively performs an event in that he is seen as always in the act of performing the event. This performance or experience differentiates the nominalizations built upon the lengthening grade from those built upon the Ø grade.

4.2.1.3 The Falling Tone Grade

The falling tone grade is realized as vocalic lengthening as is the lengthening grade, plus falling tone on the vowel to which the lengthening grade applies. The semantic content of the falling tone grade is perfective aspect. The falling tone is used lexically in a small number of simple nominals, such as [toloosi] 'chicken', but in simple nominals the falling tone is an arbitrary formal property with no separate semantic content. Only in events does the falling tone grade carry a distinct meaning, as in the following examples;

(8a. ūaac-ay-āŋk-s
mow f.t.g.-lsl-pII-dec
'I mowed it'

b. ūaf-ay-āŋk-s
cut f.t.g.-lsl-pII-dec
'I cut it'

c. ūooy-imat-s
saw f.t.g.-pIII-dec
'He sawed'

d. ūak-call-āŋk-s
sub-roll f.t.g.-pII-dec
'He rolled down it'

From: tacita
'St em: tac-
'to mow'

From: lafita
'St em: laf-
'to cut'

From: fooyita
'St em: foo-
'to saw'

From: callita
'St em: ak-call-
'to roll'

In (8a) and (8b), the vowel of the ultimate syllable of the stem is lengthened and falling tone is added to that long
vowel. In (8c), because the ultimate vowel of the stem is already geminated only the presence of falling tone on that vowel marks the falling tone grade. And note from (8d) that though the /a/ of /call/ is not lengthened because it is followed in the same syllable by a voiced sonorant, it still receives falling tone. The falling tone grade is semantically distinguished from the $\emptyset$ grade and the lengthening grade by being realis and perfective. Contrast (iii) with (i) and (ii) in Table 1.

4.2.1.4 The Rising Tone Grade

The rising tone grade is realized as lengthening of the ultimate vowel of the stem as well as rising tone and nasalization on that vowel. The common semantics of this grade is continuative aspect or intensification. Rising tone and nasalization are part of the realization of the morphemes for 'wh' questions and 'yes/no' questions, but they do not carry the semantics of continuative aspect or intensification. As seen in (9) below, the 'wh' question morpheme is a geminate vowel, and the 'yes/no' question morpheme is a non-geminated vowel. Yet, there appears to be no semantic connection that can be made between this vowel lengthening and the vowel lengthening of the grades. Rather, rising tone and nasalization are part of the arbitrary realization of the inflectional morphemes that help form questions. The rising tone grade does not occur
lexically on nouns or verbs, in contrast to the $\emptyset$ grade, which occurs with most nouns and all verbs in citation form, and the falling tone grade, which occurs with a handful of nouns. The rising tone grade occurs as the realization of no other inflectional morphemes than the question morphemes. The remaining examples, in (10), illustrate the derivational use of the rising tone grade on events to signal the continuative aspect or intensification:

(9a. $\hat{\text{n}}\text{aaki-t}$ $\hat{\text{ci-naafk-}\hat{\text{a}}\text{nk-}\hat{\text{a}}}$
    $\text{something-T}$ $2\text{II-hit f.t.g.-pII-wh}$
    'What hit you?'

b. $\hat{\text{naafk-}\hat{\text{a}}\text{nk-}\hat{\text{a}}}$
    hit f.t.g.-pII-yes/no
    'Did he hit it?'

(10a. $\text{ac-ohh-onaa-t-oom-s}$
    $1\text{II-loc-tell r.t.g-T-aux-dec}$
    'He always tells on me'
    Stem: ona-

b. $\text{naafk-it-oom-s}$
    hit r.t.g.-T-aux-dec
    'He hits all the time'
    'He can really hit'
    Stem: nafk-

c. $\text{ca-hakiisk-is}$
    $2\text{II-sneeze r.t.g.-dec}$
    'I'm sneeze all the time'
    Stem: hakiisk-

d. $\text{fikhonnn-it-oom-e-s}$
    stop r.t.g.-T-aux-pI-dec
    'He was always stopping'
    Stem: fikhonn-

Because rising tone does not occur without nasalization, I am assuming that they are both realizations of the same phoneme. Though the semantic component of 'intensification' is not strictly aspectral, as revealed in (10b), the semantic connection of 'greater in degree'
between the 'manner' semantics of intensification and the aspectual semantics of continuation is evident. Compare Hardy and Montler's (1986) and Huang's (1987.61-70) recognition of the same semantic connection between intensification and continuation in the Alabama H grade. The rising tone grade is distinguished semantically from the Ø grade by being realis, but unlike the lengthening grade and the falling tone grade, it is iterative or intensive. Compare (iv) with (i), (ii), and (iii) in Table 1. The realis aspect of the rising tone grade results from the speaker's experience of intensity with respect to the subject of the event. When projected upon past experience, as in (10a)-(10d), the interpretation of the rising tone grade is persistence. When projected upon potential experience, as in the alternate gloss for (10b), the interpretation of the rising tone grade is intense ability. As is the case in the lengthening grade and the falling tone grade, the vowel of the last syllable of the verb stem is not lengthened in the rising tone grade if there is a following voiced sonorant in that same syllable. But the sonorant itself is lengthened. This is represented in (10d) by the extra /n/ in the inflected form of the verb [fikkonnta] 'to stop', the extra /n/ being realized as extra long articulation of the geminate /n/.'s.
4.2.1.5 The H Grade

The H grade is realized differently depending on the phonemic structure of the verb stem. Discussion of the rules for its formation will occur after a presentation of the data. Note the following examples of the H grade:

(11.a) poh=h-e-s
      hear=h g.-1sI-dec
      'I heard him'
      From: pohita
      Stem: poh-

(11.b) tac=h-e-s
      cut=h g.-1sI-dec
      'I cut it'
      From: tacita
      Stem: tac-

(11.c) ay=h-y-is
      go=h g.-dec
      'He went'
      From: ayita
      Stem: ay-

(11.d) waa=h-i-t-o0M-s
      meat cut=h g.-T-aux-dec
      'He cut the meat'
      From: waa;ita
      Stem: waa-;

(12.a) naf=h-e-y-k-is
      hit h g.-dec
      'He hit it'
      From: na;ki;ta
      Stem: nafk-

(12.b) hom=h-e-y-p-is
      eat=h g.-dec
      'He ate it'
      From: hompi;ta
      Stem: homp-

(12.c) is=h-e-y-k-is
      drink=h g.-dec
      'He drank it'
      From: iski;ta
      Stem: isk-

(12.d) ko1=h-e-y-is
      dig=h g.-dec
      'He dug'
      From: ko1;ita
      Stem: ko1-

(12.e) ak=h-e-y-k-is
      bite=h g.-dec
      'He bit him'
      From: akki;ta
      Stem: akk-

There are two ways of forming the H grade, corresponding to the two groups of examples above. First, if the final syllable of the stem is open, that is, if the ultimate
syllable of the stem contains a vowel followed by a single consonant in the infinitive form, then the H grade is formed by placing an /h/ infix immediately after the final vowel. A phonemic high tone also occurs on the syllable of the stem which receives the /h/ infix. This tone is at phonetic level 2. This is the method of H grade formation found in (11). In (11a)-(11c), the tone is just as it would be if the H grade did not attract phonemic tone. But (11d) has a tonal pattern of /2-m-3/, with phonemic tone on the H grade syllable and predictable level 3 tone on the auxiliary /ooM/. If there were not phonemic tone on the H grade syllable, the tonal pattern in (11d) would be /3-m-3/. Note also from (11d) that if the final vowel peak is long, it is shortened when the /h/ is infixed. Second, if the final syllable of the stem ends in a consonant cluster, the infix /ey/, with inherent falling tone, is inserted between the final two consonants. This is the method of H grade formation found in (12). Note from (12d) that if the consonant cluster is geminate (but not geminate /kk/, as in [12e]), the second consonant is realized phonemically as a /y/. In each of these examples, the time frame for the action is sometime the same day as the utterance, typically either just a few minutes before the utterance, or the morning of that day.

Examples (11)-(12) show that the H grade is used to indicate immediate past, but the following examples show
that the H grade is used for immediate future as well:

(13)a. ni=h=s-ay-ii-s  
    buy=h g.-lsI-ii-dec  
    'I might buy it'  
    'I will buy it'  
    'Let me buy it'
    From: nisita  
    'to buy'
    Stem: nis-

b. niis-ay-ii-s  
    buy l.g.-lsI-ii-dec  
    'I will buy it'  
    'I can buy it'

(14)a. hom=ey=p-ay-ii-s  
    eat=h g.-lsI-ii-dec  
    'I might eat'  
    'I will eat'  
    'Let me eat'
    From: hompita  
    'to eat'
    Stem: homp-

b. homp-ay-ii-s  
    eat l.g.-lsI-ii-dec  
    'I will eat'  
    'I can eat'

In each of the (a) examples of (13)-(14), the H grade signals that the action is to occur 'immediately'. There are three glosses for the (a) sentences and two glosses for the (b) sentences indicating the semantic range of the [ii] morpheme, which we will discuss in more detail later in this chapter. The core meaning of the morpheme is that the subject of the sentence is capable of performing the action or achieving the state of the event signalled by the verb. That core content is compatible with the more specific interpretations of 'might', 'will', 'can', and even the conversational implicature of offering to buy (13a) or asking to eat (14a). The (b) sentences are derived with the lengthening grade, though in (14b) the voiced sonorant precludes the vowel being geminated. In these asserted
events, the semantics of the combination of the lengthening grade and the [ii] morpheme is that the subject is capable of imperfectively performing the event. The H grade in the (a) examples indicates that the subject is not only capable of performing the event, but is about to. This is how the conversational implicature of offering or asking is possible with these forms.

The following examples indicate the interaction of the H grade and the imperative mode in Creek:

(15)a. naf=ey=k-as  
    hit=h g.-imp=sg.subj  
    'Hit this'

  b. nafk-as  
    hit Ø g.-imp=sg.subj  
    'Hit it'

(16)a. hi=h=c-as  
    see=h g.-imp=sg.subj  
    'Look at this'

  b. hic-as  
    see Ø g.-imp=sg.subj  
    'Look at it'

(17)a. hom=ey=p-as  
    eat=h g.-imp=sg.subj  
    'Eat this'

  b. homp-as  
    eat Ø g.-imp=sg.subj  
    'Eat'

Each of the examples in (15)-(17) is inflected with the inflectional imperative singular subject morpheme [as]. The (a) sentences have the H grade, the (b) sentences the Ø grade. No other grade is possible in use with the imperative morpheme. The imperatives in the (a) sentences,
with the H grade, have a sense of immediacy that the imperatives of the (b) sentences, with the Ø grade, lack. Typically in the imperatives with the H grade, the speaker and hearer have an object before them that the speaker wants the hearer to act upon immediately. Thus in (15a), a context is that the speaker instructs the hearer to hit something immediately in order to fix it. In (15b), the speaker may be simply advising the hearer on how to fix something. In (16a), a context is that the speaker has an object in his hand that he wants to hearer to look at. In (16b), the speaker may be telling the hearer to look at something later, since the object may or may not be in their presence. In (17a), the speaker is telling the hearer to eat a particular object before them. In (17b), the speaker may be telling the hearer to go somewhere or come somewhere and eat; the immediacy of a particular object before them to be eaten is missing from the context of (17b).

Thus, the common semantics of the H grade is something like 'immediate' aspect, either past or future, and is distinguished in this way from the other four grades since they are unconcerned with the temporal distance of the action of the event from the speech act. Compare (v) with (i), (ii), (iii), and (iv) in Table 1.
4.2.2 Number Formation in the Verb

Moving from the root within the inflected verb, the first formative of the verb stem that we come to, excepting the grade formation, is subject/object number formation, which in Creek is done partly by suppletion and partly by segmentable morphology. After a presentation of the forms of marking plurality, I will discuss the problem of ambiguity of plurality between the subject and object. The following examples illustrate the variety of ways of marking subject/object number in Creek verbs:

<table>
<thead>
<tr>
<th>Singular</th>
<th>Dual</th>
<th>Plural</th>
</tr>
</thead>
<tbody>
<tr>
<td>(18)a. litk-ita</td>
<td>tokošk-ita</td>
<td>pofatk-ita 'to run'</td>
</tr>
<tr>
<td>b. leyk-ita</td>
<td>kaak-ita</td>
<td>apook-ita  'to sit'</td>
</tr>
<tr>
<td>(19)a. tamk-ita</td>
<td>tam-hoo-k-ita</td>
<td>tam-ic-ita 'to fly'</td>
</tr>
<tr>
<td>b. noc-ita</td>
<td>noc-hoo-y-ita</td>
<td>noc-ec-ita 'to sleep'</td>
</tr>
<tr>
<td>(20) ay-ita</td>
<td>a-hooy-ita</td>
<td>apiiy-ita  'to go'</td>
</tr>
<tr>
<td>(21)a. footk-ita</td>
<td>footk-ak-ita</td>
<td>footk-ak-ita 'to whistle'</td>
</tr>
<tr>
<td>b. aklop-ita</td>
<td>aklop-ak-ita</td>
<td>aklop-ak-ita 'to swim'</td>
</tr>
<tr>
<td>c. yaheyk-ita</td>
<td>yaheyk-ak-ita</td>
<td>yaheyk-ak-ita 'to sing'</td>
</tr>
</tbody>
</table>

Some verbs in Creek, such as those in (18), mark singular, dual, and plural entirely suppletively. Some, such as those in (19), mark dual with the affix {hoo} and plural with the affix /ic/ (in the context of aC__) or /ec/ (in the context of i,e,oC__). Note from (19a) that when the stem to which /ic/ or /ec/ is added ends in a consonant cluster with //k// as the second consonant, the /k/ is not realized. Still others such as {ayita} in (20) mark the dual with the affix {hoo} and the plural suppletively. The
majority of Creek verbs do not distinguish between dual and plural, as in (21). The common non-singular mark is the affix [ak].

Haas (1948) explores the special uses of dual and plural verb forms with certain categories of subjects and objects. For example, with cloth articles as subjects of intransitives or objects of transitives, the dual form of the verb is used. Objects that refer to liquids in transitive clauses also take dual and plural forms. These data have been treated in some detail by Haas (1948) and Nathan (1977.100-04) and will not be further discussed here.

The following examples show that the suppletive and segmentable morphology involved in marking dual and plural in Creek is within what I call the verb stem and is thus subject to grades:

(22) tocciin-aa-t pofaatk-is From: litkita
    three-aa-T run=pl l.g.-dec 'to run'
    'Those three are running' Stem: pofatk-

(23) tocciin-aa-t tam-ic-áŋk-s From: tamkita
    three-aa-T fly-pl f.t.g.-pII-dec 'to fly'
    'Those three flew' Stem: tam-ic-

(24) hokkool-aat aklop-áak-t-ooM-s From: aklopita
    two-aa-T swim-pl r.t.g.-T-aux-dec 'to swim'
    'Those two keep swimming' Stem: aklop-ak-

(25) hokkool-aa-t tam=ho=h=k-is From: tamkita
    two-aa-T fly=dual=h g.-dec 'Those two just flew'
    'Those two just flew' Stem: tam-ho-k-

In (22), the lengthening grade is applied to the ultimate syllable of the suppletive stem for a plural subject of the
verb 'to run'. In (23), the falling tone grade is applied to the ultimate syllable of the plural suffixed stem of the verb 'to fly'. In (24), the rising tone grade is applied to the ultimate syllable of the plural suffixed stem of the verb 'to swim'. And in (25), the H grade is applied to the ultimate syllable of the dual infixed stem of the verb 'to fly'.

Haas (1948) indicates that suppletive and segmentable morphology used to mark number in verbs is sensitive to subject number with intransitive verbs and object number with transitive verbs. Nathan (1977:96) states that the same is true for Florida Seminole. As the examples in (22)-(25) show, this morphology is certainly sensitive to number with intransitive verbs. But in contemporary Creek, there is the possibility of ambiguity with transitive verbs. Note the following data:

(25)a. ca-nafk-a=h=k-is
    1sII-hit-pl=h g.-dec
    'They hit me'
    *'They hit us'

   / b. po-nafk-a=h=k-is
     1pII-hit-pl=h g.-dec
     'They hit us'
     *'He hit us'

   / c. nafk-a=h=k-is
     hit-pl=h g.-dec
     'He hit them'
     'They hit him'
     'They hit them'
(27) apala'\text{=h-t-is} \\
\text{throw away=h g.-dec} \\
'He threw them away' \\
'They threw it away' \\
'They threw them away'

(28)a. pan-i\text{iy-ai\text{\text{-ii-s}}} \\
\text{dance ø g.-1pI-fut-dec} \\
'We will dance'

b. pan-a\text{ack-ai\text{\text{-ii-s}}} \\
\text{dance ø g.-2pI-fut-dec} \\
'You (pl.) will dance tomorrow'

c. anec-ka-n \quad \text{po-yaac-ii-s} \\
\text{help ø g.-ger-N 1pII-want l.g.-ii-dec} \\
'We need help'

As (26a) indicates, if one participant marker is unambiguous with respect to number, as \{ca\} '1sII' is, and the other participant marker is ambiguous, as \{ø\} is for third-person Type I, then the plural suppletive or segmentable morphology makes plural the participant whose marking is ambiguous. The following table shows the participant marking for Type II subjects and objects:

<table>
<thead>
<tr>
<th></th>
<th>1s</th>
<th>ca-</th>
</tr>
</thead>
<tbody>
<tr>
<td>2s</td>
<td>ci-</td>
<td></td>
</tr>
<tr>
<td>3s</td>
<td>ø-</td>
<td></td>
</tr>
</tbody>
</table>

1p    po-  
2p    ci- (\text{-ak})  
3p    ø- (\text{-ak})

Table 2

Example (26a) cannot be interpreted as 'They hit \text{us}'. Example (26b) is the way to say 'They hit us' with unambiguous marking for the first-person plural patient \{po\}. Note that the second gloss for (26b) is unacceptable since with unambiguous first-person Type II marking, the plural suffix must make plural the ambiguous third-person
Type I participant. Example (26c) shows that when the 
marking for both $\emptyset$ third-person Type I (agent) and $\emptyset$
third-person Type II (patient) participants is ambiguous 
with respect to number, then both the agent and the patient 
are ambiguous with respect to plurality. Example (27) 
shows the same ambiguity as (26c), only with a suppletive 
stem for plurality. The singular stem for 'to throw away' 
is {awaykita}, the dual {akaayita}. Each example in (28) 
has only one participant. Each of these is unambiguous 
with respect to plurality, and their respective verbs have 
no suppletive or segmentable morphology indicating 
plurality. Haas (1940.143) describes a distributive use of 
the morpheme {ak}. I have been unable to find {ak} used 
this way in present-day Creek. Nathan (1977.99) and Cohn 
(1987.61) also note that {ak} is not used as a 
distributive, but only as a marker of plurality in 
Seminole. Cohn (1987.61) notes the same sort of ambiguity 
with respect to plurality and {ak} in Oklahoma Seminole 
that I describe here for Creek.

4.2.3 Medio-Passive {ip}

The suffix {ip} (referred to by Nathan [1977.123] as 
the middle voice) is also subject to formation by the 
grades and is therefore part of the verb stem. Nathan 
makes the generalization that the middle voice morpheme in 
Florida Seminole indicates that the subject of the verb is 
affected by the action or state of the verb. This is
certainly part of its meaning in Creek, but the [ip] morpheme in Creek signals something more like 'medio-passive', meaning that the executor of the event is not in full control of the event. Similarly, Cohn (1987.61) says that the [ip] morpheme in Oklahoma Seminole 'has the sense of making the action less direct or less forceful.' Note the following examples from Creek:

(29a) a. homp-as
    eat-imp=sg.subj
    'Eat'
    b. homp-ip-as
    eat-m.p.-imp=sg.subj
    'Go ahead and eat'

(30a) a. paas-as
    sweep-imp=sg.subj
    'Sweep'
    b. paas-ip-as
    sweep-m.p.-imp=sg.subj
    'Go ahead and sweep'

(31a) a. hom=ɔy=p-e-s
    eat=h g.-1sI-dec
    'I ate'
    b. homp-i=h=p-e-s
    eat-m.p.=h g.-1sI-dec
    'I've already eaten'

(32a) a. hopeyy-ii-s
    far Ø g.-ii-dec
    'It's far'
    b. hopeyy-ip-ii-s
    far-m.p. Ø g.-ii-dec
    'It's pretty far'

(33a) a. sàara-t joo-n opon-eec-ǝŋk-s
    sara-T joe-N speak-trs f.t.g.-pI1-dec
    'Sara talked about Joe'
    b. sàara-t joo-n opon-ip-eec-ǝŋk-s
    sara-T joe-N talk-m.p.-trs f.t.g.-pI1-dec
    'Sara talked about Joe'

Of the examples in (29)-(33), (31b) with the H grade applied to the [ip] morpheme clearly shows that it falls within the verb stem as I have defined it. The medio-passive morpheme in each of the (b) examples of (29)-(33) signals that the executor of the sentence is somehow not in control of the event. In (29a) and (30a) without the [ip] morpheme, the imperative subjects are respectively told to
'eat' and to 'sweep'. The same is true of the (b) examples in (29)-(30) with the [ip] morpheme except that they are urged to eat and sweep despite circumstances that might limit their control and prevent their acting. Speakers generally say that the context of (29b) is that the imperative subject is hesitant about eating and perhaps wishes to wait for the speaker to join him. The context of (30b) has been described as a situation in which the imperative subject is hesitant about sweeping because the speaker is partially obstructing the activity. Thus in (29)-(30), the imperative subjects of the (b) sentences with the [ip]-marked imperative are in a sense relieved of full responsibility for the event in that they are urged to perform the events on another's (the speaker's) authority. In (31a), a speaker simply makes the statement that he has eaten. The statement in (31b), with the [ip] morpheme, has the context of making an excuse about why the speaker is declining to eat now. The lack of control of the event in this sentence lies in the presence of 'excuse'. The speaker is abandoning responsibility for the event of not eating, whose context is given only by the question /nāakit istoomin hompickikoo/ 'Why are you not eating?' In (32b), contextual semantics plays an even larger role. In (32a), the speaker is simply making the statement that a particular place is far. In (32b) with the [ip] morpheme, the speaker is making an excuse for not going to a
particular place by saying that it is too far away. The semantics of the [ip] morpheme is thus not tied strictly to the event, here [hopeyyita] 'to be far'. In (32b), the [ip] morpheme does not indicate that the speaker has no responsibility for the location being far away, but that the speaker is dodging responsibility for traveling that distance. The use of the [ip] morpheme in (33b) brings the scope of [ip] within the proposition. In (33a), the speaker is simply saying that 'Sara talked about Joe'. In (33b), the presence of the [ip] morpheme is interpreted as meaning that the speaker is responsible somehow for Sara's talking about Joe. In other words, the executor of the event, Sara, is not the agent of the event. Example (33b) suggests that the [ip] morpheme might be important in causative constructions. We will see in the next section just how important it is.

4.2.4 The Transitiveizer [ec]

One of the curious differences among the very few total differences between Florida Seminole and Oklahoma Creek is that in Florida Seminole (Nathan 1977.125) the [ip] morpheme occurs after what Nathan (1977.75-76) labels as the causative morpheme, while in Oklahoma Creek the opposite is true. Oklahoma Seminole (Cohn 1987) patterns like Creek in this respect. See the Creek examples in (35)-(36). In Chapter 3, [ec] was identified as a
'causative' in order to conform with other sources on Creek/Seminole nominalization, but now we will see that \{ec\} is best interpreted as a 'transitivizer'. As in both Florida and Oklahoma Seminole, the \{ec\} morpheme in Creek has the allomorph /ic/ when the vowel in the preceding syllable is /a/; /ec/ occurs elsewhere. See the following examples:

(34)a. tiniip-ita 'to be smooth' tiniip-ec-ita 'to iron'
b. yanas-ita 'to be tame' yanas-ic-ita 'to tame'
c. nokk-ita 'to be hurt' nokk-ec-ita 'to hurt'

(35)a. sāara-t ^sonya-n homp-eec-it-oom-s
sara-T sonya-N eat-trs l.g.-T-aux-dec
'Sara is feeding Sonya'
b. sāara-t ^sonya-n homp-ip-eec-it-oom-s
sara-T sonya-N eat-m.p.-trs l.g.-aux-dec
'Sara is making Sonya eat'

(36)a. yaan paheya tac-ip-^eec-ay-ānk-s
john grass cut-m.p.-trs f.t.g.-1sI-pII-dec
'I made John mow the grass'
b. *yaan paheya tac-iic-ay-ānk-s
john grass cut-trs f.t.g.-1sI-pII-dec

In (34), we see that the \{ec\} transitivizing morpheme added to stative verbs allows the subject to transfer the stative quality to the object. This, of course, can be easily interpreted as a causative relation (to make/cause to be X). Where agent and executor coincide in one participant, there usually is no causative relation. It is the separate implementation of the two which creates causation. But if one considers the relation between agency and patience (ignoring/bypassing executor), then a 'causative-like' relation may appear. Thus, the subject can in (34a) make
smooth the object, in (34b) make tame the object, and in (34c) make to hurt the object. With the verbs of (34), there are obviously problems of participant relations to be explored as they are realized with varying participant markers. But as this will be the concern of Chapter 5, I postpone detailed examples with participant inflection until then.

In (35a), we have an already transitive verb marked with the transitivizing {ec}. This especially makes the {ec} morpheme look like a causative. Thus, the subject, causer, makes the object, causee, perform the activity of the transitive verb. This 'causative' happens to be lexicalized in English as 'feed'. Note from the lengthening grade on the {ec} morpheme in (35a) and (35b) that {ec} falls within the verb stem to which grades apply. In (35b), the addition of the {ip} morpheme indicates that the executor of the event, in this case the causee of the event, has a lessened control in the event. There is a corresponding English gloss which indicates this loss of control. The causer makes the causee eat. In (35a) without the {ip} morpheme, the agent/executor, being one and the same, has control over the event. Only (35b) is a true causative in Creek. Cohn (1987.61-62), in a detailed examination of Oklahoma Seminole causatives, reports that in Seminole '-ip- has the sense of making the action less direct or less forceful.' Cohn writes, 'In causatives with
-ip-, the causer caused the act by indirectly making the causee carry out the act or by having someone else do it'. My interpretation of these semantics is that the {ip} morpheme allows the agent role to be split from the executor role. The sense of less force, or less control, is a result of the executor not being identical to the agent.

In (36a), we have another inherently transitive verb {tacita} 'to cut' with the transitive {ec} and inflected with the falling tone grade. Sentence (36a) contains the medio-passive {ip} indicating absence of direct control on the part of the executor. Sentence (36b) shows that the use of {ec} without {ip} with the event {tacita} 'to cut' is unacceptable.

The question is here why some verbs such as {hompita} 'to eat' allow what looks like causatives without the use of {ip} and some verbs such as {tacita} 'to cut' do not allow what looks like causatives without {ip}. The essential problem is in calling the {ec} morpheme a 'causative'. In (34), the {ec} looks very much like a 'causative'. But it could just as easily be seen as a transitivizer, which allows the stative verbs in (34) to take agents. In (35a), the presence of {ec} seems also to create a causative. But in (35a) the agent is not actually causing the patient to eat. Rather, {hompecita} is a derived bi-transitive event that does not mean 'to make
eat', but 'to feed', and in which the 'causee' is a passive recipient and not an executor. The verb [hompita] 'to eat' already takes patient objects, but they are inanimate objects, or once animate objects that are no longer animate. Thus, the derived event [hompecita] 'to feed' is more transitive, in Hopper and Thompson's (1980) sense, in that it takes a more animate object, i.e. a recipient, and a more mobile agent than [hompita] 'to eat'. The addition of [ip] to a derived event with [ec] makes the verb truly causative in that the agent and executor are thereby separated. Thus, in (35b) the [ec] morpheme is compatible with the greater transitivity of a causative event, but it is only the cooccurrence of the [ec] and the [ip] morphemes that makes the event causative. I will discuss the non-acceptability of (36b) after presentation of more data to illustrate the difference between [ec] and [ip-ec].

There are many verb patterns in Creek that support the analysis of [ec] as a transitive or a mark of increased transitivity and the cooccurrence of [ec] and the mediopassive [ip] as the mark of a true causative. Consider the following data:

(37)a. ^saara-n opan-ip-eec-ay-ank-s
   sara-N dance-m.p.-trs f.t.g.-1sI-pII-dec
   'I made Sara dance'

b. ^saara-n opan-iic-ay-ank-s
   sara-N dance-trs f.t.g.-1sI-pII-dec
   'I made Sara dance'
(38)a. ca-yakap-ip-eec-is
    lsII-walk-m.p.-trs l.g.-dec
    'He's making me walk'

b. ca-yakap-iic-is
    lsII-walk-trs l.g.-dec
    'He's walking me'

(39)a. ac-aklop-ip-eec-is
    lsII-bathe-m.p.-trs l.g.-dec
    'He's making me bathe'

b. ac-aklop-eec-is
    lsII-bathe-trs l.g.-dec
    'He's bathing me'

With each of the verbs in (37)-(39), one may form either
the transitive with {ec} alone or the causative with {ec}
in combination with {ip}. In (37a), the inherently
intransitive active verb {opanita} 'to dance' is suffixed
with both the transitivizing {ec} and the medio-passive
{ip} to yield a causative of 'to dance'. In (37b), the
same event has only the transitivizing {ec}, here /ic/,
without the medio-passive {ip}. In (37a), the agent has
told Sara, the executor, to dance and she has done it. The
agent is not directly involved in the event. The agent is
a causer. In (37b) without {ip}, it is as if Sara herself
is danced, which is consistent with the greater
transitivity of {ec}. The agent literally dances Sara.
The agent and the executor are one and the same. In (38a),
the causative with {ip} and {ec} indicates that the
agent/causer, has told the executor/causee, to walk and the
latter is doing it. The causer is not directly involved in
the event since he is not the executor. In (38b), the
transitive without [ip] indicates that the agent is walking the patient. That is, he has him by the arm and is walking him around, perhaps because the patient is too weak to walk alone. The agent is the executor. In (39a), the causative with [ip] indicates that the agent/causer has told the executor/causee to bathe and that the latter is doing it. In the transitive (39b), without [ip] the agent/executor is directly involved in the bathing of the patient.

Thus, the variation between transitives with [ec] and without [ip] and causatives with both [ec] and [ip] seems to be semantically regular. But [tacita] in (36) is not the only verb with which the transitive without [ip] is unacceptable. Consider the following data:

(40)a. ca-nafk-ip-eec-is
    1sII-hit-m.p.-trs l.g.-dec
    'He's making me hit'

   b.*ca-nafk-iic-is
    1sII-hit-trs l.g.-dec

(41)a. ac-ahoc-ip-eec-is
    1sII-plant-m.p.-trs l.g.-dec
    'He's making me plant'

    b.*ac-ahoc-eec-is
    1sII-plant-trs l.g.-dec

(42)a. ca-yaheyk-ip-eec-is
    1sII-sing-m.p.-trs l.g.-dec
    'He's making me sing'

    b.*ca-yakeyk-eec-is
    1sII-sing-trs-dec

As the data in (36) and (40)-(42) indicate, it is unacceptable in Creek to create derived events of the verbs [tacita] 'to cut', [nafkita] 'to hit', [hocita] 'to
plant', and {yaheykita} 'to sing' with simply the transitivizer {ec}. One must also use the medic-passive {ip} morpheme. With each of these events, it is impossible to view the object as a patient in the event with simply {ec}. In cutting, hitting, planting, and singing, the agent/executor does not cut, hit, plant, or sing a patient of animacy, or any other variable of transitivity (Hopper and Thompson 1980), which is increased over the normal patients of these events. To have increased transitivity with these events, the causer must simply tell or otherwise direct the causee to perform the event on some other patient. That is, one must create a true causative with both {ip} and {ec}. Given 'to hit' and verbs like it, adding {ec} adds a more motile participant to the two already present. There are, then, three necessary participants in 'hit' with {ec}. One is necessarily the agent, one is the executor, and one is the patient. And it is the distinct agent and executor that mandates that the executor cede its responsibility, hence, the occurrence of {ip}. On the other hand, it is possible to have transitives without the {ip} morpheme with the events in (34)-(35) and (37)-(39) because with the events {tiniipita} 'to be smooth', {yanasita} 'to be tame', {nokkita} 'to be hurt', {hompita} 'to eat', {opanita} 'to dance', {yakapita} 'to walk', and {aklopita} 'to bathe', it is possible to view the object as a patient of increased transitivity in
the event. Conversely, then, the subject may be directly involved in the event of increased transitivity by being both agent and executor.

The following examples illustrate well the productivity of the [ec] morpheme in Creek and provide as well further support for the generalization of [ip] as a medio-passive marker and the combination of [ip] and [ec] as the sign of a true causative:

(43)a. ^jaan coko-n hasat-iic-^aŋ-k-s
  john house-N clean-trs f.t.g.-pII-dec
  'John cleaned the house'

b.*jaan coko-n hasat-ip-eec-^aŋ-k-s
  john house-N clean-m.p.-trs f.t.g.-pII-dec

(44)a. ^jaan coko-n hasat-ic-ip-eec-ay-^aŋ-k-s
  john house-N clean-trs-m.p.-trs f.t.g.-1sI-pII-dec
  'I made John clean the house'

b.*^jaan coko-n hasat-ic-eec-ay-^aŋ-k-s
  john house-N clean-trs-trs f.t.g.-1sI-pII-dec

The verb [hasatita] 'to be clean' is a stative verb, like the verbs in (34). In (43a), it has the [ec] suffix, making it transitive. Sentence (43b) indicates that the [ip] medio-passive morpheme is unacceptable with the transitive of the type of (43a). It is as if it makes little sense to indicate with [ip] that the agent of the transitive event 'to clean' is not directly involved in the event as executor. If [coko-n] 'house' is replaced by an animate noun, e.g. [səara-n], the sentence still fails. This shows that the unacceptability lies within the verb and not with the presence of an inanimate causee in (43b).
In (44a), the root [hasatic] is used with an [ec] morpheme already added. The addition of another [ec] to the now transitive stem makes the verb secondarily transitive, but it now requires the [ip] medio-passive and the semantics is that of a true causative. The unacceptability of (44b) shows that the stem [hasatic] functions like transitive roots. The fact that the [ip] morpheme follows the first [ec] and precedes the second one, makes it even more probable that the stem form used in (44a) is [hasatic] 'to clean'.

The following data illustrate what appears at first glance to be an unusual use of the [ec] morpheme:

(45)a. saara-t a-piil-aŋk-s
   sara-T loc-laugh f.t.g.-pII-dec
   'Sara laughed'

b. saara-t jōo a-pil-eeç-aŋk-s
   sara-T jo loc-laugh-trs f.t.g.-pII-dec
   'Sara laughed at Joe'

c. ci-pil-eeç-t-oM-s
   2sII-laugh-trs l.g.-T-aux-dec
   'He's laughing at you'

d. ci-pil-ip-eeç-t-oM-s
   2sII-laugh-m.p.-trs l.g.-dec
   'He's making you laugh'

(46)a. saara-t paksānkiin-oponaay-aŋk-s
   sara-T yesterday-N talk f.t.g.-pII-dec
   'Sara talked yesterday'

b. saara-t isti-caati im-pona-ka-n
   sara-T person-red 3III-speak-ger-N
   is-oponaay-aŋk-s
   inst-speak f.t.g-pII-dec
   'Sara talked the Indian language'
c. saara-t joo im-ponaay-e-s
   sara-T joo 3III-talk l.g.-pi-dec
   'Sara was talking to Joe'

d. saara-t aca-pon-eeck-ank-s
   sara-T 2sII-speak-trs f.t.g.-pII-dec
   'Sara talked about me'

e. saara-n oponay-ip-eeck-e-s
   sara-N talk-m.p.-trs l.g.-1sI-dec
   'I'm making Sara talk'

(47)a. saara-t isti-caati im-pona-ka
    sara-T person-red 3III-speak-ger
    kiik-ank-s
    learn f.t.g.-pII-dec
    'Sara learned Creek'

b. saara-t joo a-kiik-eeck-it-ooM-s
    sara-T joo loc-learn-trs f.t.g.-T-aux-dec
    'Sara thought about Joe'

c. saara-t joo kiik-eeck-it-ooM-s
    sara-T joo learn-trs l.g.-T-aux-dec
    'Sara is notifying Joe'

In (45a), the active verb {apilita} 'to laugh' is used intransitively with no object expressed. In (45b), 'Joe' appears immediately preceding the verb, the normal slot for objects in transitive events with full NP's for subject and object. The verb is suffixed with the {ec} morpheme, but it does not make the verb causative. The {ec} morpheme simply increases transitivization such that the verb may take a direct object. By 'direct object', I mean an object that controls prefixal agreement on the verb. The semantic effect of this greater transitivization is a directed effort in the event. Though 3II agreement is a zero prefix, (45c) with 2sII agreement shows that the {ec} morpheme does demand this object marking on the verb.
Example (45d) shows, again, that to make a true causative of a Creek verb one needs the medio-passive [ip]. The difference between (45c) and (45d) is only the absence versus the presence of this [ip] morpheme. In (46a), we have the intransitive use of the verb [oponayita] 'to talk'. In (46b), the verb is prefixed with the instrument marker [is], to mark in this case the presence of the 'instrument' 'Indian language'. In (46c), the verb is inflected with the 3III marker to mark the presence of a 'dative' object. In (46d), the verb takes the [ec] morpheme and 2sII marking to signal the presence of an object. As I will show in Chapter 5, the presence of Type II object marking generally marks the presence of a more greatly affected object than that whose presence is marked by Type III marking. Thus, the major difference between (46c) and (46d) is the greater transitivity of (46d) caused by [ec] and reflected in Type II object marking versus Type III object marking. In (46e), we have the causative form of [oponayita]. Here again the [ec] and the [ip] morphemes are both required to make the causative. In (47a), the verb [kišita] 'to learn' is used transitively with the object 'Indian language'. In (47b), the verb appears with the [ec] morpheme, allowing a locative object, whose relation is recorded on the verb by the prefix [a]. Example (47c) has the [ec] but lacks the [a] prefix, signalling a different type of object relation. Nathan
(1977.76) speculates that because examples like those in (45b) and (47b) are prefixed with the locative [a], which means something like 'location leading away from a point of reference', the unusual use of the [ec] morpheme in those examples signals 'a kind of indirect causation'.

Throughout this section, we have seen that the [ec] morpheme is a transitivizer and that it is only the combination of [ec] and [ip] which creates a true causative with the agent and executor roles invested in separate participants.

4.2.5 The Middle-Voice [k]

In section 4.2.4, we discussed [ec] as it functions as a transitivizer. In this section, we discuss [k] as a marker of middle voice as well as [ec] further in its opposition to [k] in derivation. The [k] is labeled 'middle voice' since its presence implies that the subject of the verb is affected by the action of that verb. The middle voice semantics is complicated by the fact that [k] sometimes seems to stress the stative quality of an event, but we will consider these problems below. Haas (1969.55) reconstructs [k] as a Proto-Muskogean medio-passive auxiliary and elsewhere (1977a.528-29) as an intransitive auxiliary. Nathan (1977.76) labels it synchronically a detransitivizing suffix. Broadwell (1987.9) and Cohn (1987.64) call it a stative, though they both acknowledge
that this designation is less than adequate. To begin the
discussion, consider the following data:

(48a) a. tac-k-ita 'to be cut' tacita 'to cut'
b. tonof-k-ita 'to be bruised' tonofita 'to bruise'
c. kac-k-ita 'to be broken' kacita 'to break'
d. hocif-k-ita 'to be named' hocifita 'to name'
e. kool-k-ita 'to be lighted' koolita 'to light'
f. hic-k-ita 'to be born' hicita 'to see'
g. tokhapoo-k-ita 'to be stacked' tokhapoyita 'to stack'
h. noc-k-ita 'to be sleepy' nocita 'to sleep'
i. yopaklat-k-ita 'to be late' yopaklatita 'to be slow'

The data in (48) show that the suffixation of [k] to
transitive roots produces a middle-voice version of the
event, here specifically a stative version of the event.
With the lengthening grade, these middle-voice events may
be interpreted as non-stative. Thus the middle-voice
version of [tacita] 'to cut' is [tackita] 'to be cut' and
so on. In (48f), [hickita] has a metaphorical extension--
'to be born'--in addition to the normal middle-voice
interpretation. In (48h), [nocita] can be interpreted as
middle voice, but the addition of [k] allows the verb to
focus on the state. The stative participant is more highly
affected by the event than the active participant. This
correlates with Type II marking for the subject of
[nockita] and with Type I marking for [nocita]. Type II
marking records, as detailed in Chapter 5, a more highly
affected participant than Type I marking records. Type II
marking on [yopaklatkita] 'to be late' and Type I marking
on [yopaklatita] 'to be slow' also separates these two in
terms of middle voice, even though [yopaklatita] 'to be slow' is glossed statively. In fact, all of the middle-voice forms in (48) take Type II marking to record their subjects while the non-middle-voice forms take Type I for their subjects. The following forms indicate that the root-final [k] is not a prerequisite for a middle-voice verb:

(49)a. kasapp-ii-s
    to be cold Ø g.-ii-dec
    'It's cold'

b. ac-acol-ii-s
   1s-II-old Ø g.-ii-dec
   'I'm old'

c. ca-yikc-ii-s
   2s-II-strong Ø g.-ii-dec
   'I'm strong'

d. caat-ii-s
   red Ø g.-ii-dec
   'It's red'

e. ci-nih-ii-s
   2s-II-fat Ø g.-ii-dec
   'You're fat'

The forms in (49) may all appear with the lengthening grade with non-stative semantics. The middle-voice forms in (49), all without a [k], are not derived from active roots. Those in (48) are. Thus, the suffix [k] is a derivational morpheme that produces middle-voice verbs from active ones and is not a requisite suffix for middle-voice roots. With the middle-voice verbs in (48), the experiencers are equivalent to the patients of their active counterparts, as is shown in the following:
(50a). ca-ta=h=c-is
     lsII-cut=h g.-dec
     'It cut me'

b. ca-tac-k-ii-s
   lsII-cut ø g.-m.v.-ii-dec
   'I'm cut'

(51a). ca-tono=h=f-is
   lsII-bruise=h g.-dec
   'It bruised me'

b. ca-tonof-k-ii-s
   lsII-bruise ø g.-m.v.-ii-dec
   'I'm bruised'

The patient of the active (50a), /ca/ 'me', is the experiencer of the middle voice (50b) and in fact has the same morphological mark of person-number agreement, a coincidence which we will explore in depth in Chapter 5. The same is true of (51a) and (51b). Neither [nocita] 'to sleep' in (48h) nor [yopaklatita] 'to be slow' in (48i) can take Type II objects. But the presence of Type II marking on [nockita] 'to be sleepy' and [yopaklatkita] 'to be late' reflects the middle-voice semantics of [k]. The use of [k] seems, then, straightforward. It creates middle-voice verbs from active ones and can make experiencer subjects of patient objects. All of the forms in the left column of (48) are glossed as statives. But consider the following data:

(52a). kawap-k-ita 'to rise'
    b. ako-k-ita 'to move oneself'
    c. ḫakpal-k-ita 'to turn oneself over'
    d. haa-k-ita 'to appear, seem'
(53) a. kawapita 'to lift'
    b. akoyita 'to move something'
    c. ḫakpalita 'to turn something over'
    d. haayita 'to make'

In (52), the first violation of expectation is that
the suffixation of [k] to the active verbs in (53) does not
produce stative verbs. The examples in (53) contain
transitive active verb roots. The suffixation of [k], as
in the corresponding examples in (52), does not produce
stative versions of these events but rather simply middle-
voice versions of these active events. Even (52d)
[haakita] 'to appear, seem' can be interpreted as middle-
voice version of the event [haayita] 'to make' in that in
'appearing' or 'seeming' one 'makes' oneself in a certain
image. The verbs in (52) with [k], unlike the verbs in the
left column of (48) take Type I marking. The semantics of
the suffixation of [k] on the verbs in (48) and that of the
suffixation of [k] on the verbs in (52) are similar in that
with both the subject of the [k]-suffixed verbs undergoes
the action of the event. Thus, the common semantics of [k]
is middle voice.

The use of [k] as a derivational morpheme is thus far
relatively uncomplicated. But now consider the following
data:

(54) a. hoolwa-k-ita 'to be ugly' *hoolwayita
    b. tan-k-ita 'to be empty' *tanita
    c. hasat-k-ita 'to be clean' *hasatita
    d. lapot-k-ita 'to be straight' *lapotita
    e. hilap-k-ita 'to be in a hurry' *hilapita
(55)a. fiik-ita 'to pay' *fiiiyita
    b. naq-k-ita 'to sin, destroy' *nahoiiita
    c. coo-k-ita 'to suck' *cooyita
    d. conii-k-ita 'to bend over' *coniiyita

In (54), each of the verbs in the left column has a root-final [k]. And because each is a middle-voice verb, like those in the left column of (48), one would expect that the removal of the [k] would produce an active counterpart. But the right column in (54) shows us that it is unacceptable to remove the [k] for these forms as they are. The verbs in (55) seem analogous to those middle-voice verbs in (52). Even [fiikita] can be understood as somehow middle voice in the sense that in 'paying' someone, the payer depletes his own resources. But like the verbs in (54), the verbs in (55) do not allow the removal of [k] from these forms without other concomitant alterations.

It is possible to remove the [k] from the verbs in (54) and (55), but they demand extra morphology as in the following examples:

(56)a. hoolw-ec-ita 'to be mean'
    b. tan-ic-ita 'to empty'
    c. hasat-ic-ita 'to clean'
    d. lapot-ec-ita 'to straighten'
    e. hilap-ic-ita 'to hurry someone'

(57)a. fiiy-ip-ec-ita 'to make pay'
    b. naq-ec-ita 'to bother'
    c. cooy-ec-ita 'to nurse someone'
    d. coniy-ec-ita 'to bend something'

To remove the [k] from the verbs of (54) and (55), one must add the transitive [ec/ic], as in (56) and (57). With each of the examples in (56) and (57), it appears that the
removal of [k] and the suffixation of [ec] does add a transitive meaning. With (56a), the [ec] makes the root at least potentially transitive in that the verb can take an agent/executor. Note that in (57a) the medio-passive [ip] is required since the agent and executor are separate participants.

There are further problems in saying that [k] simply marks middle voice while its absence marks active events.

See the following data:

(58)a. lit-k-ita 'to run' *litita *lit-ec-ita
b. folot-k-ita 'to turn' *folotita *folot-ec-ita
c. halaat-k-ita 'to go slow' *halaatita *halaat-ic-ita
d. aafac-k-ita 'to be happy' *aafacita *aafac-ic-ita

The verbs in (58) follow neither the pattern of the verbs of (48) and (52)-(53) nor the pattern of the verbs of (54)-(55) and (56)-(57). The transitive versions of those events in (58) are formed as follows:

(59)a. lit-ic-ec-ita 'to run something'
b. folot-ic-ec-ita 'to turn something'
c. halaat-ic-ec-ita 'to slow something'
d. aafac-ic-ec-ita 'to make someone happy'

It appears that the forms in (59) take two [ec] suffixes. But a close look at the first suffix reveals it to be strange in that it does not follow the morphophonemic rule that the [ec] suffix is realized as /ic/ when an /a/ is the peak of the preceding syllable and /ec/ otherwise. All of the first suffixes in (59) are realized as /ic/ even in (59a) and (59b) where the preceding vowels are /i/ and /o/ respectively.
Thus far even though there are three classes of verbs that require different morphology when not suffixed with [k], each verb set can drop the [k]. But consider the following:

(60) a. nafkita *nafita *naf-ic-ita *naf-ic-ec-ita
    'to hit'
b. miskita *misita *mis-ec-ita *mis-ic-ec-ita
    'to sweat'c. atotkita *atotita *atot-ec-ita *atot-ic-ec-ita
    'to work'd. afankita *afanita *afan-ic-ita *afan-ic-ec-ita
    'to kiss'e. capakhita *capahita *capah-ic-ita *capah-ic-ec-ita
    'to be angry'
f. nokkita *nokita *nok-ec-ita *nok-ic-ec-ita
    'to hurt'g. takkita *takita *tak-ic-ita *tak-ic-ec-ita
    'to kick'

The /k/ cannot be removed from the verbs in (60) to form either type of transitive, true causative or not. Augmentation of the transitivity of the verbs in (60) is achieved as follows:

(61) a. nafk-ip-ec-ita 'to make hit'
b. misk-ip-ec-ita 'to make sweat'c. atotk-ip-ec-ita 'to make work'd. afank-ip-ec-ita 'to make kiss'e. capakh-ic-ita 'to make mad'f. nokk-ec-ita 'to make hurt'g. takk-ip-ec-ita 'to make kick'

The medio-passive [ip] is required with some of these verbs of increased transitivity since the resulting tense in transitivity can only be interpreted as a true causative in which agent and executor are two separate participants. There are two possibilities for explaining the behavior of those verbs of (60) and (61) with respect to k. The first
is to argue that the k must remain because of some inherent semantic content of the root. But because we have only seen [k] signalling some type of middle voice with respect to the event and because the verbs of at least (60a) and (60g) seem not to possess these qualities, this argument is at best strained. The second possibility is to assume that the k in those verbs of (60) is a meaningless part of the phonological expression of the roots. Since k does not alternate with Ø, this interpretation is the more reasonable.

There appear, then, to be four different classes of verbs with respect to their behavior with a root-final k. This k has one further pattern which cuts across the first three classes outlined below, but I will discuss that after a summary and filling out of the patterns we have seen thus far, as follows:

<table>
<thead>
<tr>
<th>CLASS</th>
<th>-k</th>
<th>-Ø</th>
<th>-ec-</th>
<th>-ic-ec-</th>
</tr>
</thead>
<tbody>
<tr>
<td>I 'to be cut' tac-k</td>
<td>tac</td>
<td>-----</td>
<td>-----</td>
<td></td>
</tr>
<tr>
<td>II 'to be ugly' hoolwa-k</td>
<td>-----</td>
<td>hoolw-ec</td>
<td>-----</td>
<td></td>
</tr>
<tr>
<td>III 'to run' lit-k</td>
<td>-----</td>
<td>-----</td>
<td>lit-ic-ec</td>
<td></td>
</tr>
<tr>
<td>IV 'to hit' nafk</td>
<td>-----</td>
<td>nafk-ic</td>
<td>-----</td>
<td></td>
</tr>
</tbody>
</table>

Table 3

Class I verbs, those of (48) and (52), form their middle-voice forms with the suffixation of [k]. The absence of this [k] signals the active transitive non-middle-voice form of these verbs. Class II verbs, those of (54) and
(55), oppose not \{k\} and \{\emptyset\}, but \{k\} and \{ec\}. The contrast between the forms in (54)-(55) and (56)-(57), is between a middle-voice meaning with \{k\} and a non-middle-voice meaning with \{ec\}. Class III verbs, those of (58), oppose \{k\} and \{ic-ec\}. The contrast between the forms in (58) and (59) is again between a middle-voice meaning and a non-middle-voice meaning. The addition of \{ec\} to the verbs of (60) effectively adds an agent to the participants already present. If the semantics of the verb is such that it is performed in a controlled manner, i.e. is initiated by an agent as in 'hit', 'work', 'kiss', and 'kick', an \{ip\} is required to mark that the executor has now ceded responsibility to the new participant, the more motile agent. But if the semantics of the verb is such that its performance is usually initiated in a non-controlled way, i.e. 'sweat', 'be angry', and 'be hurt', there is no responsibility to cede to the participant added by \{ec\}, and consequently no \{ip\} appears. Thus, it appears that the semantic patterning of Class IV verbs is not part of the series composed of Classes I-III and that the verbs of (60) belong more with the verbs of (35)-(39).

Though the oppositions within Classes I-III certainly have a unified semantic meaning, that of middle voice versus non-middle voice, it is impossible to predict which class a particular verb will fall into. It is apparent, however, that the base form for the verbs of Class I is the
active form without [k]. The derived form is the middle-
voice form with [k]. I assume that the form without [k] is
the base form since it is the unmarked form and since none
of the other three classes allow an unmarked form with
neither [k] nor [ec]. The verbs of Class II seem to have
as their base form the form with [k] since they do not
allow a non-marked form like those of Class I and because
the active forms of these events demand the transitive
[ec], which seems to be fully productive in that it is
subject to the rule that it is realized as /ic/ if the
ultimate vowel of the stem is [a] and is realized as /ec/
elsewhere. The verbs of Class III seem to have as their
base form the middle-voice [k] form since they do not have
a form without either [k] or [ec]. The non-middle-voice
[ic-ec] forms are a result of the suffixation of [ec] to a
non-analyzable form with the a proto-Muskogean [ic]
causative suffix. See Haas (1977a) and Booker (1980.194-
200) for discussions of the *ci causative. We know that
the [ic] suffix in the forms for Class IV is non-analyzable
since it does not occur as /ec/ even when the ultimate
vowel of the verb root is other than /a/. Furthermore, the
suffixation of a productive [ec] is necessary to create the
non-middle-voice forms of these verbs. There is more
evidence in Creek of the old causative *ci, as in the
following examples, repeated from Chapter 3, except for
(62c), which is new:
(62) a. kap-ic-eeay-an'k-s
    soap-caus-trs f.t.g.-1sI-pII-dec
    'I made it soapy'

    b. yalaah-ic-eeay-an'k-s
    orange-caus-trs f.t.g.-1sI-pII-dec
    'I made it orangy'

    c. citt-ic-eeay-an'k-s
    snake-caus-trs f.t.g.-1sI-pII-dec
    'I made it snaky'

(63) a. apisw-eeay-an'k-s
    meat-trs f.t.g.-1sI-pII-dec
    'I made it meaty'

    b. okcanw-ic-eeay-an'k-s
    salt-trs f.t.g.-1sI-pII-dec
    'I made it salty'

The examples in (62), which are verbalized versions of the simple nominals to the right, take a [ic] suffix, which is a reflex of the causative *ci. We know that this [ic] is not the synchronic transitive [ec] since in (62c) the realization is /ic/ rather than /ec/. The /ec/ realization would be called for if the suffix were [ec] since the ultimate vowel of the root is not //a//, but //i//. It thus appears that simple nominals in Creek historically demanded the *ci causative to form verbal counterparts to their nominal forms. But these forms are frozen, as the [ic] is frozen for Class III verbs in Table 3. Also like the forms in Class III, simple nominals require the analyzable transitive suffix [ec] to form transitive events. In Chapter 3, I described the [wa] nominal suffix as non-productive synchronically. It cannot be added to verbs synchronically to produce nominalized versions of
those events. Remember from Chapter 3, that the [ka], the [ita], and the agentive [a] nominalizations all have in common a final //a//. Though the [wa] suffix is not productive synchronically, there is some evidence that it is historically related to a Proto-Muskogean *a nominalizer. Note the following examples:

(64)a. ac-apiss-ii-s        apissita 'to be fat'
    l5I-II-fat ø g.-ii-dec
    'I'm fat'

    b. okcaan-ay-änk-s  okcaanita 'to pour'
    pour f.t.g.-l5I-pII-dec
    'I poured it'

As the examples in (64) show, [apiswa] 'meat' (63a) and [okcanwa] 'salt' (63b) appear to be historically related to [apissita] 'to be fat' (64a) and [okcaanita] 'to pour' (64b) through the suffixation of what is now a synchronically non-productive [wa] suffix. This could account for the requirement in (62) with the simple nominals of a 'causative' root to get a verbal version of the nominal root, while in (63) the [wa]-suffixed nouns take only a productive [ec] suffix. That is, even synchronically, the [wa]-suffixed nominals could be more verbal than the simple nominals without [wa].

In Table 3, it appears that the opposition between [k] and [ø] or [ec/ic-ec] is absolute for Classes I-III. But the following data show this not to be the case and provide as well some valuable information about the semantics of [k]:
(65) a. ya-n ca-hic-k-it-oO-m-imat-s
    here-N 1sII-see f.t.g.-m.v.-T-aux-pIII-dec
    'I was born here'

    b. ^ nansi-t ca-hic-k-eec-atii-t-oO-M-s
        nancy-T 1sII-see-m.v.-trs f.t.g.-rem-T-aux-dec
        'Nancy gave birth to me'

    c. ci-hic-e-s
        2sII-see l.g.-1sI-dec
        'I see you'

    d. ^ nansi-t an-hic-eec-atii-t-oO-M-s
        nancy-T 1sIII-see-trs f.t.g.-rem-T-aux-dec
        'Nancy showed something to me'

(66) a. ca-noc-k-ii-s
    1sII-sleep ø g.-m.v.-ii-dec
    'I'm sleepy'

    b. ^ ca-noc-k-eec-ick-aŋk-s
        1sII-sleep-m.v.-trs f.t.g.-2sI-pII-dec
        'You made me sleepy'

    c. nooc-e-s
        sleep l.g.-1sI-dec
        'I'm sleeping'

    d. ^ ca-noc-eec-ick-aŋk-s
        1sII-sleep-trs f.t.g.-2sI-pII-dec
        'You made me sleep'

(67) a. ca-yopaklat-k-ii-s
    1sII-slow ø g.-m.v.-ii-dec
    'I'm late'

    b. ^ ca-yopaklat-k-eec-ick-aŋk-s
        1sII-slow-m.v.-trs f.t.g.-2sI-pII-dec
        'You made me late'

    c. yapalaat-e-s
        slow l.g.-1sI-dec
        'I'm slowing down'

    d. ^ ca-yopaklat-eec-ick-aŋk-s
        1sII-slow-trs f.t.g.-2sI-pII-dec
        'You made me slow down'

In (65)-(67), containing verbs from Class I, we see that the interaction of [k] and [ec] is semantically regular.
Any of these verbs, middle-voice or not, may have its semantic transitivity increased by adding [ec], but because none of these verbs are self-initiated from an internal source of agency, the addition of [ec] does not prompt the presence of [ip] to indicate that that cite of some original agency has been altered. Sentence (65a) with [k] indicates the middle-voice event of 'being born'. Example (65b) with [k] and [ec] indicates the active transitive of this middle-voice event, 'to give birth'. Example (65c) is the non-middle-voice version 'to see'. And (65d) without [k] but with [ec] indicates an increased transitive of 'to see', i.e. 'to show'. Example (66a) with [k] indicates the middle-voice 'to be sleepy'. Example (66b) with [k] and [ec] signals the transitive of that middle-voice, i.e. 'to make sleepy'. Example (66c) without [k] is the active 'to sleep'. And (66d) without [k] but with [ec] is the increased transitive of 'to sleep', i.e. 'to make sleep'. Example (67a) with [k] is the middle-voice stative 'to be late'. Example (67b) without [k] and [ec] is the middle-voice transitive of that stative, i.e. 'to make late'. Sentence (67c) without [k] is the active 'to slow down', and (67d) without [k] but with [ec] is the increased transitive of that active, i.e. 'to make slow down'. In the (b)-sentences of (65)-(67), the event is middle voice not in the sense that the grammatical subject is affected but in the sense that the state produced in an object is
focussed upon.

The following data contain verbs from Class II:

(68)a. ca-hoolwa-k-ii-s
   IsII-mad Ø g.-m.v.-ii-dec
   'I'm ugly'

   b. ca-hoolwa-k-iic-ick-anκ-s
      IsII-mad-m.v.-trs f.t.g.-2sI-πII-dec
      'You made me ugly'

   c. an-hoolw-eec-ick-it-oοM-s
      IsII-mad-trs l.g.-2sI-T-aux-dec
      'You're getting mean with me'

   d. ca-hoolw-ec-eec-ick-anκ-s
      IsII-mad-trs-trs f.t.g.-2sI-πII-dec
      'You made me mean'

(69)a. ca-tan-k-ii-s
   IsII-empty Ø g.-m.v.-ii-dec
   'I'm empty'

   b. tan-k-iic-e-s
      empty-m.v.-trs l.g.-1sI-dec
      'I'm vacating'

   c. tan-i=hc-e-s
      empty-trs=hc g.-1sI-dec
      'I emptied it'

   d. tan-ic-ip-eec-ay-anκ-s
      empty-trs-m.p.-trs f.t.g.-1sI-πII-dec
      'I had it emptied'

(70)a. ca-hasat-k-ii-s
   IsII-clean Ø g.-m.v.-ii-dec
   'I'm clean'

   b. ca-hasat-k-i=hc-is
      IsII-clean-m.v.-trs=hc g.-dec
      'I was made clean'

   c. ca-hasat-i=hc-is
      IsII-clean-trs=hc g.-dec
      'He cleaned me'

   d. jaan coko hasat-ic-ip-eec-ay-anκ-s
      john house clean-trs-m.p.-trs f.t.g.-1sI-πII-dec
      'I made John clean the house'
Class II verbs oppose \( [k] \) to \([ec]\). In the (a)-sentences with \([k]\) but no \([ec]\), the middle-voice states of these events are asserted. But as the (b)-sentences in (68)-(70) show, \([k]\) may occur with \([ec]\). In each of these (b)-sentences, it is the production, signalled by \([ec]\), of the middle-voice state, signalled by \([k]\), that is focussed upon. In (68b), the middle-voice state of 'ugliness' is caused; in (69b), the middle-voice state of 'emptiness'; and in (70b), the middle-voice state of 'cleanliness'. Note the special meaning of (69b) where because there is no animate object to experience the essential middle-voice semantics, the \([k]\) morpheme is interpreted to mean that the agent, here '1s', is affected by the action of the verb. A state of 'emptiness' is caused of something else, but it is interpreted as 'vacating' in the sense of vacating a house or other dwelling the agent has used. Contrast especially (69b) with (69c) to understand the force of the middle-voice \([k]\) on the semantics of the verb. The (c)-sentences in (68)-(70) merely show the normal, transitive, non-middle-voice forms of these verbs without \([k]\) but with \([ec]\). Note in (68c) that 'to be mean' \( [hoolw-ec-ita] \) can be interpreted as a transitive active verb. The subject of (68c) is an agent not an experiencer. Examples (69c) and (70c) also have agents who perform an activity. The (c)-sentences, unlike the (b)-sentences, do not focus on the middle-voice state of the event. The (d)-sentences of
(68)-(70) show true causative versions of the (c)-sentences, though (68d) is not strictly causative in that the agent and executor are not separate participants. Rather, in (68d) the experience of 'being mean' is caused in an experiencer by a participant that is agent and executor at the same time. But because the experiencer has no responsibility to transfer to 'you' in (68d), no {ip} is present. The {ec}-suffixed roots of the (c)-sentences are taken as stems for the suffixation of {ec} in the (d)-sentences. Thus, in (68d) the transitive non-middle-voice event of 'being mean' is truly 'caused', as are the events of 'emptying' and 'cleaning' in (69d) and (70d), respectively.

The following contains the only verb from Class III that I have found capable of occurring with both {k} and {ec} together:

(71)a. liit-k-e-s
    run l.g.-m.v.-1sI-dec
    'I'm running'

    b. ifa lit-k-eec-e-s
    dog run-m.v.-trrs l.g.-1sI-dec
    'I'm running the dog'

    c. ifa lit-ic-eec-e-s
    dog run-caus-trrs l.g.-1sI-dec
    'I'm running the dog off'

    d. ifa lit-ic-ec-ip-eec-e-s
    dog run-caus-trrs-m.p.-trrs l.g.-1sI-dec
    'I'm making him run the dog off'

In (71a), the verb {litkita} 'to run' is used in its intransitive sense. In (71b), both the {k} and the {ec}
are used to render a middle-voice meaning that the agent is
taking the dog by the leash and running him but that the
agent also is necessarily running with the dog. In (71c),
[k] is not used, but [ic-ec] is, with the non-middle-voice
meaning of the agent's running the dog off but not running
himself. And in (71d) with no [k] but with [ic-ec-ec], the
meaning is a true causative version of (71c).

Because the middle-voice [k] is a consonant, verb
grades cannot apply to it. But I consider it a
derivational morpheme since it so obviously derives middle-
voice events from active events.

4.3 Inflection of the Verb Stem—-the Stative [ii] Morpheme

In this section on inflectional morphemes, which by
definition do not take verb grades, I will consider only
the stative [ii]. The complex problem of inflectional
participant agreement will be addressed in Chapter 5, and
the problem of inflectional case suffixes will be addressed
in Chapter 7.

The [ii] morpheme is discussed by Nathan separately as
a participial nominalizer (1977.44-54) and as a marker of
'potential mode' (1977.122). In this section, I will
discuss its role as a marker of stativity in events. In
Chapter 3, I discussed its role as a marker of the
executor/experiencer nominalization. The semantic identity
of the functions of stativity and executor/experiencer
nominalization will be made clear in this section. To begin, consider the following data in which the examples of (72) are repeated from examples (49) in this chapter for convenience:

(72)a. kasapp-ii-s
to be cold ∅ g.-ii-dec
'It's cold'

b. ac-acol-ii-s
1sII-old ∅ -ii-dec
'I'm old'

c. ca-yikc-ii-s
2sII-strong ∅ g.-ii-dec
'I'm strong'

d. caat-ii-s
red ∅ g.-ii-dec
'It's red'

e. ci-nih-ii-s
2sII-fat ∅ g.-ii-dec
'You're fat'

(73)a. kasaapp-is
cold 1.g.-dec
'It's getting cold'

b. ac-acool-is
1sII-old 1.g.-dec
'I'm getting old'

c. ca-yiikc-is
1sII-strong 1.g.-dec
'I'm getting strong'

d. caat-is
red 1.g.-dec
'It's getting red'

e. ci-niin-ii-s
2sII-fat 1.g.-dec
'You're getting fat'

All of the forms in (72) are stative versions of the events. That stativity is signalled by the [ii] suffix and
the presence of the Ø grade. The same verbs occur in (73), but there they occur with the lengthening grade and no [ii] suffix. In (73), the verbs are interpreted as non-stative. The combination of lengthening grade and the [ii] morpheme is possible, as in the following:

(74)a. kasaapp-ii-s
   cold l.g.-ii-dec
   'It might/could/will get cold'

b. ac-acoool-ii-s
   1sII-old l.g.-ii-dec
   'I might/could/will get old'

c. ca-yiikc-ii-s
   1sII-strong l.g.-ii-dec
   'I might/could/will get strong'

d. caat-ii-s
   red l.g.-ii-dec
   'It might/could/will get red'

e. ci-niiih-ii-s
   2sII-fat l.g.-ii-dec
   'You might/could/will get fat'

The sentences in (74) with both the lengthening grade and the [ii] morpheme signal the 'potential mode' that Nathan (1977.122) reports for Seminole. Note that the forms in (72d) and (74d) are ambiguous between stativity and potential since the ultimate vowel of the root [caat] 'red' is already long in the Ø grade. But as the sentences in (72) show, 'potential' is not a necessary semantic component of [ii]. Rather in (74), it is as if the lengthening grade semantics of imperfectivity interact with the stative semantics of [ii] to signal that the state has the possibility of becoming. In Creek, [ii] is truly
stative so that the imperfectivity of the lengthening grade accommodates itself semantically to that stativity; and the imperfectivity is then the imperfectivity of epistemic modality, 'will', 'might', etc. There is a 'potential/possibility' morpheme in Creek. See the following:

(75)a. kasap=ey=y-iwēyt-ii-s
   cold=h g.-pot-ii-dec
   'It might get cold'

   /  
   b.?ac-aco=h=l-iwēyt-ii-s
   1sII-old=h g.-pot-ii-dec
   'I might get old'

   /  
   c. ca-yik=ey=c-iwēyt-ii-s
   1sII-strong=h g.-pot-ii-dec
   'I might get strong'

   /  
   d. ca=h=t-iwēyt-ii-s
   red=h g.-pot-ii-dec
   'It might get red'

   /  
   e. ci-ni=h=h-iwēyt-ii-s
   2sII-fat=h g.-pot-ii-dec
   'You might get fat'

Each of the examples in (75) takes the H grade, formed according to rules outlined in section 4.2.1.5, the potential morpheme [iwēyt], and the stative [ii]. The difference between the examples in (75) and those in (74) is that those in (75) signal more doubt about the state being achieved than do those in (74). Example (75b) is judged semantically odd because it is almost a certainty that we all will get old.

All the events in (72) and (74) used with the [ii] stative morpheme are non-active. As the following examples
indicate, it is possible to use [ii] with active events:

(76)a. niis-ay-ii-s
    buy l.g.-lsI-ii-dec
    'I might/can/will buy'

b. aootk-ay-ii-s
    work l.g.-lsI-ii-dec
    'I might/can/will work'

c. iisk-ay-ii-s
    drink l.g.-lsI-ii-dec
    'I might/can/will drink'

d. naafk-ay-ii-s
    hit l.g.-lsI-ii-dec
    'I might/can/will hit'

e. am-pooy-ick-ii-s
    lsIII-beat l.g.-2sI-ii-dec
    'You might/can/will beat me'

(77)a. niis-e-s
    buy l.g.-lsI-dec
    'I'm buying'

b. aootk-e-s
    work l.g.-lsI-dec
    'I'm working'

c. iisk-e-s
    drink l.g.-lsI-dec
    'I'm drinking'

d. naafk-e-s
    hit l.g.-lsI-dec
    'I'm hitting'

e. am-pooy-ick-is
    lsIII-beat l.g.-2sI-dec
    'You're beating me'

The active verbs in (76) with the lengthening grade and the [ii] suffix parallel semantically the non-active verbs inflected the same way in (74) with the 'might, can, will' glosses. In (76), the subjects are in the state of being able to perform the events. In (74), the subjects are in
the state of possibly achieving the non-active events. The examples in (77) contrast with those of (76). Those of (77) are non-stative versions of those active events, signalled by the absence of the stative [ii] morpheme.

As with the non-active verb roots in (75), it is possible to add the semantics of uncertainty to the active verb roots of (76), as in the following:

(78)a. ni=h=s-iweyt-ay-ii-s
   buy=h g.-pot-1sI-ii-dec
   'I might buy it'

   b. atot=ey=k-iweyt-ay-ii-s
      work=h g.-pot-1sI-ii-dec
      'I might work'

   c. is=ey=k-iweyt-ay-ii-s
      drink=h g.-pot-1sI-ii-dec
      'I might drink'

   d. naf=ey=k-iweyt-ay-ii-s
      hit=h g.-pot-1sI-ii-dec
      'I might hit'

   e. am-po=h-iweyt-ick-ii-s
      1sIII-beat=h g.-2sI-ii-dec
      'You might beat me'

Again, the presence of the [iweyt] morpheme in (78) signals more doubt about the occurrence of the event than does the lengthening grade and the [ii] morpheme in (76).

In (72), the non-active verbs take the Ø grade and the [ii] morpheme to indicate the achievement of stativity with respect to the event. But note the following:

(79)a.*nis-ay-ii-s
   buy Ø g.-1sI-ii-dec

   b.*atotk-ay-ii-s
   work Ø g.-1sI-ii-dec
As (79) shows, it is impossible to indicate stativity with the Ø grade and the {ii} morpheme in an asserted active event. The Ø grade negates the inception/realization of the event, an inception/realization required by the result which follows it. Hence, the forms of (79) are internally contradictory. But in (72), there is no event or performance which must precede the states named. Hence, the Ø grade does not contradict the {ii}, which explicitly indexes that state. Close to the semantics of stativity in active events is what Haas (1940.146-47) calls the 'immutative durative' aspect and what Nathan (1977.107) calls the 'immutative' aspect, as in the following:

(80)

a. niis-e-s
buy f.t.g.-1sI-dec
'I've bought it'

b. aotook-e-s
work f.t.g.-1sI-dec
'I've worked'

c. iiisk-e-s
drink f.t.g.-1sI-dec
'I've drank'

d. naafk-e-s
hit f.t.g.-1sI-dec
'I've hit'

e. am-poxy-ick-is
1sIII-beat f.t.g.-2sI-dec
'You've beaten me'
The use of the falling tone grade with no tense morpheme signals present perfective.

As noted in Chapter 3, both active and non-active verbs may occur with the Ø grade in the executor/experiencer nominalizing use of the [ii] suffix, as in the following:

(81a) isk-ii
   drink Ø g.-ii
   'person who drank'
   'that which was drunk'

b. *isk-ii-s
   drink Ø g.-ii-dec

c. iisk-ii-s
   drink l.g.-ii-dec
   'He will/can drink'

(82a) acol-ii
   old Ø g.-ii
   'old person'

b. acol-ii-s
   old Ø g.-ii-dec
   'He's old'

c. acool-ii-s
   old l.g.-ii-dec
   'He might/could/will get old'

In (81a) and (82a), it is clear that the absence of the declarative [s] morpheme as a mark of assertion is what allows the executor/experiencer nominalization. Thus (82a) nominalizes the only possible participant of [acolita] 'to be old' as an 'old person'. But (82b) asserts the stative event in the Ø grade as an experiencer participant. This assertion in the Ø grade is not possible with active verbs, as is shown in (81b). To assert active events, there must
be an historical, experienced inception of the event, a condition that is contradicted by the Ø grade. Contrast (82b), with the Ø grade and [ii] applied to a non-active event. But a nominalization of an active event is possible with the Ø grade, signalling simply that an executor or experiencer is in the state of having executed or experienced the event, as in (81a). As (81c) and (82c) show, the use of the lengthening grade and [ii] with both active and non-active verbs asserts that the state has a possibility of becoming realized. Thus, there is no difference in the use of [ii] in nominalizations and asserted events. Both uses indicate stativity. The differences in uses are accidents of the difference between active and non-active events and assertion, with [s], and non-assertion, without [s]. As mentioned in Chapter 3, grades other than the Ø grade may be used in the executor/experiencer nominalization. But we will save discussion of this until Chapter 6 on modification. Also note that the [ii] nominalizations discussed in Chapter 3 and in this chapter have all been applied to third-person participants. Verbs suffixed with [ii] may also be affixed with first- and second-person participants, but again, this is a problem of modification and will be discussed in Chapter 6.
NOTES

1 See Munro (1987) for discussion of Type II complex agreement prefixes in Muskogean and their allomorphic realizations such as in examples (10a) earlier and (39) below. Because the semantics of the complex prefixes and the semantics of the simple prefixes are the same and because the realizations of the complex prefixes are results of historical processes and phonological conditioning, complex prefixes will not be discussed separately from simple prefixes in this work. The full paradigm for Type II complex prefixes will be presented in Chapter 5.

2 Haig (1982) describes a similar function for [v] in Modern Western Armenian in its use to mark detransitivization and passives.
Chapter 5

The Semantics of Types I, II, and III Agreement

5.1 Introduction

In this chapter, we will be primarily concerned with the semantics of the relationships which hold between participants and events within a simple Creek proposition. There are three basic relationships which correspond to the three agreement paradigms. These paradigms are central in the sense that they correspond to familiar case roles such as agent, executor, experiencer, patient, recipient, benefactee. The person and number of participants are marked on the verb by use of three separate affixal paradigms, first labeled I, II, and III by Munro and Gordon (1982) in their discussion of Western Muskogean. In the conclusion to this chapter (5.7), we will look very briefly at Munro and Gordon's (1982) characterization of the problems of predicting which type will occur to mark subject or object with which verb stem in Western Muskogean as well as at Martin's (1987) discussion of the same problem in Creek. This chapter will begin with a presentation of the forms of the Types I, II, and III agreement marking (5.2) along with a brief discussion of the problematic nature of their general semantics (5.3.1). The major part of this chapter is a detailed discussion of the semantics of the markers. In section 5.3.2, we will discuss the semantics of control and Types I and II
marking; in section 5.3.3, the semantics of control and Types I and III marking; in section 5.3.4, the semantics of affectedness and Types II and III subject marking; in section 5.3.5, the semantics of affectedness and Types II and III object marking; in section 5.3.6, the semantics of affectedness and Type III oblique object marking; in section 5.4, an overview of the semantics of Types I, II, and III marking; in section 5.5, the interaction of Types I, II, and III marking and the number of participants; and briefly in section 5.6, possession and Types II and III marking.

5.2 The Forms of Types I, II, and III Agreement

5.2.1 The Form of Type I Agreement

The Type I paradigm is used for control subjects, a term that will be much discussed in this chapter. The following is the paradigm for subjects of control:

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1s</td>
<td>-ey/-ay/-a</td>
<td>1p</td>
<td>-ii (iy _V)</td>
</tr>
<tr>
<td>2s</td>
<td>-ick</td>
<td>2p</td>
<td>-aack</td>
</tr>
<tr>
<td>3s</td>
<td>-Ø</td>
<td>3p</td>
<td>-Ø</td>
</tr>
</tbody>
</table>

Table 1

Examples of the use of Type I subject suffixes:

(1)a. paksi-n pan-á-ašii-s
tomorrow-N dance Ø g.-1sI-fut-dec
'I will dance tomorrow'

b. ūašo homp-á-ko-s
fish eat Ø g.-1sI-neg-dec
'I'm not eating fish/ I don't eat fish'
c. paksi-n  /pan-ick-ažii-s/
   tomorrow-N  dance Ø g.-2sI-fut-dec
   'You (sg) will dance tomorrow'

   /d. paksi-n  pan-∅-ažii-s/
   tomorrow-N  dance Ø g.-3I-fut-dec
   'He/she/it will dance tomorrow'

   /e. paksi-n  pan-iy-ažii-s/
   tomorrow-N  dance Ø g.-1pI-fut-dec
   'We will dance tomorrow'

   /f. paksi-n  pan-aack-ažii-s/
   tomorrow-N  dance Ø g.-2pI-fut-dec
   'You (pl) will dance tomorrow'

   /g. paksi-n  pan-ak-∅-ažii-s/
   tomorrow-N  dance-pl Ø g.-3I-fut-dec
   'They will dance tomorrow'

In the paradigm given in Table 1, 1sI appears as /ey/ or
/ay/ according to the familiar morphophonemic rule
governing that alternation, /ey/ in closed syllables, /ay/
in open ones. The examples in (1) in the future tense were
chosen to show that the 1sI marker before the future marker
/ažii/ appears allomorphically as /a/. And in (1a), since
the first syllable of /ažii/ has inherent high tone, that
high tone is spread across morpheme boundaries to the
realization of 1sI as well. Sentence (1b) shows us that
the allomorphic realization of 1sI is /a/ as well when it
precedes the negative morpheme /iko/, the first syllable of
which is not realized allomorphically in the presence of a
preceding vowel. /a/ '1sI' in (1b) has inherent high tone
assigned to it as well. It is not possible to determine
whether this realization of 1sI simply has high tone or
whether the high tone of the first syllable of /iko/ is
realized on /a/ even though the /i/ of [iko] is not realized since the /a/ realization of 1s1 occurs only in the two environments given in (1a) and (1b). In (1c), note that the 2s1 marker [ick] as well as [akii] has inherent high tone. The only other subject marker that has inherent high tone is [aàck] '2pI', as shown in (1f). Example (1g) has a 3I zero realization marker. But plurality is primarily marked with [ak], which as we have already seen in Chapter 4, is part of the verb stem. Thus, it is not included as part of the inflectional suffixes in Table 1. Haas (1940.143) calls [ak] a 'distributive'. She gives as an example [nist-ak], meaning 'several (distributively) to buy it'. Nathan (1977.99-100) has found it used in Seminole occasionally to mean something like distributive in time or space, such that it signals that several subjects act individually performing the same event. But Nathan comments that [ak] is used most often simply to indicate plurality where inflection does not discriminate between singular and plural. Thus far, I have found it used in Creek only for this second purpose and have found no other morpheme used to signal a 'distributive' meaning.

5.2.2 The Form of Type II Agreement

The second paradigm for agreement is used to mark some types of subjects and some types of objects. Its shapes are as follows:
1s ca-/aca- 1p po-/ipo-
2s ci-/ici 2p ci-/ici-
3s ø-/ø 3p ø-/ø-

Reflexive ii-
Reciprocal ti-
Indefinite isti-

Table 2

Examples of the use of Type II subject and object prefixes:

(2)a. ca-wanhk-is
    1sII-thirst l.g.-dec
    'I'm getting thirsty'

    b. ca-hiic-ø-is
    1sII-see l.g.-3I-dec
    'He's looking at me'

(3)a. ci-nookk-is
    2sII-hurt l.g.-dec
    'You are getting sick'

    b. ci-pooh-e-s
    2sII-hear l.g.-1sI-dec
    'I'm hearing you'

(4)a. ø-ilaaw-is
    3III-hungry l.g.-dec
    'He's getting hungry'

    b. ø-maah-ii-s
    3III-tall ø g.-st-dec
    'He's tall'

    c. ifa ø-a-woohk-ø-s
    dog 3III-dir-bark l.g.-3I-dec
    'The dog is barking at him, her'

(5)a. ca-kocokn-ii-s
    1sII-short ø g.-st-dec
    'I'm short'
b. ifa ac-a-woohk-Ø-s
do-1sII-dir-bark l.g.-3I-dec
'The dog is barking at me'

c. ifa ici-woohk-Ø-s
do-2sII-bark l.g.-3I-dec
'The dog is barking at you'

d. ca-laaw-is
1sII-hungry l.g.-dec
'I'm getting hungry'

e. ac-oh-naafk-Ø-is
1sII-loc-hit l.g.-3I-dec
'He's hitting on me'

(6)a. ii-taac-ay-anq-s
^refl.1I-cut f.t.g.-1sI-pII-dec
'I cut myself'

b. ti-naafk-iy-anq-s
^recip2I-hit f.t.g.-1pI-pII-dec
'We hit each other'

c. isti-laaf-ay-anq-s
^indef2I-cut f.t.g.-1sI-pII-dec
'I cut someone'

The examples above demonstrate the realization of the
singular Type II participant morphemes (2)-(5) and the
reflexive, reciprocal, and indefinite forms (6). The
plurals are analogous, and we will see them used throughout
this work. Just as the [ak] morpheme is used to mark
third-person plural in the Type I paradigm, [ak] is used in
the Type II paradigm to discriminate second-person plural
and third-person plural. In (2)-(5), we see that Type II
prefixes can be used to gloss either English subjects or
objects. The differences between these uses of the Type II
morphemes have obvious significance in a work on
participant relations. After a presentation of the forms
of Type III marking, I will briefly discuss the very general semantics involved in these three types of participant marking, demonstrating their problematic semantics before we continue with a more detailed treatment of their semantics. The 1sII marking in (2) and 2sII marking in (3) are straightforward. Note in (4) that the marking for 3II is actually zero, though the root of the verb will often have an initial vowel, /i/ in (4a) and /a/ in (4c). The initial /a/ of (4c) is the realization of a directional prefix meaning that the action is directed away from the subject of the sentence. Examples (5b), (5c), and (5e) illustrate a commonly used allomorphic rule whereby the Type II prefixes are realized with a preceding /a/ or /i/ in the environment before a vowel that is not epenthetic, as the //i/// is apparently in (4a). See Munro (1987) for a full discussion of these 'complex' prefixes in Muskogean. Example (5d) shows that this epenthetic vowel is simply not realized in the presence of a preceding vowel in a 'simple' prefix. As (5c) shows, if the Type II prefix is second person, the vowel of the [a] directional verb prefix is not realized. Example (5e) shows further that the allomorphy for these complex prefixes depends on the vowel that they precede since the //o// of [oh] is realized and the final //a// of [aca] is not.
5.2.3 The Form of Type III Marking

The third paradigm for agreement, like the Type II agreement, is used to mark some types of subjects and some types of objects. Its forms are:

1s  am-  1p  pom-
2s  cim-  2p  cim-
3s  im-  3p  im-

Reflexive  iim-
Reciprocal  tim-
Indefinite  istim-

Table 3

Examples of the use of Type III subject and object prefixes:

(7)a. ay-ita  am-ititaak-s
go Ø g.-inf  l isiII-ready l.g.-dec
'I'm getting ready to go'

b. an-hayiiy-is
1isiII-hot l.g.-dec
'I'm getting hot'

c. an-kasaapp-is
1isiII-cold l.g.-dec
'I'm getting cold'

(8)a. am-aneyc-as
1isiII-help Ø g.-imp=sg.subj
'Help me'

b. an-laaks-ick-is
1isiII-lie l.g.-2si-dec
'You're lying to me'

c. paksañkii rooy-it an-fiik-Ø-aŋk-s
yesterday Roy-T 1isiII-pay f.t.g-3I-pII-dec
'Roy paid me yesterday'
(9) a. in-ca-piŋkal-ii-s
   III-1sII-afraid Ø g.-st-dec
   'I'm afraid of it'

b. nokosi-n in-liitk-e-s
   bear-N III-run l.g.-1sI-dec
   'I'm running from the bear'

c. im-ponay-as
   III-speak Ø g.-imp=sg.subj
   'Speak to him'

(10) a. iim-ponaay-ay-ąŋk-s
    refl.III-talk l.g.-1sI-pII-dec
    'I'm talking to myself'

b. tim-ponaay-iy-ąŋk-s
    recipIII-talk l.g.-1pI-pII-dec
    'We're talking to each other'

c. istim-ponaay-ay-ąŋk-s
    indefIII-talk l.g.-1sI-pII-dec
    'I'm talking to someone'

The Type III participant markers appear very infrequently as glosses for English subjects, but (7) contains three examples of this usage. In (8)-(9), we see the use of Type III prefixes to mark the presence of various types of objects. And (10) contains Type III reflexive, reciprocal, and indefinite objects. In (8a), the 1sIII looks like a direct object in English. In (8b) and (8c), the Type III objects look like indirect objects in English. In (8d), the Type III object is a benefactee. In (9), we have various third-person Type III participants. In (9a) and (9b), the participants are oblique. In (9c), the participant is what looks in English to be an indirect
object. Note from (7b), (7c), (8b), (8c), (8d), (9a), and (9b) that the [m] of the Type III prefixes is realized as /n/ before a non-bilabial consonant, even before a velar as in (7c).

5.3 The Semantics of Type I, II, and III Marking

5.3.1 The Problematic Semantics of Types I, II, and III

The major question to be addressed in this chapter is the semantic import of marking a 'subject' as a Type I, Type II, or Type III participant and the semantic import of marking an 'object' with Type II or Type III participant marking. For purposes of the discussion in this chapter, the terms 'subject' and 'object' will be used in the following ad hoc way. When an event is intransitive, its single participant will be called the 'subject'. When an event is transitive, it is the case that the agreement will be either I-II, I-III, or II-III. The participant selected by I-agreement in the case of I-II or I-III agreement or the participant selected by II-agreement in the case of II-III agreement will also be called the 'subject'. The remaining participant selected by agreement will then be the 'object'.

From the data presented thus far in this chapter, the gross difference between Type I and Type II subject marking appears to be something like control versus non-control, respectively. Note that in the examples in (1) with Type I marking, the subject is very active and presumably in
control. Contrast this subject marking with that in the examples in (2)-(5) which have Type II subjects. In (2a), the first-person singular subject is getting thirsty, in (3a) getting sick, in (4a) and (5d) getting hungry. In (4b), the subject is tall and in (5a) is short. The Type II marking used for objects can easily be interpreted as meaning something like non-control. In (2b), the object is seen; in (3b) is heard; in (4c), (5b), and (5c) is barked at; and in (5e) is hit. The reflexive, reciprocal, and indefinite objects in (6) are also Type II and non-control, though it may be hard to see the reflexive object as completely lacking control. The reflexive is frequently used to mark participants which are involved in events in uncontrolled ways, i.e. the passive use, se habla español.

It is very difficult to surmise the semantic difference between the Type II subject and the Type III subject since there are so few verbs that take the Type III marking to record their subjects. It may simply be that Type III subject marking in examples like those in (7) is lexicalized for those verbs. With some verbs, variation between Type II and Type III marking for subjects is possible, and the semantic difference is clear, as in the following:

(11)a. ca-nokk-ii-s
  lsII-hurt Ø g.-st-dec
  'I'm sick'
b. an-nokk-ii-s
    isIII-hurt ø g.-st-dec
'I hurt'

In (11a), we see Type II marking for a first-person singular subject. In (11b), we see the same verb with Type III marking. The semantic difference is the degree of affectedness, or envelopment, of the subject in the event. In (11b) with Type III marking, the subject is only 'hurt', while in (11a) with Type II marking, the subject is 'sick'. In both, the verbs are stative, but the Type II is more enveloped in the event than the Type III subject.

The semantic difference between Type II and Type III objects is as difficult to state as the difference between Type II and Type III subjects, not because we have few Type III objects, but because we have so many that the general semantics is difficult to pinpoint. For now, we should note that unmediated envelopment in the event is characteristic of the Type II objects in (2b), (3b), (4c), (5b), and (5c). The objects are seen, heard, and barked at with no intermediary object effecting the transitivity. But in (5e) and (6), the Type II objects are at least potentially affected with intermediary objects such as a bat or knife. In (8c) with a Type III object, it is assumed that some object's transfer satisfies payment. Thus, the first-person object is thrice removed from the event. And in (8d), the Type III participant as a benefactee is not directly involved or enveloped in the
event. Even in (8a) and (8b), there could be mediating direct objects that are more enveloped in the event than the Type III objects. If we look at (9a), it appears that the Type III object is a non-instigative causer of some state. The same could be said of the object of (9b). And the Type III objects of (9c) and (10) seem not totally without control as maybe those of (2b), (3b), (4c), (5b), (5c), (5e), and (6).

I am purposefully suggesting these solutions to emphasize the problematic nature of the semantics of these agreement paradigms. We will see that Type I, II, and III markers have no absolute, inherent values of control or envelopment, but rather are scaled along the continua of control and envelopment only in so far and to the degree that Type I, II, and III markers may vary paradigmatically with the same verb stem. See the discussion of (11) again above.

5.3.2 Control and Types I and II Subject Marking

If an agent is taken to mean not only the executor of the event, or the one who performs the action of the event, but also the prime mover of the event, or the one with whom the action originates, then the following data seem to indicate that Type I marking indexes the agent of the event:

(12)a. atootk-e-s
    work 1.g.-1sI-dec
    'I'm working'
b. yaheyk-e-s
   sing l.g.-1sI-dec
   'I'm singing'

c. nikiiy-e-s
   move l.g.-1sI-dec
   'I'm moving'

d. liitk-e-s
   run l.g.-1sI-dec
   'I'm running'

e. yakaap-e-s
   walk l.g.-1sI-dec
   'I'm walking'

f. oponaay-e-s
   talk l.g.-1sI-dec
   'I'm talking'

Because third-person Type I and Type II marking is \{\emptyset\}, I will neither segment nor grammatically gloss such forms in the remainder of this chapter. It is especially easy to see the Type I participants of the intransitive events in (12) as agents as they are defined above, both executors and prime movers. We will consider transitive events later. The verbs are all active, and we can assume, in the absence of specific morphology to signal lack of control or causation, specifically the \{ip\} medio-passive discussed in Chapter 4, that the executors of (12) are prime movers.

But consider the following data:

(13)a. hisaak-e-s
   breathe l.g.-1sI-dec
   'I'm breathing'

   b. apiil-ay-e-s
      laugh l.g.-1sI-pI-dec
      'I was laughing'
c. nooc-íck-is
   sleep l.g.-2sI-dec
   'You're sleeping'

(14)a. aa-laak-say-í-ñk-s
    dir-fall f.t.g.-1sI-pII-dec
    'I fell off something'

b. ohook-e-s
    cough l.g.-1sI-dec
    'I'm coughing'

^c. hook-e-s
    fart f.t.g.-1sI-dec
    'I farted'

d. hak-wëisk-e-s
    sneeze l.g.-1sI-dec
    'I'm sneezing'

e. aafaack-e-s
    happy l.g.-1sI-dec
    'I'm getting happy'

f. lintaapp-e-s
    trip l.g.-1sI-dec
    'I'm tripping'

g. apiiss-e-s
    fat l.g.-1sI-dec
    'I'm getting fat'

Perhaps the first area of Creek agreement where the
generalization that Type I affixes mark agents (in the
generally accepted sense of this term) fails is in the use
of verbs like those of (13) and (14), which are normally
considered active verbs of nonvolition. Thus, the
participants of (13) and (14) may be considered executors
but not usually prime movers. Inherent in each of these
verbs is an element of non-control. Of course, it could be
argued that the verbs of (13) and (14) are not all equal in
terms of control or the lack of control. Creek data show
us as a fact that they are not all equal. Consider the following:

(15)a. ca-hisaak-is
   1sII-breathe l.g.-dec
   'I'm breathing'

   b. ac-apiil-e-s
   1sII-laugh l.g.-pI-dec
   'I was laughing'

   c. ci-nooc-is
   2sII-sleep l.g.-dec
   'You're sleeping'

(16)a. ac-aa-laatk-aŋk-s
   1sII-dir-fall f.t.g.-pII-dec
   'I fell off something'

   b. ac-ohook-is
   1sII-cough l.g.-dec
   'I'm coughing'

   c. ca-hookc-is
   1sII-fart f.t.g.-dec
   'I farted'

   d. ca-haktiisk-is
   2sII-sneeze l.g.-dec
   'I'm sneezing'

   e. ac-aafaack-is
   1sII-happy l.g.-dec
   'I'm getting happy'

   f. ca-lintaapp-is
   2sII-trip l.g.-dec
   'I'm tripping'

   g. ca-piiss-is
   2sII-fat l.g.-dec
   'I'm getting fat'

The corresponding English glosses of (13)-(14) and (15)-(16) match perfectly, but there are specific differences in meaning between each of the pairs. Thus, both (13a) and (15a) are glossed 'I'm breathing', but only (15a) means in
addition something like 'I'm breathing abnormally' as if the speaker were, for example, breathing too fast. Examples (13b) and (15b) mean 'I was laughing', but only (15b) means something like 'I was laughing because something just came to me as I was standing there' as if the speaker were caught by surprise by his own memory. Examples (13c) and (15c) mean 'You're sleeping' but only (15c) means something like 'You're sleeping, but you're supposed to stay awake'. It appears, then, that with the verbs of (13) the Type I agreement markings do not specifically indicate agent in the sense of both executor and prime mover, but that with the same verbs in (15) the Type II marking specifically indicates that the executors are not prime movers. Thus, in (15) the executors are specifically not in control of their 'breathing', 'laughing', and 'sleeping'. The agreement in (13) of these verbs with Type I marking is in a sense the unmarked case in that it is the forms in (13) that one receives from speakers if one asks how to say 'I'm breathing', 'I was laughing', 'You're sleeping', etc. And if one offers the Creek forms in (15) to speakers, one gets the responses indicated. It is, then, as if one is normally in control of 'breathing', 'laughing', and 'sleeping', but that the Type II marking is available to indicate that the executor is not in control.

The situation is quite different with those verbs of
(14) and (16). The 'unmarked', or normal, agreement markers for these verbs are those of the Type II paradigm, as in (16). Again, the glosses for the Creek forms in (14) and (16) are the same. But again there is a specific meaning difference to be exploited in the difference between Type I and Type II marking. Both (14a) and (16a), both with the directional prefix {aa}, mean 'I fell off of something', but only (14a) with Type I marking indicates that the speaker did it on purpose and is therefore in control and is the prime mover of the event. The normal case, as we might expect with a lexical item like 'fall', is for the executor to be not in control, as in (16a). Both (14b) and (16b) mean 'I'm coughing', but only (14b) with Type I marking indicates that the executor is coughing on purpose as the participant in control of the event. Again, the 'unmarked' situation is for the executor of 'cough' to be not in control, as in (16b). Both (14c) and (16c) mean 'I farted', but only (14c) with Type I marking indicates that the speaker did it on purpose and was therefore in control of the event. As one might expect, the 'unmarked' situation is for the executor of 'fart' to be not in control as in (16c). In (14d), the subject is sneezing on purpose as if he is feigning illness. In (16d), he is simply sneezing normally, that is, out of control. In (14e), the context offered by a speaker is that in which someone asks how you are taking a particular
tragedy in your life. One might reply with (14e) indicating that you are consciously being happy. In (16e), the subject is normally happy with no conscious control over his state. A context for (14f) is that the speaker is an actor on stage practicing his role as a clumsy character. In (16f), the subject is accidently tripping. In (14g), the speaker is consciously trying to put on weight. In (16g), he is not, as in the normal case.

Since there is possible variation between Type I and Type II marking with the events of (13) and (14) and since that variation is semantically significant in terms of control, we might expect that the active events of (12) with Type I agents also allow the same variation. See the following:

(17)a. ac-atootk-is
   lSII-work l.g.-dec
   'I'm working'

b. ca-yahewk-is
   lSII-sing l.g.-dec
   'I'm singing'

c. ca-nikiiy-is
   lSII-move l.g.-dec
   'I'm moving'

d. ca-liitk-is
   lSII-run l.g.-dec
   'I'm running'

e. ca-yakaap-is
   lSII-walk l.g.-dec
   'I'm walking'

f. ac-oponaay-is
   lSII-talk l.g.-dec
   'I'm talking'
In each of the examples of (17), the events that occur with Type I subjects in (12) appear with Type II subjects. The Type II marking indicates in (17) that the subjects are not in full control of the events. Typically, this is interpreted as the subject not intentionally performing the event. In (17a), for example the speaker may be working, but he does not know why he is working. In (17c), the speaker may be moving but not have been conscious of it before or may be being shaken by some other force. And in (16f), the speaker may be talking without thinking about what he is saying.

We have in the examples of (12)-(17) the beginnings of a pattern that more clearly shows us the semantic difference between Type I and Type II marking. Note the following continuum along which are arrayed the events of (12)-(17):

<table>
<thead>
<tr>
<th>CONTROL</th>
<th>NON-CONTROL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type I</td>
<td>Type II</td>
</tr>
<tr>
<td>Type II</td>
<td>Type I</td>
</tr>
<tr>
<td>Group A</td>
<td>Group B</td>
</tr>
<tr>
<td>hisakita 'to breathe'</td>
<td>alatkita 'to fall'</td>
</tr>
<tr>
<td>apilita 'to laugh'</td>
<td>ohokita 'to cough'</td>
</tr>
<tr>
<td>nocita 'to sleep'</td>
<td>hokcita 'to fart'</td>
</tr>
<tr>
<td>atotkita 'to work'</td>
<td>hak'iiiskita 'to sneeze'</td>
</tr>
<tr>
<td>yaheykita 'to sing'</td>
<td>aafackita 'to be happy'</td>
</tr>
<tr>
<td>nikiiyita 'to move'</td>
<td>lintaappita 'to trip'</td>
</tr>
<tr>
<td>litkita 'to run'</td>
<td>apiisita 'to be fat'</td>
</tr>
<tr>
<td>yakapita 'to walk'</td>
<td></td>
</tr>
<tr>
<td>oponayita 'to talk'</td>
<td></td>
</tr>
</tbody>
</table>

Table 4

Table 4 reflects patterns observed in the semantics of
possible executors of the events listed. Group A takes both Type I and Type II, but 'normally' Type I, indicating that their subjects are normally perceived as being in control. Group B takes both Type I and Type II, but normally takes Type II, indicating that their subjects are normally perceived as being not in control.

Now, we see that Type I and Type II marking take relative semantic content from syntagmatic relation with the verbs with which they normally occur. Thus, the subjects of the verbs of Group A all normally take Type I marking, but when they occur with Type II marking, their subjects are perceived as being not in control because Type II marking normally occurs as subject with the verbs of Group B, verbs whose subjects are normally perceived as being not in control. Conversely, the subjects of Group B all normally occur with Type II marking, but when they occur with Type I marking, their subjects are perceived as being in control because Type I marking normally occurs with verbs such as those in Group A, whose subjects are normally perceived as being in control.

It can be argued that there is a degree of arbitrariness about whether a verb 'normally' takes Type I or Type II marking. For examples {hisakita} 'to breathe', {apilita} 'to laugh', and {nocita} 'to sleep' all seem events of non-volition, yet they belong to Group A. But the important pattern is that Type I versus Type II marking
signals paradigmatically control and non-control, respectively. We will consider this problem of arbitrariness in more detail later in this chapter.

All Group A and Group B verbs in Table 4, all of which can take either Type I agents or Type II executors as performers of the event, are either intransitive or if transitive, take inanimate patients, as with {atotkita} 'to work' and {yaheykita} 'to sing'. All Group A and B events can take animate Type II objects, but the verbs must be marked with increased transitivity morphology. We will consider the effect of increased transitivity on participant marking later in this chapter.

The question to be addressed now is the semantics of Type II marking with verbs such as {nafkita} 'to hit', that is, transitive, active verbs that can take animate objects in their base form. See the following data:

(18)a. ca-naafk-is
   1sII-hit l.g.-dec
   'He's hitting me'
   *'I'm hitting'

b. joo-n ci-hociif-is
   Joe-N 2sII-name l.g.-dec
   'He's naming you Joe'
   *'You're naming Joe'

/  
c. ac-ota=h=k-is
   1sII-hug=h g.-dec
   'He just hugged me'
   *'I just hugged'

/  
d. ci-takki=h=s-is
   2sII-grab=h g.-dec
   'He just grabbed you'
   *'You just grabbed'
e. ac-aakk-is
   lςII-bite l.g.-dec
   'It's biting me'
   *'I'm biting'

f. ac-afank-is
   lςII-kiss l.g.-dec
   'He's kissing me'
   *'I'm kissing'

g. ca-maƙokaaf-is
   lςII-slap l.g.-dec
   'He's slapping me'
   *'I'm slapping'

h. ca-halaat-is
   lςII-hold l.g.-dec
   'He's holding me'
   *'I'm holding'

The examples in (18) indicate that with transitive verbs, the Type II markers are used to index the patients of the events while the agents are indexed with Type I markers, which in the case of (18) are all {∅} '3I'. Of course, this is the prototypical difference of control within a transitive event. The agent is in control. The patient is not. Unlike the Group A and B events, the verbs of (18) cannot mark a non-control executor with Type II participant marking. Compare the examples in (15), (16), and (17) with those in (18). It appears that because the verbs of (18) can take animate objects with no transitive morphology, Type II marking is reserved with these verbs to signal non-control with respect to patients. Note that in (18) the second glosses, which would reflect interpretations of the Type II marking as indexing non-control executors, are unacceptable. The data in (18) could also be understood
simply in terms of transitivity so that Type II would not yield a non-control executor interpretation with these events since, except for (18b), the events would be intransitive. But since in Creek transitivity itself is a reflection of control and because with third-person singular Type II marking for the objects of the verbs in (18) the verbs are ambiguously transitive/intransitive, it cannot be simply asserted that the unacceptable second glosses for (18) are a result of these verbs being normally transitive.

We have not yet examined in detail one of the most frequent uses of the Type II marking--to mark subjects of stative verbs, as in the following:

(19) a. ac-aafack-ii-s
    isII-happy Ø g.-st-dec
    'I'm happy'

b. ca-likooth-ii-s
    isII-warm Ø g.-st-dec
    'I'm warm'

c. ca-halalaatk-ii-s
    isII-slow Ø g.-st-dec
    'I'm slow'

d. ca-naoi-ii-s
    isII-worry Ø g.-st-dec
    'I'm worried'

e. ca-cafikn-ii-s
    isII-well Ø g.-st-dec
    'I'm healed, well'

f. ca-hoottop-ii-s
    isII-ticklish Ø g.-st-dec
    'I'm ticklish'
g. ca-hasatk-ii-s
   1sII-clean Ø g.-st-dec
   'I'm clean'

h. ca-tank-ii-s
   1sII-empty Ø g.-st-dec
   'I'm empty'

i. ca-tkol-ii-s
   1sII-cold Ø g.-st-dec
   'I'm cold'

j. ca-nokk-ii-s
   1sII-hurt Ø g.-st-dec
   'I'm sick'

k. ca-piŋkal-ii-s
   1sII-scared Ø g.-st-dec
   'I'm scared'

l. ca-hotos-ii-s
   1sII-thin/tired Ø g.-st-dec
   'I'm thin/tired'

Semantically, all of the participants in (19) are
experiencers, who are by definition not in control of the
event. Type I marking with the verbs in (19) is not always
possible without increased transitivization morphology, and
even when it is possible it cannot be interpreted as
marking the experiencer but only the controlling agent of
the event, as in the following:

(20)a. aafaack-e-s
    happy l.g.-1sI-dec
    'I'm getting happy'

b. likooth-e-s
    warm l.g.-1sI-dec
    'I'm getting warm'

c. halalaatk-ay-ɑŋk-s
    slow f.t.g.-1sI-pII-dec
    'I slowed down'
(21) a. *naooi-e-s
   worry l.g.-lsI-dec

b. *cafiikn-e-s
   well l.g.-lsI-dec

c. *hootoop-e-s
   tickle l.g.-lsI-dec

d. *hasaatk-e-s
   clean l.g.-lsI-dec

e. *tank-e-s
   empty l.g.-lsI-dec

f. *itkool-e-s
   cold l.g.-lsI-dec

g. *nookk-e-s
   hurt-1sI-dec

h. *piŋkaal-e-s
   scared l.g.-lsI-dec

i. *hotoos-e-s
   thin/tired l.g.-lsI-dec

When it is possible to use Type I marking with the verbs of (19), it may be only interpreted as marking a controlling agent. In (20a), as we have already seen, Type I marking with {aafackita} 'to be happy' indicates that the Type I agent is actively attempting to be happy. In (20b), the Type I marking is interpreted to index an agent who is warming himself. In (20c), the Type I marking indexes an agent who is not slow but who actively slows himself. Thus the verbs in (20) pattern like those of Group B in Table 4. All of the verbs in (19) are derived with the Ø grade and inflected with the {ii} stative morpheme, but each could just as well occur with the lengthening grade and without {ii}, signalling something like present progressive, as in
(20). But even in the present progressive, the Type II marking would signal a non-control executor, as in (16).

As the examples in (21) show, there are many verbs which do not allow Type I marking without increased transitivity morphology to help signal a controlling agent. We have then four verb groups thus far that pattern differently with respect to Type I and Type II marking. See the following revision of Table 4 with some additions:

<table>
<thead>
<tr>
<th>CONTROL</th>
<th>NON-CONTROL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type I</td>
<td>Type I</td>
</tr>
<tr>
<td>*Type II</td>
<td>Type II</td>
</tr>
<tr>
<td>Group A</td>
<td>Group B</td>
</tr>
<tr>
<td>nafkita 'to hit'</td>
<td>hisakita 'to breathe'</td>
</tr>
<tr>
<td>hocifita 'to name'</td>
<td>apilita 'to laugh'</td>
</tr>
<tr>
<td>otakita 'to hug'</td>
<td>nocita 'to sleep'</td>
</tr>
<tr>
<td>takkita 'to kick'</td>
<td>atokita 'to work'</td>
</tr>
<tr>
<td>akkita 'to bite'</td>
<td>yaheykita 'to sing'</td>
</tr>
<tr>
<td>fankita 'to kiss'</td>
<td>nikiiyita 'to move'</td>
</tr>
<tr>
<td>mažokaafita 'to slap'</td>
<td>litkita 'to run'</td>
</tr>
<tr>
<td>halatita 'to hold'</td>
<td>yakapita 'to walk'</td>
</tr>
<tr>
<td></td>
<td>oponayita 'to talk'</td>
</tr>
</tbody>
</table>

Table 5

In Table 5, Groups A and B of Table 4 have been relabeled Groups B and C, respectively. In Table 5, the new Group A consists of those verbs in example (18) with which Type II marking cannot record a non-control executor without the
morphology of true causation, i.e. \{ip-ec\}. And Group D consists of those verbs in example (21) with which Type I marking cannot record a controlling agent without increased transitivity morphology. Table 5 then reflects from left to right a decrease in the degree of control attributed to the unmarked subject of the events. Group A has only the controlling Type I agent. Group B normally has the controlling Type I agent but can take a non-controlling Type II executor. Group C normally takes the non-controlling Type II executor but can take a controlling Type I agent. And Group D has only the non-controlling Type II executor. As is consistent in the concept of a continuum, a comparison of Group A verbs with Group D verbs reveals even in the English glosses verbs of control in Group A and verbs of non-control in Group D. A comparison of Group A with Group C and a comparison of Group B with Group D reveal the same obvious contrast. The relevant semantic contrast between Group A and Group B may not be as obvious in terms of simple control, but as I have stated, only Group A can take animate patients. And the degree of effort that an agent exerts to control an animate patient is greater than that exerted to control an inanimate patient. A comparison of the roots \{hisakita\} 'to breathe', \{apilita\} 'to laugh', and \{nocita\} 'to sleep' with the roots in Group A even reveals a difference in control quite apart from the types of patients that Group A
takes. The partial arbitrariness in terms of non-predictable membership of the patterning between Group B and Group C has already been commented on as they appear in Table 4. The patterning of Group C versus Group D is perhaps also arbitrary. With the verbs in Group C, Type I marking is available to indicate a controlling agent, but that marking is not available for the verbs in Group D, which can take only Type II non-controlling executors. But even in English it is difficult to imagine how an agent could be purposively 'worrying', 'well', 'ticklish', 'clean', or 'empty'. It is perhaps easier to imagine this control with those verbs of Group C.

It is possible to get Type II marking as indexing the only known participant in a Group A event, but it must record a non-control patient of an agentless passive, as in the following:

(22) a. ca-naf=ho=h=k-s
    1sII-hit=pass=h g.-dec
    'I got hit'

b. ci-lki hocif-ka ci-hocif-hooy-ank-s
    2sII-father name-ger 2sII-name-pass f.t.g.-pII-dec
    'You were named after your father'

c. a-c-otak-hooy-angk-s
    2sII-hug-pass f.t.g.-pII-dec
    'I was hugged'

d. po-tak=ho=k=angk-s
    1pII-grab=pass f.t.g.-pII-dec
    'We were grabbed'

e. a-c-ak=ho=k=angk-s
    1sII-bite=pass f.t.g.-pII-dec
    'I was bitten'
The passive morpheme \( \hat{ho} \) is part of the verb stem, as is indicated by its taking grade formations in (22). Its function is to indicate that the agent of an event is unknown or that the speaker does not wish to reveal the identity of the agent. In any case, Type II marking is used in (22) to index the non-control patient of the events. Thus the function of Type II marking in the passive clauses of (22) is the same as its function in the active clauses of (18).

As summarized in Table 5, events of Group A do not allow in non-causative form Type II to record a non-control executor. But with causative morphology this is possible, as in the following:

(23)a. \(^\wedge\)joo-t ca-nafk-ip-eec-is
    Joe-T 1sII-hit-m.p.-trs l.g.-dec
    'Joe is making me hit him'
    'Joe is making him hit me'

b. \(^\wedge\)joo-t ca-hocif-ip-eec-is
    Joe-T 1sII-name-m.p.-trs l.g.-dec
    'Joe is making me name him'
    'Joe is making him name me'

c. joo-t ac-otak-ip-eec-is
    Joe-T 1sII-hug-m.p.-trs l.g.-dec
    'Joe is making me hug him'
    'Joe is making him hug me'

d. \(^\wedge\)joo-t ca-takk-ip-eec-is
    Joe-T 1sII-kick-m.p.-trs l.g.-dec
    'Joe is making me kick him'
    'Joe is making him kick me'

e. joo-t ac-akk-ip-eec-is
    Joe-T 1sII-bite-m.p.-trs l.g.-dec
    'Joe is making me bite him'
    'Joe is making him bite me'
f. joo-t ca-fank-ip-eec-is
   Joe-T 1sII-kiss-m.p.-trs l.g.-dec
   'Joe is making me kiss him'
   'Joe is making him kiss me'

(24)a. joo-t ci-ca-nafk-ip-eec-is
    Joe-T 2sII-1sII-hit-m.p.-trs l.g.-dec
    'Joe is making me hit you'

b. joo-t ca-ci-nafk-ip-eec-is
    Joe-T 1sII-2sII-hit-m.p.-trs l.g.-dec
    'Joe is making you hit me'

In each of the examples of (23), the Type I participant is the controlling agent, or causer, while the Type II participant is the non-control causee or patient. In each of the examples of (23) because of the $\emptyset$ third-person Type II marking, it is ambiguous whether 1s or 3 is the causee or patient. Explicit marking of second person and first person is possible for Type II, as is shown in (24). When this explicit marking occurs, patient and causee are no longer ambiguous. The causee occurs next to the verb and the patient occurs to the left of the causee. It is thus only by use of true causative morphology, i.e. both the medio-passive [ip] and the increased transitivity [ec], that events of Group A are able to mark non-control executors, or causees, by means of Type II marking.

Though it is possible to index non-control executors by means of Type II marking and without causative morphology with Group B and C events, it is also possible to have the same with increased transitivity or causative morphology, as in the following representative examples:
GROUP B:

(25)a. ci-hisak-iic-is
   2sII-breathe-trs l.g.-dec
   'It's making you breathe'

   b. ca-pil-ip-eec-is
      1sII-laugh-m.p.-trs l.g.-dec
      'He's making me laugh'

   c. ca-noc-ip-eec-is
      1sII-sleep-m.p.-trs l.g.-dec
      'He's making me sleep'

   d. ac-atotk-ip-eec-is
      1sII-work-m.p.-trs l.g.-dec
      'He's making me work'

GROUP C:

(26)a. ac-alatk-ip-eec-ank-s
   1sII-fall-m.p.-trs f.t.g.-pII-dec
   'He made me fall'

   b. ac-ohok-eec-is
      1sII-cough-trs l.g.-dec
      'It's making me cough'

   c. ca-hokc-eec-is
      1sII-fart-trs l.g.-dec
      'It's making me fart'

   d. ca-hakkiisk-eec-is
      1sII-sneeze-trs l.g.-dec
      'It's making me sneeze'

As the examples in (25) show, the events of Group B, which normally take Type I to index a controlling agent and can take Type II to index a non-controlling executor, take Type I to index the causer and Type II to index the causee, who is of course not in control. Note in (25a) that [hisakita] 'to breathe' does not require the medio-passive [ip] to increase transitivity with [ec]. Thus, in (25a) the Type I participant is simply a controlling agent and the Type II
participant a non-controlling patient. The non-control of the causee-patient is entirely analogous to the non-control of the executor in the non-causative construction. In both cases, the executor of the event is not in total control of the event. It is just that in the causative/transitive construction the controlling agent—the causer—is specifically identified. And as the examples in (26) show, the events of Group C, which normally take Type II to index a non-controlling executor and can take Type I to index a controlling agent, take Type I to index the causer/agent and Type II to index the causee/patient in a causative or increased transitivity construction. Again, the non-control of the causee/patient is analogous to the non-control of the executor. It is normally the case with the verbs in Group C that some agent, whether mentioned or not, effects the event—quite beyond the control of the executor. It is just that with the causative or increased transitivity construction it is specifically asserted that there is controlling agent distinct from the executor.

Thus far in this section, we have seen the Type I marking used to record agents of transitive events, agents of intransitive events of control (control itself being signalled by the choice, when available, of Type I marking), and causers of both transitive and intransitive verbs. Type II marking has been seen indexing patients of transitive verbs, executors of intransitive events of non-
control (non-control itself being signalled by the choice, when available, of Type II marking), and causees of both transitive and intransitive verbs. At this point, it is possible to abstract a common semantic content of the Type I versus the Type II marking. Type I is, as we have seen, the mark of a participant who is in control of the event. Type II is, conversely, the mark of a participant who is not in control of the event. In this way, we see that the more specific semantic roles of agent, patient, executor, causer, and causee are accidents of particular verbal lexemes as well as grammatical lexemes such as the transitive [ec] and the medio-passive marker [ip]. Thus, Type I marking cannot be solely identified with either agent or causer, and Type II marking cannot be solely identified with either patient, executor, or causee. The Type markers take specific semantic role only by their interaction with specific verbal lexemes, the medio-passive [ip], and the increased transitivity [ec]. The control semantics of Type I marking and non-control semantics of Type II marking are interpreted within these grammatical contextuels as controlling agents and causers or non-controlling patients, executors, and causees.

5.3.3 Control and Type I and Type III Subject Marking

Unlike the verbs in Groups B and C of Table 5, which can take either Type I or Type II participant marking to index the executor of the event without causative/increased
transitivity morphology, the verbs of the following examples take Type III to index the experiencer and may not take Type I without increased transitivity morphology:

(27)a. am-miisk-is
   1sIII-sweat l.g.-dec
   'I'm sweating'

   b. an-nokk-ii-s
   1sIII-hurt Ø g.-st-dec
   'I hurt'

   c. am-ititaak-is
   1sIII-ready l.g.-dec
   'I'm ready'

   d. an-hilapk-ii-s
   1sIII-hurry Ø g.-st-dec
   'I'm in a hurry'

   e. an-hayiy-ii-s
   1sIII-hot Ø g.-st-dec
   'I'm hot'

(28)a.*miisk-e-s
   sweat l.g.-lsI-dec

   b.*nookk-e-s
   hurt l.g.-lsI-dec

   c.*ititaak-e-s
   ready l.g.-lsI-dec

   d.*hilaapk-e-s
   hurry l.g.-lsI-dec

   e.*hayiy-e-s
   hot l.g.-lsI-dec

There are few verbs in Creek that take a Type III experiencer, and those that do cannot take Type I agents without special morphology. Though there are some verbs (Group A in Table 5) which in basic form allow only Type I agents and some verbs (Group D in Table 5) which in basic
form allow only Type II executors, there are many (Groups B and C in Table 5) which allow either Type I agents or Type II executors.

To get Type I agents with the verbs of (27), one uses increased transitivity morphology, as in (29):

(29)a. am-misk-eec-ick-is
   lsIII-sweat-trs l.g.-2sI-dec
   'You're making me sweat'

b. an-nokk-eec-ick-is
   lsIII-hurt-trs l.g.-2sI-dec
   'You're hurting me'

c. ca-titaak-iic-ick-is
   lsII-ready-trs l.g.-2sI-dec
   'You're getting me ready'

d. ci-hilap-iic-ay-e-s
   2sII-hurry-trs l.g.-1sI-pI-dec
   'I was hurrying you'

e. ca-hayiy-eec-ick-is
   2sII-hot-trs l.g.-2sI-dec
   'You're making me hot'

(30)a. ac-oh-miisk-ick-is
   lsII-loc-sweat l.g.-2sI-dec
   'You're sweating on me'

b. oh-leyk-ita-n ac-oh-miisk-is
   loc-sit-inf-N lsII-loc-sweat l.g.-dec
   'I'm sweating on the chair'

The examples in (29) all have Type I controlling agents, made possible by increased transitivity morphology. The verbs of (29) are parallel to those of Group D in Table 5 since both require increased transitivity (or causative) morphology for the use of Type I participants. Example (30a) shows that Type I marking on {miskita} 'to sweat' is possible without the increased transitivity morphology.
Two conditions make this possible. First, the locative prefix [oh] 'on' is used. Second, the verb is inflected for first- and second-person participants. Example (30b) shows that when there are two participants, but one is unmarked because it is third person, Type II marking is used for the executor of [miskita]. Example (30a) is the only example I have of a verb which takes Type III executor marking in its base form being able to take Type I agent or Type II executor marking in a non-causative or non-increased-transitivity form.

Cohn (1987.54-55) indicates that in Oklahoma Seminole, if the subject of an intransitive verb is Type III, then the causee (in my terms, patient) of the causative (in my terms, increased transitivity) form of that verb will also be Type III. The examples in (29a) and (29b) show this to be the case in Creek for [miskita] 'to sweat' (Cohn's example verb) and [nokkita] 'to hurt'. But examples (29c)-(29e) take Type II patients even though in (27c)-(27e) the intransitive forms of these verbs take Type III experiencer marking. The following examples take the examples of (29) and make the object marking Type II if it was Type III and Type III if it was Type II:

(31)a.*ca-misk-eec-ick-is
   l3II-sweat-trs l.g.-2sI-dec

b. ca-nokk-eec-ick-is
   l3II-sick-trs l.g.-2sI-dec
   'You're making me sick'
c. am-ititaak-iic-ick-is
   lIII-ready-trs l.g.-2sI-dec
   'You're getting it ready for me'

 d. cin-hilap-iic-ay-e-s
   2sIII-hurry-trs l.g.-1sI-pI-dec
   'I was hurrying it for you'

 e. an-hayiy-eec-ick-is
   lIII-hot-trs l.g.-2sI-dec
   'You're making it hot for me'
   'You're making me hot'

The event \{miskita\} 'to sweat' is odd in another way. It
is the only verb in the group which cannot take Type II
marking to record the patient, as shown in (31a). Example
(31b) shows that \{nokkita\} 'to hurt'. in the transitive form
and with Type II patient marking is interpreted as 'to make
sick'. In (29b) versus (31b), the first clear alternation
between Type III and Type II marking in this section, the
difference seems to indicate partial affectedness for Type
III (29b) versus total affectedness for Type II (31b).
Being 'hurt' is partial 'sickness'. Being 'sick' is total
'hurt'. The difference between (29c)-(29e) and (31c)-(31e)
is on the surface a difference between patient participants
(with Type II marking) and benefactee participants (with
Type III marking). But the Type III participants are still
affected. Just as in (29b), the Type III participants in
(31c)-(31e) are partially affected in contrast to the Type
II participants in (31b) and (29c)-(29e) being totally
affected. The semantic relatedness of the benefactee
reading and the partial affectedness reading of Type III
marking is evident in (31e), where we have two glosses
depending on which way the sentence is interpreted. In one, the benefactee reading is evident. In the other, the partially affected patient reading is evident. The context for both is that the speaker is hot because the addressee has made something like a room or a blanket or even part of his body hot for him. The example in (29e) with Type II marking can be interpreted as the whole body being made hot or even metaphorically as sexual excitement. Since [miskita] is the only verb in my data which behaves the way it does, I cannot explain its semantics with respect to participant marking.

In terms of the semantics of control or even degree of affectedness, the verbs of (27) do not appear to be different from the verbs of Groups C and D in Table 5, and the semantics of Type III subject inflection is not immediately apparent. There is, again, as with the difference between Group C and Group D in Table 5, an arbitrariness in the choice of Type marker which a particular verb will normally take. As Munro and Gordon (1982.84) comment, 'a semantic characterization of the II-III distinction is not easy'. Here, they are speaking of the difficulty of drawing general conclusions about why a particular verb takes Type II or Type III for its subject. My contention throughout this chapter is that one cannot predict from the semantics of a verb which class it will fall in with respect to subject or object marking, but
where Creek allows a paradigmatic contrast among Types I, II, and III, the semantics will be non-arbitrary in the sense that the choice of a Type marker where choice is available will reflect a scaling of an indexed participant on some semantic continuum. For example, contrast the paradigmatic oppositions again between (29b)-(29e) and (31b)-(31e). And recall the paradigmatic oppositions between Types I and II with Groups B and C in Table 5, as well as the oppositions between Types II and III and Type I in increased transitivity constructions.

5.3.4 Affectedness and Type II and Type III Subject Marking

Though there is no possible paradigmatic contrast between Type III and Type I marking for subjects of verbs in basic form, there is opposition for Type II and III subjects, much like the opposition of Type I and II for Groups B and C in Table 5. Note the following examples of II-III contrast:

(32)a. an-nokk-ii-s
   lSIII-hurt Ø g.-st-dec
   'I hurt'

   b. ca-nokk-ii-s
   lSII-sick Ø g.-st-dec
   'I'm sick'

(33)a. am-ititaak-is
   lSIII-ready l.g.-dec
   'I'm ready'

   b. ca-titaak-is
   lSII-ready l.g.-dec
   'I'm prepared'
The verbs of (32)-(35) are those of (27b)-(27e). The verb
{miskita} will not accept a Type II subject in unaltered
form, just as it will not take a Type II object in
unaltered form. The contrast in (32) and (33) is between
total effect with Type II and partial effect with Type III.
To be 'sick' or 'prepared' is to have been affected more
than simply to be 'hurt' or 'ready'. The 'prepared'
interpretation may be the effect of an element of patient
interpretation. Note again (29c) where Type II patient
marking occurs for this verb. In any case, as will become
clearer as we further consider the opposition of II-III
marking for objects, a great deal of the paradigmatic value
of greater versus lesser involvement of II versus III
originates with their values as object markers. In (34b),
we see that {hilapkita} 'to be in a hurry' in its base form
does not allow Type II subject marking. Example (34c) with
Type II marking contains the transitive morpheme, and the
English gloss indicates that the Type II participant is interpreted as some sort of patient. The two glosses in (35) are identical. Example (35a) is the more usual way to say 'I'm hot'. But (35b) is possible. There are two interpretations of (35b) in my data. In the first, the subject is perceived to be hotter than he might be in (35a), and thus more involved. In the second, a metaphorical extension is made to sexual excitement over some particular person. Thus, in this second interpretation, it is not so much total effect as patient status that is being stressed. A person has made the speaker of (35b) 'hot'.

We have already seen that there is no possibility with the verbs of (27) of using Type I marking instead of Type III marking without altering the verb. The next question is whether we can go the other way, that is, use Type III marking for the subjects of the verbs of Group A in Table 5, which allow Type I but not Type II for subject marking. See the following attempts at this:

(36)a. an-naafk-is
   1sIII-hit l.g.-dec
   'He's hitting part of me'
   'He's hitting for me'
   *'I'm hitting'

b. am-otaak-is
   1sIII-hug l.g.-dec
   'He's hugging something of mine'
   'He's hugging him for me'
   *'I'm hugging'

Example (36) contains only two verbs of Group A, but the
remainder pattern exactly the same. As the glosses of (36) indicate, Type III marking with these verbs can be interpreted only as indexing oblique objects, either the possessor of the patient or the benefactee. The examples in (36) occur with [Ø] third-person Type I marking for subject. They are equally acceptable with overt marking for subject, as with [ıck] second-person singular Type I marking, and the same Type III object marking. It is unacceptable to interpret Type III as indexing the executor of Group A verbs. This is to be expected since Group A verbs do not even allow Type II to index non-causative executors.

The following examples are typical of the semantic possibilities of Type III marking with Groups B, C, and D in Table 5:

(37)a. an-hisaak-is
   1sIII-breathe l.g.-dec
   'Something of mine is breathing'
   'It's breathing for me'
   
b. am-apiil-is
   1sIII-laugh l.g.-dec
   'Something of mine is laughing'
   'He's laughing for me'

(38)a. an-laatk-is
   1sIII-fall l.g.-dec
   'Something of mine is falling'
   'He's falling on me'
   
b. am-chook-is
   1sIII-cough l.g.-dec
   'Something of mine is coughing'
   'He's coughing on me'
(39) a. an-naooξ-is
   l3III-worry l.g.-dec
   'Something of mine is getting worried'
   'He's getting tired of putting up with me'

    b. an-cafiikan-is
   l3III-well l.g.-dec
   'My something is getting well'
   'He's getting well for me'

Each of the examples in (37)-(39) has two glosses, made possible by the lack of overt realization of Type I third-person marking. In the first gloss for each, the interpretation is that the executor is a possessed item/person of the speaker. Munro and Gordon (1982.95-102) discuss the behavior of Type III marking and other morphological and syntactic markers as they interact to produce in Western Muskogean what they call 'possessor raising', whereby the possessor becomes the subject of the sentence. In the second glosses for (37)-(39), the third-person executor performs the event so that it affects the Type III participant in an oblique way. A likely context for (37a) is that perhaps a newborn baby is breathing for the attending doctor, who has just spanked it. In (37b), the executor is laughing or smiling in the direction of the Type III participant in a friendly way. In (38a), the executor may be falling down as he and the speaker attempt to go somewhere together. In (38b), the executor is not coughing physically on the speaker, but the speaker may be worried about the health of the executor. His coughing, then, affects the Type III participant in an oblique way.
The semantics of the second gloss for (39a) is complicated by some sort of metaphorical extension of 'worry', but again the Type III participant is affected in an oblique way. And in (39b), a context is that the executor is a friend or relative of the speaker such that his getting well affects the speaker. Here in (39b) the two glosses merge in their contexts.

What is clear from all of this is that Type III participants of the verbs of Groups A-D in Table 5, except [nokkita] 'to be hurt' in Group D, cannot be interpreted as executors, but only as obliquely affected patients, as possessors or otherwise. Again, it is arbitrary even as to which verbs allow a Type III executor. The verbs [ititaakita] 'to be ready' in (33) and [hayiyita] 'to be hot' in (35), both of which can take a Type III executor, could of course, be added to Group D in Table 5. As the following examples indicate, even the possessor interpretation is obviated if the executor is overtly marked as first or second person:

(40)a. an-nooc-ick-is
    1sIII-sleep l.g.-2sI-dec
    'You're sleeping on me'

    b. an-lintaapp-ick-is
    1sIII-trip l.g.-2sI-dec
    'You're stumbling on me'

    c. am-itkool-ick-is
    1sIII-cold l.g.-2sI-dec
    'You're getting cold on me'

In each of the examples of (40), possession of the executor
by the speaker is not ruled out. But the glosses all reflect the oblique effect that the executor has on the Type III participant. Again, the 'on' relation in each of these is not a physical locative. In (40a), the addressee should be awake and is affecting the speaker by going to sleep. The same effect 'on' is operant in (40b) and (40c).

As we have seen in our discussion of Type III marking with the verbs of Table 5, Type III marking as it applies to subjects really has little to do with control, the semantic principle of the continuum of Table 5. It has more to do with partial affectedness. In (32)-(35), where the Type III and Type II markers record executors instead of patients, the presence of Type III indicates a lesser degree of affectedness and the presence of Type II indicates a greater degree of affectedness.

5.3.5 Affectedness and Type II and Type III Object Marking

The following examples present some of the varied semantic contents for the opposition between Type II and III markings for objects:

(41)a. am-po=h=y-is
    lsIII-beat=h g.-dec
    'He just beat me'
    'He just won it from me'

(42)a. toknaawa cim-paal-ay-ank-s
    money 2sIII-loan f.t.g.-1sI-pII-dec
    'I loaned you some money'
b. ci-paal-ay-aṅk-s
   2sII-hire f.t.g.-1sI-pII-dec
   'I hired you'

(43a). an-hoolw-eec-ick-is
   1sIII-angry-trs l.g.-2sI-dec
   'You're making it bad for me'

b. ca-hoolw-eec-ick-is
   1sII-angry-trs l.g.-2sI-dec
   'You're making me angry'

(44a). am-a-hic-ec-as
   1sIII-dir-see-trs ø g.-imp=sg.subj
   'Watch it for me'

b. ac-a-hic-ec-as
   1sII-dir-see-trs ø g.-imp=sg.subj
   'Watch after me'

(45a). nansi-t an-hic-k-eec-atii-t-ooM-s
   Nancy-T 1sIII-see-m.v.-trs f.t.g.-rem-T-aux-dec
   'Nancy showed it to me a long time ago'

b. nansi-t ca-hic-k-eec-atii-t-ooM-s
   Nancy-T 1sII-see-m.v.-trs f.t.g.-rem-T-aux-dec
   'Nancy gave birth to me'

(46a). am-a-haa-k-ick-ii-s
   1sIII-dir-make ø g.-m.v.-2sI-st-dec
   'You look like someone I know'

b. ac-a-haa-k-ick-ii-s
   1sII-dir-make ø g.-m.v.-2sI-st-dec
   'You look like me'

In (41)-(45), the semantic difference between Type II and
Type III object marking does appear to be greater
affectedness versus lesser affectedness, respectively.
Example (41a) has two glosses. In one, the Type III
participant is interpreted as a patient. In the other, it
is interpreted as a source. This is in contrast to (41b)
with Type II object marking. The Type II participant is,
of course, more affected by the event than the Type III.
In (42a), the III participant is interpreted as a recipient of the patient [toknaawa] 'money'. In (42b), the II participant is a patient, more affected than the III participant in (42a). Note that with a human II participant, [palita] is interpreted as 'hire' not 'loan'. In (43a), the III participant is interpreted as a malefactee, who is less affected than the II patient of (43b). In (44a), the III participant is interpreted as a benefactee, who is less affected than the patient II participant in (44b). In (45a), the III participant is interpreted as a goal, who is obviously less affected by the event than the patient of (45b). Note that like [palita] in (42), [hickita] in (45) has two glosses depending on whether the marked human participant is Type II or III. In (46a), it is difficult to say that the III participant is any less affected by the event than the II participant of (46b). It is more involvement than affectedness. But 'involvement' does not seem quite accurate either. Before we decide whether Type II versus Type III can be put on some general semantic continuum, we will have to examine many more examples.

5.3.6 Affectedness, Type III, and Oblique Participants

We have seen above that the semantic difference between Type II and Type I marking is non-control versus control, respectively, and that the semantic difference between Type III and Type II is generally lesser
affectedness versus greater affectedness, respectively.
There are many verbs in Creek that take Type III marking to
record what appears in English to be an affected patient
but which on closer examination turns out to be a
participant that is further removed from the event than a
patient, as in the following:

(47)a. in-fi=h=k-e-s
    3III-pay=h g.-1sI-dec
    'I paid him'

    b. am-mahaay-ick-is
    1sIII-teach l.g.-2sI-dec
    'You're teaching me'

    c. am-aliikc-ick-is
    1sIII-doctor l.g.-2sI-dec
    'You're doctoring me'

All of these Type III objects are glossed in English as a
direct object. As the following indicates, none of these
verbs may take Type II first- or second-person marking in
their basic form:

(48)a.*ci-fi=h=k-e-s
    2sII-pay=h g.-1sI-dec

    b.*ca-mahaay-ick-is
    1sII-teach l.g.-2sI-dec

    c.*ac-aliikc-ick-is
    2sII-doctor l.g.-2sI-dec

The only way to get Type II first- or second-person marking
with these verbs is to form causatives as in the following:

(49)a. ci-fik-ip-e=h=c-e-s
    2sII-pay-m.p.-trs=h g.-1sI-dec
    'I made you pay'
These verbs may take a direct object in their basic form, but only as third person. Thus, the object is unmarked on the verb, as in the following:

(50) a. toknaawa in-fi=h=k-e=s
    money 3III-pay=h g.-1sI-dec
    'I paid him money'

b. isti-caadi im-pona-ka-n am-mahaay-ick-is
    person-red 3III-talk-ger-N 1sIII-teach l.g.-2sI-dec
    'You're teaching me the Indian language'

c. illi am-aliikc-ick-is
    leg 1sIII-doctor l.g.-2sI-dec
    'You're doctoring my leg'

d. icki am-aliikc-ick-is
    mother 1sIII-doctor l.g.-2sI-dec
    'You're doctoring my mother'

Examples like (50a)-(50b) make the Type III objects of these verbs look more like recipients than the patients that they appear to be in (47). There is an understood intermediary direct object, or patient, which helps effect the action of the event on the Type III participant. The same is true of (50c)-(50d) except that the Type III participant looks neither like a patient nor a recipient, but a benefactee. Sentence (50d) shows that the patient of the verb does not have to be a bodypart of the Type III participant.

Of course, not every Type III participant is glossed
in English as a direct object, as in the following:

(51)a. an-laaks-ick-is
   1sIII-lie l.g.-2sI-dec
   'You're lying to me'
   /
   b.*ca-laaks-ick-is
   1sII-lie l.g.-2sI-dec
   /
   c. ca-laks-ip-eec-ick-is
   1sII-lie-m.p.-trs l.g.-2sI-dec
   'You're making me lie'

(52)a. im-ponaay-e-s
   3III-talk l.g.-1sI-dec
   'I'm talking to him'
   /
   b.*ca-ponaay-ick-is
   1sII-talk l.g.-2sI-dec
   /
   c. ca-ponay-ip-eec-ick-is
   1sII-talk-m.p.-trs l.g.-2sI-dec
   'You're making me talk'

The Type III participants in the (a)-sentences of (51)-(52) are glossed as objects of prepositions. The (b)-sentences show that Type II first- or second-person participants are not allowed with these verbs in their basic form. And the (c)-sentences show that Type II is allowed in the true causative forms. Although the Type III participant of [aneycita] 'to help' is not glossed in English as an object of a preposition, it patterns in other ways like [laksita] 'to lie' and [ponayita] 'to talk', as in the following:

(53)a. am-aneyc-as
   1sIII-help ø g.-imp=sg.subj
   'Help me!'
   /
   b.*ac-aneyc-as
   1sII-help ø g.-imp=sg.subj
   /
   c. ac-aneyc-ip-eec-ick-is
   1sII-help-m.p.-trs l.g.-2sI-dec
   'You're making me help'
Thus far in this section, we have seen only verbs that do not allow a Type II first or second person participant in a non- causative form of the verb. The following examples ([54] repeated from [41] for convenience) show that some verbs which gloss in English their Type III participant as a direct object do allow a Type II non- causative participant:

(54)a. am-po=h=y-is
    1sIII-beat=h g.-dec
    'He just beat me'
    'He just won it from me'

  b. ca-po=h=y-is
     1sII-win=h g.-dec
     'He just won me'

(55)a. saara-t joo in-kii-ii-s
     Sara-T Joe 3III-know Ø g.-st-dec
     'Sara understands Joe'

  b. ca-kii-ick-ii-s
     1sII-know Ø g.-2sI-st-dec
     'You know me'

(56)a. im-po=h=h-as
     3III-hear=h g.-imp=sg.subj
     'Ask him!'

  b. ci-pooh-e-s
     2sII-hear l.g.-1sI-dec
     'I hear you'

In each of the (a)-sentences of (54)-(56), the Type III participants are glossed as direct objects, or patients, in English. Example (54a) has an alternate gloss in which the Type III participant is glossed as a source in English. The (b)-sentences indicate that Type II is allowed with these verbs without their having to be in increased
transitivity/causative form. And in the (b)-sentences, the Type II participants seem to be more directly involved in the event. It is clear that the Type II participants motivate the English glosses that they do because a more direct patient is understood. In (54a), the Type I won a Type II from a Type III, or 'beat' him. In (55a), the Type I knows a Type II of a Type III, or 'understands' him. And in (56a), a Type I hears a Type II from a Type III, or 'asks' him.

5.4 Type I versus Type II versus Type III—an Overview

Though the general semantics of Type I versus Type II is control versus non-control, respectively, and the general semantics of Type II versus Type III is greater affectedness versus lesser affectedness, we might like to consider whether verbal agreement itself means something so that Types I, II, and III are systematic modulations of that semantics. But as our semantic characterizations of these three paradigms now stand, there does not appear to be a commonality. There is then one major question to be answered in this section. Can there be a single semantic continuum that applies to Types I, II, and III?

The best way to place the three paradigms on a single continuum is to take a verb stem and use Types I, II, and III markers to record the subjects of that stem. The following Table takes the verbs of (27b)-(27e) and glosses them as they appear with each of the three agreement Types
for subjects:

<table>
<thead>
<tr>
<th>EVENT</th>
<th>I</th>
<th>II</th>
<th>III</th>
</tr>
</thead>
<tbody>
<tr>
<td>nokkitâ</td>
<td>make sick/hurt</td>
<td>sick</td>
<td>hurt</td>
</tr>
<tr>
<td>ititaakitâ</td>
<td>make ready</td>
<td>prepared</td>
<td>ready</td>
</tr>
<tr>
<td>hilapkitâ</td>
<td>make hurry</td>
<td>hurried</td>
<td>in a hurry</td>
</tr>
<tr>
<td>hayiyitâ</td>
<td>make hot</td>
<td>aroused</td>
<td>hot</td>
</tr>
</tbody>
</table>

Table 6

It is certain that the use of Type I subjects with the verbs in Table 6 signals a subject that is in greater control over the event than does the use of Type II or III. But it is difficult to apply the continuum of control to the difference between II and III for these verbs. Is a person who is sick more in control than one who is hurt or is it the other way around? It does seem that a person who is 'prepared', in the sense of being coached for some skill, is in less control than a person who is 'ready'. The same seems true of 'hurried' versus 'in a hurry'. But what about 'aroused' versus 'hot'? If I am 'hot', I am specifically not in control of my environment. If I am 'aroused', then it may be assumed that I have at least participated in that arousal. It seems rather that the difference between II and III marking for the verbs of Table 6 is, as I have said, a difference of greater versus lesser affectedness by the event. Perhaps a more general way to put this is that II marking with these verbs indicates greater envelopment in the event than III marking
indicates. This more general semantic content subsumes the affectedness in the sense of a patient acted upon that is evident in being 'prepared', 'hurried', and 'aroused' as well as the involvement that is evident in being 'sick'. But if we say that II indicates greater envelopment in the event than III, then how does I compare to II and III with respect to this envelopment? It is impossible to say whether the agent is more enveloped by the event than the patient. The reason that envelopment does not apply to the difference between I and II/III but does to the difference between II and III is that the same verb stem does not take all three markers as subject markers. II and III alternate as subject participant markers and as object participant markers. But Type I does not alternate with II/III on the same stem. Type I occurs with the verbs of Table 6 only if they have increased transitivity morphology. This increased transitivity morphology in effect makes new events of the root events.

It is possible in Chickasaw to have all three agreement types occur as subjects of the same stem, as in the following:

(57)a. chokma-LI 'I act good.' (I)

b. SA-chokma 'I am good.' (II)

c. AN-chokma 'I feel good.' (III)

Munro and Gordon (1982.84), whose data (57) are, say that in Chickasaw that it is 'exceptional' to get all three
agreement types on the same verb stem. If it were that (57) were not exceptional in Chickasaw, it would appear that control might be a unifying continuum to Type I, II, and III, at least in Chickasaw. Though examples like (57) are exceptional in Chickasaw, they do not exist at all in my data on Creek. See the following attempt to mimic something like (57) in Creek:

(58)a.*hi₃-it-ooM-e-s
good r.t.g.-T-aux-1sI-dec

b. ca-hi₃-it-ooM-s
1sII-good r.t.g.-T-aux-dec
'I'm good'

(58)c. an-hi₃-it-ooM-s
1sIII-good r.t.g.-T-aux-dec
'I feel good'

Sentence (58a) shows that Type I marking with the non-causative stem of [hi₃ita] 'to be good' is not acceptable. Sentence (58b) with Type II marking and (58c) with Type III are acceptable. And as with other II/III oppositions of subjects of Creek verb stems, the operant semantic continuum seems to be envelopment in the event.

As I noted at the beginning of this section, the best way to place all three marker Types on a single continuum is to vary them paradigmatically with one stem as subjects and contrast the resulting semantics. It could also be done by varying them paradigmatically as objects, but we have seen throughout this chapter that there is no way to have Type I marking record a Creek object. It is possible,
however, to have both Type II and Type III record objects, causative and non-causative. The following Table takes the verbs of (29b)-(29e) and (31b)-(31e) and glosses them as well as the object relations as they appear with Type II and Type III marking:

<table>
<thead>
<tr>
<th>II</th>
<th>III</th>
</tr>
</thead>
<tbody>
<tr>
<td>nokkecita</td>
<td>make sick II</td>
</tr>
<tr>
<td>ititaakicit</td>
<td>make ready II</td>
</tr>
<tr>
<td>hilapicit</td>
<td>make hurried II</td>
</tr>
<tr>
<td>hayiyecita</td>
<td>make hot II</td>
</tr>
<tr>
<td></td>
<td>make ready for III</td>
</tr>
<tr>
<td></td>
<td>make hurried for III</td>
</tr>
<tr>
<td></td>
<td>make hot III/for III</td>
</tr>
</tbody>
</table>

Table 7

In the glosses in Table 7, 'II' and 'III' indicate the participants which are recorded by these markers. In Table 7, it is clear that the difference between Type II and Type III increased transitivity objects is the degree of envelopment in the event. Type II objects are more enveloped; Type III objects are less enveloped. The contrasting glosses range from more directly affected patients for II versus less directly affected patients and benefactees for III. It is also clear once again that the difference between Type II and Type III has nothing to do with control. Just as Type I does not participate individually with II and III on a scale of envelopment, III does not participate individually with I and II on a scale of control.

The following Table indicates that non-increased-
transitivity objects II and III as well are related to one another by means of a scale of envelopment:

<table>
<thead>
<tr>
<th>II</th>
<th>III</th>
</tr>
</thead>
<tbody>
<tr>
<td>nafkita</td>
<td>hit II</td>
</tr>
<tr>
<td></td>
<td>hit for III, hit III's possession</td>
</tr>
<tr>
<td>otakita</td>
<td>hug II</td>
</tr>
<tr>
<td></td>
<td>hug for III, hug III's possession</td>
</tr>
<tr>
<td>pohita</td>
<td>win II</td>
</tr>
<tr>
<td></td>
<td>beat III, win for III, win from III</td>
</tr>
<tr>
<td>palita</td>
<td>hire II</td>
</tr>
<tr>
<td></td>
<td>loan to III</td>
</tr>
<tr>
<td>hickita</td>
<td>birth II</td>
</tr>
<tr>
<td></td>
<td>show to III</td>
</tr>
</tbody>
</table>

Table 8

As with the II and III markers in Table 7, II versus III marking in Table 8 records more envelopment versus less envelopment in the event, respectively. These glosses for these verbs are as they appear in examples (18a), (18c), (36), (41), (42), and (45). The glosses for the II participants are consistently affected patients. The glosses for the III participants range from benefactees to possessors of affected patients, to sources, to recipients, to the relatively lesser affected patient of the event 'show to'. And again in this table, it is clear that the difference between II and III has nothing to do with control.

Though the difference between II and III marking does not participate in a continuum of control, it is possible to say that Type III versus Type I indicates non-control versus control respectively. An agent or causer is in more control of the event than a lesser affected patient,
recipient, benefactee, possessor, source, or other oblique participant. But this opposition is secondary in that Type I and Type III do not participate directly as subjects or objects on any one continuum. A Type I subject cannot vary paradigmatically on the same verb stem with a Type III subject, and we have already seen that there are no Type I objects. The value of control—non-control with respect to Type I versus Type III comes rather from the opposition of Type I as agent and Types II/III as patient and oblique participant. This is why there is no value of control with respect to Type II versus Type III. They oppose together Type I as non-controlling participants.

The value of control for Type I participants comes not only from its opposition to II/III participants on non-increased transitivity as well as increased transitivity verbs, but most convincingly from its opposition as controlling executor to Type II non-controlling executor on those verbs where this opposition is possible. The following table presents a few of these verbs along with semantic characterizations of Types I, II, and III participants with these verbs:
<table>
<thead>
<tr>
<th>I</th>
<th>II</th>
<th>III</th>
</tr>
</thead>
<tbody>
<tr>
<td>hisakita</td>
<td>control</td>
<td>non-control</td>
</tr>
<tr>
<td></td>
<td></td>
<td>III's possession breathes, breathe for III</td>
</tr>
<tr>
<td>apilita</td>
<td>control</td>
<td>non-control</td>
</tr>
<tr>
<td></td>
<td></td>
<td>III's possession laughs, laugh for III</td>
</tr>
<tr>
<td>alatkita</td>
<td>control</td>
<td>non-control</td>
</tr>
<tr>
<td></td>
<td></td>
<td>III's possession falls, fall 'on' III</td>
</tr>
<tr>
<td>ohokita</td>
<td>control</td>
<td>non-control</td>
</tr>
<tr>
<td></td>
<td></td>
<td>III's possession coughs, cough 'on' III</td>
</tr>
</tbody>
</table>

Table 9

The semantic characterizations and the glosses for Table 9 are summaries of the glosses as they appear with these verbs and marking types in examples (13a), (13b), (14a), (14b), (15a), (15b), (16a), (16b), (37), and (38). As we have seen, the difference between Type I and Type II marking as subjects of each of the verbs in Table 9 is control versus non-control, respectively. The Type III participants are glossed variously as possessors of executors, benefactees, and oblique participants with the relation 'on' to the event. In Table 9, we see again that the difference between Type II and Type III marking is independent of control. And just as clearly, the difference between Type I and Type II is independent of the degree of envelopment in the event. But just as II and III are grouped together in non-control against the controlling Type I, so are I and II grouped together in greater envelopment against the lesser envelopment of Type III. Type I is opposed to Type III in terms of envelopment in a
secondary way since I and III do not vary paradigmatically as subject or objects. But Type I and Type II are enveloped in the event as agents and directly affected patients while Type III is lesser enveloped as lesser affected executors, patients, benefactees, recipients, sources, and other obliquely affected participants.

We must answer the major question of this section in the negative. There is no single semantic continuum for the agreement paradigms of Types I, II, and III. But the issue is not resolved by the assertion that there is no single continuum. There are two continua, and all three markers have a place on each continuum, but one marker on each continuum has a secondary value. See the following summary of the patterns of this section:

<table>
<thead>
<tr>
<th>CONTROL/NON-CONTROL</th>
<th>ENVELOPMENT/NON-ENVELOPMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRIMARY</td>
<td>SECONDARY</td>
</tr>
<tr>
<td>I</td>
<td>I</td>
</tr>
<tr>
<td>II</td>
<td>(II, III)</td>
</tr>
<tr>
<td>II</td>
<td>(I, II)</td>
</tr>
<tr>
<td>III</td>
<td>III</td>
</tr>
</tbody>
</table>

Table 10

There are two continua in Table 10, that of control and that of envelopment. And there are two rows, which apply to both continua. The rows are for a primary opposition, by which it is intended that Type markers may vary paradigmatically with the same verb stem to record either subjects or objects, and a secondary opposition, by which it is intended that two of the Type markers are opposed to the remaining Type marker in terms of role with respect to
the semantic continuum concerned. Thus I and II are primary oppositions with respect to control because both may record subjects of a variety of verb stems, and they differ with respect to control when they are so used. Type III is not part of this primary opposition because it may not occur as subject with the stems that Type I occurs as subject with. Type III is grouped with II and both are opposed to I in a secondary opposition because I occurs as controlling agent with stems that take Types II and III as non-controlling objects of various semantic roles. Types II and III are not differentiated with respect to control because in their relations as objects they do not vary with respect to one another in the amount of control each exerts over the event. Types II and III are primary oppositions with respect to envelopment because they both may be used to record subjects and objects on the same stem and they differ with respect to envelopment when they are so used. Type I is not part of this primary opposition because it may not occur as subject on stems that take III as subject and it never occurs to mark any type of object. Type I is grouped with Type II and both are opposed to Type III with respect to envelopment because Type I and Type II as highly enveloped agents, executors, patients contrast with Type III as the lesser enveloped executors, benefactees, sources, etc. Type I is not differentiated from Type II with respect to envelopment because it is impossible to say
which is more enveloped in the event.

5.5 Types I, II, III and the Number of Participants

Up to this point, we have mainly considered participant marking as it reflects the semantics of control and envelopment paradigmatically and/or with respect to role. That is, we have controlled for subject or object and varied the markers paradigmatically or we have contrasted the marking of various roles with either Type I, II, or III. Another important aspect of this problem is how the number of participants in an event, or how the valence of an event, affects the choice of Type I, II, or III to mark degrees of control and envelopment and/or role.

For example, note the following data:

(59)a. ca-pinkal-ii-s  
   1sII-afraid Ø g.-st-dec 
   'I'm afraid'  
   'I'm afraid of it'

b. in-ca-pinkal-ii-s  
   3III-1sII-afraid Ø g.-st-dec 
   'I'm afraid of him'  
   '*He's afraid of me'

c. *ci-ca-pinkal-ii-s  
   2sII-1sII-afraid Ø g.-st-dec

d. cim-pinkaal-ay-ê-s  
   2sIII-afraid l.g.-1sI-pI-dec  
   'I was afraid of you'

e. ci-pinkal-iic-ay-aŋ-k-s  
   2sII-afraid-trs l.g.-1sI-pII-dec  
   'I scared you'

(60)a. ca-hos-ii-s  
   1sII-forget Ø g.-st-dec  
   'I forgot'  
   'I forgot it/him'
b. ci-ca-hos-ii-s
  2sII-1sII-forget ø g.-st-dec
  'I forgot you'
  *'You forgot me'

c. cin-ca-hos-ii-s
  2sIII-1sII-forget ø g.-st-dec
  'I forgot something of yours'

d. ci-hoos-e-s
  2sII-forget l.g.-1sI-dec
  'I'm forgetting you'

e. ca-hos-eec-ick-is
  1sII-forget-trs l.g.-2sI-dec
  'You're making me forget'

In the (a)-sentences of (59)-(60), it appears that the subject of these non-active verbs is marked with Type II agreement. Note that in both of the (a) sentences the event may be understood as transitive or intransitive, but (59a) may be understood as transitive only with an inanimate patient. The normal transitive form of [piŋkalita] with an animate patient is given in (59b), in which the object occurs with Type III agreement. As with the choice of object agreement that we have already examined in this chapter, it is impossible to predict given the semantics of the verb which Type of marking will be used to record an object with these verbs. Note however from the second unacceptable glosses of the (b)-sentences that it is predictable that the marking closest to the verb will be interpreted as the subject. Example (59c) indicates that it is impossible to get Type II marking to record the object of [piŋkalita] if the subject is also
recorded by Type II. Thus, paradigmatic variation of this type is impossible with [piŋkalita]. But note in (60b) and (60c) that it is possible to get paradigmatic variation of Type II versus Type III to record the object of [hosita] if the subject is recorded by Type II marking. The difference in semantics between Type II and Type III marking revealed in (60b) and (60c) is the same type of envelopment semantics that we have already discussed, with the Type II patient being more enveloped in the event than the Type III possessor. As the (d)-sentences in both (59) and (60) show, it is possible to get a Type I agent with these verbs. Note that the objects are here marked as is done normally in the (b)-sentences. If we compare the (b)- and the (d)-sentences, the only formal marks that are different are the subject marking Type and the tense and aspect. The tense/aspect difference is non-significant since the tense/aspect of either may be interchanged with no effect on Type marking. The glosses for the (b)- and the (d)-sentences are the same except for tense and aspect, but of course, there is a further meaning difference. In (59d), the speaker is saying that he was only pretending to be afraid of the hearer in the past. That is, he was actually in control of his being afraid. Thus, [piŋkalita] is another verb to add to Group C in Table 5. It normally takes Type II marking to record its subject, but it can take Type I to record a controlling agent. In the (b)- and
(d)-sentences of (60), the aspect is again different, but again it makes no difference. In (60d), with Type I marking for the subject, the meaning is that the speaker is forgetting the hearer on purpose, that is, that he has control. Thus {hosita} can also be added to Group C in Table 5. In the (e)-sentences of (59)-(60), we see the familiar use of Type I marking to record the agent in an increased transitive and Type II to record the patient. As I have indicated throughout this chapter, it is impossible to predict what Type marking either a subject or an object will take with a particular verb. But paradigmatic variation, where possible, provides a consistent semantic variation between control and non-control for Type I versus Type II for subjects and an equally consistent variation between envelopment and non-envelopment for Type II versus Type III for subjects and objects.

As we saw in section 5.3.2, there are a number of verbs which normally take a Type II subject, those of Group D, and which refuse a Type I subject unless increased transitivity morphology is present. See the examples in (21) again. The verbs of example (28) in section 5.3.2 are similar in that they do not allow Type I marking without the increased transitivity morphology either, though they take Type III marking to record their subjects. The following examples indicate that with both of these groups of verbs, it is possible to have one participant and for
that participant to be Type I as long as the verb has both
increased transitivity and reflexive morphology:

(61)a. ii-naoi-eec-ay-\underline{e}-s  
    refl.II-worry-trs l.g.-lI-pI-dec  
    'I worried myself'

b. ii-cafikn-eec-e-s  
    refl.II-well-trs l.g.-lI-dec  
    'I'm making myself well'

c. ii-hoottop-e=h=c-e-s  
    refl.II-tickle-trs=h g.-lI-dec  
    'I tickled myself'

d. ii-hasat-i=h=c-e-s  
    refl.II-clean-trs=h g.-lI-dec  
    'I cleaned myself'

(62)a. ii-misk-eec-e-s  
    refl.II-sweat-trs l.g.-lI-dec  
    'I'm making myself sweat'

b. ii-nokk-e=h=c-e-s  
    refl.II-hurt-trs=h g.-lI-dec  
    'I hurt myself'  
    'I made myself sick'

c. ii-titak-iic-e-s  
    refl.II-ready-trs l.g.-lI-dec  
    'I'm getting myself ready'

d. ii-hilapk-iic-e-s  
    refl.II-hurry-trs l.g.-lI-dec  
    'I'm hurrying myself'

In each of these examples of verbs that do not allow Type I
marking without increased transitivity and reflexive
morphology, there is present with that morphology an
element of control or assumed control of the event. As the
subject of the verb acts on himself, there is the control
present that is inherent or possible in the events of
groups A, B, and C. The subject of the event takes himself
as an object of the event, and the presence of another
participant helps to increase the transitivity to effect
the perceived increase in control, registered by the
presence of the Type I marking.

Thus far in this section, we have seen the effects of
increased control on agreement markers. This increased
control results either from the familiar paradigmatic
variation between a Type II and a Type I marker as in the
(b)- and (d)-sentences of (59) and (60) or from
paradigmatic variation plus transitive morphology as in the
(e)-sentences of (59) and (60) as well as all examples in
(61) and (62). There are a number of verbs with which the
simple addition of an animate object calls for Type I
marking for the subject rather than Type II marking, as in
the following:

(63)a. ca-hi̇onom-ii-s
    1sII-generous Ø g.-st-dec
    'I'm generous'
    
    b. an-hi̇omon-ick-ii-s
    1sIII-generous Ø g.-2sI-st-dec
    'You're generous to me'

(64)a. ca-hasaat-k-is
    1sII-clean l.g.-dec
    'I'm getting clean'
    
    b. an-hasaat-k-ick-is
    1sIII-clean l.g.-2sI-dec
    'You're getting clean for me'

(65)a. ca-cafiikn-isk
    1sII-well l.g.-dec
    'I'm getting well'
    
    b. an-cafiikn-ick-isk
    1sIII-well l.g.-2sI-dec
    'You're getting well for me'
(66) a. ac-apiiss-is
   1sIII-fat l.g.-dec
   'I'm getting fat'

   b. am-apiiss-ick-is
   1sIII-fat l.g.-2sI-dec
   'You're getting fat on me'

(67) a. ca-tank-is
   1sII-empty l.g.-dec
   'I'm getting empty'

   b. an-tank-ick-is
   1sIII-empty l.g.-2sI-dec
   'You're getting empty on me'

The examples in (63)-(67) include many of the verbs from Group D in Table 5. These verbs were said not to take Type I subjects without transitive morphology. More specifically, they do not take Type I subject in their intransitive form. As the (b)-examples in (63)-(67) demonstrate, these verbs and others like them take Type I marking when there is an animate object present in the clause. All of the objects in these sentences are Type III with either the benefactee reading or the oblique 'on' reading that we have encountered before. Type II objects are unacceptable in these sentences without transitive morphology. And Type II marking to record the subject with these verbs cannot occur if there is present the Type III object. The addition of an object, even if that object is a Type III, increases the transitivity of these verbs such that there is an element of control in the subject, recorded by the switch from Type II to Type I marking for the subject. This increased control is shown semantically
only in that the Type I subject affects the Type III object. Thus, the Type I subject may not have control in the classic sense over the event, but he does have some control over the object.

5.6 Possession and Type II and Type III Marking

One issue in agreement in Creek that I will not explore in depth is the use of Type II and Type III markers on nouns to indicate inalienable and alienable possession, respectively. See Martin (1987) for a detailed exploration of this subject. Note the following:

(68)a. ca-cki
    1sII-mother
    'my mother'

    b. ca-čki
    1sII-father
    'my father'

    c. ca-ciľwa
    1sII-brother
    'my brother'

(69)a. ca-lli
    1sII-leg
    'my leg'

    b. ca-cokwa
    1sII-mouth
    'my mouth'

    c. ca-ka
    1sII-head
    'my head'

(70)a. an-taata
    1sIII-father
    'my father'
b. am-maama
   IsIII-mother
   'my mother'

c. am-mocoswa
   IsIII-grandchild
   'my grandchild'

(71)a. am-aatami
   IsIII-car
   'my car'

b. an-coko
   IsIII-house'
   'my house'

c. am-ifà
   IsIII-dog
   'my dog'

Generally, Type II marking on nouns indicates inalienable possession and hence is appropriate for kinship terms, in (68), and bodypart terms in (69). But there are exceptions to this rule, as in (70) where the (a) and (b) kinship terms, obvious English borrowings, take Type III marking, and where the (c) kinship term, which is not a borrowing, takes Type III. And generally, Type III marking on nouns indicates alienable possession and hence is appropriate for the nouns in (71). But again, the nouns of (70) would be exceptions to any rule attempting a prediction of which nouns take which marking. In none of the examples of (68)-(71) are Type II and III paradigmatically productive. That is, they cannot be varied paradigmatically.

5.7 Conclusion

Sapir (1917) suggested long ago that volitionality (my 'control') is important in the Muskogean languages. And
Payne (1982) explores the semantics of transitivity and involvement in the agreement paradigms for Chickasaw. The importance of this chapter is not so much the factoring out of semantic components, but the demonstration that agreement in Creek illustrates the creation of value in the sign through paradigmatic and syntagmatic contrast. Throughout this chapter, we have seen that Types I, II, and III marking have no inherent content themselves with respect to control or envelopment but only a relative content as they vary paradigmatically on the same verb stem and as the paradigmatic variation on different verb stems syntagmatically creates the parameter of specific semantic roles.

We remember that the semantics of a verb root are not reliable for predicting which agreement marker a particular verb will take to record its subject or object. Once we have a verb stem and the Type marking with which it normally occurs in its base form, we have the possibility of semantic contrast through paradigmatic variation. An emphasis on prediction leads one from the observation that verb stems must be lexically marked for which Type they will take to the conclusion that the inflections are to be described grammatically with only an irregular semantic content. The following is from Munro and Gordon (1982.84) in relation to agreement in Western Muskogean:
A purely semantic characterization of this system raises many problems, particularly if it attempts to predict agreement-marking according to the semantics of a given verb. Although the semantic analysis just sketched is appealing, we believe that, in the long run, the type of agreement must be lexically marked.

Martin (1987) comes to essentially the same conclusion about agreement morphology in Creek:

If agreement is stated in terms of grammatical functions and if it is assumed that there are no exceptions in the agreement system, then we are forced to conclude that initial grammatical functions are not predictable from the semantics. There is an alternative, however, and one that seems fairly natural: Accept that morphology is irregular.

It is true that verbs stems must be lexically marked since we cannot predict basic Type marking, but the point of this analysis of agreement in Creek is missed if we stop there. Paradigmatic contrast in Creek verbal agreement reminds us of the basic notions of the linguistic sign, that signs have no inherent meaning in themselves but only take meaning in contrast to other signs. Signs are what they are not.
Notes

1

In this chapter, I will simply gloss the [ii] suffix occurring on verbs as 'st' for 'stative' since that is its normal semantics as a suffix on asserted events. In Chapter 4, I began a discussion of the problematic semantics of this suffix. In Chapter 6, we will see more clearly why it does not mean simply 'stative' in all its occurrences.
Chapter 6
Modification

6.1 Introduction

This chapter explores the semantics and form of Creek modificational structures, specifically those which are glossed in English by adjectives and by relative clauses, both restrictive and non-restrictive. This chapter will not explore adverbs and adverbial clauses, though as we will see later, structures which function as relative clauses also sometimes have glosses that make them appear in English as adverbial clauses. Since adjectives and relative clauses make use of verbal stems, the presence of modification implies the beginning of complexity in Creek sentences. If a simple sentence is defined as a clause consisting of one inflected verb plus any number of simple nominals, i.e. nominals with no verbal inflection, then our definition causes problems in that almost any sentence in Creek contains participants and events which share verbal and nominal morphology. As indicated in Chapter 4, the only true mark of an asserted event is the assertive [s] morpheme. There is no absolute mark for a noun since simple nominals are unmarked and derived nominals are by definition complex, consisting of a verbal root and derivational morphology, some of which is shared by asserted events. Rather than a sharply defined line between simplicity and complexity, there is a continuum
from relative simplicity to relative complexity, with the points in between created by the degrees of 'binding', to use Givon's (1980) term for the tightness or looseness of the bonds between the matrix event and the dependent proposition, whether that dependent proposition be merely an adjectival or adverbial phrase or as complex as a relative clause or an adverbial clause. Rather than attempting to explain this continuum now before examining data, we will briefly define and form this continuum as we move up the scale from simplicity to complexity in section 6.3.

6.2 The Absence of a Distinction between Verbs and Adjectives

Since one of the major contentions in this chapter is that modification proceeds by the subordination of propositions--events with or without participants--to other propositions, it is perhaps best to begin with a refutation of the notion that there are in Creek 'adjectival' roots versus 'verbal' roots. Haas (1940.148) reports that adjectives are formed from verb roots in Creek, and Nathan (1977.65) reports the same for Florida Seminole. But Sakaguchi (1987.134) reports that for Oklahoma Seminole, which differs slightly from Oklahoma Creek, 'it is possible to distinguish adjectives from verbs by examining the base form before the -ii suffix and the position of the III marker in comparatives'. The first test will be discussed
in this section, but the second test will not since comparatives are beyond the scope of this work. Since Oklahoma Creek and Oklahoma Seminole pattern differently with respect to Sakaguchi's first test for adjectives and verbs, my own Creek data will be used to illustrate the patterns. The pattern that Sakaguchi finds in Seminole asserted events exists in Creek asserted events, but the patterns she finds in dependent clauses in Seminole are different from those of dependent clauses in Creek. I will propose a different interpretation of the pattern that Seminole and Creek share in asserted events and also integrate into this interpretation the different Creek pattern in dependent clauses. In Creek, one cannot 'distinguish adjectives from verbs by examining the base form before the ii suffix', i.e. there does not exist in Creek a form class of lexical items constrained to signalling the semantics of modification.

As in Oklahoma Seminole (Sakaguchi 1987.137-38), what are here called non-active verb stems and what Sakaguchi calls adjectival stems can take all five verb grade forms in Creek asserted events, as in the following:

(1) a. ca-nih-ii-s
    IšII-fat Ø g.-ii-dec
    'I'm fat'

b. ca-nīih-is
    IšII-fat l.g.-dec
    'I'm getting fat'
c. ca-nih-is
   lSII-fat f.t.g.-dec
   'I got fat'

\(\checkmark\)

d. ca-nih-is
   lSII-fat r.t.g.-dec
   'I'm really getting fat'

\(\checkmark\)

e. ca-ni=h=h-is
   lSII-fat=h g.-dec
   'I just got fat'

Sentences (1b)-(1e) pattern predictably according to the semantics of verb grades as they were discussed in Chapter 4. The interesting example is (1a), which we will discuss after the data in (2) below. The examples in (2) contain verbs which are here called active verb stems and which Sakaguchi calls verbal stems. As she indicates, verbs like these may not occur with the \(\emptyset\) grade when the \(\{i\i\} \) suffix follows in an asserted event:

\[(2)\]

a. *nis-ay-ii-s
   buy \(\emptyset\) g.-1sI-ii-dec

b. *atotk-ay-ii-s
   work \(\emptyset\)-1sI-ii-dec

c. *isk-ay-ii-s
   drink \(\emptyset\) g.-1sI-ii-dec

d. *nafk-ay-ii-s
   hit \(\emptyset\) g.-1sI-ii-dec

\(\checkmark\)

e. *am-poy-ick-ii-s
   1sIII-beat \(\emptyset\) g.-2sI-ii-dec

These examples are repeated from (79) in Chapter 4 for convenience. As we saw in Chapter 4, these active verbs may all occur with the other four verb grades, with the expected semantics. The question is what to make of the patterns revealed in examples (1) and (2). Sakaguchi
(1987.138-39) concludes that the ability to occur in 'base form', or Ø grade before [ii], indicates that a stem is adjectival, and that the inability to occur in base form indicates that a stem is verbal. This is indeed one of many 'subtle formal differences among grammatical categories' in Creek, but in itself it tells us nothing about the semantics of modification. And the labels themselves are slightly misleading in suggesting (though Sakaguchi does not suggest this) that verbal stems are for verbs and that adjective stems are for modification, when in fact, as we will see throughout this chapter, both types of stems can be used for asserted events as well as for modification. And see (1b)-(1e) for examples of the 'adjectival' stem [nihita] used to assert events complete with a participant and aspect. Other stems which allow, like [nihita], a Ø grade in combination with the [ii] stative suffix in asserted events are [kasappita] 'to be cold', [acolita] 'to be old', [yikcita] 'to be strong', [lastita] 'to be black'. The difference between stems like these and stems like those of (2) is that those of (2) are active stems, whose events must be asserted in a specific aspect, while the stems like [nihita] 'to be fat' are non-active stems, whose events do not have to be asserted in a specific aspect. That is, the latter events may be asserted without indicating that they have an historical inception or fulfillment, as is done when used in
combination with the $\emptyset$ grade and the [ii] stative suffix. For the resultant state, which [ii] denotes, to in fact exist, it must be the case that the events of the active stems have reached their respective culminations. And if the $\emptyset$ grade denies that achievement, then the two--[ii] and the $\emptyset$ grade--must contradict each other when they both appear with active events. This is why the $\emptyset$ grade, which indicates non-realization, is unacceptable in combination with the [ii] stative morpheme and an active event. On the other hand, if we look at (1a) again, we see that the [ii] suffix occurs with the $\emptyset$ grade in a non-active event. The $\emptyset$ grade denies the on-going process of achieving the non-active state. If the event is not on-going, then it must be stative, thus the occurrence of the [ii] suffix.

Example (1a) is ungrammatical without this stative suffix.

As indicated in Chapter 4, the closest semantic equivalent of the asserted active verbs of (2) to the $\emptyset$ grade statives, like that of (1a), is the following, in which the falling tone grade with no specific tense morpheme signals that the event has occurred. Because these stems are active, they must be realized with respect to aspect:

(3)a. niis-e-s
   buy f.t.g.-1sI-dec
   'I've bought it'

b. atootk-e-s
   work f.t.g.-1sI-dec
   'I've worked'
c. iisk-e-s
   drink f.t.g.-1sI-dec
   'I've drunk'

d. naafk-e-s
   hit f.t.g.-1sI-dec
   'I've hit'

e. am-pooy-ick-is
   1sIII-beat f.t.g.-2sI-dec
   'You've beaten me'

The examples in (3) are repeated from those of (80) in Chapter 4 for convenience. Though the examples in (3) are not referenced specifically to a time period, they do have an historical inception and fulfillment, signalled by the falling tone grade.

Thus we see that this test for a distinction between adjectives and verbs in asserted events does not really detect a contrast between adjectives and verbs but reveals instead inherent properties of aspect in non-active versus active verb roots. In sections 6.5 and 6.6, we will discuss how grades and non-active and active events interact in dependent modificational clauses. Specifically in section 6.6, we will see that Oklahoma Seminole and Creek differ with respect to the occurrence of the 0 grade and the [ii] suffix with active events in dependent modificational clauses.

6.3 The Beginnings of Complexity: Compounding, Statives, and Assertions

In Chapter 3, we treated in detail processes of
nominalization and realized that verbs and nouns share much morphology. It could be argued that the process by which we derive nouns from verbs is the true beginning of complexity since in a sentence with a derived nominal and a verb, we actually have two verb roots. But it will be argued instead that the actual beginnings of complexity are at the border where we move from having one proposition to two propositions in a sentence, though one of the propositions may be nominalized, or backgrounded, that is, lack the \{s\} assertive morpheme, which is the sign of an asserted proposition. The best place to begin this discussion is with compound nominals in which the second constituent is a non-active verb. Some of the following compounds in the (a)-sentences along with all the formal signs of compounding were discussed in section 3.12 of Chapter 3:

(4)a. isti-caati-n  paal-ay-an’k-s
    person-red Ø g.-N hire f.t.g.-1sI-pII-dec
    'I hired an Indian'

b. isti  caat-ii-n  paal-ay-an’k-s
    person-red Ø g.-ii-N hire f.t.g.-1sI-pII-dec
    'I hired a person who is red'

c.?ma  isti  caat-ii-s  paal-ay-an’k-s
    that person-red Ø g.-ii-dec hire f.t.g.-1sI-pII-dec
    'That person is red. I hired him'

(5)a. yoopoo-lowaaki-n  hi=h=c-e-s
    nose-limber Ø g.-N see=h g.-1sI-dec
    'I saw an elephant'

b. yoopoo  lowaak-ii-n  hi=h=c-e-s
    nose  limber Ø g.-ii-N see=h g.-1sI-dec
    'I saw a nose that is limber'
c. yoopoo lowaak-ii-s
    hi=h=c-e-s
    nose limber Ø g.-dec see=h g.-lsI-dec
    'The nose is limber. I saw it'

(6)a. nok-capki-n ooc-e-s
    neck-long Ø g.-N have l.g.-lsI-dec
    'I have a giraffe'

b. nokwa capk-ii-n ooc-e-s
    neck long Ø g.-ii-N have l.g.-lsI-dec
    'I have a long neck'

c. nokwa capk-ii-s ooc-e-s
    neck long Ø g.-ii-dec have l.g.-lsI-dec
    'The neck is long. I have it'

In the (a)-sentences of (4)-(6), each of the objects
inflected with [n] is a compound created from the
suffixation of a non-active verb in the Ø grade and with no
stative [ii] suffix to a simple nominal. Note that each of
these compound nominals is glossed in English as a lexical
item with no modification. An [isti-caati] is not a 'red
person' but an 'Indian', a [yoopoo-lowaaki] is not a
'limber nose' but an 'elephant', and a [nok-capki] is not a
'long neck' but a 'giraffe'. Each of these compounds is,
in other words, a lexeme in Creek. The sum of the semantic
parts does not equal the whole. Even though the order of
the elements (simple noun + stative verb) mirrors the word
order of Creek propositions (participant + event), there is
a very tight semantic bonding between the constituents such
that the compound is interpreted as a single nominal rather
than a nominal plus its modification. This tight bonding
is also formally reflected in the occurrence of the Ø grade
with the non-occurrence of the [ii] stative suffix.
Remember from the discussion of (1a) that it is ungrammatical in asserted events for the Ø grade to occur with non-active events without the [ii] stative morpheme.

In the (b)-sentences of (4-6), each of the objects inflected with [n] is a noun phrase created from the suffixation of the same non-active verbs with the Ø grade as in the (a)-sentences but with the [ii] stative suffix. Note that each of the nominals is glossed in English as a nominal plus modification. In these constructions, the first simple nominal actually does refer and the second non-active verb suffixed with [ii] simply modifies the first simple nominal. An [isti caat-ii] is not necessarily an 'Indian' but a 'person who is red', a [yoopoo lowaak-ii] is not an 'elephant' but a 'limber nose', and a [nokwa capk-ii] is not a 'giraffe' but a 'long neck'. Each of these noun phrases is, in other words, a restrictive relative clause in Creek. By 'restrictive relative clause', I mean a construction in which a nominal, whether simple or not, refers to a domain, and a verb, whether active or non-active, narrows this domain to a more restricted domain, in which a particular instantiation may or may not be known by the hearer. Thus, the (b) sentences in (4)-(6) contain relative clauses that function to narrow domains, in which the particular is unknown to the hearer. In the (c)-sentences of (4)-(6), each of the propositions is grammatically independent in that each of the two verbs
is inflected with the declarative \{s\} morpheme. Each of the propositions is separately and equally asserted. The examples are marked with a question mark because they are pragmatically odd and therefore unacceptable to Creek speakers. The problem is, of course, that the objects of the second clauses are coreferential with the subjects of the first clauses because of the juxtaposition of the clauses. This coreferentiality leads to the expectation that there should be a greater degree of grammatical binding to reflect the pragmatic binding.

6.4 Non-Active Verbs and Identification

Note that each of the nominals modified by stative verbs in the (b)-sentences of (4)-(6) is glossed as unknown to the hearer, signalled in English by the indefinite article. There is a way to signal known particulars in Creek with the use of relative clauses, but this is most easily seen in question-answer pairs such as these:

\[
\begin{align*}
(7) & \text{ naaki-n } \quad \text{hoňko=h=p-á} \\
& \text{something-N steal=h g.-wh} \\
& \text{'What did he steal?'}
\end{align*}
\]

\[
\begin{align*}
(8)a. & \text{ aatami-n } \star \text{Ø an-hoňkoop-t-ooM-s} \\
& \text{car-N } \star \text{Ø 1sIII-steal f.t.g.-T-aux-dec} \\
& \text{'He stole a/the car from me'} \\
& \text{'He stole my car'}
\end{align*}
\]

\[
\begin{align*}
(8)b. & \text{ aatami mocas-ii-n } \quad \text{an-hoňkoop-t-ooM-s} \\
& \text{car } \text{new } \text{Ø g.-ii-N 1sIII-steal f.t.g.-T-aux-dec} \\
& \text{'He stole a new car from me'}
\end{align*}
\]

\[
\begin{align*}
(8)c. & \text{ aatami mocas-aa-n } \quad \text{an-hoňkoop-t-ooM-s} \\
& \text{car } \text{new } \text{Ø g.-aa-N 1sIII-steal f.t.g.-T-aux-dec} \\
& \text{'He stole my new car'}
\end{align*}
\]
(9) naïkí-n ñií-s-ikk-ánk-aa
    something-N buy f.t.g.-1sI-pII-wh
    'What did you buy?'

(10a) aatami-n *-Ø niís-ay-ánk-s
    car-N -Ø buy f.t.g.-1sI-pII-dec
    'I bought a/the car'

    b. aatami caat-ii-n niís-ay-ánk-s
        car red Ø g.-ii-N buy f.t.g.-1sI-pII-dec
        'I bought a red car'

    c. aatami caat-aa-n niís-ay-ánk-s
        car red Ø g.-aa-N buy f.t.g.-1sI-pII-dec
        'I bought the red car'

(11) isteý-n paal-ikk-ánk-aa
    who-N hire f.t.g.-2sI-pII-wh
    'Who did you hire?'

(12a) hoktii-n *-Ø paal-ay-ánk-s
    woman-N -Ø hire f.t.g.-1sI-pII-dec
    'I hired a/the woman'

    b. hoktii hopoíiín-ii-n paal-ay-ánk-s
        woman smart Ø g.-ii-N hire f.t.g.-1sI-pII-dec
        'I hired a smart woman'

    c. hoktii hopoíiín-aa-n paal-ay-ánk-s
        woman smart Ø g.-aa-N hire f.t.g.-1sI-pII-dec
        'I hired the smart woman'

Each of the questions in (7), (9), and (11) asks for the identification of a patient. Each of the answers in (8), (10), and (12) provides this identification. In the (a) responses of (8), (10), and (12), a simple nominal serves as the new patient. This newness is more specifically a label for a participant that is introduced into the discourse. This occurs most obviously when the participant serves as the answer to a question. Note that each of the nominals is suffixed with [n], a mark of an oblique new participant. This mark along with [t] and zero realization
of either of these suffixes will be discussed in detail in Chapter 7. The absence of \([n]\) is not acceptable since it would signal that the participant would be given, as a participant already mentioned in the discourse, a status that clashes with the function of a question about the identification of a participant, to introduce participants. Note that the glosses for the (a) responses indicate that these nominals with the \([n]\) suffix are ambiguously identifiable or non-identifiable by the hearer, signalled in English by \([the]\) and \([a]\) respectively. By 'identifiable', I mean that the hearer can be assumed to have the ability to pick out uniquely the participant that is either named simply or named with the use of a relative clause. 'Non-identifiable', then, refers to the hearer's assumed inability to pick out uniquely a participant. By 'new', I mean that the participant is upon mention not assumed to have been part of the discourse thus far. 'Given', then refers to participants who have been part of the discourse thus far.

There are ways to signal unambiguously identifiable participants, as in the following:

(13)a. hiiya aatami-n hoįkoop-t-ooM-s
    this car-N steal f.t.g.-T-aux-dec
    'He stole this car'

    ^

b. ma aatami-n hoįkoop-t-ooM-s
    that car-N steal f.t.g.-T-aux-dec
    'He stole that car'

As (13) shows, unambiguous identifiability with non-
modified participants is signalled by demonstratives, here [hiiya] 'this' and [ma] 'that', which also establish the participant in the physical context by deictic means. Since the simple occurrence of [n], and as we will see later [t], does not unambiguously mark identifiability, we would not expect it to mark it so in relative clauses. For relative clauses, the suffixes [ii] and [aa] are used in the (b)- and (c)-sentences of (8), (10), and (11) to mark non-identifiability and identifiability, respectively. The [ii] morpheme is the same stative morpheme that we discussed in Chapter 4. The morpheme [aa] has the same stative semantics in these sentences, but in opposition to [ii], it also signals identifiability. Since [ii] is not simply stative and [aa] not simply identifiability, I gloss them throughout this chapter as simply 'ii' and 'aa'. Note from the following that [ii] and [aa] are also used when

the new participant is the agent of the proposition:

(14) istey-t ci-naf=ey=k-aa
    who-T 2sII-hit=h g.-wh
    'Who hit you?'

(15)a. joo-t *-∅ ca-naf=ey=k-is
    Joe-T ∅ 1sII-hit=h g.-dec
    'Joe hit me'

b. isti maah-ii-t ca-naf=ey=k-is
    person tall ∅ g.-ii-T 1sII-hit=h g.-dec
    'A tall person hit me'

c. isti maah-aa-t ca-naf=ey=k-is
    person tall ∅ g.-aa-T 1sII-hit=h g.-dec
    'The tall person hit me'

Note that the only grammatical difference between the
nominals in the responses of (15) and those of (8), (10), and (12) is the presence of [ti]--opposed to [n]--to signal a new subject, here an agent. Again, [ii] signals non-identifiability and [aa] identifiability.

Because [ii] signals non-identifiability, it cannot be used on nominals to answer questions designed to elicit an identifiable particular within a domain, as in the following:

(16) ifa stoom-aa-t ic-iikk-it ooM-aa
   dog which-aa-T 2sII-bite f.t.g.-T-aux-wh
   'Which dog bit you?'

(17)a. ifa last-aa-t  ac-aakk-it ooM-s
    dog black Ø g.-aa-T 1sII-bite f.t.g.-T-aux-dec
    'The black dog bit me'

   b. ifa last-ii-t  ac-aakk-it ooM-s
    dog black Ø g.-ii-T 1sII-bite f.t.g.-T-aux-dec
    'A black dog bit me'

Because the question of (16) asks for an identifiable particular within the domain of [ifa] 'dog' and because [aa] signals identifiability, (17a) is the best response to (16). The context of (16) is that the addressee has been bitten by a dog and there are several dogs before the speaker and addressee, one perhaps black, one white, one brown. Example (17a) identifies the black dog as being the one that bit the speaker of (17a). Example (17b) is a grammatically acceptable Creek sentence, but it is an inappropriate answer for (16) because [ii] signals non-identifiability.

Using the [ii] suffix to create a new wh-word of
[stoomaa] 'which' in (16), we can create a question and therefore a context in which an [ii]-suffixed nominal is the most appropriate answer, as in the following:

(18) aatami stom-

\[\text{niis-ick-an\k-\aa}\]

\[\text{car} \quad \text{what kind of-ii-N buy f.t.g.-2sI-pII-wh}\]

'What kind of car did you buy?'

(19)a. aatami mocas-ii-n \[\text{niis-ay-an\k-s}\]

\[\text{car} \quad \text{new \(\emptyset\) g.-ii-N buy f.t.g.-1sI-pII-dec}\]

'I bought a new car'

b. aatami mocas-aa-n \[\text{niis-ay-an\k-s}\]

\[\text{car} \quad \text{new \(\emptyset\) g.-aa-N buy f.t.g.-1sI-pII-dec}\]

'I bought a new car'

[stoomaa] in (16) with [aa] means 'which', appropriate for asking wh-questions about identifiable particulars;
[stoomii] with [ii] in (18) means 'what kind of', appropriate for asking wh-questions about non-identifiable domains. Note that the relative clauses in (19a) and (19b) with [ii] and [aa] respectively are both glossed as 'a new car'. If (18) is asked in a context in which the interactants have not been discussing types of cars, then (19a) is the best answer since the [ii] signals non-identifiability. But if (18) is asked in a context in which the interactants have, say, been discussing the merits of new and old cars, then (19b) is the best answer since the [aa] signals identifiability. So we see that [aa] is appropriate not only for identifiable particulars (17a) but also for identifiable domains (19b).

Because the contexts of identifiability—non-identifiability are endless in variation, context is all-
important in determining whether a form with {aa} or {ii} is acceptable. In other words we cannot, as we have seen in (18) and (19), simply say that a nominal with {aa} or {ii} is the one and only appropriate answer to a question in which {stoomii} 'what kind of' or any other morpheme is the wh-word. For further illustration of this point, note that in (16) and (17) an {aa}-marked nominal seems the most appropriate since {stoomaa} asks 'which'. But other answers are possible given other question-answer pairs with other contexts, as in the following:

(20) yokkoofkita stoom-aa-n ci-yaac-\~a
    shirt which-aa-N 2sII-want l.g.-wh
    'Which shirt do you want?'

(21)a. yokkoofkita holaatt-ii-n ca-yaac-is
    shirt blue Ø g.-ii-N 1sII-want l.g.-dec
    'I want a blue shirt'

    b. yokkoofkita holaatt-aa-n ca-yaac-is
    shirt blue Ø g.-aa-N 1sII-want l.g.-dec
    'I want the blue shirt'

Though (20) questions with {stoomaa} 'which' just as (16) does, both (21a) with {ii} and (21b) with {aa} are appropriate answers given the right contexts. Example (21a) with {ii} is glossed as 'a blue shirt' and is appropriate if the context is that there are many shirts of various colors to choose from. With (21a), the speaker simply says that he wants 'a blue shirt'. Example (21b) with {aa} is glossed as 'the blue shirt' and is appropriate if the context is that there is one shirt of each color available. With (21b), the speaker says that he wants 'the
blue shirt'. Example (21a) names a non-identifiable particular within a given domain. Example (21b) names an identifiable particular. Example (17b) with (ii) is odd since it would imply that the speaker did not know which dog bit him, though it would be a possible answer if the speaker did not know which black dog bit him but knew only that it was a black dog. Example (21a) with (ii) is easily possible given the proper context since the speaker could leave unspecified the particular and choose to name only the domain he desires.

Though the difference between (ii) and (aa) has been most easily discussed as the difference between non-identifiable and identifiable, respectively, in this section on non-active verbs and identification, (ii) and (aa) actually have more general pragmatic functions, which we will see clearly when we consider their use in relative clauses with active events.

6.5 Grades and Non-Active Events

In the last section, we saw that non-active events take the Ø grade both when they occur with (ii) and when they occur with (aa). In this section, we will see that these dependent non-active events may occur with either the Ø grade or the lengthening grade, as in the following:

(22) naaki-n hi=h=c-ick-aa
    something-N see=h g.-2sI-wh
    'What did you see?'
(23) a. hoktii-∅ *-t hatk-ii-n / hi=h=c-e-s
    woman-∅ -T white ∅ g.-ii-N see=h g.-lsI-dec
    'I saw a white woman'

    b. hoktii-∅ *-t haatk-ii-n / hi=h=c-e-s
    woman-∅ -T white l.g.-ii-N see=h g.-lsI-dec
    'I saw a woman getting white'

    c. hoktii-∅ *-t hatk-aa-n / hi=h=c-e-s
    woman-∅ -T white ∅ g.-aa-N see=h g.-lsI-dec
    'I saw the white woman'

    d. hoktii-∅ *-t haatk-aa-n / hi=h=c-e-s
    woman-∅ -T white l.g.-aa-N see=h g.-lsI-dec
    'I saw the woman getting white'

    e. hoktii-t *-∅ haatki-n / hi=h=c-e-s
    woman-T ∅ white l.g.-N see=h g.-lsI-dec
    'I saw a/the woman getting white'

(24) a. hoktii-∅ *-t capahk-ii-n / hi=h=c-e-s
    woman-∅ -T angry ∅ g.-ii-N see=h g.-lsI-dec
    'I saw an angry woman'

    b. hoktii-∅ *-t capaahk-ii-n / hi=h=c-e-s
    woman-∅ -T angry l.g.-ii-N see=h g.-lsI-dec
    'I saw a woman getting angry'

    c. hoktii-∅ *-t capahk-aa-n / hi=h=c-e-s
    woman-∅ -T angry ∅ g.-aa-N see=h g.-lsI-dec
    'I saw the angry woman'

    d. hoktii-∅ *-t capaahk-aa-n / hi=h=c-e-s
    woman-∅ -T angry l.g.-aa-N see=h g.-lsI-dec
    'I saw the woman getting angry'

    e. hoktii-t *-∅ capaahki-n / hi=h=c-e-s
    woman-T ∅ angry l.g.-N see=h g.-lsI-dec
    'I saw a/the woman getting angry'

All of the sentences in (23) and (24) are appropriate
responses to the question in (22), but those in (a)-(d) of
each set are better than those of (e) in each set. In the
(a)-sentences, we see the familiar use of the [ii] suffix
in conjunction with the ∅ grade and a non-active verb to
provide a non-identifiable particular that is viewed as
being in a completed state. As we saw in section 6.2, it is possible to get the lengthening grade with asserted non-active events to indicate that the state is incompleteive. The (b)-sentences in (23) and (24) show the use of this lengthening grade in conjunction with the [ii] stative morpheme to signal a non-identifiable participant in an incompleteive non-active event. The examples in (c) and (d) of (23) and (24) mirror those of (a) and (b) in (23) and (24) except for the presence of the [aa] identifiable morpheme.

The sentences in (a)-(d) of (23)-(24) are more acceptable answers to the question of (22) than the (e)-sentences. We can begin to understand this by examining the clause structure of the (a)-(d) sentences in (23)-(24) as well as the dependent clauses of the (e)-sentences. In the (e)-sentences, the objects are ambiguously identifiable or non-identifiable; the (a)-sentences of (8), (10), and (12) in section 6.4 are ambiguous in the same way. None of the (a)-(d) sentences in (23)-(24) are ambiguously identifiable or non-identifiable. Note in the (a)-(d) sentences that the subject participants in neither the [ii] nor the [aa] relative clauses may take the [t] subject case suffix. This is a sign that the semantic binding of the relative clauses to the matrix clause is greater than that of the dependent clauses in the (e)-sentences to their matrix clauses. As we will see in Chapter 7, the [t] and
markers on relative clauses are not solely determined by switch-reference or case considerations. The relative clauses of the (a)-(d) sentences are more participant-like than the dependent clauses of the (e)-sentences. The nouns within the relative clause do not take {t} and {n} because the whole relative clause is viewed as a participant, as will become clearer below.

The (a)-(d) examples of (23) and (24) occur in either the ∅ grade or the lengthening grade. These two grades are the most frequently used grades in relative clauses in my data although other grades are possible with {aa} and {ii} constructions. But some of them present special semantic problems when used with non-active events. Note the following examples of each of the five Creek grades in use with a non-tensed version of the non-active verb (capahkita) 'to be angry':

(25)a. hoktii capah=ey=k-ii-t ca-naafk-it-oom-s
    woman angry=h g.-ii-T lSII-hit f.t.g.-T-aux-dec

b. hoktii capah=ey=k-aa-t ca-naafk-it-oom-s
    woman angry=h g.-aa-T lSII-hit f.t.g.-T-aux-dec
    'The woman that just got mad hit me'

(26)a. hoktii capahk-ii-t ca-naafk-it-oom-s
    woman angry ∅ g.-ii-T lSII-hit f.t.g.-T-aux-dec
    'An angry woman hit me'

b. hoktii capahk-aa-t ca-naafk-it-oom-s
    woman angry ∅ g.-aa-T lSII-hit f.t.g.-T-aux-dec
    'The angry woman hit me'

(27)a. hoktii capahk-ii-t ca-naafk-it-oom-s
    woman angry l.g.-ii-T lSII-hit f.t.g.-T-aux-dec
    'A woman who was getting mad hit me'
b. hok-tii capahk-aa-t ca-naafk-it-oom-s
   woman angry l.g.-aa-T 1sII-hit f.t.g.-T-aux-dec
   'The woman who was getting mad hit me'

(28)a. *hok-tii capahk-ii-t ca-naafk-it-oom-s
    woman angry f.t.g.-ii-T 1sII-hit f.t.g.-T-aux-dec
    v

b. hok-tii capahk-aa-t ca-naafk-it-oom-s
    woman angry f.t.g.-aa-T 1sII-hit f.t.g.-T-aux-dec
    'The woman that got angry hit me'

(29)a. hok-tii capahk-ii-t ca-naafk-it-oom-s
    woman angry r.t.g.-ii-T 1sII-hit f.t.g.-T-aux-dec
    v

b. hok-tii capahk-aa-t ca-naafk-it-oom-s
    woman angry r.t.g.-aa-T 1sII-hit f.t.g.-T-aux-dec
    'The woman that was really mad hit me'

The examples of relative clauses in (25) are derived with
the H grade. Note that (25a), with [ii], is not accepted
while (25b), with [aa], is. As we saw in Chapter 4, the H
grade marks immediate aspect. For now we might assume that
(25a) is unacceptable because the H grade marks immediate
aspect and this contradicts the semantics of non-
identifiable in that if the event of the dependent clause
has just occurred it is unlikely that the hearer would not
know of the event and therefore know and be able to
identify the participant that the relative clause modifies.
Conversely this is why (25b) is acceptable with the H grade
and the [aa] identifiable morpheme in combination. If the
event has just occurred, the hearer can be presumed to know
of it and hence be able to identify the participant. In
(26), both the (a)- and the (b)-examples are acceptable.
The (a)-sentence contains the ø grade in combination with
the [ii] morpheme. This is the familiar combination which
we have already seen in (23a) and (24a) and which produces a non-identifiable participant viewed as being in a state that has no historical inception. The (26b) sentence contains the Ø grade in combination with the {aa} morpheme. And this also is familiar from (23c) and (24c) in which the same combination produces an identifiable participant that is viewed as being in a state that has no historical inception. The forms in (27), familiar from (23b), (23d), (24b), and (24d), produce a non-identifiable participant in (a) and an identifiable participant in (b), which are viewed as engaged in the on-going incompleteive achievement of a state. Note that (28a), just like (25a), is ungrammatical. Example (28a), like (25a), attempts to combine the semantics of non-identifiability with an aspect that signals the historical completion of the state of the event. The falling tone grade in (28a) simply signals achievement of the state unlike the immediate aspect semantics of the H grade in (25a). Both are unacceptable with {ii}-marked non-active events. Thus, it is simply that non-identifiability and completive aspect (immediate or not) are unacceptable in combination with non-active events. The achievement of an event, which the completive aspects signal, cannot serve as the basis for the modification of a non-identifiable participant. As we see from both (25b) and (28b), identifiability and completive aspect are acceptable in combination with non-active
events. If both the speaker and the hearer have witnessed or know of the achievement of the non-active event, then it is acceptable to use this knowledge in identifying a participant. The forms in (29) produce a non-identifiable participant in (a) and an identifiable participant in (b) which are viewed as engaged in the intensive achievement of a state.

6.6 Active Verbs and Modification

Thus far, we have seen only non-active verb roots in this chapter being used for modification. The following examples will begin our discussion of the use of active verbs as a means of modification:

(30) istey-t ci-naf=ey=k-aa
  who-T 2sII-hit=h g.-wh
  'Who hit you?'

(31)a. cipanii liitk-aa-t ca-naf=ey=k-s
    boy  run l.g.-aa-T 1sII-hit=h g.-dec
    'The boy who was running hit me'

b. cipanii yakaap-aa-t ca-naf=ey=k-s
    boy  walk l.g.-aa-T 1sII-hit=h g.-dec
    'The boy who was walking hit me'

c. cipanii oponaay-aa-t ca-naf=ey=k-s
    boy  talk l.g.-aa-T 1sII-hit=h g.-dec
    'The boy who was talking hit me'

d. cipanii homp-aa-t ca-naf=ey=k-s
    boy  eat l.g.-aa-T 1sII-hit=h g.-dec
    'The boy who was eating hit me'

e. cipanii nooc-aa-t ca-naf=ey=k-s
    boy  sleep l.g.-aa-T 1sII-hit=h g.-dec
    'The boy who was sleeping hit me'

The sentences in (31) are all acceptable responses to the
question of (30). Note that, just as with non-active verb roots used with the (aa) identifiable morpheme, the nominal suffix [t] in (31) seems to reflect the correlation of agent/executor case with [t]. If the nominal that is modified serves as an oblique participant in the matrix clause, then the modificational dependent verb is suffixed with [n], as in the following examples:

(33)a. cipanii liitk-aa-n naf=ey=k-e-s
    boy run l.g.-aa-N hit=h g.-1sI-dec
    'I hit the boy who was running'

(33)b. cipanii yakaap-aa-n naf=ey=k-e-s
    boy walk l.g.-aa-N hit=h g.-1sI-dec
    'I hit the boy who was walking'

(33)c. cipanii oponaay-aa-n naf=ey=k-e-s
    boy talk l.g.-aa-N hit=h g.-1sI-dec
    'I hit the boy who was talking'

(33)d. cipanii homp-aa-n naf=ey=k-e-s
    boy eat l.g.-aa-N hit=h g.-1sI-dec
    'I hit the boy who was eating'

(33)e. cipanii nooc-aa-n naf=ey=k-e-s
    boy sleep l.g.-aa-N hit=h g.-1sI-dec
    'I hit the boy who was sleeping'

The only difference between the examples in (33) and those of (31) is that in the latter the modificational structures serve as the patients of the matrix clause and hence occur with the [n] oblique suffix. In each of the examples of relative clauses in this chapter, it is not clear whether [t] and [n] mark case or switch reference. This complicated issue is left unsettled here since it will be
discussed in Chapter 7 and since this chapter is primarily concerned with the semantics of [ii] and [aa].

As with all of the examples of modificational structures involving non-tensed non-active verb roots, the presence of the [aa] identifiable morpheme picks out an identifiable participant when it is used with a non-tensed active verb root as well. As the following examples show, it is also possible to use the [ii] morpheme with active verb roots in modificational structures to signal a non-identifiable participant.

(34)a. cipanii liiitk-ii-t \(\wedge\) ca-naf=ey=k-s
    boy run l.g.-ii-T 1sII-hit=h g.-dec
    'A boy who was running hit me'

b. cipanii yakaap-ii-t \(\wedge\) ca-naf=ey=k-s
    boy walk l.g.-ii-T 1sII-hit=h g.-dec
    'A boy who was walking hit me'

c. cipanii oponaay-ii-t \(\wedge\) ca-naf=ey=k-s
    boy talk l.g.-ii-T 1sII-hit=h g.-dec
    'A boy who was talking hit me'

d. cipanii homp-ii-t \(\wedge\) ca-naf=ey=k-s
    boy eat l.g.-ii-T 1sII-hit=h g.-dec
    'A boy who was eating hit me'

e. cipanii nooc-ii-t \(\wedge\) ca-naf=ey=k-s
    boy sleep l.g.-ii-T 1sII-hit=h g.-dec
    'A boy who was going to sleep hit me'

(35)a. cipanii liiitk-ii-n \(\wedge\) naf=ey=k-e-s
    boy run l.g.-ii-N hit=h g.-1sI-dec
    'I hit a boy who was running'

b. cipanii yakaap-ii-n \(\wedge\) naf=ey=k-e-s
    boy walk l.g.-ii-N hit=h g.-1sI-dec
    'I hit a boy who was walking'

c. cipanii oponaay-ii-n \(\wedge\) naf=ey=k-e-s
    boy talk l.g.-ii-N hit=h g.-1sI-dec
    'I hit a boy who was talking'
The only difference between examples (31) and (33), and (34) and (35), respectively, is that the latter have the [ii] stative morpheme indicating that the modified participant is non-identifiable.

6.7 Grades and Active Events

As we saw in section 6.5, the interactive semantics of non-active events, [ii], [aa], and grades affects the grammaticality of sentences. In this section, we will see that the semantics of active events adds another wrinkle of complexity to this pattern. Note the following examples of dependent active events that are non-tensed with [ii] and [aa]:

(36) a. *hoktii pa=h=p-ii-t ca-naafk-it-ooM-s
   woman eat=h g.-ii-T lsII-hit f.t.g.-T-aux-dec
   'A woman that ate hit me'

(37) a. hoktii pap-ii-t ca-naafk-it-ooM-s
   woman eat Ø g.-ii-T lsII-hit f.t.g.-T-aux-dec
   'A woman that had eaten hit me'

b. *hoktii pap-aa-t ca-naafk-it-ooM-s
   woman eat Ø g.-aa-T lsII-hit f.t.g.-T-aux-dec

(38) a. hoktii paap-ii-t ca-naafk-it-ooM-s
   woman eat l.g.-ii-T lsII-hit f.t.g.-T-aux-dec
   'A woman who was eating hit me'
b. hoktii paap-aa-t ca-naafk-it-oom-s
   woman eat l.g.-aa-T 1sII-hit f.t.g.-T-aux-dec
   'The woman that was eating hit me'

(39)a. *hoktii paap-ii-t ca-naafk-it-oom-s
   woman eat f.t.g.-ii-T 1sII-hit f.t.g.-T-aux-dec
   'The woman that ate hit me'

b. hoktii paap-aa-t ca-naafk-it-oom-s
   woman eat f.t.g.-aa-T 1sII-hit f.t.g.-T-aux-dec
   'The woman that kept eating hit me'

(40)a. *hoktii paap-ii-t ca-naafk-it-oom-s
   woman eat r.t.g.-ii-T 1sII-hit f.t.g.-T-aux-dec
   'A woman that kept eating hit me'

b. hoktii paap-aa-t ca-naafk-it-oom-s
   woman eat r.t.g.-aa-T 1sII-hit f.t.g.-T-aux-dec
   'The woman that kept eating hit me'

Note that (36a) with the H grade and {ii} in combination with an active event is ungrammatical. This is just as it is in (25a) in section 6.5 with non-active events. And note that (39a), like (28a) in section 6.5, is unacceptable with the falling tone grade in combination with the {ii} morpheme. Thus, if the participant is modified by a non-tensed non-active or active event, and is judged non-identifiable by the hearer, then a grade (either the H grade or the falling tone grade) that signals historical achievement, is not acceptable. Note that (37b), unlike (26b) in section 6.5, is unacceptable. If the participant is judged identifiable by the hearer then the Ø grade in combination with an active event is not acceptable. But (37a) shows that in Creek, unlike in Oklahoma Seminole (Sakaguchi 1987.138-39), active verb roots may appear in the Ø grade before {ii} in dependent clauses. Remember from section 6.2 that asserted active verbs may not occur
in the Ø grade before [ii]. In that section, this restriction was attributed to the inherent aspect of active roots, which demands that if they are asserted they have a historical inception, which the Ø grade denies. It appears that in dependent clauses in Creek one may get the Ø grade in combination with active verb roots and [ii] since the [ii] morpheme backgrounds the dependent event such that the participant it modifies is non-identifiable. The dependent event, then, is very close to being a nominal itself with no inherent aspect. Thus, in (37a) a woman is viewed as simply being in the state of having eaten. The Ø grade is unacceptable with active verb roots and the [aa] suffix because the [aa] suffix foregrounds the dependent event such that its aspect is important since the event serves to identify uniquely a participant based on the occurrence of that event. The remaining examples of (36)-(40) have semantics that mirror those of (25)-(29) in section 6.5 and will not be discussed further.

6.8 Participant Heads of Relative Clauses

All of the examples presented thus far involve modificational structures containing intransitive non-active or intransitive active verb roots, and since there is only one noun capable of serving as the head of the dependent clause, there is no possibility of ambiguity as to which noun of the dependent clause is being modified.
If, however, there is a possibility of modifying either of two participants in the dependent clause, even if one of them occurs in zero realization because it is given, there could be ambiguity about which role the modified noun fills in the dependent clause, as in the following:

(41)a. ma cipanii naafk-ick-aa-n naf=ey=k-e-s
    *"I hit the boy you were hitting"
    '*I hit the boy who was hitting you'

(41)b. ma cipanii ci-naafk-aa-n naf=ey=k-e-s
    that boy 2sII-hit l.g.-aa-N hit=h g.-lsI-dec
    *'I hit the boy who was hitting you'
    '*'I hit the boy you were hitting' 

(41)c. ma cipanii naafk-aa-n naf=ey=k-e-s
    that boy hit l.g.-aa-N hit=h g.-lsI-dec
    *'I hit the boy who was hitting him'
    '*I hit the boy who he was hitting'

Since first- and second-person pronominal agreement is overtly marked on the verb reflecting role, there is no possible ambiguity when agreement is present. And since third-person plural Type I and Type II marking is unmarked except for ambiguous alteration of the verb, then third-person plural works the same as third-person singular with respect to the ambiguity reflected in (41c). Note, then, that the role which the modified {ma cipanii} serves in the dependent clause of (41a) is unambiguous, since controlling Type I agreement occurs for second-person singular. The same is true of {ma cipanii} in (41b) since non-controlling Type II agreement occurs for second-person singular. However, in (41c) {ma cipanii} may either serve in the agent or patient role of the dependent clause since Type I
and Type II marking for third-person participants is either unmarked or ambiguous with respect to role.

In asserted, independent clauses, word order disambiguates the roles of third-person participants, as in the following:

(42)a. hoktii cipanii naafkaŋk-s
    woman boy hit f.t.g.-pII-dec
    'The woman hit the boy'
    *'The boy hit the woman'

b. cipanii hoktii naafkaŋk-s
    boy woman hit f.t.g.-pII-dec
    'The boy hit the woman'
    *'The woman hit the boy'

Since Creek is an SOV language, when two full nouns occur before a transitive verb, the first will be interpreted as the subject and the second as the object, as in (42). As the second glosses show, it is unacceptable to interpret the first NP as the object and the second as the subject.

This pattern is not so clear-cut in dependent modificational clauses, as the following data show:

(43)a. cibanii hoktii naafkaŋ-aa-n naf=ey=k-e-s
    boy woman hit l.g.-aa-N hit=h g.-lsI-dec
    'I hit the boy who was hitting the woman'
    'I hit the boy who the woman was hitting'

b. hoktii cibanii naafkaŋ-aa-n naf=ey=k-e-s
    woman boy hit l.g.-aa-N hit=h g.-lsI-dec
    'I hit the woman who was hitting the boy'
    'I hit the woman who the boy was hitting'

The importance of the examples in (43) is that they show that the head of the relative clause occurs in initial position in the dependent clause. Note also that role is no longer defined by position in the dependent clause.
Either the first- or second-position NP may be interpreted as either the subject (agent) or object (patient) in both (43a) and (43b). This is further evidence, in addition to the non-occurrence of [t] or [n] case marking within these non-tensed relative clauses, that they are viewed as nominalized forms in which the whole relative clause along with its head is a participant.

Note from the following that the same patterns obtain when one of the participants in the dependent clause is a Type III participant:

(44)a. cipanii hoktii im-atootk-is
    boy    woman 3III-work l.g.-dec
    'The boy is working for the woman'
    *'The woman is working for the boy'

    b. hoktii cipanii im-atootk-is
       woman boy 3III-work l.g.-dec
       'The woman is working for the boy'
       *'The boy is working for the woman'

As (44) shows, again in independent clauses, SOV structure determines the assignment of relative roles. The following reflects the effect of person marking on ambiguity when there is only one full NP in the dependent clause:

(45)a. hoktii im-atootk-ick-aa-n      naf=ey=k-e-s
    woman 3III-work l.g.-2sI-aa-N hit=h g.-1sI-dec
    'I hit the woman that you're working for'
    *'I hit the woman that's working for you'

    b. cipanii cin-atootk-aa-n      naf=ey=k-e-s
       boy 2sIII-work l.g.-aa-N hit=h g.-1s-dec
       'I hit the boy who's working for you'
       *'I hit the boy that you're working for'
c. hoktii im-atootk-aa-n naf=ey=k-e-s
   woman 3III-work l.g.-aa-N hit=h g.-1sII-dec
   'I hit the woman who is working for him'
   'I hit the woman who he is working for'

The acceptability of the sentences in (45) mirrors that of
the sentences in (41) for the same reasons. Agent and
benefactee are marked unambiguously for person in (45a) and
(45b), so it is easy to match the third-person full nouns
in the dependent clauses with their proper role. And in
(45c), both markings on the verb are for third-person
singular participants so there is ambiguity in assigning
role to the full noun of the dependent clause.

The following data show the interaction of ambiguous
role assignment within the dependent clause when there are
two full nouns and one of them fills the role of
benefactee:

(46)a. hoktii cipanii im-atootk-aa-t ca-naf=ey=k-s
   woman boy 3III-work l.g.-aa-T 1sII-hit=h g.-dec
   'The woman that the boy is working for hit me'
   'The woman that is working for the boy hit me'

b. cipanii hoktii im-atootk-aa-t ca-naf=ey=k-s
   boy woman 3III-work l.g.-aa-T 1sII-hit=h g.-dec
   'The boy that the woman is working for hit me'
   'The boy that is working for the woman hit me'

The glosses for the sentences in (46) mirror those of the
sentences of (43) for the same reasons. The head of the
relative clause again occupies the first position. And the
roles that each noun fills in the relative clauses are
ambiguous since both are third-persons.

The following data relate to relativization on
instruments of the dependent clause:
(47)a. aatami ifa is-naf=m ey=k-e-s
car dog inst-hit=h g.-1sI-dec
'I hit the dog with the car'

b. ifa aatami is-naf=m ey=k-e-s
dog car inst-hit=h g.-1sI-dec
'I hit the car with a dog'

(48)a. aatami ifa is-naafk-ick-aa-n
   wey=m ey=y-e-s
car dog inst-hit f.t.g.-2sI-aa-N sell=h g.-1sI-dec
'I sold the car that you hit the dog with'

b. ifa aatami is-naafk-ick-aa-n
   wey=m ey=y-e-s
dog car inst-hit f.t.g.-2sI-aa-N sell=h g.-1sI-dec
'I sold the dog that you hit with the car'

The examples in (47) indicate that the instrument occurs in order before the object of the sentence in an independent clause. Thus, even (47b) with the semantically anomalous instrument 'dog' is read as the gloss indicates since {ifa} occurs before {aatami}. In (48), the head of the dependent clause varies according to which NP occurs first in the dependent clause. All of the relative clauses in this section occur with the identifiable {aa} suffix. They can all also occur with the non-identifiable {ii} suffix with no effect on the patterns discussed here.

6.9 Postposition of Relative Clauses

Thus far, the only variation in SOV Creek word order that we have seen in this chapter is the variation by which the head of the relative clause occurs as the first noun in the dependent clause regardless of its role. See again the examples in (43), (46), and (48). In all relative clauses thus far presented, the dependent clause with its
participants occurs before the matrix verb, but postposing of all relative clause material except the head is possible, as in the following:

(49)a. cipanii hoktii naafk-aa-n
   boy    woman    hit l.g.–aa-N
   \ /  
  naafk-it-o=h=M-e-s
  hit f.t.g.–T-aux=h g.–lsI-dec
 'I hit the boy who is hitting the woman'
 'I hit the boy who the woman is hitting'

b. cipanii naafk-it-o=h=M-e-s
   boy    hit f.t.g.–T-aux=h g.–lsI-dec

hoktii naafk-aa-n
woman hit l.g.–aa-N
'I hit the boy who is hitting the woman'
'*I hit the boy who the woman is hitting'

(50)a. hoktii cipanii im-atootk-aa-n
   woman  boy  3III-work l.g.–aa-N
   \ /  
  naafk-it-o=h=M-e-s
  hit f.t.g.–T-aux=h g.–lsI-dec
 'I hit the woman who is working for the boy'
 'I hit the woman who the boy is working for'

b. hoktii naafk-it-o=h=M-e-s
   woman hit f.t.g.–T-aux=h g.–lsI-dec

cipanii im-atootk-aa-n
   boy  3III-work l.g.–aa-N
 'I hit the woman who is working for the boy'
'*I hit the woman who the boy is working for'

(51)a. cipanii nooc-aa-n  naafk-it-o=h=M-e-s
   boy    sleep l.g.–aa-N hit f.t.g.–T-aux=h g.–lsI-dec
 'I hit the boy who is sleeping'

b. cipanii naafk-it-o=h=M-e-s
   boy    hit f.t.g.–T-aux=h g.–lsI-dec nooc-aa-n sleep l.g.–aa-N
 'I hit the boy who is sleeping'

Each of the first glosses for the (a)- and (b)-examples in (49)-(50) is the same, though in the (a)-sentences the entire relative clause precedes the matrix verb, while in
the (b)-sentences all but the head follows the matrix verb. There are no alternate glosses for example (51a). The alternate glosses for the a-sentences in (49)-(50) are ambiguous for role assignment in the dependent clause just as examples (43) and (46) are. As the (b)-sentences in (49)-(50) show, when all but the head of the relative clause follows the matrix verb, the head can be interpreted as only the subject of the dependent verb. Each of the examples in (49)-(51) answers the question of (32) 'Who did you hit?'. The (b)-sentences have an additional semantic component of 'reason'. Thus, in (49b) the relative clause identifies the boy who was hitting the woman as the person that the speaker hit, but the speaker is also saying that he hit the boy because the boy was hitting the woman. Example (50b) identifies the woman who is working for the boy as the person that the speaker hit, but it also says that she was hit because she works for the boy. And in (51b), the boy who is sleeping is identified as the person the speaker hit, but it also says that he was hit because he was sleeping. Relative clauses with [ii] cannot be postponed.

The postposed relatives in the (b) examples of (49)-(51) are all objects of the matrix verb. The following shows that it is unacceptable to postpone material for relative clauses whose head serves as the subject of the matrix verb:
(52)a. *cipanii ca-naafk-it-o=h=M-s
    boy    1sII-hit f.t.g.-T-aux=h g.-dec

    hoktii naafk-aa-t
    woman hit l.g.-aa-T

    b.*hoktii ca-naafk-it-o=h=M-s
    woman 1sII-hit f.t.g.-T-aux=h g.-dec

    cipanii im-atootk-aa-t
    boy    1III-work l.g.-aa-T

    c.*cipaani ca-naafk-it-o=h=M-s
    boy    1sII-hit f.t.g.-T-aux=h g.-dec

    nooc-aa-t
    sleep l.g.-aa-T

The background of the dependent proposition that is
evident in the (b)-examples of (49)-(51) creating the
'reason' semantics discussed is not possible if the
identified participant is the subject of the matrix clause.

6.10 Tensed Relative Clauses

Although we have seen grades in their interaction with
relative clauses, we have seen thus far no specific tense
morphemes used in the verbs of the relative clauses.
Nathan (1977.69-70) states that in Florida Seminole if the
modifying verb receives the [ank] 'past II' or [eys] 'past
I' morpheme, the relative clause is formed by the [ii]
'participial' suffix. The following indicates that this is
the case in Creek for the [ank] 'past II' suffix. We will
discuss other tenses later:
(53)a. aatami okkoos-ay-ANK-ii-n
    car wash f.t.g.-lsI-pII-ii-N
    ^
    an-ho\\(k)oop-t-ooM-s
    lsII-steal f.t.g.-T-aux-dec
    'He stole the car that I washed'

b. cipanii liitk-ANK-ii-n
    boy run l.g.-pII-ii-N
    ^
    naafk-it-o=h=M-e-s
    hit f.t.g.-T-aux=h g.-lsI-dec
    'I hit the boy that ran yesterday'

c. hoktii capaahk-ANK-ii-n
    woman angry l.g.-pII-ii-N
    ^
    naafk-it-o=h=M-e-s
    hit f.t.g.-T-aux=h g.-lsI-dec
    'I hit the woman that got angry'

(54)a. cipanii takleyk-campi homp-ANK-ii-t
    boy bread-sweet eat l.g.-pII-ii-T
    ^
    ca-naafk-it-ooM-s
    lsII-hit f.t.g.-T-aux-dec
    'The boy who was eating cake hit me'

b. ma isti oponaay-ANK-ii-t
    that person talk l.g.-pII-ii-T
    ^
    ca-naafk-it-ooM-s
    lsII-hit f.t.g.-T-aux-dec
    'The person who was talking hit me'

c. hoktii capaahk-ANK-ii-t ca-naafk-it-ooM-s
    woman angry l.g.-pII-ii-T lsII-hit f.t.g.-T-aux-dec
    'The woman that got angry hit me'

In the (a)-, (b)-, and (c)-sentences in (53)-(54), we see, respectively, transitive active, intransitive active, and non-active verbs used in relative clauses. These verbs are inflected for 'past II' tense and occur with the [ii] morpheme. In (53), the participants identified by the relative clause serve as patients of the matrix clause; in (54), they serve as agents. In each of these sets of
sentences, it is assumed that the hearer can uniquely identify the person named by the relative clause. In other words, the hearer knows which car was washed, which boy ran, which woman got angry, which boy was eating cake, which boy was talking.

Given the fact that, as we have seen throughout this chapter, [ii] marks non-identifiable and [aa] identifiable participants with non-active as well as active verbs when they are not specifically marked for tense, it is surprising that with tensed verbs [ii] marks identifiable participants. It is possible to mark tensed verbs of relative clauses with [aa], as in the following:

(55)a. aatami okkoos-ay-anįg-aa-n
   car    wash f.t.g.-1sI-pII-aa-N
   an-hoįkoop-t-oon-m-s
   1sIII-steal f.t.g.-T-aux-dec
   'He stole a car that I washed'

b. cipanií liitk-ąŋg-aa-n
   boy    run l.g.-pII-aa-N
   naaqk-it=hi=h=m-e-s
   hit f.t.g.-T-aux=h g.-1sI-dec
   'I hit a boy that ran'

c. hoktii capaaųq-ąŋg-aa-n
   woman angry l.g.-pII-aa-N see=h g.-1sI-dec
   'I saw a woman that got angry'

(56)a. ifa niis-ay-ąŋg-aa-t
   dog buy f.t.g.-1sI-pII-aa-T
   ac-ąkk-it-oon-m-s
   1sII-bite f.t.g.-T-aux-dec
   'A dog that I bought bit me'
b. cipanii liitk-ãŋk-aa-t
   boy run l.g.-pII-aa-T
   ^
   ca-naafk-it-ooM-s
   1sII-hit f.t.g.-T-aux-dec
   'A boy that ran hit me'

c. hoktii capaahk-ãŋk-aa-t
   woman angry l.g.-pII-aa-T
   ^
   ca-naafk-it-ooM-s
   1sII-hit f.t.g.-T-aux-dec
   'A woman that got angry hit me'

In (53) and (54) with the {ii} morpheme, the hearer knows about the event named in the relative clause. In (55) and (56), with the {aa} morpheme, the hearer does not know about the car being washed, the woman getting angry, the boy having run, or the dog being bought. Again, this counters our expectation since with non-tensed verbs in relative clauses, the {aa} suffix indicates that the participant identified is uniquely identifiable. Since the hearer is not assumed to know about the events of tensed dependent clauses, it is as if in (55) and (56) the events of the relative clauses are being asserted, though the dependent clauses lack the {s} assertive morpheme.

There are other ways to assert the events of the sentences of (55) and (56), as in the following, though we will take only those of (55) for examples:

(57)a. aatami okkoos-ay-ãŋk-in
     car wash f.t.g.-1sI-pII-N
     ^
     an-holkoop-t-ooM-s
     1sIII-steal f.t.g.-T-aux-dec
     'He stole the car that I washed'
     'I washed the car, and he stole it'
b. hoktii capaahk-änk-in  hi=h=c-e-s
woman angry f.t.g.-pII-N see=h g.-1sI-dec
'I saw the woman that got angry'
'The woman got angry, and I saw her'

c. cipaani liitk-änk-in  naaflk-it-o=h=M-e-s
boy run l.g.-pII-N hit f.t.g.-T-aux=h g.-1sI-dec
'I hit the boy that ran'
'The boy ran, and I hit him'

The examples in (57) may all be glossed in English either as sentences with relative clauses or as coordinate sentences. In either case, the hearer is assumed not to know about the washing of the car, the woman getting angry, or the boy running. Only the examples of (53) and (55) may felicitously answer the following questions:

(58)a. naa̱ki-n  cin-hoʔkoop-ʔak
something-N 2sIII-steal f.t.g.-wh
'What did he steal from you?'

b. istey-n  hi=h=c-ick-ʔak
who-N  see=h g.-2sI-wh
'Who did you see?'

c. istey-n  naaflk-ick-ʔak
who-N  hit f.t.g.-2sI-wh
'Who did you hit?'

The examples in (57) are accepted as answers to the questions in (58), but speakers prefer the answers of (53) and (55), depending on whether the hearer knows about the event of the dependent clause (then [53]) or does not know about it (then [55]). It appears then that what is consistent in the use of [ii] and [aa] in relative clauses with tensed verbs is that they function to identify participants in relative clauses.

It is clear from the examples of (53), (54), (55), and
(56) that we can no longer say that [aa] serves to present identifiable participants and [ii] the non-identifiable.
Or, rather, they do this with non-tensed relative clauses, but they also do something else with tensed relative clauses. Hence, if there is a unified semantic content to [ii] and [aa], respectively, it is not identifiable and non-identifiable. Let us take the following four examples as contrastive, though what is said here applies to all examples in this chapter:

(59)a. hoktii capaahk-ii-n hi=h=c-e-s
    woman angry f.t.g.-ii-N see=h g.-1sI-dec
    'I saw a woman that got angry'

b. hoktii capaahk-aa-n hi=h=c-e-s
    woman angry f.t.g.-aa-N see=h g.-1sI-dec
    'I saw the woman that got angry'

(60)a. hoktii capaahk-aŋk-ii-n hi=h=c-e-s
    woman angry f.t.g.-pII-ii-N see=h g.-1sI-dec
    'I saw the woman who got angry'

b. hoktii capaahk-aŋk-aa-n hi=h=c-e-s
    woman angry f.t.g.-pII-aa-N see=h g.-1sI-dec
    'I saw a woman who got angry'

In (59a), with [ii], the non-tensed relative clause names a non-identifiable participant. In (59b), with [aa], the non-tensed relative clause names an identifiable participant. In (60a), with [ii], the tensed relative clause names an identifiable participant by virtue of the fact that the hearer knows about the woman getting angry. In (60b), with [aa], the tensed relative clause names a non-identifiable participant by virtue of the fact that the hearer does not know about the woman getting angry.
As we have seen thus far, (ii) in non-tensed relative clauses helps name a non-identifiable participant, while with tensed relative clauses it helps name an identifiable participant by virtue of the fact that the hearer knows about the event of the relative clause. The (aa) morpheme, on the other hand, in non-tensed relative clauses names an identifiable participant, while with tensed relative clauses it helps name a non-identifiable participant by virtue of the fact that the hearer does not know about the event of the relative clause. It is contented here that the addition of a tense morpheme to the event of the relative clause makes that clause more event-like than participant-like, while the absence of this tense morphology makes the clause more participant-like. The following table sets forth the semantics of (ii) and (aa) with respect to both non-tensed and tensed relative clauses:

<table>
<thead>
<tr>
<th></th>
<th>(ii)</th>
<th>(aa)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Tensed</td>
<td>Non-Identifiable</td>
<td>Identifiable</td>
</tr>
<tr>
<td>Tensed</td>
<td>Mention</td>
<td>Assertion</td>
</tr>
</tbody>
</table>

Table 1

'Non-identifiable' and 'identifiable' refer to the semantics of participants and their discourse-knownness status. 'Mention' and 'assertion' refer to the semantics of events and their assertion status. The semantics of knownness will not unite the semantics of the use of (ii)
and (aa) with both non-tensed and tensed relative clauses since non-identifiable and assertion are united in
unknownness and identifiable and mention are united in
knownness; but there is a perceptible unity to both uses of
(ii) and (aa). It is that of foregrounding and
backgrounding. The (ii) morpheme is consistently
backgrounding. The use of the (ii) morpheme with non-
tensed relatives indicates that there is simply a
participant that has the qualities of the event. The
hearer is not directed to pick out a uniquely identifiable
participant with the quality of event. Thus the use of
(ii) with non-tensed relatives actually names a domain
rather than a particular. The use of the (ii) morpheme
with tensed relatives indicates that there is a unique
participant that is identifiable by means of an event that
is already known about. In these senses, the use of (ii)
with relatives is background. It either names a domain
with non-tensed relatives or mentions an event with tensed
relatives. These uses of the (ii) morpheme are consistent
with the stative use of it on asserted events, as discussed
in Chapter 4, and the stative use of it on nominals, as
discussed in Chapter 3. The nominal use of the (ii)
morpheme is a background use in the sense that the event is
not asserted. And the stative use of it on asserted events
is background in that its use merely indicates, whatever
aspect is used, that the subject of the verb is statively
involved in the event. The subject is not actually performing the event or undergoing the event. He is, at best, merely in the state of being able to perform or undergo the event. The \{aa\} morpheme is consistently foreground. The use of the \{aa\} morpheme with non-tensed relatives names not a domain but a particular that is uniquely identifiable. Its use with tensed relatives identifies a participant by asserting an event of it. As we will soon see, these are not the only realizations of the foregrounding—backgrounding semantics of \{aa\}—\{ii\}. We will see these further instantiations of the grounding semantics when we consider the use of \{ii\} and \{aa\} with constructions that do not appear to be relative clauses.

Thus far in this section, we have seen the use of only the 'past II' \{ank\} morpheme in relative clauses. The following examples show the interaction of other marks of tense with relative clauses:

\[(61)\ a. \ isti \ pa=h\-1-ay-\hat{e}ys-ii-n \ \hat{^\wedge} \ naafk-it-ooM-e-s\]
\[
\text{person hire=h g.-lsI-pI-ii-N hit f.t.g.-T-aux-lsI-dec}
\]
\[
\text{I hit the man that I just hired'}
\]

\[(62)\ b.*,isti \ pa=h\-1-ay-\hat{e}ys-aa-n \ \hat{^\wedge} \ naafk-it-ooM-e-s\]
\[
\text{person hire=h g.-lsI-pI-aa-N hit f.t.g.-T-aux-lsI-dec}
\]

\[(63)\ a.*o\hat{o}o\hat{o}opii \ paal-i-n honanwa \ paal-ay-\hat{m}at-ii-n\]
\[
\text{year ten-N man hire f.t.g.-lsI-pIII-ii-N}
\]
\[
\hat{^\wedge} \ naafk-it-ooM-e-s\]
\[
\text{hit f.t.g.-T-aux-lsI-dec}
\]
b. očučopii ^paali-n honanwa ^paal-ay-mat-aa-n
tyen-N man hire f.t.g.-IsI-pIII-aa-N
  ^naafk-it-ooM-e-s
  hit f.t.g.-T-aux-IsI-dec
'I hit the man that I hired ten years ago'

(63)a.*honanwa aatami okkos-ahaan-ii-n
man car wash Ø g.-int-ii-N
  ^paal-t-ooM-e-s
  hire-f.t.g.-T-aux-IsI-dec
b. honanwa aatami okkos-ahaan-aa-n
man car wash Ø g.-int-aa-N
  ^paal-t-ooM-e-s
  hire-f.t.g.-T-aux-IsI-dec
'I hired the man who is going to wash my car'

Each of the relative clauses in (61)-(63) serves to identify the participant that serves as the object of the matrix clause. It is consistent, as in (61a), that [ii] is used to mark a relative clause that is tensed with the recent-past marker [eys], which presents the event as having occurred the same day as the utterance. As (61b) shows, it is unacceptable to use [aa] with relatives tensed with [eys]. In (62a) on the other hand, it is shown that when the relative clause is tensed with the [imat] 'past III' marker, appropriate for time periods of months or years before the utterance, the [ii] suffix is unacceptable. Example (62b) shows that a relative clause verb tensed with [imat] takes the [aa] suffix. And in (63a), it is shown that when the relative clause verb is tensed with the intensive [ahaan] morpheme the [ii] suffix is unacceptable. Example (63b) shows that if a relative
clause verb is tensed with [ahaan] the verb takes the [aa] suffix. Though I do not show it here, the same pattern holds if the participant modified by the relative clause functions as the subject of the matrix verb.

Given the general semantics of [ii] as backgrounding and [aa] as foregrounding, the patterning evident in examples (61)-(63) is understandable. As (61) shows, with the [ēys] 'past I' morpheme, [ii] is acceptable and [aa] is unacceptable. It appears then that since the [ēys] morpheme signals that the event of the verb to which it is suffixed occurred the same day as the utterance, the hearer is assumed always to have known about the event. Thus, it cannot be asserted with the foreground [aa] suffix. As (62) indicates, when the verb of the relative clause is tensed with the [imat] 'past III' morpheme, the [ii] morpheme is unacceptable while the [aa] morpheme is acceptable. It appears then that the relative clause event to which [imat] is suffixed is so far in the past that it cannot be assumed to be known about by the hearer. Thus, it must always be asserted by the speaker with the use of the [aa] suffix. In (63), we see that if the verb of the relative clause is suffixed with the [ahaan] 'intensive' morpheme, the [ii] suffix is unacceptable. The [aa] suffix must be used. Parenthetically, it is not acceptable to use the [ātii] 'future' suffix in relative clauses. It may be that it is unacceptable since, as opposed to the
'intensive' [ahaan] suffix, it implies a greater sense of surety that the event of the verb so suffixed will occur and since a relative clause which modifies a third-person participant necessarily implies some degree of uncertainty. The [aa] suffix is used while the [ii] suffix is not used for the same reason. An event that is to occur in the future cannot be assumed as backgrounded in the sense that the hearer knows about it. The [aa] suffix is acceptable because it asserts the event that is to occur.

6.11 Non-Restrictive Relative Clauses

Thus far in this chapter, we have examined only what are usually called restrictive relative clauses in which a domain is named and either restricted to a more narrow domain or restricted to particulars. The first is achieved by the suffixation of [ii] to non-tensed relative clause verbs and by the suffixation of [aa] to tensed relative clause verbs. The second is achieved by the suffixation of [aa] to non-tensed relative clause verbs or the suffixation of [ii] to tensed relative clause verbs. The following examples, which are attempts at getting glosses in English that approximate non-restrictive relative clauses, demonstrate further semantics of [ii] and [aa], and also begin the discussion of whether the constructions that we have examined in this chapter thus far are relative-clause specific, that is, whether they serve specifically and absolutely the function of identifying participants.
(64) istey-t ci-naf=ey=k-aa
who-T 2sII-hit=h g.-wh
'Who hit you?'

(65)a. joo capahk-ii-t ca-naafk-it-o0M-s
Joe angry Ø g.-ii-T 1sII-hit f.t.g.-T-aux-dec
'Joe was mad when he hit me'

b. joo capahk-aa-t ca-naafk-it-o0M-s
Joe angry Ø g.-aa-T 1sII-hit f.t.g.-T-aux-dec
'Joe, suddenly angry, hit me'

The examples in (65) are both acceptable answers to the question of (64). Examples (65a) and (65b) come closest to the common notion of non-restrictive relative clauses in that neither serves to identify the participant asked for in (64). That participant is already uniquely identified by the proper noun 'Joe'. Actually, (65a) and (65b) could be considered restrictive relative clauses if it is assumed that there is more than one 'Joe', but I have chosen not to pursue that pragmatically odd situation in this chapter. Because in (65a) and (65b) the participant whose identification is asked for in the question of (64) is already uniquely identified by the proper noun 'Joe', the relative clause constructions are forced to serve other semantic functions. In (65a), where the background [ii] morpheme occurs, the relative clause asserts a state of 'Joe' when he hit the speaker. And in (65b), where the foreground [aa] occurs, the relative clause asserts the recognition of a state of 'Joe' just before he hit the speaker. The foregrounding semantics of the [aa] morpheme are evident in the use of the word 'suddenly' in the
English gloss.

The following demonstrate the semantics of tensed relative clauses modifying proper nouns:

\[
\begin{align*}
(66) & \quad \text{isti}y-t \, \text{ci-naafk-änk-aa} \\
& \quad \text{who-T \ 2sII-hit f\text{-}t\text{.}g\text{-}pII\text{-}wh} \\
& \quad \text{'Who hit you?'}
\end{align*}
\]

(67a) \quad \text{joo capahk-änk-ii-t} \\
\quad \text{Joe angry $\emptyset$ \text{-}pII-ii-T} \\
\quad \text{ca-naafk-it-ooM-änk-s} \\
\quad \text{isII-hit f\text{-}t\text{.}g\text{-}T-aux-pII-dec} \\
\quad \text{'Joe was mad when he hit me'}

(67b) \quad \text{joo capaahk-änk-aa-t} \\
\quad \text{Joe angry f\text{-}t\text{.}g\text{-}pII-aa-T} \\
\quad \text{ca-naafk-it-ooM-änk-s} \\
\quad \text{isII-hit f\text{-}t\text{.}g\text{-}T-aux-pII-dec} \\
\quad \text{'Joe got mad and hit me'}

(67c) \quad \text{joo capaahk-änk-it} \\
\quad \text{Joe angry f\text{-}t\text{.}g\text{-}pII-T} \\
\quad \text{ca-naafk-it-ooM-s} \\
\quad \text{isII-hit f\text{-}t\text{-}g\text{-}T-aux-dec} \\
\quad \text{'Joe got mad and hit me'}

All of the responses in (67) are acceptable responses to the question of (66), but the (a)- and (b)-sentences are the best as answers. Example (67a) mentions the event of the noun modified, as do all tensed relatives with [ii]. As with all tensed relatives suffixed with [ii], the event is assumed to be known about by the hearer. The way to assert the event of the relative clause if the hearer does not know about it is with the construction with [aa] given in (67b). Or one can do the same with (67c), but it does not answer the question of (66). The (a)- and (b)-
sentences in (67) serve to identify a participant. Example (67c) simply asserts both the event of the dependent clause and the event of the matrix clause.

Thus, when the noun modified is a proper noun, the \{aa\} and \{ii\} suffixed relative clause constructions have a non-restrictive function whereby they simply add information about the NP modified. In non-restrictive uses, the \{aa\} and \{ii\} morphemes keep their respective foreground and background semantics. With non-tensed relatives, the \{ii\} morpheme cannot name a restricted domain in use with a proper noun as it normally does with a common noun, so as we saw in (65a) it simply posits a state of the proper noun. With non-tensed relatives, the \{aa\} morpheme cannot name an identifiable particular in use with a proper noun as it normally does with a common noun since that is already done by the use of the proper noun, so as we saw in (65b) it simply foregrounds the state more than the \{ii\} morpheme does. With tensed relatives, the \{ii\} morpheme again does not identify a particular in use with a proper noun as it normally does with a common noun, but it does, as is normal, mention an event associated with the NP modified that the hearer is assumed to know about, as we saw in (67a). And with tensed relatives the \{aa\} morpheme does not identify a particular but it does assert an event associated with the NP modified, as we saw in (67b). Though the examples in (65) and (67) contain non-active
events in the dependent clauses, active events function the same with respect to foregrounding and backgrounding.

6.12 The [ii] and [aa] Constructions as Non-Relative-Clause Specific

The issue addressed in the remainder of this chapter is whether the [ii] and [aa] constructions as they occur in dependent clauses are relative-clause specific, that is whether or not they serve only to create either restrictive or non-restrictive relative clauses whereby, respectively, a common noun is modified to identify either a more restricted domain or a particular participant and a proper noun is modified to add additional information about it.

The following examples will begin the discussion:

(68)a. hostal-ii-t yikc-ii-s
   blow l.g.-ii-T strong /g.-ii-dec
   'The wind is strong'

   b. hostal-aa-t yikc-ii-s
      blow l.g.-aa-T strong /g.-ii-dec
      'The wind is strong'

(69)a. oosk-ii-t weyk-ii-s
      rain l.g.-ii-T stop /g.-ii-dec
      'The rain has stopped'

   b. oosk-aa-t weyk-ii-s
      rain l.g.-aa-T stop /g.-ii-dec
      'The rain has stopped'

(70)a. kasaapp-ii-n ca-yaac-ik-s
      cold l.g.-ii-N 1sII-want /g.-neg-dec
      'I don't like the cold'

   b. kasaapp-aa-n ca-yaac-ik-s
      cold l.g.-aa-N 1sII-want /g.-neg-dec
      'I don't like the cold'
(71)a. hitot-ii-n    ca-yaac-ii-s
    freeze ø g.-ii-N l5II-want ø g.-ii-dec
    'I want snow/some ice'

    b. hitot-aa-n    ca-yaac-ii-s
    freeze ø g.-aa-N l5II-want ø g.-ii-dec
    'I want that which is frozen'

Each of the examples in (68)-(71) contains a verb suffixed
with either [ii] or [aa], and except for the non-occurrence
of a preceding modified NP these dependent verbs are
identical to the non-tensed relative clauses that we have
already examined in this chapter. The (a)-sentences
contain what we have already in Chapter 4 examined as the
[ii] nominalization. But note that since the glosses of
the (a)- and (b)-sentences in (68)-(70) are identical, we
could just as easily say that the [aa] constructions in the
(b)-sentences are nominalizations as well. The only reason
they were not examined as such in Chapter 4 is that they do
not occur in citation form. When we examine the
contrasting meaning of the (a)- and (b)-sentences in (68)-
(71), there seems to be a very good reason for the [aa]
forms not to occur in citation form. Note that both the
(a)- and the (b)-sentences in (68)-(70) have the same
lengthening grade and the examples in (71) have the same ø
grade, so the differences enumerated cannot be a result of
aspectual differences. In (68a), a context is that the
speaker is sitting inside the house and notices the trees
outside blowing hard in the wind. In (68b), a context is
that the speaker has been outside in the wind and steps
inside and utters (68b). In (69a), a context is that it has been drizzling all day long and the rain has stopped. In (69b), a context is that it has been raining for just a short period of time. In (70a), a speaker is typically referring to the coldness of winter. In (70b), a speaker is typically referring to the coldness of some item before him like food or drink. And in (71), the semantic differences between the (a)- and (b)-sentences is given in the English glosses. The semantic difference between the (a)- and (b)-sentences in (68)-(71) is, of course, consistent with the foregrounding--backgrounding semantics of [aa] and [i]. In (68a), the backgrounding [i] puts the wind outside and the speaker inside. In (69a), the [i] implies that it has been raining all day. In (70a), the [i] helps refer to the backgrounding inherent in the coldness of a season. And in (71a), the [i] helps refer to a durative item created by the event. In (68b), the foregrounding [aa] puts the speaker as having been outside in the wind and experienced it firsthand. In (69b), the [aa] implies that it has been raining only for a short period of time. In (70b), the [aa] helps refer to the foregrounding inherent in the coldness of a particular item before the speaker. And in (71b), the [aa] helps refer to a particular thing before the speaker that is frozen. Of course, the foregrounding--backgrounding semantics that produce the individual contexts for each of the examples in
(68)-(71) are only individual responses to the sentences. Each of the contexts could just as easily be substituted for any of the others for each of the sentences. But what is consistent is the semantics of foregrounding—backgrounding.

Though I will not explore in this chapter all of the interactions of tense morphemes with these {aa}--{ii} contructions without specific nouns to modify, the following examples show that when these constructions are tensed, the semantics are consistent with the semantics of tensed relative clauses:

(72)a. hotaal-aŋk-ii-t yikc-ii-t-aŋk-s
    blow.l.g.-pII-ii-T strong ∅ g.-ii-T-pII-dec
    'It was a strong wind the other day'

b. hotaal-aŋk-aa-t yikc-ii-t-aŋk-s
    blow.l.g.-pII-aa-T strong ∅ g.-ii-T-pII-dec
    'It was a strong wind the other day'

(73)a. haac-aŋk-ii-n hi=h=c-e-s
    drunk l.g.-pII-ii-N see=h g.-1sI-dec
    'I saw the drunk'

b. haac-aŋk-aa-n hi=h=c-e-s
    drunk l.g.-pII-aa-N see=h g.-1sI-dec
    'I saw the drunk'

Each of the (a)- and (b)-sentences in (72)-(73) is glossed the same, but there is a meaning difference. As is typical of a tensed relative clause with {ii}, the clause in (72a) refers to a wind that occurred 'the other day' that the hearer already knows about. Thus, the {ii} suffix mentions and thus backgrounds the event of the wind. And, as is typical of a tensed relative clause with {aa}, the clause
in (72b) refers to a wind that occurred the other day that
the hearer does not know about. The [aa] suffix asserts
and thus foregrounds the event of the wind. The same is
true of the respective (a)- and (b)-sentences of (73). In
(73a), the hearer knows of the event of this person getting
drunk, while in (73b) the hearer does not know of the
event.

We did not examine the verb [hacita] 'to be drunk' in
the non-tensed verbs of (68)-(71), which referred to
physical events rather than persons participating in an
event. In fact, almost any verb may be used in a non-
tensed form to refer to a animate participant, as in the
following examples:

(74)a. hac-ii-n  hi=h=c-e-s
    drunk Ø g.-ii-N see=h g.-lsI-dec
     'I saw a drunk'

    b. hac-aa-n  hi=h=c-e-s
    drunk Ø g.-aa-N see=h g.-lsI-dec
     'I saw the drunk'

(75)a. acol-ii-t  kil-ii-t-oom-s
    old Ø g.-ii-T know Ø g.-ii-T-aux-dec
     'An elder knows'

    b. acol-aa-t  kil-ii-t-oom-s
    old Ø g.-aa-T know Ø g.-ii-T-aux-dec
     'The elder knows'

(76)a. yikc-ii-n  pa=h=l-e-s
    strong Ø g.-ii-N hire=h g.-lsI-dec
     'I hired a strong one'

    b. yikc-aa-n  pa=h=l-e-s
    strong Ø g.-aa-N hire=h g.-lsI-dec
     'I hired the strong one'

All of the verbs in (74)-(76) are non-active derived with
the ø grade. In each of these examples the semantics of [ii] and [aa] are regular with the [ii] suffix referring to a non-identifiable participant and the [aa] suffix referring to an identifiable participant.

The following examples contain active verbs non-tensed and with the [ii] and [aa] suffixes:

(77)a. atooñ-ii-n  hi=h=c-e-s
    work l.g.-ii-N see=h g.-lsI-dec
    'I saw him working'
    'I saw someone who was working'

    b. atooñ-aa-n  hi=h=c-e-s
    work l.g.-aa-N see=h g.-lsI-dec
    'I saw the one who was working'
    'I watched him work'

(78)a. niis-ii-n  hi=h=c-e-s
    buy l.g.-ii-N see=h g.-lsI-dec
    'I saw someone buying it'
    'I saw her buying it'

    b. niis-aa-n  hi=h=c-e-s
    buy l.g.-aa-N see=h g.-lsI-dec
    'I saw the one who was buying it'
    'I watched her buy it'

(79)a. liitk-ii-n  hi=h=c-e-s
    run l.g.-ii-N see=h g.-lsI-dec
    'I saw someone running'
    'I saw him running'

    b. liitk-aa-n  hi=h=c-e-s
    run l.g.-aa-N see=h g.-lsI-dec
    'I saw the one who was running'
    'I watched him running'

None of the examples in (77)-(79) have an explicit noun which the [ii] or [aa] constructions modify. Each of these examples, like those in (68)-(76), actually creates on a nonce basis a participant out of the dependent clause itself. Each of the (a)-sentences with the [ii] suffix has
a backgrounded interpretation. The first backgrounded interpretation is the typical non-identifiable semantics. The second backgrounded interpretation is an adverbial interpretation where the matrix clause is interpreted as occurring at the time that the dependent clause occurs. Actually, all active verbs that are non-tensed and that occur with the [ii] suffix have this adverbial interpretation, as in the following:

(80) hokti a tootk-ii-n /hi=h=c-e-s
    woman work l.g.-ii-N see=h g.-lsI-dec
    'I saw a woman working'
    'I saw the woman as she was working'

The first gloss is the backgrounded interpretation of non-identifiability that we have discussed throughout this chapter. The second gloss is the backgrounded adverbial interpretation that we have seen in examples (77)-(79). The adverbial interpretation has not been discussed in this chapter thus far because the focus has been upon the relative-clause interpretation of the [ii] and [aa] constructions. The (b)-sentences in (77)-(79) also have two foregrounded interpretations. The first is the familiar identifiable interpretation. The second is a foregrounded interpretation that actually affects the semantic interpretation of the matrix event. The event of the dependent clause is foregrounded such that the matrix verb is not 'to see' but 'to watch'. This interpretation is possible, but unusual in any case, with [aa] constructions modifying nouns, as in the following:
The following examples show the effect of specific tense, such as the [ank] 'past II' morpheme, on both [ii] and [aa] active-event constructions that do not modify specific nouns:

(82)a. atootk-άŋk-ii-n
  hi=h=c-e-s
  work l.g.-pII-ii-N see=h g.-1sI-dec
  'I saw the one who was working'

b. atootk-άŋk-aa-n
  hi=h=c-e-s
  work l.g.-pII-aa-N see=h g.-1sI-dec
  'I saw someone who was working'

All examples of non-tensed active verbs with [ii] and [aa] are like those in (82). With the [ii] suffix the hearer can identify the participant through knowing of the event. The event is thus mentioned and backgrounded. With the [aa] suffix the hearer can not identify the participant uniquely since he does not know about the event. The event is thus asserted and foregrounded.

In each of the examples of (77)-(82), the verbs have either been intransitive or transitive with neither the subject nor the object specified by an explicit NP. The following examples show that when the subject or the object are specified by first or second person agreement, the [ii] and [aa] constructions identify on a nonce basis the non-specified participant:
In the examples in (83), the subject is specified by a known second-person singular Type I marker. The \{ii\} and \{aa\} constructions then identify on a nonce basis the object, which is unknown in (83a) with the \{ii\} backgrounding marker. The first gloss for (83a) reflects the backgrounding unknown-participant reading. The second reading reflects the backgrounding reading by which the event of the dependent clause is interpreted as happening at the same time as the event of the matrix clause.

Example (83b) has two glosses as well. The first is the familiar foregrounded known-participant reading. The second is the foregrounding interpretation which affects the semantics of the matrix verb itself. In the examples of (84), the object is specified by a known second-person singular Type II marker. The \{ii\} and \{aa\} constructions then identify on a nonce basis the subject, which is
backgrounded in familiar ways in (84a) and foregrounded in familiar ways in (84b).

The following examples show the effect of tense marking on [ii] and [aa] constructions when the subject is specified by a second-person Type I marker and when the object is specified by a second-person Type II marker. The effect of tense marking when the subject and object are specified is unusual:

(85)a. niis-ick-ang-ii-n hi=h=c-e-s
     buy f.t.g.-2sI-pII-ii-N see=h g.-1sI-dec
     'I saw what you bought'

(85)b. niis-ick-ang-aa-n hi=h=c-e-s
     buy f.t.g.-2sI-pII-aa-N see=h g.-1sI-dec
     'I saw what you bought'

(86)a. ci-naafk-ang-ii-n hi=h=c-e-s
     2sII-hit f.t.g.-pII-ii-N see=h g.-1sI-dec
     'I saw the one that hit you'

(86)b. ci-naafk-ang-aa-n hi=h=c-e-s
     2sII-hit f.t.g.-pII-aa-N see=h g.-1sI-dec
     'I saw the one that hit you'

In (85), the (a)-sentence tensed and with [ii] has the same gloss as the (b)-sentence tensed and with [aa]. The interesting semantics in these examples is that since the hearer and the subject of the dependent clause are the same, the hearer necessarily knows about the event of the dependent clause. This is no problem in (85a) since the [ii] morpheme signals that the participant as well as the event which identifies it are known by the hearer. But in (85b), the [aa] morpheme signals that the event is not known about by the hearer. This contrast between the [aa]
morpheme signalling that the event is asserted and the second-person subject being the same as the hearer is solved semantically by Creek speakers interpreting that the hearer/subject had someone buy something for him and he does not yet know what that thing is. In (86a), the [ii] morpheme signals that the hearer knows about both the event and the subject who is identified by the dependent clause. But in (86b), there is again a contradiction. Since the hearer is the same as the second-person object, he must know about the event, but the [aa] morpheme signals that the event is asserted. This contradiction is solved semantically by Creek speakers interpreting that the hearer/object knows that he was hit, but does not know who did it.

There are other [ii] and [aa] constructions that function only as adverbial clauses either because the matrix verb has a subject and an object that are specified by known participants or because the matrix verb is intransitive and cannot have an object, as in (87) and (88) respectively:

(87)a. naafk-ick-ii-n ci-nafk-a-ažii-s
    hit l.g.-2sI-ii-N 2sII-hit Ø g.-1sI-fut-dec
    'You'll be hitting him when I hit you'

b. naafk-ick-aa-n ci-nafk-a-ažii-s
    hit l.g.-2sI-aa-N 2sII-hit Ø g.-1sI-fut-dec
    'I'm going to you because you hit her'

(88)a. ca-nookk-ii-t a=h=y-a-ko-s
    1sII-sick l.g.-ii-T go=h g.-1sI-neg-dec
    'If I'm getting sick, I won't go'
Example (87a) has the normal 'when' adverbial interpretation of non-tensed dependent clauses with the [ii] suffix. Example (87b) has an adverbial 'because' reading with the [aa] suffix. Example (88a) has a reading which backgrounds the dependent event. And (88b) has an adverbial 'because' reading with the [aa] suffix. When the dependent verbs of (87)-(88) are tensed, they have the familiar meanings of a known event with the [ii] suffix and an unknown event with the [aa] suffix.

6.13 Conclusions

In this chapter we have discovered that the constructions that are used for identifying participants on a nonce basis are not actually relative-clause specific. Rather, given the proper context of a question about the identification of a participant, they may be used to restrict a domain to a narrower domain, as in the use of [ii] with non-tensed events, or they may be used to restrict a domain to a uniquely identifiable participant, in the use of [aa] with non-tensed events. Or they may be used to identify a participant on the basis of a known event in the case of [ii] with tensed relatives. Or they may be used to identify a participant on the basis of an unknown event in the case of [aa] with tensed relatives. Given the context of a question about 'when' an event took
place, either the non-tensed (ii) construction or either the (ii) or (aa) tensed constructions may be used to provide the adverbial answer. The adverbial semantics of 'because' and 'if' are also possible with both the (ii) and the (aa) constructions.

The foregrounding—backgrounding semantics of (aa) and (ii) are consistent with the foregrounding—backgrounding possibilities of relative clauses, both restrictive and non-restrictive, as well as various adverbial meanings, such as 'when', 'because', and 'if' clauses. Many of the various semantic instantiations of the uses of (ii) and (aa) are due not only to the contexts of questions about identification of participants or questions about adverbial meanings, but also to whether the dependent event is non-tensed or tensed. This allows the identification of participants or adverbials to be created on the basis of a foregrounded or backgrounded participant or a foregrounded or backgrounded event.
Chapter 7

The Auxiliary \{ooM\} and the Suffixes \{t\}, \{n\}, and \{Ø\}

7.1 Introduction

This chapter examines the semantics of the auxiliary \{ooM\} as well as the nominal and verbal suffixes \{t\}, \{n\}, and \{Ø\}. All of these morphemes are used throughout the preceding chapters in this work, but they have so far in this work or in other published work been little discussed as they function in Oklahoma Creek. Nathan (1977) has remarked upon all of these markers for the Florida Seminole dialect of Creek, but in little detail. Schuetze-Coburn (1987) has discussed at length the exceptional \{t\}/\{n\} marking for the Oklahoma Seminole dialect of Creek. The present discussion will be an in depth exploration of the semantics of \{ooM\}, which is as yet undescribed in either Creek or Seminole, as well as an in depth exploration of the semantics of \{t\}, \{n\}, and \{Ø\} in Oklahoma Creek, some of whose uses seem to be different from those in Oklahoma Seminole.

Discussions of the auxiliary and the suffixes occur together in this chapter because both function within the realm of foregrounding and backgrounding, both with respect to participants and events. I will begin this chapter with a discussion of \{ooM\} (7.2) and then will move to a discussion of \{t\}, \{n\}, and \{Ø\} (7.3), concluding with an integration of their semantics and pragmatics (7.4).
7.2 The Auxiliary \{ooM\}

The effect of the \{ooM\} auxiliary is to background the event or participant to which it is suffixed, but as may be guessed, its use is so widespread that the particular instantiations of its semantics can vary widely. To begin, consider the following data:

(1)a. ca-capahk-ii-s
   lsII-angry ø g.-ii-dec
   'I'm angry'

b. ca-capahk-ii-t-ooM-s
   lsII-angry ø g. -ii-T-aux-dec
   'I'm an angry person'

(2)a. ca-law-ii-s
   lsII-hungry ø g.-ii-dec
   'I'm hungry'

b. ca-law-ii-t-ooM-s
   lsII-hungry ø g.-ii-T-aux-dec
   'I'm a hungry person'

(3)a. ca-cayayak-ii-s
   lsII-quiet ø g.-ii-dec
   'I'm being quiet'

b. ca-cayayak-ii-t-ooM-s
   lsII-hungry ø g.-ii-T-aux-dec
   'I'm a quiet person'
   'I'm quiet'

(4)a. ac-aafack-ii-s
   lsII-happy ø g.-ii-dec
   'I'm happy'

b. ac-aafack-ii-t-ooM-s
   lsII-happy ø g.-ii-T-aux-dec
   'I'm a happy person'

(5)a. ca-fikcakh-ii-s
   lsII-jealous ø g.-ii-dec
   'I'm jealous'
b. ca-fikcakh-ii-t-ooM-s
   lII-jealous Ø g.-ii-T-aux-dec
' I'm a jealous person'

There are a great many Creek verbs which function like those in (1)-(5) with respect to [ooM]. In the (a)-sentences, without [ooM], the stative forms of these verbs refer to a circumstantial state, tied specifically to the present. Note that (3a) is glossed as 'I'm being quiet' since 'I'm quiet' implies not a temporary state but an enduring quality. In the (b)-sentences, with [ooM], the stative forms of these verbs refer to an enduring state such that the verbs are glossed in English as statements about the type of person the subject of the verb is. Thus, the first semantic instantiation of the backgrounding function of [ooM] that we see here is the semantics of an enduring state, hence, a characteristic. Nathan (1977.109-110) does not segment [t] from [tooM] in Oklahoma Seminole, but refers to [tooM] as a single morpheme and says that [tooM] and [took], which we will not discuss in this work, are 'secondary verb roots whose optional usage as verb suffixes probably relates more to style than to anything else.' Nathan does hint, giving no examples, that they do have 'semantic import', but concludes that 'the majority of the evidence indicates that their presence in a verb is mostly a matter of individual preference.' The first goal in this chapter is to show that in Oklahoma Creek the auxiliary [ooM] has a semantic import that is discoverable
even though sometimes difficult since it often depends on subtle contextual meaning.

The following examples show that the [t] is indeed segmentable from [tooM] in Oklahoma Creek:

\( ^\wedge (6)a. \ \text{naaki-n} \ \text{is-hakeyhk-it-ooM-\ddot{a}a} \)
\( ^\vee \)
\( \text{something-N inst-cry l.g.-T-aux-wh} \)
\( \text{What is he crying about?} \)

b. \( \text{naafk-ay-ii-n-ooM-s} \)
\( \text{hit l.g.-lsI-ii-N-aux-dec} \)
\( \text{Because I'm hitting him} \)

c. \( \text{naafk-ay-ii-t-ooM-s} \)
\( \text{hit l.g.-lsI-ii-T-aux-dec} \)
\( \text{I'm hitting him} \)

Both (6b) and (6c) are acceptable Creek sentences, but only (6b) is an acceptable answer to the question of (6a). This is the first instance we have seen of the backgrounding function of [n] versus [t]. We will explore these differences in detail later in this chapter, but for now we note that only the [n] affix is appropriate for the type of backgrounding inherent in a clause that gives reason for another event, as (6b) does for (6a). The sentence in (6c), identical in every way to that in (6b) except for the presence of [t] instead of [n], is unacceptable as a response to (6a).

There are other specific instantiations of the backgrounding function of [ooM] which do not indicate that a person or thing is in an enduring state, as in (1)-(5). See the following further uses of [ooM]:
a. kafi yikc-ii-s  
   coffee strong Ø g.-ii-dec  
   'The coffee is too strong'

b. kafi yikc-ii-t-oOM-s  
   coffee strong Ø g.-ii-T-aux-dec.  
   'The coffee is too strong'

(8)a. kasapp-ii-s  
   cold Ø g.-ii-dec  
   'It's cold'

b. kasapp-ii-t-oOM-s  
   cold Ø g.-ii-T-aux-dec  
   'It's cold'

(9)a. am-mocoswa hii-ii-s  
   1sIII-grandchild good Ø g.-ii-dec  
   'My grandchild is good'

b. am-mocoswa hii-ii-t-oOM-s  
   1sIII-grandchild good Ø g.-ii-T-aux-dec  
   'My grandchild is good'

Each of the (a)- and (b)-sentences in examples (7)-(9) is
glossed in English exactly the same, but the context for
the use of each is different. Example (7a), without [ooM],
is typically said immediately after someone tastes the
coffee and notices that it is too hot. Example (7b), with
[ooM], is said by someone warning someone else that the
coffee is too hot. Example (8a) could be said by someone
who just steps in from the cold outside. Example (8b)
could be said by someone warning someone else that it is
too cold outside. Thus, without [ooM], the sentences in
(7a) and (8a) have an immediacy of experience. With [ooM],
the sentences in (7b) and (8b) have a grounding
function of warning someone that tasting the coffee or
going outside could be unpleasant. Example (9a) could be
said by someone simply commenting that he has a good
grandchild. The child need not have said or done anything
immediately to demonstrate its goodness. But in (9b), the
sentence with {ooM} is used to assert that the speaker's
grandchild is good in respect to some other event. This
mediating assertion is absent in (9a). One speaker
explained that (9b) could be said if the speaker were
talking to a babysitter and wanted to assure the sitter
that the grandchild would be good in the grandparent's
absence. Thus we see already from the meaning of {ooM} in
(1)-(5) versus its meaning in (7)-(9) that its specific
content relies heavily on contextual semantics.

By way of further introduction to the varied semantics
of this morpheme, consider the following pairs of examples:

(10)a. is-ac-aafack-ik-s
    inst-1sII-happy Ø g.-neg-dec
    'I'm not happy about it'

    b. is-ac-aafack-iko-t-ooM-s
       inst-1sII-happy Ø g.-neg-T-aux-dec
       'I'm not happy about anything'

(11)a. ifa-n in-capahk-ay-ii-s
    dog-N 3III-angry Ø g.-lsI-ii-dec
    'I'm mad at the dog'

    b. ifa-n in-capahk-ay-ii-t-ooM-s
       dog-N 3III-angry Ø g.-lsI-ii-T-aux-dec
       'I'm always mad at the dog'
       'I don't like the dog'

The examples in (10) are very similar to those in (4),
extcept the presence of the {is} instrumental prefix implies
the presence of a particular object that the speaker is not
happy about. Thus, in (10b), with {ooM}, the sentence is
interpreted such that the displeasure is more diffuse and less focused, more backgrounded. Example (10a), without [ooM], simply makes a statement that the speaker is not happy about a particular thing. If we compare the examples in (11) with those in (1), which use the same verb, we note a different specific semantic interpretation of the [ooM] auxiliary. In (1b), without a specific object, the speaker is saying that he is an angry person, but in (11b), where there is a specific object, the speaker is saying that he is always mad at the dog. Contrast (11b) with (11a), in which the speaker simply says that he is mad at the dog. In (11a), there is a single instance which occasions the anger, but in (11b) the anger is diffused and distributed over a number of occasions. Again, (11b) backgrounds the event. Thus, the presence or absence of a specific object in the proposition, all part of the context of the proposition, can affect the specific interpretation of [ooM].

Thus far, all examples of [ooM] in this chapter, except those of (6), occur with non-active verbs. But as the following examples show, the [ooM] auxiliary may freely occur with active verbs:

(12)a. pafn-ii-n atootk-e-s
    fast ø g.-ii-N work l.g.-lsI-dec
    'I'm working fast'

    b. pafn-ii-n atootk-it-ooM-e-s
        fast ø g.-ii-N work l.g.-T-aux-lsI-dec
        'I've been working fast'
(13a. litk-ahaan-e-s
   run Ø g.-int-1sI-dec
   'I'm going to run'

   b. litk-ahaan-t-ooM-e-s
      run Ø g.-int-T-aux-1sI-dec
      'I'm fixing to run'

(14a. joo-n  ici-hociif-e-s
      Joe-N  2sII-name l.g.-1sI-dec
      'I name you after Joe'

   b. joo-n  ici-hociif-it-ooM-e-s
      Joe-N  2sII-name l.g.-T-aux-1sI-dec
      'I'm naming you after Joe'

Note that (12a), without {ooM}, simply states that the speaker is working fast now. Example (12b), with {ooM}, backgrounds the activity of working such that the speaker has been working fast for a while. Example (13a) makes the statement that the speaker intends to run, using the intensive morpheme {ahaan}. Example (13b), with both {ahaan} and {ooM}, backgrounds the activity of running with respect to some other activity. That is, the speaker is doing something in preparation to running. Example (14a), without {ooM}, has the curious effect of serving as a performative. In uttering (14a), the speaker performs the activity of 'naming'. The event and the speech act are one and the same. Example (14b), with {ooM}, backgrounds the activity of naming such that by uttering (14b) the activity of 'naming' is not performed, but merely described.

Thus far, in all examples of {ooM} versus the lack of {ooM}, the English glosses yield the same lexical verb though the event may be backgrounded. The following
examples are interesting in that the presence of [ooM]
yields in English a different lexical verb:

(15)a. sata-n ca-yaac-ii-s
    apple-N 1sII-want Ø g.-ii-dec
    'I want an apple'

    b. sata ca-yaac-ii-t-ooM-s
       apple 1sII-want Ø g.-ii-T-aux-dec
       'I like apples'

(16)a. ca-palalak-ii-s
    1sII-cripped Ø g.-ii-dec
    'I've got arthritis'

    b. ca-palalak-ii-t-ooM-s
       1sII-cripped Ø g.-ii-T-aux-dec
       'I'm crippled'

(17)a. ca-hoottop-ii-s
    1sII-itch Ø g.-ii-dec
    'I'm itching'

    b. ca-hoottop-ii-t-ooM-s
       1sII-itch Ø g.-ii-T-aux-dec
       'I'm ticklish'

(18)a. ca-cafikn-ii-s
    1sII-well Ø g.-ii-dec
    'I'm well'

    b. ca-cafikn-ii-t-ooM-s
       1sII-well Ø g.-ii-T-aux-dec
       'I'm healthy'

(19)a. ac-awonaay-is
    1sII-smell l.g.-dec
    'I'm glimpsing a smell of something'

    b. ac-awonaa-t-ooM-s
       1sII-smell l.g.-T-aux-dec
       'I smell something'

In each of the examples of (15)-(19), the use of [ooM]
versus its absence yields a different event or state in
English, but in Creek, the difference is simply the
backgrounding of the event or state with [ooM] versus the
lack of this backgrounding without \( ooM \). In (15a), the absence of \( ooM \) with \( \text{yaacita} \) yields the English 'want', but in (15b) the presence of \( ooM \) yields the more durative English 'like'. Note that \( \text{sata} \) in (15a) is suffixed with \( n \), while it is not suffixed with \( n \) in (15b). The difference has much to do with the relative semantics of \( n \) versus \( \emptyset \) as noun suffixes, a topic that will be explored in detail later in this chapter. In (16a), the absence of \( ooM \) with \( \text{palakalita} \) yields the acute state of having 'arthritis', while its presence in (16b) yields the more thoroughgoing but chronic state of being 'crippled'. Example (16a) was explained by one speaker as meaning that the speaker would be saying that his fingers were turning as when one has 'arthritis'. But in (16b), the state is more backgrounded as having already reached completion such that the speaker is now 'crippled'. In (17a), the absence of \( ooM \) with \( \text{hoottopita} \) means the state of 'itching', but with \( ooM \) the state is more backgrounded such that the speaker is 'ticklish'. In (18a), the absence of \( ooM \) with \( \text{cafiknita} \) means the state of being 'well'. One speaker reported that (18a) might be said by someone who had been sick and had just gotten well. Example (18b) with \( ooM \) yields the backgrounded state of being 'healthy'. Example (19a), without \( ooM \), yields the somewhat strange phrase in English, 'glimpse a smell of'. This gloss was produced in
an explicit attempt by a speaker to explain the difference between (19a) and (19b). Example (19b) with [ooM] yields the event 'to smell'. It is a more backgrounded event than the 'glimpse' or 'whiff' of (19a).

Since we have seen that the [ooM] morpheme seems to background an event or state, we might expect it to be used to assert the existence of a participant, as in the (a) sentences that follow:

(20) naak-it-ooM-aâ
    something-T-aux-wh
    'What is it?'

(21)a. yalaaha-t-ooM-s
       orange-T-aux-dec
       'It's an orange'

b. yalaaha-t-is
   orange-T-dec
   'Why, it's an orange'
   'That's orange'

(22)a. hoktii-t-ooM-s
       woman-T-aux-dec
       'It's a woman'

b. hoktii-t-is
   woman-T-dec
   'Why, that's a woman'

In (20)-(22), it appears that the [ooM] auxiliary has a lexical meaning of 'to be', but even when it does not occur in the (b)-sentences of (21)-(22), the clauses appear in English with the equational verb 'to be'. As we have seen throughout the earlier examples in this chapter, it is impossible to assign even the 'to be' lexical meaning to [ooM]. All of the sentences in (21) and (22) are
acceptable responses to the question of (20), but the (a)- and (b)-sentences differ slightly in meaning. The (a)-sentences are perhaps what we might consider the normal unmarked way to say that a particular thing or person is an 'orange' or a 'woman'. The (b)-sentences are glossed as 'Why, that's an NP'. Speakers explain that there is an element of surprise in recognizing that the object identified is indeed what it is. In (21b), the object in question might be a green orange and be confused in the mind of the speaker with a lime. He is asked what it is and suddenly recognizes that it is an orange. And in (22b), it might be a question of whether the person in question is a man or a woman. The speaker suddenly recognizes that it is indeed a woman and utters (22b). Thus, in the (b)-sentences there is an element of foregrounding of the identity of the NP. In the (a)-sentences, the identity is more backgrounded as being not so surprising. Example (21b) has another easily discernible context. One speaker explained that the speaker of (20) might have tasted a salad or some other dish and wondered what it was made of. One might respond then with (21b). It seems then that the absence of the [ooM] suffix signals the loss of identity of the orange as itself, as a durable, backgrounded whole. Consistent with the assumed context for (22b), (22b) is a better response than (22a) for the following question in (23):
(23) honanwa-t monk-aa-t hokti-t-ooM-aa
    man-T or-aa-T woman-T-aux-wh
'S is that a man or a woman?'

It is interesting that the kind of surprise on the part of the speaker that is evident in the (b)-sentences of (21)-(22) is not possible if the equational participant is first- or second-person, as is reflected in the following:

(24)a. joo yahayk-a-t-ooM-s
    Joe sing l.g.-ag-T-aux-dec
    'Joe is a singer'

b. joo yakeyk-a-t-is
    Joe sing l.g.-ag-T-dec
    'Why, Joe's a singer'

(25)a. yahayk-a-t-ooM-e-s
    sing l.g.-ag-T-aux-1sI-dec
    'I'm a singer'

b.*yahayk-a-t-e-s
    sing l.g.-ag-T-1sI-dec

(26)a. yahayk-a-t-ooM-ick-is
    sing l.g.-ag-T-aux-2sI-dec
    'You're a singer'

b.*yahayk-a-t-ick-is
    sing l.g.-ag-T-2sI-dec

Plural persons parallel the singular in (24)-(26).
Speakers are unable to make any sense at all of the (b)-sentences in (25) and (26).

In (12)-(14), we explored in brief the operation of [ooM] as a suffix on active verbs and found that it backgrounds active events just as it backgrounds non-active events and participants. In the following, we will explore further not only manifestations of backgrounding with respect to active events, but how this backgrounding
functions in preferred answers to questions. Consider the following question/answer set:

\[ \text{naak-is-t-ooM-=} \]
\[ \text{something-inst-T-aux-wh} \]
'What is wrong?'

(27) a. liitk-it-o=h=M-e-s
run l.g.-T-aux=h g.-lsI-dec
'I just ran'

b. liit=ey=k-e-s
run=h g.-lsI-dec
'I just ran'

The {ooM} suffix in (28a) is derived with the H grade. Besides what I assume is the ∅ grade in the examples of {ooM} presented thus far in this chapter, the H grade is the only grade that appears with the {ooM} suffix. The question in (27) can be understood in the context of the addressee limping around on what are obviously sore legs. The best response is that given in (28a) with the {ooM} suffix. Example (28b) without the {ooM} suffix, but with the H grade in the verb stem is not an acceptable answer to the question in (27). Speakers report that (28b) is used simply to say that one has just ran, but without consequence. Example (28a) occurs with the {ooM} suffix because the activity of running is backgrounded information with respect to there being something wrong. Except for the {ooM} suffixes of (6), (28a) is the first instance in this chapter of the {ooM} suffix being used not to background the event itself, but to background the event with respect to some other proposition, in this case, to
there being something wrong.

The following examples indicate that the \( ooM \) suffix is not automatically used to answer just any question. Our primary goal here is to discover just what type of questions can motivate the backrounding function of \( ooM \):

(29) \textit{is-t-ooM-ick-ii-t-ii}  
\textit{inst-T-aux-2sI-ii-T-wh}  
'What would you do'

(30)a. \textit{lIitk-ay-ii-t-ooM-s}  
\textit{run 1.g.-lsI-ii-T-aux-dec}  
'I can run'  
'I run'

b. \textit{lIitk-ay-ii-s}  
\textit{run 1.g.-lsI-ii-dec}  
'I would run'

Surprisingly, the best response to (29) is not (30a) with \( ooM \) but (30b) without. A context given for (29) is that the speaker is asking what the addressee would do if he were scared. The best response is, as noted, that in (30b). The use of the stative morpheme \( ii \) in (30b) produces the possibility semantics that we saw in Chapter 4. The difference in the question/answer pair of (27) and (28), and that of (29) and (30) is that the former indicates that the act of running produced the state of something being wrong, specifically in the context given for (27), that the addressee is limping, while (30b) indicates that the act of running is a response to a state, and not its cause, specifically in the context given for (29), that the addressee is scared. Thus, it is consistently the case that the \( ooM \) morpheme is used to
signal that the event so suffixed is either backgrounded with respect to itself or with respect to some other event which it helps to produce. Example (30a) with [ooM] produces the semantics of ability which is evident in the English glosses. That is, (30a) backgrounds the event of running such that the agent is perceived as having the ability to run or simply being one who runs, that is, a runner.

Backgrounding can be built into the question itself such that it affects the possible best answers with respect to the presence or absence of [ooM], as in the following:

(31a. is-t-ooM-ick-āŋk-ā
    inst-T-aux-2si-PII-wh
    'What did you do?'
  b. atootk-ick-āŋk-ā
    work 1.g.-2si-PII-yes/no
    'Did you work?'

(32a. atootk-ay-āŋk-s
    work 1.g.-1si-PII-dec
    'I worked'
  b. atootk-it-ooM-ay-āŋk-s
    work 1.g.-T-aux-1si-PII-dec
    'I did work'
    'I've been working'

The best responses to (31a) and (31b) are (32a) and (32b), respectively. Example (32a) simply asserts that the speaker worked in response to the question in (31a) of what he did. It does not contain the [ooM] suffix, and there is no backgrounding of the event, either with respect to itself or with respect to producing some other state or
event. Example (32b), with \{ooM\}, states that the speaker 'did work'. The event is backgrounded by virtue of its already occurring in the question of (31b). Example (32b) is an acceptable response to (31a), but if it is so used, it has the English gloss that occurs second in (32b). This gloss reflects the backgrounding of the event with respect to itself such that the sentence is interpreted as stating that the speaker has been working for a while. In other words, the event is backgrounded in the sense that it has been occurring for a while and is not an isolated foregrounded event.

The scope of the necessary backgrounding for the use of \{ooM\} in the response to a question extends to any possible objects as well as the event itself, as is demonstrated in the following:

(33)a. naaki-n ohh-atootk-ick-an'k-aa
   something-N loc-work l.g.-2sI-pII-wh
   'What did you work on?'

b. aatami ohh-atootk-ick-an'k-a
   car loc-work l.g.-2sI-pII-yes/no
   'Did you work on the car?'

(34)a. aatami-n ohh-atootk-ay-an'k-s
   car-N loc-work l.g.-lsI-pII-dec
   'I worked on the car'

b. aatami-n ohh-atootk-it-ooM-ay-an'k-s
   car-N loc-work l.g.-T-aux-1sI-pII-dec
   'I did work on the car'
   'I've been working on the car'

The best responses to (33a) and (33b) are (34a) and (34b), respectively, mirroring the acceptability of the responses in (32) to (31). Even though the event \{ohhatotkita\} 'to
work on' occurs in the question of (33a), the response in (34a) without [ooM] is the best. The event is foregrounded since the information that it is the car the speaker worked on is new. Sentence (34b) may be used as a response to (33a), but only with the sense of the second English gloss given, which indicates that the event is foregrounded in that it has been occurring for a while and is not an isolated foregrounded event, just as in the second gloss of (32b). Response (34b) is best as an answer to question (33b), in which not only the event but also the patient [aatami] 'car' is mentioned. Thus, as in the response (32b) to (31b), the response of (34b) uses [ooM] to background the event (and patient) by virtue of its (their) being mentioned in the question of (33b).

There is an added wrinkle in the semantics of the foregrounding suffix [ooM] in that it interacts with an [o] morpheme which is most likely a reflex of a morpheme reconstructed by Booker (1980.256) as the focus marker [o]. The following examples illustrate the interaction of [o], [ooM], and the absence of [ooM]:

(35) is-t-ooM-ii-t-II
    inst-T-aux-ii-T-wh
    'What's wrong with it?'

(36a) il-ii-t-o-t-ooM-s
    die Ø g.-ii-T-fc-T-aux-dec
    'It's dead now'

b. il-ii-t-ooM-s
    die Ø g.-ii-T-aux-dec
    'It's dead'
c. il-ii-s
die $ g$.-ii-dec
'It's dead'

(37)a. hopank-ii-t-o-t-ooM-s
break $ g$.-ii-T-fc-T-aux-dec
'It's broken now'

b. hopank-ii-t-ooM-s
break $ g$.-ii-T-aux-dec
'It's broken'

c. hopank-ii-s
break $ g$.-ii-dec
'It's broken'

(38) ci-s-t-ooM-ii-t-ii
2sII-inst-T-aux-ii-T-wh
'What's wrong with you?'

(39)a. ca-law-ii-t-o-t-ooM-s
lsII-hungry $ g$.-ii-T-fc-T-aux-dec
'I'm hungry now'

b. ca-law-ii-t-ooM-s
lsII-hungry $ g$.-ii-T-aux-dec
'I'm hungry'

c. ca-law-ii-s
lsII-hungry $ g$.-ii-dec
'I'm hungry'

Either the (a)- or the (b)-sentences in (36)-(37) and (39)
are appropriate responses to the questions in (35) and
(38), respectively. The (c)-sentences are inappropriate
because they do not contain the [ooM] morpheme to signal
the backgrounding of the event in response to questions
which indicate that there are circumstances which have
produced the events of (36), (37), and (39). The (a)-
sentences are formally different from the (b)-sentences in
that they contain the [o] focus morpheme, which signals
that the event may be backgrounded as the [ooM] morpheme
indicates, but that the speaker is concentrating on the state as it exists at the moment of the speech act. This is where the 'now' of the (a)-glosses in (36), (37), and (39) comes from. Thus, the [o] morpheme allows the speaker to have both the backgrounding semantics of [ooM], in the sense of an event producing a state, but also to prevent the sort of backgrounding semantics which is evident in backgrounding the event itself.

There is a peculiar semantic interpretation of the use of the backgrounding [ooM] suffix that is difficult, but not impossible, to interpret in the light of backgrounding, as in the following question/answer sets:

\[
\begin{align*}
(40) & \quad \text{istey-}t \text{ sata pa=h=p-aa} \\
& \quad \text{who-T apple eat=h g.-wh} \\
& \quad \text{'Who ate the apple?'} \\
(41)a. & \quad \text{an-t pa=h=p-e-s} \\
& \quad \text{ls-T eat=h g.-lsI-dec} \\
& \quad \text{'I ate it'} \\
& \quad \text{b. an-t paap-t-o=h=M-e-s} \\
& \quad \text{ls-T eat l.g.-T-aux=h g.-lsI-dec} \\
& \quad \text{'I ate it'} \\
(42) & \quad \text{naaki-n hom=ey=p-ick-aa} \\
& \quad \text{something-N eat=h g.-2sI-wh} \\
& \quad \text{'What did you eat?'} \\
(43)a. & \quad \text{toloosi-n hom=ey=p-e-s} \\
& \quad \text{chicken-N eat=h g.-lsI-dec} \\
& \quad \text{'I ate chicken'} \\
& \quad \text{b. toloosi-n homp-it-o=h=M-e-s} \\
& \quad \text{chicken-N eat l.g.-T-aux=h g.-lsI-dec} \\
& \quad \text{'I ate chicken'} \\
(44) & \quad \text{naaki-n is-t-ooM-ick-eyes-aa} \\
& \quad \text{something-N inst-T-aux-2sI-p1-wh} \\
& \quad \text{'What did you do?'}
\end{align*}
\]
(45) a. aatami wey=ey=y-e-s
car sell=h g.-isI-dec
'I sold the car'

b. aatami weyy-it-o=h=M-e-s
car sell l.g.-T-aux=h g.-isI-dec
'I sold the car'

Each of the answers in (41), (43), and (45) are appropriate responses to their respective questions in (40), (42), and (44), but the contextual implications of each answer are again different. The (a)-responses, without [ooM], are the normal, unmarked ways to answer each of the questions. The (b)-responses, with [ooM], are interpreted as 'smarting back' to the questioner. The motivation for the 'smarting back' interpretation is consistently given as that the questioner has asked the question several times and is persistent in getting an answer. It seems, then, that the backgrounding [ooM] suffix in the 'smart' answers implicitly recognizes the backgrounding present in a question that has been asked repeatedly, e.g. 'I sold the car, since you keep asking', or 'I've told you already, I ate the apples.'

The interaction of tense suffixes, [ooM], and backgrounding semantics allows the element of backgrounding in [ooM] to be situated within a particular time period. We have seen thus far in this chapter many examples of the [ooM] suffix used to background the event in the present tense. The immediately following examples illustrate the backgrounding with respect to the 'past II' morpheme [ark]:
(46a. paksänkii joo tolöosi-n homp-aŋk-s
    yesterday Joe chicken-N eat l.g.-pII-dec
    'Joe ate chicken yesterday'

  b. paksänkii joo tolöosi-n homp-it-ooM-aŋk-s
    yesterday Joe chicken-N eat l.g.-T-aux-pII-dec
    'Joe ate chicken yesterday'

(47a. paksänkii joo liitk-aŋk-s
    yesterday Joe run l.g.-pII-dec
    'Joe ran yesterday'

  b. paksänkii joo liitk-it-ooM-aŋk-s
    yesterday Joe run l.g.-T-aux-pII-dec
    'Joe ran yesterday'

(48a. paksänkii joo im-ponaay-ay-aŋk-s
    yesterday Joe 3III-talk l.g.-1sI-pII-dec
    'I talked to Joe yesterday'

  b. paksänkii joo im-ponaa-t-ooM-ay-aŋk-s
    yesterday Joe 3III-talk l.g.-T-aux-1sI-pII-dec
    'I talked to Joe yesterday'

Each of the (a)- and (b)-examples in (46)-(48) are glossed exactly the same, but there are semantic differences based on the presence or absence of the [ooM] morpheme. In (46a), the implication is that Joe ate chicken only once yesterday for a limited time. In (46b), the implication is that Joe ate chicken on and off all day yesterday. In (47a), Joe ran only once yesterday. In (47b), the implication is that Joe ran all day long, either on and off or duratively all day long. In (48a), the speaker is saying that he merely said hello to Joe or had a very short conversation with him. In (48b), the speaker is saying that he had a long conversation with Joe. Thus the [ooM] morpheme in the (b)-sentences with the 'past II' morpheme backgrounds the event such that it is diffused through an
extended period of time throughout the day.

The following examples have a slightly different interaction between the \{ooM\} morpheme and the past II morpheme:

\[(49)\]a. \(\text{paksänkii aatami am-ahopänk-äŋk-s} \)
\(\text{yesterday car } \text{lsIII-break } f.t.g.-\text{pII-dec} \)
'\(\text{My car broke yesterday} \)'

\[b. \text{paksänkii aatami am-ahopänk-it-ooM-äŋk-s} \)
\(\text{yesterday car } \text{lsIII-break } f.t.g.-T-\text{aux-pII-dec} \)
'\(\text{My car broke yesterday} \)'

\[(50)\]a. \(\text{paksänkii ca-nookk-äŋk-s} \)
\(\text{yesterday lsII-sick } f.t.g.-\text{pII-dec} \)
'I got sick yesterday'

\[b. \text{paksänkii ca-nookk-it-ooM-äŋk-s} \)
\(\text{yesterday lsII-sick } f.t.g.-T-\text{aux-pII-dec} \)
'I got sick yesterday'

\[(51)\]a. \(\text{paksänkii ca-cafiikan-äŋk-s} \)
\(\text{yesterday lsII-well } f.t.g.-\text{pII-dec} \)
'I got well yesterday'

\[b. \text{paksänkii ca-cafiikan-it-ooM-äŋk-s} \)
\(\text{yesterday lsII-well } f.t.g.-T-\text{aux-pII-dec} \)
'I got well yesterday'

Even though each of the (a)- and (b)-sentences in (49)-(51) is glossed the same, there are, as with the examples of (46)-(48), implicational differences associated with the presence or absence of \{ooM\}. Sentence (49a) could be uttered if one is simply reporting that one's car broke yesterday. It could or could not be fixed now. Sentence (49b) is used typically if it is noticed that the speaker is without his car. Perhaps he is walking and someone asks what happened such that he is afoot. Sentence (50a) has the implication that the speaker got sick all at once and
is now over the sickness. Sentence (50b) is uttered if the speaker got sick yesterday and is still sick. In both (51a) and (51b), the implication is that the speaker is still well. But only (51b) has the implication that the speaker got well and was able to go somewhere or do something because of it. Thus again, the [ooM] suffix adds and element of backrounding to the event.

In (21) and (22), with unmarked tense signalling the present tense, the presence of [ooM] in an equational sentence backgrounds the participant while the absence of [ooM] foregrounds that participant as being surprising. The absence of [ooM] in equationals is unacceptable when tense is marked. Although the following sentences with [aŋk] 'past II' will serve as examples, when any tense is marked, [ooM] must be present in an equational sentence:

(52) naaki-t suut-ooM-aŋk-aa
    something-T tear up f.t.g.-T-aux-pII-wh
    'What tore it up?'

(53a).*ifa-t-aŋk-s
dog-T-pII-dec

b. ifa-t-ooM-aŋk-s
dog-T-aux-pII-dec
    'It was a/the dog'

(54) istey-t aatami okkoos-aŋk-aa
    who-T car wash f.t.g.-pII-wh
    'Who washed the car?'

(55a).*joo-t-aŋk-s
    Joe-T-pII-dec

b. joo-t-ooM-aŋk-s
    Joe-T-aux-pII-dec
    'It was Joe'
The (a)-sentences in (53) and (55) are not only unacceptable as answers to the questions in (52) and (54), they are ungrammatical Creek sentences. The (b)-sentences with [ooM] are proper responses to the questions. In (21) and (22), the absence of [ooM] in the present tense equational signals surprise at the identity of the participant. The (a)-sentences in (53) and (55) seem to indicate that this surprise is unacceptable if the event is tensed. The speaker knew about the connection between the participant and the event, precluding any epiphany regarding their connection.

The following forms illustrate the use of [ooM] with the 'past I' morpheme [^ey], meaning 'sometime today previous to now' (56); the 'past III' morpheme [imat], meaning 'sometime in either the last few months or years' (57); and the 'future' morpheme [a^ii], meaning simply 'future' (58):

(56)a. ca-naafk-it-ooM-^e-s
   1sII-hit l.g.-T-aux-pI-dec
   'He was hitting me'

   b. ca-naafk-e-s
   1sII-hit l.g.-T-aux-pI-dec
   'He was hitting me'

(57)a. ci-naafk-it-ooM-imat-s
   2sII-hit l.g.-T-aux-pIII-dec
   'He used to beat you'

   b. ci-naafk-imat-s
   2sII-hit l.g.-pIII-dec
   'He used to beat you'
(58)a. kasapp-ii-t-ooM-åii-s
cold Ø g.-ii-T-aux-fut-dec
'It will be cold'

b. kasapp-ii-t-åii-s
cold Ø g.-ii-T-fut-dec
'It will be cold'

Each of the examples with [ooM] in the (a)-sentences in
(56)-(57) are responses to backgrounding of the event of
'hitting'. Typical contextuals are that the patient of the
hitting has scars, either mental or physical, of the
beating he used to receive. The (b)-sentences, without
[ooM], are used simply to inform the hearer of the event
with no implied reference to the background of the results
of that event. In (58), a different verb was used since in
the future the [ooM] morpheme typically has the effect of
implicating a warning of some kind, and is difficult to say
that one is to hit without interpreting this as a warning.
Thus, in (58a) the speaker tells the hearer that it will be
cold, and the implication is that the hearer had better
wear a coat. In (58b), without [ooM], the speaker simply
predicts that it will be cold.

In (21), (22), (53), and (55), the [ooM] suffix
appears following [t]. In all of these examples, the
identified participants are subjects. If one were to get
[n] preceding [ooM], one would expect it to occur when the
identified participant serves as an object, since as we
will see later in this chapter, [n] as a case suffix marks
grammatical objects. Consider the following data:
In (60a), we see that it is unacceptable to answer the question of (59) with an equational that includes \{t\} preceding \{ooM\}. Example (60b), with \{n\}, is the appropriate answer for (59). Example (62a) is unacceptable with \{t\}, while (62b) is acceptable with \{n\}. Even though the Creek forms in (62) do not contain overt forms of the verb [isita] 'to take', it is understood in the English gloss and the Creek form includes overt 1s1 agreement marking to reference the agent. This is the clue to understanding the behavior of \{t\} and \{n\} in (60) and (62). The \{t\} marks the subject relation in these equationals while the \{n\} marks the object relation. What is not realized in (60) and (62) is the event itself. Thus, the \{n\} in (60b) marks [aatami] 'car' as the object of the event [nisita] 'to buy', and in (62b) it marks [islitkita]
'bicycle' as the object of the event {isita} 'to take'. Example (62a) is ungrammatical since the Type I first-person singular agreement must mark the subject and {t} is contradictory in marking {islitkita} as the subject. Example (60a) is unacceptable as a response to (59) because it marks the object {aatami} with the subject marker {t}. It is grammatical, however, because Type I agreement for third-person is {Ø}. Thus, (60a) more specifically means 'It was a/the car that did something'.

Though {n} marking on an event before {oom} is possible, as in (64a) below, (63) and (64) being repeated from (6) for convenience, it is rare in my data and has no other semantic content than that of the 'because' reading:

\[
\begin{align*}
\wedge \\
(63) & \text{naaki-n is-hakeyhk-it-oom-āa} \\
& \text{something-N inst-cry l.g.-T-aux-wh} \\
& \text{'What is he crying about?'}
\end{align*}
\]

(64)a. naafk-ay-ii-n-oom-s
hit l.g.-lsI-ii-N-aux-dec
'Because I'm hitting him'

b. naafk-ay-ii-t-oom-s
hit l.g.-lsI-ii-T-aux-dec
'I'm hitting him'

One cannot legitimately argue that the use of {n} in (64a) is motivated through the switch-reference function of {t} and {n}, whereby the {t} marks a dependent clause if its subject is the same as that of the following clause and {n} marks a dependent clause if its subject is different than that of the following clause. In (64a), the event {hakeyhkita} 'to cry' is not realized, but its subject, the
same as [ooM], is third-person [∅], while the subject of [nafkita] 'to hit' is first-person singular [ay]. Thus, one might argue that the dependent clause is marked with the different-subject marker [n]. In (64b), the subjects of [nafkita] and the auxiliary are also presumably different, but the dependent verb is marked with the same-subject marker [t]. Example (64b) more specifically means that the speaker is in the habit of hitting the patient. As we will see later in this chapter, [t] and [n] have semantic uses as foregrounding and backgrounding markers, respectively, with respect to events and participants within the proposition. Because the construction in (64a) is rare in my data, I will not consider it further in this work.

In most examples in this chapter, Type I marking as well as tense morphemes occur to the right of the [ooM] morpheme. There are examples in which the Type I marking occurs to the left of [ooM], for example in (64), but these have been few in this chapter and this unusual order has thus far been undiscussed. Thus far, we have seen no examples of tense occurring to the left of [ooM]. The following examples relate to this problem of order:

(65)a. kasapp-ii-t- ank-s
   cold ∅ g.-ii-T-pII-dec
   'It was cold'

   b. kasapp-ii-t-ooM-ank-s
   cold ∅ g.-ii-T-aux-pII-dec
   'It was cold'
c. kasapp-ii-t-ANK-T-ooM-s
   cold Ø g.-ii-T-PII-T-aux-dec
   'It was cold'

All the examples in (65) are glossed as 'It was cold', but each has slightly differing semantics. Example (65a) more specifically means 'It was cold there where I was'. Example (65b) means that it was just generally cold, without limiting the coldness to one place, thus backgrounding the cold. Example (65c), which occurs with the tense morpheme [ANK] preceding the [ooM] suffix, means more specifically 'It was cold then', making the tense morpheme and its semantics more closely semantically bonded with the event of 'cold'. Thus, both the event and the tense are backgrounded such that it was generally cold at a specified time. It is not clear why (65c) and other stative constructions which place tense before [ooM] require two [t] morphemes.

The following examples show that these semantics are fairly consistent even when there is a specific human subject participant:

(66)a. ac-aafack-ii-t-ANK-s
   lsII-happy Ø g.-ii-T-PII-dec
   'I was glad over it'

b. ac-aafack-ii-t-ooM-ANK-s
   lsII-happy Ø g.-ii-T-aux-PII-dec
   'I was a happy person'

c. ac-aafack-ii-t-ANK-T-ooM-s
   lsII-happy Ø g.-ii-T-PII-T-aux-dec
   'I was happy then'

Example (66a), like (65a), foregrounds the event such that
it is a momentary happiness over something specific.
Example (66b), with [ooM], backgrounds the event such that the Type II participant is seen as a 'happy person'. And (66c), which places the tense morpheme before the auxiliary, binds the time more closely with the backgrounded event.

The following examples show the interaction of these semantics with active verb roots:

(67)a. liitk-ānk-s
   run l.g.-pII-dec
   'He ran'

b. liitk-it-ooM-ānk-s
   run l.g.-T-aux-pII-dec
   'He ran'

c. liitk-ānk-t-ooM-s
   run l.g.-pII-T-aux-dec
   'He ran'

(68)a. ci-nāafk-ānk-s
   2sII-hit f.t.g.-pII-dec
   'He hit you'

b. ci-nāafk-it-ooM-ānk-s
   2sII-hit f.t.g.-T-aux-pII-dec
   'He hit you'

c. ci-nāafk-ānk-t-ooM-s
   2sII-hit f.t.g.-pII-T-aux-dec
   'He hit you'

In the (a)-sentences of (67)-(68), the speaker is simply reporting a fact. Example (68a) is judged a bit strange since anyone who is hit would normally know it. A context for the (b)-sentences is that the hearer has the background knowledge that someone ran in (67b) and someone hit him in (68b) but does not know who performed the activities. The
(b)-sentences would then supply that information, given that the agent of the sentences were present in the speech environment cognitively or physically. The (c)-sentences, in which the tense morpheme occurs before the [ooM] morpheme, bind the tense more closely with the event such that in (67c) the implication is that the agent has run a race before and is capable of doing it again. In (68c), the implication is that the agent has hit the hearer before and could do it again.

Thus far, we have explored only the possibility of the tense morpheme occurring before the [ooM] morpheme. It is also possible for the Type I participant markers to occur before the [ooM] morpheme. Since third-person Type I agreement is unmarked and Type II and Type III marking are prefixes, this discussion and the semantics of marking Type I before the [ooM] auxiliary can only be related to Type I first- and second-person marking. For example, in (67)-(68) it is impossible to tell whether the Type I third-person marking occurs before or after the [ooM] auxiliary. Note the following examples:

(69)a. aatami ohh-atootk-ay-ii-t-ooM-s
car on-work l.g.-1sI-ii-T-aux-dec
'I work on cars'

b. aatami ohh-atootk-it-ooM-e-s
car on-work l.g.-T-aux-1sI-dec
'I'm working on a/the car'

c.*aatami ohh-atootk-ey-t-ooM-s
car on-work l.g.-1sI-T-aux-dec
In the (a) examples of (69)-(72), the Type I first-person singular agreement marker occurs to the left of the {ooM} auxiliary. Note from (69c) that the {ii} morpheme, which occurs in all of the (a)-sentences after the Type I marker but before the {ooM} auxiliary, is required if the Type I first- or second-person person marker occurs before the {ooM} morpheme. The occurrence of the Type I marker before the {ooM} morpheme binds semantically that participant more closely with the event. In (69a), the speaker is saying that he works on cars as a habit or as a profession. The same is true of the relation between the Type I participant and the event in (70a). In (71a), the speaker is saying that he runs regularly for physical activity. And in (72a), the speaker is simply saying that he lives in Tulsa.
In all of these, the enduring state of the event is consistent with the presence of the [ii] morpheme though it does not explain its necessary occurrence. In the (b)-sentences of (69)-(72), in which the Type I participant marker occurs following the [ooM] morpheme, the binding between the Type I participant and the event is much looser, though the [ooM] morpheme on the verb indicates that the response is backgrounded, typically, to a question about what the speaker is working on (69), what the speaker is buying (70b), what the speaker is doing (71b), and where the speaker lives (72b). In (72b), the occurrence of the Type I marker after the [ooM] morpheme indicates that the speaker is just living in Tulsa now with the implication that he has not always done so or that he might not always do so.

There are slight variations in semantics when both the Type I participant marker and the tense morpheme occur before the [ooM] suffix and when only the person marker or the tense morpheme occurs before the auxiliary, as in the following:

(73)a. `nooc-ick-ankan-ooM-s
   sleep f.t.g.-2sI-pII-T-aux-dec
   'You went to sleep'

b. `nooc-ankan-ooM-ick-is
   sleep f.t.g.-pII-T-aux-2sII-dec
   'You went to sleep'

c. `nooc-ick-ikan-ooM-ikan-s
   sleep f.t.g.-2sI-ii-T-aux-pII-dec
   'You went to sleep'
(74)a. am-anneec-ick-anηk-t-ooM-s
   l5III-help 1.g.-2sI-pII-T-aux-dec
   'You helped me'

b. am-anneec-anηk-t-ooM-ick-is
   l5III-help 1.g.-pII-T-aux-2sI-dec
   'You helped me'

c. am-anneec-ick-il-t-ooM-anηk-s
   l5III-help 1.g.-2sI-il-T-aux-pII-dec
   'You helped me'

In the (a)-sentences of (73)-(74), both the Type I participant marker and the [anηk] 'past I' marker occur
before the [ooM] auxiliary. In the (b)-sentences, only the
tense marker occurs before the [ooM] auxiliary. And in
the (c)-sentences, only the participant marker occurs
before the auxiliary. Note from the (c)-sentences that
[il] is required when the person marker precedes alone
[ooM]. In the (a)-sentences, the whole proposition is
backgrounded with the resultant semantics in (73a) that the
hearer has gone to sleep before and he might sleep again.
A typical context given for (73a) is that the hearer went
to sleep driving before, and the speaker is saying that he
cannot drive now because he might go to sleep again. And
in (74a), a context is that the hearer is wondering if he
was of any help to the speaker. In the (b)-sentences, with
the Type I marker occurring outside the [ooM] auxiliary,
the participant is less backgrounded or bonded with the
event. The speaker is saying in (73b) that the hearer
slept before and now he cannot sleep again. And in (74b),
the speaker is saying that the hearer helped before and
that he could help again. Thus in both of the (b)-
sentences, the prospect of the Type I participant
performing the event again is in question. This is the
semantic result of the looser bonding between the
participant and the event. In the (c)-sentences of (73)-
(74), the only difference from the (a)-sentences of (69)-
(72) is the occurrence of a tense morpheme outside the
[oom] auxiliary. The occurrence of the past tense morpheme
simply situates the habitual activity in past time, such
that in (73c) it is asserted that the hearer slept all day
yesterday and in (74c) it is asserted that the hearer
helped the speaker all day yesterday.

Thus far in this chapter, we have examined the use of
the [oom] auxiliary only in simple sentences. Though its
use in complex sentences is just as varied as its use in
simple sentences, we will examine it in complex sentences
of only two types because the semantics of its use in
complex sentences is basically the same as its use in
simple sentences. First, examine the use of [oom] in the
first clauses of the following compound sentences:

(75)a. cipanii liitk-it-oom-in ^naafk-it-oom-ay-ank-s
    boy       run l.g.-T-aux-N hit f.t.g.-T-aux-1sI-pII-dec
'I hit the boy because he was running'

b. cipanii liitk-in ^naafk-it-oom-ay-ank-s
    boy       run l.g.-N hit f.t.g.-T-aux-1sI-pII-dec
'I hit the boy because he was running'

(76)a. cipanii homp-it-oom-in ^naafk-it-oom-ay-ank-s
    boy       eat l.g.-T-aux-N hit f.t.g.-T-aux-1sI-pII-dec
'I hit him because he was eating'
b. cipanii homp-in naafk-it-ooM-ay-ank-s
   boy eat l.g.-N hit f.t.g.-T-aux-IsI-pII-dec
   'I hit him because he was eating'

The (a)- and (b)-sentences in each of (75) and (76) are
glossed the same, but there is a semantic difference. In
(75a), in which the [ooM] auxiliary occurs in the first
clause, the meaning is that the speaker hit the boy not
simply because he was running, but because he was running
away from something that he had done wrong. In (75b),
where there is no [ooM] morpheme in the first clause, the
meaning is that the speaker hit the boy simply because he
was running and perhaps should not have been. In (76a),
with the [ooM] auxiliary in the first clause, the meaning
is that the speaker hit the boy because he was eating
something that he should not have been eating. In (76b),
where there is no [ooM] auxiliary in the first clause, the
meaning is that the speaker hit the boy simply because he
was eating when he should not have been. All of the
sentences in (75)-(76) may be interpreted as simply
compounds that read something like 'The boy was running,
and I hit him' and 'The boy was eating and I hit him'. In
interpreting either the (a)- or the (b)-sentences as
containing a 'because' clause, there is a necessary element
of ordering, but the use of the [ooM] morpheme implies a
greater degree of backgrounding in that relationship. In
(75a), the boy was hit not simply because he was running
when he shouldn't have (75b), but because he was running
away when he had done something wrong. In (76a), the boy was hit not simply because he was eating when he shouldn't have (76b), but because he was eating something he shouldn't have.

Note the following further contrasting examples with and without [ooM] in modificational structures:

(77)a. hoktii capahk-it-ooM-aa-n
    woman angry ꚥ g.-T-aux-aa-N
    ṭaał-t-ṛ=h=M-e-s
    hire f.t.g.-T-aux=h g.-1sI-dec
    'I hired the angry woman'

b. hoktii capahk-aa-n
    woman angry ꚥ g.-aa-N
    ṭaał-t-ṛ=h=M-e-s
    hire f.t.g.-T-aux=h g.-1sI-dec
    'I hired the angry woman'

(78)a. aatami caat-it-ooM-aa-n
    car red ꚥ g.-T-aux-aa-N
    niis-t-ṛ=h=M-e-s
    buy f.t.g.-T-aux=h g.-1sI-dec
    'I bought the red car'

b. aatami caat-aa-n
    car red ꚥ g.-aa-N
    niis-t-ṛ=h=M-e-s
    buy f.t.g.-T-aux=h g.-1sI-dec
    'I bought the red car'

All four examples in (77)-(78) have dependent clauses which contain the [aa] 'identifiable' morpheme in non-tensed events. The (a)- and (b)-sentences in each are glossed the same, but there is a semantic difference. In the (b)-sentences, the dependent clauses simply identify uniquely the participant. In (77a), with the [ooM] auxiliary, the
speaker is saying that he knew that the woman was angry but
he hired her anyway. And in (78a), with the auxiliary, the
speaker is saying that he knew that the car was red and
perhaps did not want a red car but bought it anyway. In
both of the (a)-sentences sentences as opposed to the (b)-
sentences, there is a degree of backgrounding knowledge
evident in the dependent clauses.

As we have seen throughout this section, the effect of
the {oom} auxiliary suffix is to background the participant
or event to which it is suffixed. This backgrounding
semantics takes numerous semantic instantiations. There is
the backgrounding of an enduring state, as in (1)-(5),
(10)-(11), and (15)-(18); the backgrounding of contextual
semantics as in (6)-(9), (12)-(14), and (46)-(51); the
backgrounding of existentials as in (21)-(26); and the
various backgrounding semantics involved in answering
questions with sentences containing the {oom} morpheme as
in (27)-(45). Example numbers given here are simply for
quick review. There are many more examples given in this
chapter of each instantiation, and frequently one example
illustrates more than one instantiation. As is normal with
a morpheme that has numerous semantic instantiations, there
is little use in identifying the lexical content of the
{oom} morpheme with 'to do' or 'to be', though each of
these glosses might be appropriate in a given context.
Instead, it seems more felicitous to say that the {oom}
morpheme has a semantic sense of backgrounderg, and that its specific semantic instantiations are a result of its interaction with the circumstance of the sentences in which it occurs and/or with the circumstance of the speech situation. We have seen deconstructionist semantics in use throughout this work, but it seems especially important to stress them here since this chapter thus far has been about only one morpheme and its many uses.

7.3 {t}, {n}, and {Ø} as Participant and Event Suffixes

In this section of Chapter 7, we will examine the use of the morphemes {t}, {n}, and {Ø} to mark participants in what is understood as case relations, as well as to mark events in what is understood to be switch-reference relations. In section 7.3.1, we will see that {t} and {n} marking follows exactly the demands of case marking on simple nominals, though the presence or absence of {t} and {n} individually is determined by discourse notions such as given--new. And in section 7.3.2, we will see that {t} and {n} marking in compound sentences follows exactly the demands of switch-reference marking. Jacobsen (1969) was the first to describe the general phenomena of switch reference whereby a dependent clause is marked as having the same or a different subject as the matrix clause. As we will see in section 7.3.3, it is only when we consider {t} and {n} marking on modificational clauses that we get what might be considered exceptional {t}-{n} marking, in
that frequently the choice of marking on dependent clauses
such as relative clauses and adverbial clauses reflects
neither the semantics of case-marking nor the semantics of
switch-reference.

7.3.1 \{t\}, \{n\}, and \{\emptyset\} as Participant Markers

The following examples illustrate the basic
possibilities of using \{t\}, \{n\} and \{\emptyset\} to mark
participants in an independent asserted proposition:

(79)a. honanwa-\emptyset -t *-n nooc-is
    man -\emptyset -T -N sleep l.g.-dec
    'The/A man is sleeping'

    b. honanwa-\emptyset -t *-n hoktii-\emptyset *-t -n hi=h=c-is
       man -\emptyset -T -N woman -\emptyset -T -N see=h g.-dec
       'The/A man saw the/a woman'

Example (79a) is an intransitive proposition with a subject
as the only participant. As the example shows, either \{\emptyset\}
or \{t\} may occur as a participant suffix in this sentence.
The suffix \{n\} may not occur. Thus, the first
generalization that we make is that given the choice
between \{t\} and \{n\}, \{t\} marks the subject of an
intransitive proposition. Example (79b) is a transitive
proposition with both a subject and an object as
participants. Note that the subject of this transitive
proposition, just as the subject of the intransitive
proposition in (79a), may take either the \{\emptyset\} or the \{t\}
marker, but not the \{n\}. Example (79b) also shows that the
object of a transitive proposition may be marked with
either {Ø} or {n}, but not {t}. It thus appears that {t} marks subjects of both intransitive and transitive propositions and {n} marks objects of transitive propositions, with {Ø} marking both subjects and objects.

The following examples show the {n} marker as a generalized oblique marker:

(80) a. ito -Ø *-t -n is-naafk-anq-s
   wood-Ø -T -N inst-hit f.t.g.-pII-dec
   'He hit him with a stick'

   b. hoklil-Ø *-t -n im-ponaay-anq-s
   woman-Ø -T -N IIII-talk f.t.g.-pII-dec
   'He talked to a/the woman'

The examples in (80) show that it is possible to mark an instrumental object, e.g. (80a), or a goal, e.g. (80b), with {Ø} or {n}, but not with {t}. All other objects are marked with {Ø} or {n} but not {t}.

As we saw in Chapter 6, and as we also see in the English glosses to examples (79) and (80), the presence or absence of {t} or {n} marking has nothing to do with identifiability--nonidentifiability. With or without {t} or {n}, the NP can be glossed in English with the definite or indefinite articles. As we will see throughout this chapter, the presence or absence of {t} or {n} is related to, but not the same as, the discourse notions of given--new (Chafe 1976). The following examples show how it is possible to unambiguously mark identifiable participants:

(81) a. hiiya ito -Ø -n is-naafk-anq-s
   this wood-Ø -N inst-hit f.t.g.-pII-dec
   'He hit him with this stick'
b. ma hokti-ŋ –n im-ponaay–ŋk-s
   that woman –ŋ –N 3I1I-talk f.t.g.–p11-dec
   'He talked to that woman'

Unambiguous identifiability of unmodified NP's is possible only with the use of demonstratives such as those illustrated in the examples in (81).

The following examples illustrate the interaction of the semantics of given--new and the {t}, {n}, and {ŋ} markers:

(82) istey-t ifa ito is-naaf-ŋt ooM–a
    who-T dog wood inst-hit f.t.g.–T-aux–wh
    'Who hit a/the dog with a/the stick?'

(83)a. joo-t is-naaf-ŋt o=h=M–is
    Joe-T inst-hit f.t.g.–T-aux=h g.–dec
    'Joe hit him with it'

b. joo-t ifa ito is-naaf-ŋt o=h=M–is
    Joe-T dog wood inst-hit f.t.g.–T-aux=h g.–dec
    'Joe hit a/the dog with a/the stick'

(84) naaki–n joo ito is-naaf=a y=k–a
    something–N Joe wood inst-hit=h g.–wh
    'What did Joe hit with the stick?'

(85)a. ifa–n is-naaf-ŋt o=h=M–is
    dog–N inst-hit f.t.g.–T-aux=h g.–dec
    'He hit a/the dog with it'

b. joo ifa–n ito is-naaf-ŋt o=h=M–is
    Joe dog–N wood inst-hit f.t.g.–T-aux=h g.–dec
    'Joe hit a/the dog with a/the stick'

(86) naaki–n joo ifa is-naaf=a y=k–a
    something–N Joe dog inst-hit=h g.–wh
    'What did Joe hit a/the dog with?'

(87)a. ito–n is-naaf-ŋt o=h=M–is
    wood–N inst-hit f.t.g.–T-aux=h g.–dec
    'He hit him with a/the stick'

b. joo ifa ito–n is-naaf-ŋt o=h=M–is
    Joe dog wood–N inst-hit f.t.g.–T-aux=h g.–dec
    'Joe hit a/the dog with a/the stick'
The question in (82) asks for the identification of the subject of the proposition. Both of the examples in (83) are acceptable responses. Example (83a) is the most frequent of the two responses to the question in (82) since it does not contain the NP's (ifa) 'dog' and (ito) 'wood', which are given by the question. The important thing to note from (83a) is that the NP (joo) has the subject suffix [t]. This [t] marks not only the grammatical relation subject, but also the NP (joo) as new to the discourse. The NP (joo) is new in that it is the NP whose identification is asked for in the question of (82). Example (83a) is not acceptable as a response to (82) without the [t] marker on (joo). As mentioned above, example (83b) is also an acceptable answer to (82). In (83b), the NP (joo) is marked with the suffix [t], and the sentence is unacceptable as a response to (82) without this [t]. Note also that the NP's (ifa) and (ito) are not suffixed with either [t] or [n]. This absence of either the [t] or [n] markers indicates that the NP's are given. They are given in that they are mentioned in the question of (82). But note in (82) that the NP's are also not suffixed with either [t] or [n]. Their givenness there is a result of either the context of the situation or the discourse. Example (83b) is not acceptable as a response to (82) if the NP's (ifa) or (ito) are marked with [t] or [n].
The question in (84) asks for the identification of the patient object of the proposition. Both of the examples in (85) are acceptable responses to the question in (84). Example (85a) is the most common answer in my data to the question of (84) for the same reason that (83a) is the most common answer for (82). Note that in (85a) the NP [ifa] is suffixed with [n]. This [n] suffix is compatible with all grammatical objects. But like the presence of the [t] marker in the examples of (83), it too marks discourse newness. Example (85a) is not acceptable as an answer to (84) if [ifa] is not suffixed with the [n] morpheme. Example (85b) is also an acceptable answer to question (84). Note that [ifa] is suffixed with [n] and that the other two NP's, which are given from the question of (84), are not suffixed with either [t] or [n].

The question in (86) asks for the identification of the instrument object of the proposition. The questions in (84) and (86) are potentially ambiguous in asking for the identification of either the patient or the instrument, but this ambiguity is avoided in that a stick is not usually a patient and a dog is not usually an instrument with the event [nafkita] 'to hit'. Both of the responses in (87) are acceptable answers for the question of (86), but again, that of (87a) is the most common. The [n] suffix must occur on the NP [ito] in (87a) to mark it simultaneously as an object and as a new participant to the discourse.
Example (87b) is also acceptable, but only if [joo] and [ifa] are not suffixed and only if [ito] is suffixed with [n].

Schuetze-Coburn (1987.150) notes that in Oklahoma Seminole, 'NPs which are nonindividuated do not bear case marking felicitously.' This is the case in Creek as well.

Note the following examples:

\[
\begin{align*}
\text{\textasciitilde} & \quad \text{\textasciitilde} \\
(88) & \quad \text{naaki-n paap-ick-aa} \\
& \quad \text{something-N eat l.g.-2SI-wh} \\
& \quad \text{'What are you eating'}
\end{align*}
\]

(89)a. sata-n paap-t-ooM-e-s
\quad apple-N eat l.g.-T-aux-1SI-dec
\quad 'I'm eating an/the apple'

b. sata-∅ paap-t-ooM-e-s
\quad apple-∅ eat l.g.-T-aux-1SI-dec
\quad 'I'm eating apples'
\quad 'I'm eating an/the apple'

Both of the sentences in (89) are acceptable answers to the question in (88). Both provide the identification of the participant asked for in (88). The NP is marked with [n] in (89a), and is unmarked in (89b). In (89a), the [n] marks the NP as new, but it also marks it as individuated. The absence of marking in (89b) indicates that the NP is either non-individuated as in the first gloss, or as given already in the discourse somehow, as in the second gloss.

There appears to be a very clear difference in the use of [t] and [n] in Oklahoma Seminole and Creek. This is in what Schuetze-Coburn (1987.150-56) labels 'exceptional -t/-n marking'. Note the following examples:
(90) sata -Ø -T *-n solk-ii-t-oOM-s
apple-Ø -T -N many Ø g.-ii-T-aux-dec
'There are lots of apples'

(91)a. ma honanwa im-aatami-n hi=h=c-e-s
that man 3III-car-N see=h g.-lsI-dec
'I saw that man's car'

b. ma honanwa-n im-aatami hi=h=c-e-s
that man-N 3III-car see=h g.-lsI-dec
'I saw that man's car'

c.*ma honanwa-n im-aatami-n hi=h=c-e-s
that man-N 3III-car-N see=h g.-lsI-dec

(92)a. naaki-t hopank-aa
something-T break f.t.g.-wh
'What broke?'

b. istey im-aatami-t hopank-aa
who 3III-car-T break f.t.g.-wh
'Whose car broke?'

(93)a. ma honanwa im-aatami-t hopank-t-oOM-s
that man 3III-car-T break f.t.g.-T-aux-dec
'That man's car broke'

b. ma honanwa-t im-aatami hopank-t-oOM-s
that man-T 3III-car break f.t.g.-T-aux-dec
'That man's car broke'

c.*ma honanwa-t im-aatami-t hopank-t-oOM-s
that man-T 3III-car-T break f.t.g.-T-aux-s

In example (90), we see that either [t] or the absence of marking on [sata] may occur, but not [n]. Actually, the absence of marking is most common on [sata] in (90) since the NP is nonindividuated. The [t] can occur, and when it does it reflects discourse newness as well as the grammatical relation subject. Schuetze-Coburn (1987.151) indicates that the example in (90) may occur with the [n] marker on [sata] in Oklahoma Seminole if there is a pause after [sata-n]. He writes, 'satan is a loosely aligned
"external nominal" of a sort, and is not directly governed by the verb.' The [n] may not occur on [sata] in (90) in Creek in my data whether or not there is a pause after [sata-n]. Schuetze-Coburn (1987:152) also indicates that examples like (91c) are possible where a case marker occurs on a possessor, though that possessor does not bear a grammatical relation of object to the verb. It is the case, as (91b) shows, that in Creek [n] may occur on the possessor, but it cannot occur on both the possessor and the possessed object as in (91c), even if there is a pause after [ma honanwa-n], which is necessary in Oklahoma Seminole for this type of marking to occur.

There is a semantic difference between (91a) and (91b). In (91a), the case marking occurs on the possessed item, and the implication is that the speaker is simply informing the hearer that he saw the man's car, with the whole proposition being new information since the [ooM] backgrounding morpheme does not occur on the verb, as it would if a question such as 'What did you see?' were asked. In (91b), where the [n] marker occurs on the possessor, not the possessed, the English gloss has sentence accent on the word 'that', which indicates that even though the whole proposition is again new information, the possessor is being singled out for special attention.

The examples in (93) illustrate the same facts about [t] marking that the examples in (91) illustrate about [n]
marking. For example, (93c) is ungrammatical whether or not there is a pause after \{ma honanwa-t\}. To clarify the semantics of marking the possessor or the possessed, I have included questions that one or the other but not both answer. Example (93a) with the \{t\} marking on the possessed item answers the question in (92a). The \{t\} marks the subject grammatical relation as well as discourse newness. Example (93b) with the \{t\} marking on the possessor answers the question in (92b), in which the identification of the possessor of the car which broke is asked for. The examples in (91b) and (93b) show clearly that \{n\} and \{t\} do not serve strictly the semantics of grammatical relations since in (91b) \{honanwa-n\} is not actually the object and in (93b) \{honanwa-t\} is not actually the subject. Schuetze-Coburn (1987.157) reports that in Oklahoma Seminole \{t\} and \{n\} and their absence on NP's have the same pragmatic function as I have shown them here to have in Creek—to track given—new status in discourse. There are other examples of exceptional marking which Schuetze-Coburn explores, but I will not examine them here since they do not occur in Creek and they are all variations, though important variations, on the exceptional marking which we have already explored. It is also to be noted that the semantics of the absence of \{t\} and \{n\} is consistent with the semantics of the absence of nominal marking described in Alabama by Davis and Hardy (1988).
7.3.2 {t} and {n} as Switch Reference Markers

The normal interpretation of the grammatical phenomena of switch-reference is that the concerned morphology indicates whether the subject of the first clause is the same or different from the subject of the second clause in a compound sentence (Jacobsen 1967). Note the following examples in Creek, which bear out this understanding of switch reference:

(94)a. coko-n pa=h=s-it
    house-N sweep=h g.-T

    palakna-n okkoos-t-ooM-e-s
    dish-N wash l.g.-T-aux-1sI-dec
    'I swept the floor and am now washing the dishes'

/  

    b. coko-n pa=h=s-e-t
    house-N sweep=h g.-1sI-T

    palakna-n okkoos-t-ooM-e-s
    dish-N wash l.g.-T-aux-1sI-dec
    'I swept the floor, and now I'm washing the dishes'

/  

(95)a. coko-n pa=h=s-it
    house-N sweep=h g.-T

    palakna-n okkoos-t-ooM-ick-is
    dish-N wash l.g.-T-aux-2sI-dec
    'You swept the house and are now washing the dishes'

/  

    b. coko-n pa=h=s-it
    house-N sweep=h g.-T

    palakna-n okkoos-t-ooM-s
    dish-N wash l.g.-T-aux-dec
    'He swept the house and is now washing the dishes'

In each of the examples of (94)-(95), the {t} suffix on the first verb indicates that its subject is the same as the second verb. An {n} or {∅} on any of the first verbs in (94)-(95) would be ungrammatical. Note from the
examples in (94) that the first verb may or may not occur with Type I first-person singular marking for the subject on the first verb. The occurrence of any other person marking for subject on the first verb is not possible if the two verbs have the same subject. For example, (95a) would be ungrammatical with Type I second-person singular marking on the first verb. There is no principled reason for this non-occurrence of any person marking but first-person singular on the first verb of a same-subject compound sentence, but there is a meaning difference between (94a) and (94b). Only (94b), with Type I marking on the first verb, indicates a complaint, so that there is contrastive stress on the word 'I' in both clauses of the English gloss.

Note the following examples of compound clauses in which the subject of the first verb is different from the subject of the second:

\(\)

(96) a. coko-n pa=h=s-e-n
    house-N sweep=h g.-1sI-N

    palakna-n okkoos-t-ooM-ii-s
    dish-N wash l.g.-T-aux-1pI-dec
    'I swept the floor, and we are now washing the dishes'

    b. coko-n pa=h=s-ick-in
    house-N sweep=h g.-2sI-N

    palakna-n okkoos-t-ooM-e-s
    dish-N wash l.g.-T-aux-1sI-dec
    'You swept the house, and I'm now washing the dishes'
c. coko-n pas-a=h=k-in
    house-N sweep-pl=h g.-N
    palakna-n okkoos-t-ooM-e-s
    dish-N    wash l.g.-T-aux-1sI-dec
    'They swept the floor, and I'm now washing the dishes'

In each of the examples of (96), the first clause is
suffixed with [n], which indicates that the subject of the
first verb is different from the subject of the second
verb. Note that in (96a) and (96b) the first verb is
obligatorily marked explicitly for participant agreement.
Note that in (96c), because the first verb has a plural
third-person participant, the verb is infixed with the
plural marker [ak].

The following examples show that it is possible to get
more than two verbs in a switch-reference marked sentence:

(97a. coko pa=h=s-it palakna okko=h=s-it
    house sweep=h g.-T dish    wash=h g.-T

    accakii tinip-eec-t-ooM-s
    clothes flat-trs l.g.-T-aux-dec
    'He swept the house, washed the dishes, and now
    he's ironing the clothes'

(97b. coko pa=h=s-it palakna okko=h=s-in
    house sweep=h g.-T dish    wash=h g.-N

    accakii tinip-eec-t-ooM-s
    clothes flat-trs l.g.-T-aux-dec
    'He(1) swept the house and washed the dishes, and now
    he's(2) ironing the clothes'

(97c. coko pa=h=s-in palakna okko=h=s-in
    house sweep=h g.-N dish    wash=h g.-N

    accakii tinip-eec-t-ooM-s
    clothes flat-trs l.g.-T-aux-dec
    'He(1) swept the house, he(2) washed the dishes, and
    now he's(3) ironing the clothes'

In (97a), the first two verbs of the sentence are suffixed
with {t}, indicating that the subjects of all three clauses are the same. In (97b), the first verb is suffixed with {t}, indicating that the subjects of the first two clauses are the same, but the second verb is suffixed with {n}, indicating that the subject of the second and third clauses are different. In (97c), the first two verbs of the sentence are suffixed with {n}, indicating that the subjects of all three clauses are different.

Note from the following examples that it is the subject of the sentence that must be coreferential for the {t} marker, or be non-coreferential for the {n} marker, not any of the objects:

(98)a. \(^{\wedge}\) joo-t ca-naf=\(^{\wedge}\) y=k-in
    Joe-T 1sII-hit=h g.-N
    \(^{\wedge}\) saara-t ca-naafk-it-ooM-s
    Sara-T 1sII-hit f.t.g.-T-aux-dec
    'Joe hit me first, and then Sara hit me'

(98)b. \(^{\wedge}\) joo-t am-pona=h=y-in
    Joe-T 1sII-talk=h g.-N
    \(^{\wedge}\) saara-t ca-naafk-it-ooM-s
    Sara-T 1sII-hit f.t.g.-T-aux-dec
    'Joe talked to me first, and then Sara hit me'

Though in (98a) the objects of the two verbs are the same, even in so far as having the same Type II marking, because the subjects of the two verbs are different, the first verb is suffixed with the different-subject marker {n}. And in (98b), the person and number of the objects of the two verbs are the same, but again because the subjects of the two verbs are different, the first verb is suffixed with
the different-subject marker \{n\}.

All of the examples of same and different subject that we have examined thus far in this chapter have been Type I participants. The following examples show that Type II and Type III participants also participate in switch-reference tracking:

\[(99)\]a. ca-capah=ey=k-it \quad \text{naafk-it-oSM-e-s}
   1sII-angry=h g.-T hit f.t.g.-T-aux-1sI-dec
   'I got angry and hit him'

\[\quad\]

\[(99)\]b. ca-capah=ey=k-in \quad \text{naafk-it-oSM-is}
   1sII-angry=h g.-N hit f.t.g.-T-aux-dec
   'I got angry, and he hit him'

\[(100)\]a. an-hayiiy-it \quad \text{ac-ahook-e-s}
   1sIII-hot l.g.-T 1sII-cough l.g.-pI-dec
   'I got hot and was coughing'

\[\quad\]

\[(100)\]b. in-hayiiy-in \quad \text{ac-ahook-e-s}
   3III-hot l.g.-N 1sII-cough l.g.-pI-dec
   'He got hot, and I was coughing'

Example (99a), with the same-subject marker \{t\} on the first verb, indicates that the Type II first-person singular subject of the first verb is the same as the Type I first-person singular subject of the second verb.

Example (99b) has the different-subject marker on the first verb to indicate that the Type II subject of the first verb is different from the Type I subject of the second verb.

Example (100a), with the same-subject marker \{t\} on the first verb, indicates that the Type III first-person singular subject of the first verb is the same as the Type II first-person singular subject of the second verb.

Example (100b) has the different-subject marker \{n\} on the
first verb to indicate that the Type III subject of the
first verb is different from the Type II subject of the
second verb.

If the subject is singular in one clause but plural in
the other, and the singular subject is logically included
in the plural subject, the different-subject marker is used
in any case, as in the following data:

(101)a. coko-n pas-a=h=k-in
    house-N sweep-pl=h g.-N

        palakna-n okkoos-t-ooM-s
    dish-N wash l.g.-T-aux-dec
       'They swept the house, and he's now washing the
dishes'

    b. coko-n pa=h=s-in
    house-N sweep=h g.-N

        palakna-n okkos-aak-t-ooM-s
    dish-N wash-pl=l.g.-T-aux-dec
       'He swept the house, and they are now washing the
dishes'

The examples in (101) are marked with the different-subject
{n} marker regardless of whether the singular third-person
subject is logically included in the third-person plural
subject or not. The same-subject marker {t} on the first
clauses is ungrammatical.

Thus far in this chapter, we have seen that the uses
of {t}, {n}, and {Ø} as suffixes reflecting both
subject/object relations and discourse givenness/newness as
well as the uses of {t} and {n} as switch-reference markers
have been unproblematic. In fact, we have seen that the
use of {t}, {n}, and {Ø} as participant markers is less
problematic in Creek than in Oklahoma Seminole. There are two ways to view the phonological identity of the \{t\} and \{n\} markers as participant markers and as switch-reference markers. The first is to view them as homophonous, by which we assume that there is no semantic unity between the two uses. The second is to view them as polysemous, by which we assume that there is a semantic unity between the uses. As yet, we have no evidence for adopting the second view of polysemy. The \{t\} morpheme on participants marks the subject grammatical relation as well as discourse newness, \{n\} on participants marks the oblique grammatical relation as well as discourse newness, and \{\emptyset\} on participants is ambiguous between subject and oblique grammatical relations, but marks givenness. The morpheme \{t\} on verbs in compound sentences indicates the same subject as the next clause, and \{n\} on verbs in compound sentences indicates a different subject from the next clause. And \{\emptyset\} does not occur on verbs of compound sentences.

7.3.3 \{t\} and \{n\} as Markers of Dependent Clauses

The morphemes \{t\} and \{n\} are also used as suffixes on dependent verbs that are marked with \{ii\} and \{aa\}, as we saw in Chapter 6. In most examples of \{t\} and \{n\} marking in Chapter 6, it was impossible to tell whether \{t\}/\{n\} marked case or switch reference. In this section, we will
make explicit the function of \{t\} and \{n\} marking on non-tensed relative clauses. Tensed relative clauses will not be explored here, except briefly in the conclusion, for the sake of brevity and because the semantics of \{t\} and \{n\} marking on tensed relatives is basically the same as that on non-tensed relatives. It is there in those dependent clauses which lie somewhere between participants and events that we will look for the semantic link between the uses of \{t\} and \{n\} as participant markers and their uses as event markers. Note the following examples, which will begin this discussion:

(102)a. hoktii nih-ii -t *-n *-Ø
   woman fat Ø g.-ii-T -N -Ø
   \^ ca-naafk-it-ooM-s
   1sIII-hit f.t.g.-T-aux-dec
   'A fat woman hit me'

b. hoktii liitk-ii -t *-n *-Ø
   woman run l.g.-ii-T -N -Ø
   \^ ca-naafk-it-ooM-s
   1sIII-hit f.t.g.-T-aux-dec
   'A woman who is running hit me'

(103)a. aatami mocos-ii -n *-t *-Ø
   car new Ø g.-ii-N -T -Ø
   \^ an-hoîkoop-t-ooM-s
   1sIII-steal f.t.g.-T-aux-dec
   'He stole a new car from me'

b. hoktii homp-ii -n *-t *-Ø pa=h=1-e-s
   woman eat l.g.-ii-N -T -Ø hire=h g.-1sI-dec
   'I hired a woman who was eating'

The dependent verbs in (102)-(103) cannot take \{Ø\} as a suffix, a fact which might indicate that \{t\} and \{n\} are marking switch-reference, but because the \{t\} and \{n\} occur
just as they would if they were marking switch reference or case, it is actually yet unclear which the \{t\} and \{n\} are marking.

If a participant modified by an verb used intransitively serves as the subject of the matrix verb, the subjects of the two clauses cannot be different since the participant of the intransitive verb must be the subject. The following examples then show the effect on \{t\}/\{n\} marking when the subjects of the two verbs used transitively are the same, yet the dependent clause modifies the object of the matrix verb as in (104a), and when the subjects of the two verbs are different, yet the dependent clause modifies the subject of the matrix verb as in (104b):

(104)a. aatami niis-ay-ii  n  *-t  
  car buy f.t.g.-1sI-ii-N  -T

  satookk-á-áii-s
  drive Ø g.-1sI-fut-dec
  'I'll drive a car I bought'

b. cipanii in-liitk-íck-ii  -t  *-n
  boy 3sIII-run l.g.-2sI-ii-T  -N

  ca-naf=ey=k-s
  1sII-hit=h g.-dec
  'A boy you're running from hit me'

The examples in (104) show clearly that in non-tensed relatives suffixed with \{ii\}, the \{t\} and \{n\} markers are sensitive to grammatical subjects and grammatical objects and not switch reference.

The following examples attempt the interchange of \{t\}
and [n] on intransitive and transitive events suffixed with [aa]:

(105)a. ifa last-aa -t *-n ac-aakk-it-ooM-s
    dog black ø g.-aa-T -N 1sII-bite f.t.g.-T-aux-dec
    'The black dog bit me'

b. cipanii liitk-aa -t *-n ca-naafk-it-ooM-s
    boy run l.g.-aa-T -N 1sII-hit f.t.g.-T-aux-dec
    'The boy that's running hit me'

c. hoktii sata paap-aa -t *-n
    woman apple eat l.g.-aa-T -N
    ca-naafk-it-ooM-s
    1sII-hit f.t.g.-T-aux-dec
    'The woman who is eating the apple hit me'

(106)a. cipanii im-ponaay-ick-aa -t -n
    boy 3sIII-talk l.g.-2sI-aa-T -N
    ca-naf=ey=k-s
    1sII-hit=h g.-dec
    'The boy you're talking to hit me'

b. cipanii naafk-ay-aa -t -n
    boy hit f.t.g.-1sI-aa-T -N
    ci-naafk-it-ooM-s
    2sII-hit f.t.g.-T-aux-dec
    'The boy that I hit hit you'

In (105), we see that when the subject of the matrix and dependent verbs are the same and when the modified NP serves as the subject of the matrix, then the only marking that is possible is [t]. Again, it is impossible to tell from the examples of (105) whether this is due to case or switch reference. But the examples in (106) show that when the subjects of the matrix and [aa]-suffixed dependent clauses are different and when the modified NP serves as the subject of the matrix, then both [t] and [n] marking
are possible. The [t] marking cannot be interpreted as marking same subject, and the [n] marking cannot be interpreted as marking grammatical subject. Though the English gloss in each of the examples of (106) is adequate for either [t] or [n] marking, there is a semantic difference in using [t] versus [n]. With either [t] or [n], the dependent clauses uniquely identify the person who hit the speaker in (106a) and the hearer in (106b). The occurrence of [t] with these dependent clauses is the unmarked case in that there is no special semantics connected to its use. Thus, it appears that the [t] reflects grammatical subjecthood of the modified NP with respect to the matrix verb. But when the dependent clauses appear with [n], the semantics is in (106a) that the hearer said something to the boy to make him angry enough to hit the speaker, and in (106b) that the boy hit the hearer because the speaker had hit him. Thus, the [n] here seems to be sensitive to switch-reference demands in that the dependent clause is viewed as an event as well as an identifying clause.

In (105)-(106), the modified NP's serve as the subjects of the matrix events, and we saw that [n] marking is possible only where it can be interpreted as being sensitive to switch-reference demands. The following data illustrate the interaction of [t] and [n] when the modified NP's serve as objects of the the matrix events:
\[(107)\] a. ifa niis-ay-aa  -n -t
   dog buy f.t.g.-1sI-aa-N -T
   naafk-it-ooM-e-s
   hit l.g.-T-aux-1sI-dec
   'I'm hitting the dog that I bought'

b. hoktii in-homic-ay-aa  -n -t
   woman 3sIII-angry f.t.g.-1sI-aa-N -T
   /hi=h=c-e-s
   see=h g.-1sI-dec
   'I saw the woman I got angry with'

   c. cipanii naafk-ick-aa  -n -t
      boy hit l.g.-2sI-aa-N -T
      \[naf=ey=k-e-s
      hit=h g.-1sI-dec
      'I hit the boy you were hitting'

The examples in (107a) and (107b) show that either \{n\} or \{t\} is possible independently of whether the subject of the matrix and dependent verbs are same or different when the modified NP serves as the object of the matrix. The 'unmarked' case in (107a) and (107b) is the \{n\} suffix since it is the one that occurs most frequently in my data, and it has no special semantics connected with its use. It seems to reflect case marking. With \{t\} marking in (107a) and (107b), which could reflect switch reference, there are special semantics. With \{t\} in (107a), the action of the dependent verb is interpreted as just having happened, though the falling tone grade is used instead of the H grade. With \{n\} in (107a), the speaker could have bought the dog a while ago. With \{t\} in (107b), the action of the dependent verb is interpreted as ongoing in that the speaker is still mad at the woman. With \{n\} in (107b), the
speaker does not still have to be mad at the woman. In (107c), the 'unmarked' case is again [n] suffixation, which could reflect either case or switch-reference marking. With [t] in (107c), which can reflect neither case marking nor switch-reference marking, the interpretation is that the hearer was just hitting the boy though neither the H grade nor the 'immediate past tense' morpheme [eys] is used.

The following examples in addition to (107c) show that if the subjects of the matrix and [aa]-suffixed dependent verbs are different and the modified NP serves as the object of the matrix, then either [n] or [t] marking is possible:

(108)a. hoktit capahk-aa -n -t hi=h=c-e-s
    woman angry Ø g.-aa-N -T see=h g.-lsI-dec
    'I saw the angry woman'

b. acol-aa -n -t ca-yaac-ii-s
    old Ø g.-aa-N -T lsII-want Ø g.-ii-dec
    'I want the elderly person'

c. pakpakii yokn-aa -n -t ca-yaac-ik-s
    flower wilted Ø g.-aa-N -T lsII-want Ø g.-neg-dec
    'I don't want the flower that's wilted'

d. homp-ick-aa -n -t ca-yaac-ii-s
    eat 1.g.-2sI-aa-N -T lsII-want Ø g.-ii-dec
    'I want what you're eating'

In (108), the English glosses are adequate for the occurrence of either [n] or [t] though there are clear semantic differences between marking the dependent clause with [n] or [t]. In (108a) with [n], the [aa] marked clause simply uniquely identifies the 'angry woman' as the
person that the speaker saw. In (108a) with the unexpected [t] morpheme, the [aa] marked clause identifies the 'angry woman' as the person that the speaker saw, but there is the further semantics present that the speaker is saying or implying that he has seen the angry woman before and that he has seen her again. In (108b) with [n] on the dependent clause, the speaker is simply identifying the participant that he wants for some particular reason. In (108b) with [t], the speaker is identifying the participant as well, but the participant is understood to be different from that marked with [n]. With [n], it is simply an 'elderly person' but with [t], it is not only an 'elderly person' but either the 'eldest person' or a 'minister' or a 'person who knows everything'. In (108c) with the [n] morpheme, the speaker is saying that he does not want the flower that is wilted among other flowers that are not. In (108c) with [t], the speaker is saying that he does not want the wilted flower that is in the hearer's hand. In (108d) with [n], the speaker is identifying only the type of food that he wants. If the hearer is eating a hamburger, the speaker is saying that he wants a hamburger. In (108d) with [t], the speaker says that he wants the very food that the hearer is eating. If the hearer is eating a hamburger, the speaker is saying that he wants the hearer's hamburger. Of course, these along with the other interpretations of these sentences, are only some contextual interpretations. It is
not the specific contextual interpretations of these sentences that tell us the semantics of \( t \) and \( n \) but the semantics of generalizations that we can make about the specific contextual interpretations. These \( [aa] \) marked dependent clauses all indicate that the NP modified is identifiable. The participant is foregrounded in the hearer’s memory/knowledge. But the use of \( t \) as opposed to \( n \) seems generally to indicate a more radical foregrounding.

7.3.4 Concluding Remarks on \( t \) and \( n \)

In section 7.3.1, we saw that \( t \) and \( n \) as suffixes on unmodified NP’s serve to mark subjects and objects, respectively, as well as discourse newness, while \( \emptyset \) serves to mark discourse givenness for both subjects and objects. And in section 7.3.2, we saw that \( t \) and \( n \) as suffixes on coordinate dependent clauses serves to mark same subject and different subject, respectively, from that of the following clause. In section 7.3.3, we saw that \( t \) and \( n \) as suffixes on untensed \( [ii] \) relative clauses serve to mark subjects and objects respectively. This use is consistent with the background non-identifiable use of the non-tensed \( [ii] \) relatives discussed in Chapter 6. Thus, non-tensed \( [ii] \) relatives pattern with respect to \( t \) and \( n \) as if they were simply participants with no internal event semantics with which to trigger a switch-reference
interpretation of \{t\} and \{n\}. We also saw that non-tensed \{aa\} relatives that modify the subject of the matrix verb can take either \{t\}, reflecting a subject interpretation of the \{t\} marker, or \{n\} (in cases in which the subjects of the two clauses are different), reflecting a switch-reference interpretation of the \{n\} marker. Where \{n\} occurs, it consistently gives a 'because' background interpretation to the \{n\} marked event. And we saw that non-tensed \{aa\} relatives that modify the object of the matrix verb can take either \{n\}, reflecting an object interpretation of the \{n\} marker, or \{t\} (whether or not the subjects of the two clauses are the same), reflecting neither a case interpretation nor a switch-reference interpretation of the \{t\} marker. Thus, with non-tensed \{aa\} relatives that modify the subject of the matrix verb, the use of \{t\} and \{n\} is more restricted than their use with non-tensed relatives that modify the object of the matrix verb in that the former use must record either case or switch-reference but the latter use can record case with \{n\} or an entirely different semantics with \{t\}. The \{t\} in this latter use records greater cognitive salience of the marked participant. This use is consistent with its marking non-modified subjects and same subject in coordinate sentences. The \{n\} can then be seen as a general mark of lesser cognitive salience in the sense of objects, or background 'because' clauses. Even the
different subject use of \{n\} can be seen as basically
marking background information in that it is background to
the matrix asserted event. Since \{∅\} is used only on given
participants and is opposed to the use of \{n\} on oblique
new participants, \{∅\} can be ranked lower in terms of
salience than \{n\}. Thus, the semantics of \{t\}, \{n\}, and
\{∅\} is salience—non-salience, ranked respectively.

The above interpretation of the semantics of \{t\}, \{n\},
and \{∅\} is supported by their use in other contexts.
Though I will not cover in detail the use of \{t\} and \{n\} as
markers of tensed relative clauses, the following examples
show that the semantics that result from their interchange
within non-tensed relative clauses is present as well in
their interchange within tensed relative clauses:

(109)a. ifa niis-ay-āŋk-ii -t -n
      dog buy f.t.g.-lsI-pII-ii-T -N

       ac-āakk-it-ooM-s
l3II-bite f.t.g.-T-aux-dec
'The dog that I bought bit me'

       b. cipanii liitk-āŋk-aa -n -t
boy      run f.t.g.-pII-aa-N -T

       naafk-it-ooM-e-s
hit f.t.g.-T-aux-1sI-dec
'I hit the boy who ran away'

In (109a), the tensed \{ii\} relative clause with either \{t\}
or \{n\} serves to identify the dog that bit the speaker, and
as indicated in Chapter 6, the event of biting is
backgrounded in that the hearer knows about the biting.
With \{t\} marking, there is no special semantics. But with
[n], the implication is that the hearer not only knows about the biting but also was there at the time of the biting. With [t], the hearer may or may not have been present. Thus, the use of [n], which seems to reflect switch-reference concerns, focuses on the event as an event which occurred at a specific time, while [t] seems simply to mark the NP modified as the subject of the matrix verb. These semantic uses are consistent with their uses in the examples of (106) above. In (109b), the tensed [aa] relative clause serves to identify the boy that the speaker hit, and the event is foregrounded in that the hearer does not know about the boy running away. The [n] suffix could reflect either case or switch-reference marking, but the [t] suffix could reflect neither. The special semantics of the [t] suffix is that the speaker is saying not only that the boy ran away but that he is a person who likes to run away, a semantics that is consistent with the use of [t] in the examples of (108) above.

There is one further use of [t] which reflects its general use as a marker of cognitive salience, whether that use is as a subject marker, a marker of same subject, or other more diverse non-grammaticized semantic uses. Up to now, we have assumed that the only possible relative clause markers are simply [t] or [n]. These are, in fact, the only markers of relative clauses, i.e. modificational structures involving verbs, but there is one added
complexity involving the suffixation of \{t\}, as reflected in the following data:

(110)a. ma liitk-aa-t hoɔkkoop-t-ooM-s
that run 1.g.-aa-T steal f.t.g.-T-aux-dec
'The man who's running stole it'

b. ma liitk-aa-t-it hoɔkkoop-t-ooM-s
that run 1.g.-aa-T-T steal f.t.g.-T-aux-dec
'The man who's running stole it'

(111)a. ma oponaad-aa-t ca-naafk-it-ooM-s
that talk 1.g.-aa-T 1sII-hit f.t.g.-T-aux-dec
'The one who's talking hit me'

b. ma oponaad-aa-t-it ca-naafk-it-ooM-s
that talk 1.g.-aa-T-T 1sII-hit f.t.g.-T-aux-dec
'The one who's talking hit me'

(112)a. ma isti homp-aa-n naafk-it-ooM-e-s
that person eat 1.g.-aa-N hit f.t.g.-T-aux-1sI-dec
'I hit the person who is eating'

b. ma isti homp-aa-t-in naafk-it-ooM-e-s
that person eat 1.g.-aa-T-N hit f.t.g.-T-aux-1sI-dec
'I hit the person who is eating'

(113)a. ma isti oponaad-aa-n
that person talk 1.g.-aa-N
in-ca-maloost-ii-t-ooM-s
3III-1sII-like Ø g.-ii-T-aux-dec
'I like the person who is talking'

b. ma isti oponaad-aa-t-in
that person talk 1.g.-aa-T-N
in-ca-maloost-ii-t-ooM-s
3III-1sII-like Ø g.-ii-T-aux-dec
'I like the person who is talking'

Each of the sentences in (110)-(113) is an acceptable Creek sentence, but the (a)- and (b)-sentences in each have slightly different pragmatic contexts. Each of the (a)-sentences may be used whether the participant identified is present or not in the sight of the speaker and the hearer,
as long as he is uniquely identifiable. The (b)-sentences may be used only if the participant identified is present in the sight of the speaker and hearer. Creek speakers typically say that in the (b)-sentences the speaker is actually pointing at the participant to be identified. Formally, it appears that in the (a)-sentences, the final suffix on the dependent verb is what we saw in this chapter as filling a 'case'-marking role, such that in (110a) and (111a) the [t] marks the participant identified by the relative clause as the agent/experiencer, or subject; and in (112a) and (113a), the [n] marks the participant identified by the relative clause as filling an oblique role with respect to the event. In the (b)-sentences, note that the final suffix on the dependent verbs is the same as in the (a)-sentences. It appears, then, that the final suffix in the (a)- and (b)-sentences functions the same grammatically. However, in the (b)-sentences there is an additional [t] suffix that precedes the final 'case' suffix. The (b)-sentences in (112) and (113) show us that this [t] does not mark case. The suffix [n] is unacceptable in this position. The [t] suffix adds the notion that the speaker and hearer are identifying the agent/patient by pointing him out. Thus, this use of [t] as a signal of cognitive salience is consistent with the uses of [t] which we have already examined in this chapter. Not surprisingly, this additional [t] is unacceptable with
relative clauses that are suffixed with stative [ii], which, as we have seen, signals that the participant identified is not uniquely identifiable. Thus, the following sentences are unacceptable in Creek.

(114)a. *cipanii liitk-ii-t-it ca-naf\~ey=k-s
   boy run 1.g.-ii-T-T l\$II-hit=h g.-dec

   b. *cipanii liitk-ii-t-in naf\~ey=k-e-s
   boy run 1.g.-ii-T-N hit=h g.-l\$I-dec

7.4 Conclusion

Although the semantics of {ooM}, [t], [n], and [\$] have been established in their respective sections, the connection between the semantics of the auxiliary and the semantics of the participant and event suffixes perhaps deserves comment. The {ooM} suffix backgrounds a participant or event either with respect to itself or with respect to some other event. The [n] suffix has been seen also to background participants and events, while the [t] foregrounds them. The difference is that the [n] and [t] function with respect to backgrounding and foregrounding within the proposition; that is, they determine how a participant or event is backgrounded or foregrounded with respect to other participants or events within the same proposition. The {ooM} suffix backgrounds participants and events with respect to either other propositions, as in answering questions, or with respect to the ontology of the participant or event itself.
REFERENCES


