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Grammatical relations and verb agreement in Cherokee

Scancarelli, Janine, Ph.D.

University of California, Los Angeles, 1987

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Grammatical Relations and Verb Agreement in Cherokee

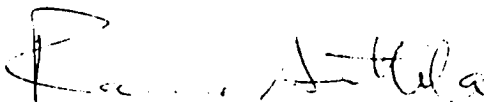
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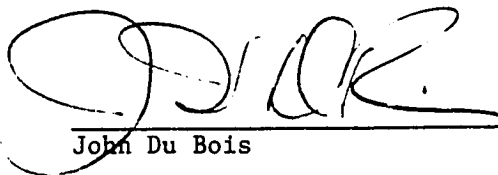
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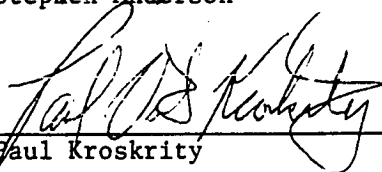
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LIST OF ABBREVIATIONS

A.....set A prefix
 A.....transitive subject
 act.....active
 an.....animate
 AST.....assertive suffix (-v:?i)
 B.....set B prefix
 CAUS.....causative/instrumental derivational suffix
 CIS.....cislocative prefix
 CTR.....counterfactual prefix
 DAT.....dative derivational suffix
 DIST.....distributive prefix
 du.....dual number
 EMPH.....emphatic clitic
 FUT.....future stem
 HAB.....habitual (modal suffix -o(:)?i)
 hum.....human
 IMPER.....imperative
 IMPF.....imperfective stem (unless otherwise specified,
 imperfective habitual, with modal suffix
-o(:)?i)
 inan.....inanimate
 INDIC.....indicative modal suffix
 INFIN.....infinitive stem (when used as verb complement,
 appears with modal suffix -i(:)?i); in
 deverbal nouns, the infinitive suffix is
 followed by the nominal suffix -i)
 inv.....inverse
 IT.....iterative prefix
 LOC.....locative nominal suffix
 MFUT.....future modal suffix -e:sti
 NOM.....nominal suffix
 non-hum...non-human
 nonsg.....non-singular
 NPT.....negative participle modal suffix
 O.....object
 PAR.....partitive prefix
 PERF.....perfective stem (unless otherwise specified,
 perfective assertive, with modal suffix
-v:?i)
 pl.....plural number (for third person, there is no
 dual number--"pl." stands for non-singular)
 POS.....positive prefix
 PRE.....prepronominal prefix cluster
 PRES.....present stem (always indicative)
 PUNCT.....punctual stem (always indicative)
 REP.....reportative (modal suffix -e:?i)
 RF.....reflexive prefix
 S.....intransitive subject
 S.....subject

sg.....singular
TRANS.....translocative prefix
unspec....unspecified
V.....verb

1.....first person
1+2.....first person inclusive
1+3.....first person exclusive
2.....second person
3.....third person

~.....alternates with

x/y.....indicates prefix which marks x as A and y as O

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ABSTRACT OF THE DISSERTATION

Grammatical Relations and Verb Agreement in Cherokee

by

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Doctor of Philosophy in Linguistics

University of California, Los Angeles, 1987

Professor Pamela Munro, Chair

This is a study of the interplay of semantics, syntax, and pragmatics in Cherokee grammar. Verbs in Cherokee, an Iroquoian language, take pronominal prefixes which index the person, number, and gender of their arguments. The pronominal prefix system, which might be considered active/stative or split-ergative, reflects the semantic role, syntactic relation, and discourse-pragmatic status associated with each verbal argument. The grammatical analysis is a contribution to Iroquoian linguistics, and has consequences for morphological theory as well as for typological studies of morphology and syntax.

The dissertation begins with an introduction to Cherokee linguistics (Chapter One), followed by a detailed morphological and phonological description of the pronominal prefix system (Chapter Two).

Chapter Three shows that semantics, syntax, and pragmatics must all be brought to bear on the choice of pronominal prefixes. Special emphasis is placed on the factors which condition the alternation between active and inverse clauses, and on the different ways in which the pragmatic statuses of noun phrase referents affect sentence structure.

Chapter Four presents a formal analysis of the pronominal prefix system within the Extended Word and Paradigm framework, developed by Stephen Anderson. A set of morphological rules and rich lexical entries account for the various grammatical patterns discussed in Chapters Two and Three.

Pronominal prefixes appear on adjectives and nouns as well as on verbs; in Chapter Five, lexical semantic factors are shown to play a limited role in the pronominal prefix system for all parts of speech.

Chapter Six covers several theoretical and typological issues. Cherokee is presented as a split-ergative language which is unusually complex in that the split is governed by three different variables; the analysis of the inverse construction presented in Chapters Three and Four is given further support; and Cherokee is shown to be a fairly typical "pronominal argument" or "head-marking" language.

CHAPTER 1: INTRODUCTION AND BACKGROUND

1.1 The Topic

This is a study of the ways in which the morphology of Cherokee, an Iroquoian language with complex word structure, reflects grammatical relations. By "grammatical relations" I mean simply the various statuses that NP's may have which are relevant to the grammar. I argue that there are three kinds of grammatical statuses which must be recognized in any adequate account of the structure of Cherokee--syntactic relations, such as subject and object; semantic relations, such as agent and patient; and pragmatic statuses, such as given and new--and I illustrate the interactions and relative importance of these different grammatical relations through an analysis of agreement marking on Cherokee verbs. Further, I show that my analysis of Cherokee agreement has consequences for those theories of language which deal with grammatical relations and linguistic typology.

Chapter One introduces the issues addressed in this dissertation, places Cherokee in the Iroquoian family, discusses previous linguistic studies of Cherokee, and presents a brief outline of the structure of Cherokee.

All Cherokee verbs take pronominal prefixes which mark the person, number, and gender (animacy) of subjects and objects. Chapter Two contains a description of the

phonology and morphology of this pronominal prefix system, which is discussed in greater detail in the following chapters.

Chapter Three is a discussion of the syntactic relations and pragmatic statuses which are crucial to the formal analysis of the prefix system presented in Chapter Four. The analysis developed in Chapter Four makes use of the syntactic relations of subject and object. Chapter Three covers the status of these syntactic relations in Cherokee, and argues that although subjects and objects do not play so great a role in Cherokee grammar as they do in more familiar languages, they are necessary for analyses of Cherokee and they must be distinguished from both semantic roles (which play a role in the determination of syntactic relations) and pragmatic relations.

Chapter Three also examines the influence of these pragmatic relations on the agreement system and on word order, and illustrates the interaction of agreement and word order rules. I show that Cherokee syntax and morphology can be accurately described only with reference to pragmatic as well as syntactic relations.

Chapter Four contains a formal morphological analysis of the prefix system in the Extended Word and Paradigm framework, developed by Stephen Anderson and his students (Anderson 1977, 1982, 1984a,b, 1986a,b; Thomas-Flinders 1981).

Chapter Five is a discussion of the degree to which lexical factors and semantic relations determine the choice of prefix. The topics covered include the use of agreement prefixes on nouns and adjectives as well as on verbs. The discussion focuses on verbs showing what have been called "objective" rather than the more usual "subjective" agreement prefixes; and on aspect and prefix choice.

The issues that are examined here have theoretical and typological implications that reach beyond Cherokee and Iroquoian. These implications are discussed throughout the dissertation and are summarized in Chapter Six.

1.2 The Cherokees and the Status of Cherokee

Cherokee is spoken by approximately 11,000 people: about 10,000 in northeastern Oklahoma, members of the Cherokee Nation (Mithun 1979:134), and fewer than 1,000 in western North Carolina, members of the Eastern Band of Cherokees (Duane King, p.c.).<1> During the 1600's, the time of first extensive contact with Europeans, the Cherokee were the largest tribe in the south, numbering about 22,000 (Satz 1979:11). They inhabited the southern Appalachians in what is now Tennessee and North Carolina, and neighboring parts of Kentucky, West Virginia, Virginia, South Carolina, Georgia and Alabama (Gilbert 1943:178).

In 1794, a number of Cherokee families moved to what is now Arkansas and became known as the Western Cherokee. In 1828 they agreed to cede their lands to the U.S. government in exchange for land in what is now northeastern Oklahoma, and by 1831 they had re-established their government there. Two bands of Arkansas Cherokee had migrated to Texas in the early 1800's; in 1838 they rejoined the others in Oklahoma.<2> In 1838 and 1839, most of the Cherokees remaining in the east were removed along what is known as the "Trail of Tears" to the land in Oklahoma which had been granted to the Western Cherokee. A small number of people escaped removal under various circumstances, and they and their descendants became known as the Eastern Cherokee; many of them now live on the Qualla Boundary reservation in North Carolina (Wright 1951:60-67, King 1979). Over the past hundred and forty-five years there has been sustained communication between the Eastern and Western Cherokee (Kilpatrick and Kilpatrick 1965:94), culminating in a series of joint council meetings, the first held at Red Clay, Tennessee in the spring of 1984. There has, however, been little interchange of population between the two groups (Foley 1980:2). Sources of historical, sociological, and anthropological information about the Cherokee are discussed in Fogelson's (1978) critical bibliography.

Gulick (1958) argues that the retention of the Cherokee language in North Carolina is not to be interpreted as an assertion of cultural integrity and identity, but rather as a manifestation of "passive resistance" to change in a generally conservative community. In contrast to the situation in the east, sociologists, anthropologists, and linguists present quite a different picture of language use among the Oklahoma Cherokee. As Wahrhaftig (1970:8) explains "Cherokee is spoken . . . [at social and community events in Oklahoma] not only because Cherokee speakers exist but also because use of Cherokee defines the event as a Cherokee event." Many Cherokees believe that loss of the language is to be equated with loss of Cherokee-hood, and that Cherokees who do not speak Cherokee are not real Indians (Wahrhaftig 1970:18; Duane King, p.c.).

Although the number of Cherokees is increasing, both absolutely and also in relation to the white population of northeastern Oklahoma (Wahrhaftig 1968), and although there are many Cherokee religious organizations which serve as the centers of flourishing Cherokee-speaking communities (Wahrhaftig 1968, 1970; Guyette 1981), and although Cherokee is used in parent-child and child-sibling interaction (Pulte 1979), the number of Oklahoma Cherokee speakers may be declining now, from generation to generation, for the first time since 1930 (Wahrhaftig

1970). Indicative of this is the fact that in many families children who are addressed in Cherokee respond in English and seem to have only limited command of Cherokee. Moreover, there are some adults who, stigmatized for speaking Cherokee in their youth, do not insist that their children learn the language. Pulte, in his study of the use of Cherokee in several Oklahoma communities (1979), finds that Cherokee is "slowly obsolescing" in some communities, but it is flourishing (in at least the domain of household communication) in others. A recent study of language use and attitudes toward bilingualism among the Oklahoma Cherokee found that retention of Cherokee was more prevalent in rural areas, especially those with a high concentration of Cherokees, than in urban areas. Although most Cherokees with school-age children believe that bilingualism is the ideal, only 28% of households with school-age children can be considered bilingual (and none of the households are monolingual Cherokee), and only 24% of school-age children are bilingual (none are monolingual Cherokee speakers) (Berdan, So and Sanchez 1982:5, 11). The only monolingual speakers of Cherokee appear to be over 50 or under 5 years of age. The factors related to the retention and loss of Cherokee in families and communities are discussed by Guyette (1981).

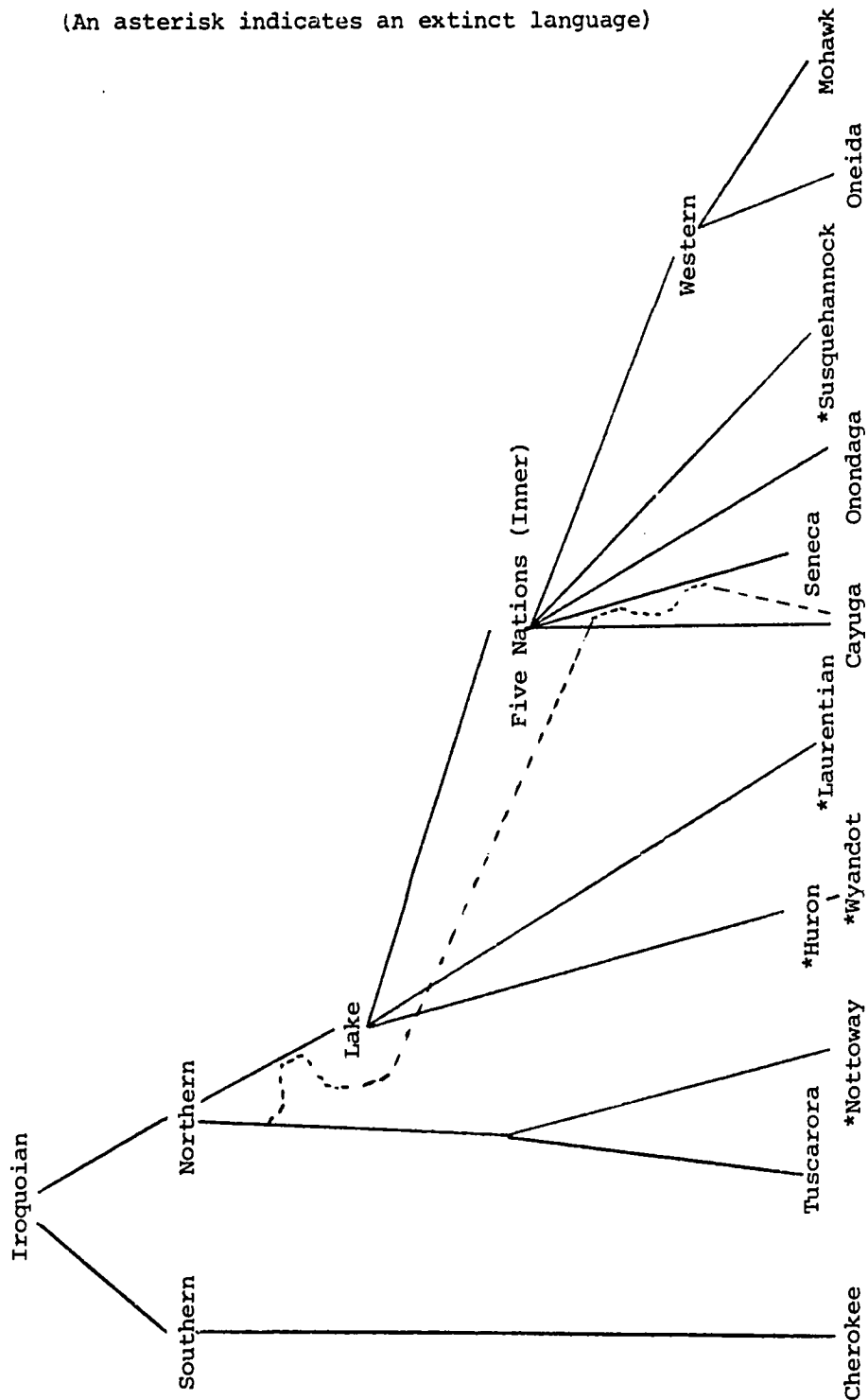
1.3 The Cherokee Language and Cherokee Linguistics

1.3.1 Cherokee as an Iroquoian Language

Cherokee is the sole representative of the Southern branch of the Iroquoian language family, which belongs to the Macro-Siouan stock (Voegelin and Voegelin 1965:141). Evidence of the connection between Iroquoian and Siouan is presented by Allen (1931) and Chafe (1964). Chafe (1976a) gives evidence of the relationship between Iroquoian and Caddoan.

Figure 1 shows the relationship of the Iroquoian languages to one another. The Northern branch of the family comprises several sub-branches, the precise classification of which has been a matter of some controversy (Lounsbury 1978:335). Mithun (1979:133) lists as sub-branches Tuscarora-Nottoway, Laurentian, Huron-Wyandot, and the Five Nations languages--represented by modern Seneca, Cayuga, Onondaga, Oneida and Mohawk; and she mentions also several other Northern Iroquoian languages known only from "scanty documentation", including Petun, Neutral, Wenro, Erie, and Susquehannock. Chafe and Foster (1981) argue that in order to account for the various shared and unshared features of some of the Northern languages, several cycles of contact and separation among groups of speakers must be posited. These movements, as they are relevant to Cayuga, are indicated by the dashed line in Figure 1. Mithun (1981) presents evidence that

Figure 1: The Iroquoian languages
 (An asterisk indicates an extinct language)



Susquehannock should be classified as a Five Nations language. The position of Laurentian has long been unclear (Lounsbury 1978:335); Mithun (1982) argues that what has been called Laurentian is in fact several different Iroquoian languages or dialects and that at least one of those languages or dialects is not ancestral to any other attested Iroquoian language. The Laurentian vocabularies "as a whole . . . seem about equidistant from all of the Lake languages" (Mithun 1982:242); this is reflected in Figure 1. Wyandot, according to Mithun (1984a:331), is most likely the descendant of a set of related languages including Huron and Petun, and perhaps also Neutral, Wenro, and Erie.

Lounsbury's Oneida Verb Morphology (1953) has served as the model for most of the subsequent descriptive work on Iroquoian languages. Extensive bibliographies for all the Iroquoian languages are found in Mithun's (1979) overview of the family. More recent linguistic work on the Five Nations, or Inner, languages includes Foster's analysis of Cayuga accent (1982), Woodbury's study of sound changes from seventeenth-century to modern Onondaga (1981), Abbott's studies of Oneida locative prefixes (1981) and gender (1984), Bonvillain's papers on French and English influences on Mohawk (1978), Mohawk locative semantics (1981), and Mohawk dialects (1984), and Michel-

son's (1981) study of Mohawk epenthesis. Mithun (n.d.) has studied the acquisition of Mohawk in children.

Recent linguistic work on the other Northern languages includes Rudes' (1981) sketch of Nottoway, based on nineteenth century vocabularies, which argues that Nottoway, though closely related to Tuscarora, is a separate language, and Lagarde's book on Huron verb morphology, based on a seventeenth century grammar (1980). A selection of texts from all the extant Northern Iroquoian languages was edited by Mithun and Woodbury (1980).

Glottochronological studies date the split between the Northern and Southern Iroquoian languages at 3500-4000 years ago. Lounsbury (1978:334) claims that Cherokee and the other Iroquoian languages are more closely related than Germanic languages are to Romance languages, for example, but are less closely related than languages within Romance or Germanic are to each other.

The relationship between Cherokee and the other Iroquoian languages was apparently first noted in print by Benjamin Smith Barton in 1797 (Chafe 1976a:27). Earlier mention of the connection was made by David Zeisberger, a Moravian missionary, in 1769, and there is evidence that the Cherokee themselves, independent of the influence of missionaries or linguists, believed that they and the Northern Iroquoian peoples shared common ancestry (King 1977:402-403). Lexical and grammatical correspondences

were compiled by several scholars in the nineteenth century, but the publication of systematic comparative work has begun only recently. Barton's suggestion that Cherokee was an Iroquoian language was suspect because Barton "also assumed genealogic connections between the most heterogeneous North American languages", but was upheld in the nineteenth century by Albert Gallatin; it was later more rigorously established by Horatio Hale that Cherokee and the Northern languages are related (Gatschet 1886:xli). Gatschet divided the Iroquoian family into four groups, three Northern (Huron, Five Nations and Tuscarora) and one Southern, Cherokee (Gatschet 1886:xlii). Mutual intelligibility studies (Hickerson, Turner, and Hickerson 1952), and lexicostatistical work (Hoffman 1959) support the classification of Cherokee as a separate branch of the Iroquoian family.

Lounsbury (1961) argues that in addition to the major division separating Cherokee from the Northern languages, there was an earlier but less drastic dialect split in proto-Iroquoian which opposed the "outer languages", Cherokee, Laurentian, Huron-Wyandot, and Tuscarora, to the "inner languages", the Five Nations languages. The lesser magnitude of this inner-outer dialect split is ascribed to longer geographical proximity of the pre-Laurentian, Huron-Wyandot, and Tuscarora

groups to the pre-Five Nations groups and to continuing contact among them.

Recent work on comparative Iroquoian includes rather little emphasis on Cherokee, except for papers presented by Cook (n.d., 1986) which trace the Iroquoian origins of the various Cherokee pronominal prefixes and of the Cherokee aspect suffixes, respectively. Other comparative work concentrates primarily, if not exclusively, on the Northern languages. Chafe (1977b) studies the development of third person agreement markers from Proto-Iroquois-Caddoan through the modern languages, which puts special emphasis on Northern Iroquoian. Lounsbury (1978) examines the classification of languages within the Iroquoian family and presents several cognate sets along with phonological correspondences and reconstructions for both the Northern and Southern languages. Mithun's overview of the Iroquoian languages (1979), in addition to containing bibliographical information, includes phonological correspondences and reconstructions for the Northern languages. Mithun (1984b) presents cognate sets along with discussion of the conclusions about Iroquois culture that can be drawn from them. Chafe (1977a) and Michelson (1983) consider accent in the Five Nations languages. SOV word order is reconstructed for Proto-Iroquoian by Rudes (1984).

1.3.2 Cherokee Dialects

There is no evidence of subdivision of the Southern branch of Iroquoian until relatively recent times, with the development of local dialects of Cherokee, all of which are mutually intelligible (Lounsbury 1978:335). In the early historic period, there were three major Cherokee dialects: the Lower (or Underhill, or Elati) dialect, now extinct; the Middle (or Central, or Kituhwa) dialect, now spoken on the Qualla Boundary; and the Western (or Overhill, or Otali) dialect, now spoken in Oklahoma. Upon hearing the Middle dialect in 1809, John Norton, a soldier travelling among the Cherokee, believed that it was more like the Five Nations languages than were the other dialects (King 1977:403); Mooney (1900:188-9) presents examples to show that the Lower dialect is phonologically closest to Northern Iroquoian and that the Lower and Middle dialects are almost the same. There is a dialect currently spoken in North Carolina, in the Snowbird community, which may represent a mixture of the Middle and Overhill dialects (King 1975:10), but the major distinction today is held to exist between Eastern (or North Carolina) and Western (Oklahoma) Cherokee (Lounsbury 1978:335).<3>

According to Kilpatrick and Kilpatrick (1970:84-85) there may be as many as seven dialects of Oklahoma Cherokee; they claim that material published in Cherokee in

the Cherokee Phoenix, before removal, strongly suggests that these dialects existed before the Cherokee came to Oklahoma. No systematic dialect studies of Oklahoma Cherokee have been made; from my own data, it remains unclear which variations in speech are geographically determined, which are determined by age or by literacy in Cherokee, and which are idiosyncratic. Some Oklahoma Cherokee speakers distinguish a Western dialect, centered in Tahlequah, from an Eastern dialect, centered in Stilwell (Charlotte Heth, p.c.). Cherokee speakers do often feel that speakers from other areas--or, perhaps more accurately, from other communities--speak differently; informal characterizations of the differences often refer to the speed of speech. Foley's work (1980) includes a study of certain phonological variations, but he could distinguish no correlation between the variants that he studied and geographical locations (p. 162). Walker (1969, 1975) makes anecdotal mention of the ways in which a few dialect features are reflected in the use of the Cherokee syllabary.

1.3.3 Previous Studies of Cherokee

The oldest Cherokee vocabulary known to be still in existence is a twenty-page manuscript by William G. DeBrahm, dating from 1757 (Mithun 1979:135). There are also several word lists from the 1790's (ibid.).

The early nineteenth century brought the invention of the Cherokee syllabary by Sequoyah, the acquisition of a printing press by the Cherokee Nation and the arrival of missionaries, resulting in a large number of manuscripts and publications in Cherokee, both religious and secular. Samuel A. Worcester, a missionary among the Cherokee from 1825 until 1859, arranged for the publication of parts of the Bible, hymns and almanacs; also published were tracts, primers, and the Constitution and laws of the Cherokee Nation (White 1962:511-512).

Little grammatical work from before the 1900's survives: Cherokee manuscripts and linguistic material "have a most uncanny propensity to get lost" (Mooney 1932:1). The lost material includes a dictionary by Christian Priber, lost in the mid-1800's; Samuel Worcester's grammar and dictionary, which were on a ship that sank in about 1830; some manuscripts by a Col. W.H. Thomas; and the original of the Swimmer manuscript, a collection of Cherokee magical formulas and medicinal prescriptions, some of which have been published (Mooney 1891, 1932). Among the linguistic material that survives from the 1800's are specimens of grammatical forms which appeared in letters by Samuel Worcester to the Cherokee Phoenix, a Cherokee and English language newspaper published from 1828 through 1834. These letters have been edited and reprinted by Kilpatrick and Kilpatrick (1968).

Other grammatical forms appeared in the Cherokee Messenger, a periodical "mostly in Cherokee" printed from 1844-1847 (Krueger 1963:3).<4>

Two nineteenth century grammars, one by John Pickering, originally published in about 1831, and a second by Hans Conon von der Gabelentz, published in German in 1852, appear in their entirety as edited by Krueger (1963); von der Gabelentz's work appears in Krueger's English translation. Pulte and Feeling (1977) discuss some differences between modern Cherokee and the Cherokee described in those grammars, and some features of the language that are misrepresented or obscured in the older analyses. The early grammars suffer from the source material available to the authors: Pickering's work is based on elicitation from a mixed-blood Cherokee who may have known the language imperfectly, and von der Gabelentz's work is based solely on written Cherokee material (Krueger 1963:2). A later version of Pickering's work on Cherokee, (mis)interpreted, and referred to by linguists such as Otto Jespersen and Stephen Ullmann as recently as 1951, led to the long-lived notion that Cherokee is a primitive language in which unrelated forms express conceptually related concrete situations and in which it is impossible to identify forms which refer to general concepts. Hill (1952) discusses these mis-conceptions concerning

Cherokee structure and lays them to rest.<5> Webster (1889) wrote a short description of a certain Prof. Duncan's analysis of Cherokee, concentrating on the pronominal prefixes and on the more exotic structural features of the language. Pilling (1888) compiled an extensive bibliography of early work on Cherokee and the other Iroquoian languages.

Eastern Cherokee vocabulary, myths and ceremonial texts were collected and published, with some analysis, in the late nineteenth and early twentieth centuries by Mooney (1891, 1900, 1932), Speck (1926) and Olbrechts (1931, Mooney 1932).

Lounsbury has unpublished field notes from work done in 1941 in Oklahoma (Cook 1979); most of the published linguistic material focuses on North Carolina Cherokee as spoken on the Qualla Boundary. Bender and Harris (1946) compiled a phonological analysis of North Carolina Cherokee which is distinguished by its explicit treatment of pitch. Bender (1949) wrote a preliminary study of Cherokee morphology, consisting of word and morpheme lists drawn from three brief texts recorded from speakers of two dialects of North Carolina Cherokee. Reyburn published a three-part analysis of verb morphology (1953a, 1953b, 1954), including discussion of morphophonemics, expanding on the work of Bender and Harris. It includes some analysis of the various verbal affixes and of the

phonological and morphological conditioning of devoicing in verb stems.

In the 1960's, Kilpatrick and Kilpatrick published several books which examine Cherokee culture and the language through which the culture is transmitted. Their books include a volume of North Carolina Cherokee texts from the mid-1800's (1966), Oklahoma Cherokee medicinal formulas and incantations (1970), and English translations of Oklahoma Cherokee incantations from which some linguistic information can be gleaned (1965, 1967). Since the late 1970's, textual material, including the original Cherokee and word-by-word and free translations, has appeared occasionally in the Journal of Cherokee Studies, published by the Museum of the Cherokee Indian in Cherokee, North Carolina.

A good deal of work on Cherokee was completed in the late 1970's. Major works include King's (1975) dissertation, a grammar and dictionary of North Carolina Cherokee which includes discussion of phonology, morphology and syntax as well as a considerable amount of anthropological and sociological information about the language and its speakers. Feeling prepared a dictionary, edited by Pulte (Feeling 1975), which includes a detailed grammatical outline of Oklahoma Cherokee (Pulte and Feeling 1975). The dictionary is notable for its large number of example sentences and its phonetic treatment of pitch;

the grammar is extremely useful, for it includes many examples of the various verbal and adjectival paradigms as well as identification of those aspects of the grammar which are poorly understood. Feeling's dictionary is far more useful to the linguist than Alexander's (1971), which has only one-word definitions and which presents the Cherokee in Sequoyah's syllabary and in transliteration from the syllabary (see section 1.4.2.2 for discussion of why this is a drawback for the linguist). Cook's (1979) dissertation is a detailed, comprehensive, and relatively abstract analysis of North Carolina Cherokee phonology, morphology, and syntax. It is by far the most explicit theoretical treatment of Cherokee, and I use Cook's analysis of verb structure as the basis for the discussion in section 1.5, and his analysis of agreement morphology as the basis for my discussion of the pronominal prefix system in Chapter Two. Foley's revised dissertation (1980), a study of the phonology of Oklahoma Cherokee, includes discussion of phonological variation and its sociological correlates. Feeling and Pulte are presently preparing a set of texts for publication (William Pulte, p.c.).

The past fifteen years have also seen the publication of shorter works on Cherokee grammar. Walker (1975) compiled a sketch of Cherokee phonetics and morphology along with morpheme-by-morpheme analyses of four short

texts designed to illustrate various features of the grammar. Pulte has written briefly about the implications that facts from Cherokee have for claims about gapping (1972)--I discuss gapping and word order briefly in Chapter Four--and phonological rule ordering (1976a). King and King (1976) discuss the various ways in which the Cherokee vocabulary accommodates the naming of new referents. King has also studied the classificatory verb system (1978). Singleton (1979) provides a preliminary look at the structure of Cherokee narratives.

Pedagogical work on Cherokee includes materials developed by the Cherokee Bilingual Education Program (now known as the Cross-Cultural Education Center) in Tahlequah; a beginning textbook by Holmes and Smith (1977), now in its second edition; and some material prepared by Walker, both published (Walker 1965, Spade and Walker 1966) and unpublished (Walker 1975:236).

1.3.4 Data Base for this Study

Most of the Cherokee examples cited here are from Virginia Carey, a Cherokee born and raised near Tahlequah, Oklahoma, now living in Glendale, California. Mrs. Carey is in her fifties, and has lived in California, away from a large community of Cherokee speakers, for some thirty years, but she speaks Cherokee regularly at home with her husband (who has also furnished some of

my data), and she makes regular visits to Cherokee-speaking family and friends in Oklahoma.

Additional examples were obtained from several speakers from throughout the Cherokee speaking area of northeastern Oklahoma on two field trips in the summers of 1984 and 1985. These examples were furnished primarily by Ginny Byrd of Muldrow, George Pumpkin of Briggs, and Scott and Anna Rackliff of Rocky Ford.

Cherokee examples from secondary sources are acknowledged as such and are transcribed into the orthography described in section 1.4.

Some of the analyses discussed here are based on the study of a number of narrative texts. Examples from the texts are identified with two-letter abbreviations. Information about these texts and a list of the abbreviations are given in Appendix One.

Information from secondary sources (King 1975, Cook 1979, Foley 1980), from Cherokee speakers, and from brief field work with North Carolina speakers in 1985 leads me to believe that, aside from the exceptions noted, the morphological and syntactic facts with which I am concerned in general hold equally for both Oklahoma and North Carolina Cherokee. Crucial examples obtained from Mrs. Carey have been checked with other Oklahoma speakers and some have been checked with two North Carolina speakers as well, Walker Calhoun and Golinda Hill of Big Cove.

1.4 Orthography

1.4.1 The Orthography of the Dissertation

Throughout the dissertation, Cherokee examples are given in a practical orthography similar to the autonomous-phonemic orthographies used by King (1975) and Cook (1979).

The vowels of Cherokee are represented as in (1).

- (1) i u
 e v o
 a

/u/ and /o/ are only slightly rounded and are accompanied by a central offglide, which is more noticeable for /o/ than for /u/; /e/ and /o/ are rather open. /v/ is a nasalized central vowel; the other vowels are oral, but are nasalized word-finally or when separated from a following nasalized vowel by a laryngeal (H), i.e. /ʔ/ or /h/. All Cherokee words end in vowels at an underlying level; however, final vowels and final HV syllables are generally deleted except at the end of a phrase or utterance.<6> Vowels may be long or short; long vowels are marked with a colon. Length is, to some extent, correlated with high pitch (Foley 1980) or accent (Cook 1979); it is not, however, believed to be entirely predictable.<7>

The consonants are represented as in (2).

(2) t k ?
 c
 s h
 l
 m n
 w y

Not represented in (2), which is intended as a representation of the orthography rather than the phonology of the language, are two additional phonemes: a lateral affricate, which will be represented <tl>; and a labialized velar stop, which will be represented <kw>. These phonemes contrast phonologically with clusters of /t + l/ and /k + w/. Phonetically, /kw/ and /k + w/ are indistinguishable, as are /tl/ and /t + l/; however, the units behave differently from the clusters with respect to the rules which account for alternations between stem grades involving the laryngeals /h/ and /?/. These stem grades will be discussed further in Chapter Two.<8> Since the units and clusters are phonetically identical, and since it is not yet possible to determine the status of the sounds in every case, the orthography does not in general distinguish the units from the clusters (but see note <8>).

The stops /t, k, kw/ and the affricates /c, tʃ/ may be considered basically voiceless unaspirated.<9> They are voiced between voiced segments; sequences of stop or affricate followed by /h/ are realized as aspirated and voiceless; word-finally, stops and affricates are voiceless and released. For some speakers, /p/ appears in recently borrowed words and names; it follows the same pattern for aspiration and voicing as the other stops. Examples of /p/ include à:tà:mò:pí:li 'automobile', and Phè:mi 'Pam'. Historically, however, [b] and [p] were borrowed as /kw/, as in Kwí:tv 'Peter', and Kwě:ti 'Betty'; and, at least occasionally, as /w/, as in We:ki 'Pecky'.<10>

/c/, an alveolar or alveo-palatal affricate (the place of articulation varies by speaker), is commonly treated as a cluster in the linguistic literature, but is here treated as a unit. As Maddieson has argued (1984:161), if "suspect" phonetic complexes "can be split by a morpheme boundary or form part of a more general set of permitted clusters", then that is evidence in favor of treating the complex as a sequence, but if there are "no similar clusters to those that would be treated by a sequence interpretation", then that is evidence in favor of treating the complex as a unit. Cherokee /c/ is a unit by these criteria.

Cook (1979) treats /c/ as a /ts/ cluster. However, if /c/ is a /ts/ cluster, ad hoc rules of pronunciation must be formulated to account for the fact that /s/ is always pronounced as [s] except after /t/, where it is pronounced as [z] or [ʒ]. Further, the account of aspiration in Cherokee, to be discussed briefly below, would be complicated by the existence of /sh/ clusters, pronounced [s] or [ʃ], which occur only after /t/.<11>

Before a vowel or a sequence of /h/ plus vowel, some speakers, including Mrs. Carey, pronounce /c/ as an alveo-palatal affricate, but when the affricate appears in /chC/ sequences the affricate is always alveolar. Such sequences arise from underlying /cVhC/ sequences with loss of the vowel by h-Metathesis (see Chapter Two). /c(h)s/ clusters are simplified to /c/ pronounced as an alveolar affricate, as though pronunciation of the affricate /c/ is determined by the presence of the following /s/ with subsequent deletion of the /(h)s/. These clusters can be written <cs>. Thus, csihwahi 'cough!' is derived from ca- (2sg.) + (h)sihwahi 'cough=IMPER. The /h/ appears above in parentheses for reasons to be explained later in this section; in fact, /s/ is never written with a preceding /h/ even though an /h/ can be considered to be present.

Intervocally, /k/ is likely to occur as [χ], [y], or [ʔ] in fast speech; /kw/ often occurs as [χ^w] or [w] even in relatively slow speech.

/s/ is perhaps best described as retroflex. It varies from near palatal to alveolar, depending upon the relative backness or frontness, respectively, of surrounding segments, but the precise conditioning of the phonetic alternants varies from speaker to speaker.

/l/ is always very far front and often interdental. /hl/ sequences are realized as voiceless lateral fricatives.

/m/ appears in about twenty nouns. Some of these have been shown to be borrowings from non-Iroquoian languages (Lounsbury 1978:337).

Resonants are voiceless word-finally.

In clusters, all consonants to the left of an /s/ or an /h/ are devoiced. If there is a vowel before /s/, or before a cluster containing /s/ or /h/, then that vowel ends with an h-like quality. In fast speech, these vowels, if short, are devoiced.

/s/ may be analyzed as always preceded by a laryngeal, /h/ or /?/. The /?/ is realized as falling pitch on the preceding vowel. /obstruent + h/ clusters may be analyzed as always preceded by an /h/. This /h/, like the /h/ before /s/, is subject to the h-Metathesis rule described in Chapter Two and it alternates with /?/ in

the h-grade ~ ?-grade alternation also mentioned in Chapter Two. An /h/ which precedes an obstruent is dropped by a low-level rule if it in turn is preceded by a long vowel or a consonant, after the devoicing referred to in the paragraph above.

Pitch is not entirely predictable in Cherokee, but a definitive phonemic analysis of tone or accent is lacking. Bender and Harris (1946) account for pitch with two junctures and one contour, and indicate pitch orthographically with a single accent mark; Cook (1979:7) claims that one high pitch phoneme will suffice to account for all the tonal patterns of Cherokee. It is not yet entirely clear how either of these accounts handles the considerable phonetic diversity in pitch, at least as exemplified in Oklahoma Cherokee.

Foley (1980:144) posits five underlying tones and contours, but does not give any details of his analysis. Feeling (1975) identifies seven phonetic tones and contours which are marked throughout his dictionary and the accompanying grammatical sketch. Lindsey (1985) incorporates a new, preliminary analysis of Cherokee pitch, which he is currently developing further and which is reflected in the notation to be used here.

Speakers differ to some slight extent in the pitches they use in certain environments; the most important difference concerns preconsonantal glottal stops, which

do not occur in some speakers' dialects. Instead of pre-consonantal /ʔ/, some speakers generally, but not always, show a fall in pitch on the preceding vowel, which is lengthened if it is underlyingly short; furthermore, not all speakers whose dialects contain (some) pre-consonantal glottal stops show all the instances of ʔC clusters that other speakers' dialects show. In all examples, unless otherwise noted, the orthography reflects the usage of Virginia Carey, who uses no pre-consonantal glottal stops. Pre-consonantal glottal stops appear to be more prevalent in North Carolina than in Oklahoma.<12>

Phonetic pitch is marked on all examples for which I have records of the pitch. In some cases pitch is important in distinguishing forms which are segmentally identical; for example, pitch differentiates tonic forms (main clause verbs) from atonic forms (subordinate verbs and derived words), which are characterized by the presence of a high rising tone. Pitch is marked with diacritics devised by Geoffrey Lindsey (though not used in Lindsey (1985)) which are basically equivalent to the numerical notation used in Feeling (1975), as shown in Table 1.

TABLE 1: Representation of Pitch

		<u>Feeling</u>	<u>Lindsey</u>
level pitches:	low	2	\
	high	3	/
contours:	low fall	1	∞
	low rise	23	∨
	high fall	32	^
	high rise	4	//

Those final syllables which show the standard final contour, a high tone with a slight fall, are left unmarked. Low pitch, which is the default pitch and which could therefore be unmarked, is marked in this dissertation so that words for which I have no pitch records can be distinguished from words like àskàya 'man', with the first two vowels showing low pitch and the final vowel showing the standard final contour.

Although the diacritical system used here is similar to the system used by Feeling (1975), there are some important differences, not discussed here, in the status of the different pitches under Feeling's and Lindsey's descriptions, especially in regard to the rising pitches and the standard final contour.

Representations given between slash brackets (/ /) in the examples are presented to show certain aspects of

word structure which are relevant to the issues being discussed. Pitch is not shown in these representations, and most words to which metathesis will apply are shown in an unmetathesized form. These representations do not always show complete morphological breakdowns.

1.4.2 Other Orthographies for Cherokee

1.4.2.1 Contemporary Orthographies

The most important difference between the orthographies used by most linguists and the orthographies used in pedagogical material (such as Feeling (1975) and Holmes and Smith (1977)) has to do with the representation of aspiration. Because of morphophonemic alternation, linguists represent voiceless aspirates as clusters with /h/; in pedagogical material different symbols are generally used for aspirated and unaspirated consonants; hence, Feeling (1975) writes <d, g, gw, j> for /t, k, kw, c/ and <t, k, kw, ch> for /th, kh, kwh, ch/. Such a system has the advantage of making pronunciation easier for readers of English and is generally preferred by Cherokee speakers.<13> Holmes and Smith (1977) do not differentiate between /c/ and /ch/ or between /kw/ and /kwh/; instead, they use <ts> and <qu>, respectively, regardless of aspiration.

LK, a phonemic orthography developed by Jack Frederick Kilpatrick (after some consultation with Floyd

Lounsbury) and used by Kilpatrick and Kilpatrick in their books (1965, 1966, 1967, 1968, 1970), analyzes /c/ as /ts/, as do most linguistic treatments. LK represents unaspirated stops as <d> and <g> (as opposed to the more usual <t> and <k> found in linguistic work), but, like other linguistic orthographies, analyzes the aspirated stops as clusters of unaspirated stop followed by /h/ (so my <th> is written as <dh> in LK).

1.4.2.2 The Cherokee Syllabary

Mention should be made here of the Cherokee syllabary, invented by Sequoyah, also known as George Guess (or Gist), a monolingual and formerly illiterate Cherokee (Walker 1975:190). The syllabary, completed in about 1820, consists of 85 symbols, six representing vowels (or ?V syllables), one representing /s/, and the other 78 representing various CV syllables. It was used by a majority of tribe members in the nineteenth century (Walker 1975:190), and is still in use today in some communities. The factors and the individuals that influenced the spread of literacy in the nineteenth century have been discussed by Walker (1984, 1985) and Monteith (1984). White (1962) presents a brief history of publishing in the Cherokee syllabary.

Literacy in Cherokee plays an important role in two aspects of modern Cherokee life: members of church

congregations read aloud from the Cherokee Bible during Sunday school and preachers read aloud during church services; also, Cherokee Indian doctors record their formulas, the precise wording of which is crucial to the practice of medicine, in the syllabary. Generally, literacy in Cherokee comes relatively late in life, at about age thirty, and involves reading to a much greater extent than writing. Wahrhaftig (1970:21) reports that in the four communities he surveyed, from 30 to 65% of the adults over thirty were literate in the syllabary. He found no significant differences in literacy rates for men and women. Foley (1980) mentions the Cherokee reading style and discusses the correlations between literacy and the use of certain phonological variants. Contemporary attitudes toward use of the syllabary have been explored by Feeling (1985).

The syllabary is unsuited for use in linguistic work, not only because of its typographically complex symbols, but also because it obscures some crucial features of Cherokee phonology, such as aspiration, vowel length, and pitch. Moreover, consonant clusters other than s-consonant combinations cannot be indicated except by writing the clusters as though vowels intervened between the consonants: which of the six vowels is to be used is dictated by convention, but there is often a mor-

phophonemic rationale behind the choice of vowel (Chafe and Kilpatrick 1962:62; Walker 1967:83).

Chafe and Kilpatrick (1962) have found that there is a tendency for the syllabary to be used in such a way that patterns inherent in the orthography are generalized at the expense of the tendency to make spelling conform to speech. The syllabary, for example, provides for a distinction between aspirated and unaspirated stops for some stops, before some vowels, but not for all stops before all vowels. The pattern of using a single symbol for both the aspirated and unaspirated versions has been extended, and even where the distinction is provided for in the syllabary, it is often not made in practice.

Pulte (1976b), in response to suggestions concerning the possibility that orthographies like the Cherokee syllabary might reflect phonemic systems, shows that not only is the syllabary not phonemic (for it obscures important contrasts), but also, in cases where the orthography affords writers the choice of representing words in such a way as to reflect either systematic or autonomous phonemes, writers do not consistently choose either representation.

1.5 The Structure of Cherokee: An Overview

In Cherokee, as in the other Iroquoian languages, nouns are not marked for case, the order of constituents

within the clause is relatively free, and verb morphology is relatively complex. Pulte and Feeling (1975), King (1975), and Cook (1979) all provide relatively clear and more or less detailed discussions of Cherokee morphology and some discussion of Cherokee syntax. Readers interested in details of Cherokee morphology will find a good deal of information in those sources.

Traditionally, accounts of the Iroquoian languages distinguish three parts of speech on the basis of the morphology shown by the members of each class. Verbs and nouns show distinct inflectional morphology, and particles are uninflected. Here, I distinguish four classes of Cherokee words: verbs, nouns, adjectives, and particles. Cherokee verbs, nouns, and adjectives show distinct inflectional and syntactic behavior; members of the class of particles exhibit different kinds of syntactic behavior, and have in common the fact that they are not inflected.

Verbs, nouns, adjectives, and particles may take certain "attributive" suffixes and clitics (the terminology follows King (1975); some of the formatives which he calls attributive suffixes are treated differently by Pulte and Feeling (1975) and by Cook (1979)). These follow any other suffixes; some attributives express meanings such as 'just', 'only', and 'still'; others are interrogatives; still others involve focus. Different

attributives have different effects on the pitch pattern of the host word.

1.5.1 The Verb

Minimally, a Cherokee verb consists of a pronominal prefix, indexing the person, number, animacy, and grammatical role of the verb's arguments; a verb stem, which includes the verb root and an aspectual suffix; and a modal suffix. For example, in ké:ka 'I am going', k- is the first person singular pronominal prefix (set A: see below), -e:- is the verb root 'go', -k- is the imperfective aspectual suffix, and -a is the indicative modal suffix. The terms "aspectual" and "modal" are used in referring to the suffixes (following King 1975 and Cook 1979) because the suffixes correspond, to some extent, to aspect and mode morphemes in other languages (Cook 1979:90). It should be mentioned that one important function of the Cherokee modal suffixes is the identification of tense.

A more complex verb may consist of up to three pre-pronominal prefixes; a pronominal prefix; a reflexive prefix; a stem including an incorporated noun root, a verb root, one or two derivational suffixes, each followed by an aspectual suffix; and a modal suffix (King 1975:35). King (1975:37) gives the following eleven-morpheme example from North Carolina Cherokee to

illustrate just how complex a verb may be:

yiwakwata:skwalo:sta?nito?li 'if I go about bumping my head at a distant place,' in which yi- is the counterfactual prefix y-, giving the meaning 'if', followed by an epenthetic i; -w- is the translocative prefix, giving the meaning 'at a distant place'; -akw- is a first person singular pronominal prefix (set B: see below); -ata:- is the reflexive; -sk- is the incorporated noun root 'head'; -kwalo:- is the verb root (the /kkw/ cluster is simplified to /kw/); -st- is the causative suffix, which is attached directly to the verb root; -a?n- is the form of the perfective aspectual suffix required on the causative here to serve as a link with the ambulative suffix which follows it; -ito- is the ambulative suffix, giving the meaning 'go about doing something'; -?l- is the form of the perfective aspectual suffix required by the ambulative (this aspectual suffix marks the aspect of the verb itself); and -i is a modal suffix.<14>

The pre-pronominal prefixes include the empirical or positive prefix, which appears on strong assertions and relative clauses; the conditional or counterfactual, which appears on conditional and negative verbs; the translocative, which indicates motion away from a reference point; the partitive, which indicates comparison of one event or state with another; the distributive, which

indicates the performance of an action on a number of occasions or on a number of objects; the cislocative, which indicates motion toward a reference point; the iterative, which indicates repetition; and the negative, which occurs in certain negative contexts.<15> The capsule descriptions given above are not intended as complete accounts of the pre-pronominal prefixes, just as the capsule description of other affixes to be given in this section are not intended as complete descriptions: the various forms and uses of these formatives are discussed by King (1975), Pulte and Feeling (1975), and Cook (1979).

The pronominal prefixes can be seen as falling into three groups: the transitive prefixes, which index what we may call the subjects and objects of verbs, the A prefixes (also called "subjective", "active", or "agent"), which index one referent generally corresponding to a semantic agent, and the B prefixes (also called "objective", "stative", or "patient"), which index one referent generally corresponding to a semantic patient. Both A and B prefixes can, under certain conditions, be used on transitive verbs: the A prefixes are used to index agents with third person singular inanimate patients; and the B prefixes are also used to index patients with third singular agents. These prefixes will be examined in depth in the rest of this work. There is no distinction

between masculine and feminine gender in the pronominal prefix system. All animate third person singulars will be translated as 'he', although a more accurate translation would be 'he or she'.

Noun root incorporation is a characteristic feature of the Iroquoian languages as a group, but in Cherokee, unlike the Northern languages, incorporation is very much restricted: only body parts and items of personal clothing may be incorporated. In addition, however, there are some relic noun roots that serve as noun classifiers in the Cherokee classificatory verbs (Lounsbury 1978:337). King (1978) lists forty classificatory verb sets for Cherokee.

The proper description of the Cherokee verb suffixes is a controversial issue: between complicated allomorphy and the co-occurrence restrictions that exist among certain of the suffixes, the system lends itself to a number of different analyses. Reyburn (1953a, 1953b, 1954), Feeling (1975), King (1975), and Cook (1979) all discuss the forms and uses of the suffixes; King's and Cook's analyses are similar. For purposes of discussion, I accept Cook's analysis.

Every verb stem appears in one of eight aspectual stem-types. Aspect is marked with suffixes, and every verb will contain at least one aspect suffix. There are five basic stem types: the present, the imperfective,

the perfective, the punctual, and the infinitive. The shape of the aspectual suffixes depends on the class to which the verb root belongs, or, if the aspectual suffix is added to a derivational suffix, the class to which that suffix belongs. Class is determined partly by the final sounds of the root or derivational suffix, and partly by the semantics of the root or derivational suffix, but is still largely arbitrary. In addition to the five basic stem types, there are three derived stems, all built on the perfective stem; they are the future, the pre-inceptive (which indicates that an action is about to begin), and the propensitative (which indicates high likelihood of an action being undertaken). Certain of the aspect stems, including the infinitive and the propensitative, have modal components to their meaning.

Each stem has two forms, called the tonic and atonic (after Cook 1979), which differ in accent. Tonic forms occur in independent clauses; atonic forms occur in dependent clauses and certain derived forms. The atonic punctual serves as an imperative.

The derivational suffixes, which appear as part of the stem, include the reversive, which indicates that an action is undone; the causative, which indicates the presence of a causee or instrument; the dative, which indicates the presence of a recipient or benefactive; the andative (King 1975; Cook's (1979:137) term is

"approaching"), which indicates motion toward some location for performing the action; the purposive, which indicates motion toward the speaker for performing the action; the reiterative, which indicates that some action is done again; the ambulative, which indicates that the action is performed at various places; the repetitive, which indicates that the action is performed repeatedly; and the completive, which indicates that the action has some end point. These suffixes are attached either to the verb root (for the reversive and causative suffixes) or to the perfective stem (for the other suffixes). Each derivational suffix must be followed by an aspectual suffix. If a verb root or a derivational suffix is followed by another derivational suffix, then the aspect suffix on the root or first derivational suffix is determined by the identity of the following derivational suffix. The last aspectual suffix in the word indicates the aspect and stem-type of the verb as a whole.

Every verb must have a modal suffix. The modal suffixes serve primarily as evidentials and mood markers. In combination with the prepronominal prefixes and aspect stems, they indicate tense. Among the modal suffixes are the indicative, the assertive, the reportative, and the habitual. Some of the modal suffixes differ in shape between dialects. Specifically, the assertive suffix, used primarily in reporting previously witnessed actions,

appears as -v:ki in North Carolina and as -v:?i in Oklahoma.

1.5.2 The Noun

There is no nominal case marking in Cherokee, with the exception of the locative suffix (or suffixes) which give meanings including 'on X', 'in X', 'into X', and 'from X' (see Pulte and Feeling 1975:309). Some non-human (animate and inanimate) nouns are entirely uninflected and are not even marked for number, but the plural of some inanimates is marked with the distributive prefix.<16> Human nouns are generally marked for the person and number of the referent with A prefixes. Body parts take A or B prefixes, idiosyncratically, to mark their possessor; clothing terms take B prefixes to mark the possessor. Kinship terms take transitive prefixes. The shape of the pronominal prefixes is slightly different on nouns from verbs.

Some nouns are very simple in structure, consisting simply of a noun root; there are, however, many deverbal nouns which reflect the derivational and inflectional complexity of their associated verbs. The various points mentioned in this section are discussed and illustrated in Chapter Five.

1.5.3 The Adjective

King (1975) and Cook (1979) classify adjectives as a subset of the verbs. Lindsey and Scancarelli (1985), however, show that adjectives actually resemble nouns more than verbs, but that they are best considered an independent class.

Adjectives generally take the nominal allomorphs of the pronominal prefixes to mark agreement with the nouns they modify. When number on adjectives is marked with the distributive, as it is in parts of the adjectival agreement paradigm (see Chapter Five), the distributive, like the pronominal prefixes, occurs in the nominal--not the verbal--allomorph. Like nouns, adjectives cannot take the various verbal prefixes and suffixes except that deverbal adjectives reflect the derivational and inflectional complexity of their associated verbs. Moreover, sentences with predicate adjectives are constructed like sentences with predicate nouns and not like sentences with stative verbs.

Adjectives are not the same as nouns, however, since the inflection of adjectives is not identical to the inflection of nouns. Human nouns in general take only A prefixes to mark person and number of the referent, while some adjectives take A prefixes and others take B prefixes; and, unlike nouns, all adjectives, whatever kind of noun they modify, are marked for plurality. Further-

more, the use of nouns in modifying other nouns is quite restricted, unlike the use of adjectives in modifying nouns. All these facts suggest that adjectives are in a different class from verbs and that they form a distinct lexical class, similar to nouns in inflection and syntax, but not by any means identical to nouns.

1.5.4 Particles

The defining characteristic of particles is that they are not inflected, thus the particles constitute a formal class and not a semantic or syntactic one. According to King (1975), particles are short words expressing modification of, or relationships between, nouns and/or verbs. They are often translated as prepositions and adverbs; pronouns, demonstratives, and quantifiers are also particles.

Notes to Chapter 1

<1>The number of speakers in Oklahoma with "some degree of proficiency" has been estimated at 15,000-16,000 (Duane King, p.c.; Durbin Feeling, p.c.). This larger number includes children who are addressed in Cherokee at home and who respond in English, and adults who can understand some Cherokee but who do not or cannot speak the language well.

<2>Pulte and Altom (1984) discuss the fate of a group of Texas Cherokees who fled to Mexico. Some of that group eventually went to Oklahoma; others remained in Mexico, where their descendants may be living today.

<3>King (1975:10) suggests that the Snowbird community dialect "may have resulted from residence [of the ancestors of the speakers] before removal in an area contiguous to both of the major dialects [Middle and Overhill]." It is perhaps worth noting that the Snowbird community is near Robbinsville (Reyburn 1953a:173), which is in Graham county, and that Olbrechts, writing in the early 1930's (Mooney 1932:10) says that that there were then some speakers of the Western dialect in Graham county. However, Gilbert (1943:178-9) claims that at the time of white contact the Cherokees had four major settlement groups: the Overhill, Middle, Lower, and Valley

settlements. The first three correspond to the three dialect groups mentioned throughout the literature. The Robbinsville area lies within the territory Gilbert shows as containing the Valley settlements. Perhaps the Valley settlements, located as they were adjacent to and south of the Overhill settlements, and adjacent to and west of the Middle settlements, had their own dialect, which had both Overhill and Middle features, and which is now spoken at Snowbird.

James Mooney (1900:17) reported that in 1888 there was only one speaker of the Lower dialect on the Qualla Boundary reservation.

<4>The third Cherokee-language periodical of the nineteenth century was the Cherokee Advocate, published from 1844-54 and from 1870-1906 (Chafe 1976a:26). The modern Cherokee Advocate, published by the Cherokee Nation of Oklahoma, is entirely in English.

<5>Ullmann, in Words and Their Use, and Jespersen, in a number of works including Growth and Structure of the English Language, "present the picture of Cherokee as [an] inefficiently particular [language] because it lacks a general term for washing" (Hill 1952:172). Cherokee is said to have thirteen different verbs for washing; Hill traces this claim to its source and presents an analysis

of the relevant verb forms, which ultimately come from Pickering, showing that the claim is false.

<6>Underlying long final vowels, which are relatively rare, cannot be deleted. They are shortened and nasalized and have a voiceless tail. Underlying short vowels and HV syllables, where V is short, may be deleted, but if they remain, they are nasalized, as stated in the text and they have a voiceless tail. The difference between a long and short final vowels, then, is apparent only when certain clitics are added to words. Thus, all (surface) vowel-final words, regardless of underlying form, end the same way, with a short, nasalized vowel with a voiceless tail. All final vowels are represented orthographically as short.

<7>Cook's (1979) and Foley's (1980) analyses of length and pitch differ considerably (for example, Cook identifies three phonetic degrees of vowel length whereas Foley identifies four), and it is not clear to what extent those differences might rest on the differences between North Carolina and Oklahoma Cherokee. Both analyses call for two distinctive degrees of length, but Cook and Foley do not always agree on which vowels are long by rule and which must be specified as long, nor do they agree on how length is to be represented in underlying

form. The analysis and orthographic convention that I have adopted is very much like Cook's.

<8>The difference between the <kw> and <tl> clusters and units was pointed out to me by Geoffrey Lindsey, who is preparing a non-linear account of the Cherokee laryngeals. I do not have anything to say here about the formulation of the rules which account for the realization of the two stem grades, since it is only the existence of the alternation which is of relevance to a discussion of the pronominal prefix system. For the sake of illustration, I give here examples of h-grade and ?-grade so-called "present" stems for a verb with a /k + w/ cluster (a); for a verb with a /kw/ unit (b); for a verb with a /t + l/ cluster (c) and a verb with a /tl/ unit (d). Examples are adapted from Feeling (1975). (The y in (b) represents an empty vowel-slot: this is further discussed in Chapter Two. The y in (d) represents the vowel preceding the stem.) The forms with clusters (a and c) show an alternation between an aspirated stop in the h-grade and an unaspirated stop in the ?-grade. The forms... with units (b and d) show aspirated stops in both grades, but preceding short vowels in the h-grade correspond to long vowels with falling pitch in the ?-grade.

(a) CLUSTER 'pay': h-grade: -khwiyiha
 ?-grade: -kwiyiha

- (b) UNIT 'wrap': h-grade: -ykwhe:nv:ska
 ?-grade: -ṽ:kwhe:nv:ska
- (c) CLUSTER 'have a nightmare': h-grade: -athliki:?a
 ?-grade: -atliki:?a
- (d) UNIT 'place (on something)': h-grade: -ṽtlhahvska
 ?-grade: -ṽ:tlhahvska

See p. 25 for discussion of the pronunciation of clusters with <h>.

Many Oklahoma speakers, including Mrs. Carey, pronounce <thl> and <tlh> as voiceless lateral fricatives rather than as affricates. Feeling (1975:xviii) claims that the fricative pronunciation is an innovation which is spreading through some Oklahoma communities. In some cases, the fricatives appear to have been reanalyzed as /h + l/ clusters; thus, Mrs. Carey never pronounces an affricate in 'have a nightmare' (example (c) above), neither in the h-grade nor in the ?-grade. Instead, she has /hl/ in the h-grade alternating with /?l/ in the ?-grade. Haas (1969:92) suggests that Cherokee's phonetic lateral fricatives may be the result of Muskogean influence.

<9>Some dialects of Cherokee show /c/ where others show /t1/. The use of /c/ is characteristic of North Carolina Cherokee (Duane King, p.c.).

<10>Some speakers have /kw/ instead of /p/ in 'automobile'. The fact that the initial stop in 'Becky' appears in Cherokee as /w/ rather than the usual /kw/

might reflect dissimilation from the following /k/. The Cherokee for 'Babylon', borrowed from English, has /t/ in place of [b]: da-di-lo-ni (where orthographic <d> is phonemic /t/) is the Roman transliteration of the syllabary form given in Matthew 1:11 of the Cherokee New Testament.

Like the bilabial stops, [f] may be borrowed as /kw/, as in 'Philemon' which appears as gua-li-ma-ni in the Cherokee New Testament. Again, the orthography given here is the common Roman transliteration of the syllabary form; <qu> represents /kw/. [f] may also be borrowed as /hw/, as in khā^v:hwi 'coffee'. /f/ itself may appear in recent borrowings: the speakers with whom I worked pronounce "Geoff" in Cherokee as Cē^v:fi.

<11>King (1975) treats /c/ as a phoneme, but represents it as <ts>.

Foley (1980) appears to regard /ch/ as a /ts/ cluster and /c/ as a phoneme (written <j>): such an analysis obscures the morphophonemic alternations that exist between /c/ and /ch/--those alternations, which parallel those for the stops, provide a major reason for analyzing voiceless aspirates as underlying clusters with /h/. /c/ alternates with /ch/ as shown below:

- (a) cà:kò:hwthí
 /c-a-ko:hwthiha/
 POS-3sg.A-see=PRES
 'who he sees'
- (b) chí:kò:ʔv̄
 /c-hi:y-ko:ʔv:ʔi/
 POS-2/3sg.an.-see=PERF
 'who you saw'

Further discussion of the various alternations in Cherokee which involve /h/, can be found in Reyburn (1953a, 1953b, 1954) and Cook (1979).

<12>Bender and Harris (1946) and Cook (1979) give accounts of North Carolina Cherokee. It appears that for the most part, pitch phenomena in Oklahoma and North Carolina Cherokee are quite similar; however some minor differences in pitch (phonetic, though not necessarily phonemic) may exist, partly, perhaps, because of the presence and absence of preconsantal /ʔ/ in the various dialects. Naive speakers have commented on the differences between the Eastern and Western dialects: Wright (1951:57) refers to Oklahoma Cherokee (i.e., the Overhill dialect) as "the most musical of the three dialects"; speakers from Oklahoma have remarked on the sing-song quality of North Carolina Cherokee (personal communications). Oklahoma speakers also remark on the fast, clipped quality of North Carolina speech, and North Carolina speakers say that Oklahoma Cherokees speak far too slowly. These observations are perhaps related to

the operation of metathesis rules in the two dialects. Both Oklahoma and North Carolina Cherokee have laryngeal metathesis rules (see Cook 1979), which result in surface forms with fewer syllables than underlying forms would suggest (or than the shapes of certain morphemes in verbs that do not undergo metathesis for one reason or another would suggest). However, in most Oklahoma dialects, only /h/ metathesizes, whereas both /h/ and /ʔ/ metathesize in North Carolina Cherokee. Thus, certain words with /ʔ/ will be longer in Oklahoma than in North Carolina speech, at least for some speakers. Consider the North Carolina form ci:ʔy^hthv:ki:ʔa 'I hear him', derived from an underlying ci:yaʔthv:ki:ʔa, with metathesis of the first /ʔ/ and loss of the preceding /a/ (Cook 1979:10). Compare the Oklahoma form, ci:y^ha:thv^h:ki:ʔa, with the same underlying form, but with deletion of the /ʔ/ and lengthening of the preceding /a/ (the /a/ is also lowered in pitch). The North Carolina form has four syllables; the Oklahoma form has five. The Oklahoma form alone has a long vowel a: with (musical) low falling pitch.

<13>The Northern languages show similar clusters of /stop + h/. The linguistic literature on those languages uses orthography similar to the orthography in the linguistic literature on Cherokee; speakers, however, are

reported to prefer orthographies like Feeling's (Henry 1985).

<14>In this example, the pronominal prefix is from set B rather than set A, as in the previous example, because of the presence of the perfective aspectual suffix, -?1-; this relationship between aspect and the prefixes is examined in Chapters Two and Five.

<15>The negative prefix is not discussed by King (1975). Cook (1979:85-87) discusses its use in: (a) verb forms which are translated into English with the phrases 'won't', 'wouldn't be', and 'wouldn't have'; (b) verb forms which refer to the interval since some action or event has last occurred; (c) verb forms which are translated into English the the phrase 'can't'; and (d) two particular verbs, 'mistreat' and 'revile' which always require the negative prefix and which have emotionally negative senses. Pulte and Feeling (1975:255-6) discuss use (b) and also give examples in which the prefix is used on verb forms which are translated into English with the phrase 'be able to' (p. 321): cf. use (c). It is not clear that 'negative' is the best name for this prefix.

<16>The distributive prefix shows complex allomorphy. (On verbs and deverbal nouns the distributive may

mark plurality of the action and/or plurality of an inanimate object. There are, in addition, some verbs which idiosyncratically require a distributive.) The prefix has a slightly different form on nouns (and adjectives) than it has on verbs.

Compare the verb in (a) with the related noun in (b). These examples are from Pulte and Feeling (1975:307).

(a) te:k^v:nò:sáska
'he's sweeping them'

(b) tik^v:nó:sàski
'sweeper (of things)' This word may be used to refer to a street sweeper or to a janitor.

When the distributive marks simple plurality of a noun, it generally appears as ti-, as in (b); compare kà:lé:ni 'his ear; to tika:lé:ni 'his ears' (see Cook 1979:146 for examples of te- on nouns).

CHAPTER 2: AN OUTLINE OF THE PRONOMINAL PREFIX SYSTEM

Cherokee verbs are prefixed to agree in person, number, and animacy with their subjects and objects, as these relations are defined in Chapter Three. This chapter is an introduction to the morphology of the Cherokee pronominal prefixes. Here I introduce the A and B sets of prefixes and their uses. Section 2.1 covers the basic grammar of these prefixes on intransitive verbs; section 2.2 covers the prefixes on transitive verbs; and section 2.3 takes a critical look at some features of the phonological analysis presented in sections 2.1 and 2.2. Section 2.4 covers some dialectal variation in the prefix system.

2.1 Prefixes on Intransitive Verbs

2.1.1 The Categories Marked by the Prefixes

Intransitive verbs agree with their subjects; that is, they mark the category S, following the terminology of Dixon (1979). Intransitive verbs take one of two sets of prefixes, set A or set B. The labels "A" and "B" correspond, respectively, to "subjective" and "objective" and to "agent" and "patient", four terms which have been commonly used in Iroquoian linguistics.<1> I prefer the terms A and B, for they make no implicit or explicit claims about the synchronic syntactic or semantic status

of the prefixes: A and B are simply labels for morphological categories.

2.1.2 The Form of the Prefixes

The A and B prefixes are listed in Table 2. Low pitch (\) is not marked on affixes cited in isolation.

TABLE 2: One-argument Prefixes

	<u>A</u>		<u>B</u>
1sg.	*ci-, k-		aki-, akw-
1+3du.	o:sti:-		o:kini:-
1+3pl.	o:ci:-		o:ki:-
1+2du.	ʔ:ni:-		kini:-
1+2pl.	ʔ:ti:-		ʔ:ki:-
2sg.	hi-		ca-
2du.	sti:-	=	sti:-
2pl.	ʔ:ci:-	=	ʔ:ci:-
3sg.	a-, ka-		u:-
3pl.	ani:-		u:ni:-

The asterisk before the 1sg.A prefix indicates that any verb stem bearing that prefix (in either allomorph, ci- or k-) will occur in what may be called the ?-grade, if the stem has a ?-grade. Many of the Cherokee verb, noun, and adjective stems that contain laryngeal consonants (/h/ or /?/) occur in two grades, one in which the first laryngeal consonant is /h/, and one in which the first laryngeal is /?/; the pronominal prefixes marked with an asterisk in Table 2 and in Table 4, below, take the variant with /?/. For example, compare the forms in (1):

- (1) a. $\text{ci}^{\text{̀}}\text{lo}^{\text{̀}}\text{:n}\check{\text{v}}\text{?}\check{\text{e}}\text{:?a}$
 /ci-lo:nv?e:?a/
 1sg.A-cheat=PRES
 'I'm cheating'
- b. $\text{ka}^{\text{̀}}\text{lo}^{\text{̀}}\text{:n}\check{\text{v}}\text{:}\underline{\text{h}}\check{\text{e}}\text{:?a}$
 /ka-lo:nv:he:?a/
 3sg.A-cheat=PRES
 'he's cheating'<2>

Notice that the underlined /?/ in (1a) corresponds to /h/ in (1b). The vowel before the /?/ is short, in contrast to the vowel before /h/. Unaccented vowels before /?V/ sequences are always short; thus, unaccented underlying long vowels are shortened before /?V/ sequences.

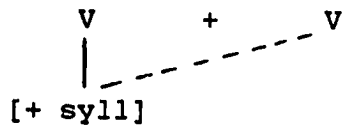
The equal signs (=) in Table 2 indicate that the 2du. and 2pl. prefixes have identical A and B forms.

Prefixes end in vowels or consonants; the shape of a prefix in any given word depends upon the initial sound of the following stem. Stems may begin with consonants, with vowels, or with empty V-slots (assuming a CV theory such as the one described by Clements and Keyser (1983)). Stems beginning with empty V-slots behave in some ways like vowel-initial stems and in other ways like consonant initial stems.

The 1sg.A and B prefixes each have two allomorphs which are phonologically conditioned. Ci- and aki- occur before consonants and empty V-slots, and k- and akw- occur before vowels.

When a prefix that ends in a vowel is attached to a stem that begins with an empty V, that V is associated with the prefix-final vowel, and that vowel, if normally short, will be lengthened. A rule of V-Slot Association is given in (2a) with an example in (2b).

(2) a. V-Slot Association:

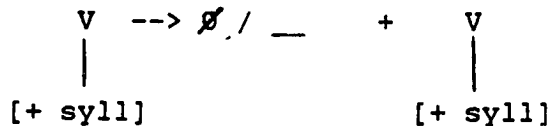


(If a stem begins with an empty V-slot, the prefix-final vowel will be associated with that slot, and short prefix-final vowels will thus be lengthened.)

- b. kà:cáyò:hiha
 /ka-Vcayo:hiha/
 3sg.A-prick=PRES
 'he's pricking it' <3>

Otherwise, before a consonant the prefix will end in its underlying vowel and before a vowel the prefix-final vowel will be deleted. This analysis involves a rule of Prefix Vowel Deletion, presented in (3a), with two examples in (3b).

(3) a. Prefix Vowel Deletion:



(A prefix-final vowel is deleted before a stem that begins with a vowel.)

- b. i. hət̃ṽ:ka
 /hi-atv:ka/
 2sg.A-hang:up=IMPER
 'hang it up!'
- ii. stət̃ṽ:ka
 /sti:-atv:ka/
 2du.A-hang:up=IMPER
 'you two, hang it up!'

The 3sg.B prefix u:- is an exception to these rules.
 The allomorphy of u:- is summarized in Table 3.

TABLE 3: Allomorphy of the 3sg.B prefix (u:-)

<u>Stem-initial segment</u>	<u>Allomorph of u:-</u>
C, a	<u>u:-</u> (with loss of <u>a</u>)
e, o, u	<u>uw-</u>
v:	<u>uwa:-</u> (loss of <u>v:</u>) sometimes <u>uw-</u>
v	<u>uw-</u> sometimes <u>u:-</u> (loss of <u>v</u>) sometimes <u>uwa:-</u> (loss of <u>v</u>)
empty V	<u>uwa:-</u>

The 3sg.B prefix appears as u:- before consonants,
 as in (4).

- (4) ù:lô:sṽ:ʔi
 /u:-lo:sv:ʔi/
 3sg.B-fall=PERF
 'he fell'

/a/ is deleted after the 3sg.B prefix, which appears
 as u:- with loss of the stem-initial vowel. Compare
 (5a), with u:-, to (5b) which shows that the verb stem
 begins with /a/:

- (5) a. $\ddot{u}:t\grave{a}k\check{o}:s\acute{v}:\text{?i}$
 /u:-atlako:sv:?i/
 3sg.B-scratch=PERF
 'he scratched'
- b. $\grave{h}\grave{a}t\grave{a}k\check{o}:la$
 /hi-atlako:la/
 2sg.A-scratch=IMPER
 'scratch!'

Before vowels, u:- appears as uw-, the result of a gliding rule that changes u:- to uw- before most vowels. The prefix appears as uw- before stems beginning with /e/, /o/, or /u/, as shown in (6).

- (6) $\ddot{u}:w\grave{e}:n\acute{v}:s\check{v}:\text{?i}$
 /u:-e:nv:sv:?i/
 3sg.B-go=PERF
 'he went' <4>

Before most stems beginning with /v:/, the prefix and stem initial vowel appear as uwa:- rather than uwv:- (the verb 'fry (tr.)' in Feeling (1975:127) appears with uwv:- and is an exception). Compare (7a), showing /a:/, to (7b), which shows the stem-initial /v:/:

- (7) a. $\ddot{u}:w\grave{a}:n\grave{a}w\check{o}:s\check{v}:\text{?i}$
 /u:-v:nawo:sv:?i/
 3sg.B-melt=PERF
 'it melted'
- b. $\grave{k}v:n\grave{a}w\check{o}:ska$
 /ka-v:nawo:ska/
 3sg.A-melt=PRES
 'it's melting'

Mrs. Carey treats stems beginning with short /v/ like stems beginning with any other vowel, and the gliding rule applies to the 3sg.B prefix. Compare (8a) with (8b) (the stem-initial vowel is lost in (8a) as a result of the h-Metathesis rule (11) to be discussed below):

- (8) a. $\grave{u}:hwt\grave{a}n\acute{v}:\text{?}i$
 /u:-vhtanv/
 3sg.B-use=PERF
 'he used it'
- b. $h\acute{v}hta$
 /hi-vhta/
 2sg.A-use=IMPER
 'use it!'

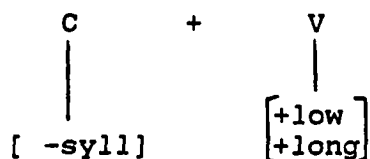
Feeling (1975) shows forms like Mrs. Carey's, but also shows forms in which short /v/ is treated like /a/ following the 3sg.B prefix: the /v/ is lost in these forms, as shown in (9a). Compare the form in (9b), which shows the /v/:<5>

- (9) a. $\grave{c}uhki:l\grave{o}:sti$
 /ti-u:-vhkilo:sti/
 DIST-3sg.B-wash:flexible:object=INF
 'for him to wash them'
- b. $th\acute{v}hki:l\grave{o}:ca$
 /ti-hi-vhki:lo:ca/
 DIST-2sg.A-wash:flexible:object=IMPER
 'wash them!'

Before empty V-Slots the 3sg.B prefix appears as uwa:-. The gliding rule will insert w, changing u:- to uw-; then a rule of a-Insertion, given in (10a), will

associate the empty V-slot with /a:/ after a consonant, yielding forms like the one in (10b).

(10) a. a-Insertion



(An empty V-slot after a consonant is realized as /a:/.)

- b. ù:wà:cáyò:hlṽ:ʔi
 /u:-Vcayo:hlv:ʔi/
 3sg.B-prick=PERF
 'he pricked it' <6>

The 3sg.A prefix may appear as a- or ka-. The choice of 3sg.A prefix must be lexically specified for each verb, but there are some regularities in the distribution of the two allomorphs. Both a- and ka- may appear before /a/ and /e/ (the vowel of the prefix in the latter cases will be deleted by Prefix Vowel Deletion (3), leaving /e/). Only ka- appears before /o, u, v/ and empty V-slots. I have no examples of verbs beginning with /i/, the other Cherokee vowel. My data show ka- only before a few examples of short /a/; never before long /a:/, which is rare in stem-initial position anyway. As for the consonant-initial stems, generally ka- occurs before resonants except /y/, that is before /w, l, n/, and before sequences of laryngeal plus /l/ or /n/. A- generally occurs before the obstruents and /y/ and before sequences

of /h/ plus consonant other than /hl/ or /hn/. There are lexical exceptions to these generalizations.

Prefix shapes may be changed by metathesis of /h/ into the prefix, and by various accent rules: for example, preconsonantal /?/ lowers the pitch of preceding vowels in certain environments for certain speakers, so a pronominal prefix before a stem beginning with /?C/ may appear with a lowered pitch.

Oklahoma Cherokee has an h-Metathesis rule; North Carolina Cherokee has a more general rule of laryngeal metathesis which applies to both /h/ and /?/. The formulation of h-Metathesis in (11) is an adaptation of Lindsey's (1985) formulation, incorporating conditions discussed by Cook (1979).

(11) h-Metathesis

X (R (V) h C

1 2 3 4 5 ==> 1 4 2 3 5

(R is a resonant, or sonorant, consonant)
(If 5 is [+ obst], 3 --> ∅.)

Conditions: V is short and unaccented
X is not a laryngeal

The overlapping parentheses indicate that either or both of the elements R and V, in that order, must be present for the rule to apply.

Cook (1979) presents evidence that metathesis may apply only once to a given /h/, but it may apply more

than once in a given string; he suggests that the rule reads the string from left to right.

Example (12a) shows the 3sg.A prefix ka- realized as kha- by metathesis of /h/ from the following verb stem; compare (12b) which does not undergo h-metathesis:

- (12) a. kháné:ka
/ka-hné:ka/
3sg.A-speak=PRES
'he's speaking, answering'
- b. híhnè:ki
/hi-hné:ki/
2sg.A-speak=IMPER
'answer!'

Example (13) shows the effect of a preconsonantal /?/ on the pitch and length of the vowel in the 1sg.A prefix ci-. In (13a), the prefix appears with a short vowel and low pitch, but in (13b), before /?C/, the prefix appears with a long vowel and low falling pitch.

- (13) a. cílé:yv:ska
/ci-le:yv:ska/
1sg.A-burn=PRES
'I'm burning'
- b. cí:náľú:ska
/ci-?nalú:ska/
1sg.A-go:up:a:slope=PRES
'I'm going up a slope'

Lindsey (1985) presents an informal characterization of a low-level rule of Glottal Lowering (14), which accounts for the effects of preconsonantal /?/. Glottal

Lowering is applied more or less widely in different dialects (or idiolects) of Cherokee.

(14) Glottal Lowering

Preconsonantal /ʔ/ is realized as falling pitch on the preceding vowel, which is lengthened if short.

Pronominal prefixes are inherently unaccented (i.e., they appear with low pitch), except for i-initial prefixes, which always show low falling pitch (↘) on the first syllable. When vowel-initial pronominal prefixes occur word-initially in tonic forms (i.e., when they are not preceded by any prepronominal prefixes and when they are main clause verbs) they regularly appear with their first vowels long and with low falling pitch. Lindsey (1985) accounts for this fact with a rule of Tonic Glottal Insertion, which inserts /ʔ/ after the first vowel of a word-initial pronominal prefix which begins with a vowel, in tonic forms. This inserted /ʔ/ is then subject to Glottal Lowering (14). Lindsey's formulation of Tonic Glottal Insertion is given in (15) with an addition to his condition: Tonic Glottal Insertation applies only to tonic verb forms, and not to tonic noun forms.<7> (See Chapter Five for discussion of the pronominal prefixes on parts of speech other than verbs.)

(15) Tonic Glottal Insertion

∅ --> ? / [pronV____

condition: in tonic verb forms

(Insert /?/ after the initial vowel in a pronominal prefix.)

The phonological rules formulated in this chapter are listed in Appendix Two.

2.1.3 A and B Prefixes on Intransitive Verbs

Two factors determine whether an intransitive verb will take A or B prefixes. Some verbs are simply specified as taking B prefixes always; others take B prefixes only in the perfective, infinitive, pre-inceptive, and propensitative aspect stems and take A prefixes in the present, imperfective, punctual, and future stems. Verbs which always require B prefixes are called B verbs. Verbs which may take A prefixes are called A verbs. Aspect stems which always require B prefixes are called B stems, and those which may require A prefixes (for A verbs) are called A stems.<8> The semantic motivation of stem-triggered and lexically-triggered prefix choice is discussed in Chapter Five. The examples in (16) show an A verb ('dance') and a B verb ('laugh') in each of the five basic stems.

(16) A and B prefixes on verb stems

a. present stems (A stems)

- (i) ǎ:lskí:ʔa
/a-aliski:ʔa/
3sg.A-dance=PRES
'he's dancing'
- (ii) ù:yè:tska
/u:-ye:tska/
3sg.B-laugh=PRES
'he's laughing'

b. imperfective stems (A stems)

- (i) ǎ:lskí:skó:ʔi
/a-aliski:sko:ʔi/
3sg.A-dance=IMPF
'he's always dancing'
- (ii) ù:yè:tskó:ʔi
/u:-ye:tsko:ʔi/
3sg.B-laugh=IMPF
'he's always laughing'

c. punctual stems (A stems)

- (i) ǎ:lski
/a-aliski/
3sg.A-dance=PUNCT
'he (just) danced'
- (ii) ù:yě:t̃sa
/u:-ye:t̃sa/
3sg.B-laugh=PUNCT
'he (just) laughed'

d. perfective stems (B stems)

- (i) ù:lskí:s̃v:ʔi
/u:-aliski:sv:ʔi/
3sg.B-dance=PERF
'he (has) danced'

- (ii) ù:yè:tsv̌:ʔi
 /u:-ye:tsv:ʔi/
 3sg.B-laugh=PERF
 'he (has) laughed'

e. infinitive stems (B stems)

- (i) ù:lski:sti:ʔi
 /u:-aliski:sti:ʔi/
 3sg.B-dance=INFIN
 'for him to dance'
- (ii) ù:yè:tsti:ʔi
 /u:-ye:tsti:ʔi/
 3sg.B-laugh=INFIN
 'for him to laugh'

2.2 Prefixes on Transitive Verbs

2.2.1 The Categories Marked by the Prefixes

When a verb has more than one argument, the verb will agree with its subject and object. (Subjects and objects in Cherokee are discussed in Chapter Three.) The object of a verb that appears with the dative derivational suffix is a notional indirect object (the recipient or benefactive). Some verbs, such as the various verbs meaning 'give' will always appear with a dative suffix (17); with others, such as 'hit', the dative indicates the presence of a benefactive (18); with still others, such as 'buy', the dative indicates another participant in the event, here, a source (19).

Example (17) shows that the pronominal prefix marks the notional indirect object, rather than the patient, as

the object on a verb that appears with the dative suffix.
The suffix is underlined.

- (17) Sv:kthv kaci:ne:lv:?i.
 /kaci:y-?ne:lv:?i/
 apple 1/3pl.an.-give=PERF
 'I gave them an apple.'

In (18) the dative suffix indicates a benefactive;
in (19) the dative suffix indicates a source (which can
be interpreted as a benefactive, given the verb in
question).

- (18) Aya Ca:ni kv:yv:ne:lv:?i.
 /kv:y-v?n-e:lv:?i/
 I John 1/2sg.-hit-DAT=PERF
 'I hit John for you.'

- (19) Skhiwasisi.
 /ski-hwas-isi/
 2/1sg.-buy-DAT=PUNCT
 'Buy it from me.'<9>

The object of a verb that appears with the
causative/instrumental derivational suffix is the causee
or the instrument.<10> The object of 'show' (literally
'make see') in (20) is the see-er or causee, as indicated
by the pronominal prefix.

- (20) Ci:kò:wthvhtíha.
 /ci:y-ko?wth-vht-iha/
 1/3sg.an.-see-CAUS-PRES
 'I'm showing it to him.'

If a verb has a dative or instrumental argument as
well as a patient, the dative or instrumental is the

object for purposes of agreement and the patient is not marked on the verb, except that if the patient is plural, the verb will take the distributive prepronominal prefix. The distributive prefix is distinct from the pronominal prefix system in several respects: it may be separated from the pronominal prefix proper by other prepronominal prefixes; it is used in general to indicate distribution of an action over several patients or repetition of an action; and certain verbs idiosyncratically require a distributive prefix.

In (21), the pronominal prefix marks a 1sg. subject and a 3pl.an. recipient or dative. The patient, 'dog', is unmarked on the verb. In (22), the plurality of the patient is marked with the distributive te:-. (23) shows that the distributive appears with a plural patient even if the dative (i.e., the object) is singular.

- (21) Àní:skàya káci:yà:khâ:nè kì:hli
 /ani:-skaya/ /kaci:y-V?kha:neha/
 3pl.A-man 1/3pl.an.-give:living:thing=PRES dog
 'I'm giving the men a dog.'
- (22) Àní:skàya tè:káci:yà:khâ:nè kì:hli.
 /te:-kaci:y-V?kha:neha/
 men DIST-1/3pl.an.-give:living:thing=PRES dog
 'I'm giving the men dogs.'
- (23) Àskàya tè:cí:yà:khâ:nè kì:hli.
 /a-skaya/ /te:-ci:y-V?kha:neha/
 3sg.A-man DIST-1/3sg.an.-give:living:thing dog
 'I'm giving the man dogs.'

Table 4 shows the pronominal prefixes for a typical transitive verb in its A stems.<11> Person and number combinations for subjects are listed in the far left column; person, number, and gender combinations for objects are listed across the top row. The prefixes agreeing with first person and exclusive subjects with second person objects are not differentiated for every possible combination of number. The prefix i:cv:y- indicates that either the subject or the object is plural. The prefix stv:y- indicates that at least one participant is dual, but that none is plural. Kv:y- indicates that both subject and object are singular. A similar distribution obtains for the prefixes marking second person subjects with first person and exclusive objects.

2.2.2 The Form of the Prefixes

The distributive prefix, which marks plurality of an action, is used in marking 3pl.inan. objects and some 3pl.an. objects. In these cases, the distributive is added to the verb form for a 3sg.inan. object; it may immediately precede the actual pronominal prefix, but other prefixes (such as the cislocative prepronominal prefix) may separate the distributive from the pronominal. In (24a) the distributive appears as to- before the cislocative prefix ta-, which is used in forming future stems. For comparison, (24b) shows a non-future form with a plu-

TABLE 4: Pronominal Prefixes for Transitive A Verbs

(in the present, imperfective, punctual, and future stems)

Obj	1sg.	1+3 du.	1+3 pl.	1+2 du.	1+2 pl.	2sq.	2du.	2pl.	3sg.	3sg. an.	3pl. inan.	3pl. an.
Sub	1sg.	1+3 du.	1+3 pl.	1+2 du.	1+2 pl.	2sq.	2du.	2pl.	3sg.	3sg. an.	3pl. inan.	3pl. an.
lsg.	RF A					* kv:y	* stv:y	* i:cv:y	* ci/k A	* ci:y	* DIST+ ci/k A	* kaci:y
1+3 du.		RF A				(1/2 du.)			* o:sti: A	* o:sti:	DIST+ o:sti: A	DIST + o:sti:
1+3 pl.			RF A			(1/2 pl.)			* o:ci: A	* o:ci:	DIST+ o:ci: A	DIST + o:ci:
1+2 du.				RF A					* i:ni: A	* e:ni:	DIST+ i:ni: A	DIST + i:ni:
1+2 pl.					RF A				* i:ti: A	* e:ti:	DIST+ i:ti: A	DIST + i:ti:
2sg.	ski skw	* skini: (i:)- ski:y					RF A		hi A	* hi:y	DIST+ hi A	*kahi:y DIST + hi
2du.		(2/1 du.)					RF A		sti: A	* e:sti:	DIST+ sti: A	DIST + sti:
2pl.		(2/1 pl.)						RF A	i:ci: A	* e:ci:	DIST+ i:ci: A	DIST + i:ci:
3sg.	aki o:- akw kini: B	o:ki: kini: B	i:ki: kini: B	ca B	sti: B	i:ci: B	act a/ka B	inv u: B	act a/ka B	DIST + a/ka B	act ka A	inv u:ni: B
3pl.	kv:ki ko:- kv:kw kini: B	ke:- ko:ki: kini: B	ke:- ki: kini: B	ke:ca B	ke:- sti: B	ke:ci: B	act ani: A	inv kv:wa B	act ani: A	DIST + ani: A	act kv:- wani: B	inv kv:- wani: B
un-spec	v:ki o:- v:kw kini: B	* e:- kini: B	* e:ki: kini: B	* e:ca B	* e:- sti: B	* e:ci: B	* aci/ak B	* ke:ci/ke:k B				

ral object; (24c) shows a future form with a singular object; and (24d) shows a non-future form with a singular object.

- (24) a. Tò:takv:hníli.
 /te:-ta-ka-v:hníli/
 DIST-CIS-3sg.A-hit=FUT
 'He's going to hit them.'
- b. Tè:kv:hníha.
 /te:-ka-v:hníha/
 DIST-3sg.A-hit=PRES
 'He's hitting them.'
- c. Takv:hníli.
 /ta-ka-v:hníli/
 CIS-3sg.A-hit=FUT
 'He's going to hit it, him.'
- d. Kv:hníha.
 /ka-v:hníha/
 3sg.A-hit=PRES
 'He's hitting it, him.'

The distributive prefix shows complex allomorphy, but in many main clause verbs the distributive appears as te:- before consonants, and as t- before vowels (illustrated in (25-26) below). Te:- raises the pitch of the following syllable (25a); compare (25b) without the distributive:

- (25) a. tè:háhlv:ʔíha
 /te:-hi-ahlv:ʔíha/
 DIST-2sg.A-tying=PRES
 'you are tying them (inan.) up
 (single or plural acts)'
 'you are tying it up (plural acts)'

b. h`ahlv:~?iha
 /hi-ahlv:~?iha/
 2sg.A-tying=PRES
 'you are tying it up (single act)'

T- is simply added to vowel initial prefixes and does not change the pitch relative to the unprefixated form (26a,b), except that te:- + i: becomes té:- (26c,d).<12>

(26) a. t`o:stahlv:~?iha
 /te:-o:sti:-ahlv:~?iha/
 DIST-1-3du.A-tying=PRES
 'he and I are tying them (an. or inan.) up
 (single or plural acts)'
 'he and I are tying it up (plural acts)'

b. o:stahlv:~?iha
 /o:sti:-hlv:~?iha/
 1-3du.A-tying=PRES
 'he and I are tying it up (single act)'

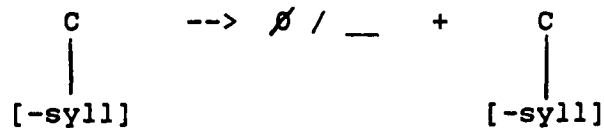
c. te:nahlv:~?iha
 /te:-i:ni:-ahlv:~?iha/
 DIST-1-2du.A-tying=PRES
 'you and I are tying them (an. or inan.) up
 (single or plural acts)'
 'you and I are tying it up (plural acts)'

d. i:nahlv:~?iha
 /i:ni:-ahlv:~?iha/
 1-2du.A-tying=PRES
 'you and I are tying it up (single act)'

There are a number of prefixes in Table 4 which end in /y/, such as the 1sg./3sg.an. prefix, ci:y-. These /y/-final prefixes appear without the final consonant before consonant-initial stems as a result of Prefix Consonant Deletion (27a), which deletes the prefix-final

consonant before another consonant. This is exemplified in (27b). This rule also applies to the consonant-final reflexive prefix ata:t-, discussed in section 2.2.5.

(27) a. Prefix Consonant Deletion



(A prefix-final consonant is deleted before a stem beginning with a consonant.)

- b. $\text{ci:k}\ddot{\text{o}}:\text{w}\acute{\text{t}}\text{h}\acute{\text{i}}\text{h}\text{a}$
 /ci:y-ko:ʔwthiha/
 1sg./3sg.an.-see=PRES
 'I see him'

These prefixes appear with final ya:- before stems beginning with an empty V-slot as a result of a-Insertion (10), as shown in (28).

- (28) $\text{ci:y}\ddot{\text{a}}:\text{s}\hat{\text{a}}\text{t}\acute{\text{o}}:\text{ska}$
 /ci:y-Vʔsato:ska/
 1sg./3sg.an.-push=PRES
 'I'm pushing him'

Before all vowels, these /y/-final prefixes appear with the final /y/, as shown in (29).

- (29) $\text{ci:y}\ddot{\text{e}}:\text{l}\acute{\text{o}}\text{h}\text{a}$
 /ci:y-e:loha/
 1sg./3sg.an.-feed=PRES
 'I'm feeding him'

Several prefixes in Table 4 are listed with two allomorphs: one ending in a vowel, which is used on stems

beginning with consonants and empty V-slots; and one ending in a consonant, for stems beginning with vowels. Those prefixes are 2sg./1sg., 3sg./1sg. (i.e., 1sg.B), 3pl./1sg., and unspec./1sg., in which ki alternates with kw; and 1sg./3sg.inan. (i.e., 1sg.A), unspec./3sg., and unspec./3pl., in which ci alternates with k.

2.2.3 A and B Prefixes on Transitive Verbs

Of the various prefixes in Table 4, some can be said to represent subject-object combinations straightforwardly. Notice, however, that the A and B prefixes from Table 2 appear in Table 4 as well, where they are labeled in the lower right-hand corner of each appropriate cell. The A prefixes are found in the columns representing 3inan. objects. The B prefixes are found in the row representing 3sg. subjects. Thus, transitive verbs with certain third person arguments take intransitive (one-argument) prefixes. And, just as prefix choice on intransitive verbs is determined by whether the verb is an A or B verb in an A or B stem, so too those factors determine prefix choice on transitive verbs that take intransitive prefixes.

Table 4 shows a distinction between animate and inanimate third person objects; in fact the inanimate forms are used not only to refer to inanimates, but are also used sometimes to refer to animate referents. In

(30a) the 2sg./3sg.an. prefix is used, and in (30b) the 2sg./3sg.inan. prefix (i.e., the 2sg.A prefix) is used, yet both can be translated as 'Chase him!' (examples from Cook (1979:15):

- (30) a. Hi:?khehu:?ka.
'Chase him!'
- b. Hikhehu:?ka
'Chase it, him!'^{<13>}

Cook explains that "the first refers to a specific animate being known to the discourse, while the second refers to that being, presumably animate, making the racket off in the bushes" (1979:15). The use of the 2sg.A prefix--an intransitive prefix--on a form like (30b) may be seen as reflecting the lower transitivity of (30b) with respect to (30a), along the lines explored by Hopper and Thompson (1980). The two clauses differ in the individuation of their objects; non-individuated objects (30b) are associated with low transitivity.

Most of the A-like prefixes in the far right column of Table 4 are not marked "A": this is because they do not behave like true A prefixes, which alternate with B prefixes in certain morphological environments.

I mentioned above that, for transitive as for intransitive verbs, A prefixes may only appear in the A stems, and are replaced by B prefixes in other stems.

Therefore, a B-stem verb form, such as a perfective, with a B prefix is ambiguous, as illustrated in (31).

- (31) à:kẁ:hnílv:ʔi
/akw-v:hnílv:ʔi/
1sg.B-hit=PERF
'he/it hit me; I hit it'

Moreover, just as some intransitives, such as 'laugh', are B verbs and do not ever take A prefixes, a few transitives, like 'buy', do not take A prefixes. Compare (32a), exemplifying the usual situation with an A prefix, to (32b), showing a B prefix:

- (32) a. cìnté:ka
/ci-nte:ka/
1sg.A-sell=PRES
'I'm selling it' <14>
- b. à:khiwáska
/aki-hwaska/
1sg.B-buy=PRES
'I'm buying it; he is buying me'

The facts concerning the B-marked transitive verbs are actually more complicated than the brief discussion above would indicate. Some verbs are lexically specified as taking B prefixes with 3inan. objects, but for some speakers consistently and for other speakers occasionally, they take A prefixes in A stems when the subject is third person and the object is 3.an. I call these B-A verbs. An example is given in (33): (33a) shows an

inanimate object and a B prefix; (33b) shows an animate object and an A prefix.<15>

- (33) a. \ddot{u} :hyóha
/u:-yhoha/
3sg.B-look:for=PRES
'he's looking for it'<16>
- b. \ddot{a} :hyóha
/a-yhoha/
3sg.A-look:for=PRES
'he's looking for him'

Compare example (34), which shows a plain B verb; the B prefix gives both the animate object and inanimate object readings:

- (34) \ddot{u} :lv^v:khwti
/u:-lv:kwohti/
3sg.B-like=PRES
'he likes it/him'

As example (32b) makes clear, it is inaccurate to say that a prefix like aki- (or akw-) marks 3sg./1sg., because the prefix can also mark 1sg./3sg. I argue in Chapter Four that the A and B prefixes in Table 4 are not really two-argument prefixes at all. The A prefixes can be seen as marking two arguments, but one of those may be a dummy. The B prefixes are one-argument prefixes, and are used on certain transitive verbs when one argument is not marked on the verb. (The argument which is not marked on the verb may appear in the clause as a non-oblique NP; hence, the clause is transitive, not intran-

sitive, despite the one-argument prefix.<17>) The morphological rules which determine whether arguments are marked on verbs and which determine the case (A or B) in which a marked argument will appear, are discussed in Chapter Four.

Verbs with third person subjects and 3an. objects take one of two sets of prefixes, active or inverse. These are indicated in Table 4 with the labels "act" and "inv", respectively. (Cook (1979) calls the active prefixes "subject focus" and the inverse prefixes "object focus".) There are two sets of active prefixes, one set for A verbs and B-A verbs in A stems, and one for B verbs and B stems. There is only one set of inverse prefixes, used for all verbs in all stem types.

Table 5 shows the active prefixes for A verbs and B-A verbs with third person subjects and 3an. objects in A stems. These prefixes can appear only on verbs with third person subjects and objects. The forms for verbs with singular objects are the A prefixes from Table 2, and the prefixes for verbs with plural objects are the A prefixes plus the distributive prefix.

TABLE 5: Active Prefixes, A-stems

\obj	sg.	pl.
sub\		
sg.	a-/ka-	DIST + a-/ka-
pl.	ani:-	DIST + ani:-

Table 6 shows the active prefixes for all verbs in B stems, for B verbs in A and B stems, and for B-A verbs in B stems with third person subjects and 3inan. objects. The A prefixes from Table 5 have been replaced by the corresponding B prefixes.

TABLE 6: Active Prefixes, B-stems

\obj	sg.	pl.
sub\		
sg.	u:-	DIST + u:-
pl.	u:ni:-	DIST + u:ni:-

Table 7 shows the inverse prefixes. Inverse prefixes are the same on A and B stems and on A and B verbs.<18> The inverse prefix for a 3sg. subject with a 3sg. object is the same as the B-stem active prefix, and the inverse prefix for a 3sg. subject with a 3pl. object is the same as the B-stem active prefix for a 3pl. subject with a 3sg. object.

TABLE 7: Inverse Prefixes

\obj sub\	sg.	pl.
sg.	u:-	u:ni:-
pl.	kv:wa-	kv:wani:-

The active/inverse distinction in Cherokee is in some ways similar to the active/passive distinction in English, as illustrated in (35) and (36). (35), with the active prefix, is best translated into English with an active verb; (36), with the inverse prefix, is best translated into English with a passive verb. These examples are from Cook (1979:171-2).

(35) Ca:ni a:ko:hwthiha Ci:mi.
 /a-ko:hwthiha/
 John 3sg.A-see=PRES Jim
 'John sees Jim.'

(36) Ca:ni u:ko:hwthiha Ci:mi.
 /u:-ko:hwthiha/
 John 3sg.B-see=PRES Jim
 'John is seen by Jim.'

The active and inverse prefixes and their uses are discussed in Chapters Three and Six.

2.2.4 Unspecified Subjects

Table 4 shows that a distinction is made between animate and inanimate third person objects, and between specified and unspecified subjects. Not all of the conditions which trigger the use of the unspecified subject

prefixes are well understood, but it is clear that they never appear with NP's representing the subject. The prefixes often carry a meaning similar to the English agentless passive, as illustrated in example (38), discussed below. Unspecified subject constructions bear a certain similarity to active transitive constructions, since both are used in some cases where the identity of the subject NP is given information or is inferable in context (see section 3.6). The anomalous status of the unspecified subject prefixes, which index only one of the two transitive arguments, is represented in Table 4 by the double line separating these prefixes from the rest of the chart.

(37) shows a regular transitive prefix (underlined), and the subject NP u:to:ta 'her father' is present. (38) shows an unspecified subject prefix (underlined), with no agent NP present. (38) is taken from the end of a report of a conversation in which the only participants are a girl and her father, who is understood as the subject of the verb 'tell'. Regular transitive prefixes may appear with or without overt NP arguments, but unspecified subject prefixes cannot appear with subject NP's.

(37) "Kato u:sti calsta:neha?"
 /ca-lsta:neha/
 what 2sg.B-happen:to=PRES

u:wo:se:li u:to:ta.
 /u:-o:se:lv:ʔi/ /u:-to:ta/
 3sg.B-say=PERF 3sg.B-father

'Her father asked her, "What's the matter?'" (ML)

(38) Kahlco:tehno wu:yv:sti
 /kahlco:te-hno/ /wi-u:-ayv:sti/
 house-and TRANS-3sg.B-enter=INFIN

a:ko:se:le.
 /ak-o:se:l-e:ʔi/
 unspec./3sg.-say=PERF-REP

'She was told to go into the house.' (ML)

Another example of the unspecified subject construction (39) is taken from the end of Olbrechts' (1931:181-2) transcription of a North Carolina story 'How the chipmunk got its back striped'.

(39) Nahi:yu teke:kowe:lanoʔi.
 /te:-ke:k-owe:lan-oʔi/
 that:time DIST-unspec/3pl-mark=PERF-HAB
 'It is at that time that they got their
 stripes.' (CS)<19>

Example (39) is embedded in the following context:
 "This old woman and young girl [who have been scratched by a bearskin which came to life] were really chipmunks. It is at this time that they got their stripes, and the chipmunks have a marked back to this day". On the one hand, the identity of the subject of (39)--the bearskin that came to life--is clear from the text. On the other

hand, it is possible to argue that the identity of the subject is irrelevant at this point in the story-telling.

A third example, (40) is taken from the end of 'The trickster turtle' (Journal of Cherokee Studies 1976).

(40) Ta:cikhi:ye:?i ahwi ahtani:la:t kv:hti.
 /te:-a:ci-khi:y-e:?i/
 DIST-unspec/3sg-beat=PERF-REP deer cheating with
 'The deer was defeated through [the turtle's]
 cheating.' (TT)

That the turtle is the defeater of the deer is clear from context.

Examples with unspecified subjects can be contrasted with sentences showing the indefinite pronoun khilo 'someone', used when the identity of the subject is unknown but relevant in context.<20> The sentence in (41) follows the sentence "Along about midnight, I guess, I woke up", and starts off the main events of the narrative; the narrator's father, who plays an important role in the next part of the story, turns out to be the one knocking on the door.

(41) Khilo kalo:hsti kv:hnihv.
 /ka-v:hnih-v:?i/
 someone door 3sg.A-hit=IMPF-AST
 'Someone was knocking on the door.' (DB)

Intransitive verbs may also have unspecified subjects, as illustrated in (42) and (43), where 'you' in the English translation is to be interpreted as 'one'.

(42) Yo:tu:li atawo:sti,
 /y-o:-atu:li/ /a-atawo:sti/
 CTR-unspec-want=PRES 3sg.A-swim=INFIN
 'If you want to go swimming,

 nikalstikwu atawo:st ahna.
 /a-atawo:sti/
 anytime 3sg.A-swim=INFIN there
 'you can go anytime you want to.' (NC)

(43) Yo:tu:li o:ye:tsti.
 /y-o:-atu:li/ /o:-ye:tsti/
 CTR-unspec-want=PRES unspec-laugh=INFIN
 'You can laugh if you want to.'

A-intransitives, such as 'swim', take A prefixes with unspecified subjects, even in B stems (such as the infinitive); B intransitives, such as 'want' and 'laugh', take the prefix o:- which patterns like the prefix u:- before vowels (see Table 3).<21> To the best of my knowledge, the prefix o:- has not been discussed in other accounts of Cherokee grammar. Further study of these generic subject forms is needed, including work directed toward understanding their relation to other unsepcified subject constructions.

2.2.5 Reflexives and Reciprocals

The notation "RF" in (23) indicates that a reflexive form is called for. A and B prefixes play an important part in the construction of reflexives and reciprocals, all marked with the prefix -ata:t-, which precedes the stem but follows the pronominal prefix.<22> The choice of pronominal prefix, for reflexives as for other verbs,

depends upon the verb and upon the verb stem. In the A stems of reflexives and reciprocals, A verbs take the appropriate A prefix to agree with the person and number of the arguments (44a); B verbs take B prefixes (44b), and B-A verbs take A prefixes (44c).

- (44) a. ǎ:tà:tṽ:hniha ǔwǎ:sa
 /a-ata:t-v:hniha/ himself
 3sg.A-RF-hit=PRES
 'he's hitting himself'
- b. ǔ:nṽ:sa tú:ntàthṽ:tá:sti
 themselves /te:-u:ni:-ata:t-athv:ta:sti/
 DIST-3pl.B-RF-listen=PRES
 'they're listening to each other'
- c. tá:ntà:hyóha ǔ:nṽ:sa
 /te:-ani:-ata:t-yhoha/ themselves
 DIST-3pl.A-RF-look:for=PRES
 'they're looking for each other'

All reflexives and reciprocals take B prefixes in the B stems, as illustrated in (45).

- (45) a. ǔ:tà:tṽ:hniǎv:ʔi ǔwǎ:sa
 /u:-ata:t-v:hniǎv:ʔi/ himself
 3sg.B-RF-hit=PERF
 'he hit himself'
- b. ǔ:nṽ:sa tú:ntà:kthò:stánv:ʔi
 themselves /te:-u:ni:-at:t-aktho:stanv:ʔi/
 DIST-3plB.-RF-watch=PERF
 'they watched each other' <23>
- c. tú:ntà:hyǎǎv:ʔi ǔ:nṽ:sa
 /te:-u:ni:-ata:t-yhalv:ʔi/ themselves
 DIST-3pl.B-RF-look:for=PERF
 'they looked for each other'

The examples in (44) and (45) show the 3sg. and 3pl. forms of the reflexive pronoun, -ǎ:sa, which takes B pre-

fixes. Without the reflexive pronoun, the verb is not necessarily interpreted as a reflexive, as discussed below.<24>

Reciprocals, in addition to the morphology described above, take the distributive prefix as in (44b), but the distributive does not in itself mark a reflexive-type form as reciprocal, because the distributive can also be used on a reflexive referring to a "distributed" or plural action, as illustrated in (46).

- (46) tā:ntā:hl̥v:ʔiha ù:n̥v:sa
 /te:-ani:-ata:t-ahlv:ʔiha/ themselves
 DIST-3pl.A-RF-tie=PRES
 'they're tying each other up, they're tying
 themselves up (e.g., in several places)'

A blank space in Table 4 indicates that there is no prefix to mark the given subject-object combination. Various circumlocutions involving reflexives are used to express such combinations as a first person subject acting on a first person dual exclusive object.

Reflexives do not appear with object NP's except for the reflexive pronoun -v̥:sa, and when the reflexive pronoun appears, the verbs are interpreted as having objects identical to their subjects. Reflexive verbs often occur without the reflexive pronoun, in which case they may, but need not, be interpreted as having coreferential subjects and objects. More generally, the reflexive prefix indicates that the object of the verb is an unspecified

human being and that its identity must be inferred from context. Thus, a verb like (47) will be interpreted as reflexive if it appears with uwa:sa 'himself', but otherwise could be said, for example, of a newborn baby first focusing his eyes.

- (47) $\acute{a}:t\grave{a}:k\grave{o}:hwth\acute{i}ha$
/a-ata:t-ko:hwthiha/
3sg.A-RF-see=PRES
'he sees (someone)'

Reflexives are used to indicate generic object both with verbs (as in (47)) and in nominalizations (see Chapter Five).

Reflexives are also used in description of what might be considered reciprocal events, where the object of a verb is not specified in the second clause of a set, as in (48), where the verb in (48b) has a reflexive prefix (underlined).

- (48) a. $\check{C}\grave{a}:n$ $t\grave{u}:n\acute{v}:n\grave{e}:l\acute{e}$ $M\acute{e}:l \grave{a}n\acute{i}:c\grave{i}l\acute{v}:ski,$
 /te:-u:-nv:ne:l-e:ʔi/
John DIST-3sg.B-give=PERF-REP Mary flowers
'John gave Mary some flowers,
- b. $M\acute{e}:l\acute{i}hno$ $t\acute{u}:t\grave{a}:n\acute{v}:n\grave{e}:l\acute{v}:ʔi.$
/Me:li-hno/ /te:-i-u:-ata:t-nv:ne:lv:ʔi/
Mary-and DIST-IT-3sg.B-RF-give=PERF
'and Mary gave them right back to him.'<25>

The use of the reflexive prefix in (49b) shows that intervening quoted speech does not disturb the pattern of prefix use discussed above, and shows that what triggers

the use of the reflexive in these cases is not the repetition of a particular verb, but rather the sense of action in response to another action. (49a) and (49b) are consecutive sentences in a narrative. The reflexive prefix is underlined.

(49) a. "Kato u:sti ulsu:hwita?" u:thv:tv:hne:?i
 which colored /u:-athv:tv:hn-e:?i/
 3sg.B-ask=PERF-REP

u:to:ta.
her:father

'"What color is it?" her father asked.

b. "Kvhnake:?i ulsu:hwita," u:ta:to:se:le:?i
 black colored /u:-ata:t-o:se:l-e:?i/
 3sg.B-RF-say:to=PERF-REP

ake:hyu:ca.
girl

'"It's black," she said.' (ML)

Reflexive forms bear some similarity to inverse forms, since both are used when the subject and object of one clause are reversed from the previous one (see section 3.6). More generally, both inverse forms and reflexives may be used in certain cases where the object of a clause appears in a previous clause. Reflexive examples like (48) and (49) may be considered special cases of objects which are inferable from context. The context need not be linguistic: (50) would be appropriately used

if the situation being described were in view. The reflexive prefix is underlined.

- (50) Kì:hl à:nta:sv:stíha.
/ani:-ata:t-sv:stíha/
dog 3pl.A-RF-sniff=PRES
'The dogs are sniffing (at him).'

The reflexive prefix may also make somewhat idiosyncratic contributions to meaning: the verb -l̀vkwh̀t- 'like' has a derived adjective with ata:t-, -atà:l̀v:kwh̀ti meaning 'stuck up, snobbish'. Pulte and Feeling (1975) and Cook (1979) discuss the uses of derivational prefixes related to the reflexive.

Like intransitive verbs, reflexive verbs show agreement with only one argument. Since reflexive verbs are used in unspecified object constructions as well as in reflexive constructions, the prefix can be said to index the subject. Reflexives take the pronominal prefixes associated with intransitive verbs, and show B prefixes with the appropriate aspect stems, just as intransitive verbs do. Since transitive verbs with animate objects do not undergo the A ~ B alternation for aspect, the reflexives appear to be intransitive.<26> On the other hand, reflexive verbs are interpreted as having human objects, and B-A verbs, which take A prefixes if their objects are animate, take A prefixes in the reflexive, as illustrated in (44c). This suggests that reflexives should be

treated as derived from transitive verbs. (In Chapter Four, reflexives are treated as derived intransitives.)

2.3 Some Features of this Analysis

A somewhat different analysis of the phonology of the pronominal prefix system is presented by Cook (1979). One important difference between Cook's analysis and the one presented here is that Cook treats the /i/ of the 1sg.A and 2sg.A prefixes as inserted by epenthesis rules. These vowels are different from other short vowels in Cherokee in that they are "extra short". Extra short vowels last only about half as long as regular short vowels; historically, as Cook explains, they are epenthetic. However, the 1sg.B and 2sg.B prefixes also appear to contain extra short vowels, and the epenthesis rule would have to be complicated to allow for the /a/ of the 2sg.B prefix as well as the /i/ of the other two forms. Since there is independent need for the Prefix Vowel Deletion rule (3), I treat these vowels as underlyingly present, and lexically specified as extra short. If this analysis is adopted, there would be three phonemic degrees of length in Cherokee. In fact, the extra short vowels are always predictable from the morphological context and they do not contrast with regular short vowels (Cook 1979:7). A complete account of accentual phenomena

should clarify the status of the different degrees of vowel length.

Certain pre-pronominal prefixes may appear with an epenthetic /i/; the counterfactual prefix y- appears with an epenthetic vowel, as yi-, before a consonant. This epenthetic /i/ has a distribution which is different from the distribution of short /i/ in the pronominal prefixes. So, for example, the counterfactual prefix appears as yu- before /w/, as in (51), from Pulte and Feeling (1975:242). The translocative prefix w- adds the meaning 'with his back turned'.

- (51) Hlá yuwakó:hwthiha.
/y-w-a-ko:hwthiha/
not CTR-TRANS-3sg.A-see=PRES
'He doesn't see it (with his back turned).'

If the /i/ of the 2sg.A prefix were epenthetic, we might expect it to appear as /u/ before /w/, but it does not, as shown in (52).

- (52) Hiwò:ni:hi.
/hi-wo:nihi/
2sg.A-speak=PUNCT
'Speak!'

Another difference between Cook's analysis and mine is that Cook treats the 3sg.A prefix a:- as beginning with a long vowel underlyingly. A problem with such an approach (at least for Oklahoma Cherokee) is that it does not account for the short /a/ which may be found in this

prefix under certain conditions. In atonic (non-main-clause) forms, such as derived nouns, which take the 3sg.A prefix a-, the initial vowel is short in Oklahoma Cherokee: for example, a noun like àhlàwì:tí:ski 'something that flies', from the verb root -ahlawì:t- 'fly', begins with /a/, but the initial vowel is a:- when the prefix is attached to a stem beginning with long /a:/ as in à:tò:ní:ski 'sorcerer', from the verb root -a:to:n- 'conjure'. The rule of Prefix Vowel Deletion (3) will account for the vowels in these forms. Cook claims that after the 3sg.A prefix, stems beginning with /a/ lose their initial vowel; thus the contrast between stems beginning with long and short /a/ ought to be neutralized, but in fact it is not.

A third difference between my analysis and Cook's involves the prefixes I give as ending in /y/. Cook considers these prefixes to be vowel-final, and marks them in the lexicon as subject to a rule of y-epenthesis. Cook's analysis complicates the lexical treatment of the prefixes, because there is no synchronic phonological or semantic factor which determines whether or not a prefix takes an epenthetic consonant. In addition to information about the segments of the prefix, the lexicon includes a feature [+epenthesis] for certain prefixes, and the grammar has a general rule of y-epenthesis. Cook justifies his analysis for the pronominal prefixes on

diachronic grounds and he claims that, in addition, the epenthesis rule is helpful in describing certain alternations in the prepronominal prefix system. The rule, however, applies only after /a/ in the pre-pronominals and it never applies after /a/ in the pronominals. The rule of Prefix Consonant Deletion (27), which accounts for Cook's y-epenthesis forms in my analysis, is needed independently to account for the allomorphy of the reflexive prefix.

2.4 Variation in the Pronominal Prefixes

The 2sg./3pl.an. prefix in Table 4 is shown as kahi:y- and as DIST + hi-. Some speakers use only kahi:y- for 2sg./3pl.an. (Pulte and Feeling 1975); others use both forms, preferring a given prefix with a given verb form, but the factors that condition prefix choice for these speakers are unclear.<27>

Table 4 reflects the usage of my primary Cherokee consultants from Oklahoma and California. It differs in two interesting respects from the corresponding charts given by King (1975) and Cook (1979) (which are virtually identical to each other) and from the chart that can be constructed from the paradigms presented by Pulte and Feeling (1975), Krueger (1963), and Kilpatrick and Kilpatrick (1968). These differences involve the marking of

verbs with 3pl.an. objects and the use of ?-grade, as opposed to h-grade stems.<28>

The far right column of Table 4 represents the prefixes used with third person plural animate objects. Some of them contain an element k-, which can be thought of as a marker of 'third plural', after Cook (1979). This element appears also throughout much of the 3pl. subject row. Ignoring the prefixes marking 3pl.an. objects with third person subjects (i.e., ignoring the bottom three rows of the rightmost column of the table), we find that the prefixes with 1sg. and 2sg. subjects show k-. The other prefixes show the distributive marker and are identical to the corresponding prefixes marking 3pl.inan. objects, which are one column to the left.

Slightly different patterns of agreement are found in other descriptions of Cherokee. These patterns are summarized in Table 8, which shows whether each of six sources gives a 3pl.an. object prefix with a distributive or with k-.

TABLE 8: Variation in 3pl.an. Object Prefixes

	W	GAB	FL	PF	OK	NC
subject	1820's	1800's	1940's	1970's	1980's	1970's
1 sg.	k	k	k	k	k	k
excl du.	DIST	k	k	k	DIST	DIST
excl pl.	DIST	k	k	k	DIST	DIST
incl du.	k	k	k	k	DIST	k
incl pl.	k	k	k	k	DIST	k
2 sg.	k	k	k	k	k/DIST	k
2 du.	k	k	DIST	k	DIST	DIST
2 pl.	k	k	DIST	k	DIST	DIST

The first five columns of Table 8 represent versions of what is now Oklahoma Cherokee. Column W represents the prefixes given in the 1820's by Samuel A. Worcester, a missionary among the Cherokees, who was responsible for a good deal of the early material published in the Cherokee syllabary and who published Cherokee verb forms with some analysis in the Cherokee Phoenix. Although the data come from before the major removal of the Cherokees to the west, there are good reasons to believe that Worcester was recording the Western dialect. Column GAB represents the prefixes given by Hans Conon von der Gabelentz in his grammar of Cherokee, written in the mid-1800's and based on Oklahoma Cherokee data (Krueger 1963); column FL represents the prefixes recorded by Floyd Lounsbury in 1941 as reported by Cook (1979); column PF, identical to column GAB, represents the prefixes given by Pulte and Feeling (1975); column OK represents the prefixes recorded by me in 1983-6, and is taken from

Table 4; and column NC represents the prefixes given by Cook (1979).<29>

These paradigms give evidence of a good deal of synchronic variation: GAB, from the mid-1800's, is still in use today as PF (though the GAB and PF prefix systems do differ in some other details), and NC and FL may have co-existed in Oklahoma forty-five years ago.<30> Moreover, there is not a tidy pattern of spread of the distributive prefix in this paradigm, considering that W was recorded before GAB, which was recorded before FL. It does seem clear that dialect OK represents the spread of the distributive prefix from a dialect like NC into the inclusive and second person subject forms, because there is alternation between k- and the distributive in the 2sg. subject form and there are some speakers who show an alternation between k- and the distributive in the inclusive dual form (Holmes and Smith 1977).

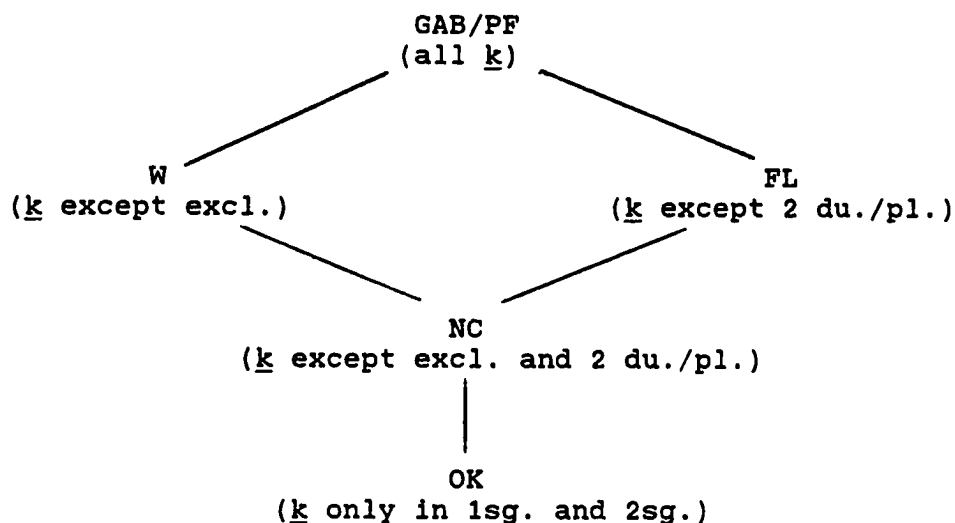
The spread of the distributive represents a leveling of the distinction between 3pl.an. and 3pl.inan. objects, insofar as the prefix system is concerned. Even when the prefix system itself does not differentiate between 3pl.an. and 3pl.inan. objects, however, the distinction between them has not been completely obliterated: the prefixes marking 3pl.an. objects, unlike the prefixes for 3pl.inan. objects (even if they take the distributive),

do not alternate with B prefixes; it is for this reason that they are not marked 'A' in Table 4.

The dialects and their relationship to one another can be represented in a lattice like the one in Figure 2. Any two dialects connected by a line can plausibly be derived from each other, either by a minimal extension of the use of k (going up the page) or by extending the use of the distributive (going down the page).

Figure 2: Relationships among Cherokee Dialects

A lattice representing the relationships among the dialects. Dialects toward the top of the page show more k forms in the prefixes marking 3pl.an. objects; dialects toward the bottom of the page show more distributive forms.



In principle, any of the dialects could have been the original, but historical data suggest GAB/PF or NC as the most probable sources. GAB is a likely source because it is attested to early and leads more naturally

to FL than does W, which is also attested early. NC is a likely source because the NC dialect is considered to be conservative in some respects (Mooney 1900, Holmes and Smith 1977, King 1977).

A paradigm like the one in NC could have been the original of the Western as well as the Eastern dialects, with W, FL, and GAB and PF representing different degrees of generalization of the k- forms throughout the set and with dialect OK representing instead the spread of the distributive forms. A second possibility is that a paradigm like the one in GAB and PF is the original, with innovative use of the distributive prefix in both dialects, North Carolina and Oklahoma (i.e., Middle and Western), before the removal to Oklahoma in the 1830's, but with some speakers retaining the older forms. The use of the distributive would have begun in the exclusive forms (see column W) and then spread to the second person nonsingular forms in dialects like NC. Dialect FL appears to present a problem for such a theory, but it is possible that FL represents a development of a dialect like NC (assuming that NC and FL did coexist in Oklahoma) under the influence of another Western dialect such as GAB or PF.

The evidence as to the actual history of the plural object prefixes does not fall overwhelmingly in favor of either hypothesis, but several kinds of evidence, includ-

ing comparative Iroquoian data and internal reconstruction of Cherokee conspire to suggest that the second alternative may be correct (Scancarelli forthcoming).

If GAB/PF is the most conservative system, then dialect OK shows a greater number of innovative prefix forms than dialect NC, which in turn shows a greater number of innovative forms than PF. There are, then, Oklahoma dialects which are both more and less innovative, in certain respects, than the North Carolina dialect, which is generally considered conservative.

If we turn to the 3sg.an. object prefixes, we can find evidence that forms used in Oklahoma today appear to be more archaic than the North Carolina forms (Scancarelli 1986). And, again, the innovative forms show a lesser degree of differentiation between 3an. object prefixes and 3inan. object prefixes. The prefixes from Table 4 marking 3sg.objects and non-third-person subjects are given in Table 9 along with prefixes from Pulte and Feeling (1975) and Cook (1979), labeled OK, PF, and NC, respectively. All three dialects use the same prefixes to mark 3sg.inan. objects; OK and PF are also identical in their marking of 3sg.an. objects. An asterisk before a prefix indicates that the prefix requires ?-grade stems. Pitch markings have been omitted.

TABLE 9: Variation in 3sg. Object Prefixes

3sg. object prefixes in three dialects

Subject	3sg.inan.	(PF)	
		3sg.an.(OK)	3sg.an.(NC)
1sg.	*ci-,k-	*ci:y-	*ci:y-
1+3du.	o:sti:-	*o:sti:-	o:sti:-
1+3pl.	o:ci:-	*o:ci:-	o:ci:-
1+2du.	i:ni:-	*e:ni:-	*e:ni:-
1+2pl.	i:ti:-	*e:ti:-	*e:ti:-
2sg.	hi-	*hi:y-	*hi:y-
2du.	sti:-	*e:sti:	sti:-
2pl.	i:ci:-	*e:ci:-	i:ci:-

There are segmental differences between the two sets of Oklahoma prefixes for all forms except 1-3du. and 1-3pl. Further, all the 3sg.an. object prefixes require ?-grade stems. The North Carolina 3sg.an. object prefixes are closer to the 3sg.inan. object prefixes than are the Oklahoma 3sg.an. object prefixes. Not only the 1-3du. and 1-3pl. prefixes, but also the 2du. and 2pl. prefixes, are segmentally identical for inanimate and animate objects. And, not only are those prefixes segmentally identical to the 3sg.inan. forms, but also, like the 3sg.inan. prefixes, they are used with the h-grade rather than the ?-grade.

If the dialect described by Pulte and Feeling (1975) is indeed conservative, as it appears to be, then the development from the PF forms to the NC forms to the OK forms shows an interesting loss of a generalization. The triggering of h-grade and ?-grade stems by pronominal

prefixes has no clear phonological or semantic basis in modern Cherokee; but throughout PF, a generalization holds: 3an. object forms (except those with third person specified subjects) take ?-grade stems. This generalization holds only for 3sg.an. objects in OK, the dialect of Table 4, and it does not hold in NC, either for 3sg. or for 3pl. object forms.

Notes to Chapter 2

<1>The terms "A" and "B" are used by Pulte and Feeling (1975) and by Holmes and Smith (1977). The terms "subjective" and "objective" are well-motivated, as the discussion of transitive verb agreement, below, will make clear. However, I will not use those terms here, because the "objective" prefixes may index subjects as well as objects. Likewise, the terms "agent" and "patient" are well-motivated, as the discussion of transitive agreement and the discussion in Chapter Five will show, but I will not use those terms here because the "patient" prefixes may index agents as well as patients, and the "agsnt" prefixes may index patients as well as agents.

<2>Feeling (1975) gives the present stem of 'cheat' as -lò:nù:hě:ha.

<3>Notice that transitive verbs can take the one-argument prefixes.

<4>In main clause forms, all the /u/'s in 3sg.B prefixes will appear as long vowels with low falling pitch because of the rules of Tonic Glottal Insertion (15) and Glottal Lowering (14). As an example of the 3sg.B prefix appearing as ùw- in an atonic (non-main-clause) form, consider the following:

ùwè:nv:sti
/u:-e:nv:sti:ʔi/
3sg.B-go=INFIN
'for him to go'

<5>Cook (1979) discusses stems beginning with /v/ at some length. North Carolina speakers exhibit not only the two variant treatments discussed in the text, but also an additional type. At least one /v/ stem is treated as a /v:/ stem when the 3sg.B prefix is attached (p. 18):

u:wa:hki:lo:ʔv:ki
/u:-vhkilo:ʔv:ki/
3sg.B-wash:flexible:object=PERF
'he has washed it'

<6>The prefix appears with a long u: on low falling pitch in (10b) as a result of, Tonic Glottal Insertion (15) and Glottal Lowering (14).

<7>Oklahoma and North Carolina Cherokee appear to differ here; Cook (1979) shows the effects of Tonic Glottal Insertion on prefixes even on non-derived (tonic) nouns. So the Oklahoma form of the word for 'men' is àni:skaya, with a short /a/ at the beginning of the 3pl.A prefix, but Cook gives the form as a:ni:skaya, with a long /a/.

<8>In certain constructions, A verbs in the perfective stem may take A prefixes. These constructions are discussed in Chapter Five.

<9>Two clauses are used to say 'Buy it for me' in Cherokee: the literal English translation would be 'Buy it and give it to me.'

<10>The causative/instrumental suffix of a verb has the same shape as its infinitive suffix, but whereas the infinitive suffix is followed only by the modal -i:ʔi, the causative/instrumentals appear in various aspect forms and are followed by the full range of modal suffixes. Also, verbs with causative/instrumental suffixes appear with A or B prefixes as determined by the aspect stem, but infinitives always appear with B prefixes. The alternation of A and B prefixes on transitive verbs is similar to the alternation on intransitive verbs, and is discussed below.

<11>Table 4 follows the basic organization of similar charts constructed by Reyburn (1953b), King (1975), and Cook (1979), which in turn follow the structure of Lounsbury's (1953) diagram of Oneida pronominal prefixes.

<12>The initial i:- of the 2/1 plural prefix, (i:)ski:- is optional in unprefixated forms. The factors governing its appearance are not well understood. It

never appears after the distributive, so the distributive form is tè:skí:-, not *tí:skí:-.

The effects of the prepronominal prefixes upon pitch accent have not been fully described; notice that Tonic Glottal Insertion (15) seems to have applied in (26a) and (26b) although generally that rule applies only to pronominal prefixes when they appear word-initially.

<13>The 2sg./3sg.an. prefix (30a) requires the ?-grade, and that the 2sg.A prefix (30b) requires the h-grade.

<14>Feeling (1975) gives this stem as -náté:ka.

<15>In B stems, B-A verbs, like A verbs, take B prefixes rather than A prefixes. B-A verbs show A prefixes for all animates, not just for humans. So, for example, tù:yó:ska 'he's letting go of it' can be said of releasing a rope, tà:yó:ska 'he's letting go of him' can be said of releasing a rabbit (Feeling 1975:77, 89).

<16>Under certain circumstances, (33a) will be interpreted as what I call an "inverse" form: see below and Chapter Three). Under such an interpretation, (33a) can mean 'he's looking for him', or, perhaps more accurately, 'he's being looked for by him'.

<17>Oblique NP's include locative NP's, with the locative suffix, and NP's which are marked with postpositions.

<18>Pulte and Feeling (1975:301-2) state that these prefixes can be used only on A verbs in A stems, but my data show that such is not the case.

<19>Olbrechts (1931:181) gives "they have been marked" as the literal translation of the verb.

<20>Like (39), elicited examples of unspecified subject constructions suggest that they may be used when the identity of a subject NP is irrelevant.

<21>'Want' is a transitive verb when used with an NP object; it appears to be intransitive in constructions like those in (42) and (43).

<22>-ata:t- appears as -ata:- before consonants by the Prefix Consonant Deletion rule discussed below. On /a/-initial stems it appears as -ata:- with loss of the /t + a/ sequence. On stems beginning with empty V-slots the prefix appears as -ata:-.

In some people's speech, when the reflexive prefix is preceded by a pronominal prefix ending in ni: (e.g., the 3sg.A or 3sg.B prefix), the resulting form shows elimination of both adjacent vowels rather than elimina-

tion of only the first vowel, as Prefix Vowel Deletion (4) would predict. For example, 'they are gathering' /ani:-ata:hli:siha/ may be realized either as à:nàtà:hli:síha (as shown in Feeling (1975:44)) or as à:ntá:hli:síha (which is Mrs. Carey's pronunciation).

<23>'Watch' is an A verb in Feeling (1975). For Mrs. Carey, 'watch' appears to be a B verb.

<24>In an atonic form, -v:sa, the reflexive word, serves as an adjective or intensifier: úwá:sa means 'he/him alone,' 'he/him himself,' or only he/him'.

The reflexive -v:sa, like many of the verb stems beginning with /v:/, shows uwa:- rather than uvw:- when the 3sg.B prefix is used. The unspecified prefix o:- patterns like the 3sg.B prefix, and the reflexive form 'oneself' is ówá:sa, as in the example below:

Owa:sa	ata:tvsti	yo:tu:li?a.
/o:-v:sa/	/a-ata:t-vsti/	/y-o:-atu:li?a/
unspec-self	3sg.A-RF-hit=INFIN	CTR-unspec-want=INFIN
'You can hit yourself if you want to.'		

<25>The iterative prefix is realized as high pitch on the first syllable of the verb in (48b). If there were no iterative prefix in (48b), the first syllable of the verb would be tú:.

<26>If reflexives were transitives, we might expect the verb in (50) to appear with the inverse prefix kv:wa-, since, as I discuss in Chapter Three, verbs with third person non-human animate subjects and third person human objects generally take inverse prefixes.

<27>Holmes and Smith (1977) show a similar variation for the 1+2du./3pl.an. prefix: both DIST + i:ni:- and ke:ni:- are given in their paradigms. Mrs. Carey usually uses the DIST + i:ni:-, but occasionally uses ke:ni:-.

<28>One minor difference between Table 4 and the paradigms given by Pulte and Feeling (1975) is that Pulte and Feeling show the 3pl./2pl. prefix as taking ?-grade stems, rather than h-grade stems.

Table 4 and Pulte and Feeling (1975) both show the 2sg./3pl.an. prefix as kahi:y-, while King (1975) and Cook (1979) kehi:y-.

<29>Dialect FL represents at least some of the Oklahoma Cherokee of the 1940's. Cook seems to suggest that some Oklahoma speakers at that time used the same forms as the North Carolina speakers. He considers FL to be innovative with respect to NC, and would probably consider PF to be innovative with respect to both NC and FL. Pulte and Feeling (1975) recognize the dialect shown here as OK to be innovative with respect to PF.

<30>One difference between GAB and PF lies in the 2sg./3pl.an. prefix. PF shows kahi:y-. GAB shows kiy-, with no indication of vowel length. (W shows kiy- and kehiy- as alternates; King (1975) and Cook (1979) kehi:y-.)

CHAPTER 3: GRAMMATICAL RELATIONS AND VERB AGREEMENT

3.1 Verb Agreement as a Dependent Variable

Silverstein (1976, 1981) observes that case marking patterns can be insightfully treated as "the results of the interaction of a number of INDEPENDENT VARIABLES of referential-and-predicational meaningfulness of ongoing linguistic discourse" (1981:229). Among those independent variables which might determine case marking are: the case relations between NP's and predicates, clausal tense and aspect, the inherent lexicosemantic content of NP's, the type of linkage between clauses, and coreference of arguments across clause boundaries. Nouns in Cherokee are not marked for case, except for locative case, but the verb agreement morphology discussed in Chapter Two can be considered analogous to case marking, since it serves to index the relationships which obtain between verbs and certain nouns in a clause.

Cherokee verb agreement is determined by several different variables which bear a hierarchical relationship to one another. Most basically, verb agreement is determined by the semantically grounded syntactic relations that exist between a predicate and its arguments (section 3.2). For transitive verbs with first or second person objects (regardless of subject), and for transitive verbs with both first or second person

subjects and third person animate objects, these relations suffice to determine agreement morphology, but for intransitive verbs and for other transitive verbs, additional variables must be taken into account.

The second variable to consider is the lexical specification of the verb (section 3.3). For intransitive verbs, these first two variables suffice to determine agreement morphology.

The third variable is the inherent referential content of the verbal arguments, which has in fact been mentioned above in the description of the domain of variables one and two (section 3.4). For transitive verbs with third person subjects and third person objects, the relative position of those arguments on a hierarchy of animacy will determine verb agreement, if the two arguments are of unequal status with respect to animacy.

When both verbal arguments are third person animate and have equal rank on the animacy hierarchy, then the fourth variable will come into play: the syntax of the clause can determine verb agreement morphology (section 3.5). When none of those four variables determines verb agreement, then discourse-pragmatic considerations will determine verb agreement (section 3.6). In the control of agreement morphology, variables involving only the relationship between the verb and its arguments have

priority over variables involving only the referential content of the verbal arguments. These two types of variables have priority over larger-scale syntactic considerations, which in turn have priority over discourse-level variables.

In section 3.6, I also suggest that the opposition between two abstract, pragmatically grounded categories "proximate" and "obviative" can subsume variables three through five.

The pragmatic principles which govern verb agreement can be distinguished from the pragmatic principles which govern word order (section 3.7).

3.2 Semantic Roles and Syntactic Relations

In this section I define the relations "subject" and "object" for Cherokee in terms of a hierarchy of semantic roles (3.2.1). Cherokee subjects lack the syntactic prominence typically associated with subjects cross-linguistically (3.2.2); nevertheless, to the extent that subject and object do not directly represent semantic roles, and to the extent that subject and object relations are useful concepts in an analysis of verb agreement, subject and object can legitimately be considered syntactic relations in Cherokee.

3.2.1 Subjects and Objects

Cherokee verbs are lexically specified as taking certain NP arguments which appear in clauses without any postpositions or other case marking and whose semantic roles are determined by the semantic structure of the verbs. The syntactic relations of verbal arguments are determined by their semantic roles, and the relations of subject and object in Cherokee may be considered abstractions from semantic roles. Subjects and objects are indexed on verbs through the pronominal prefix system.

Foley and Van Valin (1984) take such an approach to the determination of semantic roles and syntactic relations, following Dowty's (1979) program of lexical decomposition. Foley and Van Valin, however, do not consider subject and object as syntactic relations. Role names and definitions used in my analysis of Cherokee are taken from Foley and Van Valin's discussion of semantic roles, but the use to which I put these roles differs from their use in Foley and Van Valin's *Role and Reference Grammar*.

An intransitive verb will have only one argument which may be called the subject, with which the verb agrees. Intransitive verb subjects may bear any of a number of semantic roles. The verb in (1a) has an (action-controlling) agent as its subject; the verb in (1b) has an effector, or non-controlling agent, as subject; the verb in (1c) has a theme, or entity whose

location is at issue, as subject; and the verb in (1d) has a patient, or entity whose state of being or condition is at issue, as subject.

- (1) a. á:i
/a-a:ʔi/
3sg.A-walk=PRES
'he's walking'
- b. u:hahló:keha
/u:-hahlo:keha/
3sg.B-yawn=PRES
'he's yawning'
- c. e:tó:ha
/a-e:to:ha/
3sg.A-be:here=PRES
'he's here'
- d. kv:nawó:ska
/ka-v:nawo:ska/
3sg.A-melt=PRES
'it's melting'

Whether the agreement prefix on an intransitive verb is taken from set A or set B is determined by reference to lexical factors, to be discussed in section 3.3. I show in Chapter Five that the semantic role of the intransitive argument does not wholly determine the selection of prefix set.

Transitive verbs may have two or three arguments, but their pronominal prefixes will index only two, the subject and object. The choice of subject and object can be determined by the relative placement of the arguments on a hierarchy of semantic roles. The universal role hierarchy, with roles listed in descending order of rank,

is given in (2), following Foley and Van Valin (1984:59). "Effectors" include instruments and non-controlling agents; "locatives" include owners, recipients, and benefactives ("locative" in (2) does not correspond to Cherokee locative case marking which is used on noun phrases to indicate that some action or event is located at some place); "agents", "themes", and "patients" are defined as above. The semantic roles in (2) are to be viewed as points on a continuum, with additional roles definable as lying between the points given.

(2) Hierarchy of Semantic Roles

Agent
Effector
Locative
Theme
Patient

In Cherokee the NP argument bearing the most highly ranked semantic role will be the subject of the verb; the NP argument bearing the next most highly ranked semantic role will be the object of the verb.<1>

The more highly ranked a semantic role, the more marked it is as an object, to the extent that verbs do not take agent objects. Verbs with effector objects take the causative/instrumental derivational suffix, as in example (3) with an agent as subject and an effector as object; the verb is interpreted as having a non-volitional causee.

- (3) \A:l'skísti'ha.
 /a-aliski-st-íha/
 3sg.A-dance-CAUS-PRES
 'He's making it (e.g., a baby, cat, or doll) dance.'

Verbs with locative objects take the dative derivational suffix, as in (4), from Pulte and Feeling (1975:286), with an agent subject and a locative object (here, a benefactive).<2>

- (4) káwo:ni:híse'ha
 /ka-wo:ni:his-éha/
 3sg.A-speak-DAT=PRES
 'he's speaking for him'<3>

Verbs with effector or locative objects may have a third argument (theme or patient) which is not indexed through the pronominal prefix system, although plurality of the third argument is marked with the distributive prefix (see (21) - (23) in Chapter Two for examples involving locative objects and the dative suffix, which is part of the Cherokee verbs meaning 'give'). The example in (5) shows a verb with three arguments and a causative/instrumental suffix: the verb 'show' can be analyzed literally as 'make see' with the causative meaning contributed by the suffix, here -vht, which has been added to the verb stem -ko:hwth 'see'.

- (5) tē:cí:kò:wthvhtí'ha
 /te:-cí:y-ko:wth-vht-íha/
 DIST-1sg./3sg.an.-see-CAUS-PRES
 'I'm showing them to him'

The identification of subject and object fully determines verb agreement morphology for transitive verbs with first or second person objects (regardless of subject), and for transitive verbs with third person animate objects with first or second person (or unspecified) subjects. Agreement morphology unambiguously identifies subject and object, with the exceptions of pronominal prefixes which incorporate A or B prefixes (these prefixes are labeled "A" and "B" in Table 4). Thus, for example, all verbs with the pronominal prefix kv:y- will have first person singular subjects and second person singular objects, and all verbs with first person singular subjects and second person singular objects will show the prefix kv:y-. Such biconditional statements cannot be made for all Cherokee pronominal prefixes.

3.2.2 Syntactic Properties of Subjects

In Cherokee, subjects and objects can be said to have syntactic status inasmuch as they are relevant to agreement morphology and inasmuch as they are not direct representations of semantic roles. In other sections of this chapter, I examine the uses of active and inverse constructions, both of which can be considered transitive constructions, since they can both appear with two NP

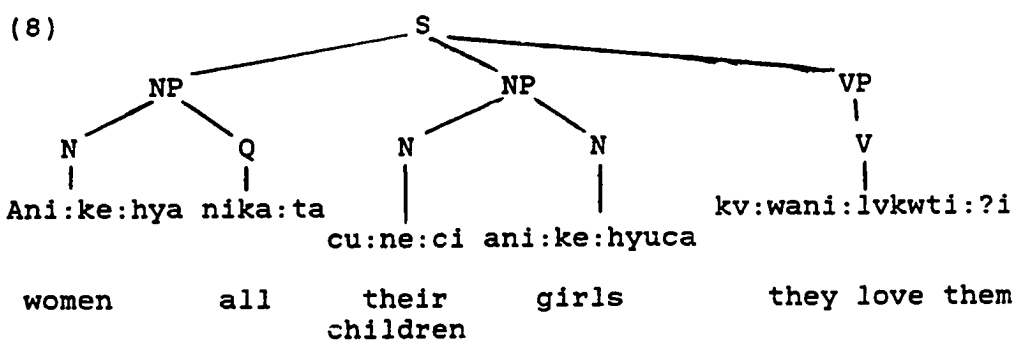
arguments. The question arises, however, whether inverses should be interpreted as involving reversals of subject and object with respect to actives. Thus, it is worth considering whether there are syntactic means of discriminating between transitive subjects and objects, independent of verb agreement. I know of none. (Keenan (1976) discusses some typical syntactic properties of subjects.)

Word order in Cherokee is determined by pragmatic rather than syntactic factors, as I discuss below. In elicitation, even when the pronominal prefix system does not distinguish subject from object, speakers produce and accept all orders of subject and object. In these cases, some speakers show a consistent preference for placing subjects first and others show a consistent preference for placing objects first (section 3.7).

The ungrammaticality in English of sentences like "Her children love every mother", with "her" interpreted as coreferential to "every mother", can be attributed to the fact that neither the bound variable "her" nor the antecedent "every mother" c-commands the other, where A c-commands B if and only if every branching node that dominates A also dominates B (Reinhart 1983). The English sentence, diagrammed in (6), is an example of a "weak crossover" sentence.

a passive. With an active prefix, as in (7b) the translation is in the active voice (see Tables 6 and 7 in Chapter Two for details of prefix forms).<4>

One way to account for the facts in (7) is to say that the inverse forms are passives in which (deep) objects are subjects. Then, both (7a) and (7b) are grammatical because in each case the antecedent, as subject, c-commands the bound variable. I argue below that inverse forms should not be considered passives; (7a) is grammatical because the object 'all women' c-commands the subject, as diagrammed in (8).



An explanation is needed of the fact that the interpretation in (7a) is associated with the inverse form and the interpretation in (7b) is associated with the active form. Such an explanation is offered later in this chapter as part of the discussion of proximation.

Adverbs may intervene between S and V and between O and V, as illustrated in (9a) and (9b), respectively.

- (9) a. Ce:f to:yutv u:wahnilv Kwe:ti.
 /to:yu-tv/ /u:-v:hnilv:?i/
 Geoff really-EMPH 3sg.B-hit=PERF Becky
 'Geoff really hit Becky.'
- b. Ce:f Kwe:ti to:yutv u:wahnilv.
 'Geoff really hit Becky.'

Free word order, the grammaticality of weak crossover sentences, and the variability of adverbial placement suggest that Cherokee should be regarded as a non-configurational language with flat syntactic structure and no VP node (Chomsky 1982a:127ff).

Further evidence that neither subject nor object bears special status with respect to the other can be found in sentences like (10) and (11), in which the subject of the verb 'cry' can be interpreted as either 'John' or 'Mary'. The clauses in (10) are conjoined by the co-ordinator hale 'and'; the clauses in (11) are conjoined by the enclitic conjunction -hno 'and'.<5>

- (10) Ca:ni u:wa:hnilv Me:li hale u:hlo:hyilv:?i.
 /u:-v:hnilv:?i/ /u:-hlo:hyilv:?i/
 John 3sg.B-hit=PERF Mary and 3sg.B-cry=PERF
 'John hit Mary and he/she cried.'
- (11) Ca:ni u:wa:hnilv Me:li u:hlo:hyilv:hno.
 /u:-v:hnilv:?i/ /u:-hlo:hyilv:?i-hno/
 John 3sg.B-hit=PERF Mary 3sg.B-cry=PERF-and
 'John hit Mary and he/she cried.'

Common tests for special syntactic status involve coreference. In Cherokee, coreference is mediated through the agreement system, and thus questions of

coreference cannot provide independent tests for syntactic structure. There is no zero anaphora in Cherokee, since all verbs always take agreement prefixes, their presence being indicated through the pronominal prefix system. Coreference and the use of inverse and active prefixes is treated below.

Work with Mrs. Carey suggests that quantifiers associated with intransitive subjects and transitive objects (but not quantifiers associated with transitive subjects) may be removed from the NP constituent and placed before the verb; such a test would identify a category "absolute".^{<6>} However, not all speakers concur with Mrs. Carey's judgments, and Mrs. Carey herself wavers in her acceptance of such constructions.^{<7>}

To the extent that imperfective stem nominalizations are productive, they refer to subjects of intransitive and transitive verbs (see Chapter Five), thus identifying a category "nominative"; since these nominalizations are created with active and not with inverse prefixes where third person subjects and objects are concerned, they do not provide a way of identifying the subjects of inverse constructions.

3.3 Lexical Factors in Verb Agreement

Syntactic role assignment will not suffice to determine verb agreement morphology for all combinations

of subject and object. For intransitive verbs and for transitive verbs with inanimate third person objects, two kinds of verbal lexical factors must be considered in order to account for the use of A and B prefixes as described in Chapter Two: some verbs are specified as always taking B prefixes; other verbs take B prefixes only in certain aspect stems.

Even together, syntactic role assignment and lexical assignment of prefix choice do not suffice to determine agreement morphology for transitive verbs with all combinations of third person subjects and third person objects. Nevertheless, lexical factors do play a role in those clauses. Active clauses (as opposed to inverse clauses) with third person subjects and objects appear with A or B prefixes, depending upon verb type and aspect stem.

The formal specification of these lexical features is discussed in Chapter Four.

3.4 Agreement and Inherent Features of NP's

The "animacy" of an NP referent may determine what has been called a morphological split in case marking or verb agreement. What is relevant in such instances is the position of the given NP referent on a scale which runs from the most highly ranked animate persons (first and/or second) down through third person animates to

third person inanimates. Animacy and person, however, may not be the only relevant categories in a language's animacy hierarchy. I follow Comrie (1981) in using the term "animacy hierarchy"; however, Comrie acknowledges that the term is not completely accurate. Following Silverstein (1976; see also Silverstein (1981)), Comrie (1981:190-92) explains that "animacy hierarchies" are simplified statements of the interactions among several variables which include animacy and definiteness, among others. Animacy hierarchies have also been called scales of "potentiality of agency" (Dixon 1979:85) and "empathy" hierarchies (DeLancey 1981:627). Du Bois (1987) suggests that these hierarchies are actually sensitive to the givenness of NP's in discourse.

Animacy hierarchies have proved useful in the analysis of many languages including, for example, Cree (Wolfart 1973), Dyirbal (Dixon 1972), and Navajo (Hale 1972, Frishberg 1975).

In Cherokee, the relative position of subject and object NP referents on an animacy hierarchy must be assessed for purposes of verb agreement. The Cherokee animacy hierarchy (12) ranks first and second persons above third person, and among third person referents, human referents are ranked above non-human animate referents which in turn are ranked above inanimates:

(12) Cherokee animacy hierarchy

first and		3		3		3
second	>	human	>	non-human	>	inanimate
person				animate		

The position of a verb's arguments on the animacy hierarchy determines whether the verb appears with an active or inverse prefix.

The various possible subject and object combinations are charted in Table 10. The abbreviation "trans" stands for "transitive", and refers to those prefixes from Table 4 in Chapter Two which do not include any A or B prefixes. The abbreviation "act" indicates that the verb will take an active prefix; and the abbreviation "inv" indicates that the verb will take an inverse prefix. The abbreviation "act/inv" indicates subject-object combinations for which either active or inverse prefixes can be used, depending upon syntactic and discourse-pragmatic factors to be discussed in sections 3.5 and 3.6. Parentheses in Table 10 indicate that the construction type is limited in distribution: this is discussed below.

TABLE 10: Active and Inverse on Transitive Verbs

\obj sub\	1,2	3hum.	3an. non-hum.	3inan.
1,2	trans	trans	trans	act
3hum.	inv	act/inv	act/(inv)	act
3an. non-hum.	inv	(act)/inv	act/inv	act
3inan.	inv	inv	inv	act

For combinations of third person subjects and third person objects, the sets of active and inverse pronominal prefixes are given in Chapter Two in Tables 5-7. There are two sets of active prefixes, one for use with A verbs in A stems (Table 5) and one for use with B verbs in all stems and with A verbs in B stems (Table 6). There is only one set of inverse prefixes, used regardless of verb type or stem type (Table 7).

Active constructions include all transitive subject/object combinations which require A prefixes (on A verbs in A stems); hence, a clause with a 1sg. subject and a 3inan. object is considered active. Inverse constructions include all transitive subject/object combinations which always require B prefixes; hence, a clause with a 3sg. subject and a 1sg. object is considered inverse. (The prefixes marking 3pl. subjects with first

or second person objects are here considered as including the B prefixes, preceded by a kV- element.)

In this section I am primarily concerned with prefixes marking third person subjects with third person objects. Table 10 shows that most generally, active prefixes are used when the subject outranks the object; inverse prefixes are found when the object outranks the subject; and either active or inverse prefixes may be used when a verb has a third person human or non-human animate subject and an object of equal rank. The examples in (13) show the active and inverse prefixes as they appear in clauses to index different combinations of third person subjects and objects. The verbs in these examples are not fully parsed, and they are not marked for pitch; the pronominal prefixes are underlined.

(13) a. 3hum./3hum.

i. Active

Ca:n Me:l a:ko:hwthiha.
John Mary 3sg.A=sees=PRES
'John sees Mary.'

ii. Inverse

Ca:n Me:l u:ko:hwthiha.
John Mary 3sg.B=sees=PRES
'John is seen by Mary.'

b. 3hum./3an.non-hum. (Active)

Ani:ke:hy so:kwil ta:nahyathe:?a.
women horse DIST=3pl.A=kick=PRES
'The women are kicking the horses.'

c. 3hum./3inan. (Active)

Ca:n kalo:histi:?i kv:hniha.
John door 3sg.A=hit=PRES
'John is knocking on the door.'

- d. 3an.non-hum./3hum. (Inverse)
 So:kwil kv:wanahyvthe:?a ani:ke:hya.
 horse 3pl./3pl.inv=kick=PRES women
 'The horses are kicking the women.'
- e. 3an.non-hum./3an.non-hum.
 i. Active
 We:s ki:hli a:khe:he:ka.
 cat dog 3sg.A=chase=PRES
 'The cat is chasing the dog.'
- ii. Inverse
 We:s ki:hli u:khe:he:ka.
 cat dog 3sg.B=chase=PRES
 'The cat is being chased by the dog.'
- f. 3an.non-hum./3inan. (Active)
 Ki:hli kho:la a:kowthiha.
 dog bone 3sg.A=see=PRES
 'The dog sees the bone.'
- g. 3inan./3hum. (Inverse)
 Kalo:sti u:wv:hnka Ca:n.
 door 3sg.B=hit=PUNCT John
 'The door hit John.'
- n. 3inan./3an.non-hum. (Inverse)
 Kalo:sti u:wv:hnka ki:hli.
 door 3sg.B=hit=PUNCT dog
 'The door hit the dog.'
- i. 3inan./3inan. (Active)
 Kalo:sti kv:nsta ka:skilo.
 door 3sg.A=bump=PUNCT table
 'The door hit the table.'⁸

Not all speakers are consistent in applying the animacy hierarchy as it is presented in (12). Some speakers occasionally allow verbs with 3an.(non-hum.) subjects and 3hum. objects to take either active or inverse prefixes. In other words, they treat third person animate non-human subjects and third person human objects as having equal rank on the animacy hierarchy.

Although the animacy hierarchy predicts that verbs with 3an. subjects and 3hum. objects receive inverse prefixes (14a,b), speakers occasionally use active prefixes in those circumstances (14c,d). The examples in (14) are from my fieldnotes. Active constructions like (14c) and (14d) constitute less than ten percent of my data on 3an./3hum. clauses.

- (14) a. Ki:hli askaya u:hyoha.
 dog man 3sg.B=look:for=PRES
 'The dog is looking for the man.' (inv)
- b. Ki:hli u:ni:khe:hi anj:chu:ca.
 dog 3pl.B=chase=PRES boys
 'The dog is chasing the boys.' (inv)
- c. Ki:hli askaya a:hyoha.
 dog man 3sg.A=look:for=PRES
 'The dog is looking for the man.' (act)
- d. Ki:hli ani:chu:ca ta:khe:hi.
 dog boys DIST=3sg.A=chase=PRES
 'The dog is chasing the boys.' (act)

In the case of the verb 'look for' (a B-A verb), it is possible that the form in (14a), associated as it is with the meaning 'he is looking for it', suggests that the man is looking for the dog rather than the other way around, so the form in (14c), which can mean 'he is looking for him', is preferred in cases with human objects. Such an argument cannot be made for the forms in (14b) and (14d), however.

My fieldnotes include no examples of sentences for which the animacy hierarchy predicts an active prefix but

which instead show an inverse prefix. Since clauses with 3inan. subjects and 3inan. objects take active prefixes; and since active prefixes are used in clauses in which the subject outranks the object, which is the most typical state of affairs for transitive clauses, we may regard the active clauses as being unmarked (in the Praguean sense) with respect to the more marked inverse clauses. Examples like those in (14) can be seen to illustrate an expansion of the domain of unmarked forms, as compared to the clauses in (13).

Pulte and Feeling (1975:301-2), however, give several examples like (15), with inverse forms where the animacy hierarchy predicts active forms.

- (15) Àskàya ù:kò:hwthíha kí:hli.
 man 3sg.B=see=PRES dog
 'A dog is being seen by a man.' (inv)

We can say, then, that variation between active and inverse marking of transitive clauses is possible when subject and object are of comparable (rather than equal) animacy. The various conceptions of comparable animacy for third persons are illustrated in Tables 11-13, where the underlined construction types indicate potential variability. All speakers consider 3hum. subjects and 3hum. objects to be of comparable animacy and all speakers consider 3an. subjects and 3an. objects to be of comparable animacy (Table 11); some speakers also

consider 3an. (non-hum.) subjects and 3hum. objects to be of comparable animacy (Table 12); some speakers (cf. Pulte and Feeling 1975) consider all 3an. referents to be of comparable animacy (Table 13). No speakers consider 3hum. subjects and 3non-hum.an. objects to be of comparable animacy unless they also consider 3non-hum.an. subjects and 3hum. objects to be of comparable animacy.

TABLE 11: Distribution of Active and Inverse, Most Restrictive

	\obj sub\	hum.	an. non-hum.	inan.
hum.		<u>act/inv</u>	act	act
an.non-hum		inv	<u>act/inv</u>	act
inan.		inv	inv	act

TABLE 12: Distribution of Active and Inverse, Less Restrictive

	\obj sub\	hum.	an. non-hum.	inan.
hum.		<u>act/inv</u>	act	act
an.non-hum		<u>act/inv</u>	<u>act/inv</u>	act
inan.		inv	inv	act

TABLE 13: Distribution of Active and Inverse, Least Restrictive

\obj sub\	hum.	an. non-hum.	inan.
	hum.	<u>act/inv</u>	<u>act/inv</u>
an.non-hum	<u>act/inv</u>	<u>act/inv</u>	act
inan.	inv	inv	act

When there is a mis-match in animacy between subject and object, variation is not permitted, and either active or inverse forms are required, depending upon the direction of the mis-match.

3.5 Syntactic Factors in Verb Agreement

The choice between active and inverse pronominal prefixes on transitive verbs is governed by certain syntactic constructions in which the verbs occur. In this section I discuss prefix use in question-word, or Q-word, questions and in the answers to such questions. Prefixes in complex sentences are discussed in section 3.6.

3.5.1 Q-word Questions

In North Carolina Cherokee, prefix choice on transitive verbs in Q-word questions is quite straightforward: when subjects are questioned, verbs take inverse prefixes, and when objects are questioned, verbs

take active prefixes (Cook 1979:175-6).<9> The situation is not so simple for Oklahoma Cherokee.

Q-word questions in Oklahoma Cherokee require the question word to appear before the verb, as in (16). Other word orders are rejected.

- (16) a. Ka:kw Ca:n a:hyvthe:k?
 /a-a:hyvthe:ki/
 who John 3sg.A-kick=PUNCT
 'Who did John kick?'
- b. Ka:kw a:hyvthe:k Ca:n?
 'Who did John kick?'
- c. Ca:n ka:kw a:hyvthe:k?
 'Who did John kick?'

If the subject and object of a clause are not comparable in animacy, then the animacy hierarchy completely determines prefix choice, and the verb in a Q-word question will reflect that choice, regardless of the syntactic role of the questioned NP. Where Q-word questions are concerned, subjects and objects are considered comparable in animacy if they are both animate, as in Table 13 (whether they are human or non-human is not important here).

A verb with a low-ranked subject and a high-ranked object will take an inverse prefix, whether the subject (17a) or object (17b) is questioned. Kato:st 'what?' in (17a) is a contracted form of kato u:sti 'what?'

- (17) a. Kato:st u:wahni Ca:ni?
 /u:-v:hniha/
 what 3sg.B-hit=PRES John
 'What's hitting John?' (inv.)
- b. Ka:kw u:wansta kalo:sti?
 /u:-vnsta/
 who 3sg.B-hit=PRES door
 'Who is the door hitting?' (inv.)

A verb with a high-ranked subject and a low-ranked object will take an active prefix, whether the subject (18a) or object (18b) is questioned.

- (18) a. Ka:kw a:hyvthe kalo:sti?a?
 /a-a:hyvthe:?a/
 who 3sg.A-kick=PRES door
 'Who's kicking the door?' (act.)
- b. Kato:st a:ko:hwthi Ca:ni?
 /a-kc:hwthiha/
 what 3sg.A-see=PRES John
 'What does John see?' (act.)

Kato:st 'what?' in question (18b) can be interpreted as referring to either a non-human animate or an inanimate referent.

In cases where both subject and object are animate-- that is, in cases where the subject and object are of comparable animacy--there is some variation in Q-word question formation. In such cases, inverse forms are used when (a) the subject is questioned and (b) the verb prefix does not distinguish subject from object (in the case of a 3sg. subject and 3sg. object or in the case of

a 3pl. subject and a 3pl. object). Active prefixes are used otherwise.

The examples in (19) show Q-word questions for which the animacy hierarchy does not itself determine prefix choice. In (19a) a subject is questioned, and, since the prefix will not distinguish subject from object (both being 3sg.), an inverse prefix is used. In (19b) a subject is questioned, but the prefix does distinguish subject from object (the subject must be singular and the object must be plural), and an active prefix is used. In (19c) an object is questioned, and an active prefix is used.

- (19) a. Ka:kw Ca:n u:ko:hwthi?
 /u:-ko:hwthiha/
 who John 3sg.B-look:for=PRES
 'Who sees John?' (inv.)
- b. Ka:kw ta:ko:hwatha ani:chu:ca?
 /te:-a-ko:hwatha/
 who DIST-3sg.A-see=PUNCT boys
 'Who saw the boys?' (act.)
- c. Ka:kw Ca:n a:ko:hwthiha?
 /a-ko:hwthiha/
 who John 3sg.A-see=PRES
 'Who does John see?' (act.)

Clauses with human subjects and non-human animate objects may count as having subjects and objects of comparable animacy where Q-word questions are concerned. The question in (20a) shows a human subject with a non-human animate object: the presence of the inverse prefix

(cf. (19a)) indicates that the arguments are treated as being comparably ranked. The question in (20b), however, with its active prefix, shows that the animacy hierarchy (see (12)) may prevail even in Q-word questions. All speakers produce questions like those in (20a) and (20b).

- (20) a. Ki:hl ka:kw u:hyv:the:?a?
 /u:-hyv:the:?a/
 dog who 3sg.B-kick=PRES
 'Who's kicking the dog?' (inv.)
- b. Ki:hl ka:kw a:hyv:the:?a?
 /a:-hyv:the:?a/
 dog who 3sg.A-kick=PRES
 'Who's kicking the dog?' (act.)

Likewise, clauses with non-human animate subjects and human objects may be treated as having subjects and objects of comparable animacy. The question in (21a) shows the active prefix, as expected when the subject and object are of comparable animacy and the object is questioned. The question in (21b), however, with the inverse prefix, shows that non-human animate subjects and human objects may be treated as differing in animacy, in accordance with (12). All speakers produce questions like those in (21a) and (21b).

- (21) a. Ka:kw a:ko:hwthiha ki:hli?
 /a-ko:hwthiha/
 who 3sg.A-see=PRES dog
 'Who does the dog see?' (act.)

b. Ka:kw u:skala ki:hli?
 /u:-skala/
 who 3sg.B-bite=PUNCT dog
 'Who is the dog biting?' (inv.)

Although the animacy hierarchy can be shown to affect prefix choice even in question formation (as in (17) and (18)), it is also possible for prefix choice on the basis of question formation to override some aspects of prefix choice on the basis of animacy. Questions may impose their own requirement on prefix choice (as in (19a)); furthermore, the difference in animacy between humans and non-human animates may be neutralized in Q-word questions, under certain conditions (as in (20a) and (21a)). This neutralization in Q-word questions appears even in the speech of people who do not show this neutralization in declarative clauses (i.e., it appears in the speech of people whose usage patterns are charted in Tables 11 and 12).

Thorough analysis of questions in the context of natural conversation may help to uncover the factor or factors which govern the choice between active and inverse question constructions, where there is potential alternation.

When neither the subject nor the object is being questioned, either active or inverse prefixes may appear, depending upon the combination of subject and object as discussed in section 3.4; presumably, prefix choice is

governed by pragmatic factors in these cases, as suggested by the English translation of (22b). In (22), examples (a) and (c) have active prefixes, and examples (b) and (d) have inverse prefixes. (With respect to (22a) and (22b), recall that the semantic dative is the object of a ditransitive verb.)

- (22) a. Ca:n kato:st a:hne Me:li?
 /a-hneha/
 John what 3sg.A-give=PRES Mary
 'What is John giving Mary?' (act.)
- b. Ca:n kato:st u:nv:hne Me:li?
 /u:-nv:neha/
 John what 3sg.B-give:flexible:object=PRES Mary
 'What is John being given by Mary?' (inv.)
- c. Ca:n ha:tlv a:thene:k Me:li?
 /a-thene:ka/
 John where 3sg.A-take=PRES Mary
 'Where is John taking Mary?' (act.)
- d. Ca:n ha:tlv u:thene:k Me:li?
 /u:-thene:ka/
 John where 3sg.B-take=PRES Mary
 'Where is Mary taking John?' (inv.)

3.5.2 Answers to Questions

The examples in (23) show how the active and inverse prefixes are used in answering certain questions.

All the answers are used in reference to situations which might be described by a transitive verb whose subject and object are of equal ranking on the animacy hierarchy (12). The active construction is used when the subject of the clause represents given information (23a);

the inverse construction is used when the object of the clause represents given information (23b,c).

- (23) a. Ca:n kv:hniha.
John 3sg.A=hit=PRES
'She's hitting John.' (active)
(An appropriate answer to
'What is Mary doing?')
- b. Me:li-tv u:wa:hniha.
Mary-EMPH 3sg.B=hit=PRES
'Mary's hitting him.' (inverse)
(An appropriate answer to
'Who's hitting John?')
- c. Ca:n u:wa:hniha.
John 3sg.B=hit=PRES
'John's hitting her.' (inverse)
(An appropriate answer to
'What's happening to Mary?')

In the absence of mis-matches in animacy, the status of an NP referent as given or identifiable in context becomes a variable which determines the type verb agreement morphology found in the clause.

We might, then, look for a similar pragmatic factor to trigger the use of the active and inverse prefixes on Q-word questions. The proper generalization appears to be that inverse prefixes may be used when objects are given or identifiable, but they are not always required when objects are given or identifiable.

If we consider only those Q-questions in which prefix choice is not determined by animacy, we find that inverse prefixes occur only when subjects are questioned. The questioning of a subject, however, does not always

lead to the use of an inverse prefix--inverse prefixes appear only when the pronominal prefix system does not distinguish subject from object.

Rather than analyzing the use of inverse prefixes on Q-word questions as entirely determined by some pragmatic factor, we can see the use of those prefixes on those questions as determined by the animacy of the arguments and the syntax of the clause. The use of inverse prefixes on questions, however, must be understood in light of the other uses of the inverse prefixes in Cherokee, to which I turn in section 3.6.

3.5.3 A Note on Relative Clauses

In North Carolina Cherokee, prefix choice on verbs in relative clauses, like prefix choice on verbs in Q-word questions, is quite straightforward: when the subject is the head of the relative clause, the verb takes an inverse prefix, and when the object is the head of the relative clause, the verb takes an active prefix (Cook 1979:177). Prefix choice in relative clauses is much more variable in Oklahoma Cherokee, and it is more variable than prefix choice in Q-word questions. I do not discuss relative clauses here for three reasons. First, at this point I cannot account for the variability of prefix choice in Mrs. Carey's speech in terms of the animacy hierarchy, in terms of the role of the head in

the relative clause, in terms of the role played by the head of the relative clause in the main clause, in terms of restrictive as opposed to non-restrictive relative clauses, or in terms of the order of relative and main clauses (see section 3.6.1). Second, the Cherokee speakers with whom I have worked do not agree on the grammaticality or interpretation of some sentences which include relative clauses. Third, I have no examples of relative clauses in texts against which to evaluate the elicited data.

3.6 Discourse Pragmatics and Verb Agreement

If the choice of prefix on a verb is not determined by any of the variables discussed above, then discourse-related factors will determine whether the verb takes an active or inverse prefix. In this section I discuss briefly the use of active and inverse prefixes in complex sentences (3.6.1). Certainly discourse related factors play a part in the variables discussed in sections 3.2 through 3.5, and a unified approach to the active/inverse alternation is proposed in section 3.6.2. I contrast my analysis to Cook's (1979) analysis of actives and inverses in section 3.6.3.

3.6.1 Referentially Inexplicit Clauses

Clauses may be regarded as either referentially explicit or referentially inexplicit. A referentially

explicit clause has full NP's representing any third person arguments; but first and second person arguments may be indexed only on the verb, since the first person pronoun aya and the second person pronoun nihi are used only under special discourse conditions (see Pulte and Feeling 1975:324-5).

A referentially explicit clause with two third person arguments equal in animacy will generally appear with an active prefix, as in (24), which is the first clause in a text.

- (24) Skaya awenuca kanvskiske?e ake:hya.
man young 3sg.A=went:to:steal girl
'A young man once went to abduct a girl.' (OM)

Under special circumstances, a referentially explicit clause can be elicited with an inverse prefix. For an inverse prefix to be used, the object of the clause must have special discourse prominence. The object of the referentially explicit first clause of (25) has special prominence because it is subject of the next clause. The object of the infinitive clause ('them') may or may not be interpreted as coreferential to the subject of the first clause. The infinitive shows the distributive prefix and the 3sg.B prefix, which is the active form for a 3sg. subject and a 3pl. object on a B stem verb. I discuss the interpretation of referentially inexplicit clauses below.

context, and the reflexive construction is used when the object of a sentence can be inferred from context.

In the remainder of this section, I examine the conditions under which active and inverse prefixes are used in referentially inexplicit clauses.

When both the subject and object of a referentially inexplicit clause correspond to the subject and object, respectively, of some referentially explicit clause, an active prefix is used on the verb of the inexplicit clause, with neither argument represented by an NP, as shown in (26) and (27). (26) and (27) are compound sentences composed of two coordinate clauses. In (26), the conjunction is -hno, which is enclitic to the first word of the second conjunct. In (27), the conjunction is ale (sometimes pronounced hale), which stands between the conjuncts. Speakers report that ale sounds formal and non-colloquial, even Biblical, since it appears frequently in the Bible.

(26) Me:l Ca:n kv:hniha a:hyvthe:-hno.
Mary John 3sg.A=hit=PRES 3sg.A=kick=PRES-and
(active) (active)
'Mary is hitting John and kicking him.'

(27) Ca:n u:lv:kwhti Me:li
John 3sg.B=like=PRES Mary
(active)
ale uci:lv:ski kanv:neha.
and flower 3sg.A=give:flexible:thing=PRES
(active)

'John likes Mary and is giving her a flower.'

Presumably, the verb 'like' in (27) is active; 'like' is a B verb, and there is no formal distinction between active and inverse prefixes for B verbs with 3sg. subjects and 3sg. objects.

When the subject of the referentially inexplicit clause is interpreted as coreferential to the subject of the referentially explicit clause, and when the object of the referentially inexplicit clause is new (i.e., has not been mentioned before), then the verb of the referentially inexplicit takes either an active prefix (28) or an unspecified subject prefix (29). The missing subject of (29) may be interpreted as coreferential to the subject of the preceding clause, but need not be.

(28) Ca:n Me:l kv:hniha
John Mary 3sg.A=hit=PRES (active)

Sa:li-hno a:hyvthe:?a.
Sally-and 3sg.A=kick=PRES (active)

'John is hitting Mary and kicking Sally.'

(29) Ca:n Me:l kv:hniha
John Mary 3sg.A=hit=PRES (active)

Sa:li-hno a:kahyvthe:?a.
/a:k-ahyvthe:?a/
unspec./3sg.-kick=PRES

'John is hitting Mary and kicking Sally.'

'John is hitting Mary and Sally's getting kicked.'

When the subject and object of a referentially inexplicit clause appear with their syntactic roles

subject of the explicit, inverse clause "counted" as the object of that clause and as though the (discourse-prominent) object of the inverse clause "counted" as the subject of that clause.

When the subject of the referentially inexplicit clause is coreferential to the object of the referentially explicit clause, and when the object of the referentially inexplicit clause is new (not previously mentioned), then an active prefix appears on the verb of the inexplicit clause. Thus, example (28) is ambiguous, and can also mean 'John is hitting Mary and she's kicking Sally'. (28) is repeated as (31).

(31) Ca:n Me:l kv:hniha
John Mary 3sg.A-hit=PRES (active)

Sa:li-hno a:hyvthe:?a.
Sally-and 3sg.A=kick=PRES (active)

'John is hitting Mary and she's kicking Sally.'
'John is hitting Mary and kicking Sally.' (28)

When the subject of the referentially inexplicit clause is new (not previously mentioned) and the object of the inexplicit clause is coreferential to an argument of the referentially explicit clause, whether to the subject or object, the referentially inexplicit clause appears as an inverse, as in (32a), or as a reflexive construction, as in (32b).

In North Carolina Cherokee, clauses can be conjoined with -hno only when the case relations of the NP's in each clause are parallel. Thus, in the second clause of (33), if the absent NP is interpreted as coreferential to 'John', then the interpretation would be 'John is hitting Mary and kicking Sally,' with 'John' as subject in both clauses. If, on the other hand, the absent NP is interpreted as coreferential to 'Mary', then the interpretation would be 'John is hitting Mary and Sally is kicking her'. The interpretation 'John is hitting Mary and she's kicking Sally' would be possible only if the clauses were conjoined with ale, which, in North Carolina, connects clauses which are more independent of each other than does -hno (Cook 1979:183-4).

Table 14 shows the various combinations of given and new subjects and objects, and the different prefixes which may be used under each set of circumstances. It is not sufficient to label an element as 'given' or 'new': for given elements, the previous syntactic role is also relevant. The rows of the chart indicate the syntactic role borne by the subject of the inexplicit clauses in the explicit clause; the columns of the chart indicate the syntactic role borne by the object of the inexplicit clause in the explicit clause. Thus, the rows and columns indicate whether the element appears in the referentially explicit clause and what its role is there.

In fact, then, the choice of prefix is not made solely on a discourse-pragmatic basis, but rather on a syntactic-pragmatic basis.

TABLE 14: Active and Inverse Clauses in Referentially Inexplicit Clauses
(for subject and object equal in animacy)

act: active prefix
 inv: inverse prefix
 RF: reflexive construction
 UNSPEC S: unspecified subject construction

		Role in Referentially Explicit Clause		
		SUB	OBJ	NONE
Role in	S			act
	U	act<11>	act	or
	B			UNSPEC S
Referentially	O	inv		
	B	or	act<12>	act
	J	RF		
Explicit Clause	N			
	O	inv	act or inv	act
	N	or	or	or
	E	RF	RF	inv<13>

The use of active and inverse prefixes on referentially inexplicit clauses can be understood as follows. An inverse prefix may be used when the object of the referentially inexplicit clause is coreferential to the subject of the referentially explicit clause, so long as the subject of the inexplicit clause is not also coreferential to the subject of the referentially

Example (34) can also mean 'John is whipping the dog and Jim is kicking John.' For the reading 'John is whipping the dog and Jim is kicking it', an active prefix is required in the referentially inexplicit clause, because verbs with human subjects and non-human animate objects generally require active prefixes.

The rules governing prefix choice in Q-word questions also have precedence over the rules for combining clauses. (35) is a Q-word question with an inverse prefix on the complement verb, as is required for questions in which the subject is questioned and in which the pronominal prefix does not distinguish subject from object. If the complement clause is viewed as referentially explicit, however, an active prefix is expected, as in the declarative in (36).

(35) Ka:kw u:wa:hn Me:li e:li Ca:n?
 /u:-v:hniha/ /a-e:li?a/
 who 3sg.B-hit=PRES Mary 3sg.A-think=PRES John
 (inverse) (active)
 'Who does John think is hitting Mary?.'

(36) Sa:li kv:hniha Me:li e:li Ca:ni.
 /ka-v:hniha/ /a-e:li?a/
 Sally 3sg.A-hit=PRES Mary 3sg.A-think=PRES John
 (active) (active)
 'John thinks Sally's hitting Mary.'

Since the 3sg.B and 3pl.B prefixes play more than one role in the system of active and inverse prefixes, a certain amount of ambiguity results. Example (37), shows

a 3pl.B prefix in the referentially inexplicit infinitive clause and the verb 'want', which takes B prefixes, in the referentially explicit matrix clause. This sentence has two interpretations, depending upon whether the 3pl.B prefix in the referentially inexplicit clause (underlined) is taken as an active prefix, indexing a plural subject and singular object on a B stem verb (a), or as an inverse prefix, indexing a singular subject and plural object (b).

(37) Ca:ni Me:li-hno u:ntu:li
 /u:ni:-atu:liha/
 John Mary-and 3pl.B-want=PRES

<u>u:ni:hwathv:hi:ta:sti</u>	Wi:l.
/u:ni:-hwathv:hi:ta:sti/	Will
3pl.B-visit=INFIN	

- a. 'John and Mary want to visit Will.'
- b. 'John and Mary want Will to visit them.'

As evidence that the single argument of an intransitive verb really is a subject (rather than an object) for purposes of determining agreement on a referentially inexplicit clause, consider the example in (38a). The referentially explicit clause contains the intransitive verb 'smile'. The object of the referentially inexplicit clause is coreferential to the single argument of the intransitive verb. If the object of the referentially inexplicit clause were to be interpreted as coreferential to the object of the

referentially explicit clause, then we would expect that an active prefix could be used on the referentially inexplicit clause, but in fact an inverse prefix is required, suggesting that the object of that transitive clause is interpreted as being coreferential to the subject of the referentially explicit clause. With an active prefix in the referentially inexplicit clause, the subjects of the two clauses are considered coreferential, as in (38b).

- (38) a. Ca:n u:ce:tstv
 /u:-ace:tstv:?i/
 John 3sg.B-smile=PERF
- ani:ke:hyu:ca-hno kv:wakhe:hv:sv.
 /kv:wa-khe:hv:sv:?i/
 girls-and 3pl./3sg.inv.-chase=PERF
- 'John smiled and the girls chased him.'
- b. Ca:n u:ce:tstv
 John 3sg.B=smile=PERF
- ani:ke:hyu:ca-hno tu:khe:hv:sv.
 /te:-u:-khe:hv:sv:?i/
 girls-and DIST-3sg.B-chase=PERF (act)
- 'John smiled and chased the girls.'

An intransitive verb may be referentially dependent, but there is no active/inverse distinction among intransitive verb prefixes. Thus, sentences like those in (10) and (11), above, are ambiguous as to the identity of the intransitive subject.

In referentially explicit clauses with two arguments of equal animacy, an inverse prefix is like a passive, and the clause's subject counts as an object and its object counts as a subject for purposes of determining agreement on a referentially inexplicit clause (see example (25)). This is not the case when inverse prefixes are required by the animacy hierarchy. The referentially explicit clause in (39) has an inverse prefix because there is a non-human subject and a human object. If 'John' counted as the subject of the referentially explicit clause, then the referentially inexplicit clause would have an inverse prefix when 'John' is object. Since the referentially inexplicit clause has an active prefix, 'John' must be the object of the referentially explicit clause.

- (39) Ki:hli Ca:ni a:skahlka Me:li-hno a:hyvthe:?a.
 /a-skahlka/ /a:-ahyvthe:?a/
 dog John 3sg.A-bite=PRES Mary-and 3sg.A-kick=PRES
 'The dog is biting John and Mary's kicking him.'

Example (39) can also mean 'The dog is biting John and Mary's kicking it (the dog)', as expected, and that is, in fact, the preferred reading.

Main clauses can be referentially inexplicit with respect to explicit subordinate clauses (which can be identified by their atonic accent), as in (40). In (40a), the object of the referentially inexplicit clause

information, and, in Cherokee, an inverse construction is used.

The use of inverse prefixes in Cherokee is associated with verbs whose objects represent given information, within some limits. If there is only one overt NP in a clause with an inverse prefix, that NP is necessarily interpreted as subject (with the given object NP represented only by agreement, a type of pronominalization), whereas if there is only one NP in a clause with an active prefix that NP is not necessarily interpreted as object. It is not the case that active prefixes indicate that an object does NOT represent given information, nor is it the case that active prefixes indicate that a subject represents given information.

When the subject of a transitive verb is questioned, information flow is atypical, since the subject is to some extent unknown; in Cherokee the inverse construction is used in certain Q-word questions in which the Q-word represents the subject of the verb.

In discussing the pragmatically governed use of inverse forms (3.6.1), I considered not simply givenness but also what I referred to as discourse prominence. The usual case is for the subject to be the more prominent, more topical, more empathetic argument; the object is proximate only if the subject NP is understood (identifiable) in terms of the object (as in (7a)), or if

the object has had (or will have) some association with the role of subject. If the object of a clause is associated with the role of subject in the preceding text, then the object will be prominent, or if the object has status as a subject elsewhere in the immediate context, even if not in the preceding context, the object may be proximate, as in the first clause of (25). Thus we must think of NP's not simply as given or new, but as being associated with certain grammatical roles, which may change in the course of a text.

To borrow terminology from Algonkian linguistics, I will suggest that one of the arguments of a transitive verb must be Proximate and the other must be Obviative. Inverse prefixes are used only in circumstances in which the object of a clause is proximate. More commonly, subjects are proximate and active prefixes are used. In using this terminology, I follow Cook's (1979) observation that the circumstances under which inverse clauses (he calls them "object focus" clauses) are used in Cherokee discourse are similar (but not identical) to the circumstances under which an object might be considered proximate in Algonkian.

In a transitive clause with two 3an. (human or non-human) arguments, then, one will be proximate and one will be obviative. Whether a particular argument will be proximate or obviative depends on several variables, not

all of which have equal weight. The default case is for subjects to be proximate and objects to be obviative, but in determining the status of an NP as proximate or obviative speakers must consider in addition to its syntactic role such variables as: (a) whether the NP referent is human or non-human; (b) whether the clause is a question, whether the NP is questioned, and whether the other NP argument is singular or plural (because if a subject is questioned, an inverse prefix is used if the pronominal prefix system does not distinguish subject from object); (c) whether the NP referent is given or identifiable in context; and (d) whether the NP referent has been associated with the syntactic role of subject. If the object NP is proximate, then the clause will appear with an inverse prefix; otherwise, the clause will appear with an active prefix.

We can rewrite the Cherokee animacy hierarchy from (12) as (41), taking into account the categories of proximate and obviative, as applied to 3an. referents:

(41) 1,2 > 3 proximate > 3 obviative > 3 inanimate

The concepts of proximate and obviative can be expanded beyond 3an. referents. We can recognize differences in proximation between the arguments of any transitive clause: an NP which is to the left of any other NP on the scale in (41) is proximate with respect

to that NP; an NP which is to the right of any other NP on the scale in (41) is obviative with respect to that NP. Thus, the variables of "person" and "animacy" must be added to the list of variables given above. Under such an expansion of the categories of proximate and obviative, we can say that clauses take inverse prefixes when objects are proximate with respect to subjects; clauses take active prefixes otherwise. Under this analysis, if we say that inanimate arguments cannot have proximate status, clauses with 3inan. subjects and 3inan. objects are predicted to take active clauses, which they do. Further, under this analysis, the "transitive" prefixes used on clauses with first and second person subjects are all considered "active" prefixes. Since some of those transitive prefixes (specifically, the ones used on verbs with 3an. objects) are similar to A prefixes, which are associated with the active paradigm, this is a desirable result.

The fact that a referentially explicit clause with an inverse prefix which is triggered by pragmatic factors (25) counts as having its object as subject and its subject as object, means that a clause in which an inverse prefix is used as a result of pragmatic factors looks like a passive clause. The discussion of word order patterns, in section 3.7, will reinforce this impression. Clauses with inverse prefixes triggered by

animacy, however, do not show this behavior (39). In Chapter Six I discuss the justification for calling inverses "inverses" rather than "passives".

In a complete description of Cherokee grammar the variables which determine membership in the categories proximate and obviative and which govern the use of active and inverse prefixes must be considered not only as an interacting set, but also independently. Further study of Cherokee discourse of various types will clarify the relationship of the variables to one another.

3.6.3 An Alternative Analysis of Actives and Inverses

In this section I discuss Cook's (1979) account of the active and inverse constructions in Cherokee. The major differences between Cook's analysis and mine is that Cook attempts to analyze both word order variation and active/inverse alternation in terms of a single but complex pragmatic category. I propose a different analysis of Cherokee word order in section 3.7.

Cook (1979) uses the terms "subject focus" and "object focus" for what I have called "active" and "inverse", respectively. He follows Wolfart's discussion of focus and obviation in Plains Cree (1973:17) in his choice of the term "focus". For Cook, "the focused item is the item that the containing discourse is about" (1979:170). Cook explains that focus is for him the

union of what Halliday (1967a,b) has called "theme" and "given", terms which are usually applicable to the same NP. Subject focus prefixes are used in clauses with focused subjects; object focus prefixes are used in clauses with focused objects.

Cook's use of the term "focus" does not match most current conceptions of focus. Comrie (1981), for example, uses "focus" to mean "the essential piece of new information that is carried by a sentence" (p. 57), and he uses "topic" to refer to the NP that the sentence says something about (p. 58); Comrie's "topic" can be closely identified with Cook's "focus".

Cook recognizes that the prefixes used to index 3sg. subjects with first or second person objects, being B prefixes, should be considered object focus (i.e., inverse) prefixes. Thus, first and second person objects must be focused, and Cook claims that first and second person by their very nature are given, hence focused. With two third person objects, focus is determined by discourse and syntactic factors (which I outline below); if object focus is not specified, then the verb takes the appropriate subject focus prefix.

Cook (1979:172ff.) uses the concept of focus to account for word order as well as prefix choice. He claims that Cherokee has underlying VSO order (see section 3.7 for further discussion), and that either the

S, or the O if it is focused, must be fronted.

(Additional NP's may also be fronted, as illustrated in (43), below.) Thus, he gives the following examples (42) with the accompanying English translations (179:171-2). These examples appear as (35) and (36) in Chapter Two.

- (42) a. Ca:ni a:ko:hwthiha Ci:mi.
John 3sg.A=see=PRES Jim.
'John sees Jim.' (active = subject focus)
- b. Ca:ni u:ko:hwthiha Ci:mi.
John 3sg.B=see=PRES Jim
'John is seen by Jim.' (inverse = object focus)

My analysis of sentences such as these, with transitive verbs and two NP arguments, is discussed in section 3.7.

More than one NP can be fronted (Cook 1979:157), but the leftmost NP will be the focused NP, as illustrated in the examples in (43), taken from Cook (p. 24).

- (43) a. Ca:ni a:ni:chu:ca te:kv:hniha.
John boys DIST=3sg.A=hit=PRES
'John is hitting the bcys.' (active =
subject focus)
- b. A:ni:chu:ca Ca:ni u:nv:hniha.
boys John 3pl.B=hit=PRES
'The boys are being hit by John.' (inverse =
object focus)

The terminology becomes somewhat confusing and the analysis becomes more complex when "theme" and "given" do not coincide. A rule of topicalization, Cook explains, marks an NP as focused if the NP is not focused by

"normal discourse rules" (p. 174); that is, an NP which is new as topic, rather than being a continuing topic, is topicalized. Topicalized NP's are fronted, and they are set off from the rest of the sentence by a pause. The complexity of the analysis lies in the fact that topicalized sentences, for Cook, have two focused NP's: the one that is focused by virtue of discourse rules (which triggers focus agreement on the verb), and the one that is topicalized. The topicalized NP, in lieu of the discourse-focused NP, is fronted and is followed by a pause, as in (44). These examples are from Cook (1979:175).

- (44) a. Ca:ni, a:ko:hwthiha Ci:mi.
 John 3sg.A=see=PRES Jim
 'It is John, Jim sees.' (active = subject focus)
- b. Ca:ni, u:ko:hwthiha Ci:mi.
 John 3sg.B=see=PRES Jim
 'It is John, Jim is seen by.' (inverse =
 object focus)

Topicalization blocks the fronting of other NP's, including the one in discourse focus (p. 175). The topicalized NP, by definition, cannot be the (discourse) focused NP. Therefore, the "focus" which governs word order is not the same as the "focus" which governs prefix choice. In section 3.7 I argue that word order is actually governed by "newsworthiness", a different

pragmatic status from the Proximate/Obviative status which governs prefix choice.

Cook claims that Q-word questions are to be analyzed in terms of focus. A Q-word question requires the assignment of focus to (i.e., the topicalization of) the Q-word. Consider a Q-word question in which the subject of a transitive verb is questioned. Subject focus is the default case, but a focused (given or thematic) NP cannot be topicalized (and hence, cannot be questioned). In order for a subject to be questioned, focus (givenness or thematicity) must be assigned to the object so that the subject can be focused (topicalized). Cook gives a rule which does just this when the subject position is filled by a Q-word (p. 176).

In this way, Cook accounts for questions like those in (45). In (45a), the subject is questioned, so focus (givenness or thematicity) is assigned to the object. In (45b), the object is questioned. Focus (givenness or thematicity) need not be assigned to the subject by a special rule, because subjects are focused by default.

- (45) a. Ka:kw u:ko:hwthiha Ca:ni?
who 3sg.B=see=PRES John
'Who sees John?' (inverse = object focus)
- b. Ka:kw a:ko:hwthiha Ca:ni?
who 3sg.A=see=PRES John
'Who does John see?' (active = subject focus) <14>

Cook claims that the focused (given or thematic) NP cannot be topicalized if there is a topicalized (or questioned) NP, but there are counterexamples in at least some dialects of Oklahoma Cherokee. Consider the following grammatical questions: the example in (46a) shows a topicalized (fronted) but discourse-focused object, 'John', which precedes not only the verb but also the topicalized question word. Topicalization of either NP should block the topicalization of the other, but does not. Example (46b), like (46a) shows two fronted and focused NP's.

- (46) a. Ca:n, ka:kw u:hyvthek?
 John who 3sg.B=kick=PUNCT
 'Who kicked John?' (inverse = object focus)
- b. Ka:kw Ca:n u:hyvthek?
 'Who kicked John?' <15>

The fact that inverse prefixes are always used when objects greatly outrank subjects, even when objects are questioned (see section 3.5), casts doubt upon the idea that inverse prefix use ought to be too closely identified with the actual discourse status (the givenness or thematicity) of NP's. The statuses Proximate and Obviative, therefore, reflect several different aspects of NP status, and not just discourse-pragmatic status.

3.7 Pragmatics and Word Order

In elicited clauses and phrases, word order is remarkably free; but in any given context, word order is considerably less free: some orders occur far more frequently than others, and speakers often will not accept or are hesitant to accept one order in place of another. Sometimes, however, word orders which are generally rejected in elicitation are nevertheless found in context.

Often, the word orders found in context are unlike English orders, although English-like word orders may be acceptable in elicitation. Cherokee speakers will often explain that not only are particular Cherokee constructions "backwards", but that Cherokee in general is backwards with respect to English. This intuition reflects the following two facts. First, in some cases, fixed Cherokee word orders differ from the corresponding fixed word orders in English; for example, Cherokee has only postpositions, whereas English has only prepositions. Second, English order is relatively rigid SVO, and subjects tend to be given, with the result that given information tends to come toward the beginning of a clause and new information tends to come toward the end; but in Cherokee, word order is pragmatically determined, and the principles governing Cherokee word order tend to

place new information at the beginning of the clause rather than at the end.

I will first present a summary of what other linguists have written about Cherokee word order, and then I will take a discourse-based approach to word order, and, following Mithun (forthcoming) and Payne (1984), I will show that Cherokee has pragmatically based major constituent order and pragmatically based word order within constituents.

3.7.1 Previous Studies of Word Order

Previous studies of constituent order in Cherokee make contradictory claims about the basic (or even the most common) word order in the language, depending in part upon the theories within which the authors have worked and the criteria they have used for determining basic word order.

Pulte (1972), in discussing the implications of Cherokee for typologies defined by possible gapping constructions, claims that the most frequent word orders in Oklahoma Cherokee are SOV and OVS, with SVO also occurring. In North Carolina Cherokee, SVO and OVS are the most frequent word orders, with SOV also occurring. In both dialects, VOS, VSO, and OSV orders are only marginal. Cherokee gaps to the right; Pulte's derivations of gapped sentences show underlying SVO and OVS orders.

King (1975), describing North Carolina Cherokee, says relatively little about word order, but claims that in sentences where verb agreement does not disambiguate between subject and object, subjects will precede objects.

Pulte and Feeling (1975) discuss both major constituent order and the order of elements within constituents. They claim that the most common orders in Oklahoma Cherokee are SOV and OVS, with other orders also possible. Pulte and Feeling discuss a far greater range of syntactic constructions than any other authors, and they explain that in many types of constructions there is no fixed word order.

Cook (1979), describing North Carolina Cherokee, claims that Cherokee is best analyzed as having underlying VSO order. He claims that gapping facts suggest that Cherokee is underlyingly either VSO or SVO, and that criteria of descriptive simplicity (stemming from his approach to the assignment of syntactic roles to verb arguments) demand that VSO order be taken as basic, although VSO order does not occur at the surface level. Cook proposes a rule which fronts the NP immediately following the V, resulting in SVO order, unless the O is "focused" (see section 3.6.3), in which case, he claims, the O and not the S is fronted.

A major argument that Cook uses to support his claims that Cherokee has underlying VSO order concerns sentences with copulas and predicate nominals or adjectives. He considers examples like those in (47), taken from Cook (1979:157). In (47a), the predicate adjective appears without a copula because the sentence is affirmative and in the present tense. In (47b) a copula appears because the sentence is past tense. The subject NP is fronted in (47a) and not in (47b).

- (47) a. Me:li u:wo:tu:hi.
 /u:-o:tu:hi/
 Mary 3sg.B-beautiful
 'Mary is beautiful.'
- b. U:wo:tuhi ke:sv:?i Me:li.
 beautiful be=PERF Mary
 'Mary was beautiful.'<16>

Cook argues in favor of VSO order by claiming that the copula, generated after the V (here the predicate adjective), is one of several elements which block the otherwise normal fronting of the S, and he claims that without the underlying VSO order it would be difficult to account for such examples. In fact, however, sentences similar to (47b) but with fronted NP's are acceptable in both Oklahoma and North Carolina Cherokee, as illustrated in (48a) and (48b) respectively.

- (48) a. Me:li u:wo:tu:hi ke:sv:?i.
 Mary pretty was
 'Mary was pretty.' (cf. (47b))

b. Ka:thokv?i u:hnikthe:na ke:se
 /ka:thoka-?i/ /ke:se:?i/
 tail wooly be=PERF=REP
 'His tail was covered with fur.' (PT)<17>

Foley (1980) claims that the most neutral word orders in Oklahoma Cherokee are SOV and SVO, and that with special intonation, VOS and OVS are also acceptable. He explains that the fact that Cherokee shows Adjective Noun and Noun Postposition orders suggests that it is an SOV language, but that gapping facts suggest that it is SVO.

At this point it seems wise to draw attention to some of the assumptions being made by some of these authors. Pulte (1972), Cook, and Foley explicitly assume that there is a basic word order, or that there are some basic word orders, in Cherokee. Pulte (1972) and Cook, and maybe King and Foley, assume that basic word order is reflected in elicited sentences. All of the authors suggest that word order facts are best stated in terms of the syntactic relations 'subject' and 'object', insofar as those terms have meaning for Cherokee. In the next section, I present an analysis of Cherokee word order which challenges those assumptions.

3.7.2 A New Analysis of Cherokee Word Order

In this section I give examples of some of the fixed and variable word orders of Cherokee (3.7.2.1), I argue

that the variable word orders are governed by a pragmatic principle (3.7.2.2), and I illustrate the interactions between the pragmatic principle governing word order and the pragmatic principle governing the choice of active or inverse verb agreement (3.7.2.3).

3.7.2.1 Fixed and Variable Orders

My studies of narrative texts suggest that most word orders in Cherokee are variable: not just major constituent orders, but also order within constituents. Further, word order is even more variable than is suggested by Pulte and Feeling (1975) who discuss at some length alternative word orders for Cherokee constructions. Certain orders, however, are not variable. For example, determiners, numbers, and genitives must precede nouns<18>:

- (49) hi?a hlkv:?i
 this tree
 'this tree' (ML)
- (50) ani:tha?li ani:skaya
 /ani:-tha?li/ /ani:-skaya/
 3pl.A-two 3pl.A-man
 'two men' (TH)
- (51) akayv:like:?i u:li:si
 /u:-li:si/
 old:woman 3sg.B-grandchild
 'old woman's grandchild' (CS)<19>

Adverbs precede adjectives:

(52) i:ka o:sta
very good (ML)

Cherokee has postpositions, not prepositions:

(53) Calkuwe:thi ti:tl
North Carolina toward
'toward North Carolina' (NC)

And, in comparative constructions, the standard of comparison must follow the comparative adjective:

(54) Me:l u:ko:ti uwo:tu:ha si:hv Li:t ke:sv:?i.
Mary more prettier than Lydia be=PERF
'Mary is prettier than Lydia.'

Other restrictions on word order include the fact that the copula (ke:sv:?i in (55)) may not precede a predicate nominal or predicate adjective (uwo:tu:hi in (55)):

- (55) a. Me:li uwo:tu:hi ke:sv:?i.
Mary pretty be=PERF
'Mary was pretty.'
- b. Uwo:tu:hi Me:li ke:sv:?i
- c. Uwo:tu:hi ke:sv:?i Me:li.
- d. *Me:li ke:sv:?i uwo:tu:hi.
- e. *Ke:sv:?i uwo:tu:hi Me:li.
- f. *Ke:sv:?i Me:li uwo:tu:hi.

Given this information about fixed word orders, we can consider whether Cherokee appears, with respect to this data at least, to be a consistent OV or VO type

language. The orders DetN, NumN, GenN, NPost, and VAux (i.e, Predicate-Aux) are typologically consistent with OV orders. The order comparative adjective-standard of comparison, however, is consistent with VO order. The gapping facts, mentioned above in conjunction with Cook's and Foley's work, also suggest VO order.<20>

Cherokee appears to present a problem for Hawkins' (1983) work on word order universals. As a postpositional language with Adverb Adjective order, Cherokee is predicted to show the Standard of Comparison before the Adjective (p. 88). However, just the reverse is the case for the Cherokee comparative construction, as (54) shows.

Variable word orders in Cherokee include the order of adjectives and nouns:

(56) a. Adj N
cuwo:tu:hi ti:hnawo
'pretty clothes' (NC)

b. N Adj
tehlkv:?i cu:thana
'trees big' (ML)

relative clauses and nouns:

(57) a. Relative N
hi?a ahani cita:ni:to:ka ani:tha?li ani:skaya
these here who:are:standing two men
'these two men who are standing here'<21>
(Pulte and Feeling 1975:353)

b. N Relative

hi?a ani:tha?li ani:skaya ahani cita:ni:to:ka
these two men here who:are:standing
'these two men who are standing here' (ibid.)

adverbs and verbs:

(58) a. Adv V

hlekvwita u:cvsiye:ha
a:little:while he:walked:around
'he walked around a little while' (SH)

b. V Adv

ta:ne:lo:nitohe to:yi
she:was:playing outside
'she was playing outside' (ML)<22>

verbs and their complements:

(59) a. Complement V

kahlco:te-hno wuyv:sti a:kose:le
house-and for:her:to:enter she:was:told
'and she was told to enter the house' (ML)

b. V Complement

u:tu:li:ske cu:ne:hlti
she:wanted for:her:to:play
'she wanted to play' (ML)<23>

verbs and intransitive subjects:

(60) a. V Subj

u:ni:lu:chv skwi:st yv:wi
they:arrived many people
'many people arrived' (BT)

b. Subj V

ahlcato:hvski taya:?i
preacher he:is:coming
'the preacher was coming' (DP)

verbs and transitive subjects:

(61) a. V Subj

"Kado u:sti calsta:hneha?",
what it:happens:to:you

u:wo:se:li u:to:ta.
he:asked:her her:father

'Her father asked her, "What is the matter?"' (ML)

b. Subj V (here, SOV)

u:to:ta-hno u:ko:hv:?i
her:father-and he:saw:her
'her father saw her' (ML)

verbs and objects:

(62) a. Object V

so:kwili-hno o:stu:talv:naha
horse-and we:hitched:it
'and we hitched up the horse' (SH)

b. V Object

Ase:-hehno u:histi ke:se
(?)-because for:him:to:kill it:was

o:talv e:hi hlv:taci.
mountain dweller lion

'He had to kill the mountain lion.' (ML)

and subordinate and main clauses:

(63) a. Subordinate Main

Nawvn Florida cokahnkis, skwi:sto:sv aka:skv.
(?) when:we:left very:much it:was
raining
'When we left Florida, it was raining hard.' (NC)

b. Main Subordinate

U:te:loho:se:-hno u:ta:nthi nike:svna ke:sv wesa.
she:realized-and friendly it:wasn't it:was cat
'She realized this was an unfriendly cat.' (ML)

3.7.2.2 Accounting for Variability

Recent work on so-called free word order languages reveals principles which aid in the analysis of Cherokee. Payne (1984) examines the placement of verbal arguments and postpositional phrases in Papago, a Uto-Aztecan language, and proposes a three-part rule, given as (64), to account for constituent order relative to the verb.

- (64) I. Indefinite information precedes the verb when the hearer is instructed to open a new active discourse file for it, making it available for further deployment.
- II. Pragmatically marked information (including all information question words) precedes the verb.
- III. Information for which the hearer is not instructed to open a new active discourse file follows the verb. This includes items for which active cognitive files are already available (e.g. definites and uniques), and entities for which files are not to be established, including non-referential mentions.

Significantly, it is pragmatic and not syntactic relations which determine word order in Papago.

Mithun (forthcoming) describes languages for which a similar pragmatic principle accounts not only for order of constituents but also for word order within constituents. Mithun examines word order in Ngandi, an Australian aboriginal language; Coos, an Oregon language; and Cayuga, a Northern Iroquoian language. She argues that in these languages, within any given constituent from the clause level down, if word order is not fixed,

then it is determined by a pragmatic principle rather than a syntactic or semantic principle. Simply put, the most newsworthy information comes first, and elements of a clause appear in order of decreasing newsworthiness. As Mithun points out, highly newsworthy elements might also be thought of as having a high degree of communicative dynamism (Firbas 1964).

Mithun explains that a linguistic element may be newsworthy if "it represents significant new information, . . . introduces a new topic, . . . or points out a significant contrast" (p. 20). Questions and answers provide a test of whether a language follows a principle of newsworthiness-based order:

the most important constituent of an answer is that which corresponds to the interrogative word of the questions. In Cayuga [a language with word order determined by newsworthiness], this word appears initially, whether it be a subject, object, time, location, or anything else" (p. 21).

Chafe (1985) discusses the notion of newsworthiness as it applies to Seneca, a Northern Iroquoian language closely related to Cayuga. He argues that any piece of information will bear one of three activation statuses: it will be "active information" ("information which a person is focusing on"); or "inactive" ("that which is completely out of a person's immediate awareness"); or "semi-active" (information may be semi-active either because it was "fully active at some earlier point in the

discourse, and . . . [has] receded for a time into this state" or because it is "inferrable from some other, related information that has already been activated") (p. 17). In Seneca, there is a general principle that more newsworthy material precedes less newsworthy material, but certain aspects of newsworthiness can be understood in terms of activation status. If either the subject or the predicate of a sentence "expresses previously inactive information and the other expresses semi-active information, the previously inactive concept is clearly the more newsworthy" (p. 23). When both subject and predicate are of equal activation status, there is "a default preference for the predicate as the more newsworthy of the two" (p. 24). Subject-predicate order, however, is used if "subject and predicate together constitute a single unitary concept" (ibid.).

Mithun's principle is different from Payne's, for Mithun's principle but not Payne's accounts for word order within an NP. Nevertheless, in many instances the two approaches to word order yield similar results, as is especially clear if considerations of activation status are explicitly taken into account in identifying newsworthy information: new information generally precedes old information, because it is often indefinite (Payne's rule) or because it is generally more newsworthy than old information (Mithun). Noun phrases representing

changes of topic (even if the referents are given or definite), question words, and other pragmatically marked material come at the beginning of sentences, because they are pragmatically marked (Payne) or because, by virtue of their special pragmatic status, they are newsworthy (Mithun).

There are certain elements of a sentence which are not affected by the newsworthy-first principle. Themes or backgrounding information may not appear to be newsworthy, but Mithun explains that certain themes-- "elements that establish a significant orientation for the first time, whether it be the point of view of the topic, the time, the location, or the reliability of the statement, occur early, just as they do in Czech", a language which otherwise shows word order which is almost the reverse of the newsworthy-first pattern Mithun is describing (p. 24). The word "significant" might be considered a weak synonym of "newsworthy".

In those cases where word order is not fixed, Cherokee, like Ngandi, Coos, and Cayuga, shows word order determined by the newsworthy-first principle. The examples below show just some of the word orders possible in Cherokee. The accompanying discussion of the contexts in which the examples are found shows how the newsworthy-first principle operates. All the examples given here are taken from narrative texts (see Appendix One).

The examples in (65) illustrate the two possible orders of noun and adjective. The noun and adjective are underlined in each case.

(65) Adjective and Noun

- a. Skwi:sto:sv cutale:hmv:t cuwo:tu:hi ti:nahwo
many different pretty clothes

tu:ni:na?a.
they:have:them

'They have a lot of different kinds of pretty clothes.' (NC)

- b. Kv:wa:te:yata-hno tehlkv:?i cu:thana.
surrounding-and trees big
'There were large trees all around.' (ML)

In (65a), the adjectives 'different' and 'pretty' precede the noun they modify, and in (65b), the adjective 'big' follows the noun it modifies. (65a) is part of a passage describing the main street of a tourist town, and the speaker is emphasizing the appearance of the street, with its many different shops selling a variety of brightly colored goods. It is not the clothes themselves that are of interest here; rather, it is the festive appearance of the clothes for sale out on the street, which is created by the variety. (65b) is part of a description of a child's favorite place to play. What is important here is the large number of trees in the area. The fact that the trees are big is of less importance here than the fact that there are trees all around; later

in the story, the size of a certain tree becomes important, and at that point we find the adjective 'big' before the noun 'tree' (66).

- (66) Na:hiyu-hno sana:le u:tu:li:ske
 then-and morning she:wanted
- cu:ne:hlti u:hnana u:thana hlkv:?i.
 for:her:to:play there large tree

'This morning she wanted to play on the big tree.'
 (ML)

It is far more common to find the order Adjective Noun than Noun Adjective, probably because if an adjective is to be used at all it will carry newsworthy information, otherwise a bare noun will do. Similarly, the order Adverb Verb is far more common than Verb Adverb.<24>

The examples in (67) show the two possible orders of intransitive verbs and their subjects.

(67) Verb and Subject

- a. Ase:-hno tlv:--sko ahli:li:sv u:ni:lu:chv
 I:guess-and about-ten time they:arrived
- skwi:st yv:wi.
 many people

'About ten o'clock the people began to come.'
 (BT)

- b. Ahlcato:hvski taya:?i.
 preacher he:is:coming
 'The preacher was coming.' (DP)

In (67a), the subject skwi:st yv:wi 'many people' follows the verb. In its text, this clause follows (68):

(68) Hla skwi:st yane:tohe:?i yv:wi.
not many they:were:not:there people
'There were hardly any people there.' (BT)

What is newsworthy in (67a) is first of all the time--the narrative describes a beach which was deserted early in the morning--and secondly the fact that at that time people began to arrive. The arrival is significant, but the fact that the arrivals are people is not newsworthy: that people are being discussed has been made clear in (68), if there was ever any doubt.

In (67b), the subject ahlcato:hvski 'preacher' precedes the verb. This sentence begins a joke, describing the events that occur in a barnyard when the preacher is seen coming to visit (a chicken takes precautions in order to avoid becoming the preacher's dinner). The fact that the visitor is the preacher is crucial to the joke: the custom is to kill a chicken for the preacher but not for just any visitor. Thus, the subject NP in (67b) presents extremely newsworthy information.

The examples in (69) show the two possible orders of verbs and objects.

(69) Verb and Object

- a. So:kwili-hno o:stu:talv:naha.
horse-and we:hitched:it
'We hitched up the horse.' (SH)
- b. Ase:-hehno u:histi ' ke:se
(?)-because for:him:to:kill it:was
- o:talv e:hi hlv:taci.
mountain dweller lion

'He had to kill the mountain lion.' (ML)

In (69a), the object precedes the verb. Both the verb and the object are clearly newsworthy in this sentence, which is near the beginning of a story about the accidental death of the horse; the horse, then, is a major participant in the story, and since this sentence is the first one in which he is mentioned, the object NP represents newsworthy information. On the other hand, part of the trouble the horse gets into stems from the fact that he misbehaved while he was hitched, was later unhitched, and then ran away. The clauses immediately following (69a) lend support to my claim that the object is more newsworthy than the verb, since they are clauses about the horse; his being hitched is taken for granted, as being an unremarkable state of affairs for a horse.

In (69b) the object follows the verb. A man's daughter has been frightened by a mountain lion; he takes his gun and goes out and finds the animal, which, we are told, is the largest one he has ever seen. By the time

of clause, the mountain lion is not newsworthy (although perhaps he would be if he jumped at the man, becoming an active participant in the story). What is newsworthy is what the man decides to do about the mountain lion. The clause immediately preceding (69b) is "he pointed his gun to shoot": killing is not mentioned explicitly until (69b), where it counts as newsworthy information.

The example in (70a) is another in which the object follows the verb, but here the NP object 'bottle' is the patient but not the object for the purpose of agreement. The dative 'him' is the object of the verb for agreement. This clause is part of a description of a father and son passing a bottle of whisky back and forth, with the father insisting that the son take a drink, and the son refusing. What is significant in (70a) is that the son (the speaker) is handing the bottle back: the action of passing the bottle is newsworthy, but the fact that what is being passed is the bottle, which has been given information for several clauses, is not. When the bottle of whisky, which figures so prominently in this part of the story, is first introduced into the text, it appears before the verb (70b):

- (70) a. nokw yan wici:ne:la ku:k
 then (?) I:gave:back:to:him bottle
 'and when I handed back the bottle,' (DB)

- b. No:kw sa:kwu hwiski u:tlista wu:ki:sv.
 then one whisky container he:went:and:got
 'He went and got one of his bottles of whisky.'
 (DB)

Certainly the fact that a bottle is fetched is newsworthy, but it is not so newsworthy in (70b) as the fact that what is fetched is a bottle, and particularly a bottle of whisky, which is important to the passage and to the rest of the story. Notice the phrasing hwiski u:tlista, with the (more newsworthy) partitive before the noun. U:tlista hwiski is also grammatical according to the story-teller, who nevertheless prefers the phrasing hwiski u:tlista in this context. I expect that the Partitive Noun order would indicate that the bottle was more newsworthy than the whisky.<25> In the story, however, what is significant is that the bottle is full of whisky, since there follows a passage in which the son, who has resisted tasting it because it is intoxicating, is eventually forced to drink. The possibility that the whisky has made him drunk is crucial to the remainder of the story, in which he has a very strange, perhaps alcohol-induced, dream.

In a sample of 90 intransitive clauses, subject NP's precede verbs more often than they follow them (20 vs. 13 tokens). In a sample of 90 transitive clauses, object NP's precede verbs more often than they follow them (33 vs. 9 tokens), but subject NP's, which

are rare anyway, follow verbs more often than they precede them (9 vs. 6 tokens).<26> This sort of skewed distribution is not surprising in light of cross-linguistic work on information flow (Du Bois 1987 and see also references therein). New information (which will, in general, be newsworthy) tends to appear as intransitive subject or as object, hence we expect to find this newsworthy information early in the clause and the figures above bear out that expectation. In contrast, transitive subjects tend to present given information.

In a language like Cherokee, where all verbal arguments are indexed on the verb itself through the pronominal prefix system, it is to be expected that, as given information, transitive subjects will rarely appear as NP's, and, indeed, there are only fifteen tokens of transitive subject NP's in the sample mentioned above. In the cases of preverbal transitive subject NP's, the NP's do represent new or, in one case, semi-active (and newsworthy) information, as expected of preverbal NP's. All of the postverbal transitive subject NP's are the subjects of verbs of saying (though it is not the case that the subjects of verbs of saying always follow the verbs). These NP's help to keep track of who, out of a set of given (active or at least semi-active) participants in a text is talking. Although giving

useful information, the information is arguably not newsworthy.

Munro (1982) discusses ways in which transitive verbs of saying resemble intransitive verbs. If verbs of saying are grouped with intransitive verbs, then the skewing is different: the data then provide only five clauses with transitive subject NPs, all of which are preverbal and all of which represent new information, from a sample of 59 transitive clauses.

3.7.2.3 Clauses with Two NP Arguments

The examples presented above help to illustrate the fact that a good deal of Cherokee word order is variable, and that variable word orders can be insightfully described in terms of discourse pragmatics. Sets of examples like those in (60), (61), and (62) cast some doubt on the usefulness of applying the concept of basic word order to Cherokee subjects, verbs, and objects. The examples below present additional problems for an attempt to find a syntactically-defined basic word order for Cherokee.

In context, transitive clauses with full NP subjects and objects are rare. In elicited sentences, any order of S, V, and O is possible when the pronominal prefix unambiguously distinguishes the subject from the object, as in (71), below. Although both the subject and object

in (71) are 3sg., they differ in animacy: achu:ca 'boy' is human and ki:hli 'dog' is non-human animate. The B prefix on the punctual stem indicates that ki:hli is the subject. Many speakers prefer not to have the verb appear sentence initially, although they do not completely reject sentences like (71e) and (71f).

- (71) a. Ki:hli u:skala achu:ca.
 / u:-skala/
 dog 3sg.B-bite=PUNCT boy
 'The dog bit the boy.'
- b. Ki:hli achu:ca u:skala.
 c. Achu:ca u:skala ki:hli.
 d. Achu:ca ki:hli u:skala.
 e. U:skala ki:hli achu:ca.
 f. U:skala achu:ca ki:hli.

In the paragraphs below, I discuss the interpretation of transitive clauses with two NP arguments in cases where the pronominal prefix does not distinguish the subject from the object. These sentences are best understood in terms of both word order and the use of active or inverse pronominal prefixes.

When the pronominal prefix does not distinguish the subject of a verb from the object, most speakers will not accept all orders of S, V, and O; rather, they insist that the S precede the O, as in (72).

(72) a. Ca:n Me:l a:ko:hwthiha.
 /a-ko:hwthiha/
 John Mary 3sg.A-see=PRES
 'John sees Mary.'

 b. Ca:n a:ko:hwthiha Me:l.
 'John sees Mary.'

There appear, however, to be some speakers (Pulte and Feeling 1975) who accept the SOV order of (72a), but who do not accept SVO, and who insist that when the verb is medial, the O precede the S, as in (73):

(73) Ca:n a:ko:hwthiha Me:l.
 'Mary sees John.'

In sentences with inverse prefixes where the pronominal prefix does not distinguish the subject from the object, speakers who otherwise insist upon S before O (72), instead show O before S (74):

(74) Ca:n u:ko:hwthiha Me:l.
 /u:-ko:hwthiha/
 John 3sg.B-see=PRES Mary
 'John is seen by Mary.'

And speakers who otherwise insist upon O before S (73), instead show S before O (75):

(75) Ca:n u:ko:hwthiha Me:l.
 'Mary is seen by John.'

The various English translations of examples (72) - (75) can be understood by examining naturally occurring transitive clauses with both subject and object NP's in

light of the interactions between newsworthiness and givenness, which can be seen a rough equivalent to the proximate/obviative trigger of the choice between active and inverse prefixes. It must be borne in mind that sentences with transitive verbs and two NP arguments, especially sentences in which the two arguments are animate and equally ranked on the animacy hierarchy, are extremely rare in Cherokee, hence sentences like (72) - (75) are highly unnatural. Also, since Cherokee word order is governed by pragmatic principles, any judgment of word order and grammaticality taken out of context is highly suspect.

I suggest that the inverse verbs are translated by passives in cases such as (74) and (75), because when the subject and object of a verb are both 3hum. the inverse prefix is typically used when the object is given, just as it has been shown that the English passive is often used when the patient is given.

At first glance the identification of see-er and seen in (72) and (74) reflects English word order principles more than reflect Cherokee principles. English word order is determined by syntactic relations: subjects precede verbs, and the subject of an active verb is the agent (if there is an agent), and the subject of a passive verb is the patient. In Cherokee, word order is

determined by newsworthiness, and the most newsworthy elements come earliest in the sentence.

An NP that represents given information (i.e., the subject of a verb with an active prefix, if there is any given NP in the clause; or the object of a verb with an inverse prefix) is in general unlikely to be newsworthy, and this is reflected in the translations in (73) and (75). But the subject of a verb with an active prefix or the object of a verb with an inverse prefix can be newsworthy, if it is new as topic, for example. Thus, the translations in (72) and (74) are not ungrammatical. And, in fact, in context, if a verbal argument that represents given information appears as an NP at all it is likely to be because it is newsworthy--otherwise, it is simply omitted. (As I discussed above, however, this does not hold for "say" verbs.)

The analysis I have outlined above predicts that any transitive clauses in texts that contain both subject and object NP's should exhibit either SVO or SOV order if they have active prefixes, and should exhibit either OVS or OSV if they have inverse prefixes. In fact I have no examples of naturally occurring inverse clauses with two NP's. Inverse clauses are rare in texts in any case, which is understandable given the restricted conditions of their use which are outlined above. It is especially

difficult to find clauses which show inverse prefixes purely as a result of pragmatic principles.<27>

Active clauses with two NP's are also rare. A sample of several hundred clauses produced only seven two-argument clauses.<28> The orders which occur are SVO and SOV, as predicted. These orders are used in clauses where the pronominal prefix disambiguates subject from object (76) and also in clauses where the pronominal prefix fails to disambiguate subject from object (77).

- (76) a. SVO
Seli?kuki towakhahne?e co?e yi:yani:?i
Turtle he:placed:them three all:the:same

thunahtasvti:se?i
on:the:other:hills

'Turtle went and placed three other turtles
just like himself on the other hills.' (RT)
- b. SOV
Andrew Jackson ani:yv:wiya tu:thihnawitv.
Indians he:drove:them:out
'Andrew Jackson took the Cherokees out.' (NC)

From comparison to other words in the set of texts from which (76a) is taken (Speck 1926), it is clear that towa- represents the distributive prefix and a 3sg.B prefix on a perfective verb. This is the B-stem version of the active prefix indicating a singular subject and plural object. In (76b), tu:- is the distributive prefix and a 3sg.B prefix, again on a perfective verb, indicating a singular subject and plural object.

(77) a. SVO
 Skaya awenuca kanvskiske?e akehya.
 man young he:was:stealing:her woman
 'A young man once went to abduct a girl.' (OM)

b. SOV
 Nv:khi:yani anino:lito cu:nata:li:?i
 four:of:them hunters their:wives

 tu:nthinv:se?i.
 they:took:them:along

 '(Once) four hunters took their wives (hunting)
 with them.' (SF)

The 3sg.A pronominal prefix ka- in (77a) marks a 3sg. subject and a 3sg. object, and thus does not tell whether skaya awenuca or akehya is subject. Tu:n- in (77b) is the distributive prefix plus the 3pl.B prefix on a B stem verb; this is the B-stem form of the active prefix for 3pl. subjects with 3pl.objects.

I claim that transitive clauses with subject focus prefixes will appear with overt subject NP's only if the subject is newsworthy, and hence that the subject will appear in sentence-initial position. I must justify my claim that the subject is newsworthy in each of the four sentences above; further I must argue that in the SVO sentences the V is to be regarded as more newsworthy than the O and that in the SOV sentences the O is to be regarded as more newsworthy than the V.

In (76a), taken from a story entitled "Rabbit and Turtle Race", seli?kuki 'Turtle' represents a new topic.

The preceding clause has a dual subject (Turtle and Rabbit agree to race); Turtle is the subject not only of clause (76a), but of the next several clauses. It is more difficult to see why the verb should be more newsworthy than the object, since the three turtles placed on the hilltops figure prominently in the outcome of the story and in the following clauses. I suggest that the point of the story is Turtle's craftiness: the fact that he can, by trickery, beat Rabbit at a race. Thus, his initiative in doing something (in putting anything on the hilltops) is to be taken as more newsworthy than the identity of the things he puts there. Related to this is the fact that listeners empathize much more with Turtle's action than with the things he acts on.

Example (76b) is taken from a description of a trip to North Carolina. In North Carolina the narrator attends an outdoor drama which, as she explains in the clauses preceding (76b), teaches her where her parents came from and which explains that Andrew Jackson drove the Cherokees from North Carolina to Oklahoma. 'Andrew Jackson' represents significant new information here; he has not been mentioned before. The verb, however, seems to be more newsworthy than the object since 'Indians' must have semi-active status as a result of the preceding clauses which talk about the origins of the (Indian)

narrator and her family. In fact, 'drive out' also has semi-active status by virtue of the well-known association of Andrew Jackson with the removal of Indians from the southeast; still the newsworthiness approach suggests that the verb should precede the object. Perhaps we must argue that what is newsworthy here is not that Andrew Jackson drove people out of a place, but rather that Andrew Jackson did something (which happened to be driving out) to Indians.

(77a) is the first sentence of a short joke in which a young man goes off one night to steal a wife and ends up instead with an old man who is sleeping in her usual place. The young man, as the main character and butt of the joke, is most newsworthy and comes first in the clause. The joke is less about the girl than about what happens when the man is off on his expedition: thus the verb, which tells about the expedition, carries more newsworthy information than the object.

(77b) introduces new participants, the hunters and their wives, into a story. The hunters are the main characters, the heroes of the story who capture and kill a witch. As to the relative order of O and V, the fact that these men take people along with them on their expedition is less important than the fact that it is the women who are going along, because the misadventures

which befall the women (described in the next few clauses) precipitate the main action of the story.

A larger data base must be assembled for a careful study of the relative order of O and V in transitive clauses with two NP arguments.

In this chapter I have discussed the various factors which govern the Cherokee pronominal prefix alternations. In Chapter Four I present a formal account of pronominal prefix morphology, taking into consideration the different functions that a given prefix may perform in the system.

Notes to Chapter 3

<1>A different approach to the association of semantic roles with syntactic relations is taken by Cook (1979:150-64), working within a Case Grammar framework.

<2>Pulte and Feeling (1975:286) discuss the common uses of the dative suffix to indicate the presence of recipients and benefactives; they also mention its use with 'buy' (see (19) in Chapter Two). They also give an example in which the dative suffix indicates the presence of an effector (p. 284):

ù:yó:sì:sá:nèha
/u:-yo:si:sa:n-eha/
3sg.A-become:hungry-DAT=PRES
'he's getting hungry because of him'

The interpretation of the semantic role of the object of a verb with a causative/instrumental or dative derivational suffix appears to depend upon the semantic structure of the verb itself.

<3>The dative suffix is added to the perfective stem of the verb.

<4>The two examples in (7) contain different verbs for 'love'. The verb in (7b) takes the nominal form of the distributive prefix. Feeling (1975) shows the verb stem as -kè:yúha; Mrs. Carey, from whom this example was elicited, regularly uses -i in place of -a on the word.

'Love' takes B prefixes, hence the B prefix in the inverse form (7b). Coreference of 'their' and 'all women' is not required in either of these sentences.

<5>-hno is cliticized to the end of the first word of the second of two clauses.

<6>The association of floated quantifiers with absolutes has been discussed by Aissen (1984) and Munro (1984). Downing (1985) proposes a discourse-oriented account of the association of Quantifier Float and absolutes in Japanese.

<7>Sometimes she rejects all clauses in which the quantifier is removed from its noun phrase.

<8>The verb kv:nsta contains the root 'hit' with an instrumental suffix. It is possible, at least for some speakers, to omit the instrumental suffix in sentences like (13i); such sentences are volunteered with and without the instrumental suffix.

<9>Cook (1979) uses the terms "subject focus" and "object focus" for what I call "active" and "inverse", respectively. Cook's analysis of Cherokee verb agreement is discussed further in section 3.6.3 and in Chapter Four.

<10>Me:li 'Mary' is considered a constituent of the first clause of (25), since the object of a verb of saying always follows the verb of saying in sentences which are similar to (25) but which have the verb of saying after the infinitive.

<11>A combination such as this is possible if, for example, the subject of the referentially explicit clause is dual and both the subject and object of the referentially inexplicit clause appear as the subject of the referentially explicit clause.

<12>A combination such as this is possible if, for example, the object of the referentially explicit clause is dual and both the subject and object of the referentially inexplicit clause appear as the object of the referentially explicit clause.

<13>This cell of the chart actually represents a case of referential explicitness.

<14>Cook gives all examples of Q-word questions with a pause after the question word, but I do not hear a pause in the examples taken from my own data.

<15>The forms in (46) have been volunteered by some Oklahoma Cherokee speakers, and questions like (46a) are sometimes preferred over questions like (45a). Some

speakers accept forms like (46b) although they do not volunteer them; I did not ask these speakers whether they accept forms like (46a). The North Carolina Cherokee speakers with whom I worked briefly never volunteered such forms as (46a) or (46b), and I did not ask whether those forms were acceptable to them.

<16>A sentence like (47b) is understood to mean that Mary is deceased. In saying that Mary was beautiful but is not beautiful now, a form of -alsta:hn- 'happen', is used.

<17>Example (48b) is from a North Carolina text published by Speck (1926:112). (See Appendix One for information on two-letter abbreviations for textual sources.) The orthography in (48b) represents the pronunciation of Mrs. Carey rather than the pronunciation indicated by Speck's phonetic orthography.

<18>N Det, N Num, and N Gen can be elicited, but all the textual examples I have show the orders given in examples (49-51).

<19>Feeling (1975:173) gives ù:lí:si as "'his grandmother (maternal)'".

In elicitation, genitives may precede or follow their nouns: 'Mary's dress' can be Me:li u:sahno, literally 'Mary her:dress', or u:sahno Me:li. There is a

clear tendency, however, for genitives to precede possessed nouns.

The possessive noun -ace:li (see discussion in Chapter Five) may precede or follow the noun it modifies.

<20>The OV orders can be considered operator-operand orders, following Vennemann's terminology; the VO orders can be considered operand-operator orders (Hawkins 1983:31-4).

<21>The verb cita:ni:to:ka is marked as a subordinate verb by the positive prefix ci- and by atonic pitch (not represented here).

<22>The subject of the verb in (58) is translated as feminine because of the context from which the example is taken.

<23>The subjects of the verbs in (59) are translated as feminine because of the context from which the examples are taken.

<24>Pulte and Feeling (1975:353) claim that adverbs must precede verbs, but see (58b).

<25>I have no textual examples of Noun Partitive order.

<26>Six Oklahoma Cherokee texts (DB, DP, ML, NC, SH, and TH) provided the sample.

<27>They may be more common in varieties of texts other than the narrative and procedural ones I have examined. The scarcity of inverse clauses with two NP arguments may be relatable to the scarcity of English passives with by-phrases.

<28>Sentences like (61a) do not have subject and object NP's: the object of such sentences is not the quoted material, but rather the person spoken to.

CHAPTER 4: FORMAL ANALYSIS OF THE PRONOMINAL PREFIXES

4.1 The Extended Word and Paradigm Theory

This analysis is presented within the framework of the "extended word and paradigm" theory of morphology, developed by Stephen R. Anderson in a series of papers (1977; 1982; 1984a,b; 1986a,b), following work by P.H. Matthews (1972). The extended word and paradigm theory analyzes inflectional morphology through sets of rules which operate on morphosyntactic representations and phonological stems to yield phonologically specified inflected forms.

Inflectional morphology can, in principle, make reference to several kinds of syntactically governed properties of words or phrases. Anderson (1986b:3) discusses four such properties. First, there are configurational properties, which are "assigned on the basis of the larger structure a word appears in"; an example of a configurational property would be the assignment of case to NPs. Second, there are agreement properties, which are "aspects of the exact form of the word determined by reference to properties of some other word in the same structure". Third, there are inherent properties, such as the gender of nouns, which "must be accessible to whatever rule assigns agreement properties to other words in agreement with it". Fourth, there are

phrasal properties, which are "properties of larger phrasal domains which determine the way in which these domains behave syntactically, but which are realized on particular words within the structure"; as an example, Anderson mentions the fact that tense may define the scope of binding relations.

When a stem and the morphosyntactic representation with which it is associated meet the structural description of a morphological rule, the rule will apply, modifying the stem or the morphosyntactic representation or both. Morphological rules can perform such operations as affixation and the phonological modification of stems (Anderson 1982:595).

Among the important characteristics of the rules and representations in this theory, as described by Anderson and others (e.g., Thomas-Flinders 1981), are these: inflectional rules are intermixed with rules of "phonology proper" along the lines suggested by lexical phonology, as presented, for example, Kiparsky (1982) (Anderson 1982:594); morphosyntactic representations are sets of specifications for morphologically relevant features, which are structured in levels (Anderson 1982:598); and rules may be disjunctively ordered in two ways--more specific rules will preclude the later application of less specific rules, and rules may be specified as applying disjunctively, thus solving

problems of inflectional position classes (Anderson 1986b).

In the extended word and paradigm theory, inflectional morphemes do not have "meanings" in the traditional sense. Rather, the meaning of an inflectional morpheme follows from the rule which introduces it and the position of that rule among other rules, as Anderson shows for the Georgian plural suffix /-t/ (1982).

In traditional terms, it is not clear what to say about the "meaning" of some Cherokee pronominal prefixes, such as the 1sg.B prefix, aki- ~ akw-, beyond saying that the prefix "means" 1sg.B. This prefix, on an intransitive verb, means that the verb has a first person subject, as in (1):

- (1) ǎ:khiyò:luhá
/aki-hyo:luha/
1sg.B-float=PRES
'I'm floating'

On a transitive verb, the 1sg.B prefix can mean that a 1sg. subject is acting on a 3sg. inan. object, or that a 3sg. subject is acting on a 1sg. object, as in (2):

- (2) ǎ:kihyóha
/aki-yhoha/
1sg.B-look:for=PRES
'I'm looking for it; he's looking for me'

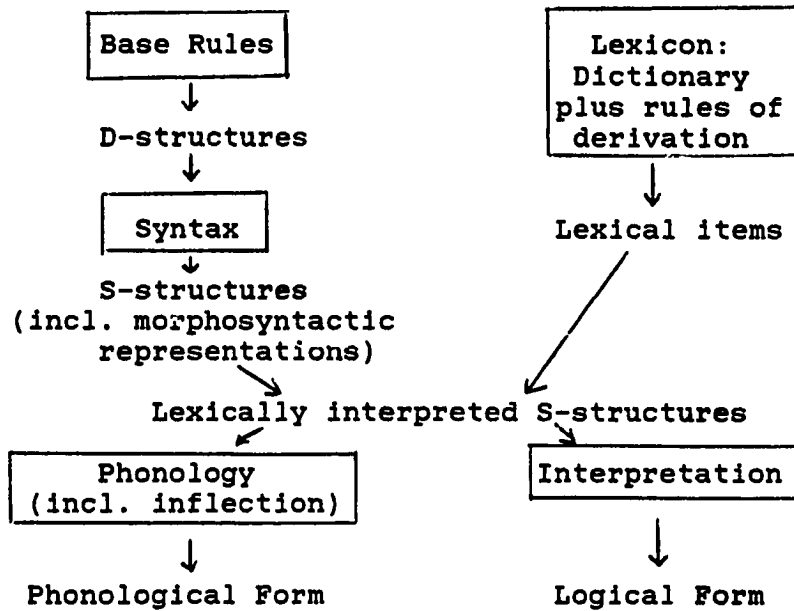
Under the analysis developed in this chapter, within the extended word and paradigm theory, the presence of the 1sg.B prefix indicates that at a certain underlying level of structure, the word to which it is attached is associated with a morphosyntactic representation which has no subject level and which has an object level characterized by feature specifications for first person and singular number.

4.2 Derivation and Inflection in Cherokee

In the extended word and paradigm theory, inflectional rules apply post-syntactically, and derivational rules apply in the lexicon. Anderson (1982:594) models the organization of the grammar as in Figure 3 (p. 209).

In such a grammar, the relationship between inflection and derivation is straightforward; as Anderson explains, any material which is introduced by an inflectional rule can presuppose material that is present in the lexical form, but material introduced by a derivational rule cannot presuppose material that is inflectional (1986b:18).

Figure 3: Organization of the Grammar



The Cherokee pronominal prefixes, as agreement markers, are necessarily inflectional. The status of the Cherokee prepronominal prefixes is not so obvious, and, since the prepronominal distributive prefix plays a role in the agreement system, the status of these prefixes must be briefly examined here. In section 4.2.1 I discuss three of the prepronominal prefixes--the counterfactual, the positive, and the partitive--and suggest that they may be considered derivational affixes. The distributive, discussed in 4.2.2, appears to have both derivational and inflectional uses.

4.2.1 Counterfactual, Positive, and Partitive Prefixes

The counterfactual prepronominal prefix *y-* appears obligatorily with negative particles in negative sentences, as in (3), which shows the negative word *hla*. In (3), *y-* appears before a consonant, with epenthetic *i*. (4) is the corresponding positive declarative.

(3) Hlá yìcìkô:wthíha.
/y-ci-ko:ʔwthiha/
not CTR-1sg.A-see=PRES
'I don't see it.'

(4) Cìkô:wthíha.
I see it.<1>

More generally, the counterfactual prefix is used as a marker of irrealis, as in the following example from Pulte and Feeling (1975:350):

(5) Yŭ:wô:ní:sa, yákwthv:tà:sti.
/y-u:-wo:ni:sa/ /y-akw-athv:tasti/
CTR-3sg.B-speak=PERF=INDIC CTR-1sg.B-listen=PRES
'If he speaks, I'll be listening.'<>2>

Perhaps, then, it is not the syntactic presence of a negative particle which triggers the presence of the counterfactual prefix; rather, there might be a kind of selectional rule which requires a counterfactual verb to appear under certain semantic conditions or there might be a filter which blocks the counterfactual from being inappropriately used. The status of *y-* as derivational or inflectional becomes important when we consider the

that an event did occur at some time and the counterfactual indicating that an event did not occur or has not yet occurred. Each verb may, in effect, be seen as having a positive stem and a counterfactual stem, used in mutually exclusive environments.

With certain verbs, negative relative clauses show the positive prefix on the copula. The counterfactual prefix does not appear; the partitive prefix n-, which has a number of heterogenous uses, appears on the verb.<6> In such clauses, the verb appears in its "negative participle" form: n- appears with what has been called the negative participle modal suffix -v:na. (The partitive prefix can occur independently of the modal suffix, but the modal suffix never occurs without the partitive prefix.) This relative clause construction is illustrated in (8a) with the positive prefix c- on the copula and the partitive prefix n- on the verb. With other verbs, as in (8b), the copula appears as a negative participle. The prefixes c- and n- appear with epenthetic i before a consonant.

(8) a. Na askaya Me:l nu:lv:kwhtv:na
 that man Mary PAR-3sg.B-like-NFT
 /n-u:-lv:kwht-v:na/
 ciki Boston kane:la.
 /c-ki/ Boston /ka-ne:la/
 POS-be Boston 3sg.A-resides:in=PRES

'The man who Mary doesn't like lives in Boston.'

b. Askay ci:yo:li:ka nike:sv:na
 /ci:y-o:lika/ /n-ke:s-v:na/
 man 1sg./3sg.an.-know=PRES PRT-be-NPT

takaluhci.
 /ta-ka-luhci/
 CIS-3sg.A-arrive=FUT

'A man who I don't know will arrive.'

The partitive prefix has various productive uses as a marker "of spatial, temporal or qualitative parallelism or comparison of path or of events, of one state or event being perceived in terms of another" (Cook 1979:65). In (9a), the partitive prefix indicates the presence of a reference point; compare (9b), without the partitive prefix. In a construction with the perfective stem and the habitual modal suffix, the partitive prefix gives the meaning of 'already' as in (9c), from Pulte and Feeling (1975:245).

- (9) a. na:ʔi
 /n-a-a:ʔi/
 PAR-3sg.A-walk=PRES
 'he's walking by'
- b. á:ʔi
 /a-a:ʔi/
 3sg.A-walk=PRES
 'he's walking'
- c. Nù:ká:hnánó:ʔi.
 /n-u:-ka:hnan-o:ʔi/
 PAR-3sg.B-rain=PERF-HAB
 'It had already rained.'

The use of the partitive in the formation of the negative participle, which is used regularly in negative subordinate clauses, can be seen as consistent with the uses of the partitive illustrated in (9): the negative participle indicates that the non-occurrence of some state or event is relevant to some other state or event, that is, a non-event is to be interpreted in terms of some other event.

The partitive also has certain idiosyncratic, lexically specified uses. On some verbs, such as 'say' and 'do', the partitive prefix appears when the object of the verb is understood but not specified, as in (10a). Compare (10b), with a specified object and no partitive prefix. For 'say', the verb stem used with n- is different from the stem used without n-.<7>

(10) a. Tha:l yuwa:kt niciwi.
 /n-ci-wi/
 two times PAR-1sg.A-say=PUNCT
 'I said it twice.'

b. "Siyo" akwatv:hnv tha:l yuwa:khti.
 /akw-atv:hnv:ʔi/
 hello 1sg.B-say=PRES two times
 'I said "Hello" twice.'

With some other verbs, such as 'put on', 'take off', and 'have on', the partitive prefix appears even with a specified object, as in (11), taken from Feeling (1975:147):

(11) Taksi nuwanhtanv kalo:histi:ʔi.
 /n-u:-vhntanv:ʔi/
 lock PAR-3sg.B-put:on=PERF door
 'He's putting a lock on the door.'

The obligatory use of the partitive on verbs such as the one in (11) must be lexically specified.

The partitive prefix can be considered a derivational prefix: it appears obligatorily on some verbs (11); it appears obligatorily on some verbs in certain constructions (10); and it appears on all verbs to indicate certain kinds of parallelism and to indicate that actions and states must be understood in terms of other actions or states (8, 9).

If the lexicon contains "a comprehensive set of well-formed stems within a language" (Anderson 1982:592), then the verb 'put on' in example (11) might have a stem ni- -vhntanv:ʔi and some specification would be needed to assure that the ni- is interpreted as a partitive prefix. This specification would prevent an additional partitive prefix from appearing if the verb should be used in a negative subordinate clause, and would ensure that any other prefixes added to the stem appear in the proper order. We can think of Cherokee verbs as being associated with morphological templates which might look something like (12), with positions numbered from one through seven, position one being farthest from the verb root and position seven being closest.

(12) Prepronominal prefix template:

1. positive
 counterfactual
2. translocative
3. partitive
4. distributive
5. cislocative
6. iterative
7. negative

Under such an account, the Cherokee verb would be seen as having a complex structure with the verb stem as head of the verb word and with complementary material appearing to the left of the head. Any derivational rule which adds a prepronominal prefix would make reference to the template: I do not suggest that each verb stem is separately listed in the lexicon with every possible combination of prepronominal prefixes. The rules of pronominal prefixation would specify prefixation to the head of the verb rather than prefixation to the verb word.

4.2.2 The Distributive Prefix

In this section I argue that the distributive prepronominal prefix appears to have both derivational and inflectional uses, and I propose an analysis in which all of the uses of the distributive are subsumed under inflection.

4.2.2.1 The Distributive as Derivational

Most generally, the distributive prefix indicates that an action is performed on several objects. The regular uses of the distributive are exemplified in Chapter Two.

In many respects, the Cherokee distributive prefix appears to mark a non-inflectional semantic category of plural: many languages have derivational rather than inflectional categories of number (Durie 1986). The Cherokee distributive prefix might be seen as a derivational formative, creating a kind of plural stem.

In the extended word and paradigm theory, agreement is a syntactic operation, and agreement morphology is inflectional. Although the distributive prefix is used to mark plurality of an inanimate object of a transitive verb, the plural marking on the verb might be seen not as agreement, but rather as an extension of the use of the distributive as a marker of actions performed over several objects (or performed several times on one or many objects). That is, selectional restrictions would require the use of the "plural stem" in certain cases: specifically, when the subject is first, second, or third person and the object is inanimate and plural.<8>

Such dissociation of the distributive from the regular agreement morphology is made especially attractive by the fact that there are prepronominal

prefixes which may intervene between the distributive prefix and the pronominal prefix. This is illustrated in (13), in which the cislocative prefix ta- occurs between the distributive prefix and the pronominal prefix. The distributive prefix regularly appears as to:- before the cislocative prefix ta-.

- (13) Tò:tàkṽ:níli.
 /te:-ta-k-v?nili/
 DIST-CIS-1sg.A-hit=FUT
 'I will hit them (inan.)'

Furthermore, the pronominal prefixes are sensitive to a more opaque level of representation than is the distributive. Pronominal prefixes are not direct representations of the grammatical relations borne by verbal arguments, but the distributive prefix always refers to the number of the object. A verb with a 3inan. object takes A or B prefixes (the choice of prefix reflecting the morphosyntactic representation), depending upon the aspect stem in which the verb appears, but plurality of the object is always marked by the distributive. This is illustrated in (14): (14a) shows a verb in the present stem taking an A prefix; (14b) shows a verb in the perfective stem taking a B prefix; yet in each case, the plurality of the object is marked with the distributive. The morphosyntactic

A selectional rule requiring the distributive for certain sorts of multiple actions can account for forms like (14a), and can also apply to verbs with dative derivational suffixes to ensure the presence of a distributive on a three-argument verb with a plural patient, as in (15b) and (15c). (Rule (48), below, in fact eliminates the need for a selectional rule to indicate the plurality of an object on a two-argument verb.)

Some intransitive verbs require the distributive prefix when their subjects are plural.<10> Compare (16a), with a singular subject, to (16b) with a plural subject.

- (16) a. $\grave{u}:y\acute{o}:s\grave{i}ha$
 /u:-yo:siha/
 3sg.B-hungry=PRES
 'he's hungry'
- b. $\grave{t}\ddot{u}:n\grave{i}:y\acute{o}:s\grave{i}ha$
 /te:-u:ni:-yo:siha/
 DIST-3pl.B-hungry=PRES
 'they're hungry'

Pulte and Feeling (1975:249) explain that a form such as $*\grave{u}:n\grave{i}:y\acute{o}:s\grave{i}ha$, with a 3pl.B prefix but no distributive prefix, sounds to Cherokee speakers as though it refers to two or more people with one stomach; a form such as $*\grave{t}\ddot{u}:y\acute{o}:s\grave{i}ha$, with a 3sg.B prefix and a distributive prefix, sounds as though it refers to a person with more than one stomach. These interpretations are consistent with the usual interpretation of the

distributive prefix, and might be treated as regular uses of the prefix, given appropriate characterization of the meaning of the verb root, which can perhaps be thought of as "feel empty in one's stomach".

Other verbs always require the distributive, regardless of the number of the subject. In some cases, such as (17), the distributive can be seen as a marker of repeated action or action over a number of "objects", although the prefix is obligatory here in contrast with its optional appearance with other verbs.

- (17) tã:sùhwíska
/te:-a-asuhwiska/
DIST-3sg.B-bark=PRES
'it's barking'

For other verbs which always require the distributive, such as those in (18) and (19), Pulte and Feeling (1975:249) suggest that the distributive might reflect the fact that a sensation is experienced in all the various parts of the body.

- (18) tú:yàwè:ka
/te:-u:-yawe:ka/
DIST-3sg.B-be:tired=PRES
'he's tired'
- (19) tã:cíhlúska
/te:-a-acihluska/
DIST-3sg.A-squat=PRES
'he's squatting'

In these types of cases, selectional rules would specify that the distributive prefix is called for when certain conditioning factors are present.

The uses of the distributive prefix on nouns can also be seen as derivational: the distributive prefix appears in nominalizations of verbs with distributive prefixes. Also, with some nouns, the distributive prefix may serve as a marker of plurality.

4.2.2.2 The Distributive as Inflectional

The difficulty in analyzing the distributive prefix as a derivational prefix lies in the use of the prefix to mark plurality of animate objects. The prefixes which mark subject/object combinations with first or second person subjects and 3pl.an. objects, given in Table 4 in Chapter Two, are repeated below in Table 15.

TABLE 15: Prefixes Marking 3pl.an. Objects

<u>Subject</u>	<u>Prefix</u>
1sg.	kaci:y-
1+3du.	DIST + o:sti:-
1+3pl.	DIST + o:ci:-
1+2du.	DIST + i:ni:-
1+2pl.	DIST + i:ti:-
2sg.	kahi:y-; or DIST + hi-
2pl.	DIST + sti:-

It is significant that those prefixes in Table 15 which include the distributive are used to mark 3pl.an. objects even when the object is a dative. The presence

active and inverse prefix sets, the distributive prefix appears as a marker of plurality in all but two of the cases shown in Table 15. Inflectional rules are required to affix the 1sg./3pl.an. and the 2sg./3pl.an. prefixes, kaci:y- and kahi:y-: these are agreement prefixes and agreement markers are added by inflectional rules, since agreement is a syntactic operation. The distributive prefix is not incompatible with these prefixes: if present, it indicates repetition of the action or action on each object individually, as expected. The distributive prefix is, however, required to appear in all other cases with 3pl.an. objects: that is, the distributive prefix is required in just those cases where the (inflectional) pronominal prefix system does not mark plurality of the object. This would present a problem if the distributive prefix were to be considered derivational, since the requirement of its presence is dependent upon inflectional rules. It appears, then, that the distributive prefix has inflectional as well as derivational uses.

4.2.2.3 The Treatment of the Distributive

One possible solution to the problem of the status of the distributive prefix is to treat the prefix in all of its uses as derivational. Such an analysis would include a rule to ensure the appearance of the prefix on

verbs with 3pl.an. objects and specified subjects other than 1sg. and 2sg. Such a rule, referring to the same features of person and number as do the agreement rules, would make it difficult to maintain the claim that agreement is an inflectional process, as it must be in the extended word and paradigm theory.

A second approach to this situation is to have an inflectional rule, as well as a derivational rule, to introduce the distributive. Payne (1986), for example, argues that Yagua noun classifiers have both inflectional and derivational uses: they are inflectional suffixes on demonstratives and numerals, where they agree with the class of the head of the NP; and they are derivational nominalizing suffixes on verbs and other parts of speech. In the extended word and paradigm theory, the phonological form of a given Yagua noun classifier can be added to a word through either a lexical (derivational) rule or a phonological (inflectional) rule, depending upon the function which it serves in a particular case.

In one respect, however, the solution that Payne proposes for Yagua seems unsuited for Cherokee. In the case of Yagua, the difference between derivational and inflectional status of the classifiers corresponds to a basic grammatical difference between the uses to which the classifiers are put. In Cherokee, however, all the distributive prefixes are clearly examples of the same

prepronominal prefix: all the uses of the prefix are clearly related to one another; all the distributives, regardless of origin, are attached to verbs (which may be nominalized); and all of the distributives fall into the same position with respect to the other prepronominal prefixes.

A third possible solution to the problem of the status of the distributive prefix, and the one I adopt here, is to treat the prefix in all of its uses as inflectional. Martin (1986) argues that there is cross-linguistic evidence that rules of inflection must have access to information from semantic representations as well as to purely morphosyntactic and phonological information. Given a model of grammar that allows such interaction, we can perhaps avoid the necessity of having the distributive prefix introduced twice in the grammar if there is a semantic feature (or features) which could plausibly trigger the distributive prefix even when it is not required by the syntax (i.e., by the agreement features).<11>

Anderson (1982:587) defines inflectional morphology as the morphology which is relevant to syntax. Other morphology is derivational. An account such as Martin's appears to compromise this distinction between derivation and inflection, making some apparently inflectional processes subject to (non-syntactic) semantic selectional

restrictions. Given Anderson's definition of inflectional morphology and an understanding of the ways in which syntax may be seen as influencing morphology (see section 4.1), one can argue that some morphological processes are inflectional, but are not exclusively syntactically influenced; rather, they are influenced by systematic semantic features as well as features of the morphosyntactic representation. Thus, the discovery of semantic restrictions on inflectional morphology is not necessarily evidence that the morphology in question is derivational: the crucial question to ask is whether or not there is some syntactic correlate to suggest that the process is inflectional.

The use of the distributive in the agreement system of Cherokee is semantically compatible with other uses of the prefix, since all the uses of the prefix involve some conception of plurality and/or distribution of an action over several patients (or throughout a single patient which is conceived of as having several parts).

It is possible, then, to have an inflectional rule introduce the distributive prefix and to have that rule be sensitive not only to the features of the morphosyntactic representation which are required for agreement (to yield the forms in Table 15), but also to semantic selectional features which may be associated with lexical items (to yield other distributive forms as discussed in

section 4.2.2.1). Those semantic features are associated with the morphosyntactic representation in the lexically interpreted S-structures (see Figure 3). These semantic features would presumably be associated with nouns as well as with verbs, thus accounting for the use of the distributive on deverbal nominalizations even when they are not serving as predicates. I assume, then, that a feature [+ DIST] can be introduced into morphosyntactic representations in two ways: as a result of selectional restrictions and, to account for the use of the distributive in forms like those in Table 15, as a result of the rules which copy features from verb arguments to the morphosyntactic representation. In fact, the inflectional rule which is required to account for the distributive prefix as a marker of 3pl.an. objects also suffices to account for the distributive prefix as a marker of 3pl.inan. objects; the rule is given below as (48).

4.3 Morphological Rules for Pronominal Prefixes

4.3.1 Notes on the Rules and Representations

The morphosyntactic representations relevant to Cherokee verb agreement must contain information about the syntactic structure of the clause (specifically, how many arguments the verb has and what those arguments

are), and information about the person, number, and gender of the arguments.

Features of person, number, and gender are added to the morphosyntactic representation through a syntactic rule of agreement which copies the features from subjects and objects (as defined in Chapter Three).

4.3.1.1 Features and Conventions

Syntactic information is captured in the level-ordering of the morphosyntactic representation. The level-ordering results from the way in which features are copied to the morphosyntactic representation:

- (21) When a rule assigns features from a paradigmatic dimension D to a morphosyntactic representation R that already contains values from D, the result is that the previous values are made hierarchically subordinate to the new values. (Anderson 1986b:11)

Anderson's practice is first to copy features pertaining to the object, which appear on the inner level; features pertaining to the subject are copied later and appear on the outer level. In support of this procedure, Anderson (1977) observes that the objects of Potawatomi transitive verbs correspond to possessed nouns for purposes of inflection. Features of possessors are naturally copied onto (added to) the already existing features of the possessed noun; likewise, features of subjects are added to representations which already

include specification of features for objects. This order of copying proceeds from the argument most closely connected to the verb to more peripheral arguments, and it has somewhat less basis in Cherokee than in other "configurational" languages, which present evidence for a VP constituent in syntax.

Person, number and gender of referents are indexed with sets of features drawn from the list in (22).

- (22) Person: +, - 1
 +, - 2
- third person: -1, -2
 exclusive: +1, -2 (and -sg)
 inclusive: +1, +2 (hence -sg)
- Number: +, - sg
 +, - pl
- dual: -sg, -pl
 non-singular: -sg (for third person)
- Gender (for third person only):
 +, - an

If a feature is not mentioned in a rule, then the value of the feature is irrelevant to the application of the rule.

When subjects are unspecified, no features are copied, and a null level appears in the morphosyntactic representation. Unspecified objects do not appear in morphosyntactic representations: intransitive reflexive verb forms, derivationally related to transitive verbs, are used in clauses with unspecified objects.

In the morphological rules, the square brackets indicate levels of the morphosyntactic representation. For convenience, levels are labeled "S" and "O", for subject and object respectively. These labels are not actually part of the representations, in which grammatical relations are indicated purely by level ordering.

In referring to features of the morphosyntactic representation, certain conventions (suggested by Anderson, p.c.) are used. The notations are illustrated in (23), where 'a' and 'b' refer to specific features and 'x' is a variable.

- (23) a. Specific levels: [a [b]]
 (feature 'a' in outer level; feature 'b' in inner level)
 b. Outer level: [a (x)]
 (feature 'a' in outer--or only--level)
 c. Inner level: [a]
 (feature 'a' in inner--or only--level)
 d. Any level: a
 (feature 'a' at any level)

Nested square brackets are used in rules which refer to features at specific levels of representation, or which specify that certain levels must be present in the representation for the rule to apply (23a); parentheses inside square brackets are used to refer to features at an outer level of representation, which may be the only level of representation (23b); a single set of square brackets is used to refer to features at an inner level

of representation, which may be the only level of representation (23c); and the absence of any brackets shows that it is the presence of the feature, regardless of its location in the representation, which is relevant to the rule (23d). Only the conventions illustrated in (23a) and (23d) are used in this analysis of Cherokee.

In the rules below, /X/ stands for the verb stem; its phonological shape is irrelevant here.

4.3.1.2 Sample Rules: 1/2 and 2/1 Agreement

The following two sets of disjunctively ordered rules account for the cases in which one argument is first person or exclusive and the other is second person. Within each set, the rules presented earlier refer to more highly specified representations than rules presented later. The rules listed earlier preclude application of the later rules by the "Elsewhere Condition" (Kiparsky 1973).<12> Set (24) covers cases with first person or exclusive subjects and second person objects, and set (25) covers cases with second person subjects and first person or exclusive objects, as charted in Table 4 of Chapter Two. The two sets of rules apply to mutually exclusive sets of morphosyntactic representations. An asterisk before a prefix indicates that the rule not only adds the prefix, but that the prefix requires the ?-grade of stems which have both ?-

and h-grades.<13> It is the prefix (or the morpho-syntactic representation, which determines the prefix) and not the identity of subject and object which triggers the choice of ?- or h-grade stem. Both (14a) and (14b), above, have 1sg. subjects and 3pl.inan. objects, but only (14a), with the prefix k- takes the ?-grade stem. (14b), with the prefix akw-, takes the h-grade stem. The actual form of the pronominal prefix in any word is determined by the phonological rules discussed in Chapter Two. The symbol "~" in (25a) indicates that the choice of prefix is determined by phonological factors (ski- appears before consonants and empty V slots; skw- appears before vowels).

(24) 1/2 Agreement

- a.
$$\begin{array}{c} \left[\begin{array}{c} +1 \\ +sg \\ S \end{array} \right] \quad \left[\begin{array}{c} +2 \\ +sg \\ O \end{array} \right] \\ /X/ \quad \quad \quad \rightarrow \quad /*\underline{kv:y} + X/ \end{array}$$
- b.
$$\begin{array}{c} \left[\begin{array}{c} +1 \\ -pl \\ S \end{array} \right] \quad \left[\begin{array}{c} +2 \\ -pl \\ O \end{array} \right] \\ /X/ \quad \quad \quad \rightarrow \quad /*\underline{stv:y} + X/ \end{array}$$
- c.
$$\begin{array}{c} \left[\begin{array}{c} +1 \\ S \end{array} \right] \quad \left[\begin{array}{c} +2 \\ O \end{array} \right] \\ /X/ \quad \quad \quad \rightarrow \quad /*\underline{i:cv:y} + X/ \end{array}$$

(25) 2/1 Agreement

$$\text{a. } \left[\begin{array}{c} +2 \\ +\text{sg} \\ \text{S} \end{array} \quad \left[\begin{array}{c} +1 \\ +\text{sg} \end{array} \right] \right]$$

/X/ --> /ski ~ skw + X/

$$\text{b. } \left[\begin{array}{c} +2 \\ -\text{pl} \\ \text{S} \end{array} \quad \left[\begin{array}{c} +1 \\ -\text{pl} \end{array} \right] \right]$$

/X/ --> /*skini: + X/

$$\text{c. } \left[\begin{array}{c} +2 \\ \text{S} \end{array} \quad \left[\begin{array}{c} +1 \\ \text{O} \end{array} \right] \right]$$

/X/ --> /*(i:)ski:y + X/

4.3.1.3 Representations Corresponding to A and B Prefixes

In analyzing the other pronominal prefixes it is necessary to confront the uses of certain prefixes in indexing the arguments of both transitive and intransitive verbs. The A prefixes are used on intransitive verbs; the A prefixes, and prefixes related to them, are also used widely on transitive verbs with third person objects. A-marked intransitive verbs will be lexically specified as having a morphosyntactic representation which contains a dummy 3inan. object, as in (26).

$$(26) \left[\begin{array}{c} \left[\begin{array}{c} -1 \\ -2 \\ -\text{an} \end{array} \right] \\ \text{O} \end{array} \right]$$

S

When the agreement rule copies features from the verb's subject to the morphosyntactic representation, those features will appear on an outer layer, although there is no actual verbal argument to provide the inner, object layer. This approach, involving lexically specified representations for purposes of inflection which may differ from representations for subcategorization and which may contain dummies, follows Anderson's (1984a) analysis of Georgian verb inflection.

The dummy differs from a true third person object in that the dummy is not specified for number. This difference is important, because the inflection of verbs with unspecified subjects and dummy objects differs from the inflection of verbs with unspecified subjects and third person objects. Verbs with unspecified subjects and dummy objects always take A prefixes, regardless of aspect stem. Verbs with unspecified subjects and third person objects take the unspc./3sg. prefix aci- ~ ak- or the unspc./3pl. prefix ke:ci- ~ ke:k-.

A B-marked intransitive verb has a morphosyntactic representation with only one level. Features from the verb's subject are copied to the morphosyntactic representation, which has only one level since there is no other verbal argument. A B-intransitive with an unspecified subject is associated with the morpho-

syntactic representation [0] and is assigned the prefix o:- by rule (74).

A morphosyntactic representation like the one in (27a) is associated with the 1sg.A prefix ci-/k-. A morphosyntactic representation like the one in (27b) is associated with the 1sg.B prefix aki-/akw-.

$$(27) \text{ a. } \left[\begin{array}{c} +1 \\ +sg \end{array} \right]_S \left[\begin{array}{c} -1 \\ -2 \\ -an \end{array} \right]_0$$

$$\text{b. } \left[\begin{array}{c} +1 \\ +sg \end{array} \right]$$

A morphosyntactic representation like the one in (28) is derived by feature copying from a clause with a third person subject and a 1sg. object. The rule which produces the prefix aki-/akw- attaches that prefix to (28) as well as (27b); but in fact, there is a rule (rule (35), discussed below) which transforms the representation from (28) into the representation from (27b).

$$(28) \left[\begin{array}{c} -1 \\ -2 \end{array} \right]_S \left[\begin{array}{c} +1 \\ +sg \end{array} \right]_0$$

The prefix aki-/akw- is part of the unspec./1sg. prefix v:ki-/v:kw-, and will be associated with representations like the one in (29) as well as the one

in (27b): the rule attaching the prefix aki-/akw- is specified as referring to features at any level of the representation, and is prevented from applying to representations like the one in (27a) by virtue of the rule's being more general in statement than the rule applying the A prefix: as a result, the B prefix rule follows the A prefix rule and does not apply to forms to which the A prefix rule has applied. (The 1sg.B rule is given as (64) below.)

$$(29) \quad \left[\begin{array}{c} \emptyset \\ S \end{array} \quad \begin{array}{c} 0 \\ \left[\begin{array}{c} +1 \\ +sg \end{array} \right] \end{array} \right]$$

Those intransitive verbs which can take A prefixes (A verbs) in fact take those A prefixes only in certain aspect stems, specifically the present, imperfective, punctual, and future.<14> To a large extent, the phonological form of the aspect stems for a given verb are unpredictable and must be listed as part of the verb's lexical entry. The morphosyntactic frame with which the stem is associated must be given along with the phonological form of the stem.

4.3.1.4 Active and Inverse Clauses

Clauses with two third person arguments appear with active or inverse prefixes, depending upon factors outlined in Chapter Three. Some inverse clauses take

plain B prefixes: specifically, inverse clauses with morphosyntactic representations containing the person and number features shown in (30a) and (30b) will be associated with the prefixes u:- (3sg.B) and u:ni:- (3pl.B), respectively.

$$(30) \text{ a. } \left[\begin{array}{c} -1 \\ -2 \\ +\text{sg} \end{array} \right] \quad \left[\begin{array}{c} -1 \\ -2 \\ +\text{sg} \end{array} \right]$$

S 0

$$\text{b. } \left[\begin{array}{c} -1 \\ -2 \\ +\text{sg} \end{array} \right] \quad \left[\begin{array}{c} -1 \\ -2 \\ -\text{sg} \end{array} \right]$$

S 0

Since u:- and u:ni:- are B prefixes, according to the discussion above, they will be associated with the morphosyntactic representations in (31a) and (31b) respectively:

$$(31) \text{ a. } \left[\begin{array}{c} -1 \\ -2 \\ +\text{sg} \end{array} \right]$$

$$\text{b. } \left[\begin{array}{c} -1 \\ -2 \\ -\text{sg} \end{array} \right]$$

The problem is to prevent the representations in (30) from being associated with the prefix a-/ka-, which would be associated with active clauses which have the representations given in (30a) and (30b), which show 3sg.

subjects and third person objects. This can be accomplished with a rule which obliterates the external level of structure for inverse clauses, in effect eliminating the possibility of indexing the subject on the verb of an inverse clause. (To look at this another way, I treat these clauses as inflectionally intransitive, with the transitive object marked like an intransitive subject: this is therefore an ergative pattern. Accusative and ergative aspects of Cherokee grammar are examined in Chapter Six.)

Other inverse clauses with third person subjects and objects, containing the person and number features shown in (32a) and (32b), will be associated with prefixes derived from ka- plus the B prefixes.

$$(32) \text{ a. } \begin{array}{cc} \left[\begin{array}{c} -1 \\ -2 \\ -\text{sg} \end{array} \right] & \left[\begin{array}{c} -1 \\ -2 \\ +\text{sg} \end{array} \right] \\ \text{S} & \text{O} \end{array}$$

$$\text{b. } \begin{array}{cc} \left[\begin{array}{c} -1 \\ -2 \\ -\text{sg} \end{array} \right] & \left[\begin{array}{c} -1 \\ -2 \\ -\text{sg} \end{array} \right] \\ \text{S} & \text{O} \end{array}$$

The representation in (32a) must be associated with the prefix kv:wa-, and the representation in (32b) must be associated with the prefix kv:wani:-. These can be derived from k- + a- + u:- and k- + a- + u:ni:-,

respectively. The negative prepronominal prefix ka- when added to u:- and u:ni:- shows the same phonological development as k + a added to u:- and u:ni-. (The prefix vowel deletion rule does not apply here.)<15>

A rule (41) suffixes the element k- to the end of the prepronominal prefix cluster if the conditions for an inverse clause are met and if the subject of the clause is plural. A later rule (43) suffixes the element a- to the prepronominal prefix cluster if the object of an inverse clause is 1sg. or third person. Then, the external level of the morphosyntactic representation is eliminated, and the prefixes u:- and u:ni:- are assigned as appropriate. Subsequent rules, which produce the surface forms kv:wa- and kv:wani:-, apply when the prepronominal complex is attached to the head of the verb.

As discussed in Chapter Three, in clauses with two 3an. arguments, active prefixes appear when the subject is proximate and the object is obviative. The inverse prefixes appear when the subject is obviative and the object is proximate. A clause with two 3inan. arguments takes active prefixes, as does a clause with a 3an. (or 3hum.) subject and a 3inan. object. A clause with a 3inan. subject and a 3an. (or 3hum.) object takes inverse prefixes.

If the categories "proximate" and "obviative" are applied only to third person animate referents for the purposes of inflectional rules, then we can construct an inflectional hierarchy as shown in (33).<16>

(33) Hierarchy of NP's for Inflectional Rules

1,2 > proximate > obviative > inanimate

A rule is required to suffix k- to the prepronominal prefix cluster when the object outranks the subject on the hierarchy given in (33) and when the subject is plural. Such a rule is given in (34), where "PRE" stands for the prepronominal prefix cluster. Given the hierarchy, it is unnecessary to specify features of person for the subject in rule (34).

(34) [-sg [y]]
 S O

/X/ --> /PRE + k + X/

Condition: O outranks S on the hierarchy below:
 1,2 > proximate > obviative > inanimate

A later rule is needed to suffix an a- to the PRE-k- element created by rule (34). This element a- appears not only in the inverse prefixes kv:wa- and kv:wani:-, but also as part of the 3pl./1sg. prefix kv:ki- ~ kv:kw- and as part of the unspec./1sg. prefix v:ki- ~ v:kw-. (A final /a/ in the prepronominal prefix cluster plus an initial /a/ in the pronominal prefix is regularly

realized as /v:/.) The rule inserting /a/ is not formulated here, because discussion of that rule requires discussion of other rules not directly relevant to the issue of active and inverse prefixes: the rule is given below as (44).

After k- and a- have been added to the prepronominal prefix cluster, a rule is needed to eliminate the external level of representation when the object outranks the subject on the hierarchy of (33). Such a rule is given as (35). Rule (34) and the rule which inserts a- must both precede rule (35), or else the ka- portion of the prefixes would never appear.

(35) [x [y]] [y]
 S O
 /X/ --> /X/

Condition: O outranks S on the hierarchy below:
 1,2 > proximate > obviative > inanimate

As presented above, rule (35) applies to all morphosyntactic representations in which the object outranks the subject, although the rule could have been written to apply only to morphosyntactic representations with third person subjects and third person objects. (There is no active/inverse contrast with other subject and object combinations, so there is no need to ensure that other morphosyntactic representations are changed.)

The rule is written in its most general form, and is subject to the same condition as rule (34).

4.3.1.5 Lexically and Aspectually Governed Prefix Use

I turn now to the use of A and B prefixes in other transitive clauses. The normal rules of feature copying give a representation like the one in (36) for a clause with a 1sg. subject and a 3inan. object. ((36) is (27a) repeated.)

$$(36) \quad \begin{array}{c} \left[\begin{array}{c} +1 \\ +sg \end{array} \right] \\ S \end{array} \quad \begin{array}{c} \left[\begin{array}{c} -1 \\ -2 \\ -an \end{array} \right] \\ O \end{array}$$

A clause with a third person subject and a 1sg. object corresponds to a morphosyntactic representation like the one in (37a), which is identical to (28). Rule (35) changes the representation from (37a) into the representation in (37b):

$$(37) \quad \begin{array}{c} \text{a.} \\ \left[\begin{array}{c} -1 \\ -2 \end{array} \right] \\ S \end{array} \quad \begin{array}{c} \left[\begin{array}{c} +1 \\ +sg \end{array} \right] \\ O \end{array}$$

$$\text{b.} \quad \left[\begin{array}{c} +1 \\ +sg \end{array} \right]$$

The morphosyntactic representation in (36) calls for the (A) prefix ci-/k- and the representation in (37b) calls for the (B) prefix aki-/akw-. In certain aspect stems, however, the B prefixes must be used on all

clauses with 3inan. objects. In those aspect stems, morphosyntactic representations like the one in (36) will not do; if the proper prefix (a B prefix) is to be assigned, we need instead to have something like the representations in (37b) or (29), which both have the features from the subject level of (36) on their inner (or only) level. (The rules assigning B prefixes look at any level of the morphosyntactic representation, but in fact, due to the organization of morphological rules, the B prefix rules are sensitive to features at the inner level of the representation, or at the only level if there is only one.)

This change in morphosyntactic representation is effected as follows: like intransitive verbs, transitive verbs are listed in the lexicon with their various aspect stems, and the aspect stem of the verb will be carried in the morphosyntactic representation. Perfective, infinitive, pre-inceptive, and propensitative transitive stems are lexically marked as [+B]. All [+B] clauses with 3inan. objects and all active clauses with third person subjects and third person objects, have the inner level of the morphosyntactic representation obliterated (by rule (38)).<17> The rule is automatically prevented from applying to inverse clauses, because the features specified in its structural description are a proper subset of the features specified in the various rules

affecting inverse clauses, and therefore rule (38) follows rule (35). (The rule eliminating the internal level of the representation for clauses with two third person arguments is sensitive only to features of person, whereas the rule eliminating the external level of the representation for clauses with two third person arguments is sensitive to features of person, animacy, and to features indicating whether animate referents are proximate or obviative.)

The rule eliminating inner levels of representation in the presence of the feature [+B] is giving in (38). The rule has two parts, and it affects morphosyntactic representations: (a) with subjects specified for either first or second person and with [-an] objects; and (b) with third person subjects and objects.

$$(38) \text{ a. } \left[\begin{array}{c} \left[\begin{array}{c} \left\{ \begin{array}{c} +1 \\ +2 \end{array} \right\} \\ x \end{array} \right] \left[\begin{array}{c} -an \end{array} \right] \\ S \quad O \\ +B \\ /X/ \end{array} \right] \rightarrow \left[\begin{array}{c} \left\{ \begin{array}{c} +1 \\ +2 \end{array} \right\} \\ x \\ /X/ \end{array} \right]$$

$$\text{b. } \left[\begin{array}{c} \left[\begin{array}{c} -1 \\ -2 \end{array} \right] \\ x \\ S \\ +B \\ /X/ \end{array} \right] \left[\begin{array}{c} \left[\begin{array}{c} -1 \\ -2 \end{array} \right] \\ 0 \end{array} \right] \cdot \longrightarrow \left[\begin{array}{c} -1 \\ -2 \\ x \end{array} \right] /X/$$

Rule (38) does not affect the morphosyntactic representation of a verb with an unspecified subject (i.e., with no features on the subject level) and a dummy object; this is as it should be, since A intransitives with unspecified subjects do not take B prefixes, regardless of aspect stem. The rule which attaches the 3sg.A prefix applies not only to morphosyntactic representations with 3sg. subjects and third person objects, but also to morphosyntactic representations with unspecified subjects and dummy objects (which differ from genuine third person objects in that the dummies are not specified for number).

There are, then, two rules which eliminate levels of the morphosyntactic representations: one rule deletes the external layer of inverse clauses, and the other deletes the internal layer, in certain aspect stems, of all clauses with 3inan. objects and all active clauses with third person subjects and objects. These rules result in morphosyntactic representations which are associated with rules attaching B prefixes to verbs.

The rules eliminating features from morphosyntactic representations are interesting from a theoretical perspective, since analyses within the extended word and paradigm theory have focused primarily on rules which add features to representations.

An inflectional rule, given below as (48), ensures that the distributive prefix appears where it is required to mark a plural object. The distributive rule must be ordered before rule (38), in order for the distributive to appear as a marker of plural objects on active verbs even when the set B pronominal prefixes are used.

A change in morphosyntactic representations that is similar to, but more wide-ranging than, the change required in B stems is needed in analyzing the transitive B verbs described in Chapter Two. B verbs, regardless of aspect stem, are lexically specified for the feature [+B], which triggers the morphological rule eliminating the internal layer of representation (rule (38)). B-A verbs each have two lexical entries: one for verbs with animate objects, which has no unusual stipulations (it has only the usual one concerning the perfective, infinitive, pre-inceptive, and propensitative stems); and one for verbs with inanimate objects, which has the feature [+B].

The lexical feature [+B] is an unattractive feature of the analysis; furthermore, it seems that an important

generalization is being missed: that is, both B verbs and inverse verbs are being treated as intransitive verbs are treated. One way to overcome these difficulties might be to have specialized single-level morphological representations given in the lexicon, just as specialized representations are given for A intransitives. A problem for such an approach is that B verbs with third person subjects and 3pl.an. (or 3pl.inan.) objects must be subject to the inflectional rule which adds the distributive, and if the morphosyntactic representations of such verbs lacked an object level, that inflectional rule would not apply since its structural description could not be met. Another approach might be to treat the B intransitives as morphological transitives, with a dummy subject level specified in their lexical representations. The problem with that approach is that if the "object" were 3an.pl., then the distributive prefix would be applied by the inflectional rule that marks plurality. Then, any intransitive B verb with a 3pl. subject should have a distributive prefix; this is not the case, as (39), from Pulte and Feeling (1975:354), shows:

- (39) wu:ni:luhca
 /w-u:ni:-luhca/
 TRANS-3pl.B-arrive=PERF=INDIC
 'when they arrived (there)'

The translocative prepronominal prefix in (39) contributes the meaning 'there'.

4.3.1.6 The Inflection of Reflexive Verbs

A and B prefixes are used on reflexive verbs, which are intransitive verbs derived from transitives with the prefix ata:t-. As evidence that they are intransitive verbs, consider that they cannot appear with object NP's, and that they do not show the active/inverse prefix alternation in questions or, indeed, anywhere else. When the subject of a transitive verb with two third person arguments is questioned, the verb appears with an inverse pronominal prefix. When the subject of a reflexive is questioned, no inverse prefix occurs, as in (40a); compare (40b), questioning the subject of a regular intransitive verb; and (40c) questioning the subject of a transitive verb.

- (40) a. Ká:kw ǎ:tà:tṽ:hniha?
 /a-ata:t-v:hniha/
 who 3sg.A-RF-hit=PRES
 'Who's hitting (himself)?'
- b. Ká:kw ǎ:yo:hù:ska?
 /a-yo:hu:ska/
 who 3sg.A-die=PRES
 'Who's dying?'
- c. Ká:kw ù:wà:hniha Cǎ:ni?
 /u:-v:hniha/
 who 3sg.B-hit=PRES John
 'Who's hitting John?'

The object of the reflexive verb is unspecified, and is understood in accordance with rules of interpretation which are sensitive to context. The reflexive is derived from whatever stem is used for verbs with animate objects. The reflexive of an A verb, like other A-intransitives, is treated as a transitive with a 3inan. object, even though the object of the reflexive is interpreted as animate; the reflexive of a B verb needs no special specification, since it is simply treated as an intransitive verb. B-A verbs have two reflexive forms: one, which acts like a B verb, for subjects which contain first or second person features, and another, which acts like an A verb, for third person subjects. This is somewhat surprising, in view of the fact that other reflexives are treated morphologically as though they had inanimate objects.

4.3.2 A Set of Morphological Rules

In this section I give, in order, the morphological rules which account for the appearance of the pronominal prefixes.

By the time that these inflectional rules apply, selectional rules have operated to ensure that a clause with three arguments and a plural patient shows the distributive prefix: a feature [+DIST] is added to the morphosyntactic representation and, after the pronominal

prefixes are attached, the distributive prepronominal prefix is attached. Selectional rules also require the distributive prefix to appear under some other conditions. In addition, the morphosyntactic representations of clauses with animate third person subjects and objects will have had the feature [+Proximate] assigned to one argument on the basis of semantic, syntactic, and pragmatic criteria discussed in Chapter Three. Any 3an. argument which is not [+Proximate] is [-Proximate], or obviative.

The morphological rules fall into three subsets: one which suffixes elements to the prepronominal cluster, one which modifies morphosyntactic representations, and one which attaches pronominal prefixes to verb stems.

The rules which suffix elements to the prepronominal cluster (rules (41-46)) apply conjunctively. Rule (41), which assigns k-, must be specified as applying before rules (42) and (43), which assign vowels, in order for the proper sequences of formatives, kV-, to be produced.

The rules which modify morphosyntactic representations (47-49) must follow the prepronominal rules, since the rule eliminating the outer level of representation for inverse verbs (rule (47), which is the same as rule (35)) must follow rules (41-43). Rule (49), which is the same as rule (38), affects the morphosyntactic representations of B stem verbs, and

rules (47) and (49) apply disjunctively as discussed above. Rule (48), which assigns the distributive prefix, applies after rule (47) and before rule (49), and applies conjunctively with those rules.

The structural description of rule (48), which assigns the distributive prefix, is a proper subset of the structural description of rule (45), which assigns the element ka- to verbs with 1sg. or 2sg. subjects and 3pl.an. objects. The application of rule (45) must preclude the application of rule (48).

The rules which prefix elements to the verb stem are conjunctively ordered with respect to the other two sets of rules, but there are disjunctive relationships among the rules in this set.

4.3.2.1 Rules Suffixing Elements to the Prepronominal Cluster

Rule (41) is the same as rule (34)--this rule suffixes the element k- to the prepronominal prefix cluster when the subject is plural and when the object outranks the subject on the hierarchy discussed above. This rule accounts for the k- formative on inverse verbs with plural subjects (see the second-to-last row of Table 4 in Chapter Two).

(41) [-sg [Y]]
 S O

/X/ --> /PRE + k + X/

Condition: O outranks S on the hierarchy below:
 1,2 > proximate > obviative > inanimate

Rules (42) and (43) account for the vowels which appear between the k- element introduced by rule (41) and the B prefixes on inverse verbs. These same vowels appear before B prefixes in transitive clauses with unspecified subjects. The vowel e:, introduced by rule (42), appears in prefixes marking a second person or inclusive object with a 3pl. or unspecified subject; the vowel a, introduced by rule (43), appears in prefixes marking a first or third person object with a 3pl. or unspecified object. Rule (43) will not, infact, assign the vowel a to the unspec./3 forms, which are accounted for in rules (52) and (53) below. (These prefixes are somewhat irregular in the context of the system as a whole, and are treated as unanalyzed units.)

(42) [{ ∅ } [+2]]
 S [-1, -2, -sg] O

/X/ --> /PRE + e: + X/

$$(43) \text{ a. } \left[\begin{array}{c} \emptyset \\ S \end{array} \left\{ \begin{array}{c} -1, -2, -sg \end{array} \right\} \right] \left[\begin{array}{c} +1 \\ +sg \\ 0 \end{array} \right] \\ \text{ /X/ } \quad \text{ --> } \quad \text{ /PRE + } \underline{\text{a}} \text{ + X/}$$

$$\text{ b. } \left[\begin{array}{c} -1 \\ -2 \\ -sg \\ S \end{array} \right] \left[\begin{array}{c} -1 \\ -2 \\ 0 \end{array} \right] \\ \text{ /X/ } \quad \text{ --> } \quad \text{ /PRE + } \underline{\text{a}} \text{ + X/}$$

Condition: 0 outranks S on the hierarchy below:
 1,2 > proximate > obviative > inanimate

Rule (43) is written to prevent the assignment of a to verbs with exclusive objects. This is because, in general, a prenominal prefix ending in a is followed by an epenthetic y before o, and that y does not appear in the 3pl./1+3 or unspc./1+3 prefixes.

Rule (44) accounts for the fact that verbs with unspecified subjects and objects which include the features [+2] and [-sg] (i.e., 2nonsg. and inclusive objects) must appear in the ?-grade of the stem.

$$(44) \left[\begin{array}{c} \emptyset \\ S \end{array} \right] \left[\begin{array}{c} +2 \\ -sg \\ 0 \end{array} \right] \\ \text{ /X/ } \quad \text{ --> } \quad \text{ /*X/}$$

Rule (44) does not in fact suffix an element to the prenominal cluster; it is listed in this section because of its association with rule (42) and the

similarity of rules (42) and (44). Rule (42) is a collapsing of two rules, one of which has a structural description which specifies a null subject level and an object level with the feature [+2]. That is in fact a proper subset of the structural description of rule (44), which suggests that rule (44) should in fact be ordered before rule (42) and that its application should preclude the application of rule (42), but such must not be the case: the rules apply conjunctively.

A rule is required to introduce the element ka-, which is part of the 1sg./3an.pl. and 2sg./3an.pl. prefixes. Rule (45) suffixes ka- to the prepronominal prefix cluster, just as rules (41-43) suffix elements to the prepronominal cluster.

$$(45) \left[\begin{array}{c} \left\{ \begin{array}{c} +1 \\ +2 \end{array} \right\} \\ +sg \\ S \end{array} \right] \left[\begin{array}{c} -1 \\ -2 \\ +an \\ -sg \\ 0 \end{array} \right] \rightarrow /X/ \quad \rightarrow \quad /PRE + \underline{ka} + X/$$

This rule is optional when the outer layer contains the features [+2, +sg.].

Rule (45) is optional for 2sg. subjects, because there are two 2sg./3an.pl. prefixes, kahi:y- and DIST + hi-. Rule (45) is disjunctively ordered with respect to the distributive rule (48), which has a structural description which is a proper subset of the structural

description of (45). If rule (45) does not apply to a form, and the subject is 2sg., then rule (48) applies.

Rule (46) specifies that verbs with first or second person nonsingular subjects and 3sg.an. objects must appear with an element e:, which is suffixed to the prepronominal element; also, those verbs appear in the ?-grade of the stem, as indicated by the asterisk.

$$(46) \quad \left[\begin{array}{c} \left\{ \begin{array}{l} +1 \\ +2 \end{array} \right\} \\ -sg \\ S \end{array} \right] \left[\begin{array}{c} -1 \\ -2 \\ +an \\ +sg \\ 0 \end{array} \right] \rightarrow /X/ \quad \rightarrow \quad /PRE + \underline{e:} + *X/$$

The e: in rule (46) is added to the prepronominal element because, like the e: in the prepronominal distributive prefix te:-, the e: introduced by rule (46) combines with -i: to yield e:. (This is counter to the normal rule of prefix vowel elation, which applies in other cases.) The fact that e: does not appear in the prefixes marking exclusive subjects with 3sg.an. objects is accounted for by prefix vowel deletion. It is worth noting that the effect of rule (46) is similar to the effect of rules (42) and (44).

4.3.2.2 Rules Modifying Morphosyntactic Representations

Rule (35), repeated here as (47), destroys the outer (subject) level of the morphosyntactic representation for

inverse clauses. This rule must apply before the distributive rule (48), which would otherwise place a distributive on an inverse verb with a 3sg. subject and a 3pl. object. Once the outer level of representation is destroyed, there is no distinction between inverse verbs and ordinary B intransitives; therefore, inverse clauses with 3sg. subjects and 3sg. objects are prefixed with u:-, just as B intransitives with 3sg. arguments are prefixed with u:-.

(47) [x [y]] [y]
 S O
 /X/ --> /X/

Condition: O outranks S on the hierarchy below:
 1,2 > proximate > obviative > inanimate

A rule is required to place the distributive prefix on verbs with inclusive, exclusive, 2non-sg., or proximate third person subjects and 3pl. objects. The rule given in (48) associates the feature [+DIST] with the appropriate morphosyntactic representations. The actual attachment of the prefix with reference to the prepronominal template is not discussed here. In order to account for uses of the distributive prefix other than its use in indexing arguments (see section 4.2.2), the feature [+DIST] must also be associated with some morphosyntactic representations by virtue of certain semantic features.

(48)

$$\left[\begin{array}{c} \left[\begin{array}{c} -1 \\ -2 \\ -sg \end{array} \right] \\ S \end{array} \right] \left[\begin{array}{c} 0 \\ \left[\begin{array}{c} -1 \\ -2 \\ -sg \end{array} \right] \end{array} \right] \left[\begin{array}{c} \left[\begin{array}{c} -1 \\ -2 \\ -sg \end{array} \right] \\ S \\ + \text{DIST} \\ 0 \end{array} \right] \left[\begin{array}{c} \left[\begin{array}{c} -1 \\ -2 \\ -sg \end{array} \right] \\ \left[\begin{array}{c} -1 \\ -2 \\ -sg \end{array} \right] \end{array} \right]$$

/X/ --> /X/

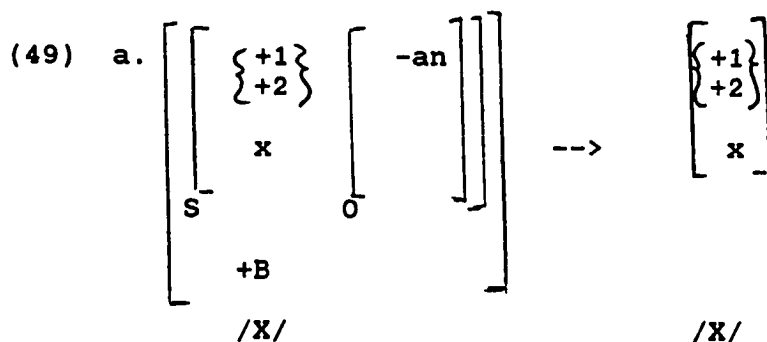
CONDITION: [] is non-null
 S

Rule (48) states that if a morphosyntactic representation has a subject level and an object level, and if the object level has the feature specifications for 3nonsg., then the feature [+ DIST] is added to the representation, and therefore the distributive prefix will be added to the verb. The rule makes no mention of animacy of the object, and as a result it accounts for inanimate as well as animate objects.

No distributive prefix is added if there is no outer level of feature specification. Thus, inverse clauses, which have been affected by rule (47) are affected by (48). Rule (48) is specified not to apply if the subject level is empty. The subject level would be null, or empty, if the verb had an unspecified subject: a present-but-empty subject level must be distinguished from a non-existent subject level in order for unspecified subject prefixes to be distinguished from ordinary B prefixes. B intransitives and unspecified

subject clauses are alike, however, in that a B intransitive does not necessarily take the distributive prefix when its argument is 3pl., and an unspecified subject clause also does not necessarily take the distributive when its object is 3pl.

Rule (49), which is the same as rule (38), is required to eliminate the inner, object level of representation on transitive verbs which are specified with the lexical feature [+B]. These verbs then have a one-level morphosyntactic representation, and, like ordinary B intransitives and inverse clauses, they take B prefixes. Rule (49) is similar to rule (47) inasmuch as both serve to reduce the amount of information in morphosyntactic representations. Rule (49) must follow rule (48) in order for plurality of a third person object to be marked with the distributive (before the object level is destroyed). Rule (49) affects morphosyntactic representations: (a) with subjects specified for either first or second person and with [-an] objects; and (b) with third person subjects and objects.



$$\text{b. } \left[\begin{array}{c} \left[\begin{array}{c} -1 \\ -2 \end{array} \right] \\ \text{S} \\ +\text{B} \\ /X/ \end{array} \right] \left[\begin{array}{c} \left[\begin{array}{c} -1 \\ -2 \end{array} \right] \\ 0 \end{array} \right] \rightarrow \left[\begin{array}{c} -1 \\ -2 \\ \text{x} \end{array} \right] /X/$$

4.3.2.3 Rules Assigning Pronominal Prefixes

I repeat the rules from (24) as (50) and the rules from (25) as (51).

(50) 1/2 Agreement

$$\text{a. } \left[\begin{array}{c} +1 \\ +\text{sg} \\ \text{S} \end{array} \right] \left[\begin{array}{c} +2 \\ +\text{sg} \\ 0 \end{array} \right] /X/ \rightarrow /*\underline{\text{kv}}:\text{y} + X/$$

$$\text{b. } \left[\begin{array}{c} +1 \\ -\text{pl} \\ \text{S} \end{array} \right] \left[\begin{array}{c} +2 \\ -\text{pl} \\ 0 \end{array} \right] /X/ \rightarrow /*\underline{\text{stv}}:\text{y} + X/$$

$$\text{c. } \left[\begin{array}{c} +1 \\ \text{S} \end{array} \right] \left[\begin{array}{c} +2 \\ 0 \end{array} \right] /X/ \rightarrow /*\underline{\text{i}}:\text{cv}:\text{y} + X/$$

(51) 2/1 Agreement

$$\text{a. } \left[\begin{array}{c} +2 \\ +\text{sg} \\ \text{S} \end{array} \right] \left[\begin{array}{c} +1 \\ +\text{sg} \\ 0 \end{array} \right] /X/ \rightarrow /*\underline{\text{ski}} \sim \underline{\text{skw}} + X/$$

b.
$$\left[\begin{array}{c} +2 \\ -p1 \\ S \end{array} \quad \left[\begin{array}{c} +1 \\ -p1 \end{array} \right] \right]$$

 /X/ --> /*skini: + X/

c.
$$\left[\begin{array}{c} +2 \\ S \end{array} \quad \left[\begin{array}{c} +1 \\ 0 \end{array} \right] \right]$$

 /X/ --> /*(i:)ski:y + X/

Two rules are required to assign the proper prefixes to verbs with unspecified subjects and third person objects. These prefixes are the unspec./3sg. forms aci- ~ ak- and the unspec./3pl. forms ke:ci- ~ ke:k-. The unspec./3 prefixes are irregular with respect to the prefix system as a whole, since all other unspecified subject prefixes which are used on transitive verbs are clearly built on B prefixes, and other prefixes marking third person objects are clearly built on A prefixes. Rules (52) and (53) assign these two anomalous unspecified subject prefixes. Both rules refer specifically to the number of the object: that prevents these prefixes from appearing on verbs with unspecified subjects and dummy objects (dummies are specified as 3inan. but are not specified for number). The 3sg.A prefix is assigned to morphosyntactic representations with empty subject levels and 3inan. objects.

$$(52) \begin{bmatrix} \emptyset \\ S \end{bmatrix} \begin{bmatrix} -1 \\ -2 \\ +sg \end{bmatrix} \begin{matrix} 0 \\ \end{matrix} \quad /X/ \quad \rightarrow \quad /*\underline{aci} \sim *\underline{ak} + X/$$

$$(53) \begin{bmatrix} \emptyset \\ S \end{bmatrix} \begin{bmatrix} -1 \\ -2 \\ -sg \end{bmatrix} \begin{matrix} 0 \\ \end{matrix} \quad /X/ \quad \rightarrow \quad /*\underline{ke:ci} \sim *\underline{ke:k} + X/$$

The rules below account for the prefixes used on verbs with first or second person subjects and third person objects in the morphosyntactic representation. Rules (54) and (55) place the prefixes ci:y- and hi:y- on verbs with 1sg. or 2sg. subjects, respectively, and 3an. objects.

$$(54) \begin{bmatrix} +1 \\ +sg \\ S \end{bmatrix} \begin{bmatrix} -1 \\ -2 \\ +an \end{bmatrix} \begin{matrix} 0 \\ \end{matrix} \quad /X/ \quad \rightarrow \quad /*\underline{ci:y} + X/$$

$$(55) \begin{bmatrix} +2 \\ +sg \\ S \end{bmatrix} \begin{bmatrix} -1 \\ -2 \\ +an \\ \langle +pl \rangle \end{bmatrix} \begin{matrix} 0 \\ \end{matrix} \quad /<PRE + \underline{ka}> + X/ \quad \rightarrow \quad /<PRE + \underline{ka}> + *\underline{hi:y} + X/$$

Rule (55) must be written to ensure that if the object is plural, the rule applies if and only if ka is suffixed to the prepronominal element. That provision is indicated by the angled brackets. If the object is plural and ka does not appear on the prepronominal element, the prefix hi- will be attached by rule (57), which is disjunctively ordered with respect to (55), since the structural description of (57) is a proper subset of the structural description of (55).

Rules (56) through (63) assign the A prefixes to the appropriate verbs. Rules (56) and (57) attach the A prefixes to any form with a 1sg. or 2sg. subject, respectively, if no other prefix has been added. These rules, with their very general structural descriptions, are disjunctively ordered with respect to other rules affecting morphosyntactic representations with 1sg. or 2sg. subjects and third person objects.

$$(56) \left[\begin{array}{c} +1 \\ +sg \end{array} \right] \left[\begin{array}{c} -1 \\ -2 \end{array} \right] \\ S \quad 0$$

/X/ --> /*ci ~ *k + X/

$$(57) \left[\begin{array}{c} +2 \\ +sg \end{array} \right] \left[\begin{array}{c} -1 \\ -2 \end{array} \right] \\ S \quad 0$$

/X/ --> /hi + X/

Rules (58) and (59) add A prefixes to verbs whose morphosyntactic representations index exclusive subjects and third person objects. (Rule (46) will have modified the stems if the object is 3sg.an.) Rule (59) must apply after rule (58), since (59) has the more general structural description.

$$(58) \left[\begin{array}{c} +1 \\ -2 \\ -sg \\ -pl \end{array} \right] \left[\begin{array}{c} -1 \\ -2 \end{array} \right] \left[\begin{array}{c} S \\ O \end{array} \right] \rightarrow /o:sti: + X/$$

$$(59) \left[\begin{array}{c} +1 \\ -2 \end{array} \right] \left[\begin{array}{c} -1 \\ -2 \end{array} \right] \left[\begin{array}{c} S \\ O \end{array} \right] \rightarrow /o:ci: + X/$$

Rules (60) and (61) add A prefixes to verbs whose morphosyntactic representations index inclusive subjects and third person objects. (Rule (46) will have modified the stems in cases involving 3sg.an. objects.) Rule (61) must apply after rule (60), just as rule (59) must apply after rule (58).

$$(60) \quad \begin{array}{c} \left[\begin{array}{c} +1 \\ +2 \\ -sg \\ -pl \end{array} \right] \\ S \end{array} \quad \begin{array}{c} \left[\begin{array}{c} -1 \\ -2 \end{array} \right] \\ 0 \end{array} \quad \begin{array}{c} \left[\right] \\ \left[\right] \end{array} \\ \quad \quad \quad /X/ \quad \quad \quad \rightarrow \quad \quad \quad /i:ni: + X/$$

$$(61) \quad \begin{array}{c} \left[\begin{array}{c} +1 \\ +2 \end{array} \right] \\ S \end{array} \quad \begin{array}{c} \left[\begin{array}{c} -1 \\ -2 \end{array} \right] \\ 0 \end{array} \quad \begin{array}{c} \left[\right] \\ \left[\right] \end{array} \\ \quad \quad \quad /X/ \quad \quad \quad \rightarrow \quad \quad \quad /i:ti: + X/$$

Rules (62) and (63) account for the 3pl.A and 3sg.A prefixes, respectively. The structural description of rule (63) is a proper subset of the structural description of rule (62); the two rules are disjunctively ordered with respect to each other.

$$(62) \quad \begin{array}{c} \left[\begin{array}{c} -1 \\ -2 \\ -sg \end{array} \right] \\ S \end{array} \quad \begin{array}{c} \left[\begin{array}{c} -1 \\ -2 \end{array} \right] \\ 0 \end{array} \quad \begin{array}{c} \left[\right] \\ \left[\right] \end{array} \\ \quad \quad \quad /X/ \quad \quad \quad \rightarrow \quad \quad \quad /ani: + X/$$

$$(63) \quad \begin{array}{c} \left[\right] \\ S \end{array} \quad \begin{array}{c} \left[\begin{array}{c} -1 \\ -2 \end{array} \right] \\ 0 \end{array} \quad \begin{array}{c} \left[\right] \\ \left[\right] \end{array} \\ \quad \quad \quad /X/ \quad \quad \quad \rightarrow \quad \quad \quad /a \sim ka + X/$$

Rule (63) adds the 3sg.A prefix to any stem with an outer level, which may or may not be null, and an inner

level specified as third person. Therefore, the rule applies to verbs in active clauses with 3sg. subjects and third person objects, to verbs with 3sg. subjects and dummy objects (intransitive A verbs with 3sg. subjects), and to verbs with unspecified subjects and dummy objects (intransitive A verbs with unspecified subjects). The structural description of rule (63) is a proper subset of the structural descriptions of rules (52) and (53); hence, rule (63) is disjunctively ordered as following those rules.

The 2du. and 2pl. A prefixes remain to be accounted for. These two prefixes, sti:- and i:ci:- are the same as the 2du. and 2pl. B prefixes. Rather than have two rules to introduce each prefix, one sensitive to the outer level of representation and one sensitive to the inner level of representation, it is possible to have a single rule, sensitive to the appropriate features, for each prefix. These rules are written to apply when the features are at any level of representation, inner or outer (or on the only level of the morphosyntactic representation).

Rules (64-73) attach pronominal prefixes to verbs which have only one level of morphosyntactic representation and to verbs which have unspecified subjects represented in the outer level of the representation, if those representations with unspecified

subjects have not been accounted for by earlier rules. These rules assign B prefixes, and the 2nonsg. prefixes, which are the same in set A and set B. All of these rules are written without any square brackets surrounding the features. This notation indicates that the rules apply when the features shown are present at any level. The structural descriptions of these rules are proper subsets of the structural descriptions of other rules which assign prefixes when these features are present; hence, rules (64-73) follow those more specific rules.

Rules (64-73) apply to morphosyntactic representations which have the specified inner level and to morphosyntactic representations which have only one level. Ordinary B intransitives, inverse transitives, and [+B] transitives have only one level of representation. (The second level of inverse morphosyntactic representations is eliminated by rule (47)). Transitives with unspecified subjects have two levels.

Rules (64) and (65) account for the 1sg.B and 2sg.B prefixes. The structural description of rule (64) is a proper subset of the structural description of rule (56); thus, rule (64) is ordered after (56), ensuring the B prefixes are assigned only where they belong.

(64) +1
 +sg
 /X/ --> /aki ~ akw + X/

(65) +2
 +sg
 /X/ --> /ca + X/

Rules (66) and (67) account for the exclusive B prefixes. These rules are similar in specification to rules (58) and (59), but (66) and (67) are more general than those, and rule (67) is more general than rule (66).

(66) +1
 -2
 -sg
 -pl
 /X/ --> /o:kini: + X/

(67) +1
 -2
 /X/ --> /o:ki: + X/

Rules (68) and (69) account for the inclusive B prefixes. Rule (69) is the more general of the two.

(68) +1
 +2
 -sg
 -pl

 /X/ --> /kini: + X/

(69) +1
 +2

 /X/ --> /i:ki: + X/

Rules (70) and (71) account for the 2nonsg.A and B prefixes. Rule (71) is more general than rule (70); both rules are more general than earlier rules which refer to morphosyntactic representations with the feature [+2].

(70) +2
 -pl

 /X/ --> /sti: + X/

(71) +2

 /X/ --> /i:ci: + X/

Rules (72) and (73) account for the 3sg.B and 3pl. B prefixes, respectively.

(72) -1
 -2
 +sg

 /X/ --> /u: + X/

(73) -1
 -2

 /X/ --> /u:ni: + X/

One additional rule (74) is needed to assign the prefix o:- to B intransitives with unspecified subjects.

(74) ∅

 /X/ --> /o: + X/

4.3.3 Remarks on the Analysis

The analysis presented here does not assign "meanings", in any traditional sense, to the pronominal prefixes. Pronominal prefixes are instead associated with morphosyntactic representations, and take their meanings not only from those representations, but also from the way in which the rules are ordered with respect to one another. Further, those representations do not directly reflect the syntactic, semantic, or pragmatic status of the NP's in the clause. Semantic, syntactic, and pragmatic information are relevant to the rules which create the morphosyntactic representation, but they are not represented directly.

The 1/2 and 2/1 prefixes and the A prefixes in Cherokee are assigned to verbs whose morphosyntactic representations conform to certain patterns. Verbs whose morphosyntactic representations do not conform to those patterns are assigned B prefixes. The morphosyntactic representations that are associated with B prefixes have in common the presence of certain features on an inner (or only) level of representation. That kind of representation can be built up in a number of ways: through direct mapping of subject and object (as in clauses with unspecified subjects), or through rules which delete certain levels of the representation. The ergative character of the Cherokee agreement system (and the absolutive flavor of the B prefixes) is represented in the fact that B prefixes are assigned on the basis of features in the inner level of the representation (although the rules which assign the prefixes do not need to specify that level of representation, due to their generality with respect to other rules). For intransitive verbs, that inner level is simply the only level; for transitive verbs, that inner level is the object level. Not all Cherokee intransitive verbs are marked with B prefixes however: some are regarded as inflectionally transitive, and these are the intransitives which take A prefixes in the appropriate aspect stems. The A prefixes, then, have an ergative flavor. The fact that some intransitives are

inflectionally specified as transitive and that some are not reflects the split nature of Cherokee intransitives. The fact that some transitives are inflectionally specified as [+B] reflects the split nature of Cherokee transitives.

4.4 Cook's Analysis of the Pronominal Prefixes

Cook (1979) presents a set of rules to account for the facts of Cherokee agreement which have been analyzed in this chapter and the preceding chapters. Although his rules do not constitute an accurate analysis of the Cherokee dialects that I have worked with, the analysis in sections 4.2 and 4.3 is in some ways an expansion of his; therefore, I present here a brief account of his theory (Cook 1979:164-180), followed by some discussion of similarities and differences between his analysis and my own.

In Cook's account, each verb is associated with an abstract prefix component which contains person, gender, number, and focus features corresponding to the verb's arguments. A set of rules which delete and rearrange features is applied to the component, and then a pronominal prefix is selected to match the remaining features.

The first of Cook's rules (numbered 222) is designed to account for the facts that the A prefixes are used on

transitive verbs with inanimate objects, and that, if the object is plural, the distributive prefix marks the object's plurality. I have rephrased Cook's rule (222) as (75):

(75) Inanimate Object Deletion (cf. Cook's (222))

If the object of a verb is inanimate then the object is unmarked in the prefix component, except that if the object is non-singular, the verb takes the distributive prefix.<18>

If Inanimate Object Deletion applies to a form, then the object is unmarked in the prefix component and only the subject remains to be indexed on the verb. For Cook, subjects without marked objects are indexed with A prefixes.

In my analysis, rule (48) assigns distributive prefixes and does some of the work of rule (75); A prefixes, however, are assigned not to subjects without marked objects, but rather to certain two-level morphosyntactic representations.

To account for the facts that some intransitives (the B verbs) always take B prefixes, regardless of stem, and that some transitives (again, B verbs) take B prefixes in place of A prefixes, Cook posits a rule to follow (75): he claims (rule 225) that the verbs in question are lexically specified as stative. For stative verbs, subjects appearing in the prefix component without

marked objects are themselves marked as though they were objects: in Cook's analysis, objects without subjects call for B prefixes. I have rephrased Cook's rule (225) as (76):

(76) Stative Marking (cf. Cook's (225))

For stative verbs which have only subject features marked in the prefix component, mark the subject as though it were an object.

Therefore, both intransitive and transitive B verbs like 'laugh' and 'buy' are considered stative verbs by Cook. When the inanimate object of a transitive stative verb is plural, the plurality is marked with the distributive, as claimed by Inanimate Object Delection (75). This is illustrated in (77) to which (75) and (76), Stative Marking, have applied.

(77) ta:khiwaska
/te:-aki-hwaska/
DIST-1sg.B-buy=PRES
'I am buying them'

Cook does not account for the two different kinds of B verbs: B-A and plain B. This may reflect dialect differences: 'look for', a B-A verb in Oklahoma, is a plain B verb in North Carolina, according to examples given by King (1975) and Cook (1979), but I worked briefly with one North Carolina speaker from Big Cove who

treats it as a B-A verb. In (78), the verb appears with an A prefix with an animate object.

(78) Ake:hy ha:hyo Ca:ni.
 /a-yhoha/
 woman 3sg.A-look:for=PRES John
 'The woman is looking for John.'

Cook claims that perfective verbs are lexically marked as statives; thus, all perfectives take B prefixes in place of A prefixes. (Presumably Cook would claim that infinitives, pre-inceptives, and propensitives are marked as statives.) Cook also claims that all B verbs are stative. The label 'stative', although it may be appropriately applied to B stems, is clearly not entirely felicitous, given the semantics of the verbs that require B prefixes: this is discussed further in Chapter Five.

In my analysis, intransitive B verbs are not lexically specified as stative--or as anything else--for purposes of inflection. It is the intransitive A verbs which receive exceptional treatment for inflection. The (few) transitive B verbs and all A verbs in B aspect stems receive the feature [+B], and their morphosyntactic representations are transformed into representations similar to those of the B intransitives. It is preferable not to collapse lexical prefix choice (i.e., choice of prefix for B and B-A verbs) with stem prefix choice (e.g., choice of prefix for perfective stems),

since for all verbs, B prefixes replace A prefixes in the B stems; but there are some B-verbs (the B-A verbs) which take some A prefixes in A stems. Furthermore, lexical prefix choice, especially for transitive verbs, is less clearly associated with semantic factors than is stem prefix choice.

Active clauses with 3sg. or 3pl. subjects and 3an. objects take A prefixes. The "stative" verbs have B prefixes in place of the A prefixes in these circumstances; to capture this fact, along with the fact that reflexives take A prefixes in the A stems, Cook posits a rule (228) which is ordered before Stative Marking (rule (76)). I have rephrased his rule as (79), below. (79) follows Inanimate Object Deletion (74) and precedes Stative Marking (76). The term "unfocused third person plural object" in (79) refers to the 3pl. object of an active clause.

(79) Identical Person Deletion (cf. Cook's (228))

If the subject and object of a clause are identical in person, then the object is unmarked in the prefix component, except that an "unfocused" third person plural object requires a distributive prefix.

"Focused" (or inverse) 3pl. objects will not be marked with the distributive prefix, as discussed above. They are instead marked with the 3pl.B prefix u:ni:-.

In my analysis, reflexives are derived intransitive verbs, so no inflectional rule makes explicit reference to them. Active clauses are treated just as other transitive clauses are treated; special provision is made for adjusting the morphosyntactic representations of inverse clauses.

Rule (79) will account for the fact that reflexives take A prefixes except when they are in "stative" (i.e., B) stem forms, in which case they take B prefixes, as illustrated in Chapter Two and in (80), below. Example (80a) shows a present stem reflexive with an A prefix (by application of Identical Person Deletion (79)); example (80b) shows a perfective stem reflexive with a B prefix (by application of Identical Person Deletion (79) and Stative Marking (76)).

- (80) a. kàtà:kō:wthíha àkwǎ:sa
 /k-ata:t-ko?wthíha/ myself
 1sg.A-RF-see=PRES
 'I see myself'
- b. à:kwàtà:kō:hǎ:ʔi àkwǎ:sa
 /akw-ata:t-ko:hv:ʔi/ myself
 1sg.B-RF-see=PERF
 'I saw myself'

Rule (79) claims that a 3pl. reflexive will necessarily take a distributive prefix; however, this is not the case in Oklahoma Cherokee, as (81) shows.

- (81) ^ˈa:ntá:kóhwthíha ù:nṽ:sa
 /ani:-ata:t-kohwthiha/ themselves
 3pl.A-RF-see=PRES
 'they see themselves'

Rule (79) accounts for the active forms for 3pl.an. objects. For A stems, the active forms require the distributive plus the appropriate A prefix to index the subject, as illustrated in (82a). For B stems, the active forms require the distributive plus the appropriate B prefix to index the subject, as illustrated in (82b) (by application of Identical Person Deletion (79) and Stative Marking (76)). The readings with inanimate objects result from the application of Inanimate Object Deletion (75).

- (82) a. ^ˈté:kv:hniha
 /te:-ka-v:hniha/
 DIST-3sg.A-hit=PRES
 'he's hitting them (an. or inan.)'
 b. ^ˈtú:wá:hnilv:ʔi
 /te:-u:-v:hnilv:ʔi/
 DIST-3sg.B-hit=PERF
 'he hit them (an. or inan.)'

To account for the use of the B prefixes in forms with 3sg. subjects, including the inverse forms with third person subjects and objects, Cook claims that the objects which I call inverse objects are to be analyzed as "focused". Focus is closely linked with givenness, and since non-third person referents are inherently given, they are inherently focused with respect to the

third person. Thus, his rule (239), rephrased here as (83), claims that B prefixes are used when subjects, because they lack focus with respect to their objects, are unmarked. (Other rules are required for clauses with 3 pl. subjects and focused objects.)

(83) Object Focus Marking (cf. Cook's (239))

When a subject is third singular and an object is focused, the subject is unmarked, leaving the object to be marked with a B prefix.

This rule is similar to rule (47), which eliminates a level of representation for inverse verbs; rule (47) however, is more general and applies even with 3pl. subjects.

Rule (83) must precede Identical Person Deletion (79), otherwise no inverse forms with 3sg. subjects and 3sg. objects could be created.

The extended word and paradigm theory is in fact similar in spirit to Cook's analysis. In Cook's account, as in the extended word and paradigm account presented above, the 1sg.B prefix, for example, indicates that at some underlying level the word on which it appears is associated with a prefix component of a certain sort. Cook's analysis and mine differ in the ways in which certain constructions are treated, both lexically and morphologically (such as reflexives and B verbs); they differ in the predictions they make about the forms of

reflexives; they differ in the extent to which the prefixes listed in Table 4 of Chapter Two are considered to be analyzable (I have broken many of those prefixes down into series of formatives, where Cook tends to treat them as wholes); and they differ in explicitness, since Cook does not give all of the actual rules which constitute his analysis.

Notes to Chapter 4

<1>The counterfactual prefix *y-* alters the pitch of verb stems to which it is attached: note the pitch difference between (3) and (4).

<2>In this example, the 'if'-clause shows a perfective stem followed by the suffix *-a*, which is the regular marker of (present) indicative. Conditionals like *yu:wo:ni:sa* also appear with apodoses which show the habitual modal suffix, as in the example below, from Pulte and Feeling (1975:351):

Kā:thv:kí:sko yú:wó:ni:sa.
/k-a:thv:ki:sko:ʔi/ /y-u:-wo:ni:sa/
1sg.A-hear=IMPF=HAB CTR-1sg.B-listen=PRES
'I hear him whenever he speaks.'

<3>The positive prefix cannot co-occur with the reportative modal suffix; it appears with the assertive suffix (Pulte and Feeling 1975:243).

<4>The verb 'be sick' is *-htlv:k-* in Oklahoma Cherokee.

<5>The North Carolina Cherokee assertive suffix *-v:ki* corresponds to the Oklahoma suffix *-v:ʔi*.

<6>I follow Cook (1979:64) in assigning the label "partitive" to *n-*, because that label is used for the cognate morpheme in Northern Iroquoian languages.

<7>The verb in (10a) has an additional meaning: it can mean 'to make a characteristic noise (of an animal)', as in the example below (Feeling 1975:147):

Wé:sa níka^vwé?a.
/n-ka-we?a/
cat PAR-3sg.A-say=PRES
'A cat is meowing.'

Apparently this is a lexicalization of the use of the partitive given in (10a): certainly the "object" noise is identifiable.

<8>When the subject is unspecified, a plural object does not require the distributive prefix: see Table 4 in Chapter Two.

There are some verbs in Cherokee which show stem suppletion for number. For example, the present indicative form of 'stand' is -tô:ka for a singular subject and -tô:na?a for a plural subject.

<9>The verb in (13b) can also mean 'he hit me (several times/in several places)'.

<10>Pulte and Feeling (1975:249) give as examples 'sit', 'stand', 'be hungry', and 'be thirsty', all positional or stative verbs.

<11>Martin (1986) argues that the English inflectional process of number marking on verbs is sensitive to semantic features where, for example, English summation plurals (such as "scissors" or "trousers") are concerned. The Cherokee distributive prefix is also sensitive to such features: the word tilstohyti 'scissors' is always treated as plural even if it refers to only one pair of scissors. This is illustrated in the example below:

Tilstohyti ta:kwatu:li?a.
 /te:-akw-atu:li?a/
 scissors DIST-1sg.B-want=PRES
 'I want the (pair of/pairs of) scissors!'

The Cherokee word for 'scissors' itself contains a distributive ti- which may refer to the plurality of potential things cut. The presence of a distributive prefix on a noun does not generally indicate that the noun is plural: see Chapter Five for further discussion of this point.

<12>See Anderson (1986b) for discussion of the applicability of the Elsewhere Condition to morphological rules.

<13>With certain phonological and morphological restrictions, not all of which are well-understood, the ?-grade forms can be derived from the h-grade forms by a

rule changing /h/ to /?/. As Cook argues (1979:40), the laryngeals which do not show the expected alternation are all /?/. (In my data, however, there are also some instances of /h/ which appear to meet the criteria for alternation but which do not alternate.)

<14>The only exception to this statement is that A intransitives with unspecified subjects will always take A prefixes, regardless of aspect stem.

<15>When the 3sg.A pronominal prefix ka- is added to a verb stem beginning in /u/, the normal rules of prefix attachment apply, as shown in the following example from Feeling (1975:123):

kù:tàlé:ʔa
/ka-u:tale:ʔa/
3sg.A-unhitch=PRES
'he's unhitching him'

The rules attaching the prepronominal complex to the pronominal prefixes appearing on the head of the verb are different from the rules attaching the pronominal prefixes themselves to the head of the verb. Also, different prepronominal prefixes may be affected by different rules when attached to the head of the verb.

<16>Exclusive person counts as first person for purposes of the hierarchy.

<17>There are some questions as to what exactly it is that prefix choice is sensitive to. The perfective stem has some uses which call for an A prefix, as discussed in Chapter Five.

<18>Cook's analysis of Cherokee gender (1979:14-15), along with the terminology he uses, differs from mine. I have phrased his rule (222) in terms of my analysis. Cook identifies two genders: animate and indefinite. Animate "is the category of definitely known animate beings or of objects put in to this category by myth or metaphor" (p. 14). Indefinite is the category of "those things which fail either the test of animateness or that of definiteness" (ibid.). Cook explains that he is unclear as to the exact semantics of the gender distinctions, but his discussion is still confusing. He implies that definiteness is not discourse-conditioned, but he never says just what he means by definiteness. It is clear that the indefinite is correlated with inanimacy, and that he is basing his use of the term on its use in descriptions of other Iroquoian languages; however, Lounsbury's (1953) explanation of the category indefinite in Oneida is not strictly applicable to Cherokee.

In Cook's analysis, rule (222) applies to verbs whose objects are either indefinite or inanimate; hence

it applies to all objects except definite animates. As I note in Chapter Two, in connection with example (30), the indefinite (my 'inanimate') object prefixes are occasionally used in reference to (putative) animates. The putative animate in (30b), (repeated below) which must be indefinite by Cook's criteria, is apparently definite in some discourse sense, since it is referred to by a pronoun. Perhaps the referent is 'unknown', rather than 'indefinite'.

Hikhehu:?ka.
'Chase it, him!'

<19>This speaker regularly pronounces /h/ before verb-initial pronominal prefixes which begin with /a/ and /u/.

CHAPTER 5: SEMANTIC MOTIVATION OF PREFIX CHOICE

In the first part of this chapter, I examine the use of pronominal prefixes on parts of speech other than verbs, with emphasis on the ways in which prefix usage on nouns and adjectives differs from usage on verbs, and with special attention to semantic factors which might govern the use of A or B prefixes. In the second part of the chapter, I return to verbs, in order to further examine the extent of semantic motivation for the selection of A or B prefixes.

5.1 Pronominal Prefixes on Nouns and Adjectives

The phonological rules discussed in Chapter Two apply to pronominal prefixes on nouns and adjectives as well as on verbs, with one exception which was noted in that chapter: Tonic Glottal Insertion (rule (14) in Chapter Two) will not apply to any noun or adjective form, not even to a noun which shows tonic accent.<1> Like verbs, nouns and adjectives exhibit the alternation between h-grade forms and ?-grade forms, which is conditioned by particular prefixes.

5.1.1 Prefixes on Nouns

Cherokee nouns can be thought of as falling into several classes, including nouns referring to body parts and clothing, root nouns with non-human referents, root

nouns with human referents, deverbal nouns, which may have human or non-human referents, and kinship terms. Body parts and clothing terms take pronominal prefixes to index the person and number of their possessor. Nouns with human referents take pronominal prefixes to index the person and number of the referent (or referents, in the cases of kinship terms and certain deverbal nouns). All deverbal nouns, regardless of the gender of the referent, show morphology which reflects in form and meaning the morphology of the associated verb. The nominalization rules are not fully productive, and deverbal nouns often have somewhat idiosyncratic meanings.

5.1.1.1 Body Parts and Clothing Terms

All nouns which refer to body parts are lexically marked as taking A or B prefixes to mark the person and number of the possessor (1a,b).

- (1) a. cì:nahtóhkṽ
 /ci-?nahtohkv/
 1sg.A-tooth
 'my tooth'
- b. àkwò:yé:ni
 /akw-o:ye:ni/
 1sg.B-hand
 'my hand'

Detached body parts (that is, parts of the body which are no longer attached to the whole) appear with a third person singular prefix (2), but some have different

stem forms from the non-detached body part term (Pulte and Feeling 1975:312-3).

- (2) `akwace:lí káhntóhkṽ
 /akw-ace:li/ /ka-hntóhkṽ/
 1sg.A-POSSESSIVE 3sg.A-tooth
 'my tooth' (e.g., from my collection)<2>

Cook (1979:146) observes that the association of A or B prefixes with the various body parts is largely arbitrary; he has compiled a list of thirty-seven body parts, showing the inflectional pattern for each (pp. 193-4). Cook explains that plurality of body parts is marked with the distributive prefix, which appears in what might be considered the verbal allomorph, te:-, on body part nouns ending in the participial suffix -v:ʔi (3) and in what might be considered the nominal allomorph, ti-, on body part nouns ending in the nominal element -i (4).

- (3) t`e:káhntóhkṽ:ʔi
 /te:-ka-hntóhkṽ:ʔi/
 DIST-3sg.A-tooth
 'his teeth'
- (4) t`icikā:thó:li
 /ti-ci-kaʔtho:li/
 DIST-1sg.A-eye
 'my eyes'

The ti- distributive appears as ti- before consonants (as in (4)), as ti:- before /a/ or /i/, with loss

of the following vowel (as in 5a), and as c- before other vowels (5b).

- (5) a. tí:kthó:li
/ti-a-ktho:li/
DIST-3sg.A-eye
'his eyes'
- b. cúwò:yé:ni
/ti-u:-o:ye:ni/
DIST-3sg.B-hand
'his hands'

At least some clothing terms are also prefixed to agree with the possessor. For some, such as ahnáwo 'shirt', an A prefix is used for an unpossessed clothing term, or when possession is irrelevant, and a B prefix is used to indicate possession: u:hnáwo 'his shirt'.

Holmes and Smith (1977) state that possession of articles of clothing which are being worn is generally marked with pronominal prefixes on the noun, and that possession of articles of clothing which are not being worn may be marked either with pronominal prefixes on the noun or with -áce:lí, which appears in example (2).

5.1.1.2 Root Nouns

Root nouns with non-human referents generally do not take pronominal prefixes, and many are not marked for number, such as nòkwsí 'star, stars', which can receive either singular or plural interpretation depending upon the context. Some other nouns, which are also apparently

root nouns (or at least which do not appear to be synchronically deverbal), are marked for plurality with the distributive, which appears in the nominal or ti- form on nouns ending in -a or -i and in the verbal or te:- form on nouns ending in the participial suffix -v̄:ʔi. Thus, the noun thàlú:ca 'basket' has the plural tìthàlú:ca 'baskets' and the noun hìkṽ:ʔi 'tree' has the plural tě:hìkṽ:ʔi 'trees'.<3> Regardless of whether plurality is marked on the noun, plurality of all nouns is reflected in the pronominal prefixes on verbs of which the nouns are arguments and on adjectives which modify the nouns.

5.1.1.3 Human Nouns

Human nouns are marked with A or B prefixes to indicate the person and number of the referent, as shown in (6). The singular and plural of an A-marked human noun are shown in (6a,b); a B-marked noun is shown in (6c).

- (6) a. àkṽ:hya
 /a-ke:hya/
 3sg.A-woman
 'woman'
- b. àní:kṽ:hya
 /ani:-ke:hya/
 3pl.A-woman
 'women'
- c. ù:kṽ:wiyù
 /u:-kv:wiyu/
 3sg.B-president
 'president'

These nouns normally appear in the third person unless they are used as predicates, as illustrated in (7a), although non-third-person forms may also be used as verb arguments, as in (7b). Sentences like the one in (7b) are sometimes pronounced with a pause after the subject NP, as indicated by the comma after o:ci:ke:hya 'we women'.

- (7) a. 0:ci:ke:hya.
 /o:ci:-ke:hya/
 1-3pl.A-woman
 'We're women.'
- b. 0:ci:ke:hya, to:ci:ka:thiha ti:ni:yo:hli.
 /o:ci:-ke:hya/ /te:-o:ci:-ka?thiha/
 1-3pl.A-women DIST-1-3pl.A-wait:for=PRES children
 'We women are waiting for the children.'

5.1.1.4 Deverbal Nouns

Deverbal nouns may be formed on imperfective and infinitive stems. A common type of deverbal noun used to refer to human beings is the subjective, built on the imperfective stem. Subjectives usually take A or B prefixes, according to whether the imperfective verb takes A or B prefixes. Compare the imperfective habitual verb form in (8a) with the subjective noun in (8b).

- (8) a. kano:hali:to:hó:ʔi
 /ka-no:hali:to:h-o:ʔi/
 3sg.A-hunt=IMPF-HAB
 'he hunts (regularly)'

- b. kãno:hãli:tó:hi
 /ka-no:hali:to:h-i/
 3sg.A-hunt=IMPF-NOM
 'hunter'

The examples in (9) show an imperfective verb requiring the B prefixes and the corresponding subjective noun.

- (9) a. ù:té:kó:ʔi
 /u:-te:k-o:ʔi/
 3sg.B-throw=IMPF-HAB
 'he throws'
- b. ù:té:ki
 /u:-te:k-i/
 3sg.B-throw=IMPF-NOM
 'pitcher' (i.e., '(ball)-thrower')

The following examples show that subjective nouns are not necessarily agentive, although they have been called agentive nouns in the literature. Examples (10) and (11) (Feeling (1975:161-2) show experiencer and patient subjective nouns, respectively.

- (10) a. ù:tlã:sí:thv:ʔehó:ʔi
 /u:-atla:si:thv:ʔeh-o:ʔi/
 3sg.B-disbelieve=IMPF-HAB
 'he disbelieves'
- b. ù:tlã:sí:thv:ʔé:hi
 /u:-atla:si:thv:ʔeh-i/
 3sg.B-disbelieve=IMPF-NOM
 'non-believer'
- (11) a. ù:tlv:kó:ʔi
 /u:-htlv:k-o:ʔi/
 3sg.B-be:sick=IMPF-HAB
 'he's sick' <4>

- b. u:tlv̄:ki
 /u:-htlv:k-i/
 3sg.B-be:sick=IMPF-NOM
 'patient, sick person'

Subjectives may refer to non-human referents, in which case plurality is marked with the appropriate A or B prefix, and not with the distributive, which appears on most non-human nouns. The examples in (12a-c) show an imperfective verb, and the singular and plural forms of the associated subjective.<5>

- (12) a. a:hihó:ʔi
 /a-hih-o:ʔi/
 3sg.A-kill=IMPF-HAB
 'he kills'
- b. atá:hihi
 /a-ata:t-hih-i/
 3sg.A-RF-kill=IMPF-NOM
 'thing that kills' (Feeling 1975:2)
- c. anátá:hihi
 /ani:-ata:t-hih-i/
 3pl.A-RF-kill-IMPF-NOM
 'things that kill' (Feeling 1975:2)

The reflexive prefix that appears in (12b) and (12c) indicates that the object of the action (the killed) is unspecified; reflexive prefixes that appear without accompanying reflexive pronouns are regularly interpreted in this way. In (13a), the verb 'teach' appears with a reduced version of the reflexive prefix, indicating that the object of the verb (the person taught) is unspecified. In (13b), the verb appears with the pre-

fix marking a 1sg. subject with a 2sg. object. In these examples, the distributive can be thought of as representing the plurality of things taught, or the extension of the action over time. For some deverbal nouns with non-human referents, the distributive is used to mark plural number, but more generally the meaning to be assigned to the distributive prefix reflects the meaning of the distributive on the related verb.

- (13) a. t̃a:t̃e:h̃ỹo:h̃ṽsk̃o:ʔi
 /te:-a-at-e:h̃yo:h̃vsk-o:ʔi/
 DIST-3sg.A-RF-teach=IMPF-HAB
 'he teaches'
- b. t̃e:k̃ṽ:ỹe:ỹo:h̃ṽsk̃o:ʔi
 /te:-kv:y-e:ʔyo:h̃vski-o:ʔi/
 DIST-1sg/2sg.-teach=IMPF-HAB
 'I teach you'

The corresponding subjective nominals, one with the reflexive prefix and one without, are given in (14). The noun in (14a) is used as a verbal argument or as a predicate; the noun in (14b) is used as a predicate.

- (14) a. t̃i:t̃e:h̃ỹo:h̃ṽski
 /ti-a-at-e:h̃yoh̃vsk-i/
 DIST-3sg.A-RF-teach=IMPF-NOM
 'teacher, he's a teacher'
- b. t̃ik̃ṽ:ỹe:ỹo:h̃ṽski
 /ti-kv:y-e:ʔyo:h̃vsk-i/
 DIST-1sg/2sg-teach=IMPF-NOM
 'I'm your teacher'

On nouns made from imperfective stems, then, choice of prefix, A or B, is determined by the choice of prefix for the verb from which the noun is derived.<6>

Other deverbal nouns include nouns made on the infinitive stem, such as instrumentals, action nominals, and locatives.<7> Instrumental nouns generally take A prefixes, as shown in (15a), with the infinitive verb form shown in (15b) for comparison.

- (15) a. kànv:kwaló:sti
 /ka-nv:kwalo:sti/
 3sg.A-hammer=INFIN
 'hammer (n.)'
- b. ù:nv:kwaló:sti
 /u:-nv:kwalo:sti/
 3sg.B-hammer=INFIN
 'for him to hammer'

Instrumentals are also formed on the infinitive of the causative (a verb's causative derivational suffix is the same as its infinitive aspectual suffix). This type of derivation is illustrated in (16a), with the infinitive verb form shown in (16b) for comparison. The examples in (16) are from Pulte and Feeling (1975:320).

- (16) a. kàwò:ní:hístohti
 /ka-wo:ni:-hist-oht-i/
 3sg.A-speak-CAUS-INFIN-NOM
 'instrument to speak with'
- b. ù:wò:ní:hísti
 /u:-wo:ni:-histi/
 3sg.B-speak-INFIN
 'for him to speak'

Infinitives are also used as the bases for objective nominals, as in (17a) with the corresponding infinitive verb form in (17b).

- (17) a. $\overset{\vee}{a}ti:thasti$
 /a-ati:thasti/
 3sg.A-drink=INFIN
 'something to drink'
- b. $\overset{\vee}{u}:ti:thasti$
 /u:-atithasti:ʔi/
 3sg.B-drink=INFIN
 'for him to drink it'

Action nominals, like instrumentals, take A prefixes, as shown in (18a), with the infinitive given in (18b) for comparison. The formation of action nominals is more restricted, or less productive, than the formation of instrumentals.

- (18) a. $\overset{\vee}{a}ta:hyo:nehti$
 /a-ata:hyo:nehti/
 3sg.A-commit:adultery=INFIN
 'adultery'
- b. $\overset{\vee}{u}:ta:hyo:nehti$
 /u:-ata:hyo:nehti:ʔi/
 3sg.B-commit:adultery=INFIN
 'for him to commit adultery'

With B prefixes rather than A prefixes, infinitive nominals indicate a facility in some action, as in (19a), with the infinitive in (19b). The example in (19a) is from Pulte and Feeling (1975:320).

- (19) a. $\grave{a}kiw\grave{o}:ni:h\acute{i}sti$
 /aki-wo:ni:-histi/
 1sg.B-speak-INFIN
 'my facility in speaking'
- b. $\grave{a}kiw\grave{o}:ni:h\acute{i}sti$
 /aki-wo:pi:-histi:ʔi/
 1sg.B-speak-INFIN
 'for me to speak'

Some locative nouns are built on infinitive stems; they show the B prefixes, as in (20a), with the corresponding infinitive shown in (20b).

- (20) a. $\grave{c}u:nte:hlohkw\grave{a}:sti:ʔi$
 /ti-u:ni-te:hlohkwa:sti-ʔi/
 DIST-3pl.B-learn=INFIN-LOC
 'school' ('place where they learn')<8>
- b. $\grave{u}:te:hlohkw\grave{a}:st\acute{i}$
 /u:-te:hlohkwa:sti:ʔi/
 3sg.B-learn=INFIN
 'for him to learn'

Locatives such as (20a) might be considered instrumentals in a broad sense: one might think of 'school' as 'place they use for learning'.

On nouns made from imperfective stems, prefix choice is determined by the prefix choice on the verb from which the noun is made, but on nouns made from infinitive stems, prefix choice is determined by the type of noun being formed, as follows: A prefixes are used on instruments, objects, and actions; B prefixes are used on facilities or abilities, and on locatives. The semantic basis of this split in prefix choice is not clear.

Arguably the B prefixes are used for nouns whose meanings include an element of potentiality as opposed to actuality.

An additional type of objective noun is formed from the atonic of the perfective with the assertive suffix -v:ʔi and the A prefixes. An example is given in (22a), with the perfective verb given in (22b) for comparison. The examples in (22) are from Pulte and Feeling (1975:322).

- (22) a. $\tilde{a}h\tilde{i}:y\tilde{v}:ʔi$
/a-hi:yv:ʔi/
3sg.A-leave:behind=PERF
'something left behind'
- b. $\tilde{u}:h\tilde{i}:y\tilde{v}:ʔi$
/u-hi:yv:ʔi/
3sg.B-leave:behind=PERF
'he left it behind'

These objective nouns are less potential and less instrumental in sense than the infinitive objectives exemplified above. The meanings of nouns like the one in (22a) have a perfect (rather than perfective) quality: the perfect nature of the Cherokee perfective is further addressed in section 5.2.1.

There are also nouns, apparently participial in nature, which end in the suffix -ta; I mention them only for the sake of completeness. It is not always possible to identify the roots of words which appear to be nominalizations, and a similar problem arises in identi-

fyng the roots of apparently derived adjectives (Lindsey and Scancarelli 1985).

5.1.1.5 Kinship Terms

Kinship terms generally take transitive prefixes, with the individual referred to by the kinship term (the head of the NP) treated as the subject, and the person with whom the relationship obtains (the possessor, in English) treated as the object. Thus, in (23a), 'your father' is treated in parallel fashion to 'he is-father-to you' (cf. 23b).

- (23) a. càtò:ta
/ca-to:ta/
2sg.B-father
'your father, he's your father'
- b. kv:tò:ta
/kv:y-to:ta/
1sg./2sg.-father
'I'm your father.'

With a third person head and a third person possessor, the B prefixes are used (24):

- (24) ù:tò:ta
/u:-to:ta/
3sg.B-father
'his father, he's his father'

The form in (24) does not indicate whether the pronominal prefix u:- should be regarded as an inverse prefix or simply as a B-stem version of an active prefix (that is, an example like (24) does not tell whether the paradigm

in Table 6 or 7 of Chapter Two is the source of the prefix). The forms in (25) show that with a third person head and a third person possessor 'father' takes inverse prefixes.

- (25) a. $\dot{u}:\dot{n}i:\dot{t}o:ta$
 / $\dot{u}:\dot{n}i:-to:ta$ /
 3pl.B-fathe
 'their father, he's their father'
- b. $\dot{t}i\dot{k}\dot{v}:\dot{w}a\dot{n}i:\dot{t}o:ta$
 / $\dot{t}i-kv:wani:-to:ta$ /
 DIST-3pl./3pl.inv.-father
 'their fathers, they're their fathers'

'Child' behaves somewhat differently. When the head of the NP (the child) is first or second person, or when the head of the NP is third person singular, the expected transitive prefixes are used, as in (26a, b). The head of the NP is treated as subject and the possessor is treated as object.

- (26) a. $\dot{k}\dot{a}\dot{c}i:\dot{y}\check{e}:ci$
 / $\dot{k}\dot{a}\dot{c}i:-ye:ci$ /
 1sg./3pl.an.-child
 'I'm their child'
- b. $\dot{a}\dot{k}\check{w}\check{e}:ci$
 / $\dot{a}\dot{k}\check{w}\check{e}:ci$ /
 1sg.B-child
 'my child, he's my child'

With a 3sg. head and a third person possessor, the inverse prefixes are used, as in (27).

- (27) $\overset{\vee}{\text{u:n}\acute{\text{e}}:\text{ci}}$
 /u:ni:-e:ci/
 3pl.B-child
 'their child, he's their child'

When the head of the NP is third person plural, the B prefixes are used (i.e., the prefixes that would be expected with 3sg. heads), and plurality of the head is marked with the distributive as in (28), with the prefix akw- and not the 3pl./1sg. prefix kv:kw-. (The distributive prefix is used to indicate plurality of the head of the NP even when the pronominal prefix itself indicates plurality, as shown in (25b).)

- (28) $\overset{\vee}{\text{ti:kwe}}:\text{ci}$
 /ti-akw-e:ci/
 DIST-3sg.B-child
 'my children'

With a 3pl. head and a 3pl. possessor, the B prefix (i.e., the B-stem version of the active prefix) and the distributive are used; the inverse form is not used: compare (29) to (25b).

- (29) $\overset{\vee}{\text{cu:n}\acute{\text{e}}:\text{ci}}$
 /ti-u:ni:-e:ci/
 DIST-3pl.B-child
 'their children, they're their children'

Full paradigms of 'father' and 'child' are presented in Pulte and Feeling (1975:313-6).

Certain kinship terms that refer to relationships within the same generation, or relationships in which the

kinsman is of a lower generation than the possessor, take unspecified subject prefixes in at least some cases in which the possessor is not third person. (30a) shows the unspec./1sg. prefix marking a first person possessor. (30b) shows that the 3sg.B prefix u:-, and not the unspec./3sg. prefix aci-, is used with the third person possessor.

- (30) a. $\dot{v}:k\dot{i}to$
 /v:ki-to/
 unspec./1sg.-sibling=of=opposite=sex
 'my brother (of female)', 'my sister (of male)' <9>
- b. $\dot{u}:to$
 /u:-to/
 3sg.B-sibling=of=opposite=sex
 'his sister, her brother'

Some terms for kinship relations and other relationships take reciprocal forms, with dual or plural prefixes, as in (31). (31a) has an A prefix; (31b) has a B prefix.

- (31) a. $\dot{o}:st\dot{i}:n\ddot{e}:li$
 /o:sti:-ne:li/
 1-3du.A-spouse
 'my husband' <10>
- b. $\dot{o}:k\dot{i}n\dot{a}:l\dot{i}:?i$
 /o:kini:-a:li:?i/
 1-3du.B-friend
 'my friend'

The morphology, semantics, and usage of kinterms are discussed to different extents by King (1975), Pulte and Feeling (1975), Holmes and Smith (1977), and Cook (1979).

There are various historical and dialectal differences reflected in the forms cited in the literature.

To summarize, the choice of prefix, A or B, on nouns appears to be in some cases largely arbitrary, as with root nouns. With deverbal nouns prefix choice is determined by the prefix selected by the verb from which the noun is derived (in the case of imperfectives) or by the type of noun being formed (in the case of infinitives and perfectives).

5.1.2 Prefixes on Adjectives

Adjectives in Cherokee are prefixed to agree in person, number, and animacy with the nouns which they modify. They may appear as attributives or as predicates, and occasionally as substantives. Like nouns and verbs, adjectives are lexically specified as taking A or B prefixes, but the prefix forms are sensitive to animacy in a manner different from nouns or verbs.

5.1.2.1 Inflection of Adjectives

In singular forms, B-marked adjectives do not distinguish between animate and inanimate third persons (32), and many A-marked adjectives, likewise, do not distinguish between animate and inanimate third persons (33), but some A-marked adjectives show the regular 3sg.A prefix only for animates (34a) and have no prefix for inanimates (34b).

- (32) uwò:tú:hi
 /u:-o:tu:hi/
 3sg.B-pretty
 '(she's) pretty; (it's) pretty'
- (33) kà:ké:ta
 /ka-ake:ta/
 3sg.A-heavy
 '(he's) heavy; (it's) heavy'
- (34) a. àkí:káké:?i
 /a-ki:kake:?i/
 3sg.A-red
 '(he's) red'
- b. kí:káké:?i
 /ki:kake:?i/
 red
 '(it's) red'

It is not clear what determines which type of inflection A-marked adjectives take. Pulte and Feeling (1975:331) suggest that stems beginning with vowels, such as -àké:ta 'heavy', will not distinguish animate from inanimate singulars and that stems beginning with consonants, such as -kí:káké:?i , will make the distinction. That is, they suggest that for A-marked adjective stems beginning with consonants, the inanimate singular form will have no A prefix. This does appear to be the case generally, but there are counterexamples. In (35a) the deverbal adjective stem -nò:skí:ta 'stolen', appears with an A prefix; in (35b), the adjective stem -sàkhó:níké:?i 'blue' appears without its A prefix in both the animate and inanimate forms.

- (35) a. kàno:skí:ta
 /ka-no:ski:ta/
 3sg.A-stolen
 '(it's) stolen'
- b. sakhó:níké:ʔi
 /sakho:nike:ʔi/
 blue
 '(it's/he's) blue' <11>

Whether they take A or B prefixes, adjectives mark inanimate plurals with the distributive prefix as well as the A or B 3sg. prefix, as illustrated in (36). Compare the examples in (36a-c) to (32), (33), and (34b). Although (34b) lacks any A prefix, (36c) does have the A prefix, as shown by the length of the vowel in the distributive prefix: compare the short vowel in the distributive prefix in (36b).

- (36) a. cùwò:tú:hi
 /ti-u:-o:tu:hi/
 DIST-3sg.B-pretty
 '(they're) pretty (inan.)'
- b. tikáké:ta
 /ti-ka-ake:ta/
 DIST-3sg.A-heavy
 '(they're) heavy (inan.)'
- c. ti:kí:káké:ʔi
 /ti-a-ki:kake:ʔi/
 DIST-3sg.A-red
 '(they're) red (inan.)'

Animate plurals for A-marked adjectives generally show the regular pl.A prefix, as in (37a), although some

adjectives show the pl.A prefix along with the distributive (37b).

- (37) a. àní:káyv:li
/ani:-kayv:li/
3pl.A-old
'(they're) old (an.)'
- b. tí:núhñakàlsti
/ti-ani:-vhnakalsti/
DIST-3pl.A-active
'(they're) active'

Animate plurals for B-marked adjectives generally show the distributive prefix as well as the appropriate pl.B prefix, as in (38a), although some B-marked adjectives show only the pl.B prefix, as in (38b).

- (38) a. cù:nò:tú:hi
/ti-u:ni:-o:tu:hi/
DIST-3pl.B-pretty
'(they're) pretty (an.)'
- b. ù:ní:né:kihlti
/u:ni:-ne:kihlti/
3pl.B-ugly
'(they're) ugly (an.)'

Full analysis of the derivational relationships between verbs and adjectives may lead to a better understanding of the inflectional peculiarities of adjectives.

A notable class of exceptions to the criterion of animacy for determining adjective marking is the class of fruits, which are treated as animate for the purposes of agreement with adjectives (but not for any other agreement purposes). The following examples from Pulte and

Feeling (1977:277) show that fruits (39a) take animate adjective forms (compare (39b)) rather than inanimate adjective forms (compare (39c)).

- (39) a. ànó:sta kwhána
 /ani:-o:sta/
 3pl.A-good peach
 'good peaches'
- b. ànó:sta àni:skàya
 good men
 'good men'
- c. có:sta tìkhàné:sá?i
 /ti-a-o:sta/
 DIST-3sg.A-good boxes
 'good boxes'

The examples which are presented above and the examples from the previous section on nouns show that agreement marking varies among verbs, nouns, and adjectives, thus serving as a diagnostic for part-of-speech. Further, both animacy (for adjectives) and humanness (for nouns) must be considered morphological features for purposes of agreement. These features also play a part in verb agreement and in the determination of the status of NP's as proximate or obviative in their clauses.

5.1.2.2 Semantic Basis of Prefix Choice for Adjectives

Having examined the morphology of the pronominal prefixes on adjectives, I now consider whether there is some semantic basis to the choice of A or B prefixes on adjectives. There are a small number of adjectives which

are apparently root adjectives, some of which take A prefixes (40a) and some of which take B prefixes (40b) with no apparent semantic rationale.

- (40) a. ˈé:kwa
 /a-e:kwa/
 3sg.A-big
 'huge'
- b. ˈú:thana
 /u:-athana/
 3sg.B-big
 'big'

There are many adjectives which are deverbal or denominal, some of which take A prefixes and some of which take B prefixes. There are some general patterns to be observed in the choice of prefix; for example, adjectives which appear to be perfect participles built on the so-called perfective stem of intransitive verbs, take B prefixes, as shown in (41). The adjective 'dead' in (41a) is in effect an atonic perfective of the verb 'die', whose tonic perfective is given in (41b).<12>

- (41) a. cù:nì:yò:hù:sṽ:ʔi
 /ti-u:ni:-yo:hu:sv:ʔi/
 DIST-3pl.B-dead
 '(they're) dead (hum.)'
- b. ù:nì:yò:hù:sṽ:ʔi
 /u:ni:-yo:hu:sv:ʔi/
 3pl.B-die=PERF
 'they died (hum.)'

Adjectives derived from nouns take A prefixes, as shown in (42): A prefixes are used on the adjective

'dusty', in (42a), which is derived from the noun 'ashes, dust', shown in (42b).

- (42) a. àní:kho:stù:há:ʔi
/ani:-kho:stu:ha:ʔi/
3pl.A-dusty
'(they're) dusty (an.)'
- b. kǎ:stu
'ashes, dust'

At this point, it seems doubtful that semantic or derivational generalizations can be found for all the derived adjectives. However, the fact that adjectives, all of which are stative in some basic semantic sense, may take either A or B prefixes, casts doubt on the desirability of identifying B prefixes with stativity. Even if we recognize that all adjectives are stative, however, we can perhaps recognize degrees of stativity among them, and perhaps in that way find semantic motivation for prefix choice. The data do not give evidence of such motivation. Adjectives like 'dusty' (42a) and 'dead' (41b) take A and B prefixes, respectively, yet both are highly stative. 'Huge' (40a) and 'big' (40b), also highly stative, take A and B prefixes respectively. 'Active' (37b) takes an A prefix and is less highly stative; there are also adjectives with B prefixes that are less highly stative, such as 'feisty, outspoken'

ù:tá:càhti.

5.2 Semantic Motivation of Prefix Choice for Verbs

The discussion in section 5.1 shows that on nouns and verbs the choice of prefix, A or B, appears to be largely arbitrary, although there are some clear correlations between prefix choice for certain nouns and adjectives and prefix choice for the verbs from which they are derived. As discussed in Chapters Two and Three, to a large extent prefix choice on verbs is lexically and aspectually determined. In this section I consider whether there is semantic motivation for prefix choice, first examining choice governed by aspect stem, in section 5.2.1, and then examining choice that is lexically governed, in section 5.2.2. I conclude that for a synchronic analysis of Cherokee agreement, the choice between A and B prefixes is best considered arbitrary and not semantically determined, although there are certain semantic generalizations to be found in the data.

5.2.1 Aspect and Prefix Choice

The present, imperfective, punctual, and future stems of verbs take A prefixes to index their arguments (provided that the verb is an A or B-A verb), whereas the perfective, infinitive, propensitative, and pre-inceptive stems take B prefixes.<13> It is not simply the presence of perfective or infinitive morphology which triggers B prefix choice, since certain future verb forms, which are

built on perfective stems, take A prefixes, and since causative/instrumental verbs, which are built on infinitive stems, also take A prefixes.<14>

Thus, the future form of 'speak' takes the A prefix (43a), although the plain perfective form takes the B prefix (43b). Future stems are built from the perfective with the addition of the cislocative prepronominal prefix and the aspectual and modal suffixes associated with motion verbs. The suffix -i in (43a) marks "present" aspect and "indicative" mood.

- (43) a. takawó:ni:si
 /ta-ka-wo:ni:s-i/
 CIS-3sg.A-speak=PERF-PRES
 'he's going to speak'
- b. u:wó:ni:sv:?i
 /u:-wo:ni:s-v:?i/
 3sg.B-speak=PERF-AST
 'he spoke'

Perfective stems themselves take A prefixes with the modal suffix -v:?i in future imperatives, as in (44a) and in subordinate clauses with a future sense as in (44b), which is taken from Pulte and Feeling (1975:351). Mrs. Carey refers to constructions like (44a) as "gentle" imperatives.

- (44) a. Te:hihno:ki:sv:?i.
 /te:-hi-hnokisv:?i/
 DIST-2sg.A-sing=PERF
 'Sing later.'

- b. Wíkě:tô:hě:sti káwó:ní:sv:ʔi.
 /w-k-e:toh-e:sti/ /ka-wo:ni:sv:ʔi/
 TRANS-1sg.A-be:there=IMPF-MFUT 3sg.A-speak=PERF
 'I'll be there when he speaks.'

The verb in (45a), with the causative/instrumental suffix, takes an A prefix (since the verb itself is in the imperfective aspect--an imperfective suffix follows the causative suffix), but the verb in (45b), which is simply a bare infinitive, takes a B prefix.

- (45) a. káwó:ní:hístí:skv:ʔi
 /ka-wo:ni:-hist-i:sk-v:ʔi/
 3sg.A-speak-CAUS-IMPF-AST
 'he was making it speak (of a ventriloquist with his dummy)'
 b. ù:wò:ní:hístí
 /u:-wo:ni:histi:ʔi/
 3sg.B-speak=INFIN
 'for him to speak'

The perfective stems in Cherokee are probably historical perfects rather than perfectives, as examples (22) and (41), above, suggest. Adjectives which are atonic perfectives with a perfect meaning include ùwànsǔ:ʔi 'ripe' (from 'it ripened') and ù:lí:hwò:cǔ:ʔi '(it's) dead' (from 'it died'). Also, many stative verbs in Cherokee show "perfective" morphology, but the category of perfective, if taken to refer to a telic event viewed as a single whole, is incompatible with stativity (cf. Comrie 1976:16-24, Chung and Timberlake 1985:219).

Furthermore, the punctual stems in Cherokee, which take A prefixes, are probably historical perfectives. Punctuals view telic events as single wholes, and stative verbs generally do not have punctual stems. Since both imperfectives and punctuals take A prefixes, the aspectual distinction perfective/imperfective is not helpful in describing the Cherokee aspect stem split in prefix choice. The question remains whether there are semantic similarities to be found among Cherokee perfective, infinitive, propensitative, and pre-inceptive stems.

One possible approach to finding semantic motivation for stem-governed prefix choice involves arguing that the Cherokee perfectives, infinitives, propensitives, and pre-inceptives are to some extent stative, or non-active, or non-dynamic verb forms. The perfective, if it is historically a perfect (and so denotes the result of some former action), can be viewed as a stative and the subject of such a verb can be considered patient-like rather than agentive. The infinitive, although perhaps not truly stative, is still not describing an actual event and hence may be considered non-active or non-dynamic. Propensitives are easily considered stative; pre-inceptives can perhaps be analyzed as describing transitory states.

The A prefixes can be said to be restricted to use as indexes of the arguments of eventive or dynamic verbs;

and the B prefixes can be said to be used in other circumstances, that is, with the perfective, infinitive, propensitative, and pre-inceptive stems. The A prefixes are used on futures, which, like infinitives, can be said to be potential rather than actual events, but it can be argued that futures are characterized by a dynamic perspective.

A weakness of this analysis of prefix choice lies in the fact that the perfective forms--despite the fact that they are perfect-like in some respects, especially where lexical derivation is concerned--are used as simple past tenses (among other things) in modern Cherokee; therefore, this semantic correlation between prefix choice and stem type may very well belong to an historical rather than a synchronic analysis of the language.

The interpretation of the stem-governed split in prefix choice is discussed further in Chapter Six, with emphasis on typological and comparative issues.

5.2.2 Lexically Governed Prefix Choice

Cook (1979) suggests that the verbs which always take B prefixes, regardless of aspect stem, should be considered stative. Chafe (1976b) argues that in Iroquoian languages the prefixes cognate to the Cherokee A and B prefixes are primarily agent and patient prefixes, respectively. In order to evaluate such claims for

Cherokee, I will consider first the use of A and B prefixes on intransitive verbs, and then look at the use of the prefixes on transitive verbs.

5.2.2.1 Intransitive Verbs

The set A prefixes are more limited in distribution than the B prefixes, since B prefixes can occur in all aspect stems and A prefixes cannot. We might expect, likewise, that A prefixes have a more limited semantic distribution and that A prefixes can only be used to index truly agentive subjects. This is not the case, however. Both A and B prefixes may be used on various kinds of verbs to index various semantic roles.

The vast majority of the intransitive verbs which require B prefixes are stative ('angry'), or positional ('be standing in liquid'), or describe involuntary body functions ('sneeze'), and their arguments can easily be considered patients rather than volitional agents. B verbs are exemplified in (46a-c).

- (46) a. \ddot{u} :hna^v:lvha
/u:-hna:lvha/
3sg.B-be:angry=PRES
'he's angry'
- b. \ddot{u} :tuha
/u:-atuha/
3sg.B-stand:in:liquid=PRES
'he's standing in liquid' (Feeling 1975:163)

c. tũ:hŷv:stôyska
 /te-u:-hyv:stoyska/
 DIST-3sg.B-sneeze=PRES
 'he's sneezing' (Feeling 1975:57)

It is not possible to find semantic regularities to account for all of the B-marked intransitives. So, for example, 'to work' (47a) and 'to take revenge' (47b) are B-marked verbs with agentive subjects.

- (47) a. tũ:lv:hwístà:nèha
 /te:-u:-lv:hwista:neha/
 DIST-3sg.B-work=PRES
 'he's working'
- b. ù:tlé:ka
 /u:-atle:ka/
 3sg.B-take:revenge=PRES
 'he's taking revenge'

Many A-marked intransitives, such as 'dance' or 'speak', have highly agentive subjects, as is illustrated in (48).

- (48) a. kálì:skí:ʔa
 /k-aliʔski:ʔa/
 1sg.A-dance=PRES
 'I'm dancing'
- b. kawò:niha
 /ka-wo:niha/
 3sg.A-speak=PRES
 'he's speaking'

There are, however, a number of A-marked intransitive verbs which describe states ('stink'), positions ('be hanging'), and body functions ('to breathe') as illustrated in (49a-c).

- (49) a. ǎ:sǎ:ka
 /a-sv:ka/
 3sg.A-stink=PRES
 'it stinks'
- b. kthó:ʔa
 /ka-tho:ʔa/
 3sg.A-hang=PRES
 'it (a long object) is hanging'
- c. khawò:láté:ʔa
 /ka-hwo:late:ʔa/
 3sg.A-breathe=PRES
 'he's breathing' <15>

Since any Cherokee intransitive verb takes one of two sets of agreement prefixes, and since those sets are to some extent associated with the semantic opposition of agent/patient and the syntactic opposition of subject/object, Cherokee can be considered a split intransitive language. Cherokee manifests the characteristics attributed to split intransitive languages on a cross-linguistic basis (Merlan 1985). Of the approximately 260 intransitive verbs from Feeling (1975), under a third are B verbs. (The B verbs from Feeling (1975) are listed in Appendix Three.) Given the use of B prefixes in marking transitive verbs, we can say that Cherokee is a split intransitive language with a smaller, specialized objective (B) class and a larger subjective (A) class.

Merlan claims that verbs in specialized classes will, with few exceptions, require animate subjects.

This is true of Cherokee, where approximately 60 of the 75 or so B verbs require animate subjects.<16>

Of the remaining B verbs, many are weather verbs (though not all weather verbs in Cherokee take B prefixes). The patterning of weather verbs along with the animate-subject specialized class of B verbs is not surprising, and can be interpreted as complementary to the tendency for NP's which have the "capacity for spontaneous manifestation of . . . phenomena" to be treated as animate (Merlan: 350). Likewise, it is not surprising that the verbs 'to rattle' and 'to sound' belong in the animate-subject specialized class.

This discussion is not intended to deny that there is considerable validity to descriptions of the distinction between A and B marked intransitives as a distinction between active and stative verbs. Almost all of the B-marked arguments are indeed patient-like.

5.2.2.2 Transitive Verbs

Three classes of transitive verbs can be distinguished on the basis of prefix choice in the A stems (present, imperfective, punctual, and future). In these stems, most transitive verbs take A prefixes to mark various subjects with inanimate objects and take A prefixes to mark third person subjects with third person objects. These are A verbs. There are a few transitive verbs

which always take B prefixes to mark various subjects with inanimate objects and to mark third person subjects with third person objects (B verbs). There are verbs which take A prefixes to mark various subjects with inanimate objects in A stems, but which always take B prefixes to mark third person subjects with third person objects (B-A verbs).

All three types of verbs can have agentive and non-agentive subjects. Transitive B verbs include somewhat stative verbs such as 'love' and 'listen' (50a-b), for which the subject is an experiencer and hence perhaps might be considered patient-like; but there are also stative transitive A verbs, such as 'see' and 'hear' (51a-b), which take subjects which may be considered experiencers.

- (50) a. $\ddot{u}:t\grave{a}:k\grave{e}:y\acute{u}h\grave{a}$
 /u:-ata:ke:yuha/
 3sg.B-love=PRES
 'he loves him'
- b. $\ddot{u}:th\grave{v}:t\hat{a}:st\grave{i}$
 /u:-athv:ta:sti/
 3sg.B-listen=PRES
 'he's listening to him/it'
- (51) a. $\grave{a}:k\grave{o}h\grave{w}th\acute{i}h\grave{a}$
 /a-kohwthiha/
 3sg.. -see=PRES
 'he sees him/it'
- b. $\grave{a}:th\grave{v}:k\acute{i}:?a$
 /a-athv:ki:?a/
 3sg.A-hear=PRES
 'he hears him/it'

The subject of 'listen', which takes B prefixes, is more agentive than the subject of 'hear', which takes A prefixes.

Most A verbs, such as 'hit' (52) have agentive subjects. There are also B verbs with agentive subjects, such as 'throw' and 'buy' (53a-b).

(52) kv:hniha
/ka-v:hniha/
3sg.A-hit=PRES
'he's hitting him/it'

(53) a. ù:té:ka
/u:-ate:ka/
3sg.B-throw=PRES
'he's throwing it'

b. ù:hwaska
/u:-hwaska/
3sg.B-buy=PRES
'he's buying it'

B-A verbs, such as 'look for' (with an agentive subject) and 'forget' (with a non-agentive subjects), are illustrated in (54) and (55); in each case, the (a) example shows the form for inanimate objects and the (b) example shows the form for animate objects.

(54) a. ù:hyóha
/u:-yhoha/
3sg.B-look:for=PRES
'he's looking for it'

b. á:hyóha
/a-yhoha/
3sg.A=look:for=PRES
'he's looking for him'

- (55) a. $\dot{u}:w\grave{a}:k\grave{h}e\dot{w}ska$
 / $u:-v:k\grave{h}e\dot{w}ska$ /
 3sg.B-forget=PRES
 'he's forgetting it'
- b. $k\dot{v}:k\grave{h}e\dot{w}ska$
 / $ka-v:k\grave{h}e\dot{w}ska$ /
 3sg.A-forget=PRES
 'he's forgetting him'

There are semantic patterns to be observed among these different inflectional classes. First, the B verbs and B-A verbs are all characterized by relatively unaffected objects (with the possible exception of 'throw' (53a)). The A verbs may have unaffected objects, as in (51), or affected objects, as in (52). Second, recall that most intransitive B verbs require animate subjects; all B and B-A transitives require animate subjects. Third, half of the B transitive verbs listed in Feeling (1975) are verbs meaning 'have' or verbs meaning 'to wear [an article of clothing]'. (Verbs meaning 'to put on [clothing]' and verbs meaning 'to take off [clothing]' take A prefixes.)

The B-A verbs are somewhat puzzling. The use of B prefixes on transitive B verbs is associated with the unaffectedness of objects. Arguably a thing is less affected by any action than a person or animal is, and by this criterion, the B-A verbs are consistent with the semantics of the Cherokee prefix system, but it is not

clear why this distinction should be made just for the B-A verbs and not for others.

In my analysis, B-A verbs appear in the lexicon twice: one stem, which is used with animate objects, is marked to take A prefixes; the other stem, which is used with inanimate objects, is marked to take B prefixes.

This chapter does not present an exhaustive account of the principles underlying prefix choice on verbs: most of the morphology of verb stem derivation has not been addressed here. Further investigation may reveal additional principles underlying the choice of prefix on verbs, but at present, it appears that prefix choice is not directly determined by semantics. Semantic roles do come into play in verb agreement, however, since syntactic roles are determined by semantic roles, as discussed in Chapter Three.

Notes to Chapter 5

<1>There is a large class of nouns with concrete referents which have tonic accent patterns. Most of the nouns with atonic accent are transparently deverbal. Nouns with atonic accent generally show high rising pitch (↗) on the rightmost underlying long vowel.

<2>The possessive noun -àcè:lí:ʔi, which takes B prefixes, is used to indicate possession of a noun which does not indicate its possessor through the prefix system. Plurality of the possessed noun is marked by the presence of the distributive prefix on the possessive noun. The possessive noun may precede or follow the noun it modifies.

The fact that the possessive is used freely as an attributive, predicate, and substantive may make it appear to be an adjective. Adjectives, however, always take A or B prefixes which agree in person and number with the nouns that modify; clearly this is not the case in (2), since àkwacè:lí is not modifying the first person.

<3>Holmes and Smith (1977:110) suggest that 'tree' is to be considered a deverbal noun.

<4>Other forms of this word make it clear that the stem begins with /h/, which is deleted after the long vowel of the prefix (see Chapter One).

<5>The noun 'flower', àci:lǎ:ski (plural àni:ci:lǎ:ski) is built on the imperfective stem of the verb 'bloom': à:ci:lǎ:skó:ʔi 'it blooms', all with A prefixes. Mrs. Carey uses the noun with a B prefix: hence, ù:ci:lǎ:ski, with plural ù:ni:ci:lǎ:ski. Walker (1975:199) cites the A prefix form as 'flower' and the B prefix form as "'bud' (potential flower)".

<6>The atonic form of the imperfective stem with the assertive suffix -v:ʔi may be considered an event nominal. Event nominals refer to specific events, and take A or B prefixes according to the prefix set normally taken by the verb in question. Thus, there is an event nominal káwó:ni:skǎ:ʔi 'his speaking' corresponding to the imperfective verb káwó:ni:skǎ:ʔi 'he was speaking', both with the 3sg.A prefix ka-; and there is an event nominal ù:té:kǎ:ʔi 'his throwing it' corresponding to the imperfective verb ù:té:kǎ:ʔi 'he was throwing it', both with the 3sg.B prefix u:-.

<7>Subjective nouns may in some cases denote instruments. Ti:tà:hli:lo:stí:ski means 'camera' or 'photographer' and is built on the imperfective stem of

the verb 'draw a picture of, photograph' (Feeling 1975: 68, 80).

<8>The locative nominalizer -?i has a different meaning from the locatives -hi and -?i which are added to nouns to give the meaning "on X", "in X", "into X", or "from X".

<9>Holmes and Smith (1977:164) show this kinship term with the B prefixes in constructions like this one: hence, akito 'my sibling of the opposite sex'.

<10>The meaning of this root is unclear. According to Holmes and Smith (1977:165), this word can mean 'my wife', but usually means 'my husband'. Mrs. Carey prefers to use it only for 'husband'; Feeling (1975) lists it as 'husband'.

<11>Lindsey and Scancarelli (1985) claim that 'blue' will take the A prefix in the 3sg. animate form; subsequent work has convinced me that such is not the case.

<12>Of the deverbal adjectives ending in -ta, some take A prefixes, others take B prefixes, and still others take unspecified subject prefixes. It is not clear what determines prefix choice for these adjectives.

<13>Propensitives may be translated in English with the phrase "be likely to"; pre-inceptives may be translated into English with the phrase "be about to".

<14>For any verb, the affix which makes the root into an infinitive stem is the same as the affix which makes the root into a causative-instrumental stem. Cook (1986) argues that the Cherokee infinitives are historically derived from causatives, and suggests that the B prefixes on infinitives originally served to indicate that the action described by the verb was unintentional on the part of the subject. In connection with this discussion of the semantics of the infinitive suffix, note that the tonic (or main-clause) infinitive carries a meaning of obligation (see Cook 1979:96).

<15>'Breathe' may be regarded as describing an action which is subject to voluntary control, compared to 'sneeze' in (46c). 'Die', which might be considered a body function of a sort and which is in general not subject to control, also takes an A prefix: á:yò:hù:ská 'he (hum.) is dying'.

<16>One verb in Cherokee which takes both A and B prefixes, -ga:nawo:- 'get warm', takes A prefixes with inanimate subjects and B prefixes with animate subjects,

as illustrated in (a) and (b) below. (Most verbs take either A or B prefixes; not both.)

- (a) ǎ:kà:nawò:ska
/a-ka:nawo:ska/
3sg.A-get:warm=PRES
'it's getting warm (e.g., the weather)'
- (b) ù:kà:nawò:ska
/u:-ka:nawo:ska/
3sg.B-get:warm=PRES
'he's getting warm; he's warming himself'

CHAPTER 6: TYPOLOGICAL AND THEORETICAL PERSPECTIVES

In this chapter I address some of the typological and theoretical issues that are raised by the grammatical facts discussed in the previous chapters and by my analysis of those facts.

Throughout the chapter, the abbreviations "A", "O", and "S" are used for transitive subjects, transitive objects, and intransitive subjects respectively, in the senses in which they are used by Dixon (1979:61). "S" is not used to indicate the category A/S. The abbreviation "A" is also used in speaking of the A prefixes; context makes clear whether the symbol A refers to the set of prefixes or the grammatical category.

In section 6.1, I examine the alternation between A and B prefixes on Cherokee verbs, which is reminiscent of different kinds of split agreement and split case-marking systems. Cherokee intransitive verbs exhibit what has been called a split-intransitive pattern, and since the split is governed not only by the predicate itself but also by the aspect in which the predicate appears, Cherokee bears some resemblance to a split-ergative language. This resemblance is reinforced by the presence of the A ~ B alternation on certain transitive clauses, governed by the predicate itself (for B and B-A verbs) and by the aspect stem; it is also reinforced by the fact

that this alternation in transitive verbs is restricted to certain combinations of verbal arguments, specifically to with certain third person objects.

The use of A prefixes in the active construction and of B prefixes in the inverse construction, where the use of each construction is governed in large part by the types of NP's serving as arguments, links the discussion of Cherokee as a split system to discussion of the best analysis of the inverse in section 6.2.

Cherokee is a prime example of a type of language which has received a good deal of attention in recent linguistic work which attempts to provide theoretically adequate accounts for typologically diverse languages. In section 6.3 I look at Cherokee as a "Pronominal Argument" language, following Jelinek (1984, 1986), and as a "Head Marking" language, following Nichols (1986).

6.1 Split Systems and Cherokee Grammar

The alternations between A and B pronominal prefixes and between active and inverse constructions are governed by the same factors which govern splits and alternations in the grammars of many other languages: by the lexical content of the verb in question, by the aspect of the verb in question, and by the semantic content of the verb's NP arguments.

On almost all transitive verbs in the A-stems (imperfective, present, punctual and future stems), the A prefixes mark agreement with the transitive subject (or A, in the terminology of Dixon 1979) of a verb with a 3inan. object. The exceptions are B verbs and B-A verbs. The B prefixes agree with the object (or O) of a verb with a 3sg. subject. The examples in (1) and (2) show why we might consider the A prefixes as markers of A's, and the B prefixes as markers of O's.

(1) cikò:wthíha
 /ci-ko:ʔthiha/
 1sg.A-see=PRES
 'I see it'

(2) à:kiko:hwthíha
 /aki-ko:hwthiha/
 1sg.B-see=PRES
 'he sees me'

These A and B prefixes are also used to index intransitive subjects (S's). Since A prefixes are used to index the categories A and S, they appear to be nominative; and since B prefixes are used to index the categories O and S, they appear to be absolutive. Two facts--the fact that A prefixes, or prefixes which are phonologically and semantically related to them, are used for all clauses with first or second person subjects and third person animate objects, and the fact that these prefixes are clearly indexing the subject of those transitive clauses--reinforce the association of A

prefixes with the grammatical category A, giving them an ergative feel, despite their nominative nature. The formal analysis in Chapter Four captures the ergative feel of the A prefixes by treating the intransitive verbs which take A prefixes as inflectionally transitive, with dummy 3sg.inan. objects.

The fact that in certain aspect stems, all intransitive subjects are indexed with B prefixes; and the fact that B prefixes or prefixes phonologically and semantically related to them are used in all clauses with third person subjects and first or second person objects; and the fact that in those transitive clauses the B prefixes clearly index the object all reinforce the absolutive flavor of the B prefixes. In Chapter Four, the absolutive nature of the B prefixes is captured by having a single rule, sensitive to the internal level of morphosyntactic representation, assign prefixes to intransitive verbs and to transitive verbs with third person subjects.

It is also true that the B prefixes are used to index the grammatical category A in certain aspect stems (the B stems) in clauses with first or second person subjects and 3inan. objects. In other words, the A of a clause with a 3inan. O may be treated like an S for purposes of agreement inflection. The analysis in

Chapter Four accounts for this with the lexical feature [+B].

6.1.1 Cherokee as a Split-Intransitive Language

As far as intransitive verbs are concerned, there are two factors governing the split in the agreement system: the lexical features of the verb itself, and the aspect in which the verb appears.

In the A-stems, intransitive subjects will be marked as A's on some verbs and as O's on others. This split-intransitive pattern is to be distinguished from a "fluid" pattern of the sort described for subclasses of intransitive verbs in Eastern Pomo (McLendon 1978) and Batsbi (see discussion in Merlan 1985:338-41). In fluid intransitive systems, as discussed by Dixon (1979) and DeLancey (1981), among others, the marking of an S as either an A or an O is dependent upon the control or volition of the S. In split systems, the marking of an S like an A or an O is wholly determined by the lexicon. (The Muskogean languages, which, like Cherokee, were spoken in the Southeast at the time of first white contact, are characterized by somewhat fluid agreement systems, as discussed by Munro and Gordon (1982) and Hardy and Davis (1987).)

Cherokee exhibits a split system not only for intransitive verbs but also for some transitive verbs

(the B-A verbs) in just those circumstances in which A's are marked in the same way as S's (i.e., when the O is 3inan.).

Chapter Five includes an examination of the ways in which Cherokee is a typical split-intransitive language: while the label "stative-active" or "active" is not actually misleading as a description of the system, it is also not entirely accurate.

6.1.2 The Aspect Split in Cherokee

A second factor governing the use of A and B prefixes on Cherokee verbs is the aspect stem in which the verb appears. In some aspect stems, S's may be marked as either A's or O's, depending upon the verb; but in other stems, all S's are marked as O's, with B prefixes. This pattern also affects those transitive verbs which are treated as intransitives, as mentioned above.

As expected on cross-linguistic grounds, the ergative pattern (with S treated inflectionally as O) is found in the perfective aspect stem (which is etymologically a perfect). The ergative pattern does not obtain when the perfective stem is used in indicating non-perfective future tense or imperative mood. The accusative pattern (with S treated inflectionally as A) is found in the imperfective aspect, in the present, in

the punctual (used as immediate past and as imperative), and in the future. DeLancey (1981:646-7) discusses possible semantic motivations for the similar treatment of S and O in perfect or perfective aspect, observing that perfective aspect specifies a terminal (object) viewpoint on the event. Terminal viewpoint is less natural than initial (subject) viewpoint, and, like other less-than-natural viewpoints, may be treated ergatively.

It is more difficult to find plausible semantic motivation in terms of terminal viewpoint for the ergative patterning on Cherokee infinitives, propensitives, and pre-inceptives. Since all of these may be seen as indicating some potential of an agent, accusative patterning might be expected. The Cherokee infinitive, however, is etymologically related to an instrumental or causative, and the ergative-like treatment here may be seen as reflecting some lack of control on the part of the subject, as it would in a fluid intransitive system. Propensitives and pre-inceptives are built on perfective stems: that fact alone cannot be said to account for the ergative patterning, since the future is also built on the perfective stem; but both propensitives and pre-inceptives are arguably somewhat stative (see Chapter Five). A clearer understanding of the etymologies of these derived

stems is likely to provide further insight into their ergative patterning.

The discussion above deals with the possibility in Cherokee of treating intransitive subjects as either A's or O's, and with the resulting alternation between accusative and ergative marking. From a different perspective, the splits discussed above can be seen as instantiating a system which exhibits a split between an accusative pattern and a neutral pattern, in which A, S, and O are not distinguished from one another. Consider the marking of A's, S's, and O's, restricting attention to A's in clauses with third person objects and O's in clauses with third person subjects, since verbs with two first or second person arguments do not show A or B prefixes. A first or second person A or S may be marked with an A or B prefix (depending upon the verb and the aspect stem); a first or second person O may only be marked with a B prefix (regardless of verb or aspect stem). A third person A or S may be marked with an A or B prefix (depending upon the verb and the aspect stem); a third person O is generally unmarked but in certain circumstances (i.e., in inverse constructions), third person O's are marked with B prefixes. In the B-stems, there is no distinction made at all: A's, S's, and O's are alike in that they require B prefixes. The point is that S's and A's behave the same in this respect, taking

A or B prefixes, and O's behave differently, taking only B prefixes.

TABLE 16: Cherokee Aspect Aplit as Split-Accusative

	<u>A-stems</u>	<u>B-stems</u>
A's marked with:	A or B prefixes	B prefixes
S's marked with:	A or B prefixes	B prefixes
O's marked with:	B prefixes	B prefixes

Where aspect stems are involved, Cherokee is a partially accusative system, as illustrated in Table 16, which shows an accusative pattern and a neutral pattern, but no ergative pattern, since no distinction is made between O's and S's on the one hand and A's on the other. The accusative and neutral patterns illustrated in Table 16 are not directly represented in the analysis in Chapter Four; rather, they arise from the interaction of the various rules and morphosyntactic representations given there.

6.1.3 Splits Governed by the Status of Verb Arguments

The lexically-governed and aspectually-governed splits discussed above affect transitive verbs as well as intransitive verbs, but only for certain combinations of A and O. The other alternation between A prefixes and B prefixes can be understood with respect to an animacy hierarchy, as discussed in Chapter Three. In the

discussion which follows, I address general patterns in the Cherokee agreement system, and I ignore the difference between the true A prefixes and the prefixes used on verbs with first and second person subjects and 3an. objects.

The animacy hierarchy for Cherokee is given in (3), which is the same as (41) from Chapter Three.

(3) 1,2 > 3 proximate > 3 obviative > 3 inanimate

When the O is ranked higher than the A, a B prefix, or a prefix related to a B prefix is used to index the O, and the A is marked for number with a formative consisting of k- followed by a vowel. Otherwise, an A prefix, or a prefix related to an A prefix is used to index the A, and the O is marked primarily for number, with the distributive prefix.<1>

Inasmuch as Cherokee grammar always requires agreement with an S, and requires agreement with an A in some circumstances and with an O in others, we can consider the system to be split-ergative, sensitive to the semantic content of the NP's, with an ergative pattern (agreement with O in preference to A) exhibited on transitive verbs in those clauses with third person subjects and B prefixes. Such an approach is consistent with the definition of an ergative construction proposed by DeLancey (1981:627). On the other hand, we can

consider the system to be split-accusative, again sensitive to the semantic content of the NP's, with an accusative pattern (agreement with A in preference to O) exhibited on transitive verbs in those clauses with third person objects and A prefixes. The system is neither ergative nor accusative for first or second person subjects with first or second person objects: agreement in such cases is with both A and O, and neither A prefixes nor B prefixes appear on the verb.

Dixon (1979:90-91) suggests that systems in which the relative ranking of arguments determines agreement marking ought to be distinguished from true ergative systems, but he recognizes that the phenomenon is basically the same as the ergative/accusative case marking split described for many other languages.

This sort of differential agreement marking for transitive verbs is consistent with other split systems, as they have been described by linguists examining languages of many different families. Building on the interpretation of split ergative systems given by DeLancey (1981), we can say that in Cherokee the ergative pattern is used in (some of the) cases in which the starting-point in terms of attention flow (the subject) is not also the natural (deictic) viewpoint, where a speech-act participant, first or second person, constitutes a natural viewpoint. When both starting-

point and ending-point are natural viewpoints, neither ergative nor accusative patterns are used. When starting-point and viewpoint coincide, an accusative or accusative pattern is used.

A more precise description of Cherokee agreement will distinguish the true A prefixes, which alternate with B prefixes under conditions discussed in 6.1.1 and 6.1.2, from the prefixes which resemble A prefixes but which do not alternate with B prefixes. Under the interpretation of split systems suggested above, this distinction between true A prefixes and A-like prefixes suggests that a third person animate object is a more natural a viewpoint than a third person inanimate object, as we would expect. The A-like prefixes which do not alternate with B prefixes are used in situations intermediate between clear suitability of both subject and object as viewpoint and clear unsuitability of object as viewpoint.

An alternative interpretation of split systems is suggested by Du Bois (1987), who argues that the animacy hierarchy is to be understood in terms of the likelihood of an NP being associated with given information. More highly ranked NP's are more likely to represent given information (and first and second persons are necessarily given); less highly ranked NP's are less likely to be given. Applying this interpretation to Cherokee, we can

say that the argument which represent given information, regardless of grammatical role, is pronominalized (i.e., the NP higher on the hierarchy is marked on the verb), leaving the other argument to be indexed with a full NP. With first and second person subjects and objects, both A and O are given and both A and O are pronominalized.

Such an account of the Cherokee system, which is very similar to Cook's, discussed in Chapters Three and Four, is better interpreted as an abstract analysis of the pragmatic and grammatical patterns to be observed in the language rather than as a synchronic account of Cherokee grammar, since in fact the actual discourse-pragmatic status of an NP as given or not given does not always determine verb agreement (as, for example, in the marking of clauses with one third person animate argument and one third person inanimate argument) and since the likelihood of an NP bearing some discourse status may be at odds with the discourse status that it does actually bear in a given context. Allowance must be made for lexical as well as discourse factors in a synchronic analysis.

6.1.4 Interpreting the Split System

The splits discussed in sections 6.1.1 and 6.1.2 involve an alternation between A prefixes and B prefixes, and the split discussed in section 6.1.3 also involves

the A and B prefixes, but it is important to recognize that they are in principle quite different kinds of splits, and probably have different sources in the development of the language. Splits governed by verbs and by aspect involve the inflectional treatment of an S or an A as though it were an O: it is clearly the S or A that is indexed on the verb, regardless of the way in which it is marked. Splits governed by the status of verb arguments involve the selective indexing of either A or O on the verb.

The two types of splits do interact: if the status of verb arguments requires that the A be marked on the verb, and if that A is to be marked with an A prefix, the A will in fact be marked as if it were an O (with a B prefix) in certain aspect stems and on B verbs. This intersection of the splits is illustrated in Table 5-7 of Chapter Two: the B prefixes u:- and u:ni:- play more than one role in the agreement system.

Although the various splits in Cherokee agreement are in keeping with splits in other languages, the fact that both kinds of splits are manifested in the pronominal prefix system, and the fact that the B prefixes have so many uses (leading to ambiguity) is surprising, and Cherokee is unusual in having such a system. Dixon (1979:91) is unaware of the existence of any languages in which splits conditioned by the semantic

content of NP's and splits conditioned by the semantic content of verbs are realized through the same morphology. (In referring to splits conditioned by the semantic content of NP's, he appears to include systems based on relative animacy of A and O; in referring to splits conditioned by the semantic content of verbs, he includes split-intransitive systems.) Dixon suggests that if both types of split made reference to the same morphology, a high likelihood of ambiguity would result--ambiguity which might go beyond the limits that a grammar would allow.

The pronominal prefix systems of the Northern Iroquoian languages in fact show patterns similar to Cherokee (Lounsbury 1953; Chafe 1970, forthcoming), but their gender systems serve to block a good deal of ambiguity where third persons are concerned.

Examples from Onondaga show the three types of split occurring in a Northern language. The sentence in (4a) contains a verb which requires the subjective prefixes (corresponding to the Cherokee set A prefixes); the sentence in (4b) contains a verb which requires objective prefixes (corresponding to Cherokee set B prefixes). The prefixes are underlined in each case. Both examples in (4) are from Chafe (1970:6).

- (4) a. cihá kanyá:ha?
'The dog is barking.'

- b. cihá oksté?ah
'The dog is old.'

The verbs in (5a) and (5b) differ in aspect stem. The stem types illustrated in (5a) requires subjective prefixes; the stem type in (5b) requires objective prefixes. Both examples are from Chafe (1979:17).

- (5) a. ?ethé?tha
'She is pounding.'
b. kothé?tih
'She has pounded.'

The example in (6a) shows a clause with a subject which outranks the object on the Onondaga hierarchy. The verb takes a subjective prefix agreeing with the masculine singular agent. The example in (6b) shows a clause with an object which outranks the subject on the Onondaga hierarchy. The verb takes an objective prefix agreeing with the 1sg. patient.

- (6) a. wa?hahninó? ne? Harry ne? cí:hah
'Harry bought a dog.' (Chafe 1970:70)
b. cihá wa?wa:kí:k
'The dog bit me.' (Chafe 1970:59)

Trask (1979:389) knows of no language which clearly exhibits both a split governed by NP status and also a split governed by tense or aspect.<2> Trask argues that those two types of splits have different sources. Splits

governed by NP status originate as passive constructions which have become obligatory (p. 391). Splits governed by tense or aspect originate as stative constructions (p. 397). Trask's suggestions are consistent with the observed differences between the manifestation of the NP split in Cherokee, where the the B prefixes mark O's, and the manifestation of the aspectual split in Cherokee, where the B prefixes mark A's.

The various splits in the Cherokee pronominal prefix system all involve alternations between A and B prefixes, and they all follow the typological lines that we expect, given patterns existing in other languages. Although Cook's (1979) analysis treats the split-intransitive pattern and the aspect split in the same way; the analysis proposed in Chapter Four treats each of the three splits differently. Just as it is impossible to account for the splits with a single synchronic rule, it is not clear that a single explanatory factor or historical source should necessarily be proposed to account for all the splits. The similarities among the patterns, and the frequent occurrence of such patterns across languages, however, suggest that they may result from similar pressures or factors coming into play in different realms of grammar.

The aspect split and the NP-governed split may both be amenable to explanation in terms of viewpoint,

following DeLancey (1981), with grammaticization of the patterns defined by semantic-pragmatic factors; the verb-governed split is not so clearly amenable to such an explanation, although split intransitivity can perhaps be viewed as a development arising from the effects of semantic-pragmatic factors which played a greater role in the grammar at some earlier stage in the development of the language.

Du Bois's (1987) discourse-based motivation for ergative patterns is oriented toward NP-governed splits. In a footnote, Du Bois suggests that his explanation may also be applicable to aspect-governed splits.

The Cherokee A and B prefixes, and their cognates in Northern Iroquoian languages, were probably at one time either subject and object prefixes, respectively (Chafe forthcoming); or agent and patient prefixes, respectively (Chafe 1976b:47). Presumably, various factors-- pragmatic, semantic, or syntactic, or some combination-- operated on the proto-language to yield the present system: but those factors may have operated on different parts of the system at different times. Detailed comparative work, done with an eye toward possible explanatory pressures, is one test of the viability of different interpretations of split ergativity. Comparative work can complement discourse studies (Du

Bois 1987) and psychological studies (as discussed by DeLancey 1981) in the evaluation of explanations.

6.2 Passive, Ergative, or Inverse

In this section, I argue that transitive constructions in Cherokee which always require B prefixes to agree with O's, regardless of the verb or aspect stem, should be analyzed as inverses, as I have done in preceding chapters. Specifically, I examine the extent to which the labels "passive", "ergative", and "inverse" are appropriate (a) for clauses with third person A's and first or second person O's (which show B prefixes), and (b) for clauses in which B prefixes are used to index certain combinations of third person A's and third person O's. I call all these clauses "inverse" clauses.

First, I discuss the applicability of the term "passive" to two different Cherokee constructions: the unspecified subject construction (section 6.2.1.1) and the inverses (section 6.2.1.2). In section 6.2.2 I return to the question of ergativity, discussing similarities between the inverse and standard accounts of ergative constructions. In section 6.2.3, I discuss the extent to which the term "inverse", applied to constructions in Algonkian languages, is an appropriate label for the Cherokee B-marked passive.

In section 6.2.4, I discuss the fact that the Cherokee inverse does not appear to have a unitary status in the grammar. Verbs are marked to agree with their O's in preference to their A's under two sorts of conditions: (1) under pragmatic and clause-level syntactic conditions, in clauses with certain third person subjects and objects, and (2) under morphological or NP-level syntactic conditions--inflectional conditions--in clauses with other third person subjects and objects, and in clauses with third person subjects and first or second person objects.

6.2.1 Passive

Cherokee may be profitably analyzed as having two quite different types of passive construction: an agentless or impersonal passive, covered in section 6.2.1.1, and a morphological passive (the inverse) covered in section 6.2.1.2. There are many different definitions of "passive" in the literature; recent typological surveys of passives include Siewierska (1984) and Keenan (1985).

The following discussion of the passive in Cherokee reflects the approach taken by Kroskrity (1985) in his discussion of passive constructions in Arizona Tewa. Kroskrity defines passives functionally as "morpho-syntactic strategies for making patients into topics

and/or subjects" (p. 307), and on that basis he identifies two separate passive structures in Arizona Tewa. The two candidates for passive in Cherokee can certainly be considered "morphosyntactic strategies", since both constructions involve the pronominal prefixes. The concept of "topic" is somewhat vague despite recent research addresssing the issue: one complicating factor is that topics must be identified at different levels of discourse. Since the syntactic role of "subject" has only minor status in Cherokee grammar, it is only to be expected that any argument that a given Cherokee construction is a passive will be very weak in comparison to an argument for passive status in a language in which subject status plays a more prominent role in the grammar.

6.2.1.1 The Impersonal Passive

The Cherokee impersonal passive is a more typical passive construction than is the morphological passive. Impersonal passives appear with only one NP argument and are generally agentless, as in (7), although an effector or instrument may appear as an oblique, as in (8). These examples are repeated from (39) and (40) in Chapter Two.

- (7) Nahi:yu teke:kowe:lano?i.
 /te-ke:k-owe:lan-o?i/
 that:time DIST-unspec/3pl.-mark=PERF=HAB
 'It is at that time that they got their stripes.' (CS)

subject prefixes for first and second person patients all consist of this a- or e- formative followed by the appropriate B prefix. Historically, then, these prefixes, now used for agentless passives, were markers of 3an. A's with O's of some specified person and number.

6.2.1.2 The Morphological Passive

The inverse or "morphological passive" is illustrated in (9). (9a) is an inverse or passive clause and (9b) is an active clause.

- (9) a. Cá:n ù:kò:hwthíha Mě:l.
 /u:-ko:hwthiha/
 John 3sg.B-see=PRES Mary
 'John is seen by Mary.'
- b. Cá:n ã:kò:hwthíha Me:l.
 /a-ko:whthiha/
 John 3sg.A-see=PRES Mary
 'John sees Mary.'

Clauses with third person A's and first or second person O's do not have alternate active and passive forms, but they may be considered passives, since they require B prefixes to mark person and number of the O and since k- plus a- or e- is used to indicate plurality of the A, as is the case for passives with third person A's and third person O's.

The morphological passive is not a typical passive, since the morphological passive, as a transitive rather than detransitivized verb, can have two NP arguments; but

there are at least two reasons to analyze these constructions as passives, although the arguments for morphological passives are not so persuasive as the corresponding arguments for the impersonal passives.

First, in morphological passives, the O shows subject properties to the extent that the pronominal prefix indexes the O in preference to the the A. Morphological passives with 3sg. A's (agents) can be considered to show agreement with the O to the exclusion of the A. So for example, the prefix u:ni- (3pl.B) can be used in a morphological passive construction to indicate a 3sg.A and a 3pl.O, as in (10).

(10) Wě:s kî:hli ù:nì:khě:hê:ka.
 /u:ni:-khe:he:ka/
 cat dog 3pl.B-chase=PRES
 'The cats are being chased by the dog.'

This prefix is used in other, intransitive, constructions to indicate the presence of a single 3pl. argument.<3> Thus, we can say that in the morphological passive, just as in those intransitive constructions, the 3pl.B prefix marks a 3pl. argument, and in the morphological passive, that argument is the O rather than the A. In morphological passives with 3pl. A's, however, the pronominal prefix does reflect the number of the A, since a formative consisting of k- and a following vowel indicates that the A is non-singular. In morphological

passives then, the verb shows agreement primarily with the O, if not exclusively with the O.

A second reason to analyze these constructions as passives is that they are used when the O is topical. I argue in Chapter Three that the B-prefix passive construction is used with O's which represent given information. Given NP's tend to be topical. Furthermore, the B-prefix passive is used in circumstances when the O of a clause is the A of another clause in the immediate context (see Table 14 in Chapter Three). The frequent topicality of A's is also discussed in Chapter Three. The weakness of this argument lies in the fact that the texts which I have examined show very few morphological passives, and questions of topicality cannot reasonably be addressed without reference to context.

Keenan and Comrie's work on the "Accessibility Hierarchy" (1977, 1979) suggests that if any NP's can be relativized or questioned, subject NP's can be relativized or questioned. It is worth noting, then, that there is a tendency for morphological passives, as opposed to actives, to appear in relative clauses in which the A is the head and in questions in which the A is the questioned constituent, as discussed in Chapter Three. This use of the passive as opposed to the active is found only in clauses with third person A's and O's.

The use of the morphological passive construction in these situations is consonant with the fact that the morphological passive is used when O's are given. If these morphological passives are indeed passives, however, then the O would be expected to have subject properties. Therefore, we might expect morphological passives to be used in relative clauses in which the O is the head and in questions in which the O is the questioned constituent.

We have here a conflict between syntactic properties, such as those which Keenan and Comrie are examining, and pragmatic properties, which govern some of the uses of the Cherokee morphological passive. The Cherokee passive is primarily a pragmatic rather than syntactic construction, and does not stand as a typical passive. Given the marginal status of "subject" as a role in Cherokee grammar, it is not surprising the the O's in passives differ from prototypical subjects.

In fact, the question of what to call the Cherokee construction which I have called the "inverse" is largely an aesthetic issue than a substantive one. One reason to analyze the construction as a "passive" is that such an analysis underscores the similarity between the B-marked transitives and the agentless passives, both of which call for pronominal prefixes built on the B prefix set. The label "passive" also suits the pragmatically governed

alternation between B-marked and A-marked verbs in transitive clauses with two third person arguments. Furthermore, the use of the term "passive" makes the implicit claim that the NP-governed split in the prefix system (i.e., the obligatory use of B prefixes on verbs with first or second person O's and third person A's) originated as a passive, along lines suggested by Trask (1979), as discussed above.

6.2.2 Ergative

Since the B prefixes appear in some ways to be markers of the category "absolutive", and since the O's in morphological passive constructions have certain "subject" properties, as discussed above, it is possible to argue that the morphological passive should be considered an ergative construction rather than a passive construction. Such an approach would follow De Lancey (1981:627), who defines an ergative construction as "a transitive clause in which . . . verb-agreement is with patient in preference to agent".

An analysis of the construction as "ergative" is attractive since the term calls to mind split systems. The Cherokee construction participates in a split governed by the status of the argument NP's on the animacy hierarchy. These B-marked clauses contrast with transitive clauses which are marked with prefixes

resembling A prefixes. In being associated with the concept of split systems, the label "ergative" also underscores the connection of the B-marked construction with other uses of the B prefixes which are governed by splits of different sorts.<4> To a greater extent than the "passive" analysis, the "ergative" analysis makes it clear that the O of the clause will not necessarily exhibit a full range of properties characteristic of subjects.

Nevertheless, I prefer the passive analysis to the ergative analysis because passive calls attention to the pragmatic factors which govern the use of this construction. Furthermore, the semantic characteristics of NP's which are relevant to the animacy hierarchy, such as person and animacy, are interrelated with cannot be wholly separated from pragmatic criteria such as givenness and topicality (or topic-worthiness) which govern some of the uses of the construction. In all, however, an analysis of the construction as an "inverse" seems the most appropriate.

6.2.3 Inverse

In this section and the section following, I evaluate the merits of an "inverse" analysis for Cherokee, recognizing that the term "inverse" is used for similar constructions in the Algonkian languages.

Algonkian languages show an alternation between direct and inverse verb forms. As described in Wolfart's (1973:24) discussion of Plains Cree, direct forms are used when A's outrank O's on the hierarchy in (11), which is a simplification and does not represent the full complexity of the system. Inverse forms are used when O's outrank A's.

(11) Animacy hierarchy for Cree
 2 > 1 > 3 proximate > 3 obviative

The Cherokee B-marked construction, then, is used under conditions which are parallel to the conditions under which the Cree inverse is used. Furthermore, both the Cherokee morphological passive and the Cree inverse are transitive constructions, in contrast to detransitivized passives, which exist in both languages.

Dahlstrom (1986:74-107) outlines criteria which distinguish inverse from passive clauses, and she argues at some length that the Cree inverse ought not to be considered a passive. Third person NP's in Cree are assigned a discourse status of "proximate" or "obviative", where proximate status is assigned to a referent which is central to the discourse with respect to a more peripheral, obviative referent. In both inverse clauses and passive clauses, O's are proximate,

but the A is the subject of an inverse verb, whereas the O is the subject of a passive verb.

The categories of subject and object, though perhaps not central to the grammar of Cree, appear to be somewhat more robust in Cree than in Cherokee. The inverse analysis may seem less appropriate for Cherokee than the passive analysis simply because it is not clear that the A is the subject of the Cherokee inverse construction. There are three facts about Cherokee which cast doubt upon the validity of calling the A the subject of the inverse. First, there is absence of clear tests for subject and object in Cherokee. Second, in clauses with two third person arguments of equal animacy, the O in the Cherokee inverse construction does exhibit what might be called subject properties with regard to referentially inexplicit clauses, as discussed in Chapter Three. Third, in inverse clauses, agreement is primarily with the O rather than the A, and the triggering of agreement may be considered a subject property.

On the other hand, the fact that O's in inverses exhibit subject-like properties with regard to referentially inexplicit clauses can be analyzed as a consequence of their being proximate rather than of their being subjects. Also, the use of the inverses in relative clauses with A heads, and the use of the inverses in questions in which the A is the questioned

constituent suggests that the A of an inverse clause does have subject properties (however, the use of the actives in relative clauses with O heads, and the use of the actives in questions in which the O is the questioned constituent also suggests that the O of an active clause has subject properties). In the section which follows, I argue that, in spite of any reservations, the inverse is a good one for Cherokee.

6.2.4 The Grammatical Status of the Inverse

The Cherokee inverse is used in two different sets of circumstances. There are referential/semantic conditions which govern the use of the inverse in clauses with O's that outrank A's on the animacy hierarchy, and there are syntactic and pragmatic conditions which govern the use of the passive in clauses with O's and A's of equal semantic rank. As discussed above, however, there is a conceptual link between semantic rank and pragmatic rank.

In a theory of grammar in which discourse factors are considered to be of a different status from semantic or lexical factors, the inverse might be considered the result of an inflectional rule which is sensitive to representations which arise under two different sets of circumstances. Inverse clauses would be generated obligatorily in those cases where O is first or second

person and A is third person, as in a clause with a 3sg. A and a 1sg. O. Both active and inverse clauses would be generated in cases where both A and B are third person. Syntactic or pragmatic filters or constraints would prevent the inverses and actives with third person A's and O's from being used inappropriately. An advantage to such an approach is that the purely inflectional use of the construction does differ from its pragmatically governed use inasmuch as the O of the pragmatically governed construction exhibits subject-like properties with regard to referentially inexplicit clauses, while the A of the inflectionally governed construction exhibits these properties, as discussed in Chapter Three.

Alternatively, a pragmatically governed opposition between proximate and obviative, can be recognized and placed on the hierarchy such that for third person animates, all proximates outrank all obviatives. Proximation, then, becomes a composite variable which comes into play in the ranking of NP's on hierarchies. In the default case, human referents are proximate with respect to non-human referents. Any position on the hierarchy can be considered higher in proximation than any position which is to its right, but the actual discourse status of referents, which determines proximation, is relevant to the inflectional hierarchy only for 3an. referents. In such an analysis, all

inverses are purely inflectional and are not accounted for with pragmatic filters.

The category of proximation might be considered similar to gender; Foley and Van Valin (1984), in fact, treat the categories of proximate and obviative in Cree as gender categories, although they are not called genders by Wolfart (1973) or Dahlstrom (1986). More traditionally, proximation is considered an extension of person, and obviatives are called "fourth person" (Jacobsen 1983).

One aspect of this analysis which should be mentioned here is that the third person categories of "human", "animate", and "inanimate" are all relevant to nominal and adjectival inflection, as discussed in Chapter Five, as well as to verbal inflection; the third person categories of "proximate" and "obviative" are relevant only to verbal inflection. Therefore, the different grammatical categories which determine inflection must be recognized as differing in status.

Any analysis which treats morphologically and pragmatically governed B-marked constructions as being basically the same, whether they are called passives, ergatives, or inverses, cannot directly account for the fact that the O has a different status in morphologically and pragmatically governed constructions. (The A acts like a subject with respect to referentially inexplicit

clauses in morphologically governed inverses; the O acts like a subject with respect to referentially inexplicit clauses in pragmatically governed inverses.) I suggest that the different behavior is not a difference in syntactic status between O as object and O as subject: we can say that O's are always objects. The difference in behavior, instead, follows from the difference in pragmatic status between the two third person arguments in pragmatically governed inverses, and it serves a functional role as an aid in referential tracking, helping to disambiguate referents which are otherwise treated identically in the inflectional system. The difference in pragmatic status is largely irrelevant to syntax and morphology in clauses without two third person arguments, except where word order is concerned, and of course in these clauses the pronominal prefixes alone will suffice to track referents.

Under such an analysis the label "inverse" is quite appropriate, because an apparent subject-like property of the O is in fact not treated as a subject property at all (and recall that it is the A of an inverse construction which must be the subject, according to Dahlstrom (1986)). The only properties associated with the O of the inverse that are also associated with subjects generally are the morphological property of being prominently indexed on the verb, and the pragmatic

property of being topical, which is expected to be a property of the O of an inverse. These two properties are associated with A's in active constructions. The more syntactic property of these two is the morphological property of indexing, and it is this indexing which might be said to make the O of the inverse look like a syntactic subject, and to make the inverse look like a passive. But since the verbal morphology does afford agreement in number with the less prominent argument (the A of the inverse and the O of the active), purely syntactic evidence in favor of singling out one argument as the subject is slim indeed. The categories of "subject" and "object" (or "A" and "O") are needed in describing how the grammar of the language works, as shown in Chapters Three and Four, but they may be regarded as derived from semantic categories and as less pervasive in the grammar of Cherokee than in other languages, and they may be regarded as largely lacking in syntactic correlates.

6.3 Questions of Theory and Typology

Languages like Cherokee differ greatly in many respects from the languages which have most commonly been analyzed with an eye toward the construction of formal linguistic theories. In recent work, Jelinek (1984, 1986) and Nichols (1986), each working from a different

perspective, have tried to account for the common co-occurrence of apparently diverse linguistic phenomena in languages like Cherokee.

Working within the Government-Binding framework (Chomsky 1982a,b), Jelinek argues for the existence of the "Argument Type Parameter". Languages have either lexical arguments, in which case lexical items serve as verb arguments, or they have pronominal arguments, in which case bound pronominal elements serve as arguments (1984:168).

In pronominal argument languages, optional nominal elements have the status of adjuncts: such analyses have a long history in American Indian linguistics. The argument type of a language is correlated with other aspects of the grammar. Some typical features of pronominal argument languages, from Jelinek (1986), are listed in (12). These characteristics follow from the fact that in these languages, verb arguments are always bound to the verb and do not have independent status as constituents.

- (12) Characteristics of pronominal argument languages:
- a. optionality of nominal elements
 - b. rarity in discourse of sentences with more than one nominal element<3>
 - c. absence of pleonastic subject NP's
 - d. markedness of clauses with independent pronouns; such pronouns bear emphasis
 - e. absence of structural asymmetry between subject and object, with consequent lack of asymmetry in the manner of indexing agents and patients
 - f. absence of a syntactically distinct NP which corresponds to the subject of a lexical argument language, with consequent lack of pressure toward identical marking of S and A, resulting in non-accusative case marking

These six features characterize Cherokee, which may therefore be considered a typical pronominal argument language.

In pronominal argument languages, those nominals which seem to correspond to argument nominals in more familiar languages are not governed by verbs or by anything else, and they do not bear grammatical (i.e., syntactic) relations. Jelinek does recognize a subject/predicate distinction, common to all languages, at the level of Logical Form (1986:179).

With regard to grammatical relations, I prefer to follow Nichols (1986), who holds that nominals in such languages do bear grammatical relations. Jelinek and Nichols define grammatical relations differently: for Jelinek they are defined in terms of syntactic configurations; for Nichols they are defined defined in a broader syntactic sense.

Nichols is not working within the framework of a specific formal theory of language, and her approach to typological issues is somewhat different from Jelinek's. Nichols recognizes two different patterns in the marking of grammatical relations (understood in the broadest sense) among elements of a clause or phrase. Languages may index a grammatical relation on the head of a constituent, or on the dependent, or on both the head and the dependent. Languages differ in the extent to which they exhibit head-marking and dependent-marking patterns, and Nichols discusses various universal tendencies and implicational universals which account for the distribution of head- and dependent-marking patterns.

Cherokee is characterized by both head- and dependent-marking patterns. The examples below, chosen to illustrate the marking of the relations surveyed by Nichols (1986:66-70) for many languages, show that Cherokee is strongly, but not exclusively, head-marking.

In possessive phrases in Cherokee, possessed nouns (the heads of the phrases) are marked to agree with the possessor, whether the possessor is a pronoun as in (13a) or a full noun as in (13b). These are head-marking patterns.

- (13) a. nihi ticé:nv:sv:ʔi
 /ti-ca-e:nv:sv:ʔi/
 you DIST-2sg.B-home
 'your house'

consistent with favored patterns of head- and dependent-marking as discussed by Nichols (p. 75-77).

Languages may be ranked on the basis of whether they show head- or dependent-marking in the constituents discussed above. Each instance of a head-marking pattern counts as -1 and each instance of a dependent-marking pattern counts as +1.

On Nichols' "full scale", which incorporates data for all the categories above, Cherokee is assigned the value -4. The full scale runs from -7 (the most consistently head-marking languages, including Abkhaz and Navajo) to +7 (the most consistently dependent-marking languages, including Chechen-Ingush and Homeric Greek). On the "short scale", which does not include data for adpositional phrases or for noun-adjective phrases, Cherokee is assigned the value -3. The short scale runs from -5 to +5. Other languages with a full scale value of -4 and a short scale value of -3 are Nootka and Shuswap.

The pronominal argument languages described by Jelinek correspond roughly to those languages in which the clause-level relationships between verbs and nominals are marked on the head (the verb), rather than the dependents (the nouns), of the constituent (the clause). The lexical argument languages correspond roughly to

those languages in which the clause-level relationships between verbs and nominals are marked on the dependents.

Like Jelinek, Nichols recognizes that head-marking and dependent-marking patterns are commonly associated with other grammatical characteristics. Head-marking languages are generally characterized by a rather weak connection between verbs and their associated nominals; but rather than saying that head-marking languages lack syntactic relations, Nichols claims that both kinds of languages, head-marking and dependent-marking, can be described in terms of syntactic relations. The difference between the types lies in the nature of what Nichols calls "syntactic bonds" (p. 108). In head-marking languages, the bond between head and dependent is unilateral, since the dependent requires the presence of the head but the head does not require the presence of the dependent. In dependent-marking languages, the bond between head and dependent is bilateral, since each requires the presence of the other. These bilateral bonds are characteristic of those relations which are traditionally described by the term "government".

More so than dependent-marking languages, languages with head-marking patterns for the relations between nouns and verbs are associated with various strategies which aid in the proper association of nouns with argument positions. Such strategies include animacy

hierarchies and gender systems. Head-marking languages are also characterized by flat, or non-configurational syntax. Dependent-marking languages may be either configurational or non-configurational, according to Van Valin (1985:406), who cites Japanese, Chechen, Malayalam, and Dyirbal as examples of dependent-marking, non-configurational languages.

Jelinek and Nichols each attempt to characterize an important parameter along which languages may differ, and which has ramifications throughout the grammar. Jelinek's work focuses on the great differences between pronominal argument and lexical argument languages, and it is more formally oriented than Nichols', although Jelinek (1986) includes discussion of semantic and pragmatic correlates of the Argument Type parameter. Nichols' work is more concerned with the range of differences among languages and with the typological patterns and historical developments to be found in languages which exhibit head-marking or dependent-marking (or neither, or both). Nichols appears to stress the similarities between head- and dependent-marking languages to a greater extent than Jelinek stresses the similarities between pronominal argument and lexical argument languages; however, this impression may reflect the particular works referred to here, rather than the research programs that those papers represent.

Cherokee, as a fairly typical pronominal argument or head-marking language, has a role to play in further typological investigations as a potential source of data and hypotheses, both historical and theoretical.

From an historical perspective, Cherokee may provide an illustration of one mechanism by which a head-marking language can develop dependent-marking patterns. Adjectives in Cherokee, like adjectives in many languages, have some properties commonly associated with nouns and others commonly associated with verbs. It is clear, however, that Cherokee adjectives should be regarded as generally deverbal. The dependent-marking pattern on adjective-noun phrases is the result of a change in which the verbs of certain (head-marked) subordinate clauses are reanalyzed as constituting a different part of speech; they become adjectives. The marking remains the same, but whereas in a subordinate clause the marking is on the head of the constituent (the verb), in the adjective phrase the marking is on the dependent of the constituent (the adjective).

A formal theoretical account of pronominal-argument or head-marking languages must address such issues as the nature of non-configurationality, the status of verb arguments in head-marking languages as empty categories or as simply non-existent in syntactic structure, and the nature of agreement and agreement-like phenomena. To

some extent, these formal issues have counterparts in less formal theories as well. Further, a complete theory must examine in depth the differences among such languages as well as their common features. From their different perspectives, both Jelinek and Nichols discuss these issues. Further detailed analyses of the morphology, syntax, and discourse of Cherokee and similar languages will play a part in the solution of existing theoretical puzzles and in the construction of new ones.

Notes to Chapter 6

<1>Except where both subject and object are first or second person.

<2>Dixon (1979:96) suggests that Yukulta, an Australian language, exhibits such splits; Trask (1979:386) says that Yukulta as well as Jirel and Sherpa (both Tibeto-Burman) exhibit these splits only marginally.

<3>In B-stems, the prefix u:ni:- is used on active transitive verbs to indicate that the subject is 3pl. and the object is 3sg. See Table 6 in Chapter Two.

<4>It is important to recognize the major difference between the use of B prefixes in these passive constructions and other uses of B prefixes on transitive verbs. For verbs which always require B prefixes (such as 'throw') and for verbs in the B aspect stems, the B prefix agrees with the A of the clause in person and number; in passive constructions, the B prefix agrees with the O.

<5>Work by Du Bois (1987) and others suggests that this may be a common characteristic of the discourse of languages of many different types.

<6>Feeling (1975) cites 'many' as ù:ní:kô:ti.

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BAE-R	Report of the Bureau of American Ethnology
BLS n	Proceedings of the nth annual meeting of the Berkeley Linguistics Society.
CLS n	Papers from the nth regional meeting of the Chicago Linguistic Society.
IJAL	International Journal of American Linguistics
Lg	Language
LI	Linguistic Inquiry
NELS	Proceedings of the North Eastern Linguistic Society
NLLT	Natural Language and Linguistic Theory

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Appendix One: Textual Sources

This is a list of the narrative texts used as sources for examples and as a data base for some analyses presented here. Each text is given a two-letter abbreviation, used in citations in the body of the dissertation.

Oklahoma Cherokee:

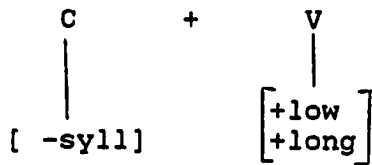
- BT 'A Trip to the Beach.' Narrated by Virginia Carey, 7/83. Transcribed from tape by Janine Scancarelli and Virginia Carey, 2/84.
- DB 'Double Bodies Dream.' Narrated by George Pumpkin, 6/85. Transcribed from tape by Janine Scancarelli and George Pumpkin, 6/85.
- DP 'The Duck and the Preacher.' Narrated by Scott Rackliff, 7/85. Transcribed from tape by Janine Scancarelli and Scott Rackliff, 7/85.
- ML 'The Mountain Lion.' In [Cowen] (n.d.), which states that the text is a translation and adaptation by Agnes Cowen of a story told by Sally Robbin. The Cherokee text is presented in the syllabary. Phonemic transcription from the syllabary by Janine Scancarelli with assistance from Virginia Carey.
- NC 'A Visit to North Carolina.' Narrated by Virginia Carey, 2/84. Transcribed from tape by Janine Scancarelli and Virginia Carey, 3/84.
- SH 'The Saddle Horse.' Narrated by Scott Rackliff, 7/85. Transcribed from tape by Janine Scancarelli and Scott Rackliff, 7/85.
- TH 'The Two Hunters.' In Pulte and Feeling (1975: 354-5).

North Carolina Cherokee:

- CS 'How the Chipmunk got its Back Striped.' In Olbrechts (1931:180-82). The text was recorded from W. W. Long during a 1926-7 field trip to Big Cove (p. 179).

- OM 'A Lover Abducts an Old Man by Mistake.' In Speck (1926:112). The text was recorded from the dictation of Sampson Owl in 1922 in North Carolina (p. 111).
- PT 'How the Moths Ruined Opossum's Pretty Tail.' In Speck (1926:112). The text was recorded from the dictation of Sampson Owl in 1922 in North Carolina (p. 111).
- RT 'Rabbit and Turtle Race.' In Speck (1926:111-2). The text was recorded from the dictation of Sampson Owl in 1922 in North Carolina (p. 111).
- SF 'Spear Finger.' In King (1975:121-43). The story was recorded from Annie Jessan (p. 121).
- TT 'The Trickster Turtle.' In Journal of Cherokee Studies (1976:110-11). The story was provided by Betty Lossiah of the Wrights Creek Community (p. 112).

(10) a-Insertion



(An empty V-slot after a consonant is realized as /a:/.)

(11) h-Metathesis

X (R V) h C

1 2 3 4 5 ==> 1 4 2 3 5

(R is a resonant, or sonorant, consonant)
(If 5 is [+obst], 3 --> ∅.)

Conditions: V is short and unaccented
X is not a laryngeal

The overlapping parentheses indicate that either or both of the elements R and V, in that order, must be present for the rule to apply.

(14) Tonic Glottal Insertion

∅ --> ? / [pronV___

condition: in tonic verb forms

(Insert /?/ after the initial vowel in a pronominal prefix.)

(15) Glottal Lowering

Preconsonantal /?/ is realized as falling pitch on the preceding vowel, which is lengthened if short.

Appendix Three: B and B-A Verbs

These are the B and B-A verbs from Feeling (1975). The forms given here are Feeling's main entry citations with definitions. Main entries have third person subjects (generally 3sg.) and transitives have third person objects. All entries are present stem forms.

I have switched three verbs from Feeling's category of intransitive to transitive: u:dli:ʔada 'he's wearing an earring'; u:ha 'he has a solid object'; and u:su:la 'he's wearing pants'. The changes were made on the basis of analogy to verbs with related meanings and, for the first two, on the basis of the use of the verbs in example sentences with NP objects.

Feeling's orthography is preserved, but long vowels here are marked with a colon (Feeling marks short vowels with a dot underneath), and pitch markings have been omitted. Material in square brackets is from my field notes.

Intransitives

du:do:kdiha	'he's staggering'
du:gwe:no:tisga	'he's getting a rash'
du:hlga	'he has horns'
du:hv:sdo:ysga	'he's sneezing'
du:kdsiha	'he's vomiting'
du:lv:hwisda:neha	'he's working'
du:sdano:hvvhga	'he's making footsteps'
du:yawe:ga	'he's tired'
nu:wanhdi	'he has something on (objects)'
u:da:do:li:sdi	'he's praying'
u:dane:go:yuha	'it's wrinkled'
u:danhta	'he feels'
u:dayv:lata	'it's in view'
u:de:tiyiha	'he's having a birthday'
u:di:hlehga	'it's hot [of weather or soup, e.g.]'
u:di:hlehvsga	'he has a fever'
u:di:sgahla	'he's in hiding'
u:di:wsga	'he's getting well'
u:dlanv:da	'there's an opening'
u:dlanv:daʔdeha	'he has time'
u:dla:si:tv:ʔe:ha	'he's disbelieving'
u:dle:ga	'he's taking revenge'
u:dlv:ga	'he's sick'
u:duha	'he's standing in liquid'
u:dv:nv:ʔisdi	'he's willing'
u:ga:nawo:sga	'he's becoming warm; he's warming himself'

u:ge:yuha	'he's possessive of her; he loves her'
u:go:hni:yo:ga	'he's late'
u:go:sga	'it's decaying; it's spoiling'
u:hahlo:geha	'he's yawning'
u:hawo:sdiha	'he's smothering, suffocating'
u:hi:sata	'there's dew'
u:hi:sohda:neha	'he's lonesome; he's homesick'
u:hi:sohdi	'it's lonesome'
u:hna:lv:ga	'he's becoming angry'
u:hna:lvha	'he's angry'
u:hna:sgwalo:?a	'he's stubbing his toe'
u:hnawa:sdiha	'he has a chill'
u:hniha	'he's in bed'
u:hyo:luha	'he, it's afloat'
u:hyv:dla	'it (weather) is cold'
u:hyvsde:?a	'he's getting drunk'
u:ja?a	'he's inside it'
u:je:tsdi	'he's grinning'
u:jo:nata	'it's rattling'
u:ksata	'it's sticking out'
u:kvhada	'it's foggy'
u:kwo:le:ga	'he's not having luck at hunting'
u:le:na:hiha	'he's losing his way'
u:li:da:sdiha	'he's making a mistake'
u:li:ye:diha	'he's moaning'
u:lo:gila	'it's cloudy'
u:lsda:hneha	'it's happening to him'
u:lsgwalu:da	'he's sticking his head out'
u:lsihga	'it's dark'
u:nali:goha	'they're together'
u:ne:gu:ja	'he's being mean'
u:no:hyvhga	'it is sounding'
u:sdv:di?a	'he's receiving punishment'
u:sihwasga	'he's coughing'
u:sv:hiha	'he's going to bed'
u:tade:gi:?a	'he's thirsty'
u:tahlawo:sga	'he's becoming enraged'
u:wa:ku:le:ga	'he's belching'
u:wa:na:wi?a	'he's shivering'
u:wa:nv:ga	'he's in a hurry'
u:we:hisda:neha	'he's aching'
u:we:hluhga	'he's yelling, howling, meowing, etc.'
u:we:li:hi?a	'he's worried, anxious'
u:w:hiyuha	'he's confident; he has faith'
u:w:hla	'he's sitting; he's at home'
u:ye:tsga	'he's laughing'
u:yo:de:?a	'he's itching'
u:yo:siha	'he's hungry'
wu:de:li:ga	'he's, it's going out of sight'

Transitives

du:dlo:sga	'he's confronted with it'
du:do:?a	'he is called, he is named'
du:ktiv:ta	'he's wearing glasses'
du:la:su:hla	'he's wearing shoes'
du:liye:su:la	'he's wearing gloves'
du:li:yo:ha	'he's wearing socks'
du:sgale:sdiha	'he's releasing it (involuntarily), [him]'
u:de:ga	'he's throwing it; he's pitching (ball)'
u:dli:?ada	'he's wearing an earring'
u:ha	'he has a solid object'
u:hnu:wa	'he's wearing a shirt, coat'
u:hwasga	'he's buying it, [him]'
u:hyv:dla u:ni:yiha	'he has a cold' [lit., 'cold catches him']
u:hyvhjinv:tga	'he's choking on it'
u:kse:di	'he's watching [it], him; he's being careful'
u:liye:su:stga	'he's wearing a ring'
u:lsdu:la	'he's wearing a cap'
u:lsuwe:tuhga	'he's wearing a hat'
u:lv:kw:di	'he likes him, it'
u:na?a	'he has a flexible object'
u:neha	'he has liquid'
u:nhta	'he knows it'
u:su:la	'he's wearing pants'
u:tv:da:sdi	'he's listening to him, it'
u:wawsv:ga	'he smells it'
u:wa:ya	'he has a long object'
u:we:kaha	'he has it (animate)'
u:yo:hu:seha	'he's losing it, [him]'

B-A Verbs

[a:du:liha	'he wants him']
u:du:liha	'he wants it'
a:hyoha	'he's looking for him'
u:hyoha	'he's looking for it (inanimate)'
da:yosga	'he's releasing him'
du:yosga	'he's releasing it (voluntarily)'
gv:kewsga	'he's forgetting him'
u:wa:kewsga	'he's forgetting it' (Pulte and Feeling 1975:272)