Chapter 1
Introduction

This book presents an account of the syntax of Meskwaki (or Fox), an Algonquian language spoken in Iowa. It also, by necessity, covers the morphology of Meskwaki, because it is impossible to discuss the syntax of an Algonquian language in isolation from morphology. Syntax plays a role in all areas of Meskwaki morphology: for example, the inflectional morphology on verbs is the means by which subjects are distinguished from objects; additional syntactic information is conveyed by the choice of a particular inflectional paradigm. Derivational affixes attached to verb stems may alter the argument structure of the verb, resulting in causative, applicative, antipassive, or other types of verbs. Certain classes of arguments may be incorporated into the verb stem. Even bi-clausal constructions comparable to English raising to object and tough movement affect the morphology of the matrix verb stem.

In describing the syntax of Meskwaki it is also necessary to take account of discourse functions, such as topic and focus. For example, word order is mostly influenced by discourse conditions, resulting in a great deal of word order variation, including frequent use of discontinuous constituents. Another place in which syntax and discourse are intertwined is in the discourse-based distinction within third person known as OBVIATION, which plays a key syntactic role in distinguishing subject from object in the agreement system.

The theoretical framework assumed here is Lexical Functional Grammar (Bresnan 1982b, 2000), which takes grammatical relations such as subject and object as theoretical primitives. The grammatical relations needed for an analysis of Meskwaki are described in 1.2; 1.3. outlines other theoretical assumptions of LFG. Before turning to the syntactic assumptions of LFG, however, some background information on the Meskwaki language and the Meskwaki community is presented in 1.1.

A comment is in order on the names 'Fox' and 'Meskwaki'. The preferred name of the people is Meskwaki (< *meškwahki·ha*, with final voiceless vowel, 'Red-Earth person'). The appellation 'Fox' dates back to the 17th century, when Jesuit missionaries identified the Meskwaki as 'les Renards'. The Jesuits apparently mistook a speaker's report of his clan membership for the name of the tribe (Jones 1911:741). (Meskwaki society is divided into several patrilineal clans each identified with a totem animal, such as Bear, Wolf, Fox, Eagle, etc.) In English, the Meskwaki are usually called the Fox, or 'Sac and Fox' by the U.S. government. In previous work I have used the name 'Fox' for the language, but here in this book I am using 'Meskwaki'.

1.1. Background on the Meskwaki language and community. The Algonquian language family, to which Meskwaki belongs, consists of languages that are or were spoken over a huge portion of North America. Algonquian speakers ranged along the Eastern seaboard from Labrador to North Carolina, and extended west (except for the area centered around Lake Ontario occupied by Iroquoian speakers) into the Ohio Valley, around the Great Lakes, through much of the Canadian subarctic, and through the northern part of the Plains to the Rocky Mountains. The Algonquian family is also distantly related to two languages of northern California, Wiyot and Yurok (Sapir 1913, Haas 1966, Goddard 1975). Wiyot and Yurok are considered sisters of Proto-Algonquian; the three together are known as Algic.

Within Algonquian, Meskwaki is most closely related to Sauk, now spoken in Oklahoma, and Kickapoo, now spoken in Kansas, Oklahoma, and Coahuila, Mexico. Meskwaki, Sauk, and Kickapoo are so closely related that they should perhaps be considered dialects of a single language. (For Kickapoo see Voorhis 1974, 1977, 1982, 1983, 1988; for Sauk see Whittaker 1996 and Whittaker (to appear).) Beyond Sauk and Kickapoo, however, there is no subgrouping within Algonquian to which Meskwaki belongs. In fact, only a single genetic subgrouping -- Eastern Algonquian -- has been established within the family. (Bloomfield's (1946) Central Algonquian is no longer accepted.) The remaining Algonquian languages (Meskwaki, Cree, Ojibwa, Potawatomi, Menomini, Cheyenne, Blackfoot, etc.) are represented as daughters of Proto-Algonquian. For discussion of comparative Algonquian see Goddard 1979b.

Meskwaki is now spoken in Iowa, but this was not the original location of the Meskwaki people. The Meskwaki were living west of Green Bay on the Wolf River in Wisconsin in 1668-1680, when they were encountered by French Jesuit missionaries. From 1680 to 1740 the Meskwaki lived in various places around the western and southern Great Lakes and western Wisconsin, surviving several attempts by the French to kill them off entirely. From 1740 to the early 19th century they moved mostly south and west to the Mississippi River and into Iowa. The U.S. government attempted in the 1840's to move the Meskwaki to a reservation in Kansas, to be shared with the Sauk. However, the Meskwaki who went to Kansas disliked it and returned to Iowa. In 1857 the Meskwaki purchased 80 acres of land near Tama, Iowa, where they have lived ever since, continually adding to their holdings. In 1993 the Meskwaki Settlement comprised 3800 acres. (See Tanner 1987 and Edmunds and Peyser 1993 for more details on Meskwaki migration and military history, and Callendar 1978 for an overview of Meskwaki culture.)

The population of the Meskwaki Settlement today is about 1000 and the language is widely used. Meskwaki is used exclusively, never English, during feasts and ceremonies of the traditional Meskwaki religion, observed by most residents of the Settlement. Casual conversation is carried out mostly in Meskwaki with some code-switching to English, especially if the addressee is a child. Most Meskwaki adults born before 1960 grew up with Meskwaki as their first language, learning English only when they started school. Nowadays, however, nearly every house on the Settlement has a television and children grow up hearing English as well as Meskwaki.

The research reported on here is a combination of fieldwork at the Meskwaki Settlement and textual analysis.[1] Both types of investigation are necessary to gain a complete understanding of Meskwaki syntax. The role played by discourse conditions in obviation, for example, or in determining word order, can be understood only by examining actually occurring sentences in context. It is difficult, if not impossible, to re-create the necessary discourse conditions in the artificial setting of elicitation. However, the examination of sentences in texts cannot provide answers for all the issues of Meskwaki syntax. The negative data of ungrammatical sentences is needed to determine the syntactic domain of obviation, for example, or to discover the agreement rule applying when an animate NP is conjoined with an inanimate NP. This negative data can only be obtained in consultation with a native speaker of the language. In this aspect of the investigation I was lucky enough to work from 1991 to 1995 with Adeline Wanatee (1910-1996), who was extremely knowledgable about the history, culture, and language of her people. Mrs. Wanatee had a marvelous talent for explaining the subtle differences in meaning that result from changing the form of a word or the order of words in a sentence. I am deeply grateful for all the help she gave me.

---

[1] For earlier publications, see Dahlstrom 1987, 1988, 1993, 1994a, 1994b, 1995, 1996a, 1996b, [[MORE…]].

The other aspect of this investigation -- textual analysis -- has been possible because there exists a huge corpus of Meskwaki texts, unparalleled among North American Indian languages. Most of these texts were written in the Meskwaki syllabary during the early part of the century at the instigation of Truman Michelson of the Bureau of American Ethnology.[2] Michelson discovered a high level of literacy in the syllabary on his first field trip to the Meskwaki Settlement in 1911. He asked his Meskwaki consultants to write down traditional stories and ethnographic information, paying them by the page. The material he received is now stored at the National Anthropological Archives, Smithsonian Institution, and numbers somewhere between 15,000 and 20,000 pages. About 10,000 pages were written by a single man, Alfred Kiyana, in the seven years before his death in the influenza epidemic of 1918. Kiyana was not only a prolific writer but also a master storyteller; in his autobiography (Kiyana c1915) he tells of learning the traditional sacred stories from an older storyteller, and of telling the stories out loud to himself in an isolated spot in the woods. Many of the textual examples cited in this book are taken from Kiyana's texts, especially his version of the Meskwaki origin myth (Kiyana 1913; 1110 manuscript pages). This story begins with the birth of the culture hero/trickster Wi·sahke·ha and his younger brother A·ya·pa·hte·ha, and tells how Wi·sahke·ha created the world and human beings and how A·ya·pa·hte·ha was the first to die.

Michelson edited and published some of the textual material he received from Kiyana and others (Michelson 1921, 1925, 1927a, 1928, 1929, 1930, 1932, 1937). Unfortunately there are problems with the versions published by Michelson. Michelson had the manuscript texts read out loud to him so that he could transcribe them phonetically. The readers employed by Michelson were not the authors of the texts, and some misreading of homographs in the syllabary occurred. Still other consultants were employed by Michelson to write out English translations of the texts, which introduced further errors and misinterpretations. Finally, Michelson himself took liberties with the translations he received and even edited the Meskwaki portion of the texts in order to make them fit his ideas about Meskwaki grammar. (See Goddard 1984 for discussion.) It is therefore necessary to go back to the original syllabic manuscripts of Michelson's texts to ensure that the textual citations are authentic.

Another source for Meskwaki texts is Jones 1907. Again, there is some indication that Jones may have altered forms in these texts to fit his own imperfect understanding of the language (Jones was part Meskwaki himself). Unfortunately, the original manuscripts of Jones's texts have not been preserved.

In my work on Meskwaki I have also been extremely fortunate in having Ives Goddard as a teacher and colleague in Meskwaki linguistics (see Goddard 1984, 1985, 1987, 1988a, b, 1990a, c, d, 1991, 1992b, 1994, 1995). I began studying Meskwaki in 1986, when I had a Smithsonian postdoctoral fellowship to work with Goddard on some of the Meskwaki texts collected by Michelson. I came to the Smithsonian with a background in Cree (Dahlstrom 1986a/1991); during the year Goddard not only introduced me to the complexities of the much more archaic Meskwaki language, but also broadened my knowledge of Algonquian in general. Since then he has provided innumerable comments and suggestions that have helped me unravel the knots of Meskwaki syntax. My debt to Goddard and to his work is evident throughout this book.

Of earlier work on Meskwaki, the most important is Jones 1911 and Bloomfield 1925, 1927. Jones 1911 is a sketch of the language based upon Jones's fieldwork. The manuscript of the sketch was left unfinished at the time of Jones's death, and was completed and edited by Michelson. The sketch includes a description of Meskwaki phonetics, noun and verb inflection, and stem

---

[2] See Jones 1906 and Goddard 1991:158-159 for the Fox syllabary.

composition. Unfortunately, it is less than ideal in several respects: for example, Jones mixed up some of the paradigms of verb inflection, such as potential and prohibitive, and he mistakenly analyzed obviation as a case marking system. Jones's description of the Meskwaki sound system is at the level of phonetics only, as is typical of the time. Michelson, in articles (e.g. Michelson 1917, 1927b) and in grammatical notes accompanying his published texts, added to and improved upon Jones's sketch in places, but never provided a comprehensive revision or grammar of Meskwaki.   Instead, Bloomfield (1925, 1927), relying solely on published materials, reworked Jones's and Michelson's observations into a much more insightful account of Meskwaki phonemics and morphology. Voorhis 1971, based on fieldwork at the Meskwaki Settlement, supplements and corrects a few points in Bloomfield's grammar. Bloomfield's manuscript word list of Meskwaki has been published in a critical edition by Goddard 1994.[3]

1.2. Grammatical relations.   In the theoretical framework of Lexical Functional Grammar grammatical functions such as subject and object are taken as primitives. Lexical entries for verbs and other predicates provide an explicit link between the arguments required by the predicate and the grammatical function of the argument; alternations such as active vs. passive are captured by having passive be a lexical rule operating on lexical entries of verbs and altering the links between arguments and grammatical functions.[4] In this section, the grammatical functions found in the syntax of Meskwaki are described and illustrated: subject, object, second object, oblique, Comp (complement clause), and secondary predicate (= XCOMP). References to relevant sections of later chapters are also given for each grammatical relation.

1.2.1. Subject and (first) object. Subject and object are the core grammatical relations in Meskwaki syntax. Verbs are inflected for features of both subject and object; this inflection functions as pronominal subject and/or object in the absence of a lexical NP argument (1.3). The gender of subjects and objects also influences the shape of the verb stem itself: intransitive stems are sensitive to the gender of the subject of the verb, and transitive stems are sensitive to the gender of the object of the verb, as explained in 4.1.
        Some examples of intransitive stems are listed below. All are Animate Intransitive, the form used with animate subjects. (The notation '<S>' following the gloss of the verb indicates that the verb is subcategorized for a subject.)

(1)   a.   anenwi·-   'swim <S>'
        b.   keno·si-   'be tall <S>'
        c.   na·kwa·-   'leave <S>'
        d.   nepa·-   'sleep <S>'
        e.   pemipaho-   'run   <S>'
        f.   šekišin-   'lie   <S>'

Meskwaki does not have a lexical class of adjectives: stative predicates such as 'be tall' ((1b)) are expressed as intransitive verbs.
        Now consider a few examples of verbs subcategorized for a first object. (More examples of first objects may be seen with the ditransitive stems discussed in 1.2.2.)

---

[3] Other work on Fox linguistics includes LeSourd 1976, Jolley 1984, Shoaps 1993, G. Anderson 1996, Appelbaum 1996, Dove 1996, Hotta 1996, Melnar 1996, Reynolds 1996,and Thomason 1995.
[4] See the discussion of Lexical Mapping Theory in Bresnan and Kanerva 1989.

(2)   a.   a·čim-   'tell a story about   \<S O\>'
        b.   kano·n-   'speak to   \<S O\>'
        c.   kos-   'fear   \<S O\>'
        d.   ne·w-   'see   \<S O\>'
        e.   pakam-   'hit   \<S O\>'
        f.   se·kih-   'frighten   \<S O\>'

All the stems in (2) are Transitive Animate, the form used with animate objects.

       In Meskwaki, as in English, subjects of transitive verbs tend to be agents or experiencers, but there are exceptions in both languages. The stems *kos-* 'fear' and *se·kih-* 'frighten' in (2c, f) each require an experiencer argument and a source argument. With *kos-* 'fear' the experiencer is subject and the source is object; with *se·kih-* 'frighten' the source is subject and the experiencer is object.

       The mapping of arguments to subject and object is the focus of a controversy within Algonquian linguistics. A subset of inflected forms of transitive verbs are known as INVERSE forms: these are verbs inflected either for a third person subject and a nonthird person object, or for an obviative third person subject and a proximate third person object. (See 4.5. for the relevant forms.) Most Algonquianists analyze the inverse forms of transitive verbs as active verbs; see, for example, Dahlstrom 1991, Goddard 1979a, Wolfart 1973, and Bloomfield 1962. However, others have analyzed the inverse forms either as passives or as a sort of transitive passive in which the patient is subject and the agent is a direct object. The leading proponent of the view that inverse morphology signals a change in grammatical relations is Rhodes (1976 and later work); see also Jones 1911, Jolley 1982, and LeSourd 1976. Arguments against a passive or 'transitive passive' analysis of the inverse forms in Meskwaki are given in 10.3.

       Subjects and objects are discussed in other sections of this book as well. The system of agreement between verbs, on the one hand, and subjects and objects, on the other, is illustrated in 1.3. and explained in more detail in chapters 3 and 4. Incorporation of subjects and objects is described in 6.3.1. Lexical processes which suppress or add first objects are discussed in 7.1. and 7.2. In constituent structure the unmarked position for both subject and object is to the right of the verb, as discussed in chapter 8 (especially 8.6), though subjects and objects (and other arguments) may be expressed by discontinuous NPs (9.2). Subject and object are also involved in the constructions of copying to object and tough movement, described in 10.1. and 10.2.

1.2.2. Second object. Ditransitive verbs such as 'give' take a subject and two objects.[5] In this section we will first see examples of verb stems which are inherently ditransitive, followed by examples of derived ditransitive stems which gain an extra argument through applicative or causative formation. I will then sketch the syntactic properties which distinguish first objects from second objects and use these properties to argue that some two place verbs are subcategorized for a subject and a second object, but not for a first object. For some verb stems this syntactic frame is the result of a valence-decreasing process applying to a ditransitive stem; other stems are inherently subcategorized for only a subject and a second object. Some examples of basic ditransitive stems are listed below:

---

[5] Fox and other Algonquian languages do not have a dative alternation comparable to that found in English (e.g. 'I gave the book to Max' vs. 'I gave Max the book'). Verbs such as 'give' are always double object verbs in Fox; the recipient is never expressed as an oblique. See Dryer 1986 for the typology of dative constructions.

(3) a. mi·n-   'give   <S O O2>'
     b. manih-   'rob O of O2   <S O O2>'
     c. ašam-   'feed   <S O O2>'

In (3a) the recipient is the first object and the thing given is the second object; in (3b) the person robbed is the first object and the thing taken is the second object; in (3c) the person who is fed is the first object and the food served is the second object. The first object of a ditransitive verb is always animate (and typically human); its thematic role may be goal, source, beneficiary, etc. The second object of a ditransitive verb has the thematic role of theme or patient, and is often inanimate.

Derived ditransitive stems may be formed by adding an applicative or causative suffix to a transitive stem:

(4) a. nahkonamaw-   'accept O2 from O   <S O O2>'
     b. mi·winehkamaw-   'chase O2 away for O   <S O O2>'
     c. aka·wa·tamaw-   'desire O2 for O   <S O O2>'

(5) a. kehke·netamwih-   'make O know O2   <S O O2>'
     b. awata·h-   'make O take O2   <S O O2>'
     c. awih-   'lend   <S O O2>'

In applicatives such as (4), a new first object is added and the old first object becomes second object. The new first object in (4a) has the thematic role of source, and that of (4b, c) has the thematic role of beneficiary. In causatives ((5)) the old subject becomes the first object of the causative verb and the old object becomes second object. (*awih-* 'lend' in (5c) is the causative of *awi-* 'have'.) Like the basic ditransitive stems in (3), the first objects of derived ditransitives are typically human, associated with a range of thematic roles; the second objects are mostly inanimate, with the thematic role of theme or patient. More discussion of applicatives, causatives, and possessor raising (another process which creates ditransitive stems) may be found in 7.2.2.

The syntactic behavior of second objects is different from that of first objects in several respects. First objects may undergo lexical processes which suppress the object, such as antipassive, reciprocal, and reflexive; second objects cannot be the target of these processes. The gender of a first object influences the shape of the verb stem, but second objects may be either animate or inanimate without affecting the form of the verb. Moreover, verbs are inflected for first objects but not for second objects. Pronominal first objects are expressed by the inflection on the verb if no object NP is present. Pronominal second objects, in contrast, are expressed by an independent personal pronoun from the 'body' series under the circumstances described in 3.7.2, and by zero anaphora elsewhere. The syntax of independent reflexive pronouns also reveals an asymmetry between first and second object. As shown in 3.7.2, the antecedent of a second object reflexive may be either subject or first object. However, a first object reflexive pronoun cannot have a second object antecedent.

Using the above criteria for distinguishing first objects from second objects, we must analyze some two-place verbs as being subcategorized for a subject and a *second* object, not a first object. That is, the nonsubject argument of such verbs cannot be the target of antipassive, reflexive or reciprocal verb formation, it may be either animate or inanimate without changing the form of the verb stem, it does not trigger agreement on the verb, and it may be expressed by pronouns from

the 'body' series or by zero anaphora.[6] The subcategorization frame of subject plus second object may be the result of a (first) object-suppressing process applying to a ditransitive stem:

(6) a.   mi·šiwe·-   'give O2 away   <S O2>'
     b.   ašameti·-   'feed each other O2   <S O2>'
     c.   aka·wa·tama·tiso- 'desire O2 for oneself <S O2>'

In (6a) antipassive has applied to the ditransitive stem *mi·n-* 'give', suppressing the first object. The resulting stem takes only a subject and second object, with the recipient left unspecified. The first object of the stems in (6b) and (6c) has been similarly suppressed by reciprocal and reflexive suffixes, respectively. (See 7.1. for more on these processes.) There are also stems which are inherently subcategorized for a subject and second object: that is, they are not derived from a more basic ditransitive stem. Examples of such verbs are given below.

(7) a.   ahpe·nemo-   'depend on   <S O2>'
     b.   we·pa·hke·-   'throw   <S O2>'
     c.   takwi·-   'join   <S O2>'
     d.   keko·mye·paho-   'run with O2 on back   <S O2>'

Verb stems such as (7c, d) which contain *takw-* 'together with' or *kek-* 'with, having' as a stem-initial morpheme (6.1) are subcategorized for a second object.

Perhaps the most common type of verb subcategorized for a subject and second object are those derived from kinship terms. A few such verbs are listed below.

(8) a.   oki-   'have O2 as a mother   <S O2>'
     b.   ona·pe·mi-   'have O2 as a husband   <S O2>'
     c.   owi·hta·wi-   'have O2 as a brother-in-law <S O2>'
     d.   owi·wi-   'have O2 as wife   <S O2>'

These verbs are derived from the third person singular possessed form of the kinship noun (see 3.4. for possessive inflection). The forms in (8) would be more idiomatically glossed as 'O2 is S's mother', etc.

Other sections of the book discussing second objects include 3.3. on obviation, with examples of proximate second objects with obviative subjects or first objects, 7.4. on preverbs which add a second object to the verb's subcategorization frame, and 8.6. on word order of postverbal arguments.

1.2.3. Oblique. Many Meskwaki verbs are subcategorized for one or more oblique arguments. Obliques express semantic notions such as stationary location, goal or source of motion, manner, or cause; they play a prominent role in the syntax of Meskwaki. The requirement for an oblique is often indexed on the verb by one of a set of morphemes known as RELATIVE ROOTS, which are associated with obliques of particular types.[7] The most common relative roots are *in-* (goal or

---

[6] The asymmetry found with reflexive pronouns provides no evidence either for or against analyzing the nonsubject argument as a second object. With two-place verbs the only possible antecedent for a reflexive pronoun is the subject; subjects may antecede either a first object or a second object reflexive.

[7] See Bloomfield 1946:120; the term is originally from Howse 1844:132.

manner), *tan-* (stationary location), and *ot-* (source).[8] If the stem-initial morpheme of a verb is a relative root, then the verb is subcategorized for an oblique of the corresponding type. This may be seen in the following examples, where the initial relative root is in boldface. (The relative root *in-* has allomorphs of *iš-* and *ih-*; *tan-* has allomorphs of *taš-* and *tah-*; and *ot-* has allomorphs of *oč-* and *os-*.)

(9)   a.   **in**aho-   'paddle to   <S OBL$_{goal}$>'
      b.   **ih**paho-   'run to   <S OBL$_{goal}$>'
      c.   **iš**isa·   'fly to   <S OBL$_{goal}$>'

(10) a.   **in**e·net-   'think [thus] of <S O OBL$_{manner}$>'
      b.   **iš**awi-   'do [thus]   <S OBL$_{manner}$>'
      c.   **iš**iso-   'be named [thus] <S OBL$_{manner}$>'

(11) a.   **tan**eka·-   'dance [there]   <S OBL$_{loc}$>'
      b.   **tan**ehkaw-   'hear O [there]   <S O OBL$_{loc}$>'
      c.   **tah**pene·-   'die [there]   <S OBL$_{loc}$>'

      d.   **taš**inake·-   'sing [there]   <S OBL$_{loc}$>'

(12) a.   **ot**a·ška·-   'fall from   <S OBL$_{source}$>'
      b.   **ot**eneti·-   'fight over   <S OBL$_{source}$>'
      c.   **oč**i·-   'be from   <S OBL$_{source}$>'
      d.   **os**a·pam-   'look at O from   <S O OBL$_{source}$>'

Notice in (12b) that the relative root *ot-* is associated with source in an abstract sense (i.e., cause or reason for) as well as source in a spatial sense.[9]

Not all verbs subcategorized for an oblique contain a relative root as the initial morpheme of the stem. For example, the following verbs all require obliques of various types:

(13) a.   aht-   'put   <S O OBL$_{loc}$>'
      b.   owi·ki-   'dwell   <S OBL$_{loc}$>'

      c.   pya·-   'come   <S OBL$_{goal}$>'
      d.   to·taw-   'do [thus] to   <S O OBL$_{manner}$>'

A verb which is not subcategorized for an oblique of a particular type may be compounded with a relative root PREVERB to add that oblique to its subcategorization frame. The resulting compound is inflected as if it were a single lexical item (6.2).

---

[8] Other relative roots are *ahkw-* 'so far, so long' (spatial or temporal length), *ahpi·ht-* 'to such an extent' (for scalar notions such as age, weight, speed, strength), *inehp-* 'so high; so deep', *inekihk*w- 'so big', *išiwe·p-* 'meaning [thus]', *očiwe·p-* 'from [then] on' and *tasw-* 'so many, so much'. See also the discussion of *nehki* 'so long a time' in 7.3.

[9] It should also be noted that there is a nonrelative morpheme *tan-*, homophonous with the stationary location relative root, which indicates progressive aspect.

(14) a. kanawi-   'speak   <S>'
     b. iši-kanawi-   'speak [thus]   <S OBL$_{manner}$>'

(15) a. anawi-   'go hunting   <S>'
     b. iši-anawi-   'go hunting [thither]   <S OBL$_{goal}$>'

(16) a. kahkitaw-   'hide O2 from O   <S O O2>'
     b. taši-kahkitaw- 'hide O2 from O [there]   <S O O2 OBL$_{loc}$>'

(17) a. pya·-   'come   <S OBL$_{goal}$>'
     b. oči-pya·-   'come from   <S OBL$_{goal}$ OBL$_{source}$>'

A striking feature of Meskwaki syntax is that manner, goal, location, and source are rarely expressed as optional adjuncts. Instead, the preferred strategy is to use a preverb to increase the valence of the verb, as in (14-17), so that these notions are expressed as arguments, rather than as adjuncts. Note also that the resulting compound verbs may be subcategorized for more than one oblique, as in (17b).

        The unmarked position for an oblique argument is immediately to the left of the verb (8.5). There is a wide range of structural possibilities for the oblique argument: it may be expressed by an NP (often marked with locative case (3.5.1)), by a PP (3.5.1, 3.5.2), by an adverb, by a subordinate clause (5.6), or by zero anaphora if the referent is clear from the context:

(18) a. ayo·hi pya·-no!   'Come here!'
        here   come-2/imperative
     b. pya·-no!   'Come [here]!'
        come-2/imperative

Pronouns from the 'body' series of personal pronouns (3.7.2) are used for the rare instances of nonthird person obliques.

        For more discussion of obliques and related issues, see 5.3. for relative clauses headed by obliques (also 5.4. for the role of oblique-headed relative clauses in wh-questions, and 5.6. for their use as complement clauses), 7.3. for lexical processes adding an oblique argument to a verb's subcategorization frame, and 9.1.3. for a discontinuous constituent construction involving oblique-headed relative clauses.

1.2.4. Comp. In LFG the grammatical function 'Comp' is used for clauses which are subcategorized for by matrix verbs and in which there is an overt expression of the subject (Bresnan 1982a:293). For example, consider the following English sentences in which the Comp clause is bracketed.

(19) a.   Ken claims [that the check is in the mail.]
     b.   I asked Sarah [whether she had heard from Tim.]

In (19a) 'claim' is subcategorized for subject and Comp; in (19b) 'ask' takes subject, object, and Comp. Note that the Comp of each sentence contains an overt subject ('the check' in (19a), 'she' in (19b)).

The grammatical function of Comp is found in Meskwaki as well. A few examples of verbs subcategorized for Comp are listed below.

(20) a.   anwa·či·-   'consent   <S COMP>'
      b.   ša·kwe·nemo-   'be unwilling <S COMP>'
      c.   wi·to·hkaw-   'allow   <S O COMP>'
      d.   anohka·n-   'commission   <S O COMP>'

See 5.6. for the inflection of verbs in Comp clauses. Verbs in Comp clauses and every other type of clause in Meskwaki are always inflected for subject: there are no nonfinite verbs in Meskwaki. Some Comp-taking verbs also require an expletive object (e.g. *kehke·net-* 'know'); see 3.1. for discussion.

Some clausal arguments in Meskwaki bear the grammatical function of oblique, not Comp. In particular, direct and indirect quoted speech or thought typically appears in an oblique clause, not a Comp clause. Examples may be found in 5.6.

Other sections pertaining to Comp include 3.4. on obviation, 8.6. on word order (the unmarked position for Comp is to the right of the verb), 10.1. on copying to object, and 10.2. on tough movement.

1.2.5. Secondary predicate. Secondary predicates in Meskwaki are always incorporated into the verb stem, occupying the stem-initial position (6.3.2). For example, consider the following examples of stems containing an incorporated secondary predicate. The matrix predicate in each case is the stem-final morpheme *-e·nem-* 'consider'.

(21) a.   ayi·hkwe·nem-   'consider O tired'
      b.   a·hkwamatamo·we·nem-   'consider O sick'
      c.   nepwa·hka·we·nem-   'consider O smart'
      d.   pašitowe·we·nem-   'consider O a liar'

6.3.2. presents arguments for taking verbs such as those in (21) to contain two argument-taking predicates, rather than a single complex predicate.

In LFG, a secondary predicate bears the open grammatical function of XCOMP: that is, it is an argument-taking predicate, but it does not have a subject expressed overtly in c-structure. In English the XCOMP function is associated not only with secondary predicates but also with infinitival complements (i.e., the complements of raising and equi verbs), and with constituents introduced with a copula, such as a passive participle or a predicate NP (i.e., the copula is treated as a raising to subject verb). See Bresnan 1982a:322-323; 374-379 for discussion. In Meskwaki, however, XCOMP is found only with secondary predicates; there are no counterparts to the other types of English XCOMPs. As mentioned in 1.2.4, there are no infinitive forms of verbs and all subordinate clauses contain an overt expression of their subject. Nor is there an overt copula in Meskwaki. Moreover, predicate NPs are used infrequently; more common is the use of stative verbs derived from nouns (e.g. *oškinawe·hi-* 'be a young man').

1.2.6. Other grammatical relations. Finally, a few other grammatical relations will be briefly mentioned. The grammatical function ADJ, or adjunct, is used for optional modifiers of various

types. 5.7. describes several types of adjunct clauses, including temporal clauses and purpose clauses. Obviation in adjunct clauses is discussed in 2.3.

The grammatical function POSS is used for possessors. As explained in 2.4, some nouns in Meskwaki are subcategorized for an obligatory possessor (e.g. kinship nouns such as *-kwis-* 'son <POSS>'), other nouns allow an optional possessor, and still others cannot be used with a possessor in the basic form of the stem. See also 2.3. for obviation in possessed noun phrases.

Adpositional phrases are relatively rare in Meskwaki, but see 2.5.1. and 2.5.2. for case marking on objects of adpositions, and 2.5.2. and 6.2. for prepositions which incorporate their object. Adpositional phrases may function as obliques or as adjuncts.

1.3. Additional theoretical assumptions. Some other assumptions of Lexical Functional Grammar will be presented in this section, by working through the syntax of a simple Meskwaki sentence. The representations and lexical entries in this section are detailed and somewhat technical; the discussion in later chapters will be kept as nontechnical as possible.

LFG provides separate representations for CONSTITUENT STRUCTURE (c-structure) and FUNCTIONAL STRUCTURE (f-structure): c-structure represents the linear order and hierarchical structure of words and phrases; f-structure represents grammatical relations and agreement. Much of the syntactic information represented in f-structure is listed in individual lexical entries. Lexical rules, such as passive, may operate upon a lexical entry, creating a new lexical entry with different subcategorizational requirements.

The Meskwaki sentence to be analyzed is given below:

(22)   *wa·pame·wa ihkwe·wa mahkwani*   'The woman (prox) looked at the bear (obv).'

wa·pam-e·-w-a	ihkwe·w-a	mahkw-ani
look.at-DIR-3-SG	woman-SG	bear-OBV
[look.at 3-3'/IND.IND]		

(22) is a simple transitive clause, with both the subject and the object expressed by lexical NPs. The format of the example is as follows: the first line shows the Meskwaki sentence with its free translation into English. The second line breaks down each Meskwaki word into its component morphemes; the morpheme-by-morpheme gloss is given immediately below the segmented Meskwaki words. However, as will be seen in chapter 4 on verb inflection, glossing each individual morpheme does not succeed in conveying the full information associated with verb inflection (due to discontinuous morphemes, the role played by the suffixes known as THEME SIGNS, such as the suffix glossed 'DIR' (direct) in (22), and paradigmatic relationships among affixes in the inflectional template). Verbs in the examples thus have yet another line of interlinear glossing, in which the gloss of the stem is followed by the features of subject and object, separated by a dash, and finally the paradigm of verb inflection. The symbols 3 and 3' refer to the opposition within third person known as obviation (3.3). The third person most central to the discourse is called proximate, and referred to by unmarked third person forms (3). More peripheral third persons are referred to by special marked obviative forms (3'). The formula '3-3'/IND.IND' should thus be read 'third person animate proximate singular subject acting on a third person animate obviative object, in the independent indicative paradigm'.

The constituent structure of (22) is extremely simple. Meskwaki does not have a VP node: both subject and object are sisters of the verb, and daughters of the root S node.

(23)   S

        V   NP   NP

    wa·pame·wa *ihkwe·wa*   *mahkwani*
    'look at'   'woman'   'bear'

C-structure in LFG uses tree diagrams to represent linear order and hierarchical structure. In general, the tree diagrams are like those familiar from phrase structure grammars; the only novel aspect is the annotation of nodes in the tree with labels such as 'SUBJ' and 'OBJ'. These labels play a role in linking lexical information to the f-structure representation, as we will see below.[10] It is also worth pointing out that there are no empty categories in c-structure (i.e., a node in the c-structure tree which dominates a phonetically null terminal string); this is in marked contrast to the Government and Binding framework, in which empty categories play a prominent role.[11]

        A separate representation, f-structure, displays the grammatical relations of our sample sentence, including all agreement categories. In Meskwaki, verbs are inflected to agree with subject and object in person, number, gender (animate vs. inanimate), and obviation.[12]

(24)

PRED	'look-at <SUBJ, OBJ>'	
SUBJ	PRED	'woman'
	PERS	3
	GEND	animate
	NUM	sg
	OBV	--
OBJ	PRED	'bear'
	PERS	3
	GEND	animate
	NUM	sg
	OBV	+

---

[10] (23) is an informal representation of c-structure. Technically, the annotations on the NP nodes should read '(↑SUBJ)=↓' and '(↑OBJ)=↓', and the verb should be annotated '↑=↓'. The arrows are metavariables, to be instantiated by the f-structure representation associated with nodes of the c-structure tree; the down arrow refers to the f-structure associated with the current node and the up arrow refers to the f-structure associated with the mother of the current node. The equations are then solved to construct the f-structure representation. See Kaplan and Bresnan 1982:183-203.

[11] Actually, Bresnan does use one type of empty category in c-structure, corresponding to 'wh-trace' (Kaplan and Bresnan 1982:234ff.; Bresnan 1994). Other versions of LFG (e.g. Kaplan and Zaenen 1989) eliminate even this empty category from c-structure. For Fox, no empty categories are needed in c-structure.

[12] A more complete representation of f-structure would also include information on tense, mood, and aspect associated with the paradigm of verb inflection. See chapter 5.

An f-structure is an array of function names paired with values. Starting with the left column of (24), the predicate of the sentence is the verb 'look at', which requires a subject and an object. The value of the function 'SUBJ' is an embedded f-structure, which contains the predicate 'woman' and values for the features person, number, gender, and obviation. Similarly, the value for the function 'OBJ' is another embedded f-structure, with the predicate 'bear' and values for person, number, gender, and obviation. Both the subject and object are third person, singular, and animate, differing only in the feature for obviation. The object is obviative, so it is marked [+ obviative] in the f-structure; the proximate subject is [- obviative].

The information represented in f-structure comes from the lexicon and from c-structure. Lexical items are inserted into c-structure as fully inflected words, each associated with syntactic information. The lexical entries for the words of our sample sentence are given below. (The entry for the verb will be slightly revised later in this section.)

(25)   *ihkwe·wa*, N   (26)   *mahkwani*, N

Pred   = 'woman'   Pred   = 'bear'
Pers   = 3   Pers   = 3
Gend   = anim   Gend   = anim
Num   = sing   Num   = sing
Obv   = -   Obv   = +

(27)

wa·pame·wa, V

Pred = 'look at <SUBJ OBJ>'
Subj Pers = 3
Subj Num   = sing
Subj Gend = anim
Subj Obv   = -
Obj Pers = 3
Obj Gend = anim
Obj Obv   = +

The number of the obviative object is not specified in the entry for the verb.

The lexical entry for the verb includes features which are specific for subject and for object. The entries for the nouns, on the other hand, do not specify whether they will be used as subject or as object: there is no nominative or accusative case marking, for example. When the nouns are inserted into the c-structure of (23), however, the annotations on the NP nodes of the tree identify the lexical information carried by the nouns as the value of subject and of object in f-structure.[13]

---

[13] The position of subject and object is not fixed: the unmarked position for both subject and object is to the right of the verb, but the object may precede the subject (8.6). Fox c-structure must therefore allow the annotations of SUBJ and OBJ to attach to any postverbal NP; well-formedness conditions on f-structure (especially Consistency (Kaplan and Bresnan 1982:204)) will rule out any unwanted structures. See Dahlstrom 1991:125-130 for a detailed account of c-structure annotation in Cree.

Agreement in LFG is represented by having more than one lexical item contribute the same grammatical features to the f-structure representation. At f-structure, the features must unify: that is, there may not be a clash of feature values. For Meskwaki, the agreement of verbs with subject and object in person, number, gender, and obviation is represented by listing the relevant features in the lexical entries for both the verb and the nouns.

Meskwaki verb inflection has a dual function. If subject and/or object is expressed by a lexical NP, as in (22), the verb inflection functions as agreement. In the absence of a lexical NP, however, the inflection functions as a pronominal subject or object. In other words, a clause in which both subject and object are pronominal may contain only an inflected verb:

(28)   *wa·pame·wa*   'He/she (prox) looked at him/her/them (obv).'

      wa·pam-e·-w-a
      look.at-DIR-3-SG
      [look.at 3-3'/IND.IND]

The subject of (28) is third person animate proximate singular (either male or female; there is no sex-based gender in Meskwaki) and the object is third person animate obviative, either singular or plural. The c-structure of (28) shows that the sentence contains only a verb:

(29)   S

                    V

                wa·pame·wa
                'look at'

Recall that c-structure in LFG does not contain empty categories; the verb is the only element that can be represented in the c-structure of (28).

Although the c-structure of (28) looks quite different from that of (22), their f-structure representations look quite similar:

(30)

$$
\begin{bmatrix}
\text{PRED} & \text{'look-at <SUBJ, OBJ>'} \\[2mm]
\text{SUBJ} & \begin{bmatrix} \text{PRED} & \text{'pro'} \\ \text{PERS} & 3 \\ \text{GEND} & \text{animate} \\ \text{NUM} & \text{sg} \\ \text{OBV} & \text{--} \end{bmatrix} \\[8mm]
\text{OBJ} & \begin{bmatrix} \text{PRED} & \text{'pro'} \\ \text{PERS} & 3 \end{bmatrix}
\end{bmatrix}
$$

$$\left[\begin{array}{c} \\ \end{array} \left[\begin{array}{ll} \text{GEND} & \text{animate} \\ \text{OBV} & + \end{array}\right] \begin{array}{c} \\ \end{array}\right]$$

The main difference between (24) and (30) is that the Pred value of both subject and object in (30) is 'pro'. This notation indicates that the subject and object are available for anaphoric or deictic reference.

      The information that the subject and object of (28) are pronominal must be listed in the lexicon. Specifically, it must be part of the lexical entry of the inflected verb, since that is the only lexical item contained in (28). We will thus revise the lexical entry of the verb to include the information that the subject and object may optionally be pronominal.

(31)   *wa·pame·wa*, V

        Pred = 'look at <SUBJ OBJ>'
        (Subj Pred = 'pro')
        Subj Pers = 3
        Subj Num   = sing
        Subj Gend = anim
        Subj Obv   = -
        (Obj Pred = 'pro')
        Obj Pers   = 3
        Obj Gend   = anim
        Obj Obv   = +

The parentheses around the equations (Subj Pred = 'pro') and (Obj Pred = 'pro') indicate that each is optional; the well-formedness conditions of LFG ensure that the option of 'pro' can only be taken if there is no lexical NP contributing a Pred value.[14] It is only with third person inflection that the ambiguity between agreement and pronominal function is found in Meskwaki; inflection for nonthird persons always functions pronominally, contributing a Pred value of 'pro'. In other words, inflection for first or second person subjects or objects is never merely agreement with an independent first or second person pronoun. The independent personal pronouns in Meskwaki are used instead for specialized functions such as topic and focus, as explained in 3.7.

      Finally, a few words must be said about lexical rules. LFG assumes that the processes relating, say, active and passive take place in the lexicon: that there is a lexical rule which applies to the lexical entry containing the active form of a verb, and which creates a new lexical entry for the passive form of the verb. Lexical rules may alter both the morphology of the verb and the subcategorizational requirements of the verb. In Meskwaki, the concept of lexical rules is easily applied to the various types of valence-changing word formation processes found in the language. For example, the basic lexical entry for 'look at', (*wa·pam-* if the object is animate, *wa·pat-* if the object is inanimate) may undergo a number of lexical processes which add or subtract arguments. The resulting stems are listed below:

---

[14] See Dahlstrom 1991:130-131 for the comparable phenomenon in Cree and Bresnan and Mchombo 1987 for agreement and incorporated pronouns in Chicheŵa.

(32)	a.	wa·pama·so-	'be looked at'	passive
	b.	wa·patiso-	'look at oneself'	reflexive
	c.	wa·pamo-	'look in a mirror'	middle reflexive
	d.	wa·pati·-	'look at each other'	reciprocal
	e.	wa·pačike·-	'look at things'	antipassive
	f.	wa·pake·-	'look on'	antipassive
	g.	wa·pato·n-	'show'	causative
	h.	wa·patamaw-	'look at O2 for O;	applicative
			look at O's O2'	possessor raising

These lexical processes are discussed in chapter 7.

1.4. Overview of chapters. The remainder of the book is organized as follows. Chapter 2 provides a descriptive sketch of the phonology of Meskwaki, including the very productive processes of reduplication. The system of agreement between verbs and subjects and objects is taken up next. Chapter 3 describes the grammatical categories which play a role in the agreement system and their realization on nouns and pronouns; other types of nominal inflection (such as case marking and possessive inflection) are also covered in chapter 3.

Chapter 4 continues the discussion of the agreement system from the point of view of verb inflection. The bulk of the chapter is devoted to a detailed analysis of the independent indicative, one of the 26 paradigms of verb inflection. (The other paradigms are listed in the appendix.) Chapter 4 also includes discussion of the division of verb stems into classes depending on the gender of the subject or the object.

Chapter 5 explains what the various verb paradigms are used for. It is organized by clause type: for example, there is a section on main clause assertions, describing the verb inflection found in such clauses, a section on modal and evidential main clauses, a section on main clause questions, and so on.

Chapter 6 takes up questions of the internal structure of the verb stem and incorporation. Verb stems may be decomposed into an initial morpheme, an optional medial morpheme, and a final morpheme. Compound verb stems may be formed by combining a preverb with the verb stem. Within the stem there are three different types of incorporation: noun stems corresponding to object or to subject of an intransitive verb may be incorporated into the verb, occupying the optional medial position of the verb stem. Prepositions (which are relatively rare in Meskwaki) may also incorporate their objects. A third type of incorporation is seen in verbs subcategorized for a secondary predicate: the secondary predicate is incorporated into the verb, occupying the initial position of the stem.

Chapter 7 describes word formation processes which increase or decrease the valence of the verb, building upon the discussion of stem-internal structure in chapter 6. Many valence-changing processes (antipassive, reflexive, reciprocal, applicative, causative, etc.) add a secondary final to the verb stem; some preverbs serve to increase the valence of the verb by adding a requirement for an oblique or second object.

Chapter 8 introduces the issue of word order in Meskwaki, arguing for topic and focus positions, among others, in a largely flat constituent structure. The template presented in chapter 8 is motivated by the behavior of syntactically unified constituents; the discussion then turns in

chapter 9 to the phenomenon of discontinuous constituents, showing that the lefthand portion of the discontinuous constituent moves to the Topic, Negative, or Focus position in the c-structure template.

Finally, chapter 10 discusses three remaining syntactic issues: copying to object (similar to raising to object in English), tough movement, and the syntactic status of inverse forms of transitive verbs.

An appendix to the book provides a complete listing of the twenty-six paradigms of verb inflection.