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A DESCRIPTIVE GRAMMAR OF MISSISSIPPI CHOCTAW

by

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Abstract

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The justification for a grammar of Mississippi Choctaw is contingent upon two factors. First, the forced removal of the Choctaws to Oklahoma following the 1830 Treaty of Dancing Rabbit Creek had important linguistic effects, for while the larger part of the Choctaws removed to the West where their language probably followed its natural course, there remained in Mississippi a relatively small segment of Choctaws who, because they were fugitives from the removal, were fragmented into small, isolated bands. Thus, communication between the two groups and between the isolated bands of Mississippi Choctaws was extremely limited, resulting in a significant difference between the languages of the two groups. Second, the only grammar of Choctaw, Cyrus Byington's early nineteenth century Grammar of the Choctaw Language, is inadequate because it was written before descriptive linguistic science was formalized, because it reflected the Choctaw language just

prior to and following the removal, and because it utilized the Choctaw translation of the Bible as the primary source of data. Therefore, a grammar of current Mississippi Choctaw was considered to be an important contribution to linguistic knowledge.

Data for the Choctaw analysis were gathered from three native Mississippi Choctaws, and the syntactic structures were analyzed in accordance with Rulon Wells' Immediate Constituent methodology. The formalization of the Choctaw grammar utilized the transformational model as proposed by Noam Chomsky except that the second component was expanded to include a series of context-sensitive rules (CS-rules). The second component itself, called the semantic component, consists of two sets of rules, CS-rules, which are felt by the writer to be a manifestation of the interaction of the semological and syntactical areas of language, and lexical rules (L-rules) in which rather delicately defined subsets of the word classes defined by the phrase-structure component are presented.

The grammar of Mississippi Choctaw is a tentative proposal formulated from an initial study and consists of four major components: phrase-structure (P-rules), semantic, transformational (T-rules), and morphophonemic (M-rules). The phrase-structure component consists of a series of context free P-rules which provide definitions of syntactic categories in sufficient detail to allow the CS-rules, L-rules, and T-rules to operate efficiently. The semantic

component consists of two sets of rules operating on the principle of the transformational cycle. The first set of rules, the CS-rules, specify structural changes or restrictions on classes of words which occur when specific elements are in the syntactic environment. The second set of rules, the L-rules, replace the terminal symbols provided by the P- and CS-rules with lexical items The transformational component consists of an ordered series of rules which provide for the proper ordering of syntactic elements, the embedding of elements of one string into a matrix, complexities relating to both the verb and noun, and compounding of certain syntactic elements. The morphophonemic component is merely suggestive of the rules which would be presented in the component, for adequate M-rules are possible only after a full phonological description has been completed. Following the presentation of the grammar are comments on the effects and operations of the components, especially of the T-rules.

The conclusion contains discussions of residual problems of the analysis, such as the complexities of the third person possessive pronoun and of the verb, and proposes some specific areas which future studies should investigate, such as a phonological description, a broadening of the syntactic analysis, and a comparative study of Oklahoma and Mississippi Choctaw.

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TABLE OF CONTENTS

CHAPTER 1

JUSTIFICATION OF THE STUDY

A Brief History of the Choctaw Language

Because linguistic science and trained linguists were not available when Europeans first made contact with native Americans, it is now impossible to construct an adequate history of the Choctaw language, for European efforts were not then directed towards linguistic or even anthropological goals. Thus the only data of the Choctaw language prior to the early nineteenth century missionary efforts are both scanty and largely unreliable. Yet, a proper understanding of the nature of a language must include a knowledge of its place within its linguistic family, of its geographical range, of the historical events which had a marked influence on the linguistic community and hence on the language, and of the impressions which the language made upon the non-natives who came in contact with it.

The most important contribution of a linguistic analysis of Choctaw would be to make possible a diachronic study, but such a study is impossible for two reasons. The first is implicit in the preceding paragraph: there are no data available for pre-nineteenth century Choctaw. The second is that the data which are available from the

nineteenth century to the present are, at best, of doubtful validity, a matter which will be discussed in some detail later in this chapter. A diachronic study based on doubtful data and limited to merely one and one-half centuries would be of minimal value. Hence, the purpose of the following brief history of the Choctaw language is to provide a background which will present the contemporary Mississippi Choctaw linguistic community and its language in proper perspective for future scholars interested in extending the study presented herein.

Choctaw is one of the languages of the Muskogean linguistic family, the primary linguistic family of the Southeastern United States (see Appendix A). Muskogean consists of four principal groups: Hitchiti, Alabaman, Choctaw, and Muskogee or Creek. Choctaw was first mapped by Albert Gallatin in 1836 as a family distinct from the Muskogean family, although he recognized by comparing vocabularies that there was a great similarity between the two groups. George Bancroft later unified the two families under the term Mobilians; since that time the family has been known as Muskogean because the Muskogee were the politically dominant tribe in the Creek Confederacy.[1] J. W. Powell stressed the point that languages were grouped into families never by grammatical simi-

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[1]Frederick W. Hodge, ed., Handbook of American Indians North of Mexico, Bureau of American Ethnology, Bulletin 30 (2 pts.; Washington, D.C.: Government Printing Office, 1907), Part 1, pp. 962-63.

larities (grammar was considered to be a phenomenon of the individual language) but only by vocabulary similarities.[2] The Muskogean family itself is broken into two divisions, the Southern and the Northern. The Southern division, which consists of the Hitchiti, Alabaman, and Choctaw groups, is the larger division, and the Choctaw group is the largest group in the entire family. Angie Debo said that "the Choctaw Indians constituted the most numerous branch of the great Muskogean linguistic stock,"[3] a point enhanced by John R. Swanton's observation "that the Choctaw, Chickasaw, Hitchiti, and Koasati languages were mutually intelligible."[4]

The Choctaw tribe, the largest of those which made up the Choctaw linguistic group, was not a perfectly homogeneous linguistic community. Historically there were several Choctaw dialects, that of the Okla Falaya 'Long People' in the western part of Mississippi being the most prestigious and that of the Okla Hanali 'Sixtown People' in Newton and Jasper counties being the least prestigious.

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[2]John W. Powell, "Indian Linguistic Families," in Seventh Annual Report of the Bureau of Ethnology, 1885-1886, (Washington, D.C.: Government Printing Office, 1891), p. 180.

[3]Rise and Fall of the Choctaw Republic (Norman, Okla.: University of Oklahoma Press, 1961), p. 1. See also John R. Swanton, The Indian Tribes of North America, Bureau of American Ethnology, Bulletin 145 (Washington, D.C.: Government Printing Office, 1952), p. 180.

[4]Early History of the Creek Indians and Their Neighbors, Bureau of American Ethnology, Bulletin 73 (Washington, D.C.: Government Printing Office, 1922), p. 191.

"There were variations of speech not only between the Sixtown Indians and the rest but also between the speech of the other parties, but in course of time that of the western group, the Long People, came to be recognized as standard Choctaw."[5] According to Cyrus Byington, the dialectal differences between standard Choctaw and Sixtown Choctaw were "confined mainly to certain words, involving but very slightly the language as a whole."[6] But while the other Choctaws openly ridiculed their speech and held their dialect in contempt, the Sixtown Indians "seem to have contributed their full share, if not somewhat more than their full share, to the political and intellectual development of the tribe."[7] It is possible that the Sixtown dialect has had some influence on present-day Mississippi Choctaw, for when in February of 1846

> all the remaining Sixtown Choctaws, with the exceptions of Inkillis Tamaha, rendezvoused at Kelly's hill and migrated west at this time, . . . few of the Inkillis Tamahas ever emigrated. . . . Nearly all of the Choctaws now living in Jasper County are Inkillis Tamaha Choctaws, and are generally called Six Towns.[8]

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[5]John R. Swanton, Source Material for the Social and Ceremonial Life of the Choctaw Indians, Bureau of American Ethnology, Bulletin 103 (Washington, D.C.: Government Printing Office, 1931), p. 56. See also Debo, Rise and Fall, p. 70.

[6]A Dictionary of the Choctaw Language, ed. by John R. Swanton and Henry S. Halbert, Bureau of American Ethnology, Bulletin 46 (Washington, D.C.: Government Printing Office, 1915), p. ix.

[7]Swanton, Source Material, p. 57.

[8]H. L. Halbert, "Okla Hannali," American Antiquarian, XV (ca., 1895), 148.

We have no further records of either the nature or the prestige of other Choctaw dialects.

The importance of the Choctaw language is evidenced not only by the fact that the Choctaw linguistic group is the largest in the Muskogean family, but also by the fact that Choctaw formed the basis for the lingua franca of the southeastern region. Paul Martin stated that before the advent of Europeans, trade languages, which covered wide areas of the continent, existed in three regions.[9] One of these was a Choctaw jargon. Mary Haas, who differs from others by basing the lingua franca, also known as Mobilian, on Chickasaw, noted that no one seemed inclined to make a record of the language even though its existence was widely known and then quoted from James Mooney:

> This trade jargon, based upon Choctaw, but borrowing also from all the neighboring dialects and even from the more northern Algonquian languages, was spoken and understood among all the tribes of the Gulf states, probably as far west as Matogorda bay and northward along both banks of the Mississippi to the Algonquian frontier about the entrance of the Ohio.[10]

Anna Lewis confused the picture somewhat when she stated that the jargon was in use for almost a century.[11] Cer-

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[9]Indians Before Columbus (Chicago: The University of Chicago Press, 1947), p. 68.

[10]Myths of the Cherokee, Bureau of American Ethnology, Report 19 (Washington, D.C.: Government Printing Office, 1900), Part 1, p. 187, quoted in "Last Words of Biloxi," IJAL, XXXIV (April, 1968), 81, n. 4.

[11]Chief Pushmataha, American Patriot (New York: Exposition Press, 1959), p. 56.

tainly it is safe to assume that if the jargon were in use before the coming of the Europeans and if the jargon were known long enough for its geographical delimitations to be determined, then it must have been in use for over a century.

It is not surprising that the Choctaw language, being a spoken and not a literary language, lent itself well to oratory. Many of the people who spent some time with the tribe noted in their written memoirs that the Choctaws held oratorical prowess in high esteem. And while it cannot be held that colloquial Choctaw was spoken in an oratorical style, it must be noted that such a style was prestigious. Cyrus Byington, one of the missionaries to the Choctaws, noted in his Grammar of the Choctaw Language:

> In former times there was a well known solemn style which abounded in sonorous words. One part of a sentence was nicely balanced by another, and in delivery a chanting or metrical intonation was used. At the close of each paragraph the orator would invite the people to listen, who would in turn indicate approval by crying out yvmmah! It is that! (or "that's so"); and viphesa! It is right! The most frequent peculiarity of the style was the lengthened pronominal suffixes, as for instance Nanta hocha? What is it? Nana Hona, something.[12]

Henry Benson, also a missionary, lived with the Choctaws only after their removal to Oklahoma, but he noted that

> the Choctaws seemed to have a mania for shaking hands and making formal speeches.

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[12]Grammar of the Choctaw Language, ed. by D. G. Brinton (Philadelphia: McCalla and Stavely, Printers, 1870), pp. 20-21.

> They were very pleasant orators; their words soft, euphonious, and almost free from aspirated gutteral sounds. Their language was not copious: hence gesticulation became an important element in supplying the vacuum occasioned by the dearth of words.[13]

Miss Lewis, in her biography of Chief Pushmataha, strikes a similar note:

> Most Choctaw leaders were excellent speakers; they loved to express themselves in beautiful figures of speech. Pushmataha always liked to make a speech, and he never failed to inspire his audience with his earnestness, even if they could not understand a word he said. . . . He was a poet as well as an orator, and he made use of this poetic nature in his speeches.[14]

Whether it was the Choctaw or the English translation which was poetic is debatable, but the oratorical proficiency is unmistakable. This writer too has noted that the few Choctaw men with whom he has had contact love to express themselves with high-flown figures, even in English.

The most important historical event in Choctaw history was the Treaty of Dancing Rabbit Creek which, when signed in 1830, provided that the Choctaws cede all their lands east of the Mississippi and remove themselves to new lands in what is now Oklahoma. The government sought a new treaty mainly because of the pressures of the greedy whites, and the Choctaws accepted the treaty reluctantly through the persuasion of Greenwood LaFlore, who stood to profit handsomely by the selling of the land. The removal

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[13]Life Among the Choctaw Indians (Cincinnati: L. Swormstedt and A. Poe, 1860), p. 232.

[14]Lewis, Chief Pushmataha, pp. 52-53.

of the Choctaws was so grossly mishandled that it turned into a tragedy.

Once in Oklahoma the Choctaws established the Choctaw Nation, which included the remnants of the Chickasaw tribe. The missionary work begun in 1819 in Mississippi flourished in Oklahoma, and all of the linguistic work done after that time was done with the Oklahoma group. The language had been reduced to writing by the time of the removal, and evidently there was a considerable degree of literacy, for the laws of the Choctaw Council were published in Choctaw, Choctaw newspapers flourished, and adults "were anxious to read the few books that had been translated and published in their own tongue."[15] Yet, despite the establishment of a sound tribal government and the avidity with which many Choctaws learned to read their language, the attitudes of the white missionaries seemed supercilious. The Choctaws were still regarded as illiterates because they did not adopt English. Of all the remarks concerning Choctaw literacy found during the research for this work, the most complimentary was that of Miss Debo who said, "Before they had been in their new home for a generation, the Choctaws became, at least so far as their own language was concerned, a literate people."[16] Obviously, the removal of the tribe from the hostile Mississippi environment had some positive effects.

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[15]Benson, Life Among the Choctaw Indians, p. 40.

[16]Rise and Fall, p. 62.

But there was a sizable group of Choctaws who did not wish to leave their land. For some sixteen years after the treaty, efforts were made by the government to round up as many of the Choctaws as could be found and to force them to go to Oklahoma. Yet many remained, living in small family groups deep in the woods, some aided by whites.[17]

> There remained in Mississippi only those who were determined not to remove to the West. Describing them as being in a destitute condition, the removal agents estimated their total number as of August, 1833 to be about 6,200. . . . /The agents/ were able to persuade 900 to go under government sponsorship. . . . Equally as many must have emigrated on their own resources, for it was reported that since November, 1832, a total of 3,215 had gone without agents.[18]

The recorded history of the Mississippi Choctaws for the next one hundred years is non-existent. A 1935 typewritten booklet by John Pearmain entitled "History of the Mississippi Indians" treats the period from 1835 to 1918, the year the Bureau of Indian Affairs opened its Philadelphia, Mississippi, Choctaw Reservation, in one paragraph of two sentences.[19] Except for the official documents recording

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[17]Mrs. Marie King of Poplarville, Mississippi, states that her former pastor often told of his grandfather's aid to a band of Choctaws who chose to hide in Honey Island Swamp just south of Picayune, Mississippi, rather than move to Oklahoma. Mr. Freeman Jones smuggled grain and soft goods to the Indians for a number of years.

[18]Charles Madden Tolbert, A Sociological Study of The Choctaw Indians of Mississippi (Ann Arbor, Michigan: University Microfilms, 1958), pp. 57-58.

[19]Ibid., p. 10, n. 25. With the exception of Tolbert's dissertation, there is no published material of

summaries of Choctaw claims and for the record of a Mississippi Choctaw Battalion (formed about 1862 of 180 Choctaw men with white officers and captured in toto by the Union Army while training at Camp Moore, Louisiana), nothing specific is known about the Choctaws, including the fate of the 180 captured Indians, until the reservation was opened. Generally, it is known that the Choctaws until 1918 "lived in poverty, often as squatters or trespassers on abandoned land. They lived in small colonies of a few hundred each occupying tents and hutments."[20] From a sociological point of view, because they were isolated in small groups within a larger, more dominant culture and because they were deprived of their former, highly organized communal structure, their "traditional cultural forms should have given way readily to the conquering culture. Yet certain patterns still persist."[21] Among these is a rapidly decreasing linguistic proficiency in Choctaw.

From a linguistic point of view, the lack of communication between the Mississippi Group and the Oklahoma Group should have had profound effects, as indeed it

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any significance on the Mississippi Choctaws. Thelma Bounds' little book, The Story of the Mississippi Choctaws (Chilocco, Okla.: U. S. Department of Interior, Bureau of Indian Affairs, 1958), is written for children and contains no significant historical material.

[20]Tolbert, A Sociological Study, p. 69.

[21]Ibid., p. 18.

did. Because the majority of the tribe was transplanted, the Choctaw spoken by the Oklahoma group undoubtedly followed its normal linguistic changes. But the Mississippi Choctaw group did not have access to the prestigious dialect of the Choctaw Council nor to the normalizing influences of the written language. Consequently, as Boas indicated,

> When communication between peoples speaking the same tongue ceases, peculiarities of pronunciation will readily manifest themselves in one region or the other. . . . and may become so radical that several quite different forms of the original language develop.[22]

The region which would change the least would be the smaller and more isolated one, in this case the Mississippi group. However, the Mississippi Choctaws were themselves isolated in small groups; therefore, the same linguistic principles which operated between the Oklahoma group and the Mississippi group also operated within the Mississippi group, so that there was no homogeneity between the tendencies of the various groups towards linguistic conservatism.

The most significant pressure upon present-day Mississippi Choctaw is acculturation. The rate of acculturation is proceeding more rapidly now as a result of

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[22]Franz Boas, "Introduction to the Handbook of American Indian Languages," Bureau of American Ethnology, Bulletin 40, Part 1, reprinted by Institute of Languages and Linguistics (Washington, D. C.: Georgetown University Press, ca. 1963), p. 36.

two facts. First, the Bureau of Indian Affairs (BIA) schools have been in existence long enough and have extended their influence enough that many of the Choctaw children are now coming from bilingual homes. The influence of the schools is becoming more significant as more graduates of the BIA schools enter college. Thus, because the entire educational process is conducted in English and because almost all of the faculty are white and present their materials in the context of the larger culture, the graduates of the schools are more inclined towards the larger culture, a fact which was so disturbing to the nineteenth century Oklahoma Choctaws that their protests were interpreted by the missionaries as anti-educational protests.[23] Second, the bias of the larger culture has relaxed enough for the Choctaws to find new employment opportunities opening off the reservation, thus making acculturation more desirable. At the same time there is renewed interest in the old culture as evidenced by the annual Choctaw Fair. Unfortunately, the cultural interest does not extend to the preservation of the native language.

In 1958 Tolbert classified the Choctaws into three groups based on their level of acculturation: native, transitional, and marginal. The native group consisted primarily of old folk who were either sharecroppers or tenant-farmers and who retained almost exclusively their

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[23]See Benson, Life Among the Choctaw Indians, pp. 36-41.

native speech and dress. Almost one-half of the Choctaws were in this group. The transitional group consisted primarily of younger folk who were oriented in varying degrees towards the larger culture and who were largely bilingual. A little over one-half were in this group. The marginal group was very small and consisted of educated Choctaws who were bi-cultural. Having two cultures, members of this group were more aware of discrimination and tended to migrate rather than suffer discrimination. While the members of the marginal group were basically bilingual, they tended to view English as their primary language and Choctaw as a remnant of their cultural heritage.[24]

Works on the Choctaw Language

The Choctaw language has not been entirely overlooked by scholars. The most significant and extensive work was done by the Reverend Mr. Cyrus Byington, a missionary who began his work with the Choctaws in 1820, working the first fifteen years in Mississippi and the remainder in Oklahoma. Mr. Byington wrote a Grammar of the Choctaw Language and compiled A Dictionary of the Choctaw Language. Later the Reverend Mr. Allen Wright, a native Choctaw, felt a need in the Choctaw Schools for

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[24]Tolbert, A Sociological Study, pp. 120-25, passim.

a lexicon, Mr. Byington's dictionary not being printed until 1915; therefore, he compiled the Chahta Leksikon,[25] which was subtitled "A Choctaw in English Definition for the Academies and Schools." In this century interest in Choctaw has been primarily in relation to Proto-Muskogean studies which have been made by Frank Speck and Mary R. Haas. Just recently the Center for Applied Linguistics (CAL) has published a small volume intended to aid English teachers in some of the BIA schools. The section devoted to Choctaw, entitled "English for Speakers of Choctaw," was written by Thurston Dale Nicklas of the University of Kansas,[26] and while it is not intended to be a grammatical analysis, the section does present many elements of Choctaw grammar, presumably taken from the Oklahoma group although the source is never mentioned. With the exception of Mr. Byington's works, all material for Choctaw studies apparently was gathered only from the Oklahoma Choctaws.

Byington's Grammar, the first draft of which was finished in 1834,[27] a year before his move to

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[25](St. Louis, Mo.: Presbyterian Publishing Co.; ca. 1880).

[26]Sirarpi Ohannessian and William W. Gage, eds., Teaching English to Speakers of Choctaw, Navajo and Papago: A Contrastive Approach (Washington, D.C.: Office of the Assistant Commissioner for Education, United States Bureau of Indian Affairs, 1969).

[27]"Introduction," p. 3.

Oklahoma,[28] is an extensive work of historical interest but of minimal linguistic importance today. The work was revised six times, and Byington was working on the seventh revision at the time of his death in 1868. Byington seemed to realize the tentativeness of his work, for in 1867 he wrote, "This work can be much improved hereafter by other hands. It may be compared to the first survey and making of a road in a new country." But "other hands" did not appear. Even Dr. Brinton, while preparing the manuscript for publication and noting that at places "a different nomenclature and an altered arrangement suggested themselves, as in better accordance with modern /1870/ philological views," concluded that "we may well doubt if ever again a person will be found who will combine the time, the opportunities, and the ability to make an equal analysis of the language."[29] The weakness of the Grammar does not stem from a lack of devotion to duty on Byington's part, but rather from his acceptance of the Choctaw Bible as the primary source of his work and from the absence of a linguistic science.

It was natural for a nineteenth century philologist to consider the written language the proper source for linguistic data; and, therefore, when he, with the aid of David Folsom, had translated the Bible into Choctaw,

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[28]Grant Foreman, The Five Civilized Tribes (Norman, Okla.: University of Oklahoma Press, 1934), p. 46.

[29]Byington, Grammar, "Introduction," p. 5.

Byington turned to it for his data.[30] He began the Grammar with a discussion of Choctaw orthography, accounting for all the letters in the Choctaw alphabet with their appropriate values and outlining in great detail the sound changes which are today understood to be phonological and morphophonemic conditioning. Moving next to "Grammatical Forms and Inflections," Byington listed the nine parts of speech and then devoted a chapter to each.[31] There is no indication that Byington utilized any criteria for establishing the reality of the parts of speech other than by analogy with the classical languages; however, he was concerned about the overlap of data in the noun

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[30]All the informants, when questioned, said that the language of the Choctaw Bible was quite distinct from colloquial Mississippi Choctaw. When the analysts gave them some words from Byington's Dictionary, they remembered a few to be in the Bible but could not give an English translation. One informant was a devout reader of the Choctaw Bible; but between her shyness and her apparent belief that biblical Choctaw was most prestigious, she was of minimal value as an informant.

[31]It is interesting to note that Byington, Grammar, p. 14, listed a Choctaw word, okeh, which means "it is so and not otherwise." While the existence of this Choctaw word is known to etymologists (see Thomas Pyles, Words and Ways of American English /New York: Random House, Inc., 1952/, pp. 159-60, there are two points which are not generally taken into consideration. One is that the lingua franca built on Choctaw could have easily contained this word and spread its usage over a wide area. The other is the prevalence of okeh in Choctaw speech. It was amusing to note the occurrence of okeh in Choctaw conversations in much the same syntactic and semantic environments as the American OK occurs. If OK came out of the American backwoods as suggested by Pyles, then Choctaw would be a sensible source.

and verb classes. Brinton noted in the section on the accusative and ablative that "In one portion of his manuscript Mr. Byington propounds the following query: 'Cannot all Choctaw nouns be treated as verbs? The root may be considered as in the infinitive mood.'"[32] But the matter was not reflected in the Grammar, for nouns are treated in the full classical style. Throughout the Grammar Byington proved and explained point after point by copious references to scripture.

Already it has been seen in the treatment of parts of speech how the absence of a linguistic science has lessened the value of Byington's work, and there are other places where that absence is equally obvious. For example, in his treatment of the "Article-Pronoun," a part of speech which was extremely troublesome to him, Byington first distinguished between the definite a and the distinctive o with many variations of each and then classified them into groups not on the basis of distribution within the Choctaw sentence alone but on the basis of the differences between the English translations of those particles. Thus a was translated as an article, a relative pronoun, a case marker, third person singular or plural personal pronoun, a double pronoun such as him whom, her

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[32]Byington, Grammar, p. 45. After quoting two conflicting sources, Brinton concluded that Byington's idea was backwards: that verbs should be treated as nouns.

whom, or those whom, or a locative. The o particle was similarly translated as the indefinite article or null, a relative, demonstrative, or personal pronoun, a double pronoun such as the one whom, or a locative on or upon.[33] Likewise, in his verb paradigms Byington failed to note both that what he called the infinitive does not inflect throughout much of his list and that what would now be an obvious case of phonological conditioning existed in the present paradigm, for a word-final i>a when the following word began with h.[34] Basically, Byington's verb lists reflected little more than the complete pronominal paradigm with occasional changes in the verb forms. These are weaknesses that linguistic science can now resolve.

As was the case with the Grammar, the Dictionary was in manuscript form at the time of Byington's death. The manuscript was prepared for publication by John Swanton and Henry Halbert, who, unlike Brinton, did not hesitate to make changes which would put the dictionary more in line with current linguistic principles. In the "Introduction" Mr. Swanton stated:

> It would be fair neither to Mr. Byington nor to the editors, however, to present the dictionary as a finished work. . . . But the plan

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[33]Ibid., pp. 12-22, passim. In this case Byington has to be making a classification from the English translation, for he knew there was no third person pronoun, and in none of his pronoun paradigms (pp. 32-33) does he list a third person form.

[34]Ibid., p. 38.

> which Mr. Byington had set before himself for his dictionary is one not now of much value to students of American languages, and to carry it to completion along those lines would involve an enormous amount of unprofitable labor. Therefore the work is presented almost as he left it.[35]

The Dictionary lists about 15,000 words and for modern Mississippi Choctaw is grossly inadequate. Many of the words are totally unknown to the Mississippi informants.

Mr. Wright's Chahta Leksikon was not intended as a complete dictionary of Choctaw. "It is not professed to be a perfect and complete work of the kind. . . . There being so many particles which cannot be defined by themselves, except in connection with the nouns and verbs."[36] At first glance there were few significant differences between the Leksikon and the Dictionary, the most obvious differences being the brevity of the English definitions and the absence of Biblical references in the Leksikon. On inspection, however, many non-trivial differences were obvious. A random selection of twenty-six entries was noted from the Leksikon and compared with the Dictionary; in eight cases Byington's glosses completely disagreed with Wright's, and in nine cases they partially disagreed. Wright listed abasah as meaning 'laid across'; Byington listed five words meaning the same, only three of which

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[35]Byington, Dictionary, p. viii.

[36]Wright, Leksikon, p. 3.

began with aba-. Wright listed hashuto as meaning 'the said or aforesaid' while Byington for the same meaning listed chash, chokame, chokash but no word similar to Wright's. Wright listed okulhahi as meaning 'pickle' while Byington listed for the same meaning oka hapi yammi. Conversely, Byington listed hashuk as meaning 'grass', a gloss with which the Mississippi informants concur, while Wright listed nothing. Such serious differences between the two works on the same subject naturally raise unanswerable questions regarding the validity of each.

While works on Proto-Muskogean are not of great importance to this study, work on any proto-language presupposes some linguistic knowledge of the daughter languages; and in this case, because of the dearth of Choctaw material, all works which might contain pertinent Choctaw information were examined quite thoroughly. Of the two names connected with Proto-Muskogean, Frank Speck is the earlier and the more critical. Although he never specified the origin of his Choctaw data, Speck was familiar with Byington's work and obviously disregarded most of it. He said that Byington's Grammar "contains much material, but it is not critically treated and is poorly systemized from an inductive point of view."[37] Later, in reference to the

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[37]Frank Speck, "Some Comparative Traits of the Maskogian Languages," American Anthropologist, IX (1907), 471.

Dictionary, Speck stated:

> Some regular vocalic changes evidently take place in Choctaw, but from Byington's material little can be gleaned that yields definite results on this point.[38]

Mr. Speck included in his article a number of comments about Choctaw which are true of the present data and which have not been expressed elsewhere. Speck noted the lack of real difference between many of the Choctaw nouns and verbs; also, he noted that the Choctaw verb disregarded distinctions in number of subject and object,[39] that Choctaw built names for new things by compounding descriptive names,[40] and that Choctaw, unlike the eastern Muskogean languages, showed a tendency towards simplification, especially in the nominal and verbal endings.[41]

It is regrettable that a person who has attained a high degree of prestige in linguistic circles should not have been as critical as Speck since she had the advantage of a quarter of a century of improved linguistic methodology to draw on, yet Mary R. Haas, the other name connected with Proto-Muskogean, has published works which

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[38] Ibid., p. 473.

[39] See Nicklas, "English for Speakers of Choctaw," pp. 24, 29.

[40] Speck gives two examples; mule, "horse ears long"; sugar, "salt sweet."

[41] Speck, "Some Comparative Traits," pp. 478-83, passim.

contain Choctaw information which she uncritically accepted. In a recent article, after stressing the necessity and the rewards of applying the rigorous proto-methodology to as many families as possible, Dr. Haas stated:

> But if we are unable to convince ourselves of this necessity, our handbooks will continue to be filled with highly speculative and all too often plainly dubious or misleading information.[42]

Unfortunately, a critical look at Dr. Haas' work reveals "highly speculative and all too often plainly dubious or misleading information." In "A Proto-Muskogean Paradigm"[43] Dr. Haas began to present her data with a paradigm of two Choctaw verbs which she said were in the aorist tense; however, forms which she showed lack tense, for Choctaw verb stems show no tense. Choctaw sentences indicate past tense with the free form tok. In addition Dr. Haas misplaced the accent on every form if the accent acute on the ultima of each form was intended to indicate stress. In another article, "Noun Incorporation in Muskogean,"[44] Dr. Haas began her Choctaw data with a note citing Byington's

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[42]"Historical Linguistics and the Genetic Relationship of Languages," in Theoretical Foundations, Vol III of Current Trends in Linguistics, ed. by Thomas A. Sebeok (The Hague: Mouton & Co., 1966), p. 115.

[43]Language, XXII, Part 4 (1946), 326-32.

[44]Language, XVII, Part 4 (1941), 311-15.

Dictionary, as she did in all her works which contain Choctaw, but there is no evidence that she had critically evaluated the work as had Swanton and Speck. Indeed, she only commented that she had transliterated Byington's orthography to make it consistent with the other Muskogean languages. Such an effort is highly speculative, expecially since Swanton had tampered with Byington's orthography once previously. However, Dr. Haas' purpose was to show that noun incorporation, that is, verbs made from noun-verb compounds, had operated in Choctaw in words beginning with nok-. With Byington's Dictionary as her prime source (five of the twenty-seven words were from her own Choctaw data) Dr. Haas divided the nok- words into two semantic categories, those with clear reference to the neck or throat and those with reference to sorrow, fear, passion, or pain.[45] An examination of her primary source proves her theory to be invalid, for there are at least

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[45]Dr. Haas states at the beginning of her Choctaw section, p. 314, that only one Choctaw noun, nok-, is used; however, she fails to mention that nok- is never a free form and is considered a noun only because Muskogee has a noun nok, 'neck, throat', the Choctaw word for neck being ikonla. The word which is used to form her second semantic class is fik which is 'heart' in Muskogee but 'fig' in Choctaw. Her supposition is that Choctaw words with an initial nok- syllable cover the same semantic ground covered by Muskogee nok- and fik-. Dr. Haas fails to note two words which might have shown an historical Choctaw form nok, imanukfila, 'heart' and innuchi, 'neck-cloth' or 'necklace', both of which would be important to her thesis.

thirteen verbs with the initial nok-syllable which do not fit her categories. If Wright's Leksikon were consulted, Dr. Haas would have seen that at least four of the forms could have definitions which are contrary to the categories.

The last work which contains Choctaw information is the CAL publication by Mr. Nicklas, and it is not intended as a Choctaw analysis. There is no Choctaw information in the work which is not available in either Byington's Grammar or Speck's article. The Choctaw vocabulary used by Nicklas is identical to Byington's except in minor points of orthography. The work is completely undocumented, and no mention is made of the writer's Choctaw source. Some grammatical points are unverifiable from Mississippi data.

Therefore, it must be concluded that because Mississippi Choctaw has been separated from Oklahoma Choctaw for some 150 years and has been subjected to different linguistic pressures, both internal and external, and because all work on Choctaw has been concerned primarily with Oklahoma Choctaw and has been shown to be of doubtful value, a study of Mississippi Choctaw would be both original and a contribution to linguistic science.

CHAPTER II

LINGUISTIC TECHNIQUES AND THEORY

Of central importance to any grammar of a language are the means by which the data were gathered and analyzed and the theoretical basis upon which the grammar was constructed. If the field techniques of the analyst are specifically set forth and are linguistically sound, the reader can evaluate the grammar adequately and use it as the basis for further study. The same is true of the theoretical basis for the grammar. Since this grammar is not intended to be a definitive analysis of Mississippi Choctaw but to be the report of an initial study formulated within the framework of contemporary linguistic theory, it is important that both the means of gathering and analyzing data and the theoretical basis be clearly stated to facilitate future work.

Field Techniques and Theory of the Analysis

This study grew out of a 1968 summer project to analyze Mississippi Choctaw by three graduate students—Mr. Ralph Howell, Mrs. Bonnie Brinegar, and the present writer—along with and under the careful direction of Dr. Marice Brown. Five Choctaws, who were members of a group beginning an in-service teacher training program at the

University of Southern Mississippi, volunteered their services as linguistic informants. Of the five, three were excellent informants, and they and the analysts quickly established a rapport which allowed the sessions to proceed smoothly; the fourth was not interested in the project; and the fifth, though more than willing, had grown up among the Oklahoma Choctaws. Only data gathered from the first three are used in this analysis. The first informant was Mattie Ann Thompson, a native of Conehatta, Mississippi. Miss Thompson often saw the direction in which the analysts wished to go and volunteered pertinent information beyond that elicited. The second was Annie Lee Henry, also a native of Conehatta. Mrs. Henry seemed to understand linguistic methodology quicker than the other two and was thus of great value as an informant. The third was Susie Comby, a native of Pearl River, Mississippi. Miss Comby felt that her region did not retain the older and larger Choctaw forms as much as did the Conehatta region. As an informant, Miss Comby often yielded data which were confusing because of local differences. Miss Thompson, Mrs. Henry, and Miss Comby are quite highly acculturized; and while acculturation is not desirable in an informant, none has reached the point that her Choctaw is completely replaced by English. The use of data from three informants and from two regions has reduced the possibility of idiolectal elements and the probability that the grammar reflects

purely local peculiarities.[1]

Data were elicited in accordance with the field techniques specified by H. A. Gleason, Jr. in An Introduction to Descriptive Linguistics.[2] Initially the names of common things, body parts, the numbers, and short sentences were elicited so that the phonemic analysis could be well underway before elicitation of longer sequences for the morphological and syntactical analyses was begun in detail. However, all data elicited were analyzed simultaneously in all three aspects. After each session the data were carefully transcribed and analyzed; hypotheses were made from the data, and plans were made so that at the next session the hypotheses could be verified, nullified, or modified. The cycle of gathering, analyzing, and hypothesizing continued throughout the study.

There were two ways by which the hypotheses were verified: first by gathering more data, second by constructing Choctaw sentences in line with the hypotheses and checking their acceptability with the informants. At all times the analysts attempted to keep a close control over what was being elicited and at the same time to allow

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[1]While the extent and nature of dialectal differences in Mississippi Choctaw is unknown at the present, the informants used in the initial research sometimes disagreed on the meanings of some words and felt that meanings other than their own were regional variants.

[2](New York: Holt, Rinehart and Winston, Inc., 1961), Ch. 18, pp. 286-311.

enough freedom to change the direction of the session if an interesting point unexpectedly appeared. For example, when the positions and limitations of modifiers were being elicited, a basic sentence was used throughout; each subsequent sequence contained one new element and all the elements of the preceding sequence until the informants did not accept a longer sequence. At that point the positions of the elements were varied and tested on the informants. Unexpectedly, one of the modifiers showed an internal change when appearing with the plural numbers; other modifiers were then checked to see if they changed similarly, but they did not.

There were three situations in which the analysts had to exercise caution. The first was that all data elicited had to be kept within the scope of Choctaw culture. On occasion lexical items were noted which indicated that Choctaw had borrowed names of items introduced by European culture: /šapo/, a French borrowing for hat, /katos/, a probable Spanish borrowing for the domesticated cat, and /tambla/, an English borrowing for glass. The second was Choctaw taboos. On two occasions data were elicited which caused the informants to be somewhat embarrassed. The third situation was the informants' Choctaw competence. The analysts constantly reassured the informants that their failure to supply data was in no way a reflection on their linguistic competence nor on the adequacy of Choctaw; conversely the informants were assured

that their inability to express an elicited feature was linguistically significant.

The syntax of Choctaw sentences was analyzed by immediate constituent analysis as outlined by Rulon S. Wells in "Immediate Constituents."[3] IC analysis is a tagmemic concept[4] which employs three basic principles to analyze a sequence: expansion, focus-environment, and constructions. "The leading idea of the theory. . . is to analyze each sequence . . . into parts which are expansions; these parts will be the constituents of the sequence." The focus is a sequence which can be substituted by another sequence, and the environment of the focus is the remainder of the sentence.[5]

> A CONSTRUCTION is a class C of occurrences, subject to the following conditions: (1) there is at least one focus-class which includes all the sequences of which the members of C are occurrences; (2) all these occurrences have a certain meaning in common; and optionally (3) all these occurrences occur in a certain total environment or in all of a certain class of total environments.[6]

Thus in sentence (1) The king of England is an expansion

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[3]Language, XXIII, Part 2 (1947), 81-117. The common linguistic abbreviation for Immediate Constituents, IC,will be used henceforth.

[4]To see the relationship of IC analysis and tagmemics, compare Benjamin Elson and Velma Pickett, An Introduction to Morphology and Syntax (Santa Ana, Calif.: Summer Institute of Linguistics, 1962), pp. 57-58 and Wells, "Immediate Constituents," pp. 82-89.

[5]Wells, "Immediate Constituents," pp. 85-86.

[6]Ibid., p. 94.

of John in sentence (2), and both constituents are focuses, for they may be substituted for each other.

(1) The king of England/ went to the game.

(2) John / went to the game.

At the same time both The king of England and John are members of the same construction class, meeting all three of the above conditions: they are members of the same focus-class; they have a meaning in common, in this case "actor"; and they occur in the same total environment.

An example of the application of IC binary cuts[7] to Choctaw sentences can be seen in relation to the following sentences.

(3) /hatak at nowa/ 'The man walks.'

(4) /hatak at ačokma/ 'The man is happy.'

(5) /nowali tok/ 'I walked.'

(6) /hatak at nowa paɬki tok/ 'The man walked fast.'

(7) /hatak at ačokma tok/ 'The man was happy.'

There is no immediate solution in (3) and (4) as to where the first cut is to be made, between /hatak/ and /at/ or between /at/ and/nowa/ or /ačokma/; but when (5) is considered it becomes quite apparent that the /at/ functions with the pre-verb subject and not with the verb. Thus the first cut in all sentences but (5) will come after the /at/.

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[7]IC cuts, while primarily binary, can also be trinary or larger multiples in certain situations such as compounds; thus, the phrase John and Bill must be divided into three segments at one time for there is no criterion available which will specifically indicate the reality of either John/ and Bill or John and/ Bill.

A similar problem arises when the predicate construction undergoes analysis, for in neither (6) nor (7) can the tense marker clearly be cut to show a verb plus tense sequence; (7) has no verb, in the English sense of verb, and (6) has an element between the verb and the tense marker. Thus it appears that the tense marker functions with the entire predicate and not with the verb, and the first cut in the predicate construction will be before /tok/. The major problem with IC analysis is apparent in (5), that of the discontinuous constituent /-li/, 'I'. If the subject construction is to be divided from the predicate construction, it will have to be done by a cut on both sides of /-li/. IC theory can overcome such problems, but the solution is rather awkward and ad hoc; a better solution will be provided by the transformational theory which follows.

Theoretical Basis of the Choctaw Grammar

The theory of language prevalent in America today is that of the transformationalists and is clearly stated by Jerrold J. Katz to be "the theory. . . that represents the facts about linguistic structure common to all natural languages."[8] The theory attempts to discover the mental reality which underlies linguistic competence[9] and the

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[8]The Philosophy of Language (New York: Harper & Row, 1966), p. 8.

[9]Noam Chomsky, Aspects of the Theory of Syntax (Cambridge, Mass.: Massachusetts Institute of Technology Press, 1965), p. 64.

general properties of the rules which may serve as the basis for a natural language.[10] Thus, Chomsky, at the beginning of his linguistic theory, defines a language as:

> A set (finite or infinite) of sentences, each finite in length and constructed out of a finite set of elements. All natural languages in their spoken or written form are languages in this sense, since each natural language has a finite number of phonemes (or letters in its alphabet) and each sentence is representable as a finite sequence of these phonemes (or letters), though there are infinitely many sentences.[11]

The theory then focuses its attention on the description of natural languages (that is, the specification of a particular linguistic theory of each natural language which will enumerate the set of possible structural descriptions for the sentences of the language and which will reflect an internalized grammar of a competent speaker of the language),[12] which will lead to the construction of a theory of the nature of language. The theory of the nature of language will

> represent the structure common to all natural languages in a model that explains why the rules in the descriptions of particular natural languages have the form they do and which of these concepts used in these rules are lin-

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[10]Noam Chomsky, "Topics in the Theory of Generative Grammar," in Theoretical Foundations, Vol. III of Current Trends in Linguistics, ed. by Thomas A. Sebeok (The Hague: Mouton & Co., 1966), p. 3.

[11]Syntactic Structures (The Hague: Mouton & Co., 1957), p. 13.

[12]Katz, Philosophy, p. xxviii, and Chomsky, "Topics in the Theory," p. 5.

guistic universals.[13]

Thus, to be of any value to the linguistic theory proposed above, the descriptions of natural languages must be made within the frame of the specific linguistic model provided by transformational-generative theory.

As the preceding implies, a grammar is essentially a theory of L (that is, the specific language being considered) and provides a structural description of the sentences of L.[14] The theory constructs general laws in abstract terms drawn from a finite set of observed data in such a way that the laws will account for the observed data and will predict an infinite set of new, unobserved data.[15] Thus, the grammar of L will be "a device that generates all of the grammatical sequences of L and none of the ungrammatical ones"[16] and will be descriptively

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[13]Jerrold Katz and Paul Postal, An Integrated Theory of Linguistic Descriptions (Cambridge, Mass.: Massachusetts Institute of Technology Press, 1964), p. ix.

[14]Noam Chomsky, "On the Notion 'Rule of Grammar'," in The Structure of Language: Readings in the Philosophy of Language, ed. by Jerry Fodor and Jerrold Katz (Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1964), pp. 119-20, and Syntactic Structures, p. 49.

[15]Chomsky, Syntactic Structures, p. 49. This grammar of Choctaw will not deal with the phonological component at all and will deal with the semological component only to the extent necessary to provide context sensitive rules.

[16]Chomsky, Syntactic Structures, p. 13. The term "generate" is not to be confused with the term "produce." "The notion GENERATE is intended in its mathematical sense, namely as synonymous with ENUMERATE, LIST, or PICK OUT by means of a rule." Robert B. Lees, "On the Testability of Linguistic Predicates," Linguistics, XII (1965), 46.

adequate if it generates both sequences acceptable to the native speaker and the structural description of each sequence.[17]

There are four requirements imposed on the theory; the theory must be formal, explicit, complete, and simple. To be formal, a theory must refer to the actual elements of the language and not to meaning.[18]

> The motivation for this self-imposed formality requirement is quite simple--there seems to be no other basis that will yield a rigorous, effective, and 'revealing' theory of linguistic structure.[19]

To be explicit, a theory must in itself state the relationships between the elements of the language so that the proper combinations of elements may be produced by the theory without recourse to the intelligence or intuition of the user of the theory.[20] Consequently, the theory will be a mechanical device which will generate all and only the sentences of the language. To be complete, a theory must account for all of the facts of the language; an ideal which has yet to be attained by any grammar. To be simple, a theory must present all the facts of the language in as few rules as possible so that the rules

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[17]Chomsky, Aspects, p. 60.

[18]Emmon Bach, An Introduction to Transformational Grammars (New York: Holt, Rinehart and Winston, Inc., 1964), p. 10.

[19]Chomsky, Syntactic Structures, p. 103.

[20]Bach, Transformational Grammars, p. 10.

will reveal significant linguistic generalizations. If two grammars meet the first three requirements, the simpler theory will be the one with the fewest rules and thus the better of the two.

In this manner the grammar attempts to be a theory of the mental process by which the speaker generates a sentence from the abstract idea of sentence to the actual physical utterance. The concept of "process" is of central importance, for transformational theory attempts to provide a process description rather than a state description. In other words, traditional and structural grammars, given a sentence, will provide an adequate description of the state of the elements and their relationships in the sentence; transformational grammar, on the other hand, will provide a description of the process by which the sentence can be generated along with a correct description of the structure of each sentence generated.[21] The grammar is not intended to be an identical representation of the speaker's mental process, but to be a device which generates sequences identical to those generated by the speaker's mental process.

The model grammar provided by the transformational grammar theory is adequately presented in many works.[22]

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[21]A grammar of this nature is said to be strongly generative; see Chomsky, Aspects, p. 60.

[22]See Chomsky, Syntactic Structures; Bach, Transformational Grammar; Roderick A. Jacobs and Peter S. Rosenbaum, English Transformational Grammar (Waltham, Mass.: Blaisdell Publishing Co., 1968); and Robert B. Lees,

However, a brief discussion of the various components of the model is provided both to complete the previous discussion of theory and to provide the context necessary to account for the second component in the Choctaw grammar, that is, the semantic component. The notational system in this grammar is basically that of the works just cited; all new notations will be defined as they occur. The four components of the grammar are phrase-structure (P-rules), semantic, which includes the context-sensitive rules (CS-rules) and the lexical rules (L-rules), transformational (T-rules), and morphophonemic (M-rules).

The phrase-structure component consists of a series of rewrite rules which will expand the general concept of "sentence" (S) provided by the definition of language into a terminal string of grammatical elements by the mechanical application of the necessary rules. The P-rules are numbered rules of the form P1 $S \rightarrow NP + VP$ in which one element and one element alone is defined in general terms. The rules are applied sequentially, each application changing only one element on the right side of the preceding string until a line "cannot be further altered by any of the rules because none of its symbols appear on the left hand side of any rule. Such a string is called a terminal string."[23] The P-rules provide a labeling of all

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The Grammar of English Nominalizations (Bloomington, Ind.: Indiana University Press, 1960).

[23]Paul Postal, Constituent Structure: A Study of Contemporary Models of Syntactic Description, (3rd ed.;

elements in the sentence in such a way that the structural description is explicitly presented. The simplified P-rules listed below not only generate sentence (8) but provide the structural description seen in the branching-tree diagram (Figure 1).

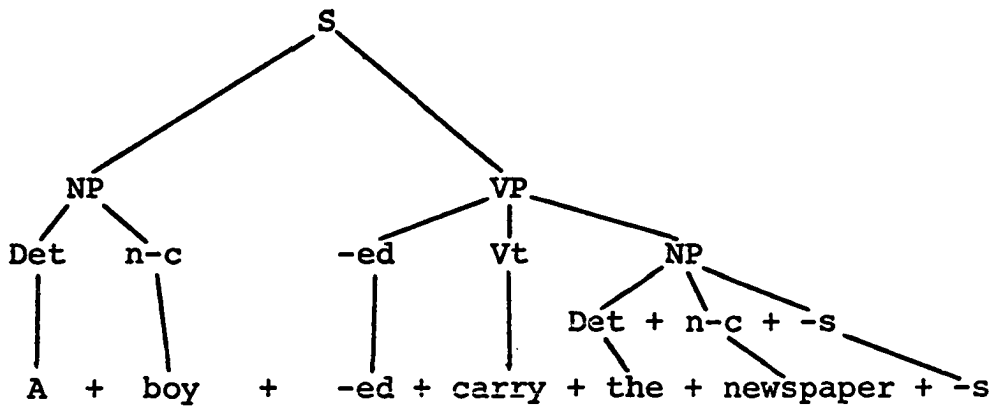
(8) A boy carried the newspapers.

P1 S → NP + VP

P2 VP → -ed + Vt + NP

P3 NP → Det + n-c (+ -s)

Figure 1



The P-rules thus define the set or subsets which make up each element until the set (subset) can be represented by lexical items. The P-rules are context free, generate only syntactically correct terminal strings, and are basically a restatement of IC analysis in transformational theory.[24]

Bloomington, Ind.: Indiana University Press, 1967), p. 11.

[24] Ibid., pp. 21-25 and Chomsky, "On the Notion," p. 122, n. 7.

The semantic component[25] is an addition to the usual transformational model, but the idea is not new to transformational theory. The component consists of two sets of separate types of rules: CS-rules and L-rules. The L-rules will be sets and subsets of items that can function both in the categories established by the elements in the terminal string of the P-rules and in the refined categories established by the CS-rules. The L-rules necessary for sentence (8) would be the following:

Det	→	a the	n-c	→	boy newspaper	v-t	→ carry

The P-rules and L-rules will now generate sixty-four different sequences, but those like (9) and (10) are ungrammatical, thus proving the inadequacy of the grammar.

(9) A boys carried the newspaper.

(10) A boys carried a newspapers.

There are at least two ways in which the rules can be modified to exclude (9) and (10): (a) by making the P-rules context sensitive or (b) by providing a separate series of context-sensitive rules. The latter has been chosen for this grammar for reasons which will be discussed later. The inclusion of a series of CS-rules requires a simple

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[25]Most transformational models have the lexicon as the second component in the grammar. The use of the term "semantic component" is an effort to keep in line with the work done by Katz and Postal in An Integrated Theory. See also Rudolf P. Botha, The Function of the Lexicon in Transformational Generative Grammar (The Hague: Mouton & Co., 1968), pp. 34-39.

modification of the L-rules and a statement that the semantic component is subject to the transformational cycle (that is, the CS-rules and L-rules are applied cyclically until no further rules of the semantic component apply to the string).[26] The CS-rules are of the form

$$\text{CS 1} \quad \text{Det} \longrightarrow \left\{ \begin{array}{l} \left\{ \begin{array}{l} \text{d-1} \\ \text{d-2} \end{array} \right\} / \underline{\quad} \text{ n-c} \\ \left\{ \begin{array}{l} \text{d-1} \\ \text{d-3} \end{array} \right\} / \underline{\quad} \text{ n-c + -s} \end{array} \right\}$$

If the set Det is expanded to include the members many, some, all, his, the L-rules would then be modified to delineate three subsets of the Det set as in the following:

Det ⟶	d-1 the his some	d-2 a	d-3 many all

In this manner the CS-rules specify the context restrictions of each subset but allow d-1 to appear in both contexts. Thus, the order of application of the rules in the model at this point is P-rules, CS-rules, L-rules, CS-rules, L-rules. Because the CS-rule and L-rules do not apply the second time, the cycle is ended and the string moves on to the third component.

It has been adequately proved that a context free (CF) grammar cannot generate all and only the sentences of a natural language but that the inclusion of contextual

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[26]For a concise definition of the transformational cycle, see Noam Chomsky and Morris Halle, The Sound Pattern of English (New York: Harper & Row, 1968), p. 20, 349.

restrictions greatly expands the explanatory power of a grammar.[27] However, the point is never fully developed in the literature that context sensitivity is not inherent in the notion "grammatical" but is instead basically an area in which the semantic sense of various subsets of lexical categories limits the occurrence of those subsets to specific syntactic relations with other specified lexical subsets. Katz and Postal imply the semantic sense of context sensitivity by not specifying that their P-rules are context sensitive and by providing their semantic component with a lexicon which specifies subcategorizations of meaning for each lexical item and a set of projection rules which places the proper subcategorized meaning into the syntactic string.[28] An example of the need to subcategorize word classes by semantic sense is seen in the following sentences where the reversal of the lexical items of the subject and the object is allowed in (11) and (12)

(11) John hit the ball.

(12) The ball hit John.

(13) Sincerity frightened John.

(14) John abandoned sincerity.

but in neither (13) nor (14). The problem in (13) and (14) is contingent on both of the following: (a) the abstract noun (derived from an adjective) can appear only in a

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[27]See Postal, Constituent Structure, pp. 74-77 and Chomsky, Aspects, pp. 64-106.

[28]Katz and Postal, An Integrated Theory, pp. 6-27.

syntactic relationship with a human noun, and (b) the verbs are similarly restricted, frighten requiring an animate noun as object and abandon an animate noun as subject. The problem is not primarily syntactic, but semantic sense imposes a syntactic restriction. Therefore, if (a) "the notion 'grammatical' cannot be identified with 'meaningful' or 'significant' in any semantic sense,"[29] and if (b) the purpose of the syntactic component of a grammar is to generate grammatical sequences, and if (c) context sensitivity is based on semantic sense, then it follows that CS-rules should be represented in a component separate from the syntactic component. Furthermore, the separation of CF and CS devices will provide the significant linguistic generalization that semantic sense is evident only in the CS component, a generalization which is obscured if context sensitivity is incorporated in the P-rules. The CS-rules will then reveal that only semantic sense disallows (15) since the sentence is syntactically correct.

(15) Sincerity abandoned John.

The transformational component consists of a series of ordered rules which apply to a stated structural description (SD) provided by the P- and CS-rules and which provide a structural change (SC) for a given SD. The T-rules are of the form T1, which yields the passive sentence (8a).

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[29]Chomsky, Syntactic Structures, p. 15.

T1 SD NP + (X +) v-t + NP ⇒
1 2 3

SC NP + (X +) be + -en + v-t + by + NP
3 2 1

(8a) The + newspaper + -s + -ed + be + -en + carry
+ by + a + boy

T-rules can permute, delete, add, or replace elements in the SD and are either optional or obligatory. When only obligatory T-rules are applied to a sentence, the resulting sequence is called a kernel sentence; and the optional T-rules are so constructed "that transformations can apply to kernel sentences . . . or to prior transforms."[30] When optional T-rules are applied to a sentence, it is called a derived sentence. By distinguishing between kernel and derived sentences, a transformational grammar can map out the derivational history of each string so that the meaning of the sentence can be interpreted in light of its original context and avoid ambiguities resulting from constructional homonymity. It is at this point in the grammar that syntax and semantics again meet.

The morphophonemic component consists of a series of rules which place the lexical and syntactic elements in proper order. The M-rules will join such things as plural markers, case markers, and tense markers by permuting and/or combining the markers with the appropriate lexical item. Thus, all elements in the string are in the proper position so that the phonological segment of the grammar can actualize

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[30] Ibid., p. 45.

the string into its proper sounds, stresses, pitches, and junctures.

CHAPTER III

A DESCRIPTIVE GRAMMAR OF MISSISSIPPI CHOCTAW

The Choctaw grammar below follows the conventions of the transformational model established in Chapter II. Any notational conventions not designated previously will be defined as they occur.

Phrase-structure Component[1]

P1 S → (Q +) NP + VP

P2 VP → $\left\{\begin{matrix} V\ (+\ A) \\ Nom \end{matrix}\right\}$ + Tn (+ Neg)

P3 V → $\left\{\begin{matrix} N2 + Vt \\ (N2 +)\ Vp \\ Vi \end{matrix}\right\}$

P4 Vt → $\left\{\begin{matrix} vt \\ vt\text{-}1 \\ vt\text{-}2 \end{matrix}\right\}$

P5 Vp → $\left\{\begin{matrix} vp \\ vp\text{-}1 \\ vp\text{-}2 \\ vp\text{-}4 \end{matrix}\right\}$

P6 Vi → $\left\{\begin{matrix} vi\text{-}1 \\ vi\text{-}2 \\ vi\text{-}3 \end{matrix}\right\}$

P7 Nom → $\left\{\begin{matrix} N2 \\ B \\ \#B \\ AD \\ Mod \end{matrix}\right\}$

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[1]All Choctaw words in the grammar are represented by the phonemic alphabet presented in Gleason, Descriptive Linguistics, pp. 312-28. References in the text to all symbols in the rules are written as generated and not identified by italics.

P8 B → {N2 + loc-p-1 / ques}

P9 A → (Mod +) {N2 + P / #B / Mod / Tem}

P10 P → {loc-p-2 / loc-p-3}

P11 Tem → {tem / tem-1 / tem-2}

P12 Tn → {ø / tok / ačí}

P13 NP → N2 + at

P14 N2 → {N1 / n-p / pro}

P15 N1 → (Pre-N +) N (+ AD) (+ Num) (+ {#B / Mod})

P16 Pre-N → {(pos +) N (+ AD) / pos}

P17 AD → (Neg +) Adj (+ int)

P18 Adj → att (+ AD)

P19 Num → {spec / plur / num}

P20 Mod → (Neg +) {Loc / Man}

P21 Loc → {loc-1 / loc-2}

P22 Man → {man-1 / man-2} (+ int)

P23 N → n-c

P24 Q → {Q1 / ques-1}

P25 Q1 → { ques-2 / ques-3 }

Context-sensitive Component

CS1 n-c → [n-c-1 / n-c-1a / n-c-3b / n-c-1{a/b}] /(Pre-N)____(X +) at (+Y) [[{ vt- / vp- / vi- / vp-4 } 1] / { vp- / vi- } 2 / vi-3 / vt-2]

CS2 n-c → [n-c-1 / n-c-1c / n-c-3c / [n-c-2 / n-c-3b]] / at (+ X)____(Y +) [vp-4 / vt-2 / koholi / [nonačči / { nonačči / hokčči }]]

CS3[2] n-c → iN-+ n-c / n-c-1 (+ X)____(Y +) at

CS4 pro → { p-no / at____Tn / p-obj / at____ vt / vp / pos / ____at + Nom }

CS5 a → sa / ____{ at + Nom / n-c-1c }

CS6 katikaš → katikma / ____X + ačči

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[2]The convention of the N in /iN-/ is borrowed from Chomsky and Halle, Sound Patterns, p. 94, and indicates the nasalization of the preceding vowel. At the present time, nasalized vowels have not been proved to be phonemic in Choctaw, but there is some indication that historically they may have been phonemic.

CS7 $\emptyset \rightarrow$ ha / katikaš + X (+ A)____

CS8 $\begin{bmatrix} \check{c}ito \\ himita \end{bmatrix} \rightarrow \begin{bmatrix} hočito \\ himitoa \end{bmatrix}$ /____(X +) $\begin{Bmatrix} plur \\ num \end{Bmatrix}$

CS9 okla $\rightarrow$ lawa / n-c-$\begin{Bmatrix} 2 \\ 3 \end{Bmatrix}$ (+ X)____

CS10 Man $\rightarrow \emptyset$ / $\begin{Bmatrix} n\text{-}c\text{-}\begin{Bmatrix} 1c \\ 2 \\ 3 \end{Bmatrix} \\ vt\text{-}\begin{Bmatrix} 1 \\ 2 \end{Bmatrix} \\ koholi \\ koafa \\ pisa \end{Bmatrix}$ (+ X)____

CS11 pit $\rightarrow$ anta / at + $\begin{Bmatrix} koča \\ anokaha \end{Bmatrix}$ ____

CS12 Neg $\rightarrow$ Neg-1 / Tn____

Lexicon

n-c $\rightarrow$	n-c-1a	okla	people
		hatak	man
		ohojo	woman
		allanakni	boy
		allatik	girl
		minko	chief
		čata	Choctaw
	-1b	ofi	dog
		wak	cow
		fani	squirrel
		isi	deer
	-1c	hannali	leg
		pančí	hair
	n-c-2	nipi	meat
		wak	beef
		fani	squirrel
		isi	deer
	n-c-3a	čoka	house
		iti	stick
		bok	river
		towa	ball
		tali	stone
		ponolo	cotton
		holliso	book, paper

	-3b	tanči	corn
		osak	nut
	-3c	tambla	glass
		abisa	window
n-p	→	čata	Choctaw
		Susie	
pro	→	-li	I
		iš-	you
		il-	we
		haš-	you (pl)
		kataš	who
p-obj	→	sa-	me
		či-	you
		pi-	us
		haš-	you (pl)
		nantaš	whom
p-no	→	ano	my
		čišno	your
		pišno	our
		hašno	your (pl)
pos	→	a-	my
		čiN-	your
		piN-	our
		hačiN-	your (pl)
att	→	kalo	hard
		ačokma	good, happy
		homa	red
		čito	big, large
		himita	young
		losa	black
int	→	ałi	very
spec	→	ma	that
		ačafa	one
num	→	tokla	two
		točina	three
		ošta	four
		tałapi	five
		hanali	six
		awatokla	seven
		awatočina	eight
		čakali	nine
		pokoli	ten
Neg	→	ik-	

Neg-1	→	kio	not
		hikio	never
vt	→	ikbi	make
		koholi	break
vt-1	→	inči	have
vt-2	→	anša	have, possess
vp	→	tolopoli	bounce
		koafa	break
vp-1	→	pisa	see, look
		apa	eat
		łihoili	chase
		ikana	know
		lokmi	hide
vp-2	→	iso	hit
		pila	throw
		nonači	cook
		hokči	plant
		kanči	sell
vp-4	→	takpala	call
		abi	kill
vi-1	→	balili	run
		ia	go
		nowa	walk
		jopi	swim
		impa	feed
		binili	sit
vi-2	→	asano	grow
		hoponi	cook
vi-3	→	ofo	grow
plur	→	okla	
		lawa	many
		moma	all
loc-1	→	oma	there
		omama	
		ala	here
		janpa	
		koča pit	outside
		anokaha pit	inside
loc-2	→	koča	out
		aboha	in

man-1	→	loma	quiet
		hokšafo	hungry
man-2	→	pałki	fast
		salaha	slow
		čahali	high
tem	→	šahli	often
		hina	now
		bika	occasionally
		bilia	all along
tem-1	→	čibakma	later
tem-2	→	pilašaš	yesterday
		onakamak	tomorrow
		himakinitak	today
loc-p-1	→	itomisi	beside
		notanka	under
		apakanaka	over
		aba anta	on top of
		anoka anta	inside
		foka	fit in
loc-p-2	→	apakana	down on
		apa anaka	up on
loc-p-3	→	łopoli	through
		afolota	around
ques	→	katimako	where
		katimapokaš	which
		nanta	what
ques-1	→	ho	
ques-2	→	katikaš	when
ques-3	→	katimiš	how
		katimina	why

Transformational Component

T1 opt SD $NP + (X +) \left\{ \begin{matrix} vp \\ vi \end{matrix} \right\} + Y \Rightarrow$

SC $NP + (X +) \left\{ \begin{matrix} vp \\ vi \end{matrix} \right\} + -či + Y$

$$T2^{3}\quad \text{opt SD}\quad NP\ \langle +\ N2_{1}\rangle\ +\ \begin{Bmatrix}Vt\\Vp\\Vi\end{Bmatrix}_{2}\ +\ -\check{c}i\ +\ Y\ \&\ N2_{1}\ +\ at\ \langle +N2_{3}\rangle\ +\ \begin{Bmatrix}Vt\\Vp\\Vi\end{Bmatrix}_{2}\ (+A)\ +\ W\ \Rightarrow$$

$$\text{SC}\quad NP\ +\ N2_{1}\ \langle +\ N2_{3}\rangle\ +\ \begin{Bmatrix}Vt\\Vp\\Vi\end{Bmatrix}_{2}\ +\ -\check{c}i\ (+A)\ +\ Y$$

$$T3\ \text{obl SD}\quad X\ +\ \begin{Bmatrix}Vt\\Vp\\Vi\end{Bmatrix}\ +\ \begin{Bmatrix}loc\text{-}1\\man\text{-}1\\tem\text{-}1\end{Bmatrix}\ (+\ int)\ +\ Y\ \Rightarrow$$

$$\text{SC}\quad X\ +\ \begin{Bmatrix}loc\text{-}1\\man\text{-}1\\tem\text{-}1\end{Bmatrix}\ (+\ int)\ +\ \begin{Bmatrix}Vt\\Vp\\Vi\end{Bmatrix}\ +\ Y$$

$$T4\ \text{opt SD}\quad X\ +\ \begin{Bmatrix}Vt\\Vp\\Vi\end{Bmatrix}\ +\ man\text{-}2\ (+\ int)\ +\ Y\ \Rightarrow$$

$$\text{SC}\quad X\ +\ man\text{-}2\ (+\ int)\ +\ \begin{Bmatrix}Vt\\Vp\\Vi\end{Bmatrix}\ +\ Y$$

$$T5\ \text{opt SD}\quad NP\ (+\ X)\ +\ \begin{Bmatrix}Vt\\Vp\\Vi\end{Bmatrix}\ +\ tem\text{-}2\ +\ Y\ \Rightarrow$$

$$\text{SC}\quad \begin{Bmatrix}tem\text{-}2\ +\ NP\\NP\ +\ tem\text{-}2\end{Bmatrix}\ (+\ X)\ +\ \begin{Bmatrix}Vt\\Vp\\Vi\end{Bmatrix}\ +\ Y$$

$$T6\quad \text{obl SD}\quad X\ +\ \begin{Bmatrix}Vt\\Vp\\Vi\end{Bmatrix}\ +\ N2\ +\ \begin{bmatrix}loc\text{-}p\text{-}2\\loc\text{-}p\text{-}3\end{bmatrix}\ +\ Y\ \Rightarrow$$

$$\text{SC}\quad X\ +\ N2\ +\ \left[\begin{matrix}loc\text{-}p\text{-}2\ +\ \begin{Bmatrix}Vt\\Vp\\Vi\end{Bmatrix}\\ \begin{Bmatrix}Vt\\Vp\\Vi\end{Bmatrix}\ +\ loc\text{-}p\text{-}3\end{matrix}\right]\ +\ Y$$

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[3]The use of angled brackets to represent discontinuous elements is a convention borrowed from Chomsky and Halle, The Sound Pattern, pp. 76-77. The convention indicates a series of optional elements which are not adjacent to each other and states that all members of the series must be present if any member is present.

T7 obl SD (X +) $\overset{1}{N}$ + (Y +) $\begin{bmatrix} \#B + at \\ V + \#B \\ \#B \end{bmatrix}$ + Z & $\overset{1}{NP}$ + $\begin{bmatrix} B \\ N1 + inši \end{bmatrix}$ + W ⟹

SC (X +) $\overset{1}{N}$ + (Y +) $\begin{bmatrix} B + at \\ V + B \\ N1 + inši \end{bmatrix}$ + Z

T8 opt SD Q1 + NP + (X +) $\begin{Bmatrix} Vt \\ Vp \\ Vi \end{Bmatrix}$ + Y ⟹

SC NP + $\begin{Bmatrix} Q1 \ (+ X) \\ (X +) \ Q1 \end{Bmatrix}$ + $\begin{Bmatrix} Vt \\ Vp \\ Vi \end{Bmatrix}$ + Y

T9 obl SD (X +) N + (Y +) $\begin{Bmatrix} num \\ plur \end{Bmatrix}$ + (Z +) $\begin{Bmatrix} Vt \\ Vp \\ Vi \end{Bmatrix}$ + W ⟹

SC (X +) N + (Y +) $\begin{Bmatrix} num \\ plur \end{Bmatrix}$ + (Z +) okla + $\begin{Bmatrix} Vt \\ Vp \\ Vi \end{Bmatrix}$ + W

T10 obl SD $\begin{bmatrix} pro + at + (X +) \ p\text{-}obj + (Y +) \\ (X +) \ \begin{bmatrix} pro + at \\ p\text{-}obj \end{bmatrix} + (Y +) \\ X + at + (Y +) \ nantaš + (Z +) \end{bmatrix}$ $\begin{Bmatrix} Vt \\ Vp \\ Vi \end{Bmatrix}$ + W ⟹

SC $\begin{bmatrix} (X +) \ (Y +) \ pro + p\text{-}obj \\ (X +) \ (Y +) \ \begin{bmatrix} pro \\ p\text{-}obj \end{bmatrix} \\ nantaš + X \ (+ Y) \ (+ Z) \end{bmatrix}$ + $\begin{Bmatrix} Vt \\ Vp \\ Vi \end{Bmatrix}$ + W

T11 obl SD (X +) -li + (Y +) V + Z ⟹

SC (X +) (Y +) V + -li + Z

T12 obl SD pos + at + Nom ⟹

SC pos + Nom

T13 opt SD (X +) N1 + (at +) N1 + Y ⟹
(1) (2) (3)

SC (X +) N1 + -aN + N1 + (at +) Y
(3) (1) (2)

T14 opt SD N1 + at + (X +) vt-{1, 2} + Y + Neg ⟹

SC N1 + at + (X +) {ikšo, ikimikšo} + Y

T15 obl SD N2 + at + {Mod, Adj} + (X +) Tn + Neg ⟹

SC N2 + {Mod, Adj} + (X +) ikšo + Tn

T16 opt SD
$$\begin{bmatrix} \text{N2} + \text{at} + \text{VP} \;\&\; \text{N2} + \text{at} + \text{VP} \\ 1 \qquad\quad 2 \qquad 3 \qquad\quad 2 \\ \text{NP} + (\text{X+}) \begin{Bmatrix} \text{Vt} \\ \text{Vp} \\ \text{Vi} \end{Bmatrix} + (\text{Y+})\ \text{Tn}\ (\text{+Z}) \;\&\; \text{NP} + (\text{X+}) \begin{Bmatrix} \text{Vt} \\ \text{Vp} \\ \text{Vi} \end{Bmatrix} \\ 1 \qquad\qquad\quad 2 \qquad\quad 3 \quad 4 \qquad 1 \qquad\qquad\quad 5 \\ \\ (\text{Y+})\ \text{Tn}\ (\text{+Z}) \\ 3 \quad 4 \end{bmatrix} \Longrightarrow$$

SC
$$\begin{bmatrix} \text{N2} \\ 1 \\ \text{NP} + (\text{X+}) \begin{Bmatrix} \text{Vt} \\ \text{Vp} \\ \text{Vi} \end{Bmatrix} (\text{+Y}) \\ 1 \qquad\quad 2 \end{bmatrix} + \begin{Bmatrix} \text{hiča} \\ \text{miča} \\ \text{anonti} \end{Bmatrix} + \begin{bmatrix} \text{N2} + \text{at} + \text{VP} \\ 3 \qquad\quad 2 \\ (\text{X+}) \begin{Bmatrix} \text{Vt} \\ \text{Vp} \\ \text{Vi} \end{Bmatrix} + (\text{Y+}) \\ 5 \\ \\ \text{Tn}\ (\text{+Z}) \\ 3 \quad 4 \end{bmatrix}$$

T17 opt SD NP + VP & NP + VP ⟹
1 2 3 4

SC NP + VP + {hikama, hikahon} + NP + VP
1 2 3 4

Morphophonemic Component[4]

M1 at → -t / Vowel____

M2 $\begin{bmatrix} iN- \\ -aN \end{bmatrix}$ → $\begin{bmatrix} \tilde{i}- \\ -\tilde{a} \end{bmatrix}$

The phrase-structure component consists of a series of context free P-rules which provide definitions which allow the CS-rules to operate (as P4, 5, 6) and utilize the lexical sets in a restrictive manner. In the latter the situation contingent upon the Nominalization (Nom) provided by P2 is the most complex. The Nom, which is a Choctaw non-verbal predicate construction,[5] usually translated with an English "to be" construction, is restricted as to the type of modifiers which it can contain. Thus, the modifiers are defined in two categories, A and B. The A classification (P9) is dominated by a VP node and can operate only as a verbal modifier; the B classification (P8) is restricted in the P-rules to a dominating Nom node. The B modifiers can, however, operate as both noun and verbal modifiers. Therefore, the optional #B in P9 and 15

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[4]The morphophonemic component presented here is merely suggestive of the format and content of the component. Adequate M-rules are possible only in relation with a phonological component.

[5]Traditional grammatical terms such as subject, predicate, direct object, case, and conjunctions are used throughout the discussion of the grammar. The use of the terms does not imply that the syntactic phenomena in Choctaw referred to are identical to the English syntactic phenomena referred to by the same terms. It was considered advantageous to use the terms for similar phenomena in Choctaw rather than to coin new terms.

allows B modifiers to be embedded into strings dominated by N2 or A nodes by the operation of T7. The #B in the Nom (P7) allows the Nom to contain only the /inši/ segment of T7. Loc (P22), Man (P23), and Q1 (P26) also allow the P-rules the degree of restrictiveness necessary to insure proper operation of the T-rules.

The division of Vt, Vp, and Vi into four subclassifications designated by 1, 2, 3, and 4 (see P4, 5, and 6) was made to allow for the proper selection of subjects (CS1) and direct objects (CS2). The subclassifications are defined in the following manner: (a) if there is no numeral after the symbol (vt, vp), the members of those sets are free to occur with subjects and direct objects from any subset of n-c; (b) if the numeral 1 appears after the symbol (vt-1, vp-1, vi-1), the members of those sets must occur with an animate noun (n-c-1) as subject but are free to occur with direct objects from any subset of n-c; (c) if the numeral 2 appears after the symbol (vt-2, vp-2, vi-2), the members of those sets must occur with a human noun (n-c-1a) as subject but are free to occur with direct objects from any subset of n-c (vt-2 is slightly different in that it may occur with either a human noun or an animal noun /$\bar{\text{n}}$-c-1b/ as subject and must occur with a body part /$\bar{\text{n}}$-c-1c/ as direct object); (d) if the numeral 3 appears after the symbol (vi-3), the members of that set must occur with a vegetable noun (n-c-3b) as subject; and (e) if the numeral 4 appears after the symbol

(vp-4), the members of that set must occur with an animate noun as both subject and direct object. The preceding manner of subclassifying verbs does not, however, apply identically to Vt, Vp, and Vi, thus accounting for the absence of a vp-3 and so on. The division of nouns into subsets was made solely in relation to the requirements demanded by the subsets of the verb.

The /at/ provided by P13 is a subject indicator and appears to be a remnant of the Article-Pronouns which also gave Byington much trouble.[6] The other particles—/kat/, /mat/, /hat/—seem to operate as syntactic indicators also, but they are less consistent than /at/ and have yet to be sufficiently generalized to be adequately presented in the grammar. It has been noted that the older the informant, the more prevalent the occurrences of /kat/, /mat/, and /hat/, suggesting that the language is undergoing the simplification which normally occurs when the speakers of that language become more sophisticated.

The context-sensitive component consists of a series of CS-rules and L-rules, and the entire component operates on the principle of the transformational cycle.[7] The CS-rules, subject to P-rule restrictions, are replacement rules in which the substitution of a symbol is allowed only in the specified environment; therefore,

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[6]See above, Chapter I, p. 17.

[7]See above, Chapter II, p. 39, note 26.

context-sensitivity which results in permutation or deletion is presented in the T-rules with the exception of CS10, which is discussed below. An example of the operation of the CS component is given below. (1) is a terminal P-string. CS1 and CS 2 require that the subject

(1) n-c + n-c + att + at + n-c + vp4 + Ø + Neg
CS1 n-c + n-c-1 + att + at + n-c + vp4 + Ø + Neg
CS2 n-c+ n-c-1 + att + at + n-c-1 + vp4 + Ø + Neg
CS11 n-c + n-c-1 + att + at + n-c-1 + vp-4 + Ø + Neg-1
L/hatak + ofi + čito + at + fani + abi + Ø + kio/
CS3 /hatak + iN- + ofi + čito + at + fani + abi + Ø + kio/
CS8 /hatak + iN- + ofi + hočito + at + fani + abi + Ø + kio/
man his dog big squirrel kill not

and direct object respectively must be animate nouns (n-c-1), and CS11 changes the subset of negative (Neg) following tense (Tn). Because no other CS-rules apply to the string, it enters the L-rules which rewrite all appropriate symbols. The string then returns to the CS-rules. CS3 now applies and places the possessive particle /iN-/ between an animate noun and the following n-c, and CS8 provides the plural form of /čito/. There being no further applicable CS-rules, the string moves back to the L-rules, which are now vacuous. The cycle is ended, and the string is ready to move to the transformational component.

Of the seven CS-rules which were not discussed in the preceding example, only two need further comment. CS5 provides /a-/ with the variant /sa-/; however, both /a-/ and /sa-/ have phonological variants (/am, aN, sia/) not provided for in the grammar, but which would automatically be accounted for in a phonological component. CS10 has two

points which need comment. First, the rule is actually a deletion rule although presented as a replacement rule. The reason for not placing the rule in the transformational component is apparent in the second point, that is, in the disparateness of the environments. The specification of the CS10 environments in a T-rule would result in a minimum of two SD's (one for the n-c and one for the verb environments); therefore, while not completely satisfactory, CS10 has simplified the total description.

The L-rules list the sets of word classes defined by the P-rules. In the case of n-c, the set is divided into subsets which allow CS1, 2, and 3 to operate efficiently. When a string enters the L-rules, any n-c which remains unchanged by the CS-rules may be rewritten by any member of any subset of n-c (see L in the example on the preceding page). It is predictable that data added to the lexicon will complicate the classification of the sets and subsets; however, since the purpose of this study does not concern the formulation of details of lexicon construction, a standard lexicon format was employed. The proposals of Katz and Postal[8] concerning a lexicon are well motivated and could be utilized by CS-rules of the kind employed in the Choctaw grammar.

The pronouns provided by the lexicon in pro, p-obj, p-no, and pos do not include any third person forms.

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[8]An Integrated Theory, pp. 12-27.

However, there are three Choctaw forms which are translated with the English third person possessive personal pronouns. The form /iN-/, provided by CS3, has a much greater distribution than is indicated here but is not understood sufficiently to be presented in the grammar. The form /okla/ 'people' is often used to indicate third person plural in all grammatical cases, but to classify /okla/ as a pronoun because of its English gloss, violates linguistic principles. There are insufficient data at this time to predict the occurrence of the third form, /ilap/.

The transformational component consists of a series of ordered rules in two parts. The structural description (SD) states with as much detail as necessary the description of the string to which the rule applies, and the structural change (SC) states the specific reordering of the elements from the SD and/or any new elements required.

The operation of T1 on a string makes the verb causative. Thus, T1 converts (2), (3), and (4) to (2a), (3a), and (4a) respectively.

(2) /hatak at iso/ 'The man hits.'

(2a) /hatak at isoči/ 'The man causes hitting.'

(3) /hatak at balili/ 'The man runs.'

(3a) /hatak at baliliči/ 'The man causes running.'

(4) /hatak at allatik pisa/ 'The man sees the girl.'

(4a) /hatak at allatik pisačі/ 'The man causes the girl to see.'

The product of T1 can enter T2 as the matrix of a derived string. The purpose of T2 is to provide an additional direct object for the T1 string in the following manners: (a) if the matrix has no direct object, the subject of the embedded sentence becomes the direct object; (b) if the matrix has a direct object, the subject of the embedded sentence must be the same as the direct object of the matrix and the embedded sentence must also have a direct object. If restriction (b) were not imposed, then the product of T2 could be identical to the matrix. For example, if (4a) were the matrix and (5) were the embedded sentence, the results of T2 would be (4a).

(5) /allatik at pisa/ 'The girl sees.'

The proper operation of T2 embeds (6) into (4a) to obtain the derived string (6a).

(6) /allatik at isi pisa/ 'The girl sees the deer.'

(6a) /hatak at allatik isi pisači/ 'The man causes the girl to see the deer.'

The operation of T3, 4, 5, and 6 on a string permutes only modifiers dominated by an A node. Of the four rules, which operate similarly, only T3 and 6 are obligatory. In the examples below, T3 changes (7) to (7a), T5 changes (8) to (8a), and T6 changes (9) to (9a).

(7) /ohojo at nonači koča pit/

(7a) /ohojo at koča pit nonači/ 'The woman cooks outside.'

(8) /minko at fani abi pilašaš/

(8a) /pilašaš minko at fani abi/ 'Yesterday the chief killed a squirrel.'

(9) /ofi at binili tali apakana tok/

(9a) /ofi at tali apakana binili tok/ 'The dog sat down on the stone.'

The operation of T7 on a string embeds a B modifier or an /inši/ with its direct object into a string which contains a #B dominated by either N1 or A nodes. The #B dominated by an Nom is blocked in the SD from being replaced by a B; such a replacement would be redundant because of P7, which itself provides a B. The operation of T7 in the examples embeds (10) into (11) and (12) into (13) to derive (11a) and (13a) respectively.

(10) /hatak at iti inši/ 'The man has a stick.'

(11) /hatak #B at nowa/

(11a) /hatak iti inši at nowa/ 'The man with the stick walks.'

(12) /allanakni at bok itomisi/ 'The boy is beside the river.'

(13) /allanakni at binili #B tok/

(13a) /allanakni at binili bok itomisi tok/ 'The boy sat beside the river.'

The operation of T8 on a string permutes a Q1. The rule must operate before T9 or the Q1 will displace the plural marker from its pre-verb position. T8, which is optional, allows the Q1 to move to one of two positions, as seen in the following example.

(14) /katikaš allanakni at fani homa apa tok/

(14a) /allanakni at katikaš fani homa apa tok/

(14b) /allanakni at fani homa katikaš apa tok/ 'When did the boy eat the red squirrel?'

The operation of T9 on a string provides a plural

marker for the predicate when the subject has either a number or a plural. The rule must operate after the adverb placement and the Q1 permutation rules and before the pronoun placement rules (T10, 11). Of the three plural markers provided by the lexicon, only /okla/ can be used for subject-predicate agreement. The agreement provided by T9 is allowed only when the subject modifiers include either a plural marker or a numeral, a specification which effectively blocks T9 when the subject is a plural pronoun. Thus, the operation of the rule adds the plural marker /okla/ to (15) seen in (15a).

(15) /wak hočito ošta at tanči apa tok/

(15a) /wak hočito ošta at tanči okla apa tok/ 'Four big cows ate corn.'

The operation of T10 on a string has three effects: (a) to place all pronouns before the verb, (b) to move /nantaš/ to an initial position, and (c) to delete /at/ from the string. The operation of T11 then moves /-li/ to its verbal suffixal position. Thus, T10 changes (16) to (16a) and (17) to (17a). T11 then applies to (17a) and changes it to (17b). T12, which is also a pronoun rule, deletes the /at/ between a pos and Nom as seen in (18), (18a).

(16) /iš at sa pisa šahli tok/

(16a) /iš sapisa šahli tok/ 'You saw me often.'

(17) /-li at towa tolopoli čoka anoka anta ači/

(17a) /towa -li tolopoli čoka anoka anta ači/

(17b) /towa tolopolili čoka anoka anta ači/ 'I will bounce the ball in the house.'

(18) /sa at ačokma/

(18a) /sa ačokma/ 'I am happy.'

T13 provides for a change of emphasis in the string. The /-aN/ places emphasis on the N1 to which it is suffixed and indicates a reversal of the syntactic positions of the N1's. The rule, operating on adjacent N1's transposes them, places the /-aN/ suffix on the initial N1, and places the optional /at/ after the final N1. In the example below, (19), (20), (6a), and (21) are changed to (19a), (20a), (6b), and (21a) respectively. There is no way to indicate the change of emphasis in the English translation of (21a) other than to indicate stress by underlining "river."

(19) /tali at abisa koholi tok/ 'The stone broke the window.'

(19a) /abisa -aN tali at koholi tok/ 'The window was broken by the stone.'

(20) /okla lawa at osak losa okla apa tok/ 'Many people ate black nuts.'

(20a) /osak losa -aN okla lawa at okla apa tok/ 'Black nuts were eaten by many people.'

(6a) /hatak at allatik holliso pisači/

(6b) /hatak at holliso -aN allatik pisači/ 'The man causes the book to be seen by the girl.'[9]

(21) /hatak at ofi bok łihoili łopolači/ 'The man will chase the dog through the river.'

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[9]It is obvious from (19a), (20a), and (6b) that the effect of T13 is similar to that of an English passive. However, the use of the term passive is inappropriate in Choctaw because the Choctaw phenomenon involves only nominals. Thus far, the passive verb as described by Byington, Grammar, pp. 33-42, has not been observed in Mississippi Choctaw.

(21a) /hatak at bok -aN ofi łihoili łopolači/ 'The man will chase the dog through the river.'

The operation of T14 and 15 on a string provides combined negative forms of two types. The rules, however, do not adequately define the complexity of negation in Choctaw. The /ikimikšo/ provided in T14 consists of two negative forms with an intervening possessive pronoun; however, there are not enough data at present to predict the occurrence of a possessive form other than the /-im-/. An example of /ikim-/ occurring with the verb /ofo/ is in the data, but further investigations have been unfruitful thus far. T14 and 15, therefore, are ad hoc rules which provide the grammar with a Choctaw phenomenon but which provide no insight into the underlying constructions. The optional T14 provides examples (22) through (23a); the obligatory T15, which changes the structure of a string containing a Nom, provides examples (24) through (25a).

(22) /minko himita at pančí anša kio/

(22a) /minko himita at pančí ikimikšo/ 'The young chief has no hair.'

(23) /čata okla at ponolo okla inši kio tok/

(23a) /čata okla at ponolo okla ikšo tok/ 'The Choctaw people had no cotton.'

(24) /allatik at ačokma kio/

(24a) /allatik ačokma ikšo/ 'The girl is not good.'

(25) /ofi čito at pałki kio tok/

(25a) /ofi čito pałki ikšo tok/ 'The big dog was not fast.'

The operation of T16 on a string compounds either

the N2's or V's of two strings provided that all elements of the two strings are identical with the exception of those being compounded. The conjunctions provided in the SC are apparently in free variation. In the examples, (26) is embedded into (27) to produce (27a), and (28) is embedded into (29) to produce (29a). T17 compounds two entire strings dominated by S nodes; thus, (30) and (31) are combined to form (32).

(26) /allanakni at ofi łihoili/ 'The boy chases the dog.'

(27) /allatik at ofi łihoili/ 'The girl chases the dog.'

(27a) /allanakni hič̆a allatik at ofi łihoili/ 'The boy and girl chase the dog.'

(28) /ofi at balili tok/ 'The dog ran.'

(29) /ofi at fani abi bika tok/ 'The dog killed a squirrel occassionally.'

(29a) /ofi at balili mič̆a fani abi bika tok/ 'The dog ran and killed a squirrel occassionally.'

(30) /hatak at tambla lawa ikbi/ 'The man makes many glasses.'

(31) /allanakni at tambla lawa koholi/ 'The boy breaks many glasses.'

(32) /hatak at tambla lawa ikbi hikama allanakni at tambla lawa koholi/

CHAPTER IV

CONCLUSION

The purpose of this chapter is to discuss the residual problems which the preceding analysis of Choctaw has made apparent and to propose areas which need to be investigated in any subsequent analysis. The discussion below is not intended to be comprehensive, but rather to suggest directions which analyses may take in the future. It is understood that any subsequent analysis will disclose new problems and complexities while disposing of old ones. Nevertheless, the description presented in Chapter III can claim a degree of success in three of the four requirements of a transformational grammar: formality, explicitness, and completeness within the confines of the data. There are no evaluative measures by which one can determine the success of the fourth requirement, simplicity, since there is no other transformational grammar of Mississippi Choctaw to serve for comparison.

Residual Problems

Most of the inadequacies discussed in Chapter III were related to specific items which the grammar failed to describe or described in a manner which did not reveal

the entire range of the phenomenon in the language. Those inadequacies and others are outlined below.

The complex pronominal system contains, in the possessive case (pos), third person forms not listed in the lexicon. The third person form /iN-/ provided by CS3 has a much greater distribution than the rule indicates; the form may appear prefixed to a verb, thus indicating a relationship with the preceding n-c as in (1), or the form may appear prefixed to the last lexical item in a string, in which position it carries the idea "have" as in (2).

(1) /allanakni at towa allatik iN-čompa tok/ 'The boy bought the ball for the girl.'

(2) /hatak at allanakni hočito iN-tokla/ 'The man has two big boys.'

Another third person possessive form, /ilap/, appears to be a free form and always in the singular as in (3). However, one would expect by analogy with the other pronoun

(3) /towa at allonsi ilap/ 'The ball is for the baby.'

paradigms a contrastive plural form, but, as yet, one has not been identified. Finally, the deep structure and the syntactic restrictions of the surface structure of the possessive forms which appear in the double negative construction /ikimikšo/ are unknown.[1]

The verbal system in the grammar reflects little complexity other than the simple present, past, and future. There is evidence which suggests that /bilia/ and /bika/,

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[1]See above, Chapter III, p. 64.

classed in the lexicon as temporal modifiers, can be used as durative indicators, /bilia/ as a progressive or continuative indicator and /bika/ as a completed past indicator. Another verb complexity for which there are little data is indicated in (4) and (5). It seems likely that the /-š̌/ indicates some verbal aspect and that the /-li/

(4) /šokpo lomačiliš̌ aili/ 'I hid the blanket before I went.'

(5) /nowaš̌ iali/ 'I go by /means of/ walking.'

in (4) is the subject of the main clause. Also evident in (4) and (5) is the use of /ia/ in constructing complex sentences. The use of /ia/ in constructions without the /-š̌/ suffix is quite common with certain verbs; however, the class of verbs with which /ia/ can occur, while definable, does not coincide with the verb classifications provided in the grammar. Although the model lexicon proposed by Katz and Postal[2] might solve the problem of classification in this case, the problem of adequately representing the deep structure of /ia/ constructions would remain.

The particle /kat/ seems to appear sporadically in predicate constructions of all types and occasionally in place of the subject indicator /at/. When occurring, the /kat/ appears either to separate the adverbial construction from the verb or to function as a direct object indicator. Whether a significant generalization has been overlooked or

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[2]See above, Chapter III, p. 58, note 8.

whether the /kat/ is the remnant of an historically regular syntactic indicator remains undetermined.

Proposed Areas for Future Investigation

Before a phonological component can be constructed for a grammar of the type presented in this study, a complete phonological description must be made.[3] The description must account for stress placement within the word and larger structures, for the importance of pitch (or possibly tone) which seems to occur in words of more than two syllables,[4] and for the lengthening of consonants. An example of the importance of these phenomena can be seen in the following two words: /hanali/ 'six' receives primary stress on the antepenult, and /hannali/ 'leg' receives primary stress on the penult. The two differ in the level of pitch of the antepenult and penult as seen in the phonetic transcriptions: /ˉ^{3}ha ^{2}na ^{2}li/ 'six' and /ˉ^{2}ha n:a ^{3}li^{1}/ 'leg'. Perhaps pitch or tone is a factor which causes gemination in Choctaw.

The grammar provided in Chapter III is tentative, and the entire syntactic component needs a greater empirical base in both the scope of the elicited data and the scope of the geographic areas and the social positions of the

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[3]A substantial analysis of Choctaw phonology is now being made by Dr. Marice Brown of the University of Southern Mississippi.

[4]The only study which has indicated the presence of tonality in a Muskogean language is Earl Rand, "The Structural Phonology of Alabaman, A Muskogean Language," IJAL, XXIV (April, 1968), 94-103.

informants. The syntactic component itself needs to be expanded to include adequate descriptions of the residual problems discussed earlier and embedded constructions not described in the grammar. At the same time the expanded analysis needs to account for the effects of larger discourse on the syntax of the sentence. For example, Choctaw contains no nominative (pro) or objective (p-obj) third person personal pronouns (since the grammar provides no means to substitute a pronoun for an n-c, an n-c or an appropriate pronoun is always specified); however, in sustained discourse a subsequent sentence may imply the presence of a previously stated n-c merely by the omission of the n-c as seen in (6) where the /allanakni/ stands as the subject of both clauses.[5]

(6) /himakinitak allanakni at tonksali. pilašaš at jopi./ 'Today the boy worked. Yesterday he swam.'

The results of an analysis of Mississippi Choctaw could provide a means for comparing Mississippi and Oklahoma Choctaw. However, a valid comparison of the two is contingent upon the similarity of the methodology of the analyses and the presentations. Such a project would require a great deal of coordination, a role which could be assumed by the Center for Applied Linguistics. A valid comparison would specify the exact nature and extent of the dialectal differences between the two branches of Choctaw, and possibly

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[5]Standard English terminal punctuation has been employed in (6) to make the sentence division clear.

propose a grammar which would define the theory of the Choctaw language as a whole. The results of an analysis of the entire Choctaw language could then lead to a more accurate description of the Proto-Muskogean language and would add to man's understanding of the nature of language in general.

Appendix A

CLASSIFICATION OF THE SOUTHEASTERN TRIBES[1]

Below is a classification of the linguistic groups in the southeastern part of the United States:

Muskogean stock.
- Muskogean branch.
  - Southern division.
    - Apalachee.
    - Hitchiti group.
      - Apalachicola.
      - Sawokli.
      - Okmulgee.
      - Oconee.
      - Tamali.
      - Chiaha.
      - Mikasuki.
    - Alabama group.
      - Alabama.
      - Koasati.
      - Tawasa.
      - Pawokti.
      - Muklasa.
    - Choctaw group.
      - Choctaw.
      - Chickasaw.
      - Chakchiuma.
      - Houma.
      - Mobile.
      - Tohome.
      - Pensacola.
      - Taposa.
      - Ibitoupa.
      - Quinipissa or Mugulasha.
      - Bayogoula.
      - Acolapisa.
      - Tangipahoa.
      - Okelusa.
      - Nabochi or Napissa.
    - Tuskegee.

Muskogean stock-Continued.
- Muskogean branch-Continued.
  - Southern division-Continued.
    - Guale Indians and Yamasee.
    - Cusabo.
    - Chatot.
    - Osochi
  - Northern division.
    - Muskogee branch.
      - Kasihta.
      - Coweta.
      - Coosa.
      - Abihka.
      - Holiwahali.
      - Eufaula.
      - Hilibi.
      - Wakokai.
      - Tukabahchee.
      - Okchai.
      - Pakana.
      - Seminole.
    - Natchez branch.
      - Natchez.
      - Taensa.
      - Avoyel.

Uchean stock.
- Yuchi.

Timuquanan stock.
- Timucua.

South Florida Indians.
- Calusa.
- Tekesta.
- Ais.
- Jeaqa.

Tamahita.

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[1]John R. Swanton, Early History of the Creek Indians and Their Neighbors, Bureau of American Ethnology Bulletin 73 (Washington, D.C.: Government Printing Office, 1922), p. 11.

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Note: All magnetic tapes and cards on which elicited data used in this analysis were recorded and are in the permanent possession of the English Department, University of Southern Mississippi, Hattiesburg, Mississippi.

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