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ITS RELATION TO BILINGUALISM

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VERB-SYSTEM CHANGE IN SANTA CATARINA (MORELOS) NAHUATL:
ITS RELATION TO BILINGUALISM

A thesis submitted to the Graduate School of
the University of Wisconsin in partial fulfillment
of the requirements for the degree of Doctor of
Philosophy.

by
Karen Ilse Dakin

Degree to be awarded

January 19—

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August 19—

To Professors: Zeps

Sihler

Elmendorf

This thesis having been approved in respect
to form and mechanical execution is referred to
you for judgment upon its substantial merit.

Robert M. Boock
Dean

Approved as satisfying in substance the
doctoral thesis requirement of the University of
Wisconsin.

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Date of Examination, November 4 1971

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A thesis submitted in partial fulfillment of the
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Chapter One
Introduction

The Nahuatl dialect spoken in Santa Catarina Zacatepec, a village in the municipality of Tepoztlan in the state of Morelos, Mexico, has been in ever-increasing contact with the Spanish language since the arrival of Cortes in the sixteenth century. This thesis will present certain problems concerning verb-system change in the Nahuatl dialect that has occurred in this period and that appears to be related to Spanish influence.

The dialect studied has a short future. Santa Catarina is a village presently almost completely bilingual. Within another generation, Nahuatl will probably have been entirely replaced by Spanish in Santa Catarina. The Indian language has already been completely replaced by Spanish in the younger generations in Tepoztlan, the municipal seat. Many children in Santa Catarina now refuse to speak Nahuatl and answer in Spanish any questions asked them in Nahuatl by Nahuatl speakers. Why Santa Catarina is not as acculturated as most other villages in the municipality that were equally or more isolated is a question for which no answer is suggested here. Although a wider comparative study of the differing sociolinguistic settings in the area could contribute to understanding why particular linguistic changes have taken place in some dialects while not in others, this study has been limited to linguistic factors about the community of Santa Catarina and is principally based on the

speech of four informants of differing linguistic abilities in Nahuatl and Spanish. Generalizations are made from this data about the Nahuatl spoken in the community of Santa Catarina relative to the change in the underlying grammatical rules that has occurred since the sixteenth century.

In order to determine change that has taken place in the Santa Catarina dialect, comparison is made with the Classical Nahuatl of the sixteenth and seventeenth centuries. Sources used are described in more detail in Chapter Two. Comparison for the possible second-language influence is based on the Spanish spoken in Santa Catarina, Tepoztlan, and Mexico City. Some of the changes analyzed in the Nahuatl have also occurred in other area dialects, while others appear to be limited to Santa Catarina, and in some cases, to the more highly bilingual speakers. These restrictions in use will be noted where they apply.

Bilingualism, Interference, and Grammatical Change.

Substratum theory and its converse, the latter dealing with a conquering language's influence on the language it replaces, are based on the evidence for language interference in language contact situations and the eventual integration of the interference into the second language structure. Of interest here is the second problem, since Spanish is gradually replacing Nahuatl, and the Indian language is undergoing change as it disappears as a living language. Although both forms of the theory, especially that of substratum, have been severely criticized as possible

explanations for linguistic change, more attention has been given recently by Weinreich and Labov¹ to their importance and that of other sociolinguistic factors as initiators of change within a language.

Martinet, in discussing phonological systems, works from his conception of the systematic relationships in a language when suggesting that outside factors, such as bilingualism, can interact with elements within the language:

"Ce n'est certainement pas un hasard si ce sont les mêmes sillons linguistiques qui s'occupent activement de diachronie structurales et d'interférences synchroniques. L'un et l'autre champs d'études demandent certes, pour être abordés, un même conception dynamique de la langue. Mais les rapports sont plus étroits: l'étude de la structure permet de vérifier les hypothèses relatives aux interférences et de préciser les zones où celles-ci ont pu réellement s'exercer. Les analogies isolées qu'on peut constater entre deux langues qu'on soupçonne de s'être dues au hasard. Au contraire, des ressemblances qui font intervenir de larges portions du système phonologique de chacun des deux idiomes peuvent avoir un caractère et une ampleur qui excluent pratiquement toute convergence fortuite."²

The work of the Prague School has emphasized the open character of a language system, a conception that permits more interrelation between synchronic systems and language change. The development by Vachek, Daneš, and Havránek³ of the functionalist view that a system has both central and peripheral elements, both abstract and concrete, makes clear the dynamism inherent in language at any one time.

The views of the Prague School and Martinet are concerned essentially with change in the language of the community, rather than with speech, to use Saussure's distinction. In other words, they are concerned with the system of grammatical rules underlying speech production. Dell Hymes⁴ has pointed out that sociolinguistics, including the study of bilingualism, more often deals with speech rather than with language (langue). This distinction between language and speech can be said to parallel at least in part Chomsky's distinction between language competence and language performance.

The relation dealt with in this thesis, then, is three-fold. It deals first with the effects of Spanish on the Nahuatl speech of the informants used, and then with the incorporation of the newly-created grammatical rules that produce the new constructions into the underlying Nahuatl system as it has developed since the sixteenth century. The line between what is only a construction used by one speaker and what is a construction that has been integrated into the language model of the community is difficult to draw. The constructions described here, with one exception which will be noted, are thought to be integrated because they are common to all informants, and appear in the speech of other villagers as well.

More should be said on the specific relation between bilingualism and language change, however. In some of the more recent work on bilingualism, as represented by

the 1970 21st Annual Round Table at Georgetown University, there is general agreement that this relationship is one of reinforcement. This point of view is expressed clearly in papers by Mackey and DiPietro.

Mackey writes as follows about the effect of bilingualism on the speed of language change:

"In bilingual communities, the incidence of interference contributes to the degree of vacillation, and consequently to the speed at which one or more of the languages or dialects evolve. So that degrees of change which in an unilingual situation will take many generations may, under the impact of bilingualism, be realized in one."⁵

DiPietro, in turn, states his view concerning the effects on the direction of change:

"Given that a language is in a constant state of change and is susceptible to the social pressures and contexts in which it is spoken, contact with another language in the multilingual situation will be a factor in determining the direction of change in that language."⁶

Weinreich, Labov, and Herzog⁷ previously also emphasized that differentiated language systems, such as those of bilinguals, can serve as causal forces originating language change. Since the structure of a language will have certain areas that bilingual speakers will sense as weaker or deficient in comparison with their second language, the bilingual will often initiate changes using rules or concrete elements from his second language that are acceptable to the first language system. Weinreich and Haugen⁸ in their descriptions of contemporary language interference detail the possibilities for such structural transfers

which will be discussed in the next section of this chapter.

The subject of sociolinguistics, as Hymes pointed out and as is evident in the work of Labov, Herzog, and Mackey, is speech rather than the more abstract language. In terms of Chomsky's distinction, it is on performance rather than on competence. The effects of Spanish are found in the Nahuatl speech of bilinguals and monolinguals in Santa Catarina. One aim of this thesis is to try to define the principles that can relate their performance or speech to the Nahuatl underlying language system.

All instances of grammatical change in Santa Catarina Nahuatl that are described in this study to be the result of Spanish influence can be accepted as such only if they are considered as examples of reinforcement of structural tendencies. In almost all cases of change, the directions or the resolutions of the conflicts that have dominated are based on features of the language which were present but with differing functional importance in the sixteenth century classical dialect. These findings agree with the general description cited earlier of the relationship between language change and bilingualism made by Martinet, Labov, Mackey, and DiPietro.

Classification of Nahuatl Change Related to Spanish.

For purposes of this study, a dichotomy is made between those changes that manipulate elements that are all present at an earlier point in the language's history, and those which have introduced new elements in their implementation.

Language contact can influence both kinds of change. For the first case, it is suggested here that the structure of Spanish, by its similarity to Classical Nahuatl in certain constructions, can lead to the choice of one alternative over another in the Nahuatl verb system, while in the second case, elements introduced from Spanish into Nahuatl have helped to eliminate some deficiency in the latter's structure.

The work of Weinreich, Haugen, and others concerning language interference in a bilingual situation provided the basis for identifying possible Spanish influence now part of the Nahuatl system. Weinreich discusses several conditions that favor grammatical interference. The first he suggests in Languages in Contact is that of highly congruent structures with very similar rules, a condition that has bearing on change of the first type. Ideally, in order to prove that influence exists, one could show that the contrary pattern is ungrammatical. This possibility will be discussed with the specific problems.

Weinreich's concern with interference phenomena involves the second type more directly. He discusses additional conditions favoring grammatical interference that include the following: (1) the existence of a more explicit form in the second language that may replace zero morphemes or less bulky forms in the first language; (2) a low degree of syntagmatic boundness of the first language morphemes that allows more freedom for their replacement; (3) a low complexity of grammatical functions for the first

language morphemes so that they are relatively free for replacement. All these conditions favor the borrowing of elements from the second language, in this case Spanish. Clearly, an additional condition for the integration of Spanish elements is that they fit into the functional structure of Nahuatl.

The two problems of verb-system change in Santa Catarina Nahuatl discussed in this thesis can be preliminarily classified according to the dichotomy proposed, with an additional category that combines the first two.

a. Linguistic change that follows trends evident in both the Spanish and Nahuatl systems. All the concrete elements and/or grammatical rules involved in a particular instance of change were present in Classical Nahuatl, but one or more of these elements or rules have become increasingly dominant over the others. Spanish influence most probably is limited to supporting the choice of alternatives by parallel structure.

Example: A growing preference for the more analytic syntactic complex sentence over the single compound verb, indicating an increasing simplification of syntactic rules. (Chapter Three).

b. Linguistic change with the introduction of new elements traceable to Spanish.

Example: The borrowing of the Spanish impersonal construction se + 3rd per sg verb. (Chapter Four).

c. Linguistic change due to the interaction of tendencies in the Nahuatl system. The resulting Nahuatl structure is receptive to influence from Spanish.

Examples: A rearrangement that moved Classical Nahuatl passive and impersonal suffixes into the Santa Catarina Nahuatl honorific system, and in turn, created a confusion of the impersonal, passive, and reflexive in the modern dialect, resolved by the introduction of Spanish se + 3rd per sg verb for the impersonal. (Chapter Four).

As is evident from this classification, most changes discussed with the exception of the lexical ones are not directly traceable to Spanish influences. However, evidence will be presented in each case of verb-system change to support the position that Spanish has been a very positive factor in initiating and controlling the direction of change.

Diachronic Grammatical Change and Generative Theory.

Within the theory of generative grammar, some work has been done with diachronic grammatical change. Since the present problem of influence treats the interrelationship of synchronic grammars and historical ones, it is of interest to consider how generative theory has handled that relationship.

Closs-Traugott⁹ considers diachronic syntactic change to affect both the phrase structure and the transformational components of a grammar. Her examples from Old English are chosen to show movements in rule change both toward simplification and toward elaboration. Robin Lakoff¹⁰, in

discussing the changes in the complement system from Latin to Spanish, differs from Closs-Traugott by presenting her view that syntactic change affects only the redundancy rules and not the syntactic component of a grammar. Both Lakoff and Closs-Traugott suggest that some changes affect only the specification for optional or obligatory application of rules. King¹¹ maintains that the phrase structure of the grammar cannot be affected because he considers all languages to have a universal base structure, which therefore would be little subject to change, if at all.

The specific problems of Nahuatl grammatical change discussed in this thesis indicate change only in the transformational component, although the languages involved are quite different typologically and genetically. However, there is no intention to support any claim to a meaningful universal base. Also, it should be noted that in any case, no attempt is made in this thesis to specify complete sets of rules for either of the Nahuatl dialects or for Spanish. The rules developed are aimed specifically at handling the constructions described.

It should be noted also that there is a conceptual problem about the way a bilingual speaker 'borrows' a rule initially. Haugen commented on this difficulty as follows:

"Generative linguists speak glibly of 'adding' or 'deleting' rules, as if one could just write it into the learner's system. But each item and each rule in a second language is somehow related to those of the first, and each one is the response to an opportunity and a need for learning."¹²

The verb-system changes discussed in Chapter Four will bring into consideration another aspect of the relationship between language change and the deep and surface structures of a language grammar. As mentioned earlier, Havránek, Vachek, and Daneš among other Prague School linguists have discussed the division between what they term the central and peripheral, or strong and weak, points of a language. If an element is peripheral, it is more likely to undergo change than a central one. This division, while seemingly very useful, can be criticized for its circularity, since the elements defined as peripheral are those that have undergone change, while those that have not are defined as central. Weinreich and Haugen used this concept in suggesting that bilinguals sense certain areas of one language to be weaker and in their speech borrow from their second language to counter this weakness. Two questions arise. First, would then an instance of second language influence indicate a peripheral area in the first language? And secondly, and perhaps more importantly, can the formulation of a transformational grammar give support to the Prague School concept by the relative positions of rules affected by change in the formal grammatical component? By relative position is meant the location of rule change within the sets of phrase structure, transformational, or redundancy rules. Central would be defined as the phrase structure with later rules becoming increasingly more peripheral.

Both of these questions will be considered in assessing the effect of Spanish influence on Santa Catarina Nahuatl.

Although the second question involving deep and surface structure cannot be thoroughly examined without formulating a more complete grammar of the Santa Catarina Nahuatl dialect, some observations will be made concerning the relative position of rules in the partial grammar presented and the implications for the validity of the division between central and peripheral areas of a language.

Notes to Chapter 1.

- 1 Uriel Weinreich, William Labov, and Marvin I. Herzog, "A Theory of Language Change" In Winfred Lehmann and Yakov Malkiel, eds., Directions for Historical Linguistics. Austin: University of Texas Press, 1963. pp.95-188.
- 2 André Martinet, Économie des changements phonétiques. Berne: A. Francke S.A., 1955. p.194.
- 3 František Daneš, "The Relation of Centre and Periphery as a Language Universal"; Josef Vachek, "On the Integration of the Peripheral Elements into the System of Language"; Bohuslav Havránek, "Zur Problematik der Sprachmischung" In Travaux Linguistiques de Prague II: Les problèmes du centre et de la périphérie du système de la langue. University: University of Alabama Press, 1966. pp.9-38, 81-96.
- 4 Dell Hymes, "Bilingual Education: Linguistic Vs. Sociolinguistic Bases", MSLL 23.69-76, 1970.
- 5 William F. Mackey, "Interference, Integration, and the Synchronic Fallacy", MSLL 23, pp.196-197, 1970.
- 6 Robert J. DiPietro, "The Discovery of Universals in Multilingualism", MSLL 23, 1970, p.20.
- 7 p.183-6.
- 8 Uriel Weinreich, Languages in Contact. The Hague: Mouton, 1957. Einar Haugen, "The Analysis of Linguistic Borrowing", Language 26.210-231, 1950; Bilingualism in the Americas. American Dialect Society Pub. 26, 1955.
- 9 Elizabeth Closs-Traugott, "Toward a Grammar of Syntactic Change", Lingua 23.1-27 (1969).
- 10 Robin Lakoff, Abstract Syntax and Latin Complementation. Cambridge: MIT Press, 1969. pp.218-235.
- 11 Robert D. King, Historical Linguistics and Generative Grammar. Englewood Cliffs: Prentice-Hall, 1969. pp.142-150.
- 12 Einar Haugen, "Linguistics and Dialinguistics", MSLL 23, p.5.

Chapter Two
Setting and Data Sources

Physical Location.

The village of Santa Catarina Zacatepec is in the municipality of Tepoztlan, on the edge of the Valley of Cuernavaca in the state of Morelos. The map on the following page shows that the village is close to both Mexico City and Cuernavaca. The present population is about 1300.

History.

The municipality of Tepoztlan, of which Santa Catarina is a part, was inhabited by various Nahuatl-speaking groups before the Spanish conquest: the Tlahuicas were conquered by the Toltecs in the tenth century, and they in 1437 by the Aztecs, to whom the village paid regular tribute until the Conquest. The Spanish first came through Tepoztlan in 1521. After 1529, the municipality was administered from Cuernavaca as part of Cortes' Marquesado del Valle.

Contact continued with the Valley of Mexico after the Conquest, as for example with the village of Milpa Alta with which there are still trade relationships. Part of the folk history of Milpa Alta is the story of the Tepoztlan hero El Tepozteco.

In spite of being administered by Cuernavaca during



MORELOS

Map showing Santa Catarina, the municipality of Tepoztlan, and their relation to Cuernavaca and Mexico City.

the colonial period, Santa Catarina continued to be relatively isolated from this city because a difficult terrain of volcanic rock separated the two communities. It was not until 1936 that a highway connecting Cuernavaca with Tepoztlan was constructed through the village of Santa Catarina. Its isolation until so relatively recently is in part responsible for the fact that Santa Catarina has remained highly bilingual, although there probably are additional factors to account for the language situation.

One can compare Santa Catarina with Tepoztlan in terms of the degree of bilingualism in the two villages. Redfield¹ reported that all the inhabitants of Tepoztlan spoke Nahuatl in 1920, while only some of the villagers were bilingual. Lewis² noted that in 1944 only about one-half were still bilingual and the rest of the villagers spoke Spanish. Today, those who do speak Nahuatl in Tepoztlan are almost all over 65. In contrast, Santa Catarina has become bilingual in the last twenty years, with some speakers still functionally monolingual in Nahuatl. A small percentage speak only Spanish, but the majority are bilingual. The first schoolmaster was sent to Santa Catarina from Tepoztlan about 1950 because he could teach in Nahuatl. School children now attend Spanish-speaking primary school in Santa Catarina, San Andres, or Tepoztlan, and secondary school in Tepoztlan or Cuernavaca. However,

it should be noted that certain members of the community who had more dealings with the outside world must have been bilingual before the acculturation process began in the village as a whole.

Data Sources: Sixteenth Century.

A search made through the principal Mexican archive, the Archivo General de la Nación Mexicana, for possible documents in Nahuatl from Santa Catarina or from Tepoztlan was unsuccessful. At least two documents in Nahuatl from Tepoztlan were located elsewhere, however. The first, available in a facsimile of the sixteenth century edition, is a drama edited and perhaps written by Quiroz, a Dominican priest in the Tepoztlan area. This play adapts the Tepoztecatl legend to Christianity and is still produced each year in Tepoztlan on September 8, the feast day in honor of the birth of Mary. The play is fairly short, with a considerable amount of repetition in the dialogue.

The second document, a manuscript in the Colección Antigua in the Archivo del Museo Nacional, is a census made in 1571 of the municipality of Tepoztlan. Given the nature of the document, there is much repetition also. One morphophonemic variant in Santa Catarina and Tepoztlan Nahuatl from the Valley of Mexico dialects today is the substitution of -n for -uh on possessed nouns and on preterite verb forms. The census contains -uh forms. This leads one to suspect that the census taker was sent

from the Valley of Mexico or else there was free variation between -n and -uh in Tepoztlan in the sixteenth century.

The lack of any further material in Nahuatl from Tepoztlan and the scarcity and doubtful character of what there is would form a very small basis for comparison with the modern dialect. However, certain points should be considered which support the hypothesis that the Tepoztlan dialect and the dialects in the Valley of Mexico differed only minimally in the sixteenth century. Taking this point of view, sources from the Valley of Mexico can be used also for making the comparison.

The first point to consider is the close contact that has been maintained between Tepoztlan and the villages across the mountain pass in the Valley of Mexico. It seems very probable that the dialects were less varied in the sixteenth century as a result of greater contact in which Nahuatl was the language used. More divergence occurred as new communication routes were sought and Spanish replaced Nahuatl in trade, since non-Nahuatl speakers became involved in commerce.

A second point in support of the original similarity of the dialects is that there is some evidence of the -n morphophoneme in the Classical Nahuatl of the Valley of Mexico. Olmos³ describes the -n as a variant of the -uh in his grammar of Nahuatl published in Mexico City. This

would indicate that it was in free variation with -uh in the sixteenth century. The Santa Catarina variant is the most prominent phonological difference from Valley of Mexico dialects at the present time. One additional difference that Whorf⁴ describes in comparing the dialects of Milpa Alta and Tepoztlan is Tepoztlan's substitution of an aspirated -h for the ʔ in Milpa Alta.

Vocabulary variants such as zohuatl 'woman', for the Valley of Mexico cihuatl are also included in Molina's⁵ sixteenth century dictionary for the Valley of Mexico dialect.

These considerations are brought up to support the hypothesis mentioned above that the Santa Catarina Nahuatl dialect does derive at some earlier point from the Valley of Mexico dialect, and hence, the abundant Classical Nahuatl materials available from the Valley of Mexico can be used as sources for comparison in resolving problems in the Tepoztlan data.

The main sources from the Valley of Mexico that have been used are Sahagún's⁶ Florentine Codex, Tezozomoc's⁷ Crónica Mexicayotl, and various other shorter texts. Wherever possible, examples are drawn from the Tepoztecatl drama for the constructions discussed.

Data Sources: Modern Santa Catarina Dialect.

Data on the modern dialect was collected from four principal informants from Santa Catarina, and comparative

data also collected from three Tepoztlan subjects. This data included conversations, texts, and paradigmatic information. For purposes of comparison of constructions, my emphasis was placed on the texts, since these would most closely parallel the Classical sources in style, as the latter are generally transcriptions of oral traditions. However, conversational variants were also considered.

My informants are described according to age, sex, education, and family and personal history.

A. Age 61. Male. A was an orphan raised by an uncle living in Santa Catarina. He had no schooling as a child, but did attend the government's literacy school for adults about ten years ago and can read the prayer book, songs, etc. with difficulty. He is an important member of the community. He is completely bilingual, although his Spanish has a marked Nahuatl accent.

B. A's wife, 48. She was also raised in Santa Catarina but has never gone to school. She is able to speak a little Spanish, but is functionally monolingual.

C. Son of A and B. Age 35. He learned Spanish at age 15. He now lives in Cuernavaca and has completed three of five years required for a university degree in accounting.

D. Female, age 83. She learned Spanish after the Mexican Revolution when she went to Mexico City to work as a maid. After seven years, she returned to Santa Catarina to live while travelling to work in Cuernavaca. She does not know how to read, but speaks Spanish with little Nahuatl phonological interference, although with grammatical interference.

Tepoztlan informants:

E. Male, age 82. He is one of the most respected people in the village and taught school for years in Tepoztlan, Santa Catarina, and Cuernavaca.

F. Female, age 80. She has lived in Tepoztlan all her life, widowed since the Revolution which ended in 1920. She is a curer, but earns money by selling food in the market and carrying on other small enterprises as well.

G. Male, age 35. He is an exception, since he has learned to value Nahuatl, in part because of his parents and in part because of exposure to the outside interests in Tepoztlan. He was disdainful of the Santa Catarina dialect because so much Spanish is mixed into it.

Modern Spanish.

Samples of Spanish were collected from Tepoztlan and Mexico City monolinguals for comparative purposes.

The field data is stored on 36,500 feet of magnetic tape, with some 300 additional pages of transcribed texts, paradigms, and vocabulary collected.

Notes to Chapter 2.

1 Robert Redfield, Tepoztlan, a Mexican Village. Chicago: University of Chicago, 1930, p.30.

2 Oscar Lewis, Life in a Mexican Village: Tepoztlan Restudied. Urbana: University of Illinois, 1951. pp.3-35.

3 A note in the edition of Olmos' grammar in the Colección de gramáticas de la lengua mexicana reads as follows: "En el MS BN pusieron, equivocadamente 'noco-chian'", p.17, V.I. The form noco-chian is a variant of noco-chiauh 'my eyelash'.

4 Benjamin L. Whorf, "The Milpa Alta Dialect of Aztec" In C. Gsgood, ed. Linguistic Structures of Native America. New York: The Viking Fund, Inc., 1946. pp.396-7.

5 Alonso de Molina, Vocabulario en lengua castellana y mexicana. Madrid: Ediciones Cultura Hispánica, 1944.

6 Bernardino de Sahagún, The Florentine Codex. Trans. Charles Dibble and Arthur J. Anderson, Santa Fe: School of American Research, 1951 - 1970. Also series by various translators, Fuentes indígenas de la cultura náhuatl, Informantes de Sahagún. Mexico: UNAM, 1958-69.

7 Fernando de Alvarado Tezozómoc, Crónica Mexicayotl. Mexico: Instituto de Historia. Original edition 1609.

Chapter Three

Changes in the Compound Verb System

Introduction.

In Classical Nahuatl there are two types of compound verb constructions. Before going further, it should be noted for the sake of clarity that the first verb in the basic form of the constructions will be referred to as secondary, while the second verb will always be termed the principal verb, although it will not be treated grammatically as the main verb.

The two types of compound verb constructions in Classical Nahuatl are one in which the secondary verb is intransitive and one in which the secondary verb is transitive. The first type can be divided into two sub-types. The first sub-type is formed by an intransitive verb followed by the principal verb:

yehuatl hueli tlacua 'he can eat'
 he can eat
 sec v prin v

opeuh tzitzicuini 'he began to run'
 he began he runs
 sec v prin v

The second sub-type is formed by adding a series of verbal suffixes which derive from independent intransitive verbs to the principal verb to specify nuances of aspect:

yehuatl choca-ti-nemi 'he goes about crying'
 he cries he walks
 prin v sec v

Both of these constructions with intransitive verbs are common in Uto-Aztecan and other Amerindian languages. Crapo¹ has suggested that the suffixes, which he qualifies as adverbs, derive from Proto-Uto-Aztecan free-standing verbs originally following the principal verbs. These suffixed verbs eventually lost their independence. As will be seen in this chapter, it appears that the suffixing process is gradually being reversed in the Santa Catarina Nahuatl dialect. The suffixed secondary verbs are being moved to a position preceding the principal verb.

Seiler describes a situation in Cahuilla similar to that of Santa Catarina Nahuatl:

"... there seems to be the choice between incorporating elements as roots, prefixes, suffixes, into a single word (verb form) and dividing them up between two independent complexes, which, however, belong closely together in a constituent."²

It should be noted here that Cahuilla differs from Nahuatl in its use of a "dummy root" in the periphrastic constructions, but that the similarity in the constructions in the two Uto-Aztecan languages holds in other respects.

Secondary verbs are marked as indicating either mode or aspect. There is considerably more variation within the category of aspect than is common in Indo-European languages. Amerindian languages generally allow many more possible semantic contrasts within this category than the common Germanic and Romance language distinctions of completive--incompletive and durative-non-durative. Elson and Pickett

define some of the additional variations in aspect that can be present in a language:

"Aspects show contrasts in meaning of the following types: action at a point in time ('punctiliar'), or over a period of time ('continuative', 'progressive', or 'durative'); complete or incomplete; one time or repeated; begun ('inceptive') or finished ('cessative') etc."³

The terminology to be used in this thesis in assigning features for differences in aspect in part is drawn from Elson and Pickett, but not entirely, principally because of the specific classification problems in Nahuatl and Spanish. What is most important is that aspect is here considered to include nuances which some linguists⁴ working with Indo-European languages either classify as Aktionsart or deny their membership in a grammatical functional category.

The second main group of Nahuatl independent verbs which are also used as suffixes are transitive and necessarily take object complements. The most common, for examples, is -nequi 'to want'. The two possible constructions with it as a free-standing verb or as a suffix are the following:

qui-nequi tla-cua-z 'he wants to eat'

it he-wants it-he eat-will
sec v prin v

tla-cua-z-nequi 'he wants to eat'

it he-eat will he-wants
prin v sec v

These two constructions in which the same verb can occur as a suffix or as a free-standing secondary verb are of interest because in modern Santa Catarina Nahuatl the constructions with free-standing verbs, which will be referred to as analytic from now on, appear to dominate, as opposed to the situation in the Classical Nahuatl dialect. A partial explanation for the shift in functional load is that the use by bilinguals of Spanish compound analytic verb constructions has given support to their choice of the analytic Nahuatl construction which parallels the Spanish. Thus, the position of the analytic construction has been strengthened in Nahuatl grammar. In order to see the evidence more clearly, it is necessary to look at the Classical Nahuatl, Spanish, and Santa Catarina Nahuatl constructions in detail.

Classical Nahuatl.

The classes of verbs used as secondary verbs in the analytic compound verb constructions and those used as suffixes overlap in part, but both contain additional members not found in the other's set. All of the verbs are found to occur as simple independent main verbs in sentences with the exception of huel 'to be able' and its derivatives ayocueli, ahueli, and amueli, all of which are classified as modals. There is, however, a verb huelitia 'to have the power', which is derived from huel by the addition of a causative suffix -tia, that does occur independently.

Secondary - Principal Classical Nahuatl Verb Constructions.

1. Constructions with intransitive secondary verbs.

Examples are classified according to features.

a. [+modal]

huel 'to be able'; ahueli 'not to be able', ayocueli
'no longer to be able'

e.g. huel yaz 'he will be able to go'

b. [+aspect], [+inchoative], [-suffix-rule]

pehua 'to begin'

e.g. pehua in mocinixquia 'they begin to roast'

tipeuhque ticcuaque 'we began to eat'

c. [+aspect], [+continuative], [+suffix-rule]

nemi 'to live, to walk'

e.g. [-suffix-rule] : nemi in mixihuiznequi 'she
goes on wanting to give birth'

[+suffix-rule] : nitemachtitinemi 'I walk about
teaching'

d. [+aspect], [+position-change], [+suffix-rule]

motlalia 'to sit down, to place oneself'

e.g. [-suffix-rule] : motlalia chachalcatinemi
'he sits down chattering'

[+suffix-rule] : niman ic quitztimotlalia
'he then sits down to look at him'

huetzi 'to fall', 'to hurry'

e.g. huetzi monenepanotihuetzi 'they fell all
mingled together'

e. [+aspect], [+directional], [+suffix-rule]

yauh 'to go'

e.g. [-suffix-rule] only: in yauh in onmohuiztlalia

'they go to place the maguey thorns'

hualauh 'to come'

e.g. [-suffix-rule] only: nihualauh inic nitlacuaz

'I come to eat'

huitz 'to come'

e.g. [-suffix-rule]: huitz quitoa 'he comes to say';

[+suffix-rule] : ca ye tlatlacapan yatihuitze

'they have come halfway up the mountain'

Proposed phrase structure and transformational rules
for analytic compounding verb constructions.

The rules described in this section are set up to handle only the verb constructions in question, and not to apply to all aspects of the language. Rules such as Equi-NP-Deletion and Adverb-moving are applied without being specifically presented, since they are not relevant in considering the suffix-rule.

The treatment of the Nahuatl secondary verbs as main verbs is based on arguments presented by Ross⁵. The rules presented here are formulated within the theoretical framework of Chomsky's Aspects⁶, with that exception. However, it should be noted that in addition, Langacker⁷ supports the analysis of Nahuatl suffixes as main verbs in his paper on Uto-Aztecan predicate-raising. In accordance with these considerations, the secondary modal and

aspect verbs will be considered main verbs marked [+auxiliary] and subcategorized as [+modal] or [+aspect] rather than be included under the separate node Aux as Chomsky⁸ proposed in Aspects. The marking [+aux] precludes [+__object]. Certain ones of the verbs discussed, such as pehua 'to begin', have derived transitive forms which are to be related to them in the lexicon. The derived forms, however, are subject to the rules for transitive verbs. For example, the transitive form of pehua, tlapehualtia, is derived from the inchoative intransitive by the addition of an object prefix and a causative suffix.

In order to avoid the occurrence of the form huel as an independent verb, the lexical rules allow for verbs marked [+aux], [+aspect] to occur also as main verbs, while verbs marked [+aux], [+modal] cannot.

As a result of the analysis of auxiliaries as main verbs, which makes the [+v] category more general, it can also be seen that the Classical Nahuatl construction is one in which the more important grammatical function is performed by the verb with the less important semantic content, so that formal and substantial values do not coincide. The main verb only contributes to the meaning of the embedded principal verb.

Phrase-structure rules.

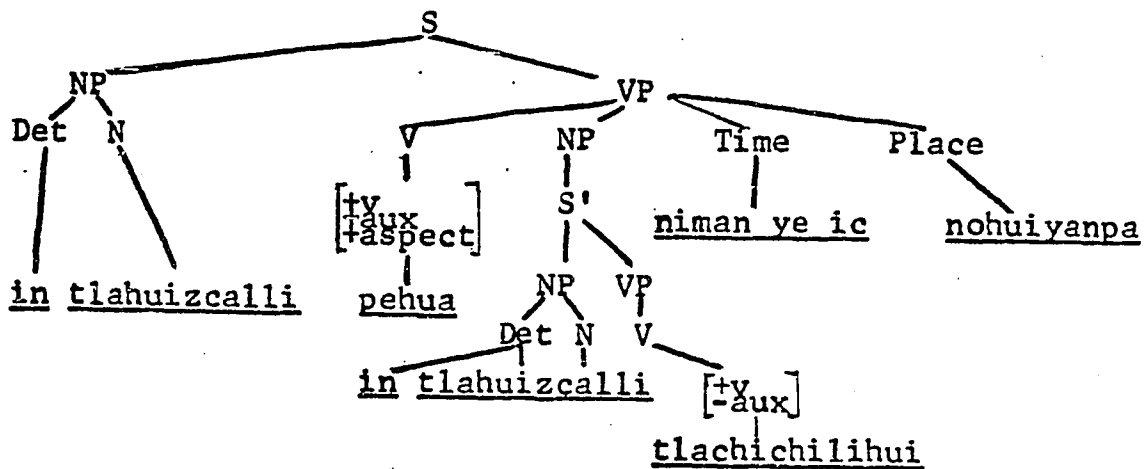
1. $S \rightarrow NP + VP$
2. $NP \rightarrow \left\{ \begin{array}{l} S' \\ (Det)(Adj)N \end{array} \right\}$
3. $VP \rightarrow V + \left\{ \begin{array}{l} (NP) \\ (Adj) \end{array} \right\} (Time)(Manner)(Place)$
4. $N \rightarrow CS$
5. $V \rightarrow CS$

Subcategorizational rules.

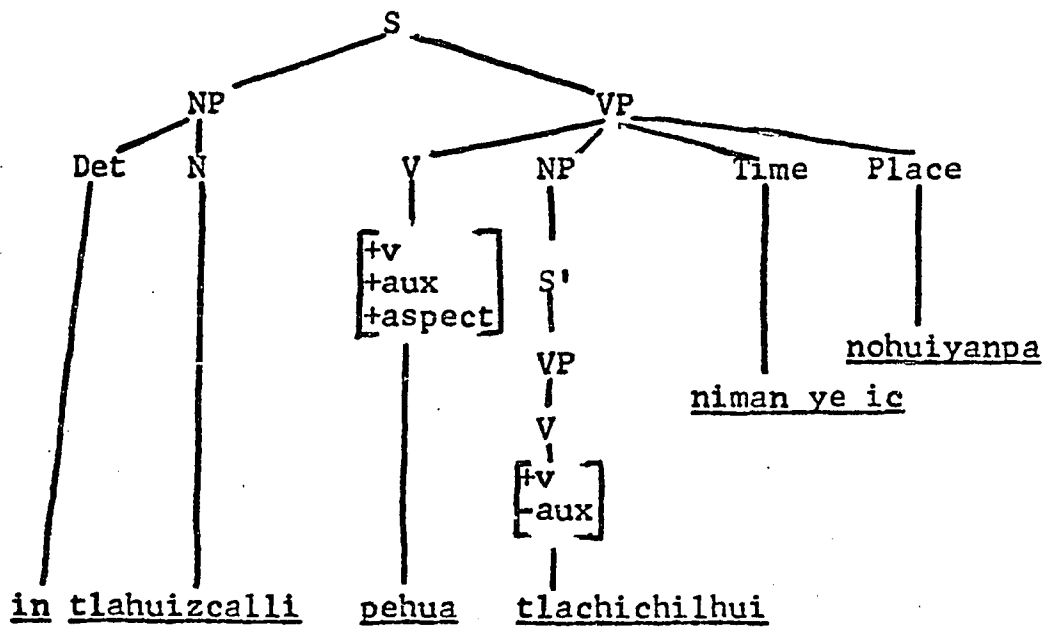
1. $V \rightarrow [+v]$
2. $[+v] \rightarrow [+aux], [\pm_object]$
3. $[+aux] \rightarrow \left\{ \begin{array}{l} [+aspect] \\ [+modal] \end{array} \right\}$
4. $[+aspect] \rightarrow [\pm_suffix-rule] / _V$

Derivation examples.

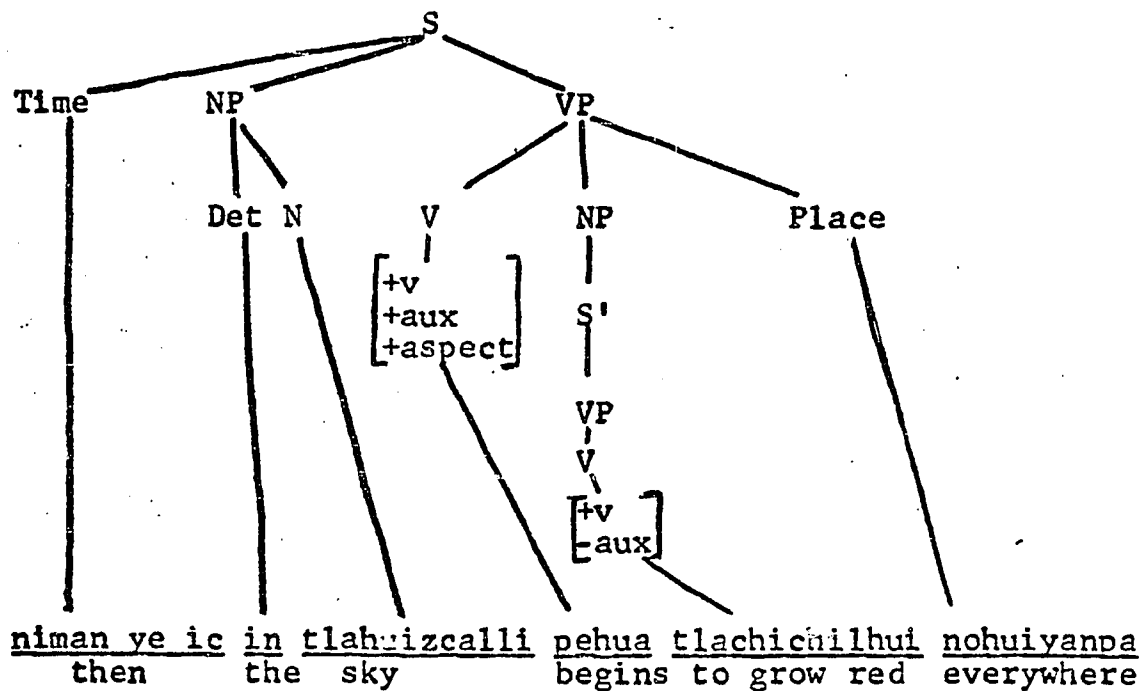
Niman ye ic in tlahuizcalli pehua tlachichilhui nohuiyanpa.
 'then the sky begins to grow red everywhere'



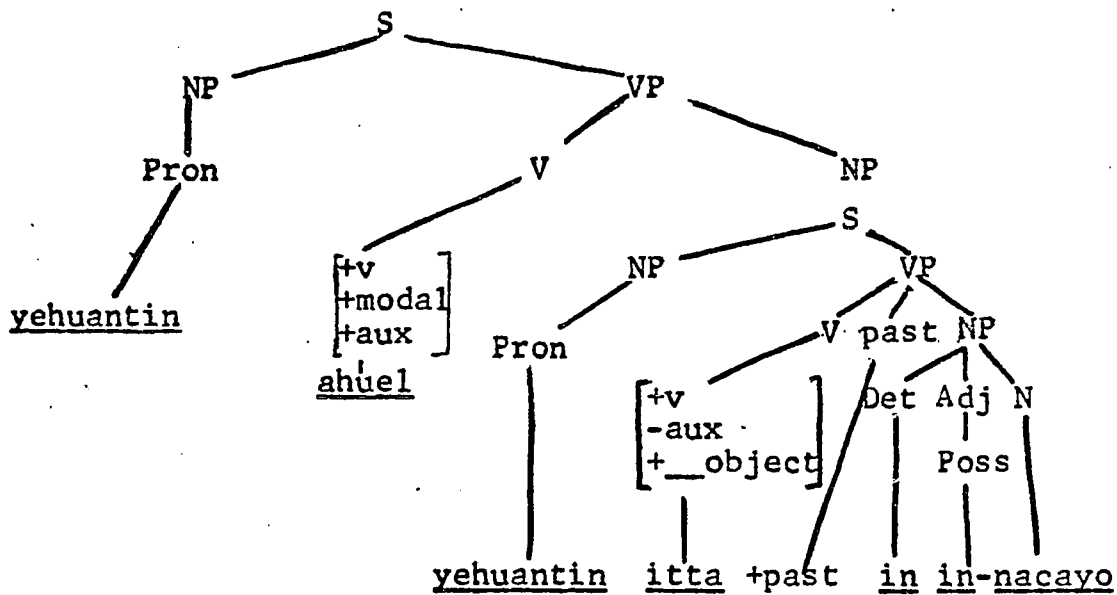
Equi-NP-Deletion rule applied:



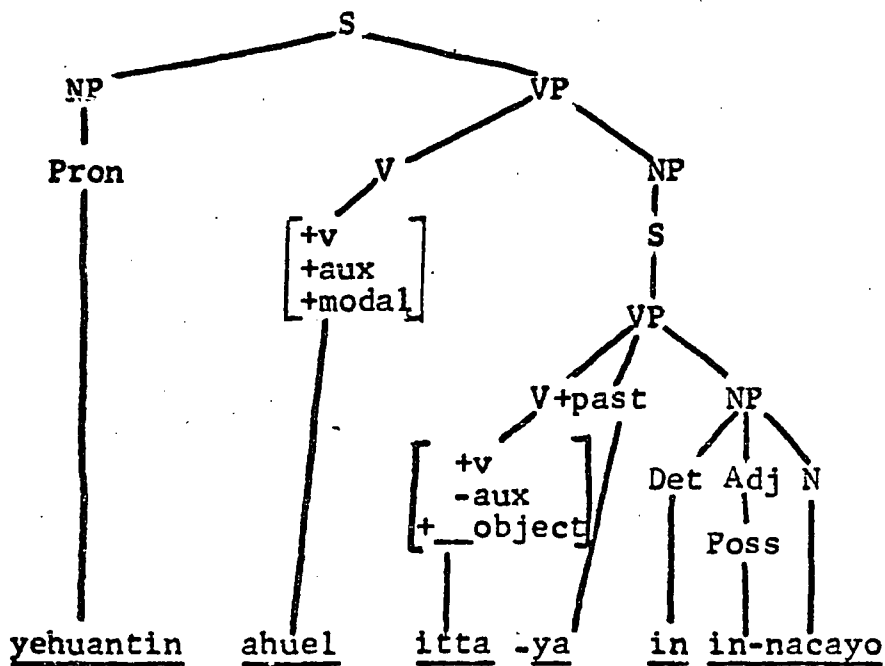
Adverb-moving rule applied:



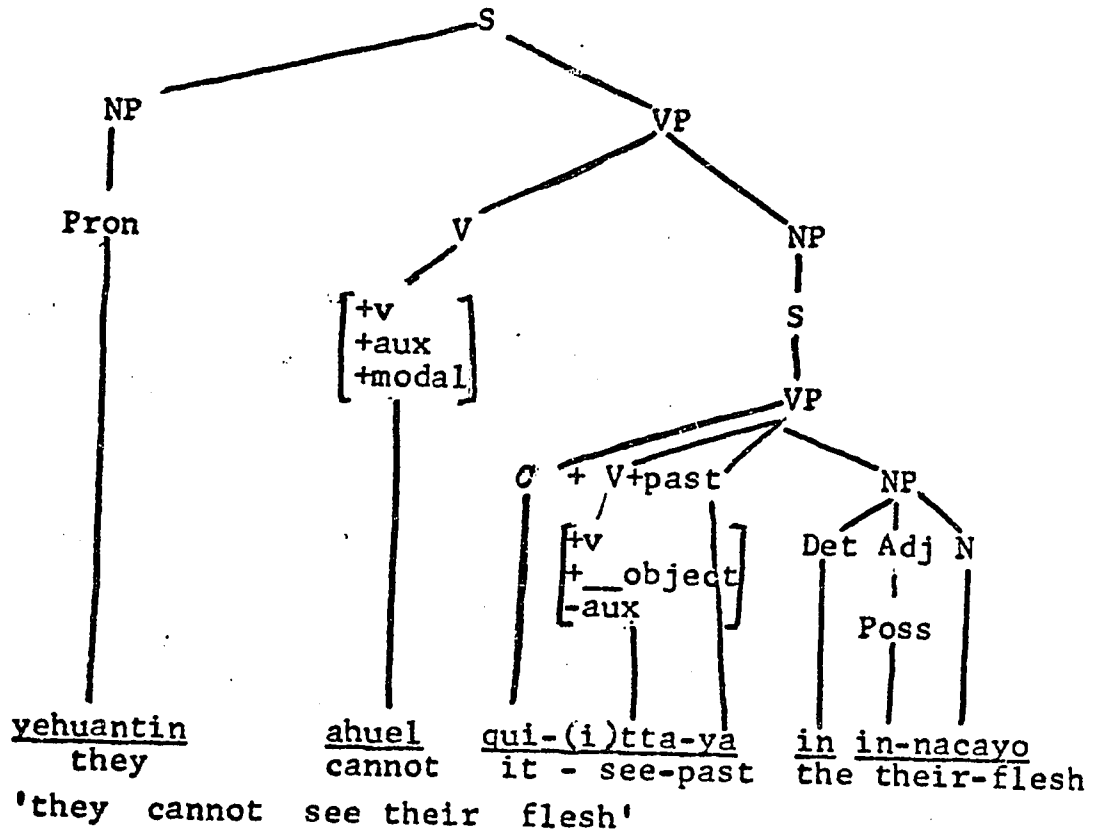
Yehuantin ahuel quittaya in innacayo.
 They could not see their flesh.



Equi-NP-Deletion rule applied.



Object-marking rule applied.



2. Classical Nahuatl compounding constructions with transitive verbs.

This section will treat the transitive verbs that occur also as suffixes in Classical Nahuatl. The transitive verb in Nahuatl necessarily has an object, either pronominalized in a prefix only, or expressed as an NP in addition to the prefix. The NP can be an embedded sentence. However, with the exception of nequi 'to want', the transitive verbs listed here as occurring as suffixes differ semantically in this position from their occurrence as independent verbs, although the two meanings are related.

The independent verb forms are the following:

tla-nequi 'to want (it)'

tla-mati 'to know (it)'

tla-tlani 'to ask (it)'

tla-toca 'to follow (it)'

Transitive verbs are subcategorized as [+v], [+__object], and as [+ suffix-rule]. Selectional rules must specify [+animate subject__] also for these particular verbs.

Subcategorizational rule No. 4 on p. 30 should be expanded:

No. 4. $\left[\begin{array}{l} +_object \\ +aspect \end{array} \right] \longrightarrow [+suffix-rule]$

In this form, it can handle the group of transitive verbs that can occur as suffixes also.

3. Classical Nahuatl constructions with suffixed verbs.

The following list includes the principal verbal suffixes which do not occur analytically in Classical Nahuatl. They are classified according to features.

- a. [+aux], [+aspect], [+continuative], [+suffix-rule]
- momana 'to remain'
 - e.g. cactimomana 'all remains in silence'
 - mani 'to persist'
 - e.g. nipatlantimani 'I keep flying'
 - ca 'to be ...ing'
 - e.g. huel itech pehtica, huel itech quiztica in Quetzalcoatl 'they are starting and proceeding from Quetzalcoatl'
 - icac 'to be standing'
 - e.g. nitlaquaticac 'I am eating standing up'
 - onoc, -oc 'to be lying down'
 - e.g. nicochtoc 'I am lying down sleeping'
- b. [+aux], [+aspect], [+position-change], [+suffix-rule]
- moquetza 'to stand up'
 - e.g. quitztimoquetza 'he stands up so he can see'
 - moteca 'to lie down'
 - e.g. ohuellallimictimotecac 'he had lain down to dream'
 - tleco 'to climb'
 - e.g. niman ye ic motlalotitleco 'then he hastened to run up'

-eua 'to rise'

e.g. chocateua 'he rises crying'

c. [+aux], [+aspect], [+intra-, extravernal], [+suffix-rule]

-quiza 'to leave'

e.g. tzatzitiquiza 'he comes out singing'

-aci 'to arrive'

e.g. nitlaquataci 'I arrive to eat'

d. [+aux], [+aspect], [+directional], [+suffix-rule]

-co 'coming (present, past)'; -quiuh 'coming (future)'

-qui 'coming (imperative)'

e.g. ninotzaquiuh 'I will come to call'

-to 'going (present, past)'; -tiah 'coming (future)'

-ti 'going (imperative)'

e.g. ninotzatiuh 'I go to call'

e. [+__object], [+animate subject__], [+suffix-rule]

-nequi 'to want, desire'

e.g. momanahuiznequi 'he wants to defend himself'

-toca 'to believe'

e.g. atle monectoca in inchan 'nothing did they

believe wanting in their house'

-mati 'to know', 'to believe'

e.g. nictelchihualmati in nonamic 'I believe that

my husband is scorned'

-tlani 'to ask, compel'

e.g. chiuhtlani 'he sends someone to do something'

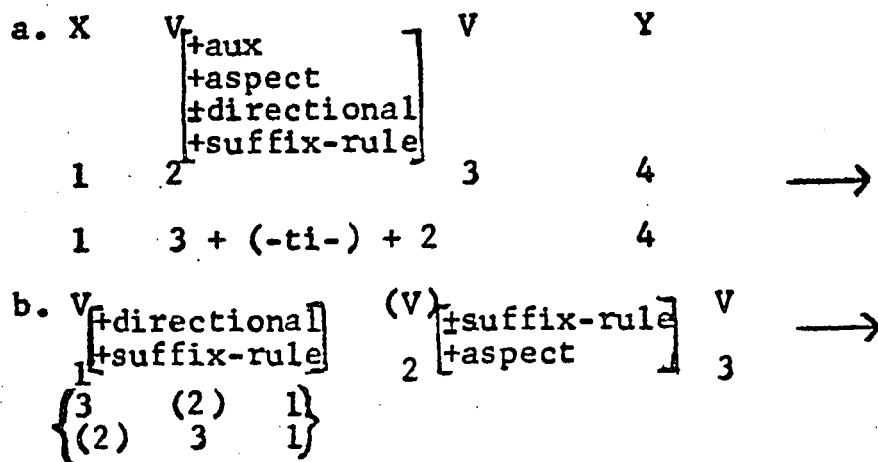
4. Suffix-rule.

Verbs have been marked in the lexicon for five different classificatory features: (1) auxiliary (2) modal or aspect (3) type of aspect (4) directional and (5) suffix-rule. The first three have been commented on already. The fourth feature is introduced to distinguish the limited set of verbal suffixes formed by -co and -to and their various realizations which can occur as a second aspect suffix following a first aspect suffix, as in chicohuiaquixtiuh 'he will go to go out taking advantage'.

The fifth feature classifies the verbs according to the applicability of the suffix-rule to them. When there are two auxiliary verbs in a string, the rule is obligatory, since the construction aux + V + suffix is allowed, while that of aux + aux + V is not.

The suffix-rule for [+aux], [+aspect], and [+suffix-rule] verbs is as follows. The morpheme -ti- is often inserted before the verbal suffix is added.

Suffix-rule:

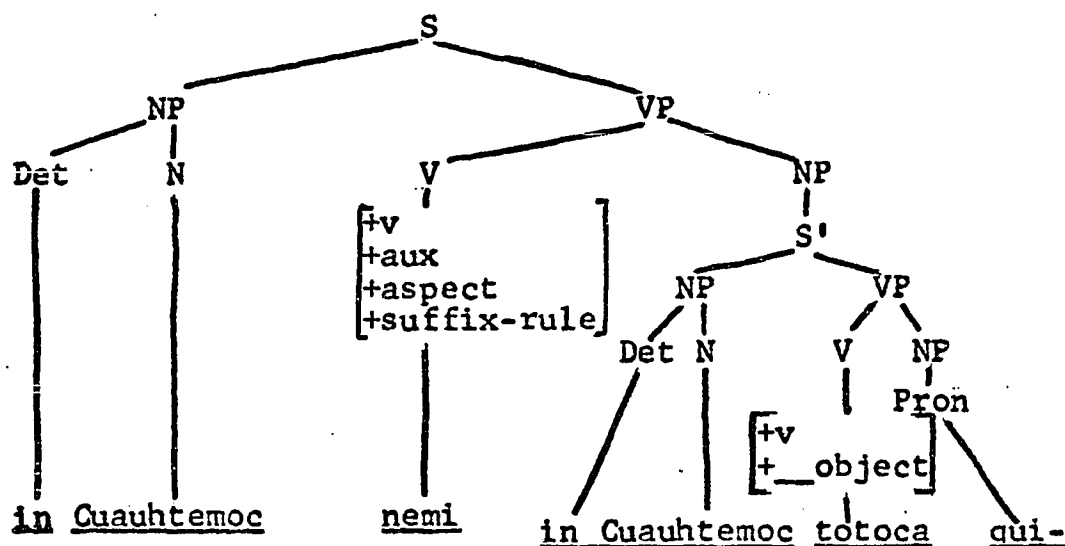


The suffix-rule applies after Equi-NP-Deletion and only in cases with Equi-NP-Deletion. This constraint on the application of it is assured by the context restriction in the rules that there be two V's in succession.

Derivation examples.

In Cuauhtemoc quitotocatinemi.

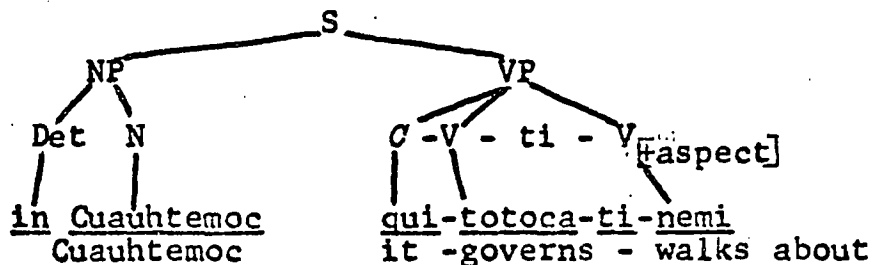
Cuauhtemoc goes about governing.



Equi-NP-Deletion rule applied deleting second in Cuauhtemoc.

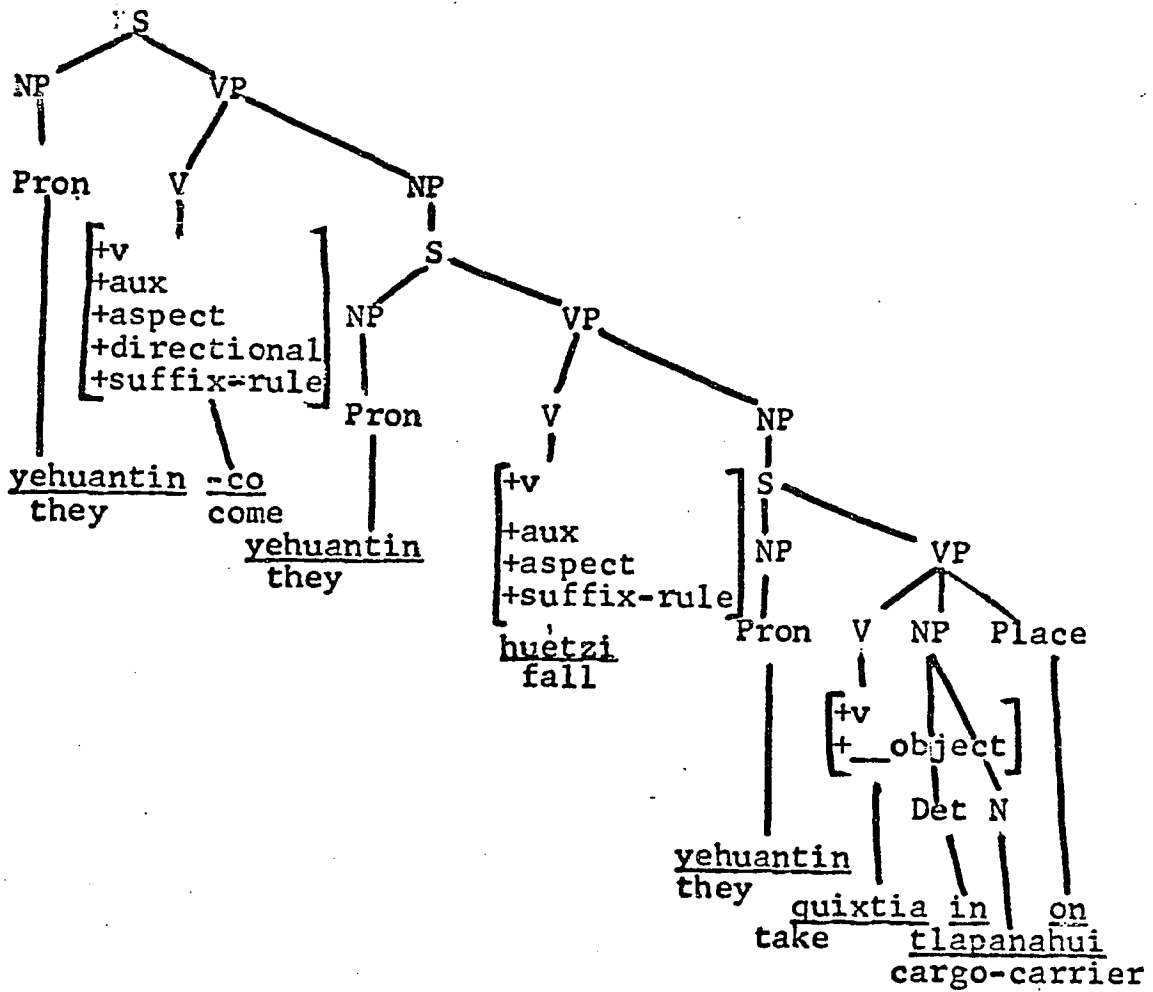
Object-marking rule applied to convert totoca qui to quitotoca.

Suffix rule applied:



Oconquixtihuetzico in tlapanahui.

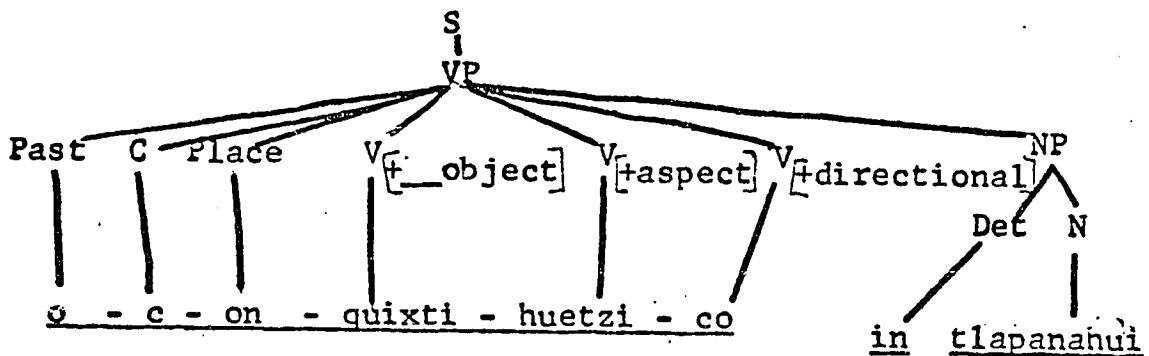
'There they came to take out the cargo-carriers.'



Equi-NP-Deletion rule applied.

Object-marking and adverb-moving rules applied.

Suffix-rule applied. Pronoun deletion rule applied.



'There they came to take out the cargo carriers.'

In the first derivation example, the verb nemi 'to walk, live', [+aux], [+aspect], could also have been marked [-suffix-rule], since the lexicon gives a + value to it for the application of the rule. The alternative marking [-suffix-rule] would give the derivation In Cuauhtemoc nemi quitotoca, a construction that is rare in Classical Nahuatl.

There must be more than one point in the transformational cycle for the application of the suffix-rule to the transitive verbs which can be used as suffixes and are listed in the Classical Nahuatl section 3e of this chapter. In the case of -nequi 'to want', it is added as a suffix to the principal verb + future suffix -z as in tlagua-z-nequi 'he wants to eat'. In the other cases, the suffixed verbs -toca 'to believe', -mati 'to know', and -tlani 'to ask' are added to the passive or preterite stems of the principal verb, as in nino-tepanauil--toca 'I believe myself superior', monectoca 'it was believed lacking', motepanauil-mati 'he believes himself superior to others', and nitetlayecolti-l-lani (1 + tl → ll) 'I make someone serve', chihutlani 'he asks something be done'. In order to handle the specific cases, the suffixed verbs should probably be subcategorized in the lexicon to indicate when the rule is applied, such as in these examples:

mati [+suffix-rule] / -V[+passive], -V[+preterite]
nequi [+suffix-rule] / -V[+future]

Further constraints would have to be placed on the morpheme structure rules for principal verbs to specify the form they are to have before adding the -mati, -tlani, and -toca suffixes.

Spanish.

The surface verbal constructions in Spanish involving compound verbs⁹ are different from those in Nahuatl in many respects. The major difference is that there are no verbal suffixes equivalent to the Nahuatl verb-derived ones described. However, certain constructions which will be examined in this section do involve analytic compound verbs, such as viene hablando 'he comes along talking', puede ir 'he can go', empieza a correr 'he begins to run'.

As in the Classical Nahuatl constructions, the first verb will be referred to as secondary, while the second verb will be termed the principal verb. How these verbs should be analyzed is debatable. Should the secondary verb be treated as a main verb with the principal verb embedded as part of an embedded object sentence, or should the two verbs be treated as members of coordinate constructions? For the purposes of this thesis, the first alternative treating the secondary verb as main verb has been chosen, a choice supported by Ross' analysis of auxiliaries as main verbs which has already been mentioned.

Another problem arises because the secondary verbs in the compound constructions are highly varied in their behavior in other contexts. For this reason, there is some doubt about their unity as 'aspect' auxiliary verbs. These secondary verbs will be examined briefly in this section, but the additional contexts in which they can occur will not be considered.

A list of the secondary verbs which most frequently occur in compound verb constructions follows. Features have been assigned in accordance with the rules proposed for Classical Nahuatl. The subcategorization feature [+aspect] is assigned these secondary verbs because like those in the Classical Nahuatl constructions, they are in some way related to the principal verb in the compound constructions, although in traditional analysis they are not all classed together.

The relationship between the first and second verbs in the compound constructions is not that of a verb followed by a verbal complement or direct object. However, the features [+aspect] or [+modal] are assigned to all the verbs because it is felt that the features distinguish common properties intuitively present in the grammatical and semantic relationships. Verbs with the feature [+aspect] are further classified into various subcategories by the use of additional features.

4. Most frequent Spanish secondary verbs.

a. [+aux], [+modal]

poder 'to be able'

e.g. puede empezar 'he can begin'

b. [+aux], [+aspect], [+inchoative]

comenzar a 'to begin to'

e.g. comienza a leer 'he begins to read'

empezar a 'to begin to'

e.g. empezó a llover 'it began to rain'

echarse a 'to begin to'

e.g. se echó a reír 'he began to laugh'

ponerse a 'to put oneself to'

e.g. se puso a trabajar 'he began to work'

ir a 'to go to' (also used to indicate future tense)

e.g. va a llegar 'he is going to arrive'

c. [+aux], [+aspect], [+directional]

venir a 'to come to'

e.g. vino a escuchar 'he came to listen'

pasar a 'to pass by to'

e.g. pasó a saludarlo 'he went by to say hello to him'

ir a 'to go to'

e.g. se fue a pelear 'he went to fight'

llegar a 'to arrive to'

e.g. llegó a comer 'he came to eat'

d. [+aux], [+aspect], [+reiterative]

volver a 'to ... again'

e.g. volvió a decir 'he again said'

e. [+aux], [+aspect], [+required-action]

haber de 'to have to'

e.g. ha de volver 'he has to return'

haber que 'must' (3rd per sg only)

e.g. hay que ir 'one must go'

tener que 'must'

e.g. tiene que ir 'he has to go'

deber 'must', 'should'

e.g. debe ir 'he should go'

- f. [+aux], [+aspect], [+hypothetical]
- deber de 'should be'
- e.g. deben de ver 'they should see'
- g. [+aux], [+aspect], [+terminative]
- acabar de 'to have just'
- e.g. acaba de ir 'he just went'
- alcanzar a 'to manage to (literally 'to reach')
- e.g. alcanza a verlo 'he is able to, he manages to see him'
- llegar a 'to come to'
- e.g. llegó a decir 'he came to say, he even said'
- h. [+aux], [+aspect], [+continuative]
- estar 'to be'
- e.g. está durmiendo 'he is sleeping'
- ir 'to go'
- e.g. va comiendo 'he goes along eating'
- seguir 'to continue'
- e.g. sigue preguntando 'she keeps on asking'
- andar 'to walk about'
- e.g. anda diciendo 'he walks about saying'
- quedarse 'to remain'
- e.g. se quedó mirando 'she remained looking on'

Rules for Spanish compound verb constructions.

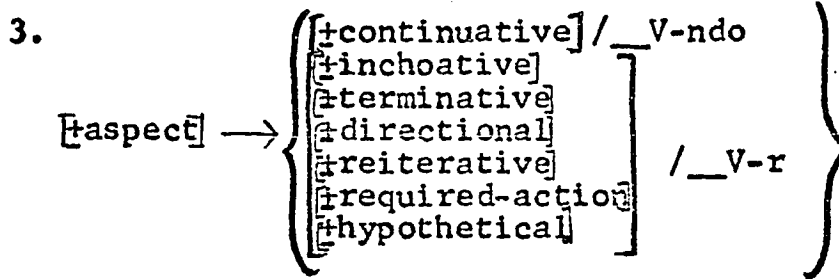
Since the formation of an adequate analysis of the deep structure position of the secondary verbs in the Spanish compound verb constructions is too complicated a problem to be thoroughly treated in this thesis, the rules presented here will very probably need revision. However, these rules are proposed taking into consideration the problems found in the Nahuatl compound verb constructions and their relation to the deep structure. Although there is not complete coincidence, the similarity between compound verb constructions in the two languages has been in part the basis for marking the verbs appearing first in the compounds as [+aspect] or [+modal].

Phrase structure rules.

1. S \rightarrow NP + VP
2. NP \rightarrow $\left\{ \begin{array}{l} (\text{Det})(\text{Adj}) \text{ N} \\ \text{S}' \end{array} \right\}$
3. VP \rightarrow V + $\left\{ \begin{array}{l} \text{NP} \\ \text{Adj} \end{array} \right\}$ (Manner)(Place)(Time)
4. V \rightarrow CS

Subcategorizational rules.

1. [+v] \rightarrow $\left\{ \begin{array}{l} [+aux] / \text{NP_VP} \\ [+ \text{ _object}] / \text{_NP} \end{array} \right\}$
2. [+aux] \rightarrow $\left\{ \begin{array}{l} [+aspect] \\ [+modal] \end{array} \right\}$

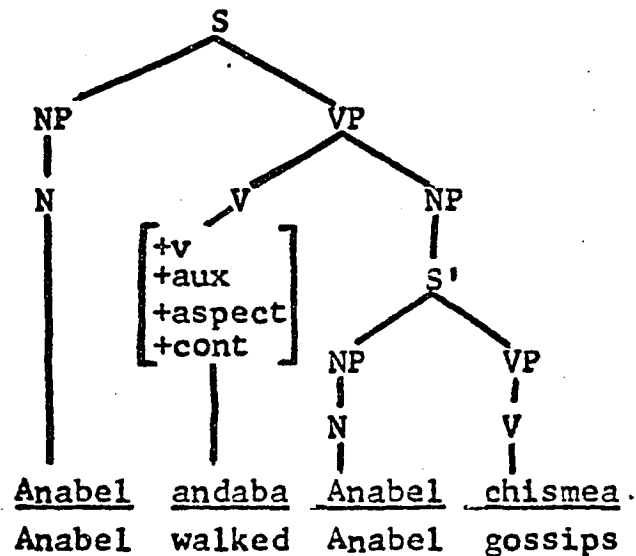


There is a recursive process which is not dealt with here that permits such constructions as Hay que llegar a empezar a volver a pensar 'One must come to begin to think again'.

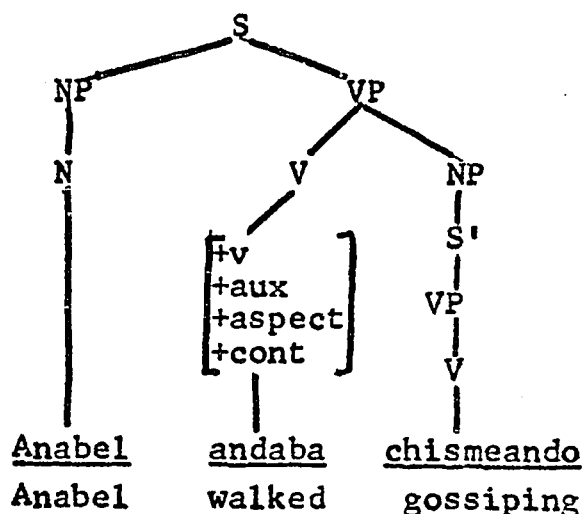
As mentioned earlier, of primary interest is the fact that there is no suffix-rule for aspect verbs in Spanish.

Derivation example.

Anabel andaba chismeando. 'Anabel went around gossiping.'



Equi-NP-Deletion rule applied.



5. Spanish transitive compound verb constructions.

Additional note should be made of certain transitive verb constructions in Spanish in which the embedded verb becomes an infinitive when Equi-NP-Deletion has been applied to the embedded S. Members of this class of transitive verbs correspond in at least three instances to those of the Classical Nahuatl transitive verbs occurring in V-suffix constructions. The Spanish constructions derive from the base form of the transitive verb with an embedded S as an object complement. As noted, Equi-NP-Deletion and a rule that provides the infinitive form for the principal verb in these constructions are applied.

Principal examples of transitive compound verb constructions.

a. [+_object]

querer 'to want'

e.g. quiere ir 'he wants to go'

desear 'to want'

e.g. desea entrar 'he wants to come in'

saber 'to know'

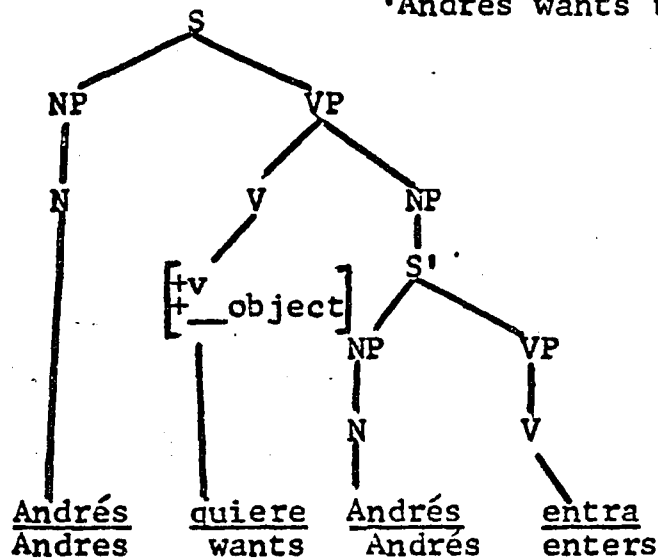
e.g. sabe manejar 'he knows how to drive'

pensar 'to intend'

e.g. piensa regresar 'she intends to return'

Derivation example.

Andrés quiere entrar.
'Andrés wants to come in.'



Santa Catarina Nahuatl.

The Santa Catarina Nahuatl dialect has the same compound constructions as Classical Nahuatl. Although there are no additional rules needed, there have been changes made in the classes of verbs which occur in both the analytic and compounding constructions. There are additional secondary verbs which can occur in the first position in the analytic compound constructions in Santa Catarina Nahuatl. While speakers use the suffixing constructions for certain suffixes, they prefer analytic constructions in most instances in which either type is possible. At times, they will substitute a coordinate construction for the Classical Nahuatl V + suffix. This substitution occurs in the case of -icac 'to stand'. The form icac huan... 'he stands and ...' is provided by informants instead of either a suffixing construction or an analytic compound construction.

A list of forms elicited for both analytic and suffixing constructions follows, classified according to subcategorization features in the Santa Catarina Nahuatl dialect.

6. Santa Catarina Nahuatl intransitive compound and coordinate analytic constructions.

- a. [+aux], [+modal]
cualli 'to be able'

e.g. topilhuan cualli niquimayahuiliz 'I will be able to serve our children' (A)

ahueli 'not to be able', ayocueli 'still not to be able'

e.g. ahueli titlatlahuana 'you won't be able to
get drunk' (D)

b. [+aux], [+aspect], [+inchoative]

pehua 'to begin'

e.g. open tlacua 'he began to eat' (A)

c. [+aux], [+aspect], [+terminative]

tlami 'to end'

e.g. ye tlamiz mohtotia 'now he will finish dancing' (D)

cencahua 'to finish'

e.g. yomocencan yohuiccic 'it finished cooking' (B)

d. [+aux], [+aspect], [+continuative], [+suffix-rule]

nemi 'to walk about'

e.g. [-suffix-rule] : nemi chocatica 'he goes about

crying' (D); [+suffix-rule] : yatinemi 'he walks
about' (B)

icac 'to be standing'

e.g. [-suffix-rule] : icac huan choca 'she stands and
cries' (D)

mocahua 'to remain'

e.g. [-suffix-rule] : mocahua tlacua 'he remains
eating' (A)

e. [+aux], [+aspect], [+position-change], [-suffix-rule]

eua 'to rise'

e.g. mehua huan choca 'she rises and cries' (D)

motlalia 'to sit down'

e.g. omotlaliloc quicua 'he sat down to eat' (D)

f. [+aux], [+aspect], [+extra-, intraversal], [+suffix-rule]

aci 'to arrive'

e.g. [-suffix-rule]: onaci tlacua 'he comes to eat' (D);

[+suffix-rule]: chocataci 'she arrived crying' (D)

quiza 'to leave'

e.g. [-suffix-rule]: tiquizaz titlacuatin 'you go out to eat' (C); [+suffix-rule]: techantiquiza 'he

comes by to get us' (A)

ya 'to go'

e.g. [-suffix-rule]: ye nia nicnamacatin 'now I

am going to shop' (C); oya tecia 'I was going to grind' (B)

huala 'to come'

e.g. [-suffix-rule] : ohuala non zohuatl oquittaco

'that woman came to see him' (D)

7. Santa Catarina Nahuatl transitive compound verb constructions.

[+_object], [+suffix-rule]

tlanequi 'to want'

e.g. [-suffix-rule] : Queman ticnequi timiquiz 'when do you want to die?' (A); [+suffix-rule] :

niccuaznequi cente picon 'I want to eat a chicken' (A)

tlamati 'to know'

e.g. [-suffix-rule]: tehhuan ticmatih tiquittatihue

'we know we are going to see him' (A); [+suffix-rule] :

nococolmati 'I find myself sick' (D)

tlatlamia 'to finish'

e.g. [-suffix-rule]: yequitlamia tlatzoyonia 'now they are going to finish cooking' (A)

tlapehualtia 'to begin'

e.g. [-suffix-rule]: yoquipehualtihque nochipa tlatlahuana 'they always begin to drink' (D)

tlacencahua 'to finish (modern dialect only)'

e.g. [-suffix-rule]: yoquicencahuah tlatzoyoniah 'now they are going to finish cooking' (A)

All the examples given under no. 7 have embedded S constructions as the direct object of the main verb. However, their frequency of occurrence as analytic constructions with no intervening conjunctive particle is much higher in Santa Catarina Nahuatl than in Classical Nahuatl.

8. Santa Catarina verbs found only as suffixes in compound verb constructions.

a. [+aux], [+aspect], [+suffix-rule], [+continuative]
-ca 'to be'

e.g. tlacuatica 'he is eating it' (A)

b. [+aux], [+aspect], [+position-change], [+suffix-rule]
-moteca 'to lie down'

e.g. chocatimoteca 'she goes to bed crying' (D)

-quetza 'to stand'

e.g. metequetza 'he stands up' (A)

c. [+aux], [+aspect], [+directional], [+suffix-rule]
-qui 'to come'

e.g. itloc ocalacuaco 'he came near him' (A)

-tin 'to go'

e.g. ye nia nicnamacatin 'now I am going to buy it' (C)

Comparison and Conclusions.

Comparison of Classical and Santa Catarina Nahuatl dialects.

In order to see clearly what specific changes have occurred in Santa Catarina Nahuatl, a comparison is made in the chart on p. 5 . The circled features are the ones that have been affected. There are four instances in which the suffixed form no longer exists according to the informants used: eua, motlalia, icac, and toca. There are also some doubtful cases as indicated by a question mark, those of tleco, huetzi, and tlani. Verbs not found in compound analytic forms in Classical Nahuatl but that have appeared in the Santa Catarina dialect include tlami, cencahua, moquetza, quiza, aci, and mocahua.

Not evident from this comparison is the shift in the functional load in the transitive constructions with nequi and mati. The analytic constructions are the most common in Santa Catarina Nahuatl, while it was very difficult to locate examples of them in the Classical Nahuatl source materials. As previously mentioned, the form -toca has disappeared.

Chart I.

<u>Classical Nahuatl</u>		<u>Santa Catarina Nahuatl</u>			
gloss	verb	transitive	aux modal aspect SR	transitive	aux modal aspect SR
can	<u>huel</u>	+	+	+	-
begin	<u>pehua</u>	+	+	+	-
end	<u>tlami</u>	⊖	⊕	⊕	-
end	<u>cencahua</u>	⊖	⊕	⊕	-
stand	<u>icac</u>	+	+	+	⊖
walk	<u>nemi</u>	+	+	+	⊕
stay	<u>mocahua</u>	+	+	+	⊖
rise	<u>eua</u>	+	+	+	⊖
sit	<u>motlalia</u>	+	+	+	⊖
arrive	<u>aci</u>	+	+	+	⊕
go	<u>yauh</u>	+	+	+	-
go	<u>-tiuh</u>	+	+	+	+
come	<u>huala</u>	+	+	+	-
come	<u>-quiuh</u>	+	+	+	+
leave	<u>quiza</u>	+	+	+	⊕
be	<u>ca</u>	+	+	+	+
stand	<u>moquetza</u>	+	+	+	+

<u>Classical Nahuatl</u>	<u>Santa Catarina Nahuatl</u>	<u>transitive aux modal aspect SR</u>	<u>transitive aux modal aspect SR</u>
gloss verb			
lie down <u>moquetza</u>	+	±	+
climb <u>tleco</u>	+	+	+
hurry <u>huetzi</u>	+	±	+
lying down <u>onoc</u>	+	+	+
believe <u>toca</u>	+	+	+
want <u>nequi</u>	+	±	+
know <u>mati</u>	+	±	+
end <u>tlamia</u>			⊕
begin <u>pehualtia</u>	+		+

⊕
⊕
⊕

± ±

SR = suffix-rule

Possible Spanish influence.

In order to see possible influence from Spanish Chart II on p. 56 shows the semantic correspondences between Spanish and the two stages of Nahuatl. The coincidence of mocahua - quedarse and aci - llegar a may account for the loss of the suffix-rule in these cases. Influence may also account for the introduction of tlami, cencahua, and quiza analytic constructions from the acabar de and salir a Spanish counterparts. Influence from Spanish also helps to explain the higher frequency of the qui-nequi and qui-mati analytic constructions because of the Spanish forms querer + infinitive and saber + infinitive.

A note on prefixes derived from verbs.

In Classical Nahuatl there is at least one verb-derived prefix, hual- 'to come'. Hual- is very commonly used in both Classical and Santa Catarina Nahuatl. Although perhaps it could also be claimed that the analytic construction with a preceding secondary verb is gaining dominance over the prefix + principal verb construction in the modern Nahuatl dialect, the evidence for the change is not as strong as that for the suffix-weakening cases, so that this prefix has not been considered.

It should be emphasized, however, that the Nahuatl

Chart II. Correspondences between Spanish and the Classical and Santa Catarina Nahuatl dialects.

Spanish	Classical SR		Santa Catarina SR	gloss
<u>empezar a</u>	<u>pehua</u>	-	<u>pehua</u>	- 'to begin'
<u>comenzar a</u>				'to begin'
<u>acabar de</u>			<u>tlami</u>	- 'to end'
<u>andar</u> <u>seguir</u>	<u>nemi</u>	±	<u>nemi</u>	± 'to walk about' ± 'to continue'
<u>quedarse</u>	<u>mocahua</u>	+	<u>mocahua</u>	- 'to remain'
<u>poder</u>	<u>huel</u>	-	<u>cualli</u>	- 'to be able'
<u>venir a</u>	<u>huala</u>	-	<u>huala</u>	- 'to come'
	<u>huitz</u>	±	<u>huitz</u>	±
	<u>-quiuh</u>	+	<u>-qui</u>	+
<u>ir a</u>	<u>yauh</u>	-	<u>ya</u>	- 'to go to'
	<u>-tiuh</u>	+	<u>-tin</u>	+
<u>salir a</u>	<u>quiza</u>	+	<u>quiza</u>	± 'to leave'
<u>llegar a</u>	<u>aci</u>	+	<u>aci</u>	± 'to arrive'
<u>alcanzar a</u>				'to arrive'
<u>estar</u>	<u>ca</u>	+	<u>ca</u>	± 'to be...ing'
<u>saber</u>	<u>mati</u>	±	<u>mati</u>	± 'to know'
<u>querer</u>	<u>nequi</u>	±	<u>nequi</u>	± 'to want'

SR = suffix rule

constructions with hual- prefixed to the principal verb has the same surface order as the Spanish construction using venir a 'to come' followed by the principal verb.

Compare the following examples:

- a. hual-quiza 'he is coming out' (Classical and Santa Catarina dialects)
- b. viene a salir 'he is coming out' (Santa Catarina Spanish)
- c. ohuala oquiz 'he came out' (modern Santa Catarina Nahuatl)

It is suggested that because of the parallelism between the constructions in (a) and (b), (a) will not be replaced by (c) very quickly, if at all.

Conclusions about Nahuatl compound verbs.

The position of the suffix rule within the Nahuatl grammar is not a very strong one. Seiler¹⁰ suggests in his Cahuilla study that the rules generating the base form should be devised to distinguish between central and marginal elements of the string. The Nahuatl suffix rule is a transformational rule and varies in the level for its application. Its partial loss in Santa Catarina Nahuatl as seen here lends some support to the theory that the transformational rules, especially the later ones, are the most subject to change. In Nahuatl, the marginal elements are the suffixes. As seen, they do not appear as suffixes in the base form, but rather they

are moved into position by transformational rules. In commenting on Nahuatl, Seiler agrees with Crapo's theory and suggests the following:

"Among the suffixes, we note the aspect markers which are comparable or identical in phonemic shape with independent verb-stems... We can only guess that the complex verb forms [suffixes-forms] in Aztec are an innovation, just as they are in Cahuilla."¹¹

If the complex verb forms are an innovation, the rules that have incorporated them should be late rules, as is the case in the partial grammar presented. This same late position makes them still more susceptible to change. The pressures coming from bilingual speakers over a period of time as they simplify the grammar in accordance with rules from their second language's grammar, that of Spanish, appear to be guiding the change in the direction of the analytic construction with the secondary verbs preceding the main verb. Whether the suffix-rule would be lost altogether in time is a question that probably will not have an answer, since the Nahuatl dialect itself will have disappeared from Santa Catarina in another generation or so as the village is integrated into the national culture.

Notes to Chapter 3.

1 Richley H. Crapo. "The Origin of Directional Adverbs in Uto-Aztecan Languages", IJAL (1970)36. p. 183.

2 Hansjakob Seiler. "Structure and Reconstruction in Some Uto-Aztecan Languages", IJAL (1967)33. p. 138.

3 Benjamin Elson and Velma B. Pickett. Beginning Morphology-Syntax. Santa Ana: Summer Institute of Linguistics, 1960. p. 13.

4 These include E. Herman, "Aspekt und Aktionsart", Nachrichten der Gesellschaft für Wissenschaften zu Göttingen, phil.-hist. Klasse (1933), pp.470-480, cited in Charles Rallides, "Differences in Aspect Between the Gerundive Forms and the Non-gerundive forms of the Spanish Verb", Hispania (1966) , p.107; Kim Schneider, "Der russische 'Aspekt' als Sonderfall eines allgemeineren Aspektbegriffes", Scando-Slavica 13 (1967),181-195. Rallides comments about Herman: "He has removed from the category of aspect those meanings of the verb which are primarily lexical in nature... Aspect, on the other hand is a purely grammatical category, that is to say, it is expressed by morphological or syntactic devices." (p.107).

However, Jespersen in his A Modern English Grammar expands the category of aspect to include such distinctions as durative or permanent or punctual or transitory, conclusive or non-conclusive, finished or unfinished, and single or repeated actions. He also cites four possible expressions for aspects, the ordinary meaning of the verb itself, the occasional meaning of the verb as occasioned by context or situation, or a tense-form. (pp.286-289). He thus includes what Rallides excludes as meanings that are primarily lexical. Jespersen's definition covers the Nahuatl constructions described in this chapter more completely, although it does not include such possibilities as position-change. It should also be noted here that there are other types of aspect in Nahuatl which are not involved in the compound verb constructions and therefore, not discussed.

5 John Ross, "The Great Auxiliary Debate", paper presented at the Linguistic Institute, University of Illinois, July 15, 1968.

6 Noam Chomsky. Aspects of the Theory of Syntax. Cambridge: MIT Press, 1965.

- 7 Ronald W. Langacker, "Predicate Raising: Some Uto-Aztecan Evidence"; To appear in Braj Kachru et al. (eds.), Papers in Linguistics in Honor of Henry and Renée Kahane, ms. 1970.
- 8 Chomsky, p.65.
- 9 Several sources were helpful in setting up these classes and rules for Spanish. They are listed in the bibliography.
- 10 Seiler, p.139.
- 11 Seiler, pp.146-7.

Chapter Four

Passives, Impersonals, Reflexives, and Honorifics:
Their InterrelationshipsIntroduction.

Another area in which change has taken place in the Santa Catarina Nahuatl dialect is interesting because it involves a rearrangement of morphemes and grammatical rules in the interworking of the passive, impersonal, reflexive, and honorific systems.

Nahuatl has an elaborate system of honorific forms for nouns and pronouns, adjectives, and verbs. The verbal subsystem will be considered in this chapter. The honorific forms are very much subject to social changes, and they are being lost in the modern Santa Catarina and nearby dialects. Older members of the village often comment on the younger generation's lack of proper respect when speaking Nahuatl to their elders. However, the older speakers themselves do use the honorific forms very regularly. In the examples to be given, honorific forms will be marked by H.

The changes in the modern dialect which involve the movement of certain verbal forms from one grammatical area to another appear to illustrate the Prague School's principle discussed in the introduction that language systems have weak points which are acted upon by structural pressures. In the Santa Catarina dialect, bilingualism is also involved in the change because borrowing from Spanish has occurred

in order to fill one of the structural gaps left by the morpheme movement. It is suggested here that the major weak point in the Classical Nahuatl system is a complex passive formation which gradually has come to coincide more and more closely through simplification with the impersonal and reflexive constructions in the modern Santa Catarina Nahuatl dialect. As a result of this coincidence, the impersonal is reinforced and clarified by the substitution of the Spanish impersonal construction. The Classical Nahuatl passive forms with suffixes, which in the Classical system were partially shared by the impersonal and to some extent, by the honorific systems, have been left without a function in the modern Santa Catarina passive and subsequently moved over as a group into the honorific system.

Through examination of the positions of the rules in the partial grammar formulated in this chapter to handle the verbal constructions described for Classical and modern Santa Catarina Nahuatl and to a limited degree, for Spanish, consideration will be given the questions concerning the validity of the concept of central and peripheral parts of a language system, as discussed in the introduction, since the convergence of the passive, impersonal, reflexive, and honorific into a common form appears to offer a good example of the concept's application.

The change in Nahuatl verb constructions from the Classical to the modern Santa Catarina Nahuatl dialect may illustrate the relationship between generative grammar analysis and the Prague School concerns. The integration

of Spanish influence into the modern Nahuatl dialect will be an additional clarifying example of Weinreich's suggestion that a native speaker senses the weak points or peripheral areas.

As in Chapter Three, it is necessary to look at the Classical and Santa Catarina Nahuatl and Spanish verb systems individually before making a comparison in order to understand better the changes in the passive, impersonal, reflexive, and honorific verb subsystems that have taken place.

Classical Nahuatl.

Classical Nahuatl passive constructions.

In Classical Nahuatl the passive is formed by one of two basic processes, either by the addition of the suffixes -o, -lo, or -ihua to the verb stem according to morphophonemic conditioning, or by the use of the reflexive prefix mo- with the verb stem.

Examples include the following:

With -lo, -o: ana 'to take', oapahua 'to raise'
oncan ano in ozomacocone, zatepan oapahualo
 'There the young monkeys are taken, later they are raised.'

With -lo: temoa 'to seek'
Ehecatepetlicpan chane temolo Cuahnahuac.
 'The Inhabitant from the heights of wind mountain is sought by Cuernavaca.' (Tepoztlan drama).

With -o: itita 'to see'
Ye no ceppa ittoc in axolotl 'Again the axolote was seen.'

With -ihua: aci 'to catch'
Auh icuac axihuac... 'And when it was caught...'

With -o and a second object: maca 'to give'
Ca in yehuatl suchimaco 'He to whom the flowers are offered'.

The suffixes -lo and -ihua appear to be passive suffixes basically. Their use in the impersonal in Classical Nahuatl results from a semantic blending of their functions, as will be observed. In a similar instance of cross-functioning, the mo- prefix has come into the passive system from the outside, in this case, from the triple-functioning of the form mo + V3rd per sg as reflexive, impersonal, and passive. The use of the prefixed form as a passive is much more limited than that of the suffixed ones in the Classical dialect, however. The use of the prefixed form with certain verbs appears to be stylistic, as in the following examples:

maca 'to give'

centetl in tequachtli momacaya 'one was given
one small cape'

varies with

yehuatl suchimaco 'he is given flowers'

pepena 'to choose'

yehuantin tealtianime zan ipan mopepenaya

'they who bathed slaves, just they were chosen'

varies with

yehuantin in in pepenaloya 'they were the ones
chosen'

In other cases, it appears that certain verbs have only the mo- passive, or at least it is the more common, as in the case of nequi 'to want':

amo zan tlapaltontli in oncan monequia

'the lesser ones were not required there'

A third more rarely used passive uses the prefix ne- with the passive suffixes for first and second person, as in ninecuitilo 'I am confessed'¹.

The following rules proposed to handle the passive allow the substitution of the reflexive construction as a passive after the passive transformation and before the morphophonemic rules which determine which passive suffix will be used. Whether the passive rule acts upon the sentence is decided by the assignment of the feature [+passive-rule] to a verb in the lexicon. If it occurs as [+passive] in the deep structure, the rule is enacted. A feature is used in preference to enacting the passive through the Manner node as is done in Aspects because the verb itself governs the passive as Lakoff² has made clear. The phrase structure rules are the same as those in Chapter Three, p. 30. They are repeated here:

1. $S \rightarrow NP + VP$
2. $NP \rightarrow \left\{ \begin{array}{l} (Det)(Adj)N \\ S' \end{array} \right\}$
3. $VP \rightarrow V + \left\{ \begin{array}{l} (NP) \\ Adj \end{array} \right\} + (Time)(Manner)(Place)$
4. $N \rightarrow CS$
5. $V \rightarrow CS$

Partial subcategorization rules:

1. $[+v] \rightarrow [\pm_object]$
2. $[\pm_object] \rightarrow [+passive-rule]$

In the passive rule, the middle node PassV is introduced to allow for a choice in the passive realization between the reflexive and the suffixing constructions:

Passive-rule.

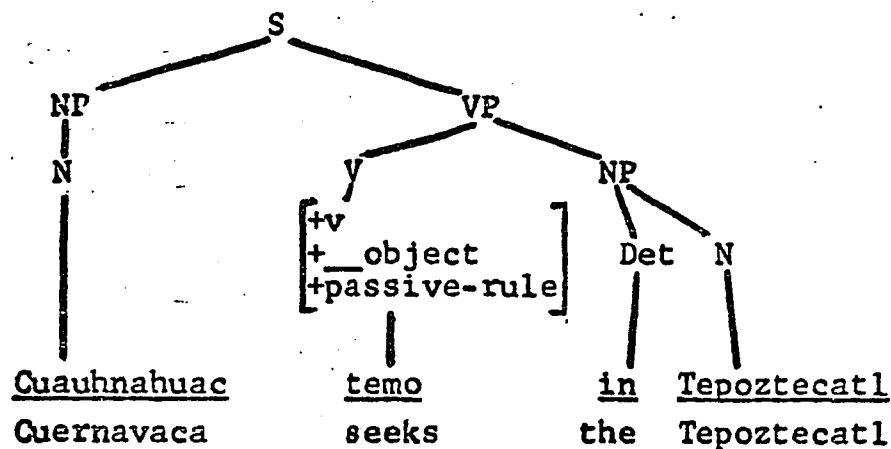
- a. $NP^1 + V_{[+passive-rule]} + NP^2 \rightarrow NP^2 + PassV + (NP^1)$
- b. $PassV \rightarrow \left\{ \begin{array}{l} V + LO \\ Refl + V \end{array} \right\}$

The person and number agreement rules should be ordered before the PassV is replaced for the simplest handling.

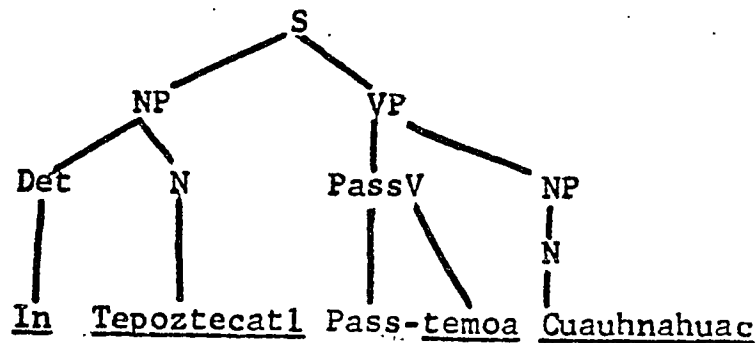
Derivation examples.

In Tepoztecatl temolo Cuahnahuac.

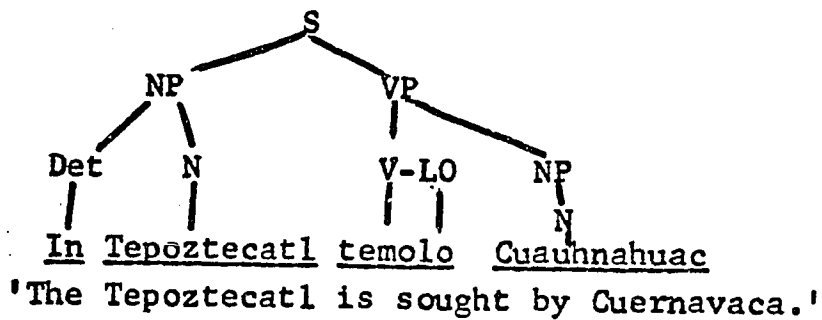
'The Tepoztecatl is sought by Cuernavaca.'



Passive-rule applied.



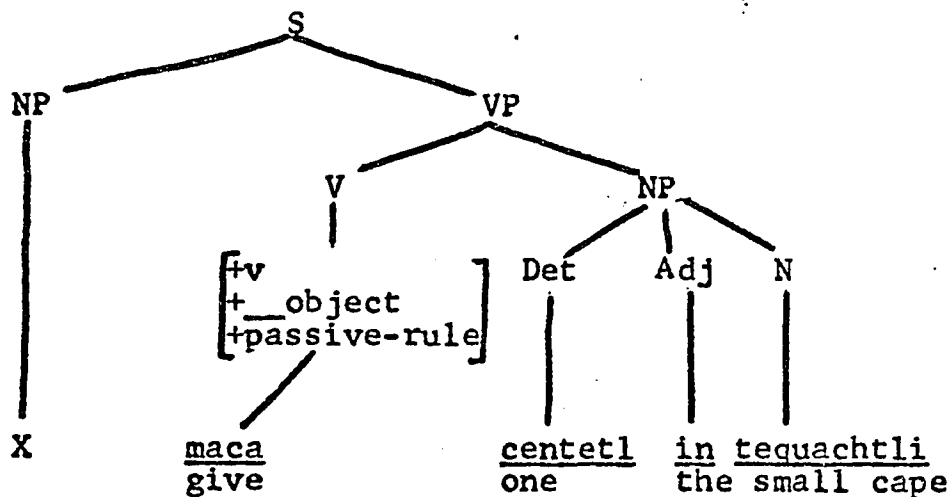
PassV node replaced.



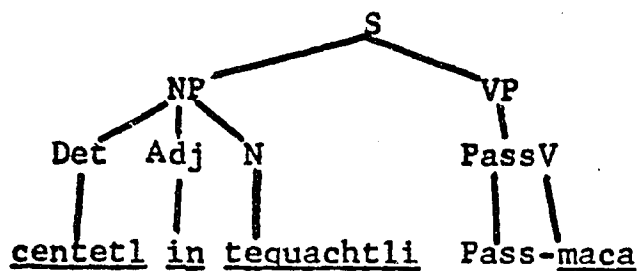
Derivation example with mo + V realization.

Centetl in tequachtli momacaya.
 One a cape was given.

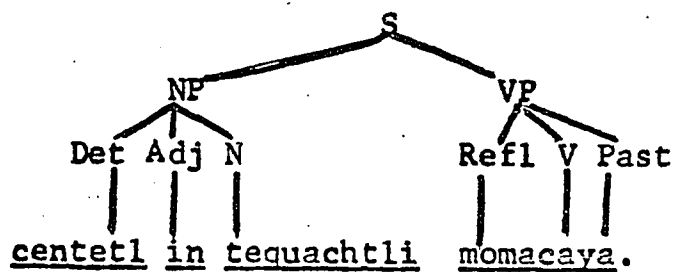
In this sentence, the determiner in and the numerical adjective centetl should be shown to have a more complicated deep structure, as discussed by Langacker³, but the deep structure has been simplified here for purposes of demonstration.



Passive-rule applied.



PassV node replaced. Tense added.



Classical Nahuatl reflexive construction.

Like the passive, the reflexive construction in Classical Nahuatl has its own set of prefixes which have come to be utilized to perform other functions also, as has already been mentioned.

The basic reflexive system is simple. It consists of the subject prefix + object prefix + reflexive prefix + Vstem_{+active} as in the following paradigm:

ni-(c)-no-notza 'I call myself (it)'

ti-(c)-mo-notza 'you call yourself (it)'

(qui)-mo-notza 'he calls himself (it)'

ti-(c)-to-notza-h 'we call ourselves (it)'

an-(qui)-mo-notza-h 'you call yourselves (it)'

(qui)-mo-notza-h 'they call themselves (it)'

Sentence examples:

tlapopohuilia 'to pardon, to forget'

Axcan onihuala notlapopolhuilico. (Tepoztlan drama)

'Today I came to excuse myself.'

tlecuicuiloa 'to burn someone'

Ic zan motelcuicuiloo. 'Thus he only burned himself.'

Certain verbs have different meanings in their reflexive forms than they do in the active. For instance, tlapaloo 'to greet' becomes motlapaloo 'to dare'.

Although the two meanings are often closely related, there probably still should be some selectional restrictions placed on them.

Rules for the reflexive construction are proposed as follows. The reflexive is introduced in a general obligatory rule which attaches the appropriate prefixed--object-marker to the transitive verb. This rule applies only to verbs marked [-passive] as they occur in the deep structure. The subcategorizational rules on p. 69 are expanded to account for the reflexive also in addition to the passive:

$$2. [+_object] \rightarrow \left\{ \begin{array}{l} [+passive-rule] \\ [+reflexive] \end{array} \right\}$$

Object-marking rule (including reflexive rule).

$$NP1 + V_{[-passive-rule]^+} NP2 \longrightarrow NP1 + \left\{ \begin{array}{l} C + V + NP2 \\ TLA + V \\ Refl + V_1 \text{ where} \\ NP1=NP2 \end{array} \right\}$$

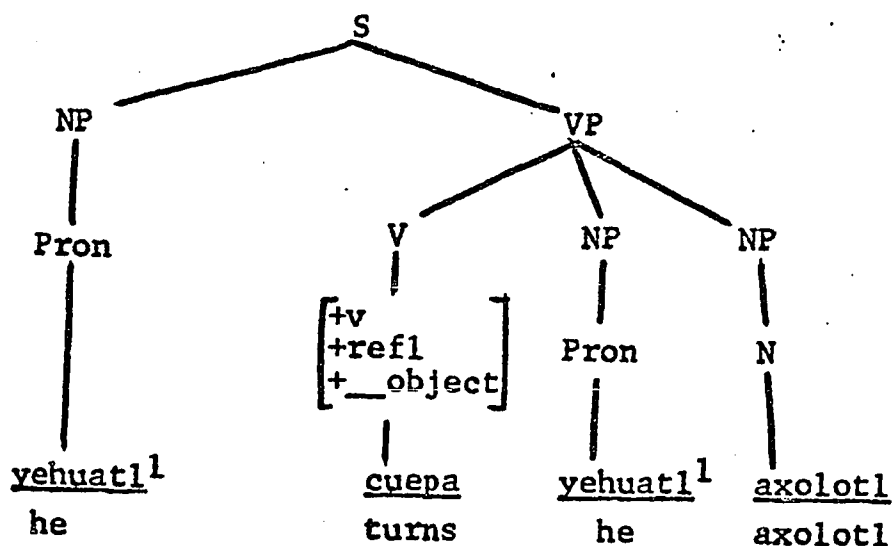
The person and number agreement rules are governed by NP1.

Derivation examples:

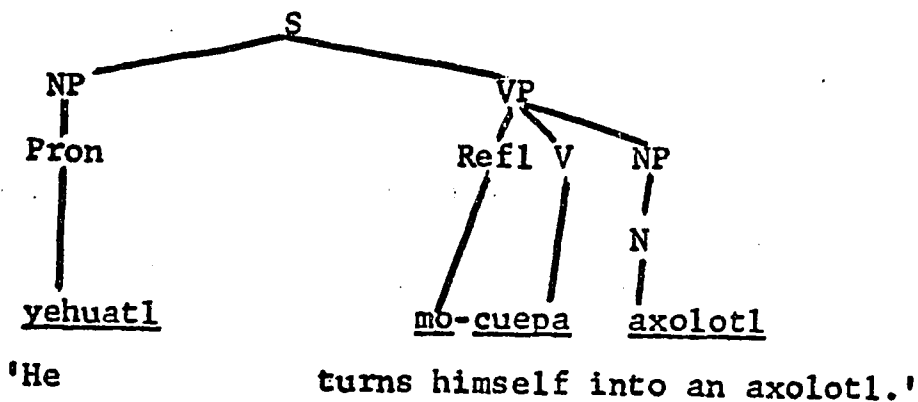
Yehuatl mocuepa axolotl.

'He turns himself into an axolotl.'

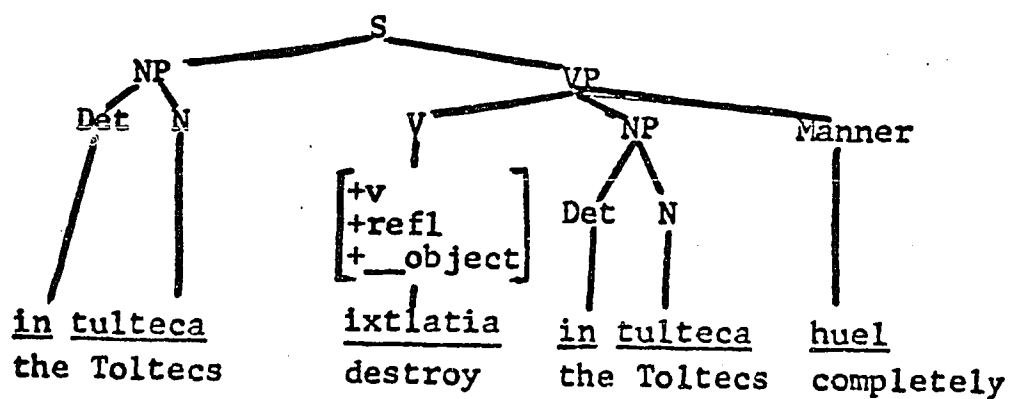
(The object complement axolotl is treated as part of the deep structure to avoid further complications at this point.)



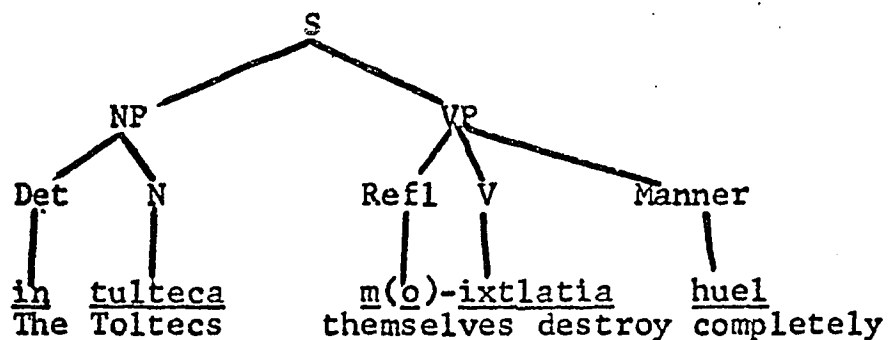
Object-marking rule applied introducing the reflexive.



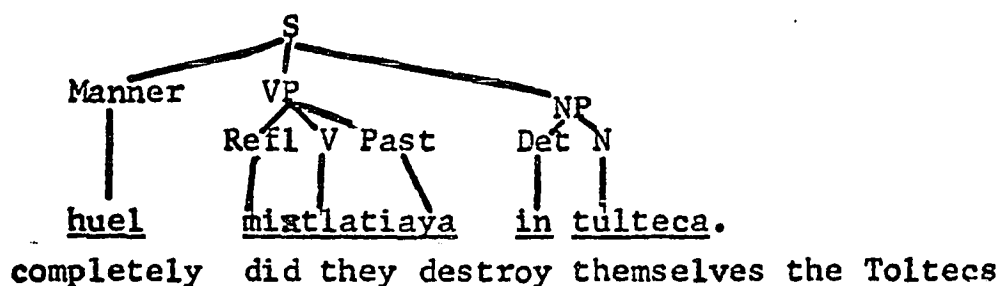
Huel m(o)ixtlatiaya in tulteca.
'The Toltecs destroyed themselves completely.'



Object-marking rule applied introducing the reflexive.



Subject transposition, adverb-moving, and tense rules applied.



Classical Nahuatl impersonal constructions.

The impersonal construction in Classical Nahuatl combines a number of prefixes with passive and intransitive verb forms. The simplest impersonal form is that of the intransitive verbs: $V[-_object]^+ \underline{-oa}$

Examples:

nemi 'to live' -- nemoa 'one lives'

choca 'to cry' -- chocoa 'one cries'

Some intransitive verbs are irregular in the impersonal, substituting different morphs with the -oa suffix, as in yauh 'to go' and huiloa 'one goes'. There are also several morphophonemic variations, as there were in the passive system. Some examples of morphophonemic variation in the impersonal include the following:

-za → -xoa: quiza 'to leave', quixoa 'one leaves'

-ci → -xihua: aci 'to arrive', axihua 'one arrives'

A second process for forming the intransitive which apparently is limited to certain verbs is by prefixing tla- to the intransitive verb, as in huaqui 'to dry', tlahuaqui 'one dries'.

Some intransitive verbs form impersonals by either process:

tzatzi 'to cry out', tzatzihua or tlatzatzi
'one cries out'

The impersonal of active and passive verbs is formed by prefixing te- or tla- to the passive form of the verb. An additional prefix ne- occurs first if the verb is reflexive:

cahua 'to stop'

e.g. in onnecahualoc cahuiltia Totec.

was ceased the harrying of Totec

'The harrying of Totec ceased.'

notza 'to call, to summon'

e.g. niman ye ic tenotzalo in yancuican

then were summoned those who first
mocaquiz tlatolli
were to hear word

'thereupon were summoned those who for
the first time were to hear the information'

cuica 'to sing'

e.g. teponazcuico 'there was singing with the
drum-sing
two-toned drum'

However, a third construction used as an impersonal
is not formally distinct, the 3rd per sg reflexive
construction:

chihua 'to do'

e.g. O ye lui in: in mochihuaya in ye huecauh
thus it was done in days of old

inic quicuicoya.

in order that a banquet be held

'In this manner was it done in days of
old, in order that a banquet be held.'

itua 'to say'

e.g. ye omito 'it has been told'
now it was said

tenehua 'to call, to name'

e.g. in motenehua teutexcalli
it is called divine rock

'It is called the divine rock.'

The reflexive 3rd per sg morpheme mo- thus has entered into both the passive and the impersonal systems. It appears logical that the reflexive construction should share functions with both areas, considering the formal and semantic proximity of the impersonal and passive to each other and to the reflexive.

Given the formal relationship between the passive and the impersonal, it is suggested here that the impersonal is present in the initial subject-NP of the sentence, since the noun governs the impersonal, but that the rule which gives final form to the impersonal follows an obligatory passive rule for [-personal] transitive verbs. There are two parts of the impersonal rule, one for the transitive verbs just mentioned, which are marked [+passive-rule], and one for the intransitive verbs. The transitive verb impersonal rule follows the passive rule. The passive rule as presented on p. 69 should be revised to include an impersonal dummy subject that is deleted after transferring its marking [-personal] to the verb to take care of later number agreement problems.

According to the impersonal rule, the NP² preceding the V + LO is replaced by a prefix and moved to a position after the verb. This rule is optional but will permit such constructions as teponazcuico 'there was singing with the two-toned drum'.

Passive rule revised.

$$1. \begin{bmatrix} \text{NP1} \\ \text{X} \\ \text{[-personal]} \end{bmatrix} + \text{V}_{[\text{+passive-rule}]} + \text{NP2} \rightarrow$$

$$\text{NP2} + \begin{bmatrix} \text{PassV} + (\text{NP1}) \\ \text{PassV}_{\text{[-personal]}} \end{bmatrix}$$

$$2. \text{PassV} \rightarrow \begin{cases} \text{Refl} + \text{V} \\ \text{V} + \text{LO} \end{cases}$$

Transitive verb impersonal rule.

$$\text{NP2} + \text{V}_{\text{[-personal]}} + \text{LO} \rightarrow \text{TLA} + \text{V}_{\text{[-personal]}} + \text{LO} (\text{NP2})$$

(Note: TLA is replaced by te-, tla-, or ne- in agreement with object specification rules. LO is replaced according to morphophonemic rules.)

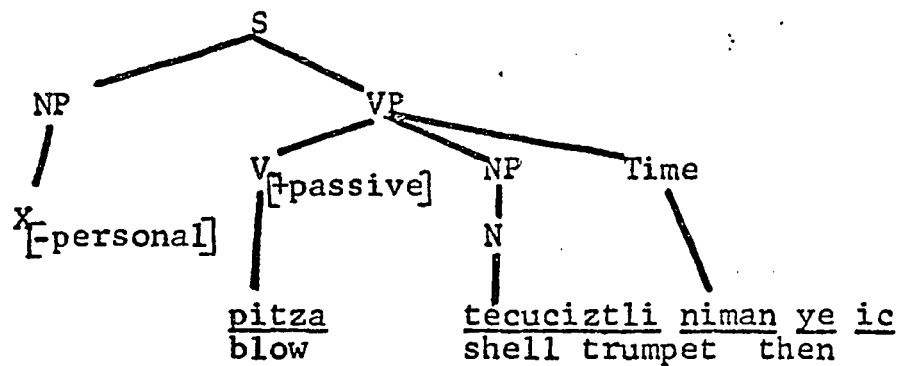
Intransitive verb impersonal rule.

$$\text{X}_{\text{-personal}} + \text{V}_{\text{[-__object]}} \rightarrow \left\{ \begin{array}{l} \text{V}_{\text{[-personal]}} + \text{OA} \\ \text{TLA} + \text{V}_{\text{[-personal]}} \end{array} \right\}$$

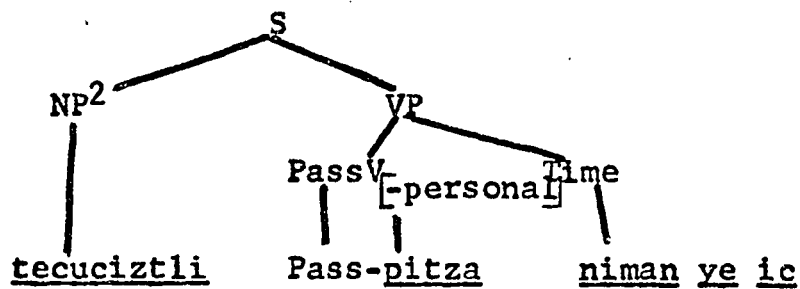
Derivation examples.

Niman ye ic tlapitzalo tecuciztli.

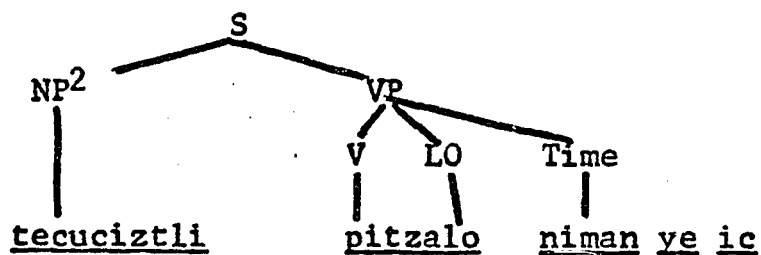
'Thereupon the shell trumpets were blown.'



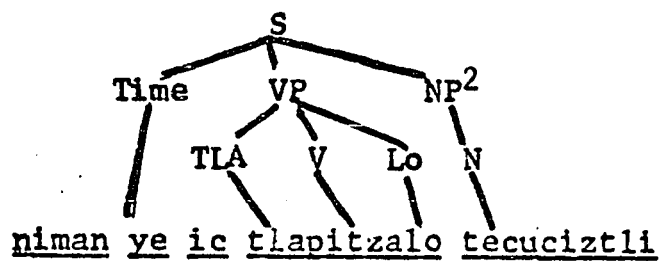
Transitive verb impersonal rule applied.



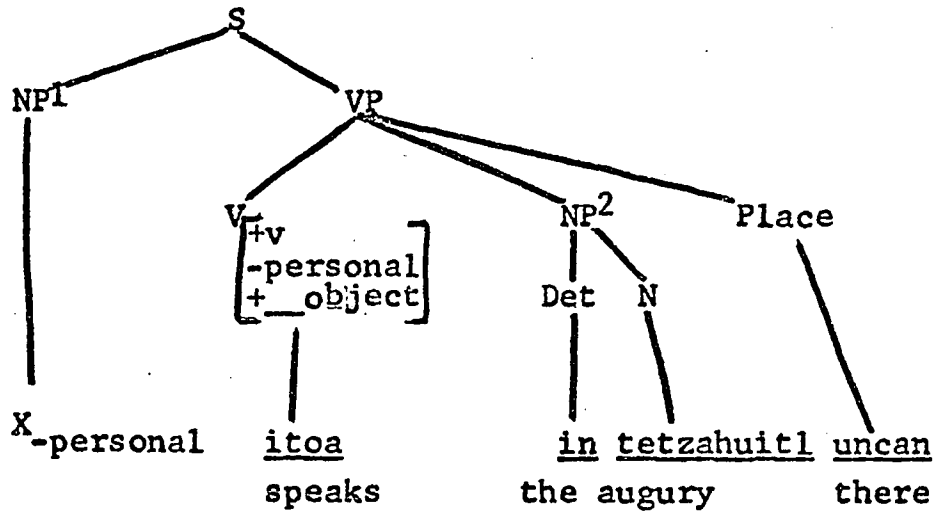
PassV node realized as V + LO.



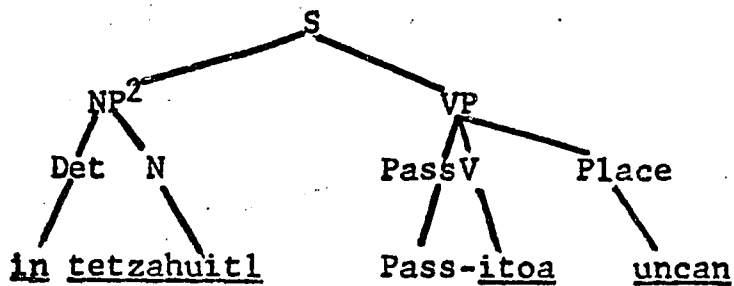
Impersonal transformation of NP² + V + LO. Adverb-moving rule applied.



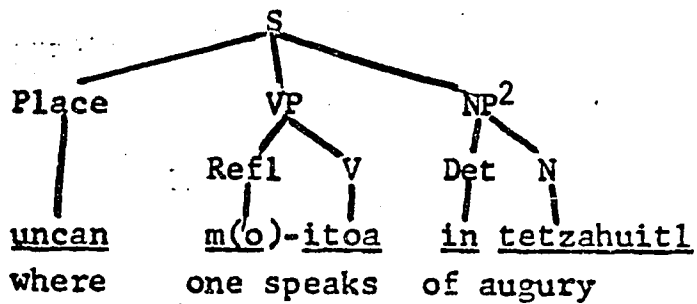
Uncan mitoa in tetzahuitl.
 In where one speaks of augury.



Transitive verb impersonal rule applied.



PassV node realized as reflexive. Subject-transposition
 and adverb-moving rules applied.



The impersonal rule does not apply in the case of lexical impersonals in which the subject is an impersonal pronoun such as aquin 'he who' or ayac 'no one'. They would, of course, simply be treated as 3rd per subject NPs, singular or plural in number.

Classical Nahuatl honorific verbal constructions.

Elements in the honorific verb forms in Classical Nahuatl are drawn from both the set of reflexive prefixes and the set of the derivational causative suffixes. An additional suffix -tzinoa is used for honorific reflexive verbs and optionally for non-reflexive verbs in addition to the causative suffix. The literal meaning of the honorific verb forms is on the order of 'You make yourself do..., you deign to...'. It is limited to second and third persons. Although Rincon⁴ and Molina⁵ give examples in the first person, these forms were probably never used in speaking. It is possible to incorporate object prefixes into the verb also, but there are no passive or impersonal Classical Nahuatl honorific forms.

The suffixes which are added to the verb stem and which here are called causative are also termed compulsive and applicative by some Nahuatl grammarians.⁶ Although almost all the grammars examined attempt to

differentiate the causative suffix chosen according to such properties of the verb as transitive or intransitive, with the exception of the reflexive verbs, the variation in suffixes appears to be only morphophonemic or stylistic. The suffix -tzinoa is used to distinguish the reflexive honorific verb forms from reflexive non-honorific forms, since both reflexives share the mo- prefix.

Examples of honorific verbs in Classical Nahuatl:

yoli 'to live': timoyolitia 'you H live'

tlacua 'to eat': motlacualtia 'he H eats'

maca 'to give': anmotetlamaquilia 'you H (pl.)
give something to someone'

motlalia 'to sit down' (refl): ximotlalitzino
'sit down; sir'

pohua 'to count': ticmopohualtia, ticmopohuatia
'you H count it'

Classical Nahuatl honorific verb rules.

The rules formulated for the Classical Nahuatl honorific constructions specify the feature [+honorific] for the subject N, since this noun determines the degree of formality.

[+hon] marking-rule.

a. $Y + N_{[+hon]} + V + X \rightarrow Y + N_{[+hon]} + V_{[+hon]} + X$

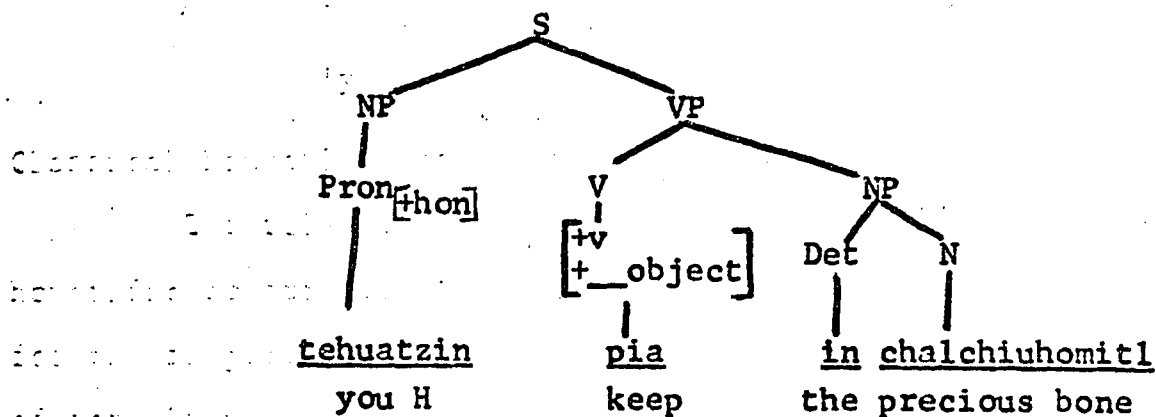
The second part of the rule for the honorifics specifying the realization must follow the object-marking rule so that the reflexive prefix will already be part of the string acted upon if the verb is reflexive:

$$b. V_{[+hon]} \rightarrow \left\{ \begin{array}{l} V + TZIN / Refl_ \\ Refl + V_{[+caus]} + (TZIN) \end{array} \right\}$$

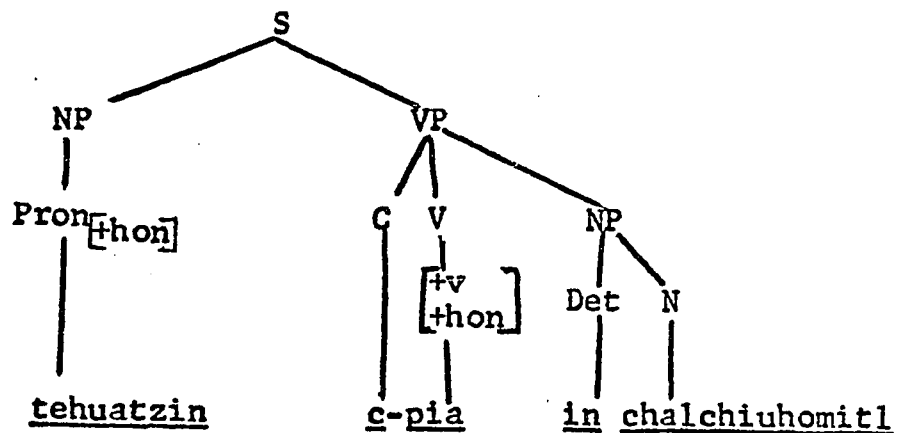
Since the derivation of causative verb forms from the basic forms is a productive process in Classical Nahuatl, the lexicon should be ordered so that each verb stem is optionally subject to a causative-deriving rule. This rule is applied in generating the honorific verb forms here and is referred to as [+caus].

Derivation examples.

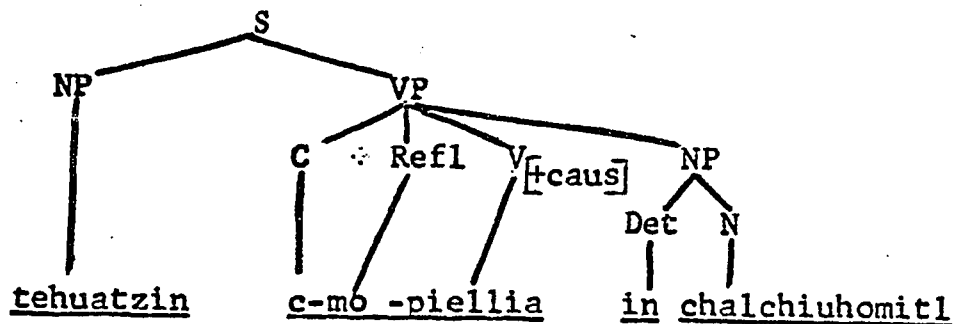
Ticmopiellia in chalchihomiti.
 'You H keep the precious bone.'



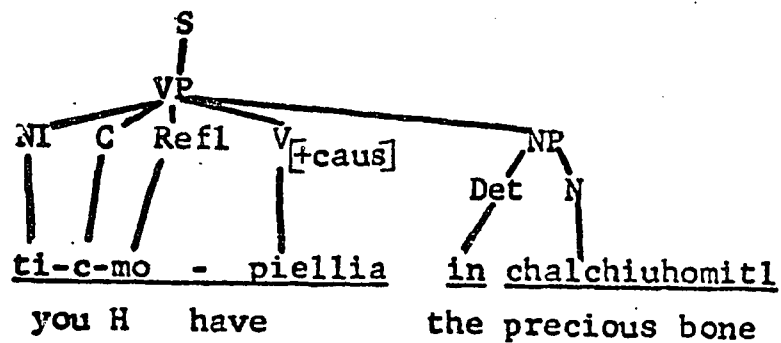
[+hon] marking-rule, part a, and object-marking rules applied.



[+hon] marking-rule, part b applied.



Subject-prefix agreement rule and subject NP deletion rule applied.



To clarify the important point in the comparison of the passive, impersonal, reflexive, and honorific systems in Classical Nahuatl, it should be emphasized that all these systems share one construction, that of the prefix mo- + V_{3rd per sg}. There are alternative constructions for the passive and impersonal using the suffixes -lo, -o, and -ihua. The paradigms for the honorific and reflexive constructions use other combinations of prefixes with the first and second persons. However, the mo- + V_{3rd per sg} construction can be used for four different functions.

With this in mind, let us now consider the Spanish constructions and then examine these same problems in the verb system of the modern Santa Catarina Nahuatl dialect.

Spanish.

In order to see the possible contrasts and parallels between Spanish and the two chronologically-distinct Nahuatl dialects, in this section the Spanish impersonal, passive, and reflexive constructions will be discussed both from an historical perspective and in terms of their present grammatical structure. Most of the historical material is drawn directly from sources, as will be noted. A problem currently being investigated is the way in which these areas in modern Spanish can best be handled by an adequate generative grammar. Solutions at present appear to be very controversial. Any attempt to set up deep structure and transformational rules for the passive, impersonal, and reflexive constructions in Spanish without the background necessary in Spanish linguistics is to some extent a foolish one. However, the rules that will be presented have been set up because it is evident that a basis is necessary for at least a preliminary comparison with the Nahuatl grammars, although it is assumed that the rules should be modified as more material concerning Spanish grammar is made available.⁷

Historical development of Spanish constructions.

The Spanish passive has never been a preferred construction among speakers, a characteristic that Giliy Gaya⁸ has emphasized. However, the joint development

of the Spanish passive and impersonal in their use of the se construction is of interest. Here it is described by Lapesa:

"Por otra parte, en la voz pasiva, para las situaciones o estados resultantes de una acción anterior, alternada aun el viejo perfecto es escrito, es dicho con está escrito, que había empezado a usarse en el siglo XIV;... A la pervivencia de ser contribuía su ya citada función auxiliar en los perfectos de verbos intransitivos y reflexivos: somos obligados...

La pasiva con se, atestiguada desde el Cantar de Mio Cid, sigue ofreciéndose con su construcción primigenia: 'los vinos que en esta ciudad se venden'...

Pero se extiende cuando el sujeto es un infinitivo, oración o conjunto ideal equivalente: permítese avisarles, mas no se sufre reprehenderlos' (Guevara)... La construcción adquiere cada vez mayor carácter impersonal, manifiesto en su propagación a verbos transitivos: 'sin amor ciego, /con quien aca se muere y se suspira' (Garcilaso)'... Sentido el se como índice de impersonalidad y el sujeto paciente como objeto directo, toma éste, cuando es persona, la a propia del acusativo personal: 'se robava a amigos como a enemigos' (Hurtado de Mendoza)...⁹

In the transition from Latin to Spanish, the simple construction for the passive was lost, a step very similar to what will be shown to have happened in the modern Santa Catarina Nahuatl dialect: "Todas las simples de la voz pasiva fueron eliminadas: aperiuntur, amabatur, dejaron paso a se aperiunt, amatus erat..."¹⁰ Lapesa also comments. Gili y Gaya describes this development from Latin to Spanish with emphasis on the increased use of the se construction:

"Tenía el latín formas especiales de pasiva distintas de las de la voz activa. El romance perdió todas las formas pasivas, con excepción del participio -ato>-ado -itu>-ido. La voz pasiva se expresa añadiendo el participio a los distintos tiempos del verbo ser: la paz fue firmada por los embajadores. Otra manera de expresar la pasiva en tercera persona, consiste en el empleo de se junto al verbo: se firmó la paz por los embajadores. Recibe el nombre de pasiva-refleja y es muy usual en la lengua moderna."¹¹ (underlining added)

The extension of the function of se to its use with intransitive verbs in forming an impersonal is also pointed out by Gili y Gaya:

"Desde antiguo aparece el se impersonal con verbos intransitivos y de estado. 'se vive tranquilo, se duerme mal'... Estas construcciones parecen emparentadas históricamente con las seudorreflejas mencionadas en el s 58. Claro es que, por la naturaleza intransitiva de tales verbos, no pudo haber confusión con la pasiva refleja."¹²

It should be noted that in addition to the impersonal formed with se, there is an alternative construction formed with the third person plural form of the verb as in Dicen que viene, 'They say that he is coming.'

The se constructions for the passive and the impersonal are very frequent in Santa Catarina Spanish: Pues ¿cómo se ha de matar? No se puede. 'Well how will he be killed? It can't be done.' ; Se volvía así, que se cosa [sic], se volvía culebras, se volvía perros, se volvía gallos... 'It was stirred thus, that it cook, snakes were being stirred, dogs were being stirred, roosters were being stirred...'

The se is apparently used more widely in Latin American standard Spanish than in peninsular standard Spanish according to Kany:

"American Spanish, like popular peninsular speech, uses the reflexive pronoun with intransitive verbs more frequently than does the standard language with verbs like venir, subir, bajar, entrar, huir, amanecer, aparecer, volver, tardar, and others. Whether the reflexive pronoun is here employed by analogy with that of transitive verbs or whether it is a manner of indirect object, ethical dative, dative of interest, pseudo-reflexive, or the like, is not easy to determine. In any case it shows interest or volition on the part of the subject, with a certain nuance of vigor or intensity, of familiarity or spontaneity, a point not yet sufficiently studied by grammarians.

Such reflexive pronouns were very frequent in the older period when the written language resembled the vernacular more closely than it does today..."¹³

The reason for citing these passages is to demonstrate the manner in which the reflexive, passive, and impersonal have developed historically along interrelated paths, all involving the use of the morpheme se. In this way, their development parallels that of the Nahuatl constructions, as will be seen. Of course, it may also be the case that there are universal grammatical and semantic relationships among these systems. The relationships are discussed here in order to show that the Spanish and Nahuatl both have followed similar trends or drifts in their development before coming into contact.

Santa Catarina Spanish constructions.

The following phrase structure and transformational rules are proposed to handle the impersonal, passive, and reflexive constructions as they occur in Santa Catarina Spanish. The impersonal and passive are interrelated in the modern language, and it is believed that this interrelationship should be evident in the grammar. However, the impersonal se is considered distinct from the morpheme se used in the passive and reflexive. For this reason, the indefinite morpheme is introduced in the deep structure. Evidence supporting this decision includes the fact that the impersonal se is not part of a paradigm as is the case for the passive and reflexive se.

The phrase structure rules for Spanish are the same as those given for Nahuatl on p. 68.

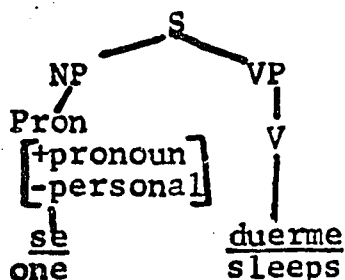
Spanish impersonal construction.

Additional subcategorization rules are necessary for the impersonal se constructions. The features [+pronoun] and [-personal] are used to describe se. Subcategorizational rule to distinguish impersonal pronouns.

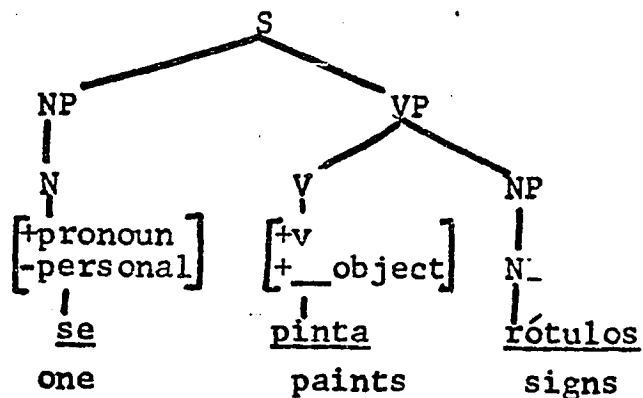
$$[+n] \rightarrow \left[\begin{array}{l} [+pronoun] \\ [-personal] \end{array} \right]$$

Derivation examples.

Intransitive verb: se duerme 'one sleeps'



Transitive verb: Se pinta rótulos. 'Signs painted.'



Spanish reflexive construction.

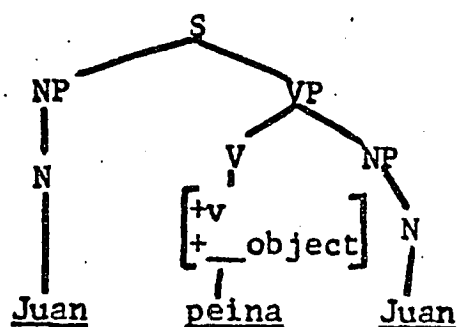
The following reflexive rule is introduced as part of the transformational component. It does not attempt to account for the constructions which are not 'true' reflexives, such as irse 'go away' and venirse 'to come', in which the reflexive pronoun adds some degree of adverbial or aspectual meaning.

Reflexive rule.

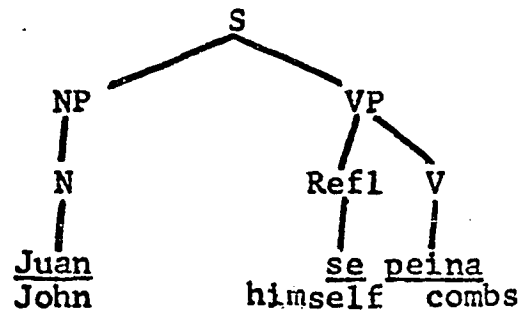
$N^1 + V_{[+__object]} + N^2 \rightarrow N + \text{Refl } V$ where $N^1=N^2$ and they are under the same S-node.

Derivation examples.

Juan se peina. 'John combs himself'



Reflexive rule applied.



Spanish passive construction.

In the passive rule, a PassV is introduced in the transformation, as it is in the Classical Nahuatl rule also. The passive rule must first be applied before the agreement rules for the reflexive and passive can be applied for the se passive.

Subcategorization rules.

$$[+v] \rightarrow [+ \text{__object}]$$

$$[+ \text{__object}] \rightarrow [+ \text{passive-rule}]$$

Passive rule modified to handle the Spanish construction.

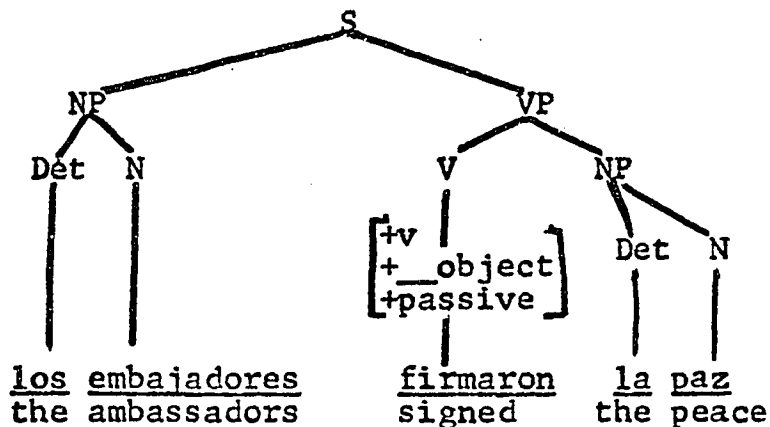
1. $NP^1 + V_{[+passive]} + NP^2 \rightarrow NP^2 + \text{PassV} + (\text{por } NP^1)$
2. $\text{PassV} \rightarrow \left\{ \begin{array}{l} \text{Refl} + V \\ \text{ser} + V_{[+past\ participle]} \end{array} \right.$

Derivation examples.

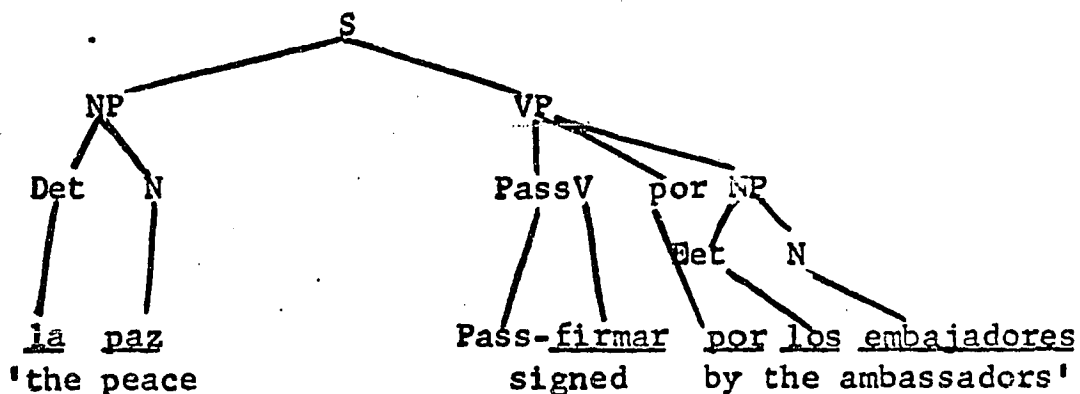
Se firmó la paz por los embajadores or

La paz fue firmada por los embajadores.

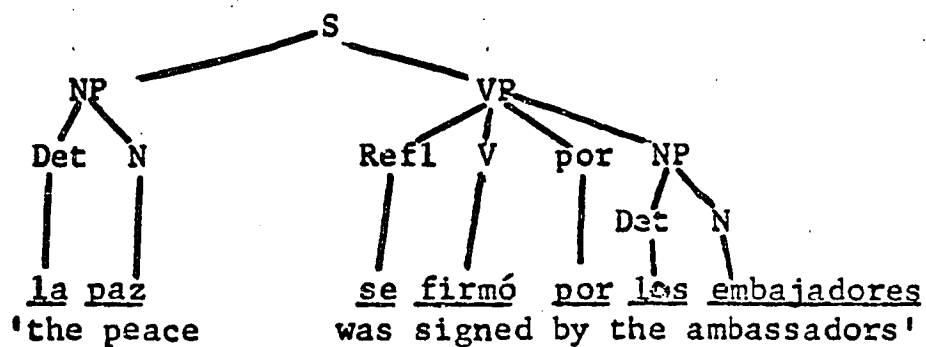
'The peace (treaty) was signed by the ambassadors.'



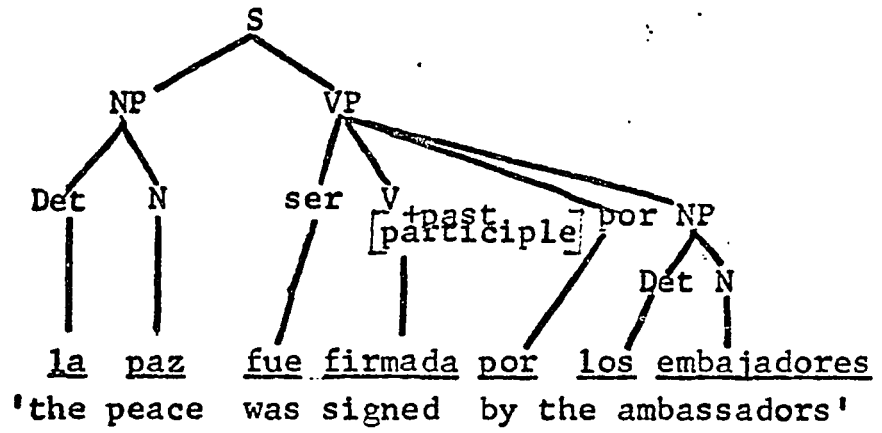
Passive-rule applied.



PassV node realized as either of the following.



or



Santa Catarina Nahuatl.

Santa Catarina Nahuatl passive construction.

In the Santa Catarina dialect, the passive construction formed by the suffixes -lo, -o, and -ihua has been lost. The only passive still existent is the one using the reflexive morpheme mo-, a construction which seems to be rarely used.

Observe the following examples.

namaca 'to sell'

e.g. zan cecni monamacaz 'only a few will be sold'(D)

nextia 'to find'

e.g. yazque canin monextia, y a ver tla

quinamiquiz: 'they will go where he is

found and see if they will find him.' (D)

tzacua 'to lock'

e.g. motzacua cequiztli calihtec 'the cold

is locked in the house' (A)

The grammar thus has been simplified, since the passive rules in themselves have been lost altogether. The passive constructions using the reflexive described above will be included in the rules for the reflexive. It should be noted that the passive morpheme -lo or -o does survive in derived nouns such as tlanamacoyan 'market, place where things are sold'.

One possible explanation for the loss of the suffixing--

passive is a drift toward the prefixing order, reinforced by Spanish word order. Another example of prefixing order in Santa Catarina Nahuatl is the increasing use of prepositional phrases instead of the postpositional compounds used in Classical Nahuatl.

The reflexive construction is formed by prefixing a reflexive pronoun to the verb stem: (C)-Refl-Vstem. The subject prefixes present in the Classical Nahuatl dialect are not used. This subject prefix is found in the Tepoztlan early dialect, as seen in the examples from the drama El Tepoztecatl:

nicnochicahua noyollo 'I make my heart strong'

in nican nicnolhuiquixtililia...in tetlacatiliztzin

'I celebrate for myself her birthday'

However, one example in the early Nahuatl drama has no subject prefix:

axcan onihuala notlapopolhuilico 'today I came to ask forgiveness' (D)

In other respects, the modern reflexive is identical to the Classical as seen in the following examples:

nonalti 'I bathed myself' (B)

tononotzticate 'we are talking with each other' (A)

man nican tocahuacan 'let us stay here' (D)

ihquinon moxexelohua 'thus they divide themselves' (D)

The object-marking rules proposed for Classical Nahuatl in which the reflexive constructions are introduced are adequate for describing the modern dialect reflexive construction. The Santa Catarina Nahuatl dialect should have an agreement rule for introducing the subject prefixes that exempts the reflexive constructions, unlike the Classical constructions.

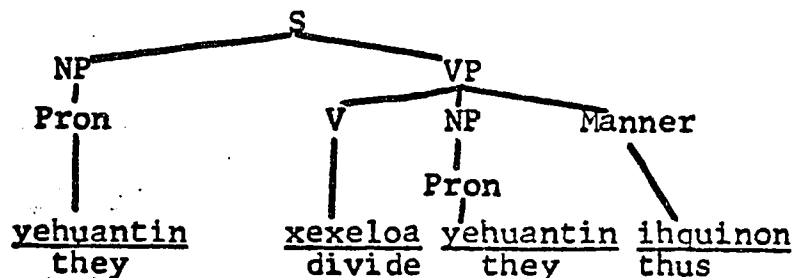
Subject-prefix agreement rule.

$$N_{\left[\begin{smallmatrix} \text{sg} \\ \text{per} \end{smallmatrix} \right]} + \left[\begin{smallmatrix} \text{Refl} \\ \text{TLA} \\ \text{C} \end{smallmatrix} \right] V \rightarrow N_{\left[\begin{smallmatrix} \text{sg} \\ \text{per} \end{smallmatrix} \right]} + \left[\begin{smallmatrix} \text{Refl} \\ \text{sg} \\ \text{per} \\ \text{NI} \\ \text{sg} \\ \text{per} \end{smallmatrix} + \left\{ \begin{smallmatrix} \text{TLA} \\ \text{C} \end{smallmatrix} \right\} \right] V$$

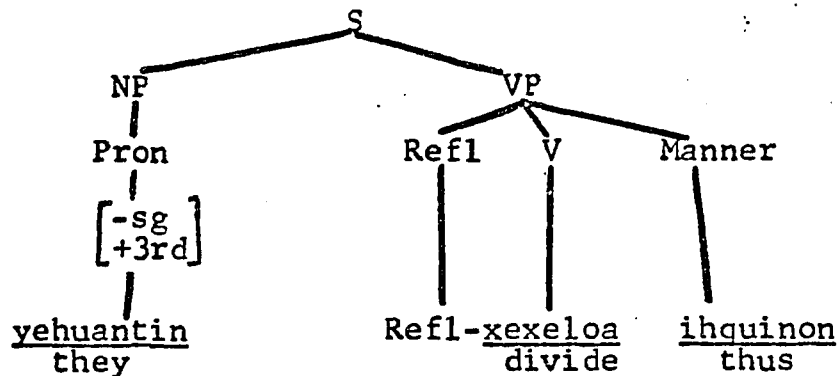
$$\text{NI} \rightarrow \left\{ \begin{array}{l} \text{ni-} / \begin{array}{l} \text{sg} \\ \text{1st} \end{array} \\ \text{ti-} / \begin{array}{l} \text{sg} \\ \text{2nd} \end{array} \\ \text{ti-} / \begin{array}{l} \text{pl} \\ \text{1st} \end{array} \\ \text{an-} / \begin{array}{l} \text{pl} \\ \text{2nd} \end{array} \end{array} \right.$$

Derivation examples.

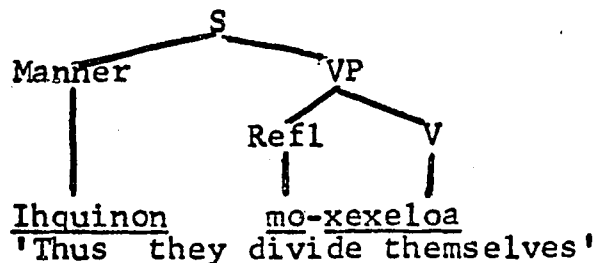
Ihquinon moxexeloa. Thus they divide themselves. (D)



Object-marking rule introducing the reflexive applied.



Subject-prefix agreement rule applied; subject deletion and adverb-moving rules applied.



Santa Catarina Nahuatl impersonal construction.

The Santa Catarina Nahuatl impersonal has also lost the forms using prefixes and the passive suffixes -lo, -o, and -ihua which were basic to the Classical Nahuatl impersonal system in the constructions that were particularly its own, such as ne-pie-lo 'one holds'.

The only impersonal construction left in the modern dialect is that using the reflexive forms. However, in order to make the impersonal distinct from the modern passive and reflexive, the two male informants A and C regularly borrow a construction from Spanish, the se + V_{3rd} oer sg impersonal. The

Spanish se is homophonous with the Classical Nahuatl morpheme se, usually appearing orthographically as ce, which occurs in the modern Santa Catarina Nahuatl dialect with the meaning of the numeral 'one' or else of the indefinite article. A speaker when using a construction such as se quichihua 'one does' may be thinking of the morpheme as meaning 'one person'. The se morpheme is sometimes used in addition to the reflexive construction and sometimes with the third-person non-reflexive verb forms to express the impersonal:

1. amitla amo cualli tlahtolli se quihtoz (A)
'one never says what is bad conversation'
2. cuacuaultzin para se tlanonotzaz 'it is pleasant for one to chat' (A)
3. ahueli se quiza 'one cannot go out' (A)
4. ihcuac amo se quimpia tlacochhuan, amo tetenquiza tlen se quito 'when one doesn't have teeth, one doesn't pronounce well' (A)

There are also impersonals using just the reflexive morpheme mo-:

5. amitla ompa mochihua 'nothing is done there' (D)
6. no molhuia 'also it is said' (A)

A speaker also may omit the se at times and use a 3rd per construction with no subject expressed as in the following:

tlilcuatl nocueli temati porque quitohuah tlahuitequi
 'the black snake (is) very scary because they say
 he hits' (B)

This last alternative is a continuance of the Classical Nahuatl use of the third person plural V form as an impersonal.

It should be pointed out that the Classical dialect uses se in verb constructions as an expressed object:

1. Auh niman pehua: in tlaminqui: in ce quitlaxilia acatl, in mitl, zan quimaqui in ocelotl. 'And then the hunter begins to shoot arrows at it: the first reed, the arrow, which he shoots, the ocelot just catches with its paws.'
2. Auh in ye mayana, ce quicuitihuetzi. 'And when it is hungry, it pounces upon one.'

Here it appears that the impersonal surface structure has been borrowed from Spanish because the construction helps to clarify certain ambiguities which have developed in the Santa Catarina Nahuatl dialect between the reflexive and impersonal. Although the two patterns are entirely different on the level of their deep structures, the borrowing is facilitated since the Spanish construction follows a pattern already present in Nahuatl. Haugen described this situation in terms of bilingualism:

"The starting point of morphemic interference is the existence of the diamorphs previously described. Interference appears to be especially common in the case of homologous diamorphs."¹⁴

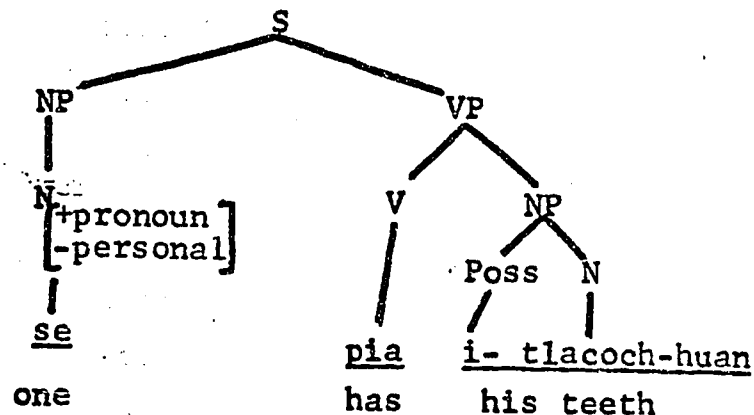
Kurylowicz describes the process of grammaticalization, of which the movement of the se morpheme into the impersonal construction appears to be an example:

"La gramaticalización consiste en el aumento de extensión de un morfema que avanza de lo lexicográfico a lo gramatical, o de lo menos gramatical a un estado más gramatical, vale decir de una formación derivada a otra inflexional."¹⁵

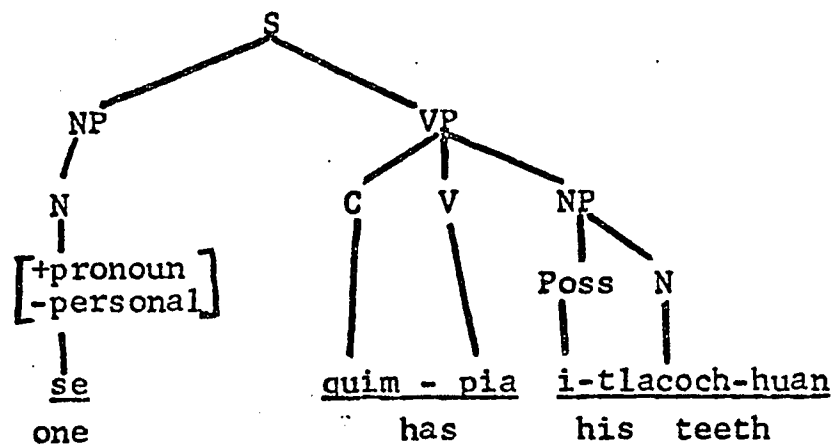
We have already proposed a tentative set of rules for the Spanish impersonal and reflexive constructions. The Spanish se is a part of the deep structure subject NP, distinguished by the features [+pronoun] and [-personal] in the impersonal construction. The se morpheme will be introduced into Santa Catarina Nahuatl in the same manner.

Derivation example:

se quimpia itlacochohuan 'one has teeth' (A)



Object-marking rule applied.



Santa Catarina Nahuatl honorific verbal constructions.

Santa Catarina Nahuatl speakers continue to use honorifics as in Classical Nahuatl. In some ways their usage differs from the Classical dialect. The new system is similar to that of the Tetelcingo Nahuatl dialect as described by Pittman¹⁶. In Santa Catarina Nahuatl the second person honorific forms which are composed of the reflexive prefix and a causative suffix in the case of active verbs, and by the reflexive prefix with the -tzinoa suffix in the case of reflexive verbs, are the same as in the Classical dialect, as seen in the following examples:

notza 'to talk', itza 'to see'

tinechmonochiliz, huan axan timottili noihqui

nican ca ipan gloria 'you H will chat with me and

now you H will see also here that it is heaven' (A)

There are several forms for the third person honorifics. Some verbs can form honorifics in more than one way. Each verb should be marked in the lexicon according to the ways it can be made honorific.

Third person honorifics in Santa Catarina Nahuatl:

1. There are a few instances in which Santa Catarina uses the Classical Nahuatl honorific form in the third person:

maca 'to give'

porque yehuatzin techmomaquilia tanimatzin para ipan teittazque, porque yehuatzin quimati

'he H gives us our soul so that they will see him, because he H knows' (D)

chanti 'to live, reside'

man nican mitzmochantilihcan 'let them H make a house here for you' (D)

cahua 'to leave'

omitzhualmocahuilito yehuatzin 'he H came to leave you' (D)

2. Another group of verbs is made honorific for the third person singular by using the third person plural form of the verb, as in these examples:

itoa 'to say'

oquitohque totata 'Our Lord said' (A)

pl

nahuatia 'to tell'

entonces oquinahnahuatihque totata 'then our H

pl

Lord went to tell him' (D)

pia 'to have'

hueliz occente piltzintli quipiazque 'it may be

pl

that she H will have another child' (D)

quixtia 'to take out'

oquiquixtihque San Miguel^H 'St. Michael took him

pl

out' (D)

3. The most frequent form for the third person honorific uses the -lo and -ihua suffixes. These suffixes are no longer used in the Santa Catarina Nahuatl passive and impersonal, as has been shown. As honorific suffixes, they are used distinctively: -lo is used for transitive verbs, active or reflexive, and -ihua is used for the intransitive verbs:

-lo

pahtia 'to cure', tlalia 'to put on'

tepahtilo, tetlalilo non resacado 'she H

cured him, she H put alcohol on him' (D)

nextia 'to appear'

omonextiloc totahtzin^H 'Our Lord appeared'

nahuatia 'to tell, advise'

otenahuatilote teschuan 'he H went to tell his

wife' (D)

mana 'to go down'

momanaloz tonaltzintli 'the sun H goes down' (A)

-ihua

cochi 'to sleep'

por inon cochihua 'For that reason he H is sleeping' (B)

calaqui 'to enter'

ocalacuato 'he_Hwent to go in' (A)

4. The last set of intransitive honorifics is formed by using the form of the verb that was used as an impersonal in the Classical dialect. This set appears to be limited to those verbs which were irregular in the Classical

Nahuatl impersonal:

yauh 'to go', huiloa 'one goes' (Classical Nahuatl)

onhuila ye zancualcan Ocotepec : went to Ocotepec

early in the morning' (B)

ca 'to be', yeloa 'one is'

zan teinehuan oyeyelava 'they H just were together' (D)

As is evident, there is greater diversity in the Santa Catarina dialect than in the Classical, in which the honorifics were formed according to two main rules only. Any explanations for the expansion of the number of honorific constructions, especially for the introduction of the use of the third person passives, would be speculative on the whole. However, there are some points that should be emphasized:

1. The Classical suffixes -lo and -ihua, used for both the passive and impersonal verb formation have lost both these functions in the Santa Catarina Nahuatl dialect.

2. The impersonal constructions in Classical Nahuatl for the irregular intransitive verbs yauh and ca 'to go' and 'to be' among others, are formed with the morphs huila- and yela-, which are the forms used in the Santa Catarina dialect honorifics.

3. Apparently the -ihua suffix was used in rare instances in Classical Nahuatl to form an honorific.¹⁷

The conclusion drawn here is that the Santa Catarina Nahuatl dialect has replaced the Classical Nahuatl third person honorifics almost entirely because the Classical forms which depended on the reflexive prefixes were not sufficiently differentiated from the modern dialect impersonal constructions, also formed using the third person reflexive prefix. For this reason, the -lo and -ihua suffixes and the irregular forms were moved from the Classical Nahuatl impersonal into the Santa Catarina Nahuatl honorific system in order to maintain a distinction. Why the plural endings with non-honorific singular forms are also used to form an honorific appears to be a question not involved in this set of relationships.

Santa Catarina Nahuatl honorific verb-form rule.

The rules for forming the honorific verb-forms in Santa Catarina Nahuatl proposed here are based on the

Classical Nahuatl rule. Additional specifications are made for the alternative constructions. Application of the rules to the particular verb classes is marked in the lexicon. The verb classes divided as follows:

[±CH] or [±PL], [+CH], [-CH], and [+PL]. CH = causative honorific and PL = plural. The honorific rules apply after person and number agreement rules have been applied.

Rule marking verb honorific.

$$N_{[+hon]} + Y + V + X \rightarrow N_{[+hon]} + Y + V_{[+hon]} + X$$

Rule for realizing honorific verb forms.

$$V_{[+hon]} \rightarrow \left\{ \begin{array}{l} V + TZIN / \text{Refl} _ \\ V_{[+hon]} \\ [+irregular] \\ V_{[+CH]} \\ [+PL] \quad / \begin{array}{l} TLA \\ K _ \end{array} \end{array} \right\}$$

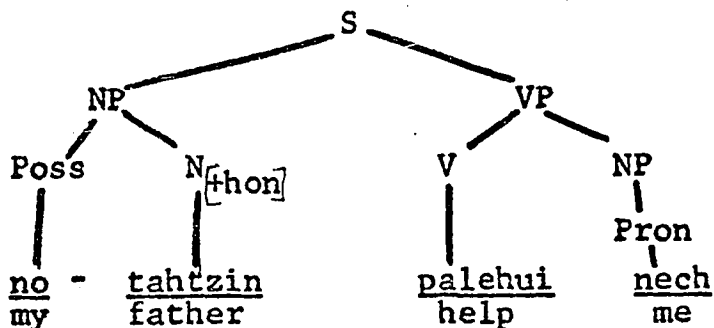
$$V_{\begin{array}{l} [+CH] \\ [-PL] \end{array}} \rightarrow \text{Refl} + V_{[+caus]} + (TZIN)$$

$$V_{\begin{array}{l} [-CH] \\ [+PL] \end{array}} \rightarrow V + \text{pl} / \begin{array}{l} \overline{[+3rd]} \end{array}$$

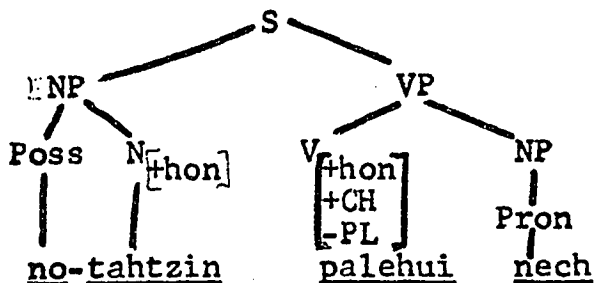
$$V_{\begin{array}{l} [-CH] \\ [-PL] \end{array}} \rightarrow \left\{ \begin{array}{l} \text{Refl} + V_{[+caus]} + (TZIN) \overline{[+2nd]} \\ V + \text{LO} / \begin{array}{l} TLA \\ K \end{array} \overline{[+3rd]} \\ V + \text{IHUA} / \overline{[+3rd]} \end{array} \right\}$$

Derivation examples.

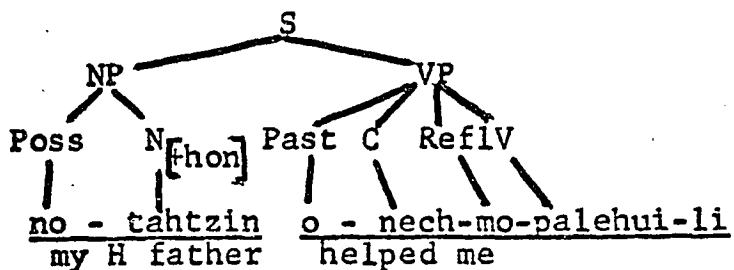
Notahtzin onechmopalehuili.
 My H father helped me. (A)



+hon marking-rule applied.

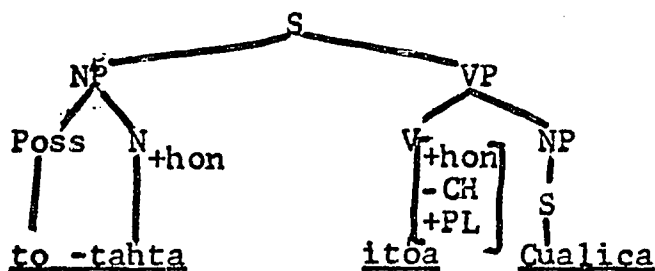
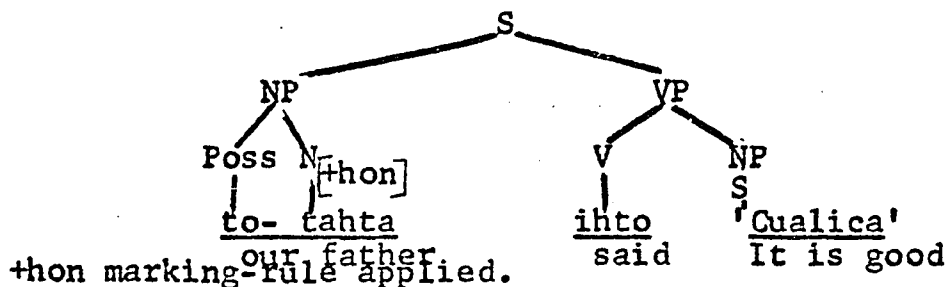


Object-marking rule applied and realization of honorific rule.

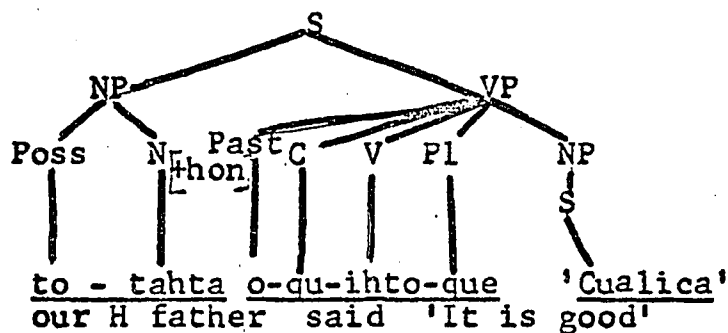


Totahta oquihto "Cualica"

'Our father said "It is good"' (A)

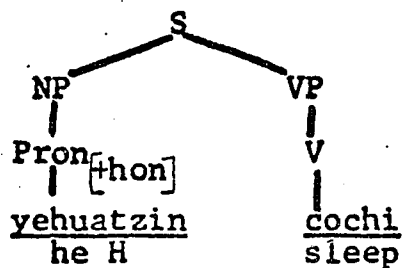


Object-marking rule and realization of honorific rule applied.

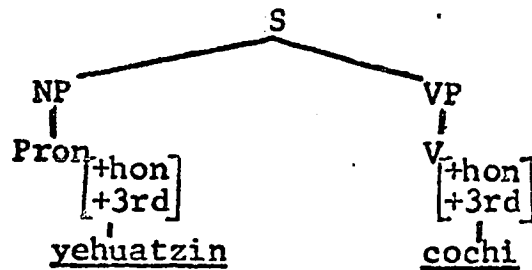


Yehuatzin ocochiuac.

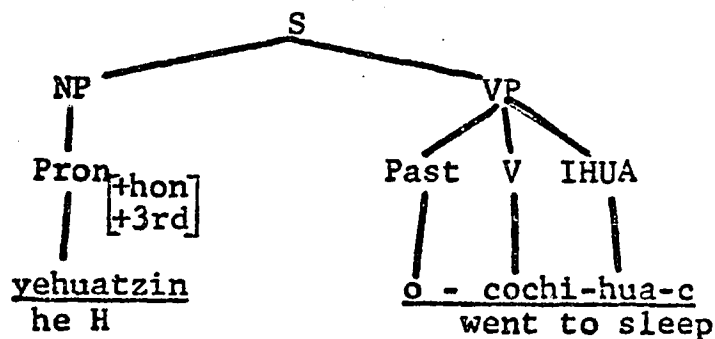
He H went to sleep. (B)



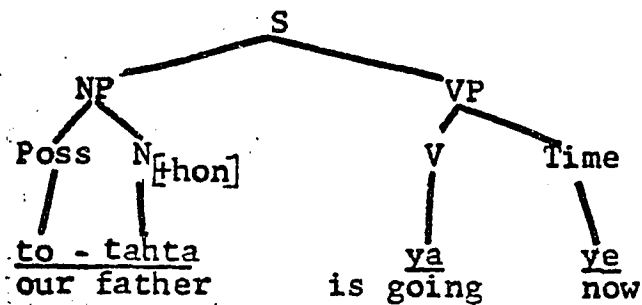
[+hon] marking-rule applied.



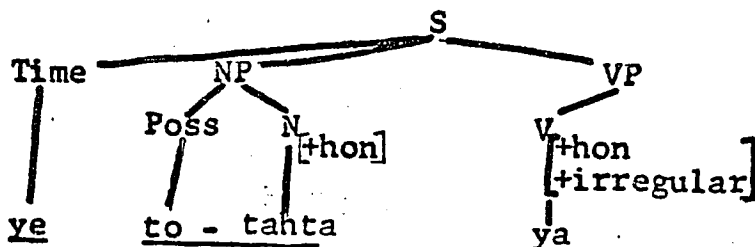
Realization of honorific rule applied. Tense added.



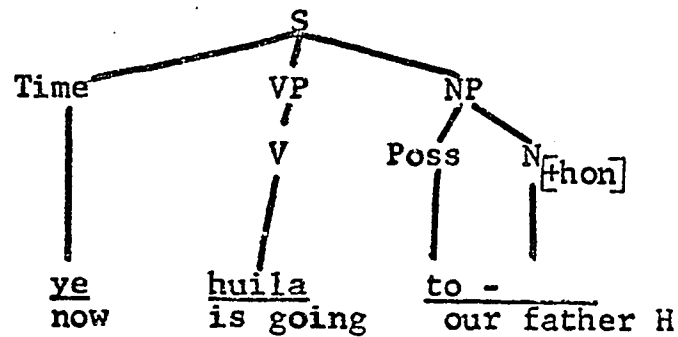
Ye huila totahta.
Now our father is going. (A)



[+hon] marking-rule applied. Adverb-moving rule applied.



Realization of honorific rule applied. Subject-moving applied.



Conclusions: The role of Spanish influence in the changes in the passive, impersonal, reflexive, and honorific.

The role of Spanish influence in the rearrangement described in this chapter may be a double one. There is direct borrowing in the case of the se + V_{3rd per sg} construction for the impersonal, as has already been discussed. The influence of the Spanish multiple-function construction se + V_{3rd per sg} in impersonals, passives, and reflexives also may have reinforced the use of the Santa Catarina Nahuatl constructions employing the mo + V_{3rd per sg} for its passive, impersonal and reflexive. At the same time, similarity with the Spanish construction contributed to the loss in Santa Catarina Nahuatl of the distinct forms in the impersonal and passive.

There are no data available to prove whether at a given point Spanish did influence the fusion of these various constructions into the mo + V_{3rd per sg} construction, as well as cause the temporary disuse of the Classical

suffixes -lo, -o, and -ihua. However, the use in Classical Nahuatl of the mo + V constructions for the third person honorifics as well as for the reflexive and impersonal resulted in a semantically overloaded construction in the Santa Catarina dialect. The third person honorifics again became distinctive by drawing on remnants of the Classical impersonal system and other elements. The Santa Catarina impersonal itself, of course, was distinguished from the reflexive and passive by the use of a construction borrowed directly from Spanish.

However, considering how the Santa Catarina impersonal, reflexive, passive, and honorific systems have made readjustments in this way, it must be decided that Spanish has not been a strong generalized influence in the change, if at all, since any influence outside of the direct borrowing has been undone. However, the direct borrowing of the se + V construction by the two speakers with more vacillating codes, A and C, is clearly an example of the compensatory borrowing described by Weinreich.

Briefly considering the changes that have occurred in terms of the concepts of central and peripheral systems, we see that the honorific system has changed by additional subcategorization and complication in its morphological rules, while the passive rules have been lost with the exception of the dual-functioning reflexive construction. The impersonal based on the passive forms has been lost also, with its only trace remaining in the third person honorific

construction. However, speakers have replaced the lost impersonal construction with one drawn from Spanish. Which of these systems are peripheral then? Let us leave this question to be dealt with in the conclusion where both problems that have been presented in this thesis can be considered in relation with the theories of linguistic change discussed in the introduction.

Notes for Chapter 4.

1 Guzmán among others notes this use:

"Sólo el ne puede quedarse con el verbo passivo, sin hazerse impersonal, ansi como cuando dezimos: yo soy confesado, que dize: ninecuitilo: y estos solos son unos verbos recíprocos transitivos: assi como quando dezimos: tengo cuiydado, o tengo assi cuydado, que dize: nicnocuitlauia l. nicnocuitlautia, y se llaman assi los que fuera de la reflexion tienen otro acusativo."

P. Fr. Diego de Galdo Guzmán. Arte mexicano (1642) In Colección de gramáticas de la lengua mexicana, ed. A. Paso y Troncoso, Vol. I, p. 305.

2 George Lakoff. Irregularity in Syntax. New York: Holt, Rinehart & Winston, 1970. pp. 22-26.

3 Ronald W. Langacker. "Possessives in Classical Nahuatl", Linguistic Notes from La Jolla, No. 3. (1970). pp.1-40.

4 P. Antonio del Rincón. Arte mexicana (1595) In CGLM I, pp.225-280.

5 Alonso de Molina. Arte de la lengua mexicana y castellana (1571) In CGLM I, pp.127-224.

6 See Garibay, pp.48-49; Molina, pp. 206-209; Carochi, p.46.

7 For example, a transformational analysis by James Harris in press.

8 Samuel Gili y Gaya. Nociones de gramática histórica española. Barcelona, 1955. p. 73.

9 Rafael Lapesa. Historia de la lengua española. Madrid, 1965. pp. 256-258.

10 Lapesa, p. 258.

11 Gili y Gaya, p. 85.

12 Gili y Gaya, p. 73.

13 Charles E. Kany, American-Spanish Syntax. Chicago, 1951. p. 186.

14 Einar Haugen. Bilingualism in the Americas. American Dialect Society Pub. 26, 1955. p. 52.

15 J. Kurylowicz. "La evolución de las categorías gramaticales" In Problemas del lenguaje, Buenos Aires: Editorial Sudamericana, 1969. p. 65.

16 Richard S. Pittman. "Nahuatl Honorifics", IJAL 14 (1948) 236-239.

17 Although I could not locate any examples, Monique Legros pointed the use of the impersonal -ihua form as an honorific in Classical Nahuatl out to me by verbal communication. She had found examples in the Florentine Codex.

Chapter Five

Conclusion

In this thesis, two problems in the Santa Catarina verb-system have been presented in terms of the change that they have undergone since the sixteenth century and the role that Spanish influence may have had in initiating and continuing the change in Nahuatl. At this point, I want to show that certain features characterize the change in both cases.

Both of the Nahuatl problems treated involve a trend toward analytic constructions with a prefixing order as opposed to a suffixing order, or in other words, less important elements in the verb phrase precede the main verb in the present-day Santa Catarina dialect, while they followed it in Classical Nahuatl. In Chapter Three, the increasing use of preceding auxiliary verbs in analytic constructions as opposed to suffixing constructions was discussed, while in Chapter Four, it was shown that the passive and impersonal mo + V construction, an alternative in Classical Nahuatl to the dominant suffixing one, is the construction that has survived in Santa Catarina Nahuatl.

An additional example from outside the verb system of the move toward the prefixing order in Santa Catarina Nahuatl is that of the prepositions. Instead of the preferred Classical constructions using postpositions attached to nouns, Santa Catarina Nahuatl has increasingly

used a prepositional order. In most cases, the modern prepositions are lexicalized forms originating as a third-person possessive prefix attached to the postposition which is followed by a noun. In Classical Nahuatl, one finds milpan 'in the cornfield' formed by mil- 'cornfield' and -pan 'in, over'. There was an alternative i-pan mil-li with the possessive i- 'his, its, her' prefixed to the postposition -pan. This is the form most commonly used in Santa Catarina Nahuatl. Postpositions that do survive seem to be lexicalized as adverbs, such as calpan 'in the house', and no-huan 'with me (literally my-and), comparable to the Spanish lexicalized form conmigo 'with me' derived from a redundant Latin construction cum mecum. Spanish, with the exception of the conmigo series, uses prepositional constructions. Similar changes from the use of postpositions to that of prepositions have occurred in other Nahuatl dialects and in the dialect described by J. Johnson¹ of Yaqui, another Ute-Aztecan language.

In considering the possibility of Spanish influence in both cases of verb-system change, the Spanish constructions with the analytic prefixing order constituents were described, the compound verb constructions with the auxiliary preceding the main verb, and the impersonal and passive use of the construction se + V_{3rd per sg}.

There are very definite parallels between Spanish and Nahuatl in these constructions. Although one cannot claim that Spanish has initiated the changes in word order, since the alternatives were already present in Classical Nahuatl, it does appear that Spanish has reinforced the general drift towards the newly dominating analytic word order. Spanish is also probably responsible for the introduction of additional members of the secondary verb class in the analytic constructions, as is the case of tlamia and cencahua 'to end'. These findings are in order with the type of possible second-language influence in language change described by Labov, Herzog, Mackey, and Di Pietro as cited in the introduction.

Aside from this influence, the most definite case of borrowing is that of the se + V 3rd per sg construction for the impersonal, as is discussed in Chapter Four. It was pointed out that this borrowing is one found present in the speech of only two of the informants, both men with more outside contact. In other words, their speech systems would be more affected by interference as well as contain integrated influence.

Additional cases of possible influence not treated at length in this thesis include the introduction of a long list of Spanish lexical items into Santa Catarina Nahuatl. Through their use, the Nahuatl phonological system has been expanded to include the different phonetic and phonemic patterns of the Spanish words. Other areas of

syntactic change that have not been discussed which are probably also due to Spanish influence are those of the numerical classifiers and the concord system. The more limited classifying system of Spanish has very likely been a force in the loss of most of the distinctions originally made in Santa Catarina Nahuatl. Also the differing pluralization categories in the Spanish system have forced adjustments in the Santa Catarina Nahuatl one which was originally based on animate-inanimate distinctions.

What are the conclusions based on these findings then regarding the Prague School hypothesis that change caused by second-language influence has occurred at the structurally weaker points, or peripheral parts, of the first-language system, rather than affecting its central core? Has the ordering of rules in the partial transformational generative grammars formulated given support to the Prague School position? In other words, does change affect only the later or more peripheral rules, or does it occur at different points within the sets of grammatical rules described?

As far as the compound verb problem is concerned, in the ordering described here, an ordering supported by the analyses of Ross, Langacker, and Crapo, the suffix rule is a late rule, both diachronically and synchronically. The Nahuatl verb system appears to be dropping this rule with increasing frequency, while at the same time permitting more verbs in the lexicon to occupy the secondary verb

position in the analytic constructions. In other words, the rule changes are occurring at the periphery of the grammatical component, giving support to the Prague School hypothesis.

However, the situation of the multiple problems treated in Chapter Four is more complicated. Rules of the Classical Nahuatl grammar have been lost in the passive and its derivative system, the impersonal, while the reflexive construction is maintained as it was in the Classical dialect. It is suggested here that these first rule losses in both cases do represent more peripheral elements, since the passive calls for a complication in the introduction of the Passive Node, while the impersonal is formed by a rule following the passive rules. The additional rules for the honorific do introduce complications, although they are late rules that apply to the morphological structuring of the honorific category. In both cases, the areas can be defined as peripheral in terms of the position of the rules in the transformational component, again more or less in support of the Prague School position.

One question does remain, however, in relation to the impersonal. If this system is more peripheral, why have speakers felt its loss to the point that they have borrowed an impersonal construction from Spanish to replace it? The replacement of the impersonal by se, which is a third person pronoun present in the deep structure of their grammar as an indefinite impersonal pronoun, integrates a

construction which was formally morphologically and syntactically separate in the Classical Nahuatl dialect into the other lexical impersonals which have no special grammatical rules, such as ayac quimati 'no one knows'. In this sense, we can say that here also the more peripheral elements have been lost and their function taken over by the broadened application of the more central part of the system. The change that has taken place then, does represent a simplification of the grammar through the loss of rules. The integration of se into a lexical set of impersonal pronouns occurs in the lexical redundancy rules rather than in the transformational or phrase structure parts of the grammar.

Except in the case of the increased complication in the morphological rules for the honorific verb forms, change has generally been toward simplification of the set of transformational rules handling verb constructions. However, the existence of the exception makes the findings inconclusive in respect to supporting the Prague School's hypothesis that languages have central and peripheral systems, and leave one somewhat doubtful about the usefulness of 'central' and 'peripheral' in analyzing language change. It does appear that by itself, the transformational generative model has more validity in the determination of what parts of language have undergone change, if, as Langacker has emphasized "the necessary rules can be motivated and shown to be linguistically natural"².

On the fringes of the transformational generative model of language competence, however, are the much more complex problems of its manifestations in the speech of individuals with multiple systems of language used in a variety of social situations. In this thesis, I have sought to demonstrate the interrelationships that do exist in one bilingual situation between speech systems and the underlying language model and language change and to suggest the extension of the formal means of transformational generative grammar in handling them.

Notes to Chapter 5.

1 Jean Bassett Johnson. "A Clear Case of Linguistic Acculturation", American Anthropologist 45(1945): 427-434.

2 Ronald W. Langacker, 1970, p.2.

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TITLE OF THESIS Verb-System Change in Santa Catarina (Morelos) Nahuatl :
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