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THE OMNIPRESENT PROBLEM OF OMNIPRESENT IN
IN CLASSICAL NAHUATL

BY

Jane M. Rosenthal

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THE OMNIPRESENT PROBLEM OF OMNIPRESENT IN
IN CLASSICAL NÁHUATL

. A PAPER SUBMITTED TO
THE FACULTY OF THE DIVISION OF THE HUMANITIES
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MASTER OF ARTS

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BY
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Abbreviations and Text References

FC  Florentine Codex (Numbers refer to volume, page, and line in that order in the Anderson and Dibble edition).

GL  Garibay, Llave del Nahuatl. (Numbers refer to paragraph in text section unless otherwise indicated.)

GL CTC Garibay, Llave del Nahuatl, "Colección de Trozos Clasicos" (text section of book).

Gua  Guatemala. One of two letters written in Guatemala in 1562 from the Archives of the Indies collection, Sevilla.


LSNA  Linguistic Structures of Native America.

Mexico  Letter written in the Valley of Mexico, 1554, now in the Archives of the Indies collection, Sevilla.

The word of highest frequency in Classical Náhuatl is *in* [*in*]. This is a fact immediately obvious to even the most casual scanner of documents or text materials written in this sixteenth century Mexican language. A recent computerized concordance of the Florentine Codex--Fray Bernardino de Sahagún's Historia de las Cosas de Nueva España (1559)--counted 1,797 occurrences of *in* in its various orthographic forms-- *in*, *yn*, *jn* -- in the first volume, De Los Dioses, alone.¹ By contrast the word for "not", *amo* [*a*m*o*'], occurred only 101 times in the slim 46 page book.

*in* has usually been designated first as a "particle" by the various grammarians and linguists who have worked with the language from the sixteenth century to the present time. Then they have gone on to define it as an article, a relative pronoun, an introducer of subordinate clauses, a conjunction, an adverb, and often, finally, as an item of "grammatical adornment" to the sentence in which it occurs. Some have not considered it to be one word, but several different words having the same phonological form -- homonyms.

From the first published study of Nahuatl grammar by Fray Andrés de Olmos (1547), these scholars have included numerous examples of the uses of *in* in their definitions. (These examples have been copied, one grammarian from another, so that it is possible for the person who compares the various studies to trace

¹Anderson and Dibble, Part II: Book 1.
a "standard" example, in some instances, all the way back to Olmos.)

Here is what Olmos said about *in*:

yn. -- Esta partícula por la mayor parte no significa nada en plática mas de solo ornato, aunque algunas veces parece estar en lugar destas partículas que en Castilla dezimos: el, la, le, lo, las, les, los; otras vezes es adverbio en lugar de *sicut*. Exemplo de como es adverbio; *yn mani in calli*, assí esta la casa; -- pero es de notar que para dezir assí es esto como esto, no lo diran por aquí, sino por este adverbio *neneuhqui*; plural, *neneuhque*. *yn nican mani in calli*, gan no yuh *yn mani yehuatl*, assí esta aquí la casa como aquella.

Another Franciscan, Alonso de Molina, also defined *in* in his *Vocabulario*, published in 1571, as linguistic decoration:

In. sirve de ornato en esta lengua, y en composición significa, losque. ejemplo *intlaqua* quiere dezir los que comen, etc.⁰⁰

In his *Arte* (grammar) of Náhuatl published the same year, Molina says:

Yn

Y es de notar, que allende la significacion ya dicha desta partícula *in*, que quiere dezir de ellos se toma en otras tres maneras. La primera es que se pone solamente para adornar y hermosar la sentencia, sin significar cosa alguna; y a esta causa se antepone a todas las partes de la oracion. Ex. *in dios*, *yn nehuatl*, *intlatiacotinemi*, etc. La 2 es que algunas vezes es relativo como arriba diximos en la primera parte desta obra. La 3 es que se pone en lugar de *inic*, que quiere dezir que, o por lo qual. Ex. *qualiez ynticchihuazhi*, bueno sera que hagas esto, etc.⁰⁰

In 1595, a Jesuit, Antonio del Rincón,⁰⁵ said that *in* was an indeclinable relative pronoun used in place of *qui, quae, quid*.

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²Olmos, p. 100.
³Molina, *Vocabulario*, p. 38 in Náhuatl section (part II).
⁵Rincón, p. 19.
and quod. (Like his contemporaries, Rincón described exotic languages in terms of Latin.) He gave the same example as Molina has used in his *Vocabulario*:

intlaqua, qui comedit.

For Galdo Guzmán, an Augustinian whose *Arte Mexicano* was published in 1642, the everpresent *in* was a particle whose specific meaning was not often apparent and a relative pronoun:

*In.* Es mucho de notar que hay en esta lengua dos partículas que muchas vezes no significan en sí nada, mas de adorno, y estas son *in, on*, pero son tan necesarias, que en algunas partes no sería inteligible lo que se dice sin ellas. Y algunas vezes el *in* (y las más vezes) sirve de relativo; así como: *in ocuchiuin*, que quiere decir el que lo hizo, b el que hizo esto.°

The noteworthy line in this definition is "... pero son tan necesarias, que en algunas partes no sería inteligible lo que se dice sin ellas (... but they are so necessary that in some places what is said would not be intelligible without them)." Galdo Guzmán seemed to feel that *in*, though untranslatable, had an important role in indicating grammatical relations within the sentence.

In another section of his book, that devoted to "advetbios locales", he included a list of phrases beginning with *in* such as *in manel, in achat, in amo, in atley, in ayec, in canin, inc.* Analysis of the examples he gave of the use of these phrases shows that he has lifted them somewhat out of context for his purposes and the *in* is introducing longer clauses of subordination,

and time and place adverbials. 7

Another Jesuit, Horacio Carochi, had published in 16^55 the arte and vocabulario of Nahuatl which have been most relied upon by other scholars of the language up to the present day. Carochi's grammar is very detailed and copiously illustrated with examples. However, we cannot be sure that the sentences and phrases he gives are things that he really heard spoken or saw in text material or things that he felt would be permissible if his grammatical rules were followed. If we could be sure that Carochi thought and wrote in Nahuatl like a native speaker of the language, the latter would not be objectionable in terms of modern grammatical theory.

Carochi wrote of in:

....La partícula in es muy frecuente en esta lengua y unas veces sirve sólo de ornato, otras de las partículas el, la, lo. In tecpancalli, el Palacio; in teopen, la Iglesia. Se dice también in Nahuatl, 8 yo, como si dijera el yo, in nopillo, el mi sobrino; in nomonnan, mi suegra. Y en el Mexicano se usa muy bien aunque en el castellano desdice el yo, el mi padre, etc. Y otras veces el in sirve del relativo qui, quae, quod el cual, la cual, etc.; in nochan ohualmohuicac in teopixqui, in quimocuicuitili in acoxqui, in yf huellamahtoyt, á mi casa vino el Padre que confess al enfermo que estaba ya muy apurado. Los dos primeros in, in, son el, la, etc. y los otros dos son relativos, el cual. Y finalmente el in puede significar, los que, las que, etc. In Teotl Dios quimmotlatzcuitili, in tlStlacotinm, Dios castiga á los que pecan. El primer in es el y el segundo á los que. 9

7Galdo Guzmán, p. 382.
8Carochi used the circumflex to indicate that a saltillo -- glottal stop -- followed the vowel.
9Carochi, p. 31.
In was also a particle to Agustin Betancourt, a Franciscan who wrote an arte of Mexicano in 1675. But he felt in was probably more an article than the other forms he was also calling particles, and he also recognized its use as an introducer of relative clauses:

Las partículas sirven a nombres unas, y otras a verbos. Las de los nombres son siete: in, izin vel tzintli, ton vel tontli, pol, pil, po y calii; in es mas artículo que partícula: corresponde al el, la, lo, los, las castellano, como el palo, in quahuitl, y aunque en el castellano no se usa del la, lo con los nombres propios porque no se dice el Pedro, el Juan, etc. en Mexicano sirve in para todo nombre, v.g. in Pedro; in tambien significa y suple por illa, illa, illud, y qui, quae, quod, v.g. in tetlagotlz, illa qui amabit, como queda dicho; ....

Writing of "la conjunction é interjección" in his Arte de la Lengua Mexicana of 1689, Antonio Vazquez Gastelu said:

Hay en esta Lengua una partícula, la cual es muy frecuente, y algunas veces parece que no sirve más que de ornato; pero de ordinario sirve de articulo, así para el singular para el plural; que es la partícula in: para decir casa, se dice i]i calli; también se suele hallar por relativo, en lugar de qui, quae, quod, v. gr. los que son buenos, inqualtin: in sirve para singular y plural, inqualii, el que es bueno.

The Arte Novísima de Lengua Mexicana, written in 1753 by Carlos de Tapia Zenteno (Centeno), doesn't define in. In fact, the author doesn't mention it, but he does have a paragraph in which he says there is no grammatical gender in this language and no equivalents to el, la, and lo of Spanish:

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10 Betancourt, p. 582, Nota XXXX.

11 English grammar permits a more exact translation of these two phrases: "the good ones" and "the good one."

12 Vazquez Gastelu, p. 16.
...porque no hay adjetivo que en sus artículos los especifique, como en el latín Hie, Haec, Hoc, por donde se conoce el género de los nombres; y así, en los animados, solo se diferencian en añadirles esta palabra Oquichtli al macho y Cihuatl a la hembra.\textsuperscript{13}

However, Tapia Zenteno uses as examples many structures with in. For example, in a section dealing with verb and pronominal forms he has many sentences of this type: "Nicpia in Pedro . . . yo guardo a Pedro".\textsuperscript{14}

The mid-eighteenth century, 1759, saw the publication of Carochi's work in the form that it is best known to scholars of Classical Náhuatl, the compendium edited by Ignacio de Paredes, a Jesuit like the author himself. Carochi's definition of in quoted previously was taken from a later edition of this compendium.

In 1810 the last arte of the colonial period was published. This one was written by Rafael Sandoval, a cleric, who had taught in a colegio for Indians and then taught Classical Nahuatl for years in colleges in and near the capital. Sandoval says of in:

La partícula in sirve de relativo y antecedente de todos los géneros, números y casos, y frecuentemente se pone sólo para adorno.\textsuperscript{15}

In another section "De las conjunciones y adverbios", Sandoval wrote that "inic significa 'para', e in 'por' o 'con'; ..." and under "Adverbios de tiempo" he included ihcuac [\textipa{"}iˈkwaˈk\textipa{"}], "cuando"

\textsuperscript{13}Tapia Zenteno, p. 17, § 4.
\textsuperscript{14}Ibid, p. 66.
\textsuperscript{15}Sandoval, p. 21.
and *inye* ["in ye"], "habiendo". Presumably he meant that the latter would introduce absolute constructions of the type "having seen ...," etc., although the literal translation of this phrase is "the already ..."

The most complete dictionary of Classical Nahuatl of the modern era was written by a Frenchman, Rémi Siméon, and published in Paris in 1885. This *Dictionnaire de la Langue Nahuatl ou Mexicaine* was based upon the earliest printed works and manuscripts of the language -- those of Olmos, Molina, and Carochi, but not Rincón, in grammar and lexicography, and those of Bernal Díaz del Castillo, Sahagún, and Aubin in history and ethnography. Siméon's entries include citations from these authors. As for *in*, Siméon defined it as an article, an adverb, and a conjunction:

*IN* ou *IM*, art. *Le, la, les, etc.*; *in calli*, la maison; *in tlamachtílme*, les disciples; *in metli*, la lune, etc. Pronom relatif: *celui qui, celle que, ceux qui, etc.*; *in tlaqua*, celui ou ceux qui mangent; *in amo notzlani* ou *notzalantli*, celui que ne veut pas être corrigé. *IN* est souvent explicatif; ainsi on dit indifféremment: *notzalani* ou *in notzalani*, mon père; *teca uel ca noyollo* ou *in noyollo*, être attaché à quelqu'un, lui vouloir du bien, etc.; mais il est inseparable des pron. p. *ti* et *te* usités comme vocatifs: *in titlalcoacani*, 8 pêcheur; *in antlatlacotlame*, 8 pêcheurs; devant un interrogatif, comme *aquín cuixtecatl* etc., *in* fait disparaitre l'interrogation: *aquín nech-notzatl* (Par.), qui m'appelle; *in aquin notzatl*, celui qui m'appelle; *iquin uallaz notzatl*, quand viendra ton père; *in iquin x-laz*, lorsque tu partiras.

*IN*, adv. Ainsi; *in mani in calli* (Olm.), ainsi est la maison.

16 Sandoval, pp. 56-57.
17 Siméon, p. 169
IN, conj. Lorsque; in ocalco, quand il arriva; in ontemachtiloc, lorsqu'on eut prêché, enseigné; in contaqualco, quand on eut mangé, après avoir mangé; in otaaimant, quand le temps voulu est arrivé; in acote, quand il n'y a plus rien, lorsque tout manque; in outo, in o acho, in o achtea ou in ato, dès que, aussitôt que, après que.

In the line "in fait disparaître l'interrogation ..." and the examples which follow, Siméon seemed to be aware of in as a signaler of syntactic relations.

In before adverbs of place was cited by Fray Joseph de Carranza in his grammar with the long title, Arte donde se contienen todos los aquellos rudimentos y principios preceptivos que conducen a la Lengua Mexicana, which was published in 1900. He called in an article when discussing adverbs:

... empa, allá o de allá: este se suele componer con el artículo in, y entonces la provincia, lugar, o región; v.g.: in empa otihualaque totonquitlalpan, que quiere decir: la región de donde venimos es tierra caliente...19

Present day scholars of Classical Nahuatl lean heavily on the grammars by Angel María Garibay, Llave del Nahuatl, and Jakob Schoembs, Aztekische Schriftsprache. Schoembs' grammar is based principally upon Carochi's. In his glossary, Schoembs has these definitions of in:

in (pr. dem.) dieser, -- in (angehängt) dies; in zur Bildung der Relativa; Objektpart.
in Artikel für Wörter und Sätze, oft pleonastisch.
in (conj.) als, dass (mit Futur); nachdem, wenn; auch als Ersatz für andere Konjunktionen, die im Satze vorausgehen; in ... niman als ... da.

18 Siméon, p. 169
19 Carranza, p. 79. Carranza's Arte is supposed to have been written in the late 18th century.
There follow a number of words or phrases with *in*, some of which he defines thus:

- **inic** (conj.) dass, sodass, sowie; ...
- **in** ... *ic* wenn ... dann.
- **inic iuhqui** (iuhque) damit so; wodurch, ...
- **in ic**, *iuh* in *ie* und als, und nun.
- **in ic** auf dass, um zu
- **in ic iuhqui** (in niman) darauf, dann; *in niman* pleonastisch; oder, als dies so (ist), da.
- **in ic vecauh** in alter Zeit.
- **iniquac** wenn, als, da, nachdem; **iniquac in** in dieser (welcher) Zeit; **inquac ic** damals; cf. **iquac**; **inquacon** in jener Zeit.
- **in iuh, iniquac** nachdem, wie, auf die Art wie; so wie, so, als ob. 20

In his grammatical sections, Schoembs discusses **in** as an article and as an introducer of relative clauses:

§ 35. Das Substantiv wird in allen Stellungen, unverbunden oder verbunden, als Subjekt, Objekt, oder Prädikat durch ein nicht mit ihm verbundenes *in* eingeführt. Es steht wie bestimmter Artikel. Sonst dienst es als Demonstrativ, Relativ und Konjunktion. Häufig steht es so, als sei es nur ein Füllwort, das man als pleonastisches Demonstrativ ansehen kann. 21

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20 Schoembs, pp. 147-148.
21 Ibid., p. 24.
The late Father Garibay saw in as a particle "de muchas significaciones." Here is his definition in the glossary section of his book:


In the referred to paragraph 83, Father Garibay discussed in as a conjunction:

83. Conjunción: IN:

Su carácter general es de simple determinativo.
No es un verdadero artículo, aunque tiene en algunas casos similitud con los artículos de las lenguas latinas.
En la mayoría de los casos es sencillamente explicativo, enfático o eufónico.
Usado con formas verbales tiene principalmente estos sentidos y usos:
1) Temporal: análogo a "cuando, así que, como". Suele ir unido a otro adverbio temporal:
[Auh in] cincoconquetztato ... y cuando se fue a parar enfrente (108).
In ayamo tona, in ayamo tlathui ... cuando aun no luce el sol, cuando no amanece. (1)
[Auh in ye icuac onac yohualnempantla ... y cuando llegó la medianoche (7).

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22 This may be the reason for Schoembs' insistence that in is a demonstrative -- in order to push the resemblance between the use of Náhuatl in and German die, der, and das in relative clauses. I will show farther on in this paper why in alone with a noun cannot be a demonstrative in Classical Náhuatl.

23 Schoembs, p. 30.
2) Condicional: "sí", generalmente con tla:

In tla acayac quitta, san mocuepa ... Si a nadie ve, luego se vuelve (91).

Yehuatl tonatiuh yequia in meztl Tecuciztecatl, in tla ye acho onhuetzini tleco ... hubiera sido sol la luna Tecuciztecatl, si primero se hubiera echado al fuego (29).

In 1964, Lawrence H. Feldman compiled a guide to Classical Nahuatl for the use of persons who decipher old Aztec manuscripts. It was based upon the works of Olmos, Molina, Garibay and others previously mentioned here. In was defined in the guide as a "determinative conjunction" and something like an article which "is sometimes best translated into English as 'the', and in other places not translated at all." Here is his full treatment of in, including his list of "members of the in 'family':

2/ in

A/ This is a determinative conjunction which indicates "when", "so that", "provided that". When it is used with the particle tla, it means "if". Also can be translated as "this one".

Auh in icuac onaci yohualnepantla ...
And when midnight arrives ...

Intia acayac quitte, san mocuepa ...
If he sees nobody then return

B/ "It is not a true article, though it has some similarity with the articles of Latin languages", (Garibay 1961:72). Nevertheless, it is sometimes best translated into English as 'the', and in other places not translated at all.

Auh ye acomo in oncan catea in tecuancoatl:
And in truth the ferocious snake was no longer there

C/ Members of the in "family"

iniquac: when (affirming something)
in: as; but, on the contrary intiaca: without
inbuen: both inon: this, that (singular)
ina: with inin: this
inaquin: whoever; inecs iniquein: these
i, iniqueon: that (plural) inoq: meanwhile in the meantime

Garibay, pp. 72-73.

Feldman, p. 55.
In a forthcoming textbook of Classical Nahuatl, J. Richard Andrews refers to \textit{in} as an "adjunctor" in embedded sentences with an adverbial function. "The adjunctor \textit{in}, although usually present, is optional," he says.\textsuperscript{26} \textit{In} as an article is seen in simple and possessed noun phrases throughout the examples Andrews gives of various types of structures, but I have not been able to find a discussion of \textit{in} as an article in his manuscript.

Somewhat similarly, Stanley Newman, in his article on Classical Nahuatl in the recent Handbook of Middle American Indians, Vol. 2, has numerous examples of structures with \textit{in}, which is almost always translated as "the", but no separate mention of it as an article. In describing relative clauses, he calls \textit{in} a particle whose meaning is "the, this":

The complementative type of expanded substantive was composed of a nuclear noun followed by a relative clause, usually with the intervening particle, in 'the, this':

\begin{quote}
\textit{totechiwka'wara in o' nemiko? in taa·ltitpak 'our ancestors who came to live on the earth', literally 'our-ancestors this they-came-to-live the on-earth'.} \textsuperscript{27}
\end{quote}

Through all these nearly 450 years of confusion and conjecture about \textit{in} as a particle of many meanings and a pleonastic embellisher of sentences (this latter is an idea that dies hard, having been embraced even in recent years by Schoenbs and Garibay), rarely has the syntactic role of \textit{in} been considered and never has it been scrutinized. Galdo Guzmán in 1642, Simón in his

\textsuperscript{26}Andrews, chapter 35, "Adverbial Modifications."

\textsuperscript{27}Newman, p. 199.
dictionary in the late nineteenth century, and perhaps Andrews in his new textbook, hint at an awareness of such a role, but none of them developed this idea. What seemed to bother the grammarians and lexicographers most about in was that in many cases it is not translatable. I find it strange that so many of these grammarians who were native speakers of Spanish would find this a difficult concept to accept. In their own language there is a grammatical rule which makes obligatory the presence of an untranslatable word -- a -- before direct objects that are definite persons or proper nouns. For example: Veo a Juan I see John; Vi a su mamá I saw your mother; He visitado a España I have visited Spain. The particle or preposition a in these sentences is functioning syntactically as a signal of grammatical relationships, just as in in Classical Nahuatl, I believe, functions syntactically in its occurrences. Therefore, in this paper I propose to look closely at in as it occurs (and doesn't occur) in various contexts and to analyze the role it plays in the sentences of Classical Nahuatl. I will claim that in is not an adverb, a conjunction, or a relative pronoun, but that in all its uses it is an article which introduces a noun phrase. In certain contexts this article is deletable and in others its presence is obligatory. When it is untranslatable by the rules

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28 The a in Spanish can and probably should be considered a case marking. But in in Nahuatl is found before both subject and object nouns -- see sentence (1), pp. 15-27 -- so it cannot be assigned this role. Except for the vocative, there are no case markings on Nahuatl nouns.
of our language, it is performing its syntactic function as an indicator of relationships between the parts of a sentence.

The body of text material available in Classical Nahuatl is very large -- it encompasses thousands of pages and millions of words in both manuscript and printed form -- and is of several types. There are the ethnographic texts such as Sahagún's Florentine Codex which tell of the customs, religious beliefs, and history of the people of the Valley of Mexico. There are chronicles whose format is like the more familiar Anglo-Saxon Chronicle, literary texts -- both prose and poetry -- of the epics, legends, and folk tales of these people, and, finally, letters and legal documents. There are also the Christian texts produced by the early missionaries and their helpers -- the prayers, catechisms, sermons, and liturgical dramas. The problem for a person using the texts as a basis for linguistic studies becomes one of conserving his own time and energy, of not becoming bogged down in searching through this great mass of material for certain items or kinds of structures. As more computerized concordances of the texts are prepared, it will be possible to call for and get the data desired in a matter of minutes instead of having to hunt for hours and days.

Another problem in studying the syntax of language for which native speakers are not accessible lies in determining the grammaticality of structures. Since we cannot ask a native speaker to tell us directly whether or not a phrase or a sentence and its variants are permissible according to his internalized
grammar, we must assume that all of the material appearing in
the texts is grammatical -- that all the variations of a
structure which appear in the texts are permissible, and that
those which do not appear are probably ungrammatical. ²⁹ In
the case of Classical Nahuatl, we can, in some instances, make
comparisons with usage in the modern dialects of this language
through some of the studies that have been made in recent years
of these dialects. The principal difficulty here is that few
of the studies of modern dialects have touched upon syntax or
have presented data pertinent to syntactic analysis.

Considering again the particular problem of in, presented
below are random excerpts from three different types of texts
to show how this word generally is found in Classical Nahuatl:

(1) Auh niman quicuito in azcatl in tlaolli in itic
Tonacatepetl, auh niman ye quinamiqui in azcatl in
Quetzalcohuatl quilhui: (GL 38, from "Hallazgo del
Maiz", anonymous manuscript from the Valley of Mexico,
1558.)
Then the ant took the corn-kernel in/from the interior
of the Our-food-mountain, and just then Quetzalcoatl
met the ant. He (Q.) said to him:

(2) No quijtlalauhtiaia in temazcaleque: ipampa y,
quijtliaia yn ixiptla, yn ixquac in temascalli: yoan
quijtocciotiaia, temascalteci.  (Florentine Codex,
Book I, Appendix, 1560, p. 41, Anderson and Dibble).

²⁹ Robin Lakoff discusses this problem in regard to Latin on
pp. 2-4 of the Introduction to her book, and passim on
the pages which follow them.
"Also those who had sweat-houses prayed to her. Because of this, they set up her image in front of the sweat-houses, and called her the grandmother of the sweat-houses." ³⁰

(3) Qan ixpanqinco tictlalía in tochoquiz 1' tixayo in toteouch in totlatocauh Dios totecuyo inic yeaqtin quimopatiliz inicuac quimonequiltiz. (Mexico 168, letter from the Valley of Mexico, 1554, now in the Archives of the Indies, Sevilla.)

But before him, our deity, our lord, God, our ruler, we place our weeping, our tears; thus he will cure them when he will desire to.

Transcribed phonemically and with a more literal, nearly morpheme by morpheme translation the three are:

(1) aw nima'n kik'ito in a'skal in aolli in i'tik tonakatepe'la; aw nima'n ye' kina'miki in a'skal in ke'falko'a'la kilwi'.

and then he-brought-it the ant the maize-kernel the its-inside our-food-mountain; and then already he-met-him the ant the Quetzalcoatl he-said-it:

(2) no' kil'a'la'wti'a'ya in temaskale'ke' i'pa'mpa i'(n) kil'a'li'a in i'zipa, in i'ak in temaskalli i'wa'n kilo'ka'yo'ti'a'ya temaskalte'si'.

Also they-prayed-to-her the sweathouse-owners. Because of this they-placed-it the her-image, the its-front the sweat-house and they-named-it/her sweat-house-grandmother.

³⁰This translation is quoted from Anderson and Dibble. The translations of (1) and (3) are my own.
(3) san ʼspaʾnšiʾnko tikaš-liʾaʾ in točoʾkiʾs in
tiʾšayoʾ in toteʾw in tolaštoʾkaʾw dios toteʾkwyʾoʾ
in iʾk yeʾwaʾšiʾn kimopsʾtiʾliʾs in ʾkwʾaʾk
kimonekilʾitiʾs

but his-hon.-presence-in we-place-it the ourweeping
the our-tears the our-god the our-ruler God our-lord,
thus he will cure them when he-will-want-it.

in is the initial word in several different types of
structures in these three brief selections.

The subject noun phrases it introduces are:
in aʾškalʾ, in kešalkoʾaš (1)
in temaskaleʾkeš (2) (The other subjects in (2) are
expressed by pronominal affixes on the verbs. In
(3) the reverential absolute pronoun yeʾwaʾšiʾn is
the only expressed subject; the others are affixes
on the verbs.)

The object noun phrases are:
in ʾšollʾ, in aʾškalʾ (1)
in iʾšipšaʾ (2) (But the object complement in this
sentence -- temaskaltešiʾ -- is not introduce.
by in.)
in točoʾkiʾs, in tiʾšayoʾ (3)

"Prepositional" phrases containing in:
in iʾššik tonakstepeš (1)
in ʾkwʾaʾk in temaskalli (2)
iʾšpaʾnšiʾinko ... in toteʾw in tolaštoʾkaʾw dios
toteʾkwyʾoʾ (3)

An adverbial time clause is introduced by in in (3):
in ʾkwʾaʾk kimonekilʾitiʾs
The generous use of an may have been a characteristic of the dialects of Tenochtitlan (Mexico City) and its prestigious neighbors such as Texcoco and Tlaxcala in the central region. An as an article appears only once in two Nahuatl letters dated 1562 from Guatemala and the Soconusco area of Chiapas which I translated several years ago. An is used, however, to introduce what appear to be relative clauses in these letters. The omission of an may indicate ignorance of grammatical and stylistic niceties on the part of the scribes who wrote the letters since they were written on behalf of two groups of Mam speakers—a Mayan language. On the other hand, the word is prominent in sixteenth century letters from Guadalajara.

An has also disappeared from a number of the modern dialects, but is noticeably present in others. It seems to have fallen from use in Tepoztlan, while in Tetelcingo not far away, the article an has merged with the demonstratives -in and -on to be used principally in that way in the forms ini and inu. In his Milpa Alta study, Whorf claimed that that dialect had lost its Classical Nahuatl definite article an through a conflict of concepts of markedness with Spanish definite and indefinite article usage. However, a teaching tape of Milpa Alta Nahuatl prepared recently by another linguist does make use of an as a definite article before nouns.

31 Cf. GL, CTC, 261-277.
32 Pittman, §45 and 46.
33 LSNA, p. 382, footnote.
The modern Matlapa text in Crofts' dissertation does not have any occurrence of *in*, but the Vocabulario Mejicano of Zacapoaxtla by Harold and Mary Key lists "*in*" (the underline indicates vowel length) as meaning "el" and "la". However, this may be derived from the demonstrative [?i·n]. These two dialects are not very distant from each other but they are separated by high mountains. *in* is heard in use as an article throughout modern Tlaxcalan. In February, 1970, I recorded this sentence from an informant:

\[\text{o·kmohti in ko·*i* in sowa·*i·n} \]

it-frightened-her the car (Sp. *coche*) the woman

"The car frightened the woman."

From what I have recorded so far, Tlaxcalans usually seem to use their Nahuatl words for who, what, etc., not *in*, to introduce relative clauses.

The prayer books and catechisms in Mexicano still used by a few old people in the villages follow the usage of Classical Nahuatl. One, published in Puebla in 1886, has these lines as the opening of the Lord's Prayer:34

\[\text{Totatzine, in ilhuicac ti moyetztica, ma yectenehualo in motocatzin.} \]

our-honorable-father! the in-heaven you-are; let well be-it-said the your-honorable-name.

---

34 Palma, p. 8.
As has been mentioned many times previously, nouns and noun phrases are usually introduced by *in*. We have these examples of surface structure forms:

- in kalli  the house (Olmos)
- in dios God (Molina, *Arte*)
- in nopillo the my-nephew (Carcchi)
- in nośan ... in teopiliki ... in kokoški the my-house ... the priest ... the sick-one (Carcchi)
- in k'awil the tree (Betancourt)
- in kwaltin ... in k'alli the good ones ... the good one (Vazquez Castelu)
- in we'we'to'n the old man (GL 44)
- in  the fire (GL 10)
- in e'kak the wind god (GL 24)
- in ak'ak ko'alko's' the man Quetzalcoatl (Sp.: el señor Q.) (GL 43)
- in ye'wa'tiakawa'n he Titlacahuan (GL 43)

Both Molina and Carochi mention the admissibility and occurrence of the phrase *in ne'wa:* *"the I" in contrast to acceptable Spanish usage. Betancourt added to this the observation that *in* could occur before all proper names, such as *in Pedro*. They were careful to distinguish this usage from what they considered the usage of *in* as a relative pronoun. In certain sections of the Florentine Codex there are numerous occurrences of *in ye'wa'ntin* (orth.: *in yeoantin*) *"the they"*.

---

35 Anderson and Dibble, Book I, pp. 29-45.
Very often this sequence of ART + PRN is followed by a relative clause introduced by in.

Nouns and absolute pronouns may also occur without in, but in Classical Nahuatl texts this is much less frequent than occurrences with in. Here are some examples:

te*wa’-l tiye’s you you-will-be (GL 2)
i’pa’ampa ka ye*wa’-l ahto ..... because indeed he first ...
(GL 29)
te’k*siste’kaλ Tecuciztecatl (proper name) (GL 13)
tepe’-fi’nko Tepetzinco (place name) (FC 12, 96, 8)
op’khi smoke (context: po’khi mote’ka smoke spread itself out) (FC 12, 38, 25)

Place names, whether used as subjects, direct objects, or as complements of verbs of motion, are usually preceded by in. However, after scanning numerous texts, it seems safe to say that vocatives alone are never preceded by in.36 Here are three examples of vocative sentences:

tete‘o*e, ka ne*wa’-λ niye’s 0 gods, indeed I, I-will-be (GL 1)
o’λa’k’e-le* te’k*siste’kaλe* 0, well then, Tecuciztecatlé, ...
(GL 9)

36Carochi, p. 22, has examples in títlátłacãni and inantlátłacãnamé which he glosses as “oh pecador” (oh sinner!) and “oh pecadores” (oh sinners!). But these are really relative clauses introduced by in and the ti- and an- are second person subject pronoun prefixes (singular and plural respectively) attached as for a zero copula sentence to the vocative nouns. A more accurate translation would be “Oh, you who are a sinner” and “Oh, you who are sinners.” Cf. pp. 50-84 of this paper. Siméon also gives these two examples, p. 169.
Go away, little old man!

The last contrasts with this phrase which occurs on the line after it:

Then the little old man said it. (GL 44)

Current theories dealing with performatives and hypersentences would probably have much to do with explaining this phenomenon. However, for the present, it is beyond the scope of this paper.

The evidence presented thus far seems to favor positing an underlying structure of NP + ART N for the simple noun phrase, with the provision that the article is optionally deletable at this stage.

Before considering quantifiers, demonstratives, and more complex types of noun phrases, a note about basic Nahuatl grammar is in order.

The obligatory surface structure constituents of a sentence in Classical Nahuatl need not be more than an inflected verb for a verbal sentence, or the subject noun or pronoun and predicate element for a verbless copula sentence, or an inflected noun of a vocative sentence.

Examples:

I keep them for you) (Neuman, p. 193)

His name (is) Hernando de Santaella, our priest. (Gua 52:20)

niwe·we* I (am) old. (GL 68)
ti'laškalte·ka* We (are) Tlaxcalans. (FC 12, 28, 9)
nopili'i·nci·né My sons! (GL 45)

The verb always carries a subject pronoun morpheme. In the third person, singular and plural, the prefix form of this morpheme is a zero. For example:
tiyo·li·ske* We will live. (Gua 52:14)
ki·sa·ske* They will leave. (Gua 52:14)

If there is an object, direct or indirect, it too is signalled by a morpheme attached to the verb. Examples:
ni·k·ma·ti I know it.
nima·n k·i·to in ke'la·lkо·sA Then he said it Quetzalcoatl. (Then Quetzalcoatl said it.) (GL 45)
se'anka o·te·k·toli·ni·ske* Very much they impoverished us. (Gua 52:14)

The third person object morpheme can also stand for a verb phrase complement or an embedded sentence which follows. Thus:

ki·neki* moyo·lk̄iti·s As·ka They want it (that) they will be confessed men. (Gua 52:14)
a'mo ti·k·neki te·spiys·ske* pa·dreme* čiko·me Not we want it (that) they will take care of us priests seven. (We do not want the seven priests to take care of us.) (Gua 52:14)

Other elements which can be attached to the verb are reflexive pronouns and morphemes of passivity, direction, causation, tense, aspect, number, and reverence.
Pronoun Forms of Classical Náhuatl

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³⁹Alternate forms of these plural absolute pronouns are: te'wa'n, e'me'wa'n, ye'wa'n.

⁴⁰A frequent variant of this form is an- ... .

⁴¹Vowels on these forms are frequently dropped when followed by another vowel.
Modern writers of grammars and descriptions of Classical Nahuatl have often confused the article in with the demonstrative particle *i'n, *42 "this." Schoembs, Garibay, Newman and Feldman have all done so. However, Molina, Carochi, and Siméon were careful in their work to distinguish the demonstrative in both its form and its occurrence from the omnipresent article. Molina and Siméon both say that the word for "este" and "ce" is *inin; in his Spanish section Molina also has *yehuasty and *yehyn. Carochi gives *inin o *yehuantlin, este, esta, esto." and the plural forms for them: *inin or *iniqüfin and *yehuantinin. *43 In all of these forms the second element -- *-in, *-yn, and *-yn -- is the demonstrative morpheme.

As an example of the use of the demonstrative, Carochi gives "Aquin oquichihuhin? quién hizo esto?" (a·kin o·kiSi·w i·n Who made this?). Molina has this as the following entry (after *inin) in his Vocabulario: *44 "inin panin xiuitl. ogaffo, o en este año." Occurrences of the demonstratives patterning in exactly the same way are not difficult to find in the texts. (The morpheme for "that" is -o·n.) Here are some examples:

in pa*n i·n the medicine this (context: Then take (it) this medicine.) (GL 52)
tek*ń, timal o·n that prince, that decay (lit.: prince that, decay that) (GL 79)

*42Swadesh indicates long vowels on the demonstrative particles, p. 50, Mil Elementos, as do Carochi, and Key.
*43Carochi, p. 51.
*44Molina, Nahauatl section, p. 39.
26.

tolla-n  Tula this (GL 81)
ini-n anfi'-fi'-nwa'n this your most honored one (GL 154)

In the Florentine Codex we find a number of the occurrences of orthographic in in where the first is the demonstrative belonging to a preceding noun phrase and the second is an article which goes with a noun phrase which follows. In the Dibble and Anderson version a comma is usually inserted between them. Schoenbe's book dispenses with such punctuation.

k'wis ye'-iskiš i'n in amote'na'mikia? .... Are then all these the your greetings ....? (FC 12, 5, 27)
oka iskiš(3) lamanli i'n in mote'ne'wa teo'latkil .... Behold all these things (lit.: all thing this) were the so-called gods' things .... (FC 12, 13, 3)

We also find forms indicating "this one" and "these ones":

i'wik i'n, ye'wa' a i'n in nika'n mote'ne'wa like this, it-this, the here named: (list of gifts follows)
(FC 12, 6, 8)

san ok ye'wa'ntin i'n in ki'mittato .... Only they there were the they-saw-them (free translation: Only these were the ones who looked at them ....) (FC 12, 5, 12)

In noun phrases with quantifiers, numerals or adjectives, the article in may be present or absent and the quantifiers and numerals may precede or follow the noun modified by them.

45 This is a zero copula sentence as described on p. 22. The verb would go between i'n and in.
46 The last two words of this example are a relative clause. See pp. 50-84 of this paper.
Attributive adjectives such as color, size, and quality usually seem to precede the noun.

Examples:

in se-λα-καλ one man (Context forces a reading of this as an indefinite man, not "the one man".) (GL 2)
in se-kintin tiakawa'n the some ("certain number") chieftains (FC 12, 105, 27)
in o-nteλ a-kalli the two boats (FC 12, 83, 20)
in iškič motilmaβi'n the all your-hon-mantles (FC 12, 6, 31)

se-λα-καλ one man (GL 22)
miek λα-καλ many a man (Gua 52:14)
ockse-λamanλi another thing (Gua 52:14)
in i-šaw'aν fikwe'ntin his eight man-servants (lit.: the his-man-servants eighth) (FC 2, 66, 19)
i-va'n siwa'na'win and four women (lit.: and women four. Names follow.) (GL 18)
in ista-k λaškalli white tortillas (FC 12, 21, 9)
in toma-wak a-wakawil the thick oak tree (in context: the thick oak logs) (FC 12, 60, 36)
in k'wali a-λ the good water (FC 12, 100, 10)
in kostik ye-fondil the yellow magnolia (FC 12, 41, 12)
ista-k λaškalli white tortillas (FC 12, 21, 23)
ista-k k'wišin (a) white hawk (GL 61)
čipa-wak a-λ fresh water (FC 12, 45, 18)
28.

The order of the surface string constituents found in the examples of noun phrases with demonstratives, quantifiers and adjectives given above and on pages 25, 26 and 27 are as follows (beginning with the examples on p. 25):

- ART N DEM N DEM
- ART DEM N Q-Prn DEM Q N DEM Prn DEM
- ART Q N Q N
- ART N Q Adj N Adj N

We also find what might be ART Q Adj N: in Ḗk̡i̡d nepapa:n:\n
the all various (types of) men (FC 12, 85, 12)

and ART Q Rel-Clause: i-va:n in Ḗk̡i̡d in i-nte̤ katka and the all

the their-on was ("and all which was on them") (FC 12, 95, 14)

With this limited data it might be possible to expand the phrase structure rule for noun phrases to: NP → ART (Adj) N (q) (DEM)
and then write a transformational rule which would account in part for the shift in order by moving whichever constituent directly follows the N -- quantifier or demonstrative -- to a place immediately after the ART:

\textsuperscript{47}The true nature of this word is in doubt. The dictionaries define its meaning as "various" but call it an "adverb". Morphologically it looks like a noun + post-position.
The optional rule of article deletion would apply after this rule, but only when the quantifier, not the demonstrative, has been shifted. This is not a very satisfactory solution. The data is inadequate. We do not know if orders such as ART Q DEM N; ART DEM Q N; ART DEM Adj N; ART Q Adj N DEM, etc., are to be found. It may also be possible to derive attributive adjectives, demonstratives and quantifiers from relative clauses as has been suggested for English by Smith, Lakoff, Carden, and others. Adjectives, demonstratives, and quantifiers in Náhuatl should be the subject of a separate investigation. My point here is to show that the demonstrative's normal place in a surface string is after its head. It appears before the head noun or pronoun only when the article in is also present to precede it. Then we get such combinations as orthographic inin [*ini-n] and inon [*ino-n]. Thus it is clear, I hope, that orthographic in when it appears alone in front of a noun phrase in such forms as in ce tlacatl [*in se·la·ka], in istac tlaicalli [*in ista·k laškalli], etc., should not be interpreted as the demonstrative i-n [*i-n], but as the article in [*in].

in as an article and the underlying noun phrase structure of NP → ART N also function importantly in the possessive noun phrases of Classical Náhuatl. The basic constituents of the
possessive noun phrase appear to be the article, the possessed noun, and the possessor noun. In surface structure the possessed noun always carries the possessive pronominal prefix \(^{48}\) (see table on p. 24) which agrees in person and number with the possessor noun. The possessor noun and the article need not appear in surface structure. Langacker showed ten classes of surface structure forms of Nahuatl possessive noun phrases. \(^{49}\) Some of these (using his examples and mine) are:

- in i-'akšoyak the his branches (GL 132)
- i-tekiw his work (Gua 52:14)
- ini-n anji'-gi-nwa-n this your most honored one (kinsman) (GL 154)
- in i-λα*to*λ molte-kw*so*ma the his speech Moctezoma (Moctezoma's speech) (GL 102)
- i-sołow in kw*temokgi*n his page the Cuauhtemoc (Cuauhtemoc's page) (GL 105)
- i-nca-n tiakaw their house warriors (warriors' house) (GL 233)
- in i-pèpeș in λα*to*a*ni the his bed the ruler (the ruler's bed) (FC 10, 173, 2 )\(^{50}\)

\(^{48}\)Possessive suffixes indicate number -- plural -- only, not person.

\(^{49}\)Langacker, pp. 3-5.

\(^{50}\)Langacker translates this as "this ruler's bed" considering the second in a demonstrative modifying the noun which follows it: literally, "the his bed this ruler". This is contrary to my analysis of demonstratives on pp. 25-29. His deep structure for the possessed noun phrase is also somewhat different from mine. For this same phrase he has:
in siwa·mi in 'omiyo· the woman her bone (Langacker translates it "women's bones") (GL 34)
in o·kiš in 'omiyo· the man the his bone (Langacker: "men's bones") (GL 34)
diablo i·i·zipha devil his image (Langacker: "the devil's image") (FC 10, 182, 8)

With my underlying noun phrase structure of NP → ART N

\[ \text{NP} \rightarrow \text{ART N} \]

the fullest possessive noun phrase above -- in i·pepe in he·to'a·ni -- consisting of two articles and two nouns, one of them possessed and the other the possessor, would look like this in underlying structure:

\[
\begin{array}{c}
\text{NP} \\
\text{ART} \\
\text{N} \\
\end{array}
\]

\[
\begin{array}{c}
in \\
pepe \\
he·to'a·ni
\end{array}
\]

In the surface string, the third person singular possessive prefix on the possessed noun pepe provides a link to the possessor noun he·to'a·ni. It is, in fact, a copy in the genitive case of the possessor noun. So we seem to have a recursive structure. From this we can postulate the possibility and the permissibility of such a phrase as "my uncle's daughter's house":

We can presuppose here the possibility of some previous "possessive" transformation which brought the NP structure to this stage. I am being neutral about hypothesizing a sentential origin for possessive NPs.
in i·kal in i·po·c in noλα·i·n lit.: the her-house
his-daughter the my-uncle

A tree diagram of the surface structure of this phrase would look like this:

Since articles seem to be optionally deletable in possessed noun phrases too (see ten phrase types on p. 30), the article on any or even all of the nodes could be deleted.

The possessive prefixes are links as genitive copies to the possessor nouns of the next lower node. We can then postulate a deep structure like the one below with a full pronoun on the lowest node, a node which has been deleted from the surface structure.
Jane H. Hill reported this same type of recursive structure in the possessive noun phrases of Cupeño, a modern Uto-Aztecan language of southern California. In her dissertation, she cites the phrase "the hair of the coyote's back": *pisil* pafutan*wi* papi*ti* lit.: coyote his-back its-hair, with this surface structure:

\[
\begin{array}{c}
\text{NP} \\
\text{N} \\
\text{pisil} -\text{lo} \\
\text{pafutan} -\text{wi} \\
\text{papi} -\text{ti} \\
\text{(its-hair-possd suf)} \\
\text{N} \\
\text{be} -\text{kuta} \\
\text{x*ti} \\
\text{(his-back-possd suf)} \\
\end{array}
\]

According to Mrs. Hill, Cupeño also has possessive phrases with a pronoun, such as I proposed for the deep structure on p. 32. In Cupeño one finds: no* ne-\text{y*ti}. I have not been able to find any possessive phrases of this type -- with an absolute pronoun as the head -- in the text material I have searched through for this paper. However, there seems to be sufficient evidence for the existence of such a pronoun in deep structure -- from the occurrence of other absolute nouns in this position (cf., diagram on p. 31), from the existence of NPs of the shape ART Prn (in ye*wa:*), etc.) in other contexts, and from the data from Cupeño.

\[52\]Hill, 1966, p. 55. Mrs. Hill's tree branches in the opposite direction from mine and the surface order is reversed. The structure is similar.
With the deep structure given on p. 32, few rules would be needed to derive the surface possessed noun phrases. The rules, which would apply cyclically, and to the lowest node first, would have to include a copying or reduplication rule to attach the genitive pronominal copy to the noun in the next higher node, an optional article deletion rule, and a rule to delete the possessor noun or pronoun under certain conditions. The article deletion rule can apply at any time within a node, but the rule to delete the possessor noun or absolute pronoun would have to be ordered after the copying rule.

Keeping the previous analysis in mind when looking at the prepositional phrases of Classical Nahuatl, it can be seen that they too have a recursive structure and that the structure is the same as that of the possessive noun phrases. What we have are not "prepositional phrases" in the sense in which we use this term in regard to English grammar, but prepositional noun phrases. In Classical Nahuatl, the prepositional phrase is embedded in a larger noun phrase and not, as in English, the noun phrase embedded in the prepositional phrase.

What I would prefer to call "positional" or "locational" phrases occur in two major types in Nahuatl. The first is the "pre-positional" in which the locative precedes the noun as a separate word, and the other is the "post-positional" in which

---

53 Usually in transformational grammar, cycles are only employed in the derivation of sentences, but I follow the lead of Langacker in proposing derivational cycles for Classical Nahuatl below sentence level. If there is a sentential source for possessives, then these derivations would be a continuation of sentence level derivations.
the locative particle is attached to the noun as a suffix.

Examples of these two types of phrases are:

in i'-pa'n in to-nalli na'we*ka\ in the day Four-Wind (lit.: the its-on the day Four-Wind) (FC 4, 45, 14)
in i'-pa'n toSka\ in Toxcatl (a month) (lit.: the its-in Toxcatl) (GL 151)
in i'-tik tonakatepe\ inside our maize-hill (lit.: the its-inside our-food-mountain) (GL 38)
in a\ i'-tik in the middle of the water (lit.: the water its-inside) (FC 12, 6, 30)
i'-te\ in we've*ka\ stuck in/on the old tree (lit.: its-on the old-tree) (GL 69)
in ae-ko in the fire (lit.: the fire-in) (GL 13)
in i'-tilma\-ko in his cloak (lit.: the his-cloak-in) (GL 86)
i'kal i'-pa'n in their house(s) (lit.: their-house its-in) (Feldman, p. 3, from a poem of the Archaic Epoch)
kalti-te\ (stuck) on the house (lit.: house-lig.-on) (GL, p. 70)
in i'nkapo\-wa\-l-pa'n their census time (lit.: the their-count-something-on) (GL 151)
in kwikoya\-nowa-ya'n during the singing (lit.: the singing-during) (GL 151)

In the first type (first five examples), the prefix attached to the locative particle is a possessive pronominal enclitic, the same as was attached to possessed nouns on the preceding pages. In the phrase in i'-pa'n toSka\, the prefix i'- is in the third person because it refers to toSka\, The resemblance to the surface
structure of the possessive noun phrase can be seen from this diagram:

```
NP
  +---+---+
   |   |   |
    ART LOC NP
```

The underlying structure of such a phrase would again be this:

```
NP
  +---+---+
   |   |   |
    ART N NP
```

I consider this to be the underlying structure of all prepositional or "positional" phrases including those in which the locative particle is attached to the noun as a suffix (last six examples). The derivation of "pre-positional" noun phrases would be very much like that of possessed noun phrases: a copying rule which would place a genitive copy of the noun in the lowest node on the locative particle in the next higher node and an optional article deletion rule. There would have to be a restriction that the rule deleting the head noun could not apply in the case of locational phrases. The strings for *in i'pa'n toska* and *in e'ti* during the derivation would be these:

54 However, if the phrase is headed by an underlying absolute pronoun, that pronoun would be deleted. Forms such as *no-tek* "on me", *to-nawak* "among us" (lit.: our among) are quite common in Nahuatl.
underlying:  in -pa\'n  in to\'sk\'a\n
   in -tik  in a\'.\n
after copying:  in i\'\'pa\'n in to\'sk\'a\n
   in i\'\'tik in a\'.\n
noun deletion may not apply
after article deletion:  in i\'pa\'n to\'sk\'a\n
   i\'tik in a\'.\n
The second phrase would undergo a post-cyclic "scrambling" type rule which would change the order of the NP constituents (i\'tik and in a\'.) to the order found in the surface string without changing the meaning of the phrase.

after "scrambling":  in a\'. i\'tik

For the "post-positional" phrases, instead of a rule to duplicate the noun of the lower node and place a copy of it in the genitive case in front of the locative particle, a rule would apply which raises the whole noun of the lower node and attaches it in front of the locative particle. The grammar would provide in a natural way that the reduplication rule and the noun-raising rule would be mutually exclusive. Only one or the other could apply to a given node since the structural description for reduplication could not be met if noun-raising has already been applied. After the rule of noun-raising has applied, the article of the lower node would be deleted, and then by the generalized rule

of tree-pruning, the lower NP node would disappear. The structures in such a derivation would be these:

\[
in \lambda e-ko \quad \text{in the fire (lit.: the fire-in) (GL 13)}
\]

underlying structure:

```
NP
  |  
  |  
  | ART  
  |     
  | N  
  |     
  | LOC  
  |     
in  
  | -ko  
  |     
  | ART  
  |     
  | N  
```

after "noun-raising":

```
NP
  |  
  |  
  | ART  
  |    
  | N  
  |     
  | in  
  |     
  | \lambda e-ko  
  |    
  | ART  
  |    
  | N  
```

after "article deletion":

```
NP
  |  
  |    
  | ART  
  |    
  | N  
  |     
  | in  
  |     
  | \lambda e-ko
```

The fact that possessed nouns and "free-standing" prepositions (such as i-\(\text{pa-n}\), no-\(\text{pa-npa}\) "because of me", to-\(\text{na-wak}\), etc.) bear the same possessive prefixes in surface or derived structure is strong motivation for considering the locative particle some sort of noun -- as I have categorized it here. There is also evidence that historically some of the locative particles are derived from nouns. Feldman cites Olmos as saying that \(-\text{konko}\) "above" is

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56 Derivations of possessed "pre-positional" and possessed "post-positional" noun phrases are given in Appendix I. Further restrictions on the application of some rules are necessary in such derivations.
derived from ōnāli "hair", and -kwa-k "on" is from kwa-il "head." Others are -i-sko and -i-spa-n "before", "in front of" from i-sli "eye", "face", and -tik, -i-tek, -i-tik "inside" from i-tik or i-tek "belly". Langacker also mentioned this and pointed to the obvious morphological connection between nouns and locatives.

In the structure of the whole sentence these locative phrases, which can refer to time as well as place, function as adverbials. Thus, a phrase structure rule of this type ADV → NP seems to be needed. The ADV would normally be dominated by the VP... assuming that the basic structure of the sentence is S → NP VP.

In its sentence context, the phrase in lękô is the adverbial complement of the verb. The sentence is omola-stiwe in lękô "He threw himself that way in(to) the fire." The verbal prefix on- is a directional particle meaning "there" or "that way". (Its "twin" is wa-l- "here" or "this way". Their role in Nahuatl is much like that of the particles hin and her in German.) The reflexive object morpheme here is -mo-. A diagram of the derived structure of sentence would be:

---

57 Feldman, p. 48, § B.
58 Langacker, op. cit., p. 27.
The directional on- in this sentence may be a copy on the verb of the adverbial phrase. There is evidence for this in other sentences which have no direct objects but do have adverbial complements. Normally, in an Aztec sentence with a direct object, the object is copied onto the verb as the affix -ki- or -k- (see p. 25), just as the possessor nouns in possessive noun phrases and the head nouns in prepositional phrases were copied as genitive prefixes onto possessed nouns and locative particles respectively. Similarly, subject noun phrases and absolute pronouns are copied onto the verb as subject prefixes. These subject and object nouns and absolute pronouns seem to be optionally deletable like the others under certain conditions. In the sentence above, the reflexive affix is, obviously, a copy of the direct object which is identical to the subject.)

59 Here I am positing informally, and without going into detail about derivations and rules because it is beyond the scope of this paper, a deep structure for Nahuatl sentences whose constituents are a subject noun phrase, a verb phrase of verb or copula, optional object noun phrases and adverbial complements.

\[ S \rightarrow NP \rightarrow V \rightarrow NP \rightarrow NF \rightarrow (NP) \rightarrow (ADV) \]

The application of various rules of copying, deletion, and permutation would bring the sentence to its surface form. The point here, however, is that copying, and optional deletion of the constituents copied, seems to be an important process in Aztec grammar.
A sentence which contains both a direct object and a locational phrase in surface structure is:

\[\text{kite-ma in i'-tilma'ko in \lambda\text{ollli (GL 86)}}\]

He puts it the his-cloak-in the maize-kernel

He puts the maize-kernel in his cloak.

The "near" surface structure would be:

\[S\]
\[NP\]
\[ART\quad N\quad V\quad NP\quad ADV\]
\[\text{ki-te-ma}\quad \text{ART}\quad \text{N}\quad \text{in}\quad \text{\lambda\text{ollli}}\quad \text{ART}\quad \text{N}\quad \text{in}\quad \text{i'-tilma'ko}\]

"Scrambling" again would change the order of the NP and ADV constituents for the surface string. In the text, this sentence begins with two adverbs -- the time adverb \text{nima'\text{n}} which is often used to connect sentences at discourse level, and the place adverb \text{onka'\text{n}} "there". They seem to be functioning as sentence adverbs, so we would have to assume higher sentence structures to include them and embeddedness for the sentence just given.
The complements of verbs of motion appear to be adverbial phrases of time or location, or noun phrases with locational reference. Often one of the directionals is attached to the verb:

\[ nima\,\text{'n ye\,\text{' on\,\text{'a\,\text{'i\,\text{in T\,\text{\text{'l\,\text{\text{'a\,\text{\text{'n (GL 71) Then he\,\text{'looked\,\text{'that\,\text{'way (toward) Tula.} \]

\[ in no\,\text{\text{'a\,\text{\text{'n o\,\text{'w\,\text{\text{'a\,\text{\text{\text{\text{'m\,\text{\text{'w\,\text{\text{'k\,\text{\text{'k in teo\,\text{\text{'i\,\text{\text{'k\,\text{\text{'i\,\text{\text{' (Carochi, p. 31) \]

The my\,\text{\text{'house this\,\text{\text{'way\,\text{\text{'he\,\text{\text{'came the priest ... (The priest came this way (to) my house.)} \]

\[ ... to\,\text{\text{'s\,\text{\text{'k\,\text{\text{'o\,\text{\text{'i\,\text{\text{'i\,\text{\text{'w in to\,\text{\text{'e\,\text{\text{'o\,\text{\text{'w ... (GL 152) \]

(He said that) we (had) arrived there (at) the day of our god ... \]

This sentence contrasts with an almost identical one which does not contain the directional particle:

\[ ... o\,\text{\text{'a\,\text{\text{'s\,\text{\text{'k\,\text{\text{'o\,\text{\text{'i\,\text{\text{'w i\,\text{\text{'p\,\text{\text{'a\,\text{\text{'n in to\,\text{\text{'e\,\text{\text{'o\,\text{\text{'w (GL 154) \]

(The god told them that) we (had) arrived the his\,\text{\text{'day its\,\text{\text{'on the our\,\text{\text{'god. (... we had arrived on the day of our god.) \]

The use of \( in \) in the noun phrases and locational phrases in these sentences fits the analyses already given: \( in \) is an article introducing a noun phrase whose basic structure is NP → ART N.

In Nahual, as in many other languages, most all embedded sentences, including relative clauses and one common type of infinitive structure, seem to be noun phrases.

Infinitive complement structures are sequences of verbs. They can be either a one-word-compound of two roots, with the one meaning "know", "want", "desire" following its inflected
complement, or a two-word sequence of two inflected verbs, the first ("want", etc.) in the present or past, and the second in the future or present.

Examples of the two types are:

a) kilwi's-neki he will tell him-wants (he wants to tell him) (GL 232)
a'mo kilwi's-neki not he will say it-wants (he doesn't want to say it) (GL 39)
anwa'lla's-neki you (pl) will come-want (you want to come) (FC 12, 47, 29)
nilato'ma'ti I speak-know (I know how to speak) (WO 2(25))
nimiki-lani I die-desire (I desire to die) (WO 2(25))

b) kineki moyolk'iti s la'kas they-want-it they-will-be-confessed man (They want to be confessed persons.) (Gua 52:14)
a'mo' timneki tiyoli'ske kwatemalla'n not we-want-it we-will-live (in) Guatemala (We do not want to live in Guatemala.) (Gua 52:14)
nikma'ti nila'k'ilo's I-know-it I will write (I know how to write) (Newman, p. 198)
a'mo' timneki tešpiya'ske pa'dreme' čiko'me' not we-want-it they-will-watch-over-us priests seven (We do not want the seven priests to take care of us.) (Gua 52:14)

60 Newman translates this verb as "read".
In the second type the presence of the direct object morpheme -ki- or -k- indicates that the complement verb and its objects or complements are considered a noun phrase. The structure of the last, leaving off the negation (which would involve a higher verb structure like that shown on p. 41) would be this:

The embedded sentence "seven priests will watch over us" is dominated here by the direct object NP node. However, in is never found in sentences of this type. Its function of indicating a noun phrase is assumed by the morpheme -k- or -ki-. in does stand before independent direct objects of verbs in other types of sentences whether the object is a true noun or not.

Here are examples of what I labelled "abnormal noun phrases" when I first discovered them:

in ya*s the he-will-go (GL 66)
in kiλaλkawi*s (in i*s*ltepe*w in to*lλa*n) the he-will-depart-it (the his-city-Tula) (GL 66)
All of these are inflected verbs preceded by the article in. The first five function as direct objects and the last two as subjects of the sentences in which they occur. The context of the first two phrases is:

... kilna*miki in ya*s, in kiha'lke-wi*a in i'ltepe*w in to*illa*n.
... he (Quetzalcoatl) realizes-it the he-will-go the he-will-depart-it the his-city Tula (... he realizes (that) he will go, (that) he will depart his city Tula. or ... he realizes his going, his departure from his city Tula.)

The second two occur in this sentence:

a*kin la*twi*a, a*kin la*ma-ma*s in to*na*s, in la*twi*a ?
Who will-take-charge, who will-shoulder-(the-burden) (of) the it-will-shine, the it-will-dawn? (Who will take it on, who will be responsible for the coming of light, the dawning?) (Garibay translates the two phrases in question into Spanish as nominalized verbs: "el hacer salir el sol, el hacer amanecer."
The fifth phrase in context is:

... nima'n ye'i·k kiyokoya in k'wi·koyano's in k'wi·kama'na's.

... then thus they decided-on-it the-they-will-sing, the they-will-dance. (then thus they decided on the singing, the dancing.)

The subject "abnormal noun phrases" are thus in context:

se·kintin moma·tke' ka mik'a·mpa in ki·saki·w

Some they-thought that from-the-north (was) the it-comes-to-rise (Some thought that the rising (of the sun) was in the north.) (The phrase in question is the subject of an embedded zero-copula sentence.)

... nima'n ye'i·k pe'wa in k'afidi·liwi nowiya·mpa

... then thus it began the it-makes-something-red in all directions (... then thus the reddening began in all directions.)

The process here seems to be nominalization, as Garibay indicated in one of his translations. The inflected verbs -- which are really complete sentences -- are nominalized by the placement of the article in in front of them, which then, according to the phrase structure rule NP → ART N gives them the status of nouns. Since they are not really nouns but sentences, we must expand the phrase structure rule to N → S. The structure of these "abnormal" subject and object noun phrases in context is:
Subject -- pe·wa in łačiči·liwi nowiya·nпа

Object -- kilna·miki in ya·s

---

62 This is a prepositional phrase whose structure ADV → NP was discussed on pp. 34-42.

63 I have shown only one of the object phrases in this sentence in the diagram here, because I wished to avoid getting into the problem of apposition in Náhuatl, which would be a whole new Pandora's box. The k- object marker on the verb comes from copying the whole object NP.
Embedded sentences of this type are also found as the subjects and predicates of copula sentences:

k' al ye's in tikčia's i'n  Good will be the we-will-do-it this. (It will be good (that) we do this.) (Molina, Arte. See p. 2, this paper.)

mawistik in kįči-wke? Otomí? Marvelous (was) the they-made-it Otomí. (Marvelous was the Otomí's making it. or (?) What the Otomí made was marvelous.) (JRA 34)

ka k' alli in tikwi-ka'ske? in aš k'alli  Indeed, good (is) the we-will-carry-it the food. (Indeed, it is good (that) we will carry the food.) (JRA 33)

sesen yo'val in nite-miki  Every night (is) the I dream.  (Every night is my dreaming. or It is every night (that) I dream) (JRA 35)

se' yo'val in k' i'ka?  All night (is) the they-sing.  (All night is their singing. or It is all night (that) they sing.) (JRA 35)

Here is one as the predicate of a question:

λc n k k' a? in a'mo- anwa'lla-sneki?  Why is the not you-want-to-come? (Why is it that you don't want to come?) (FC 12, 47, 29)

64 The numbers in the Andrews references refer to the chapter.

65 The rules of English grammar force a translation of these sentences with extra-posed subject.
The structure of the first of these is:

```
S
  /\  \
 /  \ /
ART VP NP
   \  /  \\N  \  V
    \ /   \N  \  ye's
       \ /     \  [adj]
         \       \\k'el
          \      (be-fut)
           \     (good)
            \    \\
           VP     \\
             /  \  \
            /    \\
           ART NP  N
              \  /  \\V  \  -ki-
               \ /    \\viwa's
                \      (will do)
                 \     \\
                ART Q  N
                     \  i'n
                      \   (this)
```

The second sentence mawistik in kiçi·wke? Otomi? could also be interpreted as a relative clause. In translating this, one must ask what mawistik "marvelous" refers to -- to the whole embedded sentence or to only its object? If mawistik modifies the whole embedded sentence, the translation is "The Otomis' making it/something was marvelous" or "The fact the Otomi made it was marvelous" and the structure is like the structure given for the first sentence:

```
S
  /\  \
 /  \ /
ART VP NP
   \  /  \\N  \  V
    \ /   \N  \  (be)
       \ /     \  [adj]
         \       \\mawistik
          \      (marvelous)
           \    \\
          VP     \\
             /  \\kiçi·wke? Otomi?
              \    (The Otomi made it)
```

49.
But if the adjective modifies only the object -ki-, the translation will be "What the Otomi made was marvelous" and the structure of the subject NP will be a relative clause -- basically this:

```
NP  S
```

This will be discussed along with other relative clauses in the next section of this paper. In the analyses given so far, in is still an article introducing a noun phrase.

Relative Clauses

Surface strings which can, and often must, be translated as relative clauses occur most often in Classical Nahuatl with in at the beginning. In his dictionary definition of in Rémi Siméon wrote that "in fait disparaître l'interrogation ..." and gave examples of how in in front of an interrogative word changed a question to a relative clause: a'kin ne'ño'ga "Who calls me?" became in a'kin ne'ño'ga "celui qui m'appelle" "the one that calls me."

In English and many other languages, a relative clause is an embedded sentence which modifies a noun or a noun phrase. There is evidence that head noun phrases may refer to manner as well as time and place, so that in addition to noun-like things which may be modified by relative clauses, there is a range of adverbial concepts which may be relativized. From the data available in the text materials, all of these facts seem to be true also of

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66 See p. 7, this paper.
Classical Náhuatl.

In English we have strings like this occurring: 67

The man who came late is my uncle.
The freedoms that they fought for were soon lost again.

She saw the boy who snatched her purse.
He took the thing which he wanted.
This is the spot where I lost it.
I remember the time when he first arrived.

They showed us the way in which we should do it.

Certain types of reductions are permitted in English, especially when the relativized NP and its head are not the subject of the larger sentence. We get these grammatical strings:

She saw who snatched her purse.
He took what he wanted.
This is where I lost it. 68
I remember when he first arrived.

They showed us how we should do it. or They showed us how to do it.

Archaic English also permitted: Who came late is my uncle. 69

In Classical Náhuatl relative clauses have not only these forms -- with head nouns or NPs and relative pronoun connectors, head nouns or NPs deleted in subject as well as object position

67The head NPs are underlined twice, the relative clauses once.
68This sentence and some of the others are from Curme, pp. 165-168.
69The indefinite whoever is permitted in subject position in modern English: Whoever believes that is a fool.
and relative connectors remaining, but also with the relative
connectors (meaning "who, what, where, when, how" -- a·kin, le·,
ka·mpa, i·k'ax, ken, i·k) deleted and only in remaining at the
beginning of the relative clause. If the English sentences
above had undergone such a process they would read:

The (he) came late is my uncle. 70
The they fought for were soon lost again.
She saw the (he) snatched her purse.
He took the he wanted.
This is the I lost it.
I remember the he first arrived.
They showed us the we should do it. or They showed us
the to do it.

In Náhuatl the constraint on reductions seems to be that
they may apply when the head NP and the relativized constituent
are identical (or identical in reference) and the relativized
constituent has been pronominalized. We would have a structural
description like this:

```
X  NP [in Pro ...]  Y  NP = Pro
\\S\\S
1  2  3  4  5  6
```

Then these reductions could apply successively (but optionally):
Relative Pronoun Deletion:

```
1  2  3  5  6
```

Head NP Deletion:

```
1  3  \{4\}  5  6
```

70Náhuatl verbs retain their markings for subject, object, and
reflexive object in relative clauses, so that it is possible
to ascertain the person and number of the deleted independent
head NP.
Independent head NPs followed by a relative clause introduced by in plus a relative pronoun seldom occur in Classical Nahuatl. (This would be the equivalent of the sentences in the first group on p. 51: the man who came late; the boy who snatched her purse, etc.) Usually, either the head NP or the relative pronoun has been deleted. However I did find one instance. It may be significant that the relative clause has been "extraposed" away from the head NP:

1. ye'wa\-
\-i\-w ki\-fi\-wa in ak\-in kank\-walo\[71\] He does it like (this) the who has tooth-pain (FC 5, 194, 5)

Other examples of relative clauses with independent head NPs are:

2. in na\-net in o\-mokalti the householder the he-built-house (the householder who built the house) (FC 5, 194, 25)

3. in ye'wa\-l in motene\-wa tilaka\-wa the he the he-was-called Titlacahua (he who was called Titlacahua) (FC 5, 11, 4)

4. totefi\-ka\-wa\-n in o\-nemiko in a\-ltikpak our ancestors the came-to-live the earth-on (our ancestors who came to live on earth) (Newman, p. 199)

5. in i\-nhasowa\-n in weka nem? the their loved ones the far (away) they live (their loved ones who live far away) (FC 1, 30, 30)

\[71\]This is a passive verb. A more literal translation would be "the who is-tooth-pained."
6. *Hikitte i nošpo-si-’n, in omipa pie-lo* See the my-
daughter the over-there she-is-guarded (See my
daughter who is guarded over there)\(^{72}\) (IU 3, 18, 32)

7. *ne’wa-λ i ninemi* I, the I-live (I who am living)
(Schoembs, p. 30; see p. 10 of this paper.)

8. *in keq’a-loke’e in ye’ mamana, in ye’ motekipado’-a*
Quetzalcoatl, the already he-is-troubled, the already
he-is-grieved (with partial context: (thus) Quetzal-
ccoatl, who was already troubled, who was already grieved
(realizes it ... etc.) (GL 66; see also pp. 44-47 of
this paper.)

9. *aw ni’ma-n wa-lla in se’ la’-kal in i’toka kwako’-eλ*
And then he-came the one man the his-name (be) Cuauh-
ccoatl. (And then came a certain man whose name was
Cuauhcoatl) (GL 146)

It is possible to have relative clauses embedded in relative
clauses as shown in the following two examples:

10. ... *in teq’piñki, in o’kimoyolkwitili in kokoñki*\(^{73}\) in
ye’ wellanawtoya the priest the he-confessed the

\(^{72}\)Two readings are possible for this relative clause -- the one
given, with my daughter as the head NP and the clause referring
to her from which the relative pronoun a’-kin “who” has been
deleted. The other is that the relative clause refers to
place and the translation would be something like “there where
she is guarded”. My daughter in this case would not be the
head NP; the head would be an NP of place which has been
deleted and the relative for “where” would also have been
deleted.

\(^{73}\)The two types of underlining here indicate the double function
of the NP.
sick-one the already he-was-critical (in partial context: The priest [came to my house] who confessed the sick one who was already very critical.) (Carochi, p. 31: see also pp. 4 and 42 of this paper.)

11. \( \text{in ye^{wa-ntin} in kIttak{e} \text{ a-kall{ e in e}tto wa-l{la?}} } \)
the they the they-saw ship the first came (they who saw the ship which first came) (FC 12, 9, 3)

Relative clauses which refer to things or location and which have independent head NPs are these:

12. Españoles a^{siko} in onka{ } \( \text{a-skalla, in m} \text{ittoo te} \text{skalla } \) Spaniards arrived the there Tlaxcala, the was called Texcalla (... which was [at that time] called Texcalla) (FC 12, 29, 2)

13. mani in teno^{k{k{I in ikpak moke^{tikak in k}w{a-w{k{ there- was the nopal the its-on stood-upright the eagle (... nopal, on top of which stood the eagle) (GL 145)

14. i^{wa-n kimikti{a} in i^{s{ika}, in kito^{keyot{a} ti}lakawa{ n} and they-slew-it the his-image, the they-named-it Titlaca- cahu{an (... his image which they named Titlacaahu{an (FC 1, 38, 40)

A relative clause which refers to time is this one:

15. \( \text{in i^{pa-n to}sk{a, in akoki{say{a in diable, kinmikt{ike} }... } the its-in Toxcatl (a month), the it-was-rising-up the devil, they sacrificed them ... (in Toxcatl, when a devil was rising up, they ... ) (GL 151; see also pp. 35-39 of this paper.)} \)
There are innumerable examples in the texts of relative clauses without independent head NPs, but with relative pronouns or connectors introducing (usually in company with in) the relative clause. Very often the person and number of the absent head is marked in the subject or object pronominal affixes attached to the main verb.

Examples:

16. *kilwi'-aya, in a'kin kite'miki* he (a god, Omecatl)
   was saying to him, the who he-dreamed-it (he was saying to the one who dreamed) (FC 1, 14, 23)

17. *aw in a'kin kisa'sneki ompa kiwawl'viteki', kiwalš'šili'*
   And the who will-leave-wants there, they-struck-him, they-speared-him. (And whoever wanted to leave there they struck, they speared. or They struck, they speared whoever wanted to leave there.) (FC 12, 53, 33)

18. *in a'kin i-wki i'n a'mo wel kifiwa's* the who (be)
   like this not (be) he-able he-will-do-it (Whoever is like this will not be able to do it.) (JRA 35)

19. *nolaš'ši'n in a'kin nesno'ša* my-uncle (be) the who he-calle-me (My uncle is the one who calls me.) (JRA 34; this may be the fuller form of the clause quoted by Carochi and Siméon.)74

20. *wel tops'n kifiwa'ske* in Ae'n kineki'
   well our-on they-will-do-it the what they-want-it (Well for us they will do what they want.) (Mexico 168)

74See p. 7 of this paper and Carochi, *op. cit.*, p. 32.
21. ka a’okmo nikma’ in A’e·n niki’to· (it is) that no longer I-knew-it the what I-said-it (that I no longer knew what I said) (FC 4, 16, 23)

22. in A’e·n o·tikGIw the what you-did-it (what you did) (Carochi, p. 32)

23. aw i’wa·n tikilnamiki·s in ka’mps tiya‘e and so you-will-recall-it the where you-will-go (and so you will remember where you will go) (GL 50)

24. in i’kin tiya‘e the when you-will-go (when you will go) (Siméon; see p. 7, this paper)

25. wel išiwa· a’sitiwe’iya’ in ka’mps vίa’ quite quickly they would arrive the where they go (Quite quickly they would arrive where they were going.) (JRA 35)

There are many examples of relative clauses referring to time which begin with in i’kwa•k “the when”:

26. in A kalakoti onka‘n mikiya’ in i’kwa•k iliwiklilloloyi the slaves there were dying the when the-feast was-being-celebrated (The slaves were dying there while the feast was being celebrated.) (FC 1, 14, 6)

27. meltepolami in i’kwa•k hakwa he-was-throat-pained the when he-ate (his throat hurt when he ate) (FC 1, 14, 29)

28. ... kimopa’ti·li·s in i’kwa•k kimoneki·liti·s he-will-cure-them the when he-will-want-it (he will cure them when he wants to) (Mexico 168; see p. 17 this paper)
Relative clauses of manner and place are the subjects of this sentence:

29. **in ke·nin ꭐintike** in teeto·? **in ka·mpa ꭐintike**
    a·mo· wel ma·ño· The how they-began the gods (and)
    the where they-began (be) not well known. (How the
gods began (and) where they began is not well known.)
    (FC 3, 1, 4-5)

As was mentioned previously, there are many instances in which neither the independent head NP nor a relative connector are present in the sentence containing the relative clause (cf. p. 53, this paper). Here are a few examples:

30. **ki·nmola·coti·lia in tote·k'iyoo dios in kimo·ayekolti·lia**
    them-he-loves-(rev) the our-lord God the they-serve-
    him-(rev) (Our lord God loves them who serve him.)
    (Newman, p. 199)

31. **in teo·λ dios ki·nmola·cak'ilti·lia in la·v'akoti·nemi**?
    God punishes them the they-go-around-sinning (God
    punishes those who sin.) (Carochi, p. 31) [Carochi's
    translation and comment on this are: "Dios castiga
    á los que pecan. El primer in es el y el segundo á
    los que."]

32. **in ompa o·tiwa·lake? toto·niki λa·lpa·n** the there we-
    came-this-way (be) hot country (Where we came from is
    hot country.) (Carranza, see p. 8, this paper.)
[Carranza provides a head NP in his Spanish translation: "la región de donde venimos ..."]

33. \textit{in lakwa} the he eats, (he who eats) or possibly, if deleted head referred to time -- when he eats. (Simón, Molina, \textit{Vocabulario}, and Rincón, \textit{Arte}; see pp. 2-7, this paper.)

34. \textit{in o-kisi-w} the he-made-it (what he made (?)\textsuperscript{75} (Galdo Guzmán, \textit{Arte}; see p. 3, this paper.)

If the sentence on page 48 is interpreted as having a relative clause structure, it too would be one of this type:

35. mawistik \textit{in kisi-wke\textsuperscript{*} Otomi\textsuperscript{*}} Marvelous was what the Otomi made. (JRA 34)

There are many relative clauses referring to time with this same surface form:

36. \textit{in o-kittake\textsuperscript{*}, ni-ma\textsuperscript{*} ye\textsuperscript{*} laspansa ....} the they saw it, then already they-sweep .... (when they saw it, then they swept ....) (GL 149; Garibay translates it "Cuando lo han visto, luego barren ....")

37. \textit{in tiwa-lla\textsuperscript{*} ye\textsuperscript{*} o-nilak\textsuperscript{*}a} the you-will-come, already I-ate (when you come, I will have already eaten) (JRA 35)

Andrews gives the same translation to another sentence with \textit{i\textsuperscript{75}kwak} "when" still present:

\textsuperscript{75}Like the sentence which follows it, this one is capable of two interpretations -- as a relative clause or as a nominalization. Which is correct cannot be ascertained without seeing the clause in its larger context.
38. *ikwa'k tiwa'lllas ye'o-nilakwa* the when you-will-come, already I-ate ("When you come I will have already eaten.") (JRA 35)

He also has:

39. *ye'o-nilakwa* in *ca'aiko* already I-ate the he-arrived ("I had already eaten when he arrived.") (JRA 35)

All of the examples of relative clauses given so far have begun with *in*. It is also possible in Classical Nahuatl to find relative clauses that do not begin with *in*, but only with one of the relative connectors or pronouns -- *ikwa'k, a'ki'n, a'k*, or *a'en*, etc. Such clauses are very infrequent in the texts, although this has been the direction taken by some of the modern dialects. 76

Examples of such clauses are:

*iw* ak a'kwa'katlo, *i-wki*i'n ik ... when it-was-eaten, (it was) like this thus (FC 1, 14, 39)

*a'kin justicias a'mo'wel me'la'wak kilakama'ti mola'atol
who (be) judges cannot truly obey it your law (Those who are judges cannot truly obey your law) (Gua 52:20)

Cf. pp. 18-19, this paper, and GL pp. 191-207.
The absence of *in* in these clauses can be accounted for by the application of the optional rule of Article Deletion, discussed previously on pp. 32-38. This rule can be applied to relative clause structures either before or after the rule of Relative Clause Formation. But the grammar would have to include the restriction that if Article Deletion has been applied to a relative clause (see structural description on p. 52), then the Relative Pronoun Deletion transformation cannot apply to that structure, otherwise both markers of relative clauses -- the article *in* and the relative pronoun -- would be lost.

The underlying structure which has been proposed for relative clauses in many other languages is NP → NP S. Presented schematically it is NP S. With minor changes, this structure would also seem to serve well for Classical Nahuatl. The lower NP, the "head" NP of the relative clause will be NP → ART N. This head NP is the antecedent of and shares referential identity with a noun phrase, either subject or object, or with an adverbial in the sentence which follows it. Upon satisfaction of this requirement of structural description, a generalized transformation of Relative Clause Formation applies obligatorily which moves the identical constituent to the front of the lower S and then replaces it with a relative pronoun or connector. This is the case in English and in Latin, and from the data presented on
the preceding pages, it certainly seems to be the case in Classical Nahuatl as well. 77

We can show how relativization has applied in various ways to some of those sentences already given. The first way is relativization of the subject of the lower S. Sentence 1 will have this underlying structure:

Relative Clause Formation:

77 R. Lakoff, pp. 207-221, and 17; and Jacobs and Rosenbaum, Chap. 29, pp. 199-213. See structural description on p. 52, this paper.
The word order of the surface string \textit{ye'wa·x i·w kiči·wa in a'ki·n λankwalo} will be achieved by the application of a transformation of Extrapoision from NP which shifts the embedded S of the relative clause to a position following the VP of the higher sentence and directly dominated by the higher S:

After Extrapolation from NP:

\begin{center}
\begin{tikzpicture}


\begin{scope}[level distance=2cm, sibling distance=3cm]


\node (root) {S} child {node (NP) {NP} child {node (ye·wa·x) {\textit{he}}} edge from parent node[above] {\textit{ye'wa·x}} } child {node (VP) {VP} child {node (i·w kiči·wa) {\textit{like do it}}} edge from parent node[above] {\textit{i·w kiči·wa}} };

\end{scope}

\begin{scope}[level distance=2cm, sibling distance=3cm]

\node (root) {S} child {node (NP) {NP} child {node (ART) {\textit{ART}}} child {node (N) {\textit{N}}} edge from parent node[above] {\textit{N}} } child {node (VP) {VP} child {node (λankwalo) {\textit{be tooth-pained}}} edge from parent node[above] {\textit{λankwalo}} };

\end{scope}

\begin{scope}[level distance=2cm, sibling distance=3cm]

\node (root) {S} child {node (NP) {NP} child {node (Rel) {\textit{Rel}}} child {node (in a'ki·n) {\textit{(who)}}} edge from parent node[above] {\textit{in a'ki·n}} } child {node (VP) {VP} child {node (λankwalo) {\textit{be tooth-pained}}} edge from parent node[above] {\textit{λankwalo}} };

\end{scope}

\end{tikzpicture}
\end{center}

According to rules previously given, the article would be optionally deleted from the upper NP and the adverb \textit{i·w} "like" or "thus" would be moved in front of the verb.

Extrapolation from NP is an optional transformation in English which must be ordered to follow Relative Clause Formation. This would seem to be true also of Classical Náhuatl. However, sentence 1 is an anomaly among the sentences containing relative clauses which are found in the sixteenth century texts. Usually the head NP or the relative pronoun, or both, have been deleted from the surface string. Perhaps a string containing both a head NP and a relative pronoun is too redundant for the stylistic rules of Náhuatl unless Extrapolation from NP is applied to
separate them. In that case then, the application of the rule of Extraposition from NP would be obligatory in this language.

Sentence 6 is an example of relativization of the subject with subsequent deletion of the relative pronoun. This is its underlying structure:

After Relative Clause Formation we have:

---

6k. This k- is the pronominal copy on the verb of the direct object NP, nočpo-ji'n, cf. p. 40.
Deletion of the relative pronoun gives the string:

\[
\text{Sikitta in no\textsuperscript{sp}o\textsuperscript{\textdagger} in pialo ompa.}
\]

A focusing or foregrounding transformation like "scrambling" then applies to change the order of the constituents in the lower S:

\[
\text{Sikitta in no\textsuperscript{sp}o\textsuperscript{\textdagger} in ompa pialo.}
\]

The article *in of the relativized NP remains to introduce the relative clause. Whether there is a restriction on the grammar that only the relative pronoun of the relativized NP can be deleted and not the whole relativized NP is not clear. We do not find strings like *Sikitta in no\textsuperscript{sp}o\textsuperscript{\textdagger} pialo ompa or *Sikitta pialo ompa in the texts, but we do find: o\textsuperscript{\textdagger}kona\textsuperscript{\textdagger}kiti\textsuperscript{\textdagger}ke\textsuperscript{\textdagger} onka\textsuperscript{n miki\textsuperscript{\textdagger}} they-her-caused-to-arrive-that-way there she-will-die (JRA 35) (His translation is "They caused her to arrive where she will die."). This would be like Sikitta in no\textsuperscript{sp}o\textsuperscript{\textdagger} pialo or Sikitta ompa pialo. Andrews' sentence would have to be analyzed further in context to determine if the adverb onka\textsuperscript{n belongs to the relative clause or to the upper sentence.

Sentence 8 is an example of the subject of the higher S as head NP with relative pronouns deleted.

A sentence with the head NP deleted but the relativized NP intact is number 16. Its underlying structure would be:
After Relative Clause Formation the string is:

$$\text{kilwi\textsuperscript{-}	ext{sys} in a\textsuperscript{-}ki\textsuperscript{\prime}\text{n kitemiki}}$$

After Head NP Deletion we get the surface string:

$$\text{kilwi\textsuperscript{-}	ext{sys} in a\textsuperscript{-}ki\textsuperscript{\prime}\text{n kitemiki}. (He was saying to him who dreamed it.)}$$

The rule of Head NP Deletion should probably be ordered after Relative Pronoun Deletion. The head NP is, of course, always a part of the higher S in relative clause constructions. Both rules, Head NP Deletion and Relative Pronoun Deletion, seem to be optional. However, as was mentioned previously (p. 61), if Article Deletion has been applied to the relative clause, Relative Pronoun Deletion cannot apply.

Sentences 30 and 31 have undergone both Relative Pronoun Deletion and Head NP Deletion. Here is the underlying structure of sentence 31:
God punishes them who go-around-sinning. (Carochi)

Relative Clause Formation gives:

\[
\text{in teo-\(\lambda\) dios ki-nmo\(\lambda\)s\(\alpha\)k\(\breve{\iota}\)lilia in \(\lambda\)\(\lambda\)kotinemi?}
\]

Relative Pronoun Deletion gives:

\[
\text{in teo-\(\lambda\) dios ki-nmo\(\lambda\)s\(\alpha\)k\(\breve{\iota}\)lilia in ye\(\w^{\w}a\)n in \(\lambda\)\(\lambda\)kotinemi?}
\]

Head NP Deletion gives:

\[
\text{in teo-\(\lambda\) dios ki-nmo\(\lambda\)s\(\alpha\)k\(\breve{\iota}\)lilia in \(\lambda\)\(\lambda\)kotinemi?}
\]

There is a rule already in the grammar for the optional deletion of an NP constituent after its pronominal form has been copied onto the verb. (See p. 40.) The plural object pronoun ki-\(n\) is
the result of this copying. We would probably have to assume that this deletion rule has not applied when the NP constituent -- whether subject or object of the verb in the higher S -- is the head NP of a relative clause construction. The deletion would then be accomplished -- when accomplished -- by the application of the Head NP Deletion rule.

Another of Carochi's sentences, number 10, is an example of the recursiveness of relative clause structures in Classical Nahuatl. Example 11 from the Florentine Codex is an example of the same recursiveness. Here is the structure of 11:

11. in ye*wa-ntin in kittake* a-kalli in a*to wa*lla?
   they who saw the ship which first came
After Relative Clause Formation has applied in each of the embedded sentences, the relative pronouns have been deleted. The head noun of the lower relative clause a-kalli "ship" has not been deleted (although its article has) and so it stands in the surface string. The occurrences of in in the surface string are the articles left on the relativized NPs after Relative Pronoun Deletion has applied.

The structural diagrams and derivations given so far have all been of relativization of the subject of the lower sentence. Examples of the relativization of the object of the lower S are found in the sentences and clauses numbered 14, 20, 21, 22, and 34 and 35. Like the others already analyzed, some of these have head NPs in their surface strings, some have relative pronouns, and some have neither. Sentence 20 has a relative pronoun but no head NP. Schematically, in underlying structure it is:

In order to simplify the diagram I have left off the two introductory adverbials wel "well" and topa:n "for us" (actually "our-on", a prepositional phrase). The structures of the lower part of the embedded S also probably go much deeper than I have indicated here, so that a translation would be something like "they will do it the what they want that they do is". The purpose here, however, is to show the process of relativization on the object and the role of in in relative clauses.
After Relative Clause Formation we have:

Relative Pronoun Deletion does not apply.

Head NP Deletion applies and gives the surface string:

... kišwa·skeni in λe·n kineki. ... they will do (the) what they want.

Even in the relativization of the object of the lower sentence it seems to be impossible to get a sequence of two ins together resulting from the deletion transformations. In Relative Pronoun Deletion usually only the pronoun is deleted and the article in remains to introduce the embedded S. When Head NP Deletion applies it deletes the entire head NP. The grammar also has a rule for the optional deletion of the article in before a true noun (cf. pp. 21 and 30). It is the application
of this rule which has deleted the article before a·kalli "ship" the head noun in example 11, p. 55, not Head NP Deletion. In all of the occurrences of in in the relative clauses analyzed so far, there is no indication that in is a relative pronoun nor really anything more than an article which introduces a noun phrase. It stands alone at the beginning of an embedded sentence in a relative clause structure when the relative pronoun has been deleted.

Relative clauses of time and place present their own special problems. Like those already discussed, these relative clauses are found with independent heads, without independent heads, with relative connectors, and without relative connectors. Example 15 has a prepositional phrase referring to time as its head NP -- in i·pa·n toskal "in Toxcatl" (a month). We can account for this structurally by expanding the prepositional phrase structure (diagrammed on pp. 36 and 39) already given to include a relative clause structure. The relative clause structure referring to time in 15 would then look like this in deep structure:

15. in i·pa·n toskal, in a·koki·saya in diablo

The phrase structure rules given there were ADV → NP
       NP → ART N
The application of Relative Clause Formation would give:

```
  ADV
   NP
      S
         NP
            ART
                Rel
                    in
                        diablo
                            a'koki'saya
                                (the devil)
                                    (be rising up)
                              in
                                i'pa'n toskah
                                    (the when)
```

When Relative Pronoun Deletion applies to this tree deleting i'pa'n toskah, we are left with the sequence in in (two articles together) which never occurs in the texts. However, the grammar already includes a post- or last-cyclic rule of the "scrambling" type which changes the order of the constituents of an S (see pp. 37, 41, 65, and iii). In this case, the application of this rule appears to be obligatory to prevent the occurrence of the in in sequence in the surface string. Otherwise, we must posit a different underlying word order like VSO instead of SVO for Nahuatl sentences. Whatever way this sequence may be blocked, after the VP has been placed in front of the subject NP, giving a'koki'saya in diablo, then Relative Pronoun Deletion can apply and we get the surface string: in i'pa'n toskah in a'koki'saya in diablo. Once again the in which introduces the embedded sentence is the article left after the deletion of the relative connector of the relativized constituent.
Example 15 is an adverbial clause at the beginning of a sentence which translates as "In Toxcatl, when a devil was rising up, they sacrificed them during singing." ("During singing" is a postpositional noun phrase -- in k'ikoyanowaya·n -- of the type discussed on p. 41.) The relationship of this initial adverbial clause to the rest of the sentence is somewhat tricky to determine. The most plausible structure seems to be that the adverbial clause is the predicate of a higher sentence in which the principal clause functions as the subject. The surface order of adverbial clause first is reached by application of a rule of Adverb Preposing:

Underlying structure:

This is a now-conventional Noun Phrase Complement structure. See Rosenbaum, 1967, p. 34, and R. Lakoff, 1968, p. 17 ff.

---

This is a now-conventional Noun Phrase Complement structure. See Rosenbaum, 1967, p. 34, and R. Lakoff, 1968, p. 17 ff.
After Adverb Preposing:

\[
\text{S} \rightarrow \text{ADV} \quad \text{NP} \quad (\text{it}) \quad \text{VP} \\
\text{NP} \quad \text{S} \quad \text{NP} \quad \text{S} \\
\text{in i'pa'n toškα} \quad \text{in a'kikissαya, etc.} \quad \text{ki'nmltikε in} \quad \text{kwikoyanowayα'n} \\
\text{(they sacrificed them, etc.,)} \\
\text{(In Toccatl when a devil was rising up)}
\]

This same sort of higher sentence structure with an adverbial predicate whose own underlying structure was a relative clause, probably could also be posited for many of the sentences found in Nahuatl texts with an initial adverbial clause. It seems to be applicable especially in those sentences like example 36 where the two clauses indicate a sequence of events.

Example 36 is in o'kittake', ni'ma'n ye' lašpαna ... 82
"the (when) they saw it, then they swept". Its underlying structure would be:

\[
\text{S} \rightarrow \text{NP} \quad \text{S} \quad \text{VP} \\
\text{it} \quad \text{be} \quad \text{ADV} \\
i'ma'n ye' lašpαna \quad (\text{be}) \quad \text{NP} \\
\text{ART} \quad \text{N} \quad \text{NP} \quad \text{VP} \quad \text{ADV} \\
in ka'wια \quad (\text{they}) \quad \text{in ka'wια} \quad (\text{the time}) \\
o'kittake' \quad (\text{saw it}) \quad (\text{the time})
\]

82A conjoined sentence follows this one.
Derivation of the adverbial relative clause would give these strings:

Relative Clause Formation:

\begin{align*}
\text{in ka-wi'la in iv'ka'ak o'kittake} & \quad \text{the time the when} \\
\text{they saw it}
\end{align*}

Relative Pronoun Deletion:

\begin{align*}
\text{in ka-wi'la in o'kittake} & \quad \text{the time the they saw it}
\end{align*}

Head NP Deletion:

\begin{align*}
\text{in o'kittake} & \quad \text{the they saw it}
\end{align*}

The application of Adverb Preposing would yield the surface order:

\begin{align*}
\text{in o'kittake}, \text{ ni'sma'nye la'apa}
\end{align*}

The sentences in examples 37 and 38 could be analyzed in this way, and probably also those containing expressions like "not-yet" or "before", "while" or "still" and "after". For example:

\begin{align*}
\text{in aya'mo' miki', mi'to'tia'ya the not-yet she died, she was dancing.} & \quad \text{Before she died, she was dancing.) (JRA 35)} \\
\text{aw in aya'mo ne'namako, ok afo la'akwalo the not-yet it was shared among them, still first they ate ....} & \quad \text{(Before it was shared among them, they ate ....) (FC 1, 14, 35)} \\
\text{in ok ninoteo' ci'wa, nila'apa'saka'n the still I-me-god-make, you-sweep-up ("While I am praying, you sweep up.")} & \quad \text{(JRA 35)}
\end{align*}
in ye' i·w o·nšiči, ompa o·ašiko the already it-was-like two years, there he arrived (After two years, he arrived there.) (JRA 35)

This is just a suggestion, however, and the detailed analysis of such adverbial expressions is better left to a separate study from this one.

The higher sentence structure could also be posited for example 26, but it does not seem to be completely necessary. Examples 27 and 28 do not require such an analysis. In them it seems evident that the adverbial relative clause structure is in the same sentence as the subject and predicate.

27. meltepošamiš in i*yak λakwa

---

83 This is the preterite form of a copula verb, i·wi, meaning "be like."

84 in plus the in introducing conditional clauses, mentioned by Garibay (p. 73), might also be shown once more to be the definite article introducing a noun phrase. In this case the subordinate clause might be categorized as a noun phrase. This, too, would be a suitable subject for further investigation.
Relative clauses of place are derived in much the same way with the relative connector *kampa* "where" replacing the noun *yeyanläi* "place" after the application of Relative Clause Formation. In sentence 23 the relative clause of place has as its head the NP direct object of the verb. The evidence for this is found in the direct object marking *-k-* on the verb itself.

The underlying structure of 23 is thus:

\[ \text{aw i'-wa'-n tikilnamiki'-s in ka'-mpa tiya'-s} \]

Relative Clause Formation gives the string:

\[ \text{aw i'-wa'-n tikilnamiki'-s in yeyanläi in ka'-mpa tiya'-s}. \]

Relative Pronoun Deletion is not applied.

Head NP Deletion gives the surface string:

\[ \text{aw i'-wa'-n tikilnamiki'-s in ka'-mpa tiya'-s}. \]

\[ ^{85} \text{I have left the introductory conjunctions off this phrase marker diagram.} \]
Sentence 25 would seem to have a similar structure, but, since the main verb has no direct object NP, the deleted head of the relative clause is the adverbial complement of the main verb. Therefore, its underlying structure is this:

25. vel išiwka. a'sitiweşiya in ka'mpa wia?

86

<table>
<thead>
<tr>
<th>NP</th>
<th>VP</th>
<th>ADV</th>
</tr>
</thead>
<tbody>
<tr>
<td>it</td>
<td>(be)</td>
<td>(quite quickly)</td>
</tr>
<tr>
<td>NP</td>
<td>VP</td>
<td>vel išiwka</td>
</tr>
<tr>
<td>(they)</td>
<td>(arrive)</td>
<td></td>
</tr>
<tr>
<td>a'sitiweşiya</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NP</td>
<td>S</td>
<td></td>
</tr>
<tr>
<td>in yeyanh</td>
<td>NP</td>
<td></td>
</tr>
<tr>
<td>(the place)</td>
<td>VP</td>
<td></td>
</tr>
<tr>
<td>in yeyanh</td>
<td>V</td>
<td>ADV</td>
</tr>
<tr>
<td>(they)</td>
<td>wia</td>
<td>(go)</td>
</tr>
<tr>
<td>ART</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>in yeyanh</td>
<td>in yeyanh</td>
<td>(the place)</td>
</tr>
</tbody>
</table>

86 The initial adverbs of this sentence have been analyzed as the predicate of a higher sentence.
The same transformations apply as to sentence 25 and give these strings:

Relative Clause Formation:

\[ \ldots \text{a'sitiwe\'iya in ye\'an\'i in ka\'mpa wia}\] 87

Relative Pronoun Deletion isn't applied.

Head NP Deletion:

\[ \ldots \text{a'sitiwe\'iya in ka\'mpa wia}\]

In sentence 29 conjoined relative clauses are the subject of the sentence. The first relative clause is of manner, so we can posit an underlying head NP of \( \text{in i\-'wkay-o:A} \) "the manner" for it. The same transformations would apply to these relative clauses as those in the two sentences just discussed: Relative Clause Formation and Head NP Deletion. The phrase marker of the derived surface structure of 29 would be:

```
```

\[\text{s} \quad \text{NP} \quad \text{VP} \quad \text{a\-'mo\-wel ma\-do} \]

\[\text{NP} \quad \text{(and)} \quad \text{NP} \quad \text{(be not well known)}\]

\[\text{NP} \quad \text{NP} \quad \text{NP} \quad \text{NP} \]

\[\text{in ke\-'nin gin-tike\' in te\-'teo\-'t} \quad \text{in ke\-'nin gin-tike\' in te\-'teo\-'t} \quad \text{in ke\-'nin gin-tike\' in te\-'teo\-'t} \]

\[\text{(the manner)} \quad \text{(How the gods began)} \quad \text{(the place)} \quad \text{(where they began)}\]

87 The initial adverbs have been omitted.
A special problem in the derivation of relative clauses of place is presented by sentences like example 32: *in ompa o-ti-wa'llake* tuto-nki la-lpa:n "the there we-came-this-way (is) hot country" where an adverb or an adverbial pronoun stands in the surface string in the place usually occupied by the relative pronoun. Two other sentences of this type are

40. .... *se'inka miek in a'kalli o-wa'llla*? *in onka:n o-wa-liei'tlaya*? *in espanoles* .... (in 1519 when Don Hernando Cortes arrived) very many boats came the therein the Spaniards traveled (FC 8, 21, 5)

41. *in onka:n ki'nto'ka?*, *modipa ki'nlamanilia?* the there they bury them, always they-them-leave-offerings (JRA 35)

The translators of both sentence 32 and 41 interpreted *ompa* and *onka:n* as meaning "where" and gave them that translation. The translators of sentence 40 translated *in onka:n* as "in which". The literal translation of *ompa* is "there-from" or "from whence" and of *onka:n* is "there-on". Their morphological form is directional particle + post-position. Langacker said of them "It is assumed that *ompa* and *onkan* are locative pronominal forms that substitute for an entire postpositional phrase."88 If we treat *ompa* and *onka:n* as derived prepositional or postpositional phrases attached to the adverbial place phrase which is relativized, we can account for their presence in the

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relative clauses of sentences 32, 40, and 41. The structure of this phrase is

```
The structure of sentence 32 before application of Relative Clause Formation would then be:

32. in ompa o·tiwa·llake* toto·nki λa·lpa·n
```

89 See Appendix I for derivation of "positional" phrases. The structure of these in relation to the whole sentence was also ADV → NP.
After Relative Clause Formation the subject NP is:

After Relative Clause Formation the subject NP is:

Relative Pronoun Deletion gives:

Relative Pronoun Deletion gives:

Head NP Deletion gives:

Head NP Deletion gives:

The relative clause in sentence 41 would be derived in much the same way, but would also undergo the rule of Adverb Preposing after Head NP Deletion to place the relative clause at the beginning of the sentence.

In sentence 40, the head NP of the relative clause is

in a·kalli "the boat(s)". The phrase which is relativized is:

in a·kalli onka·n

After Relative Clause Formation the lower sentence string is:

After Relative Clause Formation the lower sentence string is:

in Ae· onka·n o·wa·lietisake o españoles the which
there-on they-traveled the Spaniards
Relative Pronoun Deletion gives:

\[ \text{in onka'\text{-}n o'wa\text{-}liistiake? in espa\text{
holes}} \]

Head NP deletion does not apply to sentence 40, but from the surface string it is evident that Extraposition from NP has applied and moved the relative clause away from its head. The quantifier and adverb se'\text{\-}nka mick "very many" are the predicate of the higher sentence of which all the structure given so far for sentence 40 comprise the subject NP. Thus:

```
S
   _______NP_________VP_____
  |                   |
 the boats     S      (be) very many
    _______NP_______VP___
  |         |
 the boats   S       came
    _______S________
                 |
    there-on the Spaniards
```

Considering the omnipresent in again, nothing has been shown in all this discussion of various types of relative clauses and their derivations which would indicate that in is anything more than an article that introduces a noun phrase. As was pointed out previously, in relative clauses the in found alone in surface strings is the article left on the relativized
NP after Relative Pronoun Deletion has applied. Moreover, in none of the structures analyzed in this paper could in have been considered an adverb or a conjunction as the old and not-so-old grammarians have claimed. The difference between in the article and in the demonstrative was shown in the early pages of this paper. The idea of in as a pleonastic decoration on the sentences of Classical Nahuatl should also be put to rest. Nowhere in this paper has an occurrence of in been found to be pleonastic and without purpose. In all instances -- before nouns, in possessive NPs, in prepositional and locational phrases, before nominalized sentences, and in relative clauses -- in was doing its duty as an article introducing a noun phrase and, thereby, as an indicator of grammatical relationships within a sentence.
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Appendix I

The derivation of a possessed post-positional phrase would have one more step:

in ɨ-nilapocal-pa:n  the their count-something-on
(census) (GL 154)

Underlying structure:

First cycle:
reduplication for genitive
article deletion
pronoun deletion
(tree-pruning is automatic)

Second cycle:
noun-raising
article deletion
Possessed "pre-positional" noun phrases also occur. For example:

in i·lw iw i·pa·n in to-teo·w on the day of our god
(lit.: the his-day its-on the our-god) (GL 15b)

The derivation of this phrase would be thus:

After first cycle:
Rules applied --
reduplication for genitive
article deletion
pronoun deletion

After second cycle:
Rule applied --
reduplication for genitive
article deletion
has not applied
The grammar will require a restriction that optional noun deletion cannot apply when the noun or particle of the lower node which is copied for genitive reduplication is already possessed. By this restriction, then, to-teo\[-w of the lower node above cannot be deleted. The article in of the same node could be deleted since there seem to be no further restrictions on the application of the optional article deletion rule.

After third cycle:

Rules applied --
reduplication for genitive
article deletion has not applied

After fourth cycle:
Rule applied --
article deletion

The last rule to apply in this particular derivation would be a focusing or fronting rule like "scrambling" which would permit a change in the order of the surface constituents and bring about the order in which this phrase is found in the text:

in i\[-lwiw i\[-pa\[-n in to-teo\[-w