

See discussions, stats, and author profiles for this publication at: <https://www.researchgate.net/publication/272507445>

The East–West split in Nahuatl Dialectology: Reviewing the Evidence and Consolidating the Grouping

Conference Paper · January 2014

CITATION

1

READS

76

1 author:



Magnus Pharao Hansen

University of Copenhagen

29 PUBLICATIONS 21 CITATIONS

SEE PROFILE

Some of the authors of this publication are also working on these related projects:



Acazolco otomí [View project](#)



Race, Nation, Language and Cultural Heritage in the Aztlán Borderlands [View project](#)

The East-West split in Nahuatl Dialectology: Reviewing the Evidence and Consolidating the Grouping.¹

Magnus Pharao Hansen, Brown University

*Paper presented at the Friends of Uto-Aztecan Workshop,
at the Universidad Autónoma de Nayarit,
Tepic, Nayarit, June 20th, 2014*

This paper reviews the evidence for a basic division of the Nahuatl languages into an Eastern and a Western branch, and provides additional evidence supporting the historical status of this division. Based on the evidence known at this point, I conclude that the East/West split must be considered to be established as the most basic level division of the Nahuatl languages. I do not attempt to produce a new classification, but demonstrate an emerging consensus among specialists for the validity of this basic division of Nahuatl, and then adduce further historical evidence for this split.

In addition to the well-established i/e and e/ye isoglosses, I argue that the eastern branch is characterized by 1. the (relative) absence of the negation *ahmo* and the (historical) presence of negations based on the morpheme *ay-*. And 2. a process of vowel harmony primarily affecting pronouns, and other words which have the shape /eCa/ in Western dialects. I argue that the existence of what seems to be shared innovations among Eastern dialects from the northern and southern extremes of Mesoamerica supports the historical status of the division. I further argue that subsequent dialect contact and resulting diffusion in both pre- and post-conquest periods has obscured the geographic distribution of the traits so that they no longer form stable isoglosses. Therefore it is not useful to define specific varieties as being “eastern” or “western”, or to attempt to represent the relation between varieties in a nice tree structure. Rather a continuum approach should be used, describing varieties as “relatively eastern/western”. And when possible it should be ascertained whether Eastern/Western traits in a specific variety are retentions or borrowings, attempting to understand the specific histories of

¹ I extend my gratitude to Una Canger, Alan R. King, Julia Madaczak, R. Joe Campbell, John Sullivan and also Karen Dakin and the rest of the members of the Seminario de Lenguas Indígenas at the UNAM for illuminating and inspiring conversations and for comments on ideas and drafts. I also thank Andres Hasler Hangert for helping me access some of his hard to come by descriptive publications.

individual varieties.

I start by reviewing the literature on Nahuan internal classification, focusing on recent advances and their significance. I then go on to provide additional arguments in favor of seeing Nahuatl as being basically divided into two main branches, the eastern and western branches respectively – a view first proposed by Canger and Dakin (1985), and recently proposed in different versions also by Hasler (2011) and Monzón and Seneff (N.d.). I then add two new isoglosses that set apart the Western and Eastern dialect areas, the negation and the pronoun forms. Having thus established the validity of the basic East-West split demonstrating both to be defined by at least one shared innovation, I go on to trace the histories of the two branches, by tracing shared linguistic innovations in order to establish a tentative phylogeny.

1.0 Reviewing the Status

In 1988 Una Canger surveyed the history of Nahuan dialectological work, and set a path for further exploration. For that reason I will not provide a detailed review for the dialectological literature prior to this work but only summarize her main points. In her article Canger dispensed with two previous classification models. One early model was based on the trichotomy between dialects with *t*, *tl* and *l*, which had been espoused by Benjamin Lee Whorf and further developed into a fourway division by Juan Hasler in his "Tetradialectología". Hasler correctly argued that dialects with */l/* corresponding to */tl/* are a recent innovation from a previous */tl/*, but following Whorf he considered the */tl/* an innovation and */t/* the original state. Within his group of the *t*-dialects Hasler also operated with a basic division between Eastern and Western pre-nahua based on difference in the development of certain vowels. The fact that Hasler seems to have independently suggested that *i/e* variation (although he does not satisfactorily reconstruct its origins) constituted a basic split is not recognized by Canger and Dakin (1985) or by Canger (1988).

Regarding the *t/tl/l* division, in her review Canger pointed out that Campbell and Langacker (1978) had observed that all known Nahuan dialects show traces of having initially had the */tl/* phoneme. This meant that the *l* and *t* varieties were subsequent developments, and not the most basic split of the Nahuan dialects. In fact this argument was already advanced by Boas (1917) who argued that Pochutec showed traces of a previous */tl/* (specifically the fact that the absolutive suffix was only dropped after

nounstems ending in /l/), thus placing the innovation of /tl/ from *t before the divergence of all contemporary Nahuatl dialect groups.

Canger points out that furthermore the development of t and l from prior tl respectively could easily be expected to occur independently in different dialects, and that so the trait can not be assumed to be a shared innovation in all the dialects that have it. Canger also argued against her own previous model of a shallow division between conservative peripheral and innovative central dialects that she had proposed in 1980, before she and Dakin discovered the basic split between the Eastern and Western dialects. This basic split was evidenced in the fact that dialects in the Eastern periphery have the reflex /i/ from proto-Uto-Aztecan */u/ in a closed group of words which in the Western periphery have the reflex /e/. In the central area both reflexes are found suggesting an early division with subsequent dialect mixing, resulting in the formation of an innovative central dialect area whose traits spread with the Aztec expansion starting in the 14th century. In 1996 Dakin published a classification that grouped Huastecan/Guerrero/Sierra de Puebla/Isthmus/Pipil and parts of Tlaxcala (she doesn't state which) as Eastern Nahuatl, and Pochutec, Western Periphery (Michoacan, Durango, Nayarit, Jalisco), Mexico State, Morelos, parts of Tlaxcala and North Puebla as Western (Dakin 1996:185). Following Canger (1988), Dakin associated the central branch of the Western dialects with the Mexica and the entire Eastern branch with the Toltecs – an association also later taken up by Monzón and Roch Seneff.

In 2001 Kaufman proposed a classification based on Canger's except in the fact that he assigned the Huastecan dialects to the Eastern group instead of the Western one as she had tentatively done. He subdivided the eastern area into one group comprising Salvadoran Pipil and the Isthmus dialects, and another comprising the Huastecan and Sierra de Puebla dialects. The Western branch he divides into Central and Western subgroups. Although presumably based on an analysis of lexical similarities, Kaufman does not provide the evidence on which this classification rests – perhaps because of its similarities to Canger's classification. In 2011 Andres Hasler, based on a comprehensive survey of contemporary Nahuatl variation, proposed a historical division of Nahuatl into two groups that he called paleonahuatl and neonahuatl, corresponding roughly to Canger's east-west division although based on entirely different criteria and isoglosses, among them the t/l/tl trichotomy. His choice of terms reflected his usage of the highly revisionist Nahuatl-centric chronology of Christian Duverger (2007) which assumes that Nahuas were present in the formative stage of Mesoamerican civilization before

1000 BCE. Hasler's classification is based entirely on the analysis of synchronic variation, which he assumes to reflect ancient demographic groupings directly. Given that neither Duverger nor Hasler adduce any real arguments for this highly revisionist proposal which contradicts almost all established knowledge about the Meoamerican past, this proposal cannot be accepted. Even if it should turn out that Nahuan presence in Mesoamerica is substantially older than is currently thought, Hasler's classification cannot be accepted as it is based on criteria that have already been shown to be invalid, and as it makes no attempt to distinguish between retentions and innovations, nor between independent and shared innovations. However Hasler does make a number of extremely useful observations about the distribution of current variation, and points to some variation which has not been previously considered. Some of these observations, particularly the variation in vowel quality between e and a, as found in pronouns have inspired aspects of this proposal.

Another proposal was published by Monzón and Seneff, which examines a series of synchronic isoglosses found in Lastra's "Áreas dialectales" (1986) associating them with Canger's Eastern and Western groupings respectively. Following a suggestion by Canger they associate the Eastern dialects with the Toltec polity of Tula and the Western dialects with the later Mexica polity of Tenochtitlan, and they rename the Western and Eastern branches "Mexicayotl" and "Toltecayotl" respectively, thus seeking to reflect what may have been the significance of the division to the historical speakers themselves. However, given that there is no solid evidence associating the Toltec polity with speakers of Eastern dialects, the nomenclature may not be the most useful. Indeed the political reach of the Toltec polity as established by Smith & Montiel (2001) did not reach any area where Eastern dialects are today spoken². If we accept an early date for the incursions of Nahuatl speakers into Mesoamerica, as is increasingly being accepted, then Eastern speakers were probably already located in their current areas at the rise of Tula, which could then easily be considered to have been carried primarily by speakers of Western dialects and probably speakers of Otomi as well, given that Otomi is of ancient presence in that area. Nonetheless Monzón and Seneff does point a number of new isoglosses that seem to be associated with the East-West split. All in all the work of Hasler and Monzón and Seneff has provided a good basis for viewing the East-West split as a historical reality. However, the traits according to which they classify are synchronic and do not attempt to reconstruct the linguistic history of the two branches. This is the work taken up in this paper.

² Smith & Montiel also argue that in fact the archaeological evidence shows a closer relation between the polity of Tula, hdgo. and the Mesoamerican Northwest, which would suggest, that if its inhabitants spoke Nahuatl it was probably rather a Western variety.

Finally, a major insight into Nahuatl dialect history is provided by Canger (2011) who proposes that the dialect of Mexico-Tenochtitlan is best understood as an urban koiné, combining elements of the speech of speakers of both Eastern and Western dialects who came to live together in the metropolis. This koiné dialect is generally known as Classical Nahuatl, but Canger proposes a distinction between what she calls Urban Nahuatl, the preconquest vernacular of the city, and the language of the colonial documents. Canger's proposal has the virtue of explaining a number of irregularities of the data about the colonial language, such as the frequent presence of variant forms in the sources, and it also liberates historical dialectologists from the necessity of placing classical Nahuatl into the classification scheme. Following Canger's analysis with which I agree, in this paper I do not use forms from classical Nahuatl to establish the phylogenetic relations between languages – considering the “classical” language basically a hybrid between the two main branches. In section 2.6. I adduce new evidence in favor of seeing Urban Nahuatl as a result of dialect mixture.

With the East-West distinction established the current challenges for Nahuatl dialectology are: 1. to understand the historical and genealogical relations between individual dialects and dialect groups and 2. the migrational trajectories they have taken in prehistory, and 3. to acquire better evidence on which to base hypotheses about the location of the Proto-Nahuatl homeland. In the following section I first review and consolidate the evidence for the East-West split. In sections 3 and 4 I take on the subsequent tasks.

2.0. The East-West Division

This section surveys the evidence presented for the East-West division, and adduces new evidence. Though most of the evidence used for classification in the past has been primarily lexical and synchronic, in this study I privilege evidence that is based in the comparative method because this is the only kind of evidence that can be used to demonstrate historical relations between varieties and establish phylogenies. Lexical variation in itself does not in itself constitute this type of evidence unless it can be convincingly argued that one form is an innovation and the other a retention. The distribution of lexical variation, may however be combined with comparative to provide additional evidence for the validity of a specific grouping, and gain clues about the degree of historical cohesion between closely related branches.

2.1. Phonological evidence for the split

The East-West division as proposed by Canger and Dakin (1985) rested on a single phonological feature, the reflex of PUA *u in the words for corn, to grind cornmeal, cornmeal, fingernail and stomach. The authors had individually discovered that these words varied systematically between having e and i, Canger had noted that the I forms were characteristic of the Eastern periphery and e of the Western, and Dakin had noticed that this variation was found in words that could be reconstructed with the vowel *u in PUA. Together the authors concluded that this could be considered the first solid historical evidence for a basic split among the Nahuatl languages.

PUA ³	Eastern	Western
*sugu	sintli	sentli
*tusu	tisi	tesi
*tusi-ta ⁴	tištli	teštli
*sutu	istitl	istetl
*tupa ⁵	ihitl	ihetl

Canger and Dakin notes that the forms do not align perfectly, for example *tisi* is frequently found in the Western area. But they argue that there is a general tendency for the i-forms to be found in the eastern area and the e-forms in the western. Hasler (2011) gives a good overview of the geographical distribution of each form, although as mentioned I take exception to his historical arguments. This isogloss places Central Guerrero with the Eastern dialects as most Guerreran dialects have /i/ in these forms (Canger & Dakin 1985, 1988).

In 2000 Dakin adduced a second argument for the division based in historical phonology. Canger 1988b and 1988 had noted the variation between a set of words which in Eastern varieties begin with the vowel /e/ but which in Western varieties begin with /ye/. Canger considered the Western forms to be innovative and referred to the /y/ as epenthetic. Contradicting this explanation Dakin noted that

3 I do not use the PUA reconstructions used by Canger and Dakin in 1985, but rather the more recent reconstructions by Stubbs 2011.

4 Here I reconstruct the nominal form with the vowel *i because this is the most likely source of the palatalization of the preceding vowel in Nahuatl, and I reconstruct the absolutive suffix as *-ta

5 The reconstruction of this word in Nahuatl is not clear. Stubbs reconstruct the PUA form as *to based on the forms in Northern Uto-Aztecan languages, suggesting a form to'i for Nahuatl, Dakin reconstructed *patu with the vowel u. Here because of the systematic variation in Nahuatl we will assume that the best reconstruction for the PN form is with u. The initial syllable in Nahuatl *ih-* is probably cognate with the ancient prefix also found in forms the verbs *ihtoa*, *ihpia*, *ihtona*, *ihkak*.

most of the the words in which this variation is found can be reconstructed to PUA etyma with the initial consonant *p. Initial *p has been generally lost in Nahuatl languages unless protected by prefixes as in the case of many verbs. However, Dakin argued that in this class of Nahuatl words the initial /y/ was a reflex of the original *p and hence constituted a retention, whereas the innovation was drop the y in these forms thus completing the change from *#p to #Ø. I agree with Dakin's interpretation, which I elaborate in the following.

PUA	Eastern	Western
*?	elo:tl	yelo:tl
*po'owa ⁶	e:watl	ye:watl
*pais ⁷	estli	yestli
*pahi	eyi	yeyi
*puppa ⁸	epatl	yepatl
*pu ⁹	etl	yetl

Taken together these two soundlaws and their distribution in Nahuatl languages strongly suggest the validity of the East-West division on phonological grounds. But adducing sound grammatical and lexical evidence would establish it beyond doubt. In the following section I provide both grammatical and lexical evidence, by reconstructing the development of negation in the Nahuatl languages. This isogloss however places central Guerrero with the Western dialects as most Guerreran varieties have /y/ in these words, but given that y here is a retention it cannot be used to classify individual dialects as belonging to a specific branch. Another exception to the general rule is that Mexicanero Nahuatl of Durango, has several forms without /y/, eyi, esti, elot, while it groups with the Western dialects in the i/e isogloss. Here dropping the y- may be considered either an independent innovation, or a borrowing from contact with colonial Nahuatl.

-
- 6 Stubbs does not mention the Nahuatl form in this cognate set (2017) but I consider the Nahuatl forms cognate with this set.
- 7 Here I combine Stubbs cognates number 258b + 260 into a single reconstruction *pais “blood”, this is more in accordance with the Nahuatl dialectal evidence.
- 8 Stubbs reconstruct this form as *huppa in accordance with Tepiman forms from Nevome, Eudeve, Yaqui and Mayo, but Northern languages all have /p/ in this etyma, and several SUA languages have /h/ as a regular correspondance of PUA initial *p. I therefore consider *puppa to be a better reconstruction, which also accords better with the Nahuatl dialectal evidence presented here.
- 9 There is some discussion about this reconstruction. Stubbs argues that the forms for bean that seem to reconstruct as *pu are better understood as stemming from the form *pusi “eye”. I consider it likely that *pu “bean” is a separate etymon.

2.1. The historical development of Negation

There is wide variation among Nahuatl languages in the strategies for how to encode negation, both in the type of morphological process used and in the lexical material it employs. Several Nahuatl languages use a negation particle which varies in form, but a number of other varieties use a negation prefix on verbs. Dakin (1996:185) pointed towards a reconstruction of the negation as a trait that might differentiate Eastern and Western dialects, but did not give a comprehensive reconstruction as is attempted here.

Eastern Huastecan:	<i>aš-, amo</i> ⁹
Western Huasteca	<i>amo</i>
Zongolica:	<i>amo</i> ¹⁰ , <i>mach</i>
Isthmus:	<i>ayaʔ, ayak, agá, nite, ah-, amo</i> ⁹
Tabasco:	<i>até</i> (Cupilco, Cruz Alvarez 2005), <i>te</i> (Jalupa, Garcia de Leon 1976:26)
Chiapas:	<i>ah-</i> (Reyes 1961)
Pipil:	<i>te, tesu</i> (Campbell 1985:941), <i>inte</i> (Schultze-Jena 1982[1935]:115; Rivas 1969)
Colonial Guatemala and Cuscatlan	<i>Ayak</i> (Dakin 1996:185), <i>ak</i> ¹¹
Classical:	<i>aʔmo, mach, ah-</i>
Michoacan:	<i>amo</i>
Jalisco:	<i>amo</i>
Durango:	<i>amo</i>
Morelos:	<i>ahmo, anmo</i>
Tlaxcala:	<i>ahmo</i>
D.F. :	<i>aʔmo, [ah-ʔ]</i>
North Guerrero:	<i>š-</i> , (from <i>koš</i>) ¹² (Canger 1988b:479)
Central Guerrero:	<i>ka</i> (Canger 1988b:479) ¹³

10 According to Tuggy (pers. comm.) Zongolica and la Huasteca (Beller & Beller 1979) and the isthmus the use of *ahmo* as a negation is restricted to conditional, and imperative clauses.

11 Thanks to Julia Madajczak for drawing my attention to the negations in *ayak* and *ak* in documents from colonial Guatemala.

12 The origin of the Guerrero negative prefix *š-* is likely to come from the particle *koš* (cognate with the Classical Nahuatl interrogative particle *kwiš*). This is evidenced by the following line from Juan Pérez Grammar, kindly brought to my attention by Una Canger: ""

Sierra de Puebla	<i>kanah</i>
Pochutec:	<i>as</i> (Boas 1917)

Based on this data it seems to me that the distribution of the different forms of negation varies between the Eastern and Western regions, in the following way: Western varieties are characterized by sharing the form *ahmo* (or its subsequent developments *ammo*, *amo*, *aʔmo*, *anmo*), whereas the Eastern varieties (and Pochutec) have many other negations, and if those that use *ahmo*, use it only in a restricted context (generally in conditional and imperative clauses).

Interestingly the only Nahuatl negation morpheme that can be reconstructed to PUA is *ka*, found only in Central Guerrero and perhaps in the Isthmus dialect of Pajapan in the form *agá*. This makes negation an interesting case because all of the forms found in the various dialects are innovations particular to Nahuatl languages. Given that the Western branch is characterized by universal *ahmo*, and the Eastern branch is characterized by limited *ahmo* but predominant use of other forms it seems most likely that in Proto-Nahuatl there was no single negation strategy, but rather several competing ones, one of them being *ahmo*. We must then consider the fixture of *ahmo* as the universal negation to be a shared innovation in the Western branch.

This leaves the question of how to understand the development of negation in the Eastern branch, and how to reconstruct the negation patterns in PN.

I consider it likely that the Huastecan negation prefix *aš-*, the Pochutec negation particle *as* and the prefixes *a(h)-* (found in *ahmo*, *ate*, *aga*) and *ay-* (found in *ayak*) are cognate. In most Nahuatl varieties, syllable final /y/ frequently devoicizes to [š]. And it is not uncommon neither in Nahuatl nor in general that /s/ is weakened to [h] in that position. Hence all these forms can perhaps be derived from a single protoform **ay*, or perhaps two distinct but related forms **ay/ah*. It is probable that this was a separate particle in the proto-language, which remained that way in Pochutec, but which developed into a prefix in some Eastern varieties, or which was compounded with other particles to produce new negation words (*ay+ak*, *ah+mo*, *a(h)+te*, *a(h)+ka*)

13 Canger (1988) also notes that colonial texts from Guerrero such as Ruíz Alarcón and the arte of Manuel Pérez, give examples of *atle* and *ayak* used as negations in Northern Guerrero.

This leaves the question of the Pipil forms where the negation element is the morpheme *te*, either alone or in the combinations *inte* or *tesu*. Interestingly Pipil has no traces of either *ahmo*, or the *ah/ay* morpheme morpheme¹⁴. This could be considered a borrowing from some other language with which Pipil the southern most Nahuatl language has been in contact, or at least an independent in the Salvadoran branch. But the Tabasco evidence seems to provide a probable explanation. In Tabasco there are two negational forms *até* and *te*. *Até* seems a likely cognate of the Pajapan forms *ate* and *nite* both meaning "nothing". In these forms the *te* is a likely cognate with the general term for "thing" or "what" which is *te* from a previous *tle*. *Te* combined with the negative prefix *a-* becomes *ate* "nothing". In a process similar to Jespersen's cycle, the *a-* element was then lost in Jalapa and in Pipil, but the negational meaning was transferred to the morpheme *te*. This does not fully explain the forms *inte* and *tesu*, but they could be combinations of the innovative negation morpheme *te* and other morphemes that are currently not known (Pipil *inte* could be a metathesized cognate of Pajapan *nite* "nothing"). It is not necessarily the case that the Tabasco varieties and Salvadoran Pipil share a particularly close relation although they both have the negation based on *te*. Considering that Jespersen's cycle is a commonly occurring process they may well have innovated the use of *te* separately from the prior form *ate* "nothing".

This set of reconstructions produces three different groups of shared innovations: Universal *ahmo* found in the Western dialects, within the Eastern branch we find the subgroup that use *ayak* (the Isthmus varieties, Tabasco, Chiapas and Colonial Guatemala), the subgroup that uses the *aš-* prefix (Huastecan), and the subgroup(s) that uses *te* (Tabasco and Pipil).

The question remains about where to assign Guerrero, which does not participate in any of the two main branches. This suggests that Guerreran dialects must have branched off from either the Eastern or the Western branch, probably the Eastern, at a very early date before either branch innovated their distinct negation strategies.

2.2. Vowel assimilation and the historical development of pronoun systems:

The diverse forms of the Nahuatl personal pronouns have received some attention in the literature although different scholars have focused on different aspects of it. Canger (1988b) focus on the presence or absence of the absolutive suffix on the singular pronouns, and the use of the either the

¹⁴ Although the negation *ayak* is found in a colonial document from Cuscatlan El Salvador reproduced by Rivas 1969, but this seems to have been redacted in the Guatemalan variety which includes many elements from Central Nahuatl.

plural suffix *-tin* or *-meh*. Canger considers pronouns with absolutive suffixes to be characteristic of the innovative central area. I consider that the absence or presence of absolutive suffixes is unlikely to be a good diagnostic trait as it seems that the absolutive suffix is likely to be variously added or removed independently in different dialects. She also considers plural pronouns with *-tin* to be characteristic of the Western area, and forms with *-meh* to characterize the Eastern area. I agree with this assessment.

Rather, in this section I will explore the diversity of vowels in the pronouns. Hasler (2011) noted this diversity and charted its geographic distribution. He focused on the vowels, and he used the pronouns to construct a four way distinction between dialects with *e*, *i*, *o*, or *a* in the first syllable of the singular pronouns (e.g. *yehwa* 3p.sg. (Morelos), *yiwal* 3p.sg. (Michoacan), *nootl* 1p.sg. (Mezquititlan, Hidalgo, Hasler 2011), and *naha* 1p.sg. (Huasteca, Pipil)). But in my opinion Hasler did not adequately solve the historical relations between the forms as he made no attempt to reconstruct the history of development, but simply considered each of the four possible vowels to directly represent four primordial Nahuan populations.¹⁵

My position in the following is that there are only two historically basic forms, the ones with /*e*/ and /*a*/ as the first vowel respectively. I consider the forms that have /*i*/ and /*o*/ as the first vowel to be secondary developments based on phonological processes specific to individual dialects and occurring independently – as such the /*i*/ and /*o*/ forms are not diagnostically relevant. I consider /*i*/ pronouns to be invariably a secondary development of prior forms with /*e*/ through a process of vowel raising, whereas forms with /*o*/ can develop from both forms with /*a*/ or /*e*/, because the rounding that causes the change to /*o*/ is conditioned by the presence of the /*w*/ in the second syllable. This requires us to analyze the historical relation between forms with /*a*/ and forms with /*e*/.

15 . There are no occurrences that I have seen in which the vowel *o* alternates with *e/a/i* in other dialects in which the alternating vowel is not adjacent to a labial sound in a preceding or following syllable. Sporadic rounding of any vowel to /*o*/ is well demonstrated in labial environments in all Nahuan languages, e.g. *soatl* < *si:watl* “woman”, *kwopa* < *kwepa* “turn around”, *mowia* < *mawia* “be afraid” which occur in many dialects in different dialect areas.

Occurrence of /*i*/ in pronouns seem to occur only in dialects that have a tendency to raise *e* to *i*. This tendency is particularly pronounced in Western dialects, e.g. Michoacan which has both *yiwal* and *yewal* alternating as the third person pronoun (Hasler 2004:51). Here we can see the tendency to raising the vowel *e* in initial syllables in the form *ihyekal* “wind” (Hasler 2004:) in which the first *i*, clearly a reduplication of the second /*e*/, has been raised (the original form must have been *yehyekatl*, as found in many central dialects). Some loanwords from Spanish with original /*e*/, e.g. the preposition *de*, have also been raised to *di* in Michoacan. This clearly demonstrates that the raising of /*i*/ is a secondary development and not an ancient retention as Hasler posits.

The panorama of pronoun forms is complex and confusing, but removing the forms with /i/ and /o/ from the equation simplifies it somewhat. I also ignore for the present the distinction between dialects that have the medial cluster /hw/ and dialects that have simplified this to either /w/ or /h/. This gives us the following basic picture (The table below still omits many details such as intermediate forms found in some dialects such as *tahwanti* 1p.pl. found in the some Huastecan varieties, or *tehamen* 1p.pl. found in some Isthmus varieties, these details will be addressed subsequently, at present I mean to demonstrate the basic variation between forms with the shape *Caha*, and forms of the shape *Cehwa*, and their association with Western and Eastern branches respectively):

Singular pronoun forms:	Dialects where found:
<i>naha, taha, yaha</i>	Eastern: Huasteca, Pipil, Tabasco, Isthmus (Pajapan),
	Also found in the following individual dialects within the Western area: Copallillo Guerrero, Tetelcingo Morelos,
<i>nehwa(tl/t/l), tehwa(tl/t/l), yehwa(tl/t/l)</i>	Western: Classical, D.F., Morelos, Tlaxcala, Guerrero, Jalisco, Durango
	Also found in the following individual dialects within the Eastern area: Isthmus (Mecayapan, Oteapan),
Plural pronoun forms	Dialects where found:
<i>teHEME(n/t), anMEHEME(t/n), yeHEME(n/t)</i>	Isthmus, Pipil
<i>teHwan(tin), (n)amehHwan(tin), yeHwan(tin)</i>	Classical, Morelos, Tlaxcala, Isthmus (Mecayapan, Oteapan), Guerrero, Jalisco, Durango

Dakin 1982:177 reconstructs **yaha(wa)* for proto-Nahuan, but in 2000:217 she sees the *ye* element of the pronouns as cognate with NUA **pi*, which requires the opposite reconstruction, with the *yeh* forms being conservative and the *yaha* forms innovative. I agree with this latter interpretation, and propose that the best reconstruction of the singular pronouns are ***niha*, **tiha* and **piha*¹⁶ in pre-Proto-Nahuan which became **neha*, **teha* and **yeha* in proto-Nahuan, and further developed added the suffix *-wa* in some varieties, and in some of those further added the absolutive suffix **-tl(a)* (from earlier pre-Proto-Nahuan ***ta*), and in other dialects did not take the *-wa* or absolutive suffix, but in turn assimilated the

16 This reconstruction combines Stubbs cognates 2663 and 2664, I reconstruct with the central vowel i following Dakin rather than with u as Stubbs does. It could probably be either.

vowel to the second creating the *naha*, *taha*, *yaha* pronoun set.

gives us the following evolution of the third person singular pronoun:

PN
a > **yeha* > Western: *yehawa* > *yehwa* > Central: *yehwatl*
 > Eastern: *yaha/yehe*¹⁷

is poses a new series of questions: 1. What caused the vowel to change to /a/ in the dialects with this innovation? What is the evidence for the process of assimilation I propose to explain it? 2. How do we explain the variation within a single dialect e.g. Pipil of singular forms in /a/ and plural forms in /e/? 3. How to explain the many dialects with intermediate forms (*yeha*, *yewa*, *yahwa*, *yehwa*) with mixed systems? How to explain the dialects with /i/ and /o/ in the pronouns (such as *yiwal* 'I')? And 3. how to explain the distribution of the forms in contemporary varieties?

regressive vowel assimilation of *neha* to *naha*, may look surprising at first, but not once we take account a set of words that also vary semi-systematically between Eastern and Western dialects.

Etymon	E-form	A-form	PUA and cognates
Nose	<i>yeka-</i> (Western and Central areas)	<i>yaka-</i> (Huasteca, sporadically in other areas)	* <i>yaka</i> (But Yaqui/Mayo and Huichol has forms with /e/ in this word: Yq/My <i>yek(k)a</i> , Wc <i>yee.karau</i>)
Wind	<i>eheka-</i> (all dialect areas)	<i>ahaka-</i> (W. Huasteca, Hasler 2011:107) ¹⁸	* <i>hika/hikawa</i> (Interestingly Cora has the alternating <i>eeka/haaka</i> , and Tubar has <i>aakaawaa</i>)
Root	<i>nelwa-</i>	<i>nalwa-</i> ¹⁹	* <i>naLwa</i> (But Cora and Huichol have /e/ in this root)
Far	<i>wehka</i>	<i>wahka</i> (W.	* <i>mihka</i> (Stubbs cognate 842a)

The reason Eastern dialects with *yaha* don't drop the y reflex of *p here is either that the the vowel had already shifted to /a/ and y was only dropped before /e/, or simply that the some frequently used words were exempt from the rule. Dialect 00 shows that all Nahuan languages, have reflexes of PUA *p in the third person singular pronoun, in the word for 'right' *yek-* and 'new' *yankwik*.

oil has ehekat, but also has a lexical element *ahka-* related to wind and air (Alan R. King pers. Comm.), e.g. *amalakat* "whirlwind", *ahkape:wia* "fan", *ahka:na* "for the wind to blow up dust". This seems likely to be a form of *ahka-* affected by vowel syncope.

Hasler gives *nalwa-* for Northeast Puebla, Hasler 2011:108, Isthmus and Tabasco have *talwat*)

		Huasteca)	Probably cognate with the word <i>we:yi</i> “big”.
Warm	<i>yemanki</i>	<i>yama:nik</i> (Huasteca (Hasler 2011), Michoacan (Hasler 2004))	* <i>yu'mi/yuwmi</i> (Stubbs cognate 1210)
Brush	<i>xelwas-</i>	<i>xalwas-</i> (Huasteca)	(no cognates found except for the -was element)
Turn around	<i>kwepa</i>	<i>kwapa</i> (Huasteca,)	Likely cognate of Stubbs' cognates 448 * <i>kwinu</i> “turn around” or 452 <i>kwVti'a</i> “surround/fence”
Person	<i>tekatl</i>	<i>tlakatl</i> (all areas)	* <i>taka</i> (But Cora has the plural form <i>teteka</i> , and some UA languages have <i>ti-</i> in this etymon)
Sell	<i>nemaka</i> ²⁰	<i>namaka</i> (all areas)	* <i>namaka</i> (Dakin 1982:154) ²¹
Bake /Steam	<i>tema</i> (all areas)	<i>tama-l-li</i> (“tamal” all dialect areas ²²)	* <i>tima</i> “to steam/bake” ²³
Close	<i>Tzekwa</i> (Xoxocotla, Mor., Pochutec)	<i>tzakwa</i> (all dialect areas)	* <i>tzakwa</i> ²⁴

This data clearly suggest that some dialects, particularly those of the Huasteca have had a process of regressive vowel assimilation affecting words of the shape CeCa turning them into CaCa. Some of the forms from related languages suggest that possibly the variation of e/a in these forms predates PN. The fact that many of the forms in question can be reconstructed unproblematically to protoforms with *i, *u or *i, whereas a few others are best reconstructed with *a does present a challenge to this hypothesis, suggesting a possible alternative explanation for these forms: namely that the /a/ forms are

20 This form is found sporadically in Zongolica, for example in Tlaquilpa (own data). Hasler (2011) gives this form for SLP Huastecan Nahuatl in Tamazunchale.

21. A possible etymology for this work is that it originated as a reciprocal form of *maka* “to give”, this would be *ne:-maka.*, on the other hand the reciprocal prefix *ne-* reconstructs to PUA as *na-*, and a number of Nahuatl words describing reciprocal actions seem to begin with *na-*, (e.g. *namiki* “to meet”, *nawatia* “respond”, *nawateki* “embrace” (Thanks to Karen Dakin for drawing my attention to this)). The forms with *ne-* thus could seem to be the result of semantic reanalysis.

22 But both Cora and Huichol have /e/ in the first syllable in the cognate *tamal*: Cora *temwa*, Huichol *tema*.

23. All dialect areas have the verb *tema* meaning “to steam/bake” or “take a steam bath” clearly cognate with PUA **tima*. And all dialect areas also have *tamalli* for “tamal”, a food made of steamed corn dough (some varieties use the word for tortilla). If the word for tamal is derived as *temalli* from the verb *tema*, its etymology is transparent meaning “something steamed” with the passive suffix *-li-* and the absolutive suffix, and analogical to the word *tlaxkali* “tortilla” meaning “something roasted on a griddle”. Then subsequently the process of regressive vowel assimilation turned it into *tamal-*. Either this suggests that the vowel assimilation process was already active in PN, or it shows that the word diffused back into the non-assimilating Western dialects through contact with Eastern varieties. Perhaps the dish was first adopted by Eastern Nahuas, the first to enter Mesoamerica, who then learned to steam corn dough from Mesoamerican agriculturalists.

24. But several UA languages have a root, **tsu* meaning stick/glue, and all Nahuatl varieties have a verb *tzekoa* meaning to “to stick”, given the similarity in meaning it seems likely that they are the same etymon, loaned back into some Western dialects as “*tzakwa*”

older in Nahuatl and the /e/ were developed subsequently through a process of vowel raising.

Nonetheless, I based my preference for the assimilation hypothesis in data like the pronoun forms from Pipil which has *taha* “you” with /a/, but *tehemet* “we” with /e/ in all syllables. This, to me, suggests that the regressive vowel assimilation was operating also in the plural forms turning a previous **tehamet* into *tehemet* as the plural suffix *-met* was added. (What I see as the original system is still conserved in Pajapan, Veracruz which has *teha* and *tehamen*) This type of variation suggests to me that the original shape of the pronouns had e as the first vowel. Furthermore there are many words with the shape aCa and aCCa in all dialect areas (e.g. *ahwa* “to scold”, *maka* “give”) that did not change the first vowel to /e/, this would have to be explained in order to posit the alternative development.

The process of vowel assimilation cannot be considered a sound law in the eastern dialects, but seems more like a sporadic process, affecting first pronouns and then extending to other words with similar shapes. The Western Huasteca area is the area in which the process of assimilation has extended most widely to affect almost all words of the shape CeCa (not Ce:Ca). The assimilated forms of these words are much more frequent in Eastern dialects than in Western ones, correlating well with the distribution of the *yehwa/yaha*, supporting the hypothesis that the same process is operating in both cases and that this process is restricted to Eastern dialects.

There are however exceptions, for example the *yaha* pronoun series are found in two dialects that would otherwise be considered Western, namely Tetelcingo, Morelos and Copalillo in Northern Guerrero. This suggests that these otherwise dialects with many Western and central features may have an eastern substrate. Also in North Guerrero we find *nawa*, *tawa*, *yawa* in San Agustín Oapan, and *nowa*, *towa*, *yowa* in neighboring Ameyaltepec. Given the presence of the /w/ but not /h/, these forms may be independent innovations motivated by rounding caused by the /w/. This could have followed the route *yehwa* > *yewa* > *yowa* > *yawa*. This development is supported by the fact that Oapan has /o:/ in the plural morphemes and in the short forms of the pronouns, and by the fact that *newa*, *tewa*, *yewa* also occurs as alternate forms in Ameyaltepec (Amith 2009:20), and by the fact that North Guerrero dialects predictably drop previous syllable final /h/ word medially (Amith 2009:28).

Following this reconstruction I conclude that we must consider the distinction between singular

pronoun forms *nehwa*, *tehwa*, *yehwa* and *naha*, *taha*, *yaha*, to be evidence for a shared innovation in the Eastern dialects, further supporting the validity of the basic division.

2.3. Other innovations:

A series of other traits have been shown to correlate well with the East-West division. Early on Canger (1988b, 1980, 1988) demonstrated that the presence or absence of the /o-/ prefix for the past tense is associated with the Western and Eastern Periphery respectively. She also argued that the nominal plural suffix *-tin* was restricted to the Western area, but lacking in Eastern dialects such as Pipil and Isthmus which only have the plural suffix *-meh/-met*. She also noted the distribution of a number of lexical items such as /tek^wsistli/ for “egg” and /koyametl/ for “pig” correlates with the Eastern group (specifically with the Isthmian varieties), and are not found in the Western dialects. Canger (pers.comm) also notes that in Eastern dialects some particles tend to follow the elements they modify such as /ok/ “todavía”, and /sa:n/ “only” whereas in the Western area they tend to precede it. This can be seen in the words for “one more/another” which is /okse/ in Western varieties but /seok/seyük/ in Eastern varieties. Also the word for “now” varies predictably between the dialect areas, with “*amman*” or “*naman*” being used almost universally in Eastern varieties and Guerrero, but corresponding to /axka:n/ or /axa:n/ in the Western areas.

Furthermore the form of the definite article which is /in/ in Classical Nahuatl seems to be associated with the Western branch, since many eastern varieties including Huastecan and El Salvadoran Pipil have /ne/, and Pochutec has /na/, most Eastern varieties also seem to use the article much less frequently than in the central and Western area where it often precedes almost every noun phrase. This isogloss has not previously been reported, except by Boas (1917) who suggested that the /na/ form of Pochutec was a retention. I would tend to concur with his assessment.

Western	Eastern	
<i>axka:n</i>	<i>amman</i>	“Now”
<i>pitzotl</i>	<i>koyametl</i>	“Pig”
<i>totoltetl</i>	<i>tekwsistli</i>	“Egg”
<i>o-</i>	-	“Past Tense”

<i>-tin/-meh</i>	<i>-meh/-met</i>	“Plural Noun”
<i>okse</i>	<i>seok</i>	“Another”
<i>in</i>	<i>ne/na</i>	“Article”

Furthermore in a subset of Eastern dialects, namely those of Zongolica, the Isthmus and Tabasco we find a number of lexical items that appear to be loanwords from a non-Nahuan language. These lexical items are not found in either the Huastecan nor the Salvadoran dialects. This suggests that the Eastern dialects of southern Mexico have been in contact with languages not encountered by speakers of the other Eastern dialects – likely a Mixe-Zoquean language, judging simply from the languages spoken in the area of Southern Veracruz and Tabasco. Interestingly all the terms describe living beings, and all of them end in *-oh* or *-o* and do not take the absolutive suffix²⁵. These lexical items are:

Found in Zongolica, Isthmus and Tabasco:

/takoh/ ”adolescent girl”

/chokoh/ ”adolescent boy”

/motoh/ ”squirrel” (also found in Pipil)

/minko/ “monkey”

Found in individual varieties

/ayotoh/ ”pejelagarto” (Tabasco)

/to:poh/ ”fish” (Tatahuicapan)

/nohnoh/ “vulture” (Tatahuicapan)

/po'poh/ “nightingale” (Tatahuicapan)

2.4. The Status of Pochutec

Considering the two new isoglosses the status of Pochutec remains problematic. While Canger and Dakin (1985) speculated based on the one diagnostic form provided by Boas that the *i/e* isogloss would group with the Western dialects, the absence of *ahmo* as a negation would group Pochutec outside of this group – either as a part of the Eastern group, or as its own branch. The pronoun isogloss also group it outside of the innovating Eastern branch but not conclusively within the Western branch either as the

25. Perhaps the two words documented for classical Nahuatl */koko/* “servant” and */alo/* “parrot” also falls into this category.

Pochutec pronouns cannot be straightforwardly derived from the posited proto-forms. The safest is probably to consider Pochutec a separate branch emerging from the PN.

2.5. The status of Pipil

The status of Salvadoran Pipil as forming its own branch within Nahuatl such as it does in Campbell's (1997) classification, however cannot be upheld. All the isoglosses *i/e*, *ye/e*, and *yaha* pronouns, place it within the Eastern branch, and only the absence of any of the negation strategies used by the Mexican Nahua languages sets it apart from the other Eastern languages. Here I have argued that the Salvadoran negation in */te/* is a likely innovation from a previous form */ate/* shared with Tabasco Nahuatl. Pipil does have some exceptions where it seems to group with Western languages, for example the number three is *yey*, not *eyi* as would be predicted, but since the *y-* is now established as a retention this is not significant in itself, and indeed all Eastern dialects have *y-* in some forms. Given this evidence, and the fact that the only innovation specific to Pipil is the */te/* negation, and that it has a number of other innovations in common with Isthmus and Tabasco dialects, I consider it to be clearly classifiable as an early offshoot of the Isthmian group of dialects (Mecayapan, Pajapan, Oteapan, Tabasco, Chiapas) within the Eastern branch.

2.6. The status of Urban Nahuatl (a.k.a. “Classical Nahuatl”)

According to Canger (2011) the language spoken in the metropolis of Tenochtitlan was a koiné language, a dialect mixture that arose naturally as immigrants to the city from all of the major dialect areas interacted and adjusted their ways of speaking to each other. The isoglosses proposed here also support that view. Colonial descriptions of Urban Nahuatl tell us that there are two negation strategies. One is the use of *a?mo*, which here is not restricted to specific clause types but works as a universal negator. The other is the use of the prefix *ah-*. In some grammars such as Carochi's this second strategy figures prominently, but mostly because it provides some minimal pairs between long vowels and saltillo such as */ātlākatl/* “mariner” and */ahtlākatl/* “monster”. In colonial texts the negation with *ah-* occurs only infrequently. I would suggest that this is because it is a negation strategy brought to Mexico by speakers of southeastern varieties, and used mostly by them. In some South-Eastern varieties, *ah-* is the primary negation strategy (E.g. Soyaló, Chiapas (Reyes 1961)). I don't believe that the *ah-* negation is documented for any varieties in the Western periphery, and even in the central area most varieties have it only in a small number of vestigial forms such as */ahkwēl/* “it is impossible”. We

do not find the pronouns in *-aha* in Urban Nahuatl, but we do find the short forms without the *-wa* suffix, *neh*, *teh*, *yeh*, similar to the Eastern forms (In the Western periphery the short pronouns carry the absolutive suffix, *nel yel tel*). It is also possible that some aCa words found frequently in classical and in some central dialects such as *yaka*- “nose” were introduced from the East, given that many other Central and Western dialects have *yeka*- in this word.

3.0. Conclusions

The main problem that has held back the analysis of Nahuan dialect diversity is that regardless of which classification scheme one comes up with there are individual varieties that don't fit in. Individual dialects seem to freely mix traits from the two main branches, and dialects with an abundance of “Western traits” may be found deep in the Eastern area, and vice versa. This challenges us to think about dialectology historically, instead of attempting to group dialects merely according to synchronic similarity. Our question then, when working with individual varieties, either in colonial documents from peripheral areas or with contemporary languages, should be “through which social and historical process did this mixture of traits arise?”.

The method we should use to disentangle the messy picture caused by dialect contact and long-distance migrations is well-known. It entails a form of linguistic stratigraphy already advocated by Sapir (1916), and practiced by historical linguists to this day. This method seeks to distinguish between inherited and diffused linguistic material, by undertaking a holistic analysis of the variety in question. Such an analysis should 1. take into account the known socio-historical contexts in which the language has participated, in order to establish a probable historical trajectory of migration and contact; 2. establish a chronological picture of the phonological and morphological changes that can be reconstructed for the language through external and internal comparison; 3. by relating the interaction of semantic domains of diffusion with the historical and linguistic chronology.

For example in the case of Nahuatl, we know of four historical processes that are likely to have produced traceable contact induced change. Firstly the contact of the earliest Nahuan migrations with speakers of non-Nahuan languages within Mesoamerica (Kaufman 2001 undertakes such an analysis). Secondly the contact between the earliest arriving migrants, who spoke Eastern varieties with the late-comers who spoke Western varieties (resulting in the profuse dialect mixture of the many Central

varieties, and the development of the urban koiné, spoken in Tenochtitlan described in Canger (2011)). Thirdly, the pre-colonial diffusion of the traits from the innovative central dialects of Tenochtitlan into the varieties of the Eastern and Western Peripheries (e.g. García Marquez' analysis of the pre-colonial Tlaxcaltec influence in the Zongolica region). And finally, the colonial diffusion of the Central variety into peripheral areas (e.g. Kimball's (1990) analysis of the colonial diffusion of Western pronouns into Eastern Huastecan Nahuatl).

In order to distinguish between inherited and diffused material within a given dialect we should know as much as possible about the history of the speech community. By studying the historical sources we can often get a good sense of both its precolonial and colonial history. Was it spoken by people who were known migrants from another area? In that case the traits that correspond to that area may be considered the inherited traits and traits from adjacent varieties may be considered subsequent diffusion. This is for example the case of those Nahuatl varieties spoken in Chiapas that were remnants of Tlaxcaltec soldiers arriving in Spanish service. By looking at the semantic domains in which specific traits occur we can also often say something about the period in which lexical items were introduced. For example in a variety in which words with unexpected phonological forms (or reverential forms in a variety that otherwise does not have this register) are limited to the domain of Catholic religion and livestock of European origin, we may be confident in considering these forms to be post-colonial introductions.

Finally, when working to classify the genetic relations between individual varieties or dialect areas we should not only discard the material considered the result of diffusion, but also discard material that is the result of independent rather than shared innovation. In a phylogenetic classification only shared innovations can be the basis for setting apart branches. Commonly one has an unconscious tendency to consider forms that stand out as odd within a specific variety as probable vestigial retentions, but this tendency should be repressed. If a given form can be explained as an innovation motivated by some general process driving the change (e.g. Commonly occurring sound changes such as voicing of unvoiced stops between vowels, or commonly occurring semantic changes motivated by metonymy or other general processes, or a change from a typologically marked trait to an unmarked one), then it should probably be considered independent innovations even when it occurs in dialects in separate areas. To produce a convincing and well-established phylogeny, independent innovation should be

considered the null hypothesis, and it should be the primary aim of arguments advanced in favor of any genetic grouping to be sufficiently strong to subvert the null hypothesis.

3.1. Preliminary classification

Having attempted to follow these methodological principles the classification arrived at in the course of this paper, would look like the following. Evidence for the individual subgroupings in the form of shared innovations will follow in a subsequent paper.

- Pochutec

- Western Nahuan

 - Western Periphery

 - Michoacan/Durango/Nayarit/Jalisco/Western Mexico State

 - Central Nahuan

 - D.F., Morelos, Eastern Mexico State, Tlaxcala, Southern Puebla, Sierra

 - Norte de Puebla

- Eastern Nahuan

 - Huastecan

 - Eastern Huastecan

 - Western Huastecan (stronger Western influence)

 - Sierra de Puebla (Cuetzalan, Zacapoaxtla, Tlatlahuquitepec)

 - Isthmian

 - Isthmus

 - Tabasco

 - Chiapas/Guatemala

 - El Salvador

Currently the status of the two Guerreran dialect areas is ambiguous, Northern Guerrero seems closer related to the Western area and Southern Guerrero to the Eastern (Canger 1988), but more detailed studies may yet turn out to classify North Guerrero as an historically Eastern variety with a strong Western superstrate. The status of Zongolica is also somewhat ambiguous and the picture changes depending on the individual variety studied within the region, but it seems to be historically Eastern dialects with such a so strong Central influence, probably dating already to to the pre-hispanic period

where an influx of speakers from South Puebla and Tlaxcala is documented, that perhaps it is best considered to be a subarea of the Central dialect area with a strong Eastern substrate.

4.0 Works Cited

- Amith, Jonathan D. 2009. *Ok nemi totlahtōl. Volumen 1, Estado de Guerrero*. México: INALI
- Beller, Richard & Patricia Beller 1979. Huastecan Nahuatl In Langacker Ronald. (ed.) 1979. *Modern Aztec grammatical sketches*. Arlington, TX: Summer Institute of Linguistics. 199-307
- Boas, Franz. 1917. El dialecto Mexicano de Pochutla, Oaxaca.
- Campbell, Lyle. 1985. The Pipil Language of El Salvador. Mouton.
- Campbell, Lyle & Ronald W. Langacker. 1978. Proto-Aztec vowels: pts. I, II, III. *IJAL* 44:85-102, 197-210, 262-79.
- Canger, Una. 1980. *Five Studies Inspired by Nahuatl Verbs in -oa*, Travaux du cercle linguistique de Copenhagen, no. 19. Copenhagen
- Canger, Una. 1988. "Nahuatl Dialectology: A Survey and Some Suggestions" *International Journal of American Linguistics* 54:28-73.
- Canger, Una. 1988b [1978]. Subgrupos de los dialectos Nahuas. In Smoke and Mist, Mesoamerican Studies in memory of Thelma Sullivan. Kathryn Josserand & Karen Dakin (eds.) B.A.R. International Series 402.
- Canger, Una. 2011. "El nauatl urbano de Tlatelolco/Tenochtitlan, resultado de convergencia entre dialectos, con un esbozo brevísimo de la historia de los dialectos". *Estudios de Cultura Náhuatl* (Mexico: UNAM): 243–258.
- Canger, Una and Karen Dakin. 1985. An inconspicuous basic split in Nahuatl. *International Journal of American Linguistics* 51: 358–361.
- Dakin, Karen. 2000. Proto-Uto-Aztec *p and the e/ye isogloss in Nahuatl Dialectology. In *Uto-Aztec: Structural, Temporal, and Geographic Perspectives*. Eugene Casad & Thomas Willett (eds.) Hermosillo, Mexico: University of Sonora. pp. 213-19
- Dakin, Karen. 1996. El náhuatl de las *Memorias*: los rasgos de una *lingua franca* indígena in *Nuestro pesar, nuestra aflicción, tunetuliniliz, tucucuca*, K. Dakin, C. H. Lutz (eds.), Universidad Autónoma de Mexico, Mexico, pp. 167-189.
- Duverger, Christian. 2007. El Primer Mestizaje: La Clave para entender el pasado Mesoamericano.

Mexico: UNAM/Taurus

- Garcia de Leon, Antonio. 1968. La Lengua de los Ancianos de Jalapa, Tabasco. Estudios de Cultura Náhuatl.
- Garcia de Leon, Antonio. 1976. *Pajapan: Un Dialecto Mexicano del Golfo*. INAH.
- Hasler Hangert, Andrés. 2004. *Gramática Moderna Del Nahuatl de Michoacán*. Zamora, UPAN y Presidencia Municipal de Aquila, Michoacán.
- Hasler, Andrés. 2011. *El Nahuatl de la Huasteca y el Primer Mestizaje: Treinta Siglos de Historia Nahuatl a la Luz de la Dialectología*. CIESAS Tlalpan: Publicaciones de la Casa Chata.
- Hasler, Juan. 1954. Tetradiatología Nahuatl. In *A William Cameron Townsend en el vigésimo quinto aniversario del Instituto Lingüístico de Verano*. pp. 455-64. Mexico.
- Kaufman, Terrence. 2001. *The history of the Nawa language group from the earliest times to the 16th century: Some preliminary results*. PDLMA online.
- Kaufman, Terrence & John Justeson. 2009. Historical linguistics and Pre-Columbian Mesoamerica. *Ancient Mesoamerica*, 20, pp. 221–231
- Kimball, Geoffrey. 1990. Noun Pluralization in Eastern Huasteca Nahuatl. *International Journal of American Linguistics*. 56:2:196-216.
- Lastra de Suárez, Yolanda. 1986. *Las Áreas Dialectales del Náhuatl Moderno*. UNAM: Mexico
- Monzón, Cristina & Andreo Roch Seneff. N.d. *¿La Dialectología de Toltecayotl y Mexicayotl?* Online pdf file. [I have not been able to find out where this was originally published]
- Reyes, Luis. 1961. Náhuatl de Soyaló, Chiapas. VIII *Mesa Redonda de la Sociedad Mexicana de Antropología*. pp. 161-66. México.
- Rivas, Pedro Geoffroy. 1969. El nawat de Cuscatlán: apuntes para una gramática tentativa (San Salvador: Ministerio de Educación, Dirección General de Cultura, Dirección de Publicaciones),
- Sapir, Edward. 1916. *Time Perspective in Aboriginal American Culture: A Study in Method*. Canada Department of Mines, Geological Survey, Memoir 90. Anthropological Series, No. 13.
- Sischo, William R. 1979. Michoacán Nahuatl In Langacker Ronald. (ed.) 1979. *Modern Aztec grammatical sketches*. Arlington, TX: Summer Institute of Linguistics. 307-380
- Smith, Michael E. & Lisa Montiel. The Archaeological Study of Empires and Imperialism in Pre-Hispanic Central Mexico. *Journal of Anthropological Archaeology*. 20:245-84.
- Stubbs, Brian D. 2011. Uto-Aztecan: A Comparative Vocabulary. Shunway Family History Services.

Wolgemuth, Karl. 2002. *Gramática Náhuatl (mela'ájtōl) de los municipios de Mecayapan y Tatahuicapan de Juárez, Veracruz*. Mexico: Instituto Lingüístico de Verano