

# A View from the Sierra: the Highland Puebla Area in Nahua Dialectology\*

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## Abstract

Sierra Norte de Puebla (Puebla, Mexico) is a dense area where three dialectologically distant Nahua variants are spoken in contact with one another. This paper outlines the distribution and the characteristics of each dialect and discusses the status of Western Sierra Nahuatl, one of the three dialectal groups of Nahua which has a few marginal features, within the dialectological study of the language.

## 1. Introduction

From the dawn of Nahua<sup>1</sup> dialectology, the macro-dialectal division between the Eastern Periphery and other variants has been of particular significance. The pioneers of this field (Lehmann, 1920; Whorf, 1946; etc.) regarded this distinction as the primary split within Nahua. Even in the rapid progress of modern Nahua dialectology, the East–West division has always been the major axis of classification (Hasler, 2011 [1994]; Canger, 1988a,b; Dakin, 2000; Kaufman, 2001; Hasler, 2011; Pharaoh Hansen, 2014; etc.).

In this respect, Sierra Norte de Puebla is an area of great importance for Nahua dialectology, since it is one of a few regions (besides the Huasteca area) where Eastern and non-Eastern dialects are spoken in contact with each other. Several well-established isoglosses cut through this highland, as will be mentioned in Section 4 below.

This paper provides a survey on this small dialectological salad bowl, based both on published data such as word lists from Lastra de Suárez (1986) and the data collected by the author. Western Sierra Nahuatl, which is one of the three major dialectal groups spoken in the Sierra, exhibits marginal characteristics with regard to the recently proposed East–West dichotomy (Pharaoh Hansen, 2014).

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<sup>1</sup>In this paper, the term *Nahua* refers to any variants of the Nahuan subgroup of the Uto-Aztecan language family, including Pipil and Pochutec. This paper adopts this broader term since the more commonly used term *Nahuatl* is sometimes limited to the dialects which have the consonant  $\lambda$ .

## 2. Three dialects of the Sierra

Sierra Norte de Puebla (Sierra de Puebla, Highland Puebla) is located in the northern part of the state of Puebla, Eastern Mexico, roughly corresponding to the northern third of the state. It constitutes the southern end of the *Sierra Madre Oriental*, and is also a part of the Trans-Mexican Volcanic Belt (*Eje Neovolcánico*).

Being a part of the historical area called *Totonacapan*, it is now inhabited by four indigenous ethnic groups: Totonacs, Nahuas, Otomis, and Tepehuas. At least the former three groups preserve the languages of their ancestors.

The Nahuatl dialects spoken in this region can be divided into three major groups: Sierra Nahuatl (“Highland Puebla Nahuatl”; ISO 639-3: *azz*), Western Sierra Nahuatl (“Zacatlán–Ahuacatlán–Tepetzintla Nahuatl”; ISO 639-3: *nhi*), and Northern Puebla Nahuatl (ISO 639-3: *ncj*). All of these three groups have Totonac speakers as their neighbors, and Northern Puebla Nahuatl is also in contact with Otomi. The location of each dialect is shown in Figure 1.<sup>2</sup>



Figure 1: Relative locations of the Sierra and the Nahuatl dialects spoken in Puebla

According to the common classification (Lastra de Suárez, 1986; Canger, 1988b), Sierra Nahuatl belongs to the Eastern Periphery and the other two groups belong to so-called Central Nahuatl, as shown in Figure 2 below. The three dialectal groups spoken in the Sierra are emphasized by bold-face type.<sup>3</sup>

<sup>2</sup>The map in Figure 1 is based on the work of Yavidaxiu ([http://commons.wikimedia.org/wiki/File:Mexico\\_blank.svg](http://commons.wikimedia.org/wiki/File:Mexico_blank.svg)).

<sup>3</sup>There is no agreement on the genetic subgrouping of Nahuatl. Figure 2 is based on the classification by Lastra de Suárez (1986), with slight modifications based on Canger (1988a,b) and Kaufman (2001). It should be noted that Lastra de Suárez (1986) does not speak of genetic subgrouping; her classification is a synchronic one based on a lexical survey.

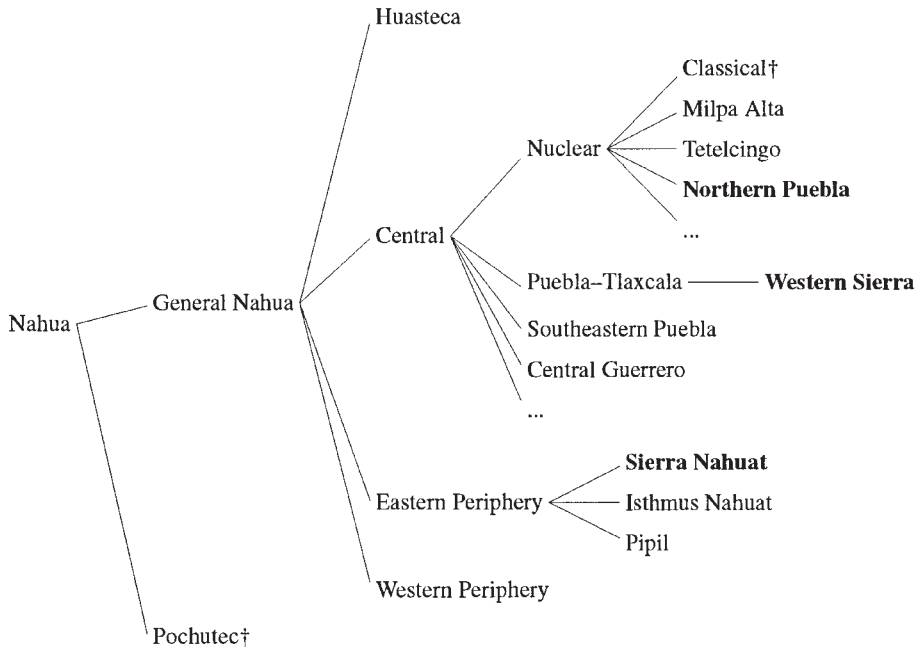


Figure 2: Dialectological heterogeneity of the Nahua dialects in the Sierra

### 2.1. Sierra Nahuatl

Sierra Nahuatl (ISO 639-3: *azz*), which is often called misleadingly *Sierra Puebla Nahuatl* or *Highland Puebla Nahuatl*, is distributed in the southeastern part of the Sierra. It belongs to Eastern Periphery of the Nahua group (along with Isthmus Nahuatl and Pipil) and constitutes a dialect continuum with the neighboring dialects in the state of Veracruz (Lastra de Suárez, 1986).

It is the best documented group among the three; the major linguistic materials include dictionaries (e.g. Key and de Key, 1953; de Pury-Toumi, 1984), grammars (e.g. Robinson, 1966), texts (e.g. Aramoni Burguete, 1990; Secretaría de Cultura, 1994), and sociolinguistic studies (e.g. Castillo Hernández, 2007). Also many anthropological works have been published, such as Beaucage and Taller de Tradición Oral (2009).

### 2.2. Western Sierra Nahuatl

In using the tentative term *Western Sierra Nahuatl*, I refer to the dialects sometimes called *Zacatlán–Ahuacatlán–Tepetzintla Nahuatl* (ISO 639-3: *nhi*), which are spoken in the southwestern part of the Sierra. According to the classification by Lastra de Suárez (1986), this group is a part of the Puebla–Tlaxcala Subarea of Central Nahuatl, though its actual affiliation is an open question. Whereas *Ethnologue*<sup>4</sup> limits the term *Zacatlán–Ahuacatlán–Tepetzintla Nahuatl* to the variants spoken in these three municipalities, the

<sup>4</sup><https://www.ethnologue.com/language/nhi>.

word list from Santa María Atexcac (Lastra de Suárez, 1986, 474; the municipality of Aquixtla) shows all the major features in common with this group.

Although Western Sierra Nahuatl is much less studied than the other two groups, a grammar is recently published on the variant spoken in San Miguel Tenango, the municipality of Zacatlán (Schroeder, 2014).

### 2.3. Northern Puebla Nahuatl

*Northern Puebla Nahuatl* or *North Puebla Nahuatl* refers to the dialects spoken in the municipalities of Naupan and Huauchinango, which are located north of the Sierra. Lastra de Suárez (1986) classifies two dialects from the municipality of Huauchinango (and the dialect of San Agustín Atlihuacan in the municipality of Xicotepec as well) as belonging to the Nuclear Subarea,<sup>5</sup> though she notes that the notion of the “Nuclear Subarea” is by no means substantial.

Linguistic resources on this group include a grammar (Brockway, 1979) and a dictionary (Brockway and de Brockway, 2000) among others. A well-known paper on Nahuatl honorifics (Bartholomew and Brockway, 1988) also deals with this dialect.

### 3. Sources of the data

The distribution of the three dialects are illustrated in Figure 3.<sup>6</sup>

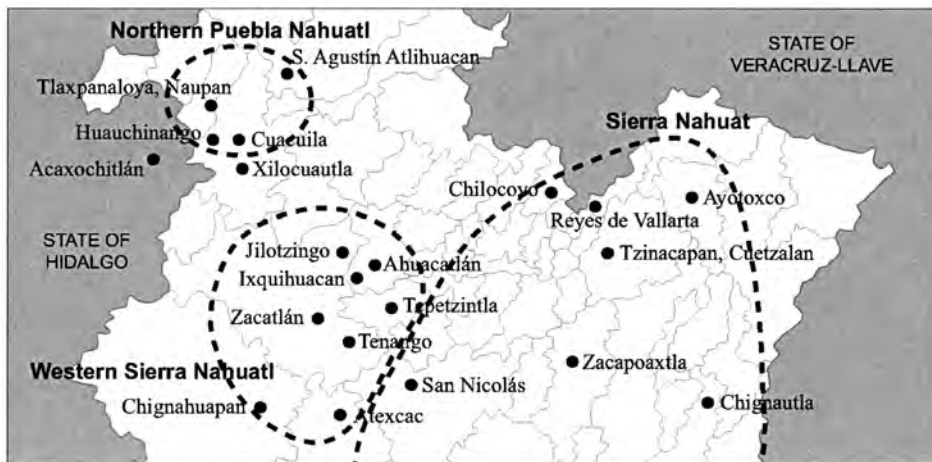


Figure 3: Distribution of three dialectal groups of the Sierra

In order to outline the dialectological situation of the Sierra, this paper compares the basic vocabulary of 17 dialects (13 from around the Sierra, 4 from other areas). The

<sup>5</sup>The Nuclear Subarea is a region which includes the well-documented dialects of Milpa Alta, Tetelcingo, Tepoztlán, etc., along with Classical Nahuatl. It is usually defined by the presence of the “-lwiā metathesis” (Canger, 1988b). Although Lastra de Suárez (1986) does not mention this diagnostic, Northern Puebla Nahuatl have this feature in common with other dialects classified as Nuclear.

<sup>6</sup>The map in Figure 3 is based on the work of Yavidaxiu ([https://commons.wikimedia.org/wiki/File:Blank\\_map\\_of\\_Puebla.svg](https://commons.wikimedia.org/wiki/File:Blank_map_of_Puebla.svg)).

data come both from published sources such as Lastra de Suárez (1986) and from the data collected by the author. The latter are on the dialects of San Francisco Ixquiuhacan (municipality of Ahuacatlán) and San Miguel Tenango (municipality of Zacatlán), both of which this paper classifies as Western Sierra Nahuatl.

The selection of basic vocabulary is based on the Leipzig-Jakarta List (Tadmor, 2009) with a few additional diagnostic words such as ‘bean,’ ‘nail,’ and ‘berry’ (for each diagnostic, see Section 4 below). The dialects consulted are listed in Table 1; the classification of each dialect is based on Lastra de Suárez (1986) and the numbers in the parenthesis correspond to the labels given in Lastra de Suárez (1986).

Table 1: Dialects consulted in this paper

Location	State	Area	Subarea	Primary source
Cuatenahuatl	Hidalgo (2)	Huasteca		Lastra de Suárez (1986)
Acaxochitlán	Hidalgo (8)	Central	Nuclear (?)	Lastra de Suárez (1986)
Naupan	Puebla	Central	Nuclear	Brockway and de Brockway (2000)
Cuacuila	Puebla (4)	Central	Nuclear	Lastra de Suárez (1986)
Xilocuautla	Puebla (3)	Central	Nuclear	Lastra de Suárez (1986)
Tlalcuapan	Tlaxcala	Central	Puebla–Tlaxcala	Lastra de Suárez (1986)
Jilotzingo	Puebla (8)	Central	Puebla–Tlaxcala	Lastra de Suárez (1986)
Ixquiuhacan	Puebla	Central	Puebla–Tlaxcala	Fieldwork
Tenango	Puebla	Central	Puebla–Tlaxcala	Fieldwork
Atexcac	Puebla (11)	Central	Puebla–Tlaxcala	Lastra de Suárez (1986)
Zacapoaxtla	Puebla	Eastern	Sierra Nahuatl	Key and de Key (1953)
Tzinacapan	Puebla	Eastern	Sierra Nahuatl	de Pury-Toumi (1984)
San Nicolás	Puebla (12)	Eastern	Sierra Nahuatl	Lastra de Suárez (1986)
Tetelcingo	Morelos (2)	Central	Nuclear	Brewer and Brewer (1979)
Milpa Alta	D.F. (2)	Central	Nuclear	Lastra de Suárez (1986)
Amanalco	Mexico (2)	Central	Nuclear	Lastra de Suárez (1986)
Mecayapan	Veracruz	Eastern	Isthmus Nahuatl	Wolgemuth et al. (2000)

The data on 10 out of 17 dialects come from the word lists in Lastra de Suárez (1986). It should be noted that Lastra de Suárez’s (1986) questionnaire lacks 27 out of 100 words contained in the Leipzig-Jakarta List, and some of the word lists are incomplete.

#### 4. Isoglosses

This section summarizes the following four major phonological isoglosses relevant to this area. All of them except (ii) are well known and are discussed in detail in the works cited below. See Canger (1980, 1988a,b) for lexical/grammatical isoglosses.

- (i)  $\lambda$  vs.  $t$ : e.g. *teḷ* vs. *tet* ‘stone’ (Canger, 1988b, among many others)
- (ii) Raising of \* $e$ : e.g. *teḗḷ* vs. *tipēḷ* ‘hill’ (Sasaki, 2014)
- (iii) # $e$ - vs. # $ye$ -: e.g. *etḷ* vs. *yetḷ* ‘bean’ (Canger, 1980; Dakin, 2000)
- (iv)  $e$  vs.  $i < **u$ : e.g. *sentli* vs. *sintli* ‘dried maize cob’ (Canger and Dakin, 1985)

In the following sections, Nahuatl forms are presented in the simplified spelling (Sasaki, 2014) regardless of which system their sources adopt; vowel length is omitted in some sources such as Brockway and de Brockway (2000).

#### 4.1. $\lambda$ vs. $t$

Considerable research has been dedicated to the correspondence between the Central  $\lambda$  [ʃ] vs. Eastern  $t$ . It is well known that Proto-Nahuatl  $*\lambda$  has merged to  $t$  in the Eastern Periphery (Campbell and Langacker, 1978); all Sierra Nahuatl variants unanimously show this feature, hence the term *Nahuatl*. Other dialects of the Sierra preserve the original  $*\lambda$ .

Table 2:  $\lambda$  vs.  $t$

	Classical	Northern Puebla (Naupan)	Western Sierra (Ixquihuacan)	Sierra Nahuatl (Tzinacapan)
‘fire’	<i>tletl</i>	<i>tletl</i>	<i>tītl</i>	<i>tīt</i>
‘ground, soil’	<i>tīalli</i>	<i>tīali</i>	<i>tīāli</i>	<i>tāl</i>
‘smoke’	<i>pōktli</i>	<i>pōktli</i>	<i>pōktli</i>	<i>pōktī</i>

#### 4.2. Raising of $*e$

In Ixquihuacan, Tenango, Jilotzingo, Atexcac, and Xilocuautila, the vowel which realizes as short  $e$  in other dialects is raised to  $i$  in most environments regardless of its historical source (Sasaki, 2014). The isogloss should be drawn between Cuacuila and Xilocuautila. I shall tentatively consider this feature as the diagnostic of Western Sierra Nahuatl, though the status of Xilocuautila is still unclear.<sup>7</sup>

Table 3: Raising of  $*e$

	Classical	Northern Puebla (Naupan)	Western Sierra (Tenango)	Western Sierra (Ixquihuacan)	Sierra Nahuatl (Tzinacapan)
‘stone’	<i>tetl</i>	<i>tetl</i>	<i>tīt</i>	<i>tīt</i>	<i>tēt</i>
‘hill’	<i>tepēt</i>	<i>tepēt</i>	<i>tīpēt</i>	<i>tīpēt</i>	<i>tepēt</i>
‘he wants it’	<i>kinēki</i>	<i>kinēki</i>	<i>iknīki</i>	<i>kinīki</i>	<i>kinēki</i>

#### 4.3. $\#e$ - vs. $\#ye$ -

Canger (1980) notes that some Classical Nahuatl words which begin with  $e$ - have the modern Central counterparts with  $\#ye$ -. While Canger (1980) considers the latter forms as innovative, Dakin (2000) argues that this  $\#ye$ - reflects the Proto-Uto-Aztecan  $**\#pV$ -, which was lost before other vowels. Pharaoh Hansen (2014) suggests that this isogloss  $\#e$ -/ $\#ye$ - characterizes two macrodialects of Nahuatl: Eastern and Western.

<sup>7</sup>Lastra de Suárez (1986) classifies Xilocuautila as Nuclear.



In the Sierra, this isogloss realizes in a slightly problematic way. While Sierra Nahuatl (#*e*-) and Northern Puebla Nahuatl (#*ye*-) systematically show the Eastern–Central division, Western Sierra dialects show idiosyncratic patterns.

Table 4: #*e*- vs. #*ye*-

	Classical	Northern Puebla (Naupan)	Western Sierra (Tenango)	Western Sierra (Ixquihuacan)	Sierra Nahuatl (Tzinacapan)
‘three’	<i>ēyi</i>	<i>iyi</i>	<i>yēyi</i>	<i>yēyi</i>	<i>eyi</i>
‘X’s liver’	<i>-ēl</i>	<i>-yeltapach</i>	<i>-yēl</i>	<i>-yēl</i>	<i>-eltapax</i>
‘wind’	<i>e’ēkatl</i>	<i>yehyekatl</i>	<i>ehyekatl</i>	<i>ehekatl</i>	<i>ehekat</i>
‘elote’	<i>ēlōtl</i>	<i>yelotl</i>	<i>ēlōtl</i>	<i>ēlōtl</i>	<i>elot</i>
‘X’s blood’	<i>-es(yō), -essō</i>	<i>-yes</i>	<i>-eso</i>	<i>-eso</i>	<i>-esyo(?)</i>
‘X’s chest’	<i>-ēlpan</i>	<i>-yelpa</i>	<i>-ēlpan</i>	<i>-ēlpā</i>	<i>-el</i>
‘he arrives’	<i>e’ko</i>	—	<i>ehko</i>	<i>ehko</i>	<i>ehko</i>
‘bean’	<i>etl</i>	<i>yetl</i>	<i>itl</i>	<i>ītl</i>	<i>et</i>
‘blood’	<i>estli</i>	<i>yestli</i>	<i>istli</i>	<i>īstli</i>	<i>esti</i>
‘heavy’	<i>etik</i>	<i>yetik</i>	<i>itik</i>	<i>itik</i>	<i>etik</i>
‘shadow’	<i>e’kawyōtl</i>	<i>(sewali)</i>	<i>ēkawil</i>	<i>tlayēkawīl</i>	<i>ekawil, yekawil</i>

Western Sierra Nahuatl has #*yē*- for the words of the first group (‘three,’ ‘X’s liver’) as many other modern Central dialects, which conforms to Phraao Hansen’s (2014) hypothesis that the #*ye*- form is the feature of the Western macrodialect.

The second group, however, behaves contrastively; in Tenango and Ixquihuacan, these words lack the initial *y* as in Classical Nahuatl and Eastern Periphery.<sup>8</sup> Interestingly, the situation is the same in other two variants which this paper classifies as Western Sierra Nahuatl, Atexcac and Jilotzingo; Atexcac has *e’yakatl* ‘wind,’ and Jilotzingo has *exakatok* ‘it is windy.’ It should also be noted that the words ‘X’s liver’ (Ixquihuacan: *-yēl*) and ‘X’s chest’ (Ixquihuacan: *-ēlpā*) behave differently despite the etymological relation between them. The irregular possessive form *-eso* ‘X’s blood’ will be discussed in Section 5 below.

The third group (‘bean,’ ‘blood,’ ‘heavy’) is problematic, since the raising of \**e* which is particular to Western Sierra Nahuatl obscures the status of these forms.<sup>9</sup> These words are to be discussed in Section 5.

The words for ‘shadow’ are trickiest of all; in addition to the regular *ekawil*, Tzinacapan has the variant *yekawil*. Correspondingly, Key and de Key (1953) report a possessive form *iyekawil* with a glide *y* for Zacapoxtla, in addition to the absolutive *ekawil*.

#### 4.4. *e* vs. *i* < \*\**u*

Canger and Dakin (1985) point out that the variation *e*~*i* observed in some Classical

<sup>8</sup>It should be noted that *ehyekatl* ‘wind’ in Ixquihuacan has *y* in the second syllable.

<sup>9</sup>The map presented in Dakin (2000) correctly differentiates Western Sierra Nahuatl from the neighboring Central dialects.

Nahuatl words (e.g. *sentli~sintli* ‘dried maize cob,’ *istetl~istitl* ‘nail’) reflects a major dialectal division within Nahua. They reveal that the variation comes from the different development of Proto-Uto-Aztecan  $**u$  in a certain environment and suggested that the  $e < **u$  characterizes the language of the newcomers: the Mexicas. The table below shows the realization of some of the diagnostic words presented by Canger and Dakin (1985).

With regard to this criterion, Sierra Nahuatl belongs to the  $i$ -dialects and Northern Puebla Nahuatl is part of the  $e$ -dialects. The status of Western Sierra is hard to decide, since the short  $*e$  has been raised to  $i$  in this group.

Table 5:  $e$  vs.  $i < **u$ 

	Classical	Northern Puebla (Naupan)	Western Sierra (Ixquihuacan)	Sierra Nahuatl (Tzinacapan)
‘dried maize cob’	<i>sentli~sintli</i>	<i>sentli</i>	<i>sintli</i>	<i>sinti</i>
‘nail’	<i>istetl~istitl</i>	<i>iisten</i> (his nail)	<i>istitl</i>	<i>istit</i>
‘berry’	<i>ihetl~ihtitl</i>	<i>ihhte</i> (his berry)	<i>-ihtik</i> (inside)	<i>noihtik</i> (my berry)

#### 4.5. Summary of isoglosses

Figure 4 illustrates the isoglosses presented in the previous sections.<sup>10</sup>



Figure 4: Summary of isoglosses in the Sierra

The Eastern–Central isogloss ( $\lambda$  vs.  $t$ , raised  $*e$ ,  $\#e-$  vs.  $ye-$ ) cuts through the Sierra, dividing Sierra Nahuatl from Central dialects; another isogloss (the northern limit of the raising of  $*e$ ) crosses the municipality of Huauchinango, between Cuacuila and Xilocuautla. The characteristics of each dialect are summarized in Table 6.

<sup>10</sup>The map in Figure 1 is based on the work of Yavidaxiu ([https://commons.wikimedia.org/wiki/File:Blank\\_map\\_of\\_Puebla.svg](https://commons.wikimedia.org/wiki/File:Blank_map_of_Puebla.svg)).



Table 6: Summary of the three Nahuatl dialects of the Sierra

	Classification	* $\lambda$	Raising of * $e$	# $ye$ -/# $e$ -	PUA ** $u$
Sierra Nahuatl	Eastern	$t$	Yes	# $e$ -	$i$
Western Sierra Nahuatl	Central	$\lambda$	Yes	# $ye$ - (?)	?
Northern Puebla Nahuatl	Central	$\lambda$	No	# $ye$ -	$i$

## 5. Position of Western Sierra dialects

In Section 4.3, it was pointed out that Western Sierra Nahuatl shows an idiosyncratic pattern with regard to the # $e$ -/# $ye$ - distinction. While some words (‘three,’ ‘X’s liver’) have the regular initial # $ye$ -, other words (‘wind,’ ‘elote,’ etc.) lack  $y$  in more than one Western Sierra dialect. The table presented in Section 4.3 is repeated below.

Table 7: # $e$ - vs. # $ye$ -

	Classical	Northern Puebla (Naupan)	Western Sierra (Tenango) (Ixquihuacan)	Sierra Nahuatl (Tzinacapan)	
‘three’	$\bar{e}yi$	$yiyi$	$y\bar{e}yi$	$eyi$	
‘X’s liver’	$-\bar{e}l$	$-yeltapach$	$-y\bar{e}l$	$-eltapax$	
‘wind’	$e'\bar{e}katl$	$yehyekatl$	$ehyekatl$	$ehekat$	
‘elote’	$\bar{e}l\bar{o}tl$	$yelotl$	$\bar{e}l\bar{o}tl$	$elot$	
‘X’s blood’	$-es(y\bar{o}), -ess\bar{o}$	$-yes$	$-eso$	$-esy\bar{o}(?)$	
‘X’s chest’	$-\bar{e}lpan$	$-yelpa$	$-\bar{e}lpan$	$-el$	
‘he arrives’	$e'ko$	—	$ehko$	$ehko$	
‘bean’	$etl$	$yetl$	$itl$	$\bar{i}tl$	$et$
‘blood’	$estli$	$yestli$	$istli$	$\bar{i}stli$	$esti$
‘heavy’	$etik$	$yetik$	$itik$	$itik$	$etik$
‘shadow’	$e'kaw\bar{o}tl$	$(sewali)$	$\bar{e}kawil$	$tlay\bar{e}kaw\bar{i}l$	$ekawil, yekawil$

A straightforward way to account for this irregularity is to attribute the second group to the dialectal borrowing from Sierra Nahuatl, which belongs to the # $e$ - dialect.

This explanation is not as plausible as it appears, however. Firstly, many of the “irregular” forms have the consonant  $\lambda$ , which suggests that these forms cannot be accounted for at least by canonical borrowing from a  $t$ -dialect. Secondly, it should be noted that they include extremely basic words such as ‘wind’ and ‘to arrive’; furthermore, in the  $e$ -/# $ye$ -pairs  $-y\bar{e}l$  ‘X’s liver’ vs.  $-\bar{e}lpan$  ‘X’s chest’ and  $istli/\bar{i}stli$  ‘blood’ vs.  $-eso$  ‘X’s blood,’ the more commonly used forms appear without  $y$ .<sup>11</sup>

Also the words deformed by the raising of \* $e$  (Section 4.2) such as  $itl/\bar{i}tl$  ‘bean,’  $istli/\bar{i}stli$  ‘blood,’ and  $itik$  ‘heavy’ suggest another scenario. Although the merger of \* $e$

<sup>11</sup>As in many other Mesoamerican languages, body-part terms are usually used in the possessive forms in Nahuatl.

and  $*i^{12}$  obscures the original forms of these words, other words suggest that the ‘bean’-type words did not have initial  $y$  in these dialects.

In Ixquihuacan, the irrealis stem of the copula has the form  $\bar{i}$ , as in *ni- $\bar{i}$ -ski* ‘I will be.’ Since this form corresponds to *ye* in Classical Nahuatl, it can be assumed that former  $*\#y\bar{e}$ - has developed into  $\#\bar{i}$ - in Ixquihuacan. ‘Bean’-type words, on the other hand, have short  $i$ , as in *itik* ‘heavy’ and *iyāyōtl* ‘bean soup.’ The long  $\bar{i}$ ’s found in  $\bar{i}l$  ‘bean’ and  $\bar{i}stli$  ‘blood’ are irrelevant here, since it is the result of regular lengthening particular to the Ixquihuacan dialect (Sasaki, 2014; cf. Ixquihuacan  $\bar{i}\bar{i}l$  ‘stone,’  $t\bar{i}\bar{i}l$  ‘fire’); these words consistently have short  $i$  in Tenango (e.g. *itl*).

Table 8:  $\#e$ - vs.  $\#ye$ -

	Classical	Ixquihuacan
‘to be’ (future)	<i>yes</i>	$\bar{i}ski$
‘to be’ (optative past)	$(\bar{o})yeni$	$\bar{o}\bar{i}ni$
‘heavy’	<i>etik</i>	<i>itik</i>

Thus, it is possible to assume alternatively that the original form of the ‘bean’-type words of Western Sierra Nahuatl was  $\#e$ -. The following development can therefore be assumed for Ixquihuacan:  $*etl > *itl$  (as in Tenango)  $> \bar{i}l$  ‘bean.’ It is therefore more natural to consider that Western Sierra Nahuatl genetically belongs to the  $\#e$ - dialect, though it is necessary, in turn, to account for a few “regular” forms such as  $y\bar{e}yi$  ‘three’ and  $-y\bar{e}l$  ‘X’s liver.’ In this respect, Western Sierra Nahuatl has marginal characteristics with regard to the Eastern–Central dichotomy.

## 6. Conclusion

Through an areal survey, this paper illustrated the distribution of three major dialectal groups of Nahua spoken in the Sierra, and summarized how the widely proven isoglosses work in this area. The last section discussed the “irregular”  $\#e$ - forms found in Western Sierra dialects and suggested the possibility that Western Sierra dialects belong to the  $\#e$ -dialect, which suggests the marginal characteristics of Western Sierra Nahuatl within the Eastern–Central division commonly accepted in Nahua dialectology.

Two overlapping axes of classification have been proposed in recent Nahua dialectology: New vs. Old Nahua (Canger and Dakin, 1985; Hasler, 2011) and Western vs. Eastern Nahua (Dakin, 2000; Pharaoh Hansen, 2014). In this view, the microscopic linguistic-geographic situation of Highland Puebla is worth further investigation, since it is an area where these two interlocked macro-isoglosses tangle with less degree of overlap.

<sup>12</sup>Alternatively, the “raising” of  $*e$  might have taken place before the merger of Proto-Nahua  $*i$  to  $*i$ ; this paper cannot discuss this matter in detail.

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# 北プエブラ高地におけるナワトル語の東西方言接触

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キーワード: ナワトル語 ユート・アステカ語族 北プエブラ山脈 方言学 方言接触

## 要旨

北プエブラ山脈（メキシコ、プエブラ州）では、方言学的に大きく異なる3つのナワトル語方言が話されている。本稿では、各方言の分布と特徴を概観したのち、3方言のひとつであり境界的な特徴をもつ西山岳プエブラ方言のナワトル語方言学における位置づけについて論じる。

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