

## **Totonac-Tepehua Genetic Relationships\***

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The languages which comprise the Totonac-Tepehua language family are spoken in central Mexico in a region that includes parts of three states - southern Hidalgo, northern Puebla, and northwestern Veracruz. Traditionally, these languages have been divided into two groups: Totonac, with approximately 244,033 speakers, and Tepehua, with about 8,868 speakers (INEGI-Censo 2010). Each of these branches has been further sub-divided into four and three groups, respectively. The family tree in Figure 1 below recapitulates hypotheses by Arana Osnaya 1953; García Rojas 1978; Hasler 1966; MacKay 1991, 2011; MacKay & Trechsel 2006, 2012, in press; McQuown 1940, 1990; Smith-Stark 1983; Watters 1988; and others. Despite the popularity of this classification, it has never been rigorously defended. Linguists have been content with a classificatory scheme based, primarily, on comparison of the limited lexical data available and on the relative geographic locations of the languages involved and not on any formal and explicit grammatical analysis. Lack of data from many

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communities has, of course, stymied efforts in this domain, but the fact remains that the traditional classification represented in Figure 1 is still tentative and in need of further refinement and elaboration. Above all, this classification lacks empirical support. In spite of attempts by several researchers to establish the historical, genetic relationships among these languages more specifically, the nature and extent of these relationships has yet to be determined.

The goal of this paper is to put the discussion and investigation of the genetic relationships of the Totonac and Tepehua languages on a more solid and defensible foundation by identifying a specific set of grammatical features which can be used to differentiate among the various languages and thus provide a more formal and rigorous basis for classification. Earlier studies, based primarily on lexical comparisons, have not succeeded in resolving the many issues which surround the traditional classification in Figure 1. By concentrating on some of the more obvious morphological, phonological, and lexical differences among these languages, we hope to provide a stronger, more empirical foundation for classification. At the very least, we hope to lend content to the traditional designations within the family. That is, we hope to establish specific formal criteria that can be used to differentiate the languages within the family and to determine, more accurately and concretely, the various groupings and sub-groupings.

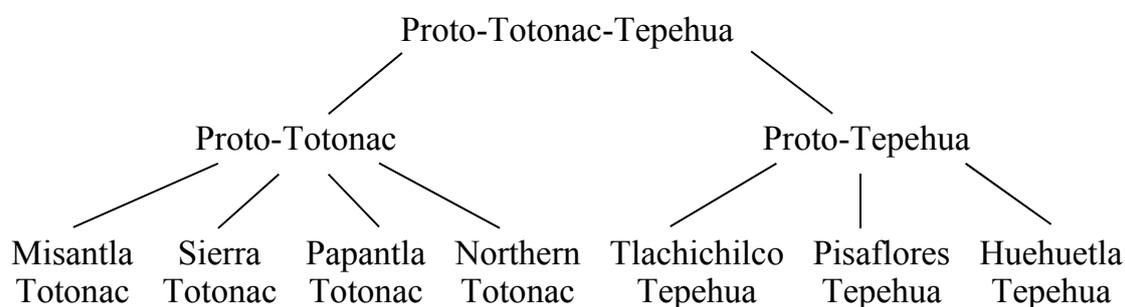


Figure 1: Totonac-Tepehua language family: traditional classification

Our discussion of the formal properties of the Totonac and Tepehua languages is based, necessarily, on the grammars and other descriptions that have been published over the last fifty years or so. We are fortunate in having relatively complete descriptions of the three Tepehua languages spoken in Huehuetla (Hidalgo, Hgo.), Pisaflores (Veracruz, Ver.), and Tlachichilco (Ver.). We also have descriptions of the Totonac languages spoken in Misantla (Ver.), San Juan Ozelonacaxtla (Pue.), Coatepec (Pue.), Huehuetla (Pue.), Zapotitlán de Méndez (Pue.), Patla and Chicontla (Pue.), Apapantilla (Pue.), Papantla (Ver.), and Filomeno Mata (Ver.). These languages represent all of the major divisions within the family, but they are far from exhaustive. We trust that future work will fill in some of the gaps in our data and provide a more complete and accurate picture of the Totonac-Tepehua language family as a whole.

We present below a list of the publications that we have consulted in the course of our investigation.

### **Tepehua**

Huehuetla: Huehuetla (Hgo.), Mecapalapa (Herzog 1974; Kryder 1987; Kung 2007)

Pisaflores: Pisaflores, Tepetate, San José el Salto, San Pedro Tziltzacuapán (Hernández Sierra 1986; MacKay 2011; MacKay & Trechsel 2003, 2008b, 2010, 2013)

Tlachichilco: Tlachichilco, Chintipán, Tierra Colorada, Tecomajapa (Watters 1987, 1988, 2007)

### **Totonac**

Coatepec: Coatepec (McQuown 1940, 1990)

Filomeno Mata: (McFarland 2009)

Huehuetla, Pue.: Chilocoyo del Carmen (Troiani 2007)

Misantla: Yecuatla and San Marcos Atexquilapan (MacKay 1991, 1994, 1999, 2011; MacKay & Trechsel 2003, 2005, 2008a)

Olintla: (Tino 2005)

Ozelonacaxtla: (Román Lobato 2008)

Papantla: El Escolín (Aschmann 1973, p.c. 1992); El Carbón (Levy 1987, 1990); El Tajín (García Ramos 1979, 2000)

San Andres Tlayehualancingo: (Espinosa Morales 1978)

Upper Necaxa: Patla and Chicontla (Beck 2001, 2004, 2011)

Xicotepec de Juárez: Apapantilla (Reid 1991; Reid & Bishop 1974; Reid, Bishop, Button & Longacre 1968)

Zapotitlán de Méndez: (Aschmann 1962, p.c. 1992, Aschmann & Wonderly 1952)

In addition to these sources, we have utilized our own data, collected in Mexico over the last three decades. We have also utilized data from a survey that we designed with Terrence Kaufman to gauge the nature and extent of variation within the language family. The survey was administered in 24 Totonac-speaking communities in 2004 and 2005 and the responses preliminarily transcribed in 2005 and 2006. While the transcriptions yield a great deal of information regarding the morphological and lexical components of the languages, they are not yet sufficient for detailed phonological analysis. We hope at some future date to review the survey data in order to supplement the morphological and lexical data cited here with more accurate phonological descriptions.

As might be expected, the authors of the sources cited above employ a wide range of diverse and idiosyncratic orthographies. Some use an orthography based on Spanish; others use a modified version of the phonetic alphabet. Some

provide a broad phonetic transcription, which often obscures the nature of underlying forms, while others prefer a phonemic transcription, which does not always reveal the phonological rules at work. In order to avoid erroneous interpretations of the data, we have retained the original transcriptions of our sources as much as possible.<sup>1</sup> Readers are encouraged, however, to consult these sources for further information and examples.

In Section 1, some of the most marked differences between the Totonac and Tepehua branches of the language family are described. These include morphological (1.1.), phonological (1.2.) and lexical (1.3.) distinctions. In Section 2, the internal relations of the Totonac language family are presented. The most salient features of each branch of Totonacan are described – Misantla Totonac (2.1.), Sierra Totonac (2.2.), Northern Totonac (2.3), and Papantla Totonac (2.4.).

## 1. Distinctions between Tepehua and Totonac

As noted earlier, the division between the Totonac and Tepehua branches of the family has previously been motivated on the basis of lexical comparisons. In this section, we present a set of morphological features that clearly distinguish the Totonac languages from the Tepehua languages. In addition, we provide supplementary phonological and lexical evidence that supports this basic division within the family.

### 1.1. Morphology

Morphological differences between Totonac and Tepehua include:<sup>2</sup>

	<b>Tepehua</b>	<b>Totonac</b>
Future (1.1.1.)	/ka-...-ʔ/-p'i/	/na(ʔ)/
Progressive (1.1.2.)	periphrastic with /t'ahun/	/-maa(')-PFV/
1SUB>2OBJ (1.1.3.)	/ik-laa-...-w(i)/	/ik-kaa-...-n(i)/
3SUB>1OBJ (1.1.4.)	/kin-ta-...-n(i)/	various (* /kin-ta-...-n(i)/)
3SUB>2OBJ (1.1.4.)	/ta-...-n(i)/	various (* /ta-...-n(i)/)
3OBJ (1.1.5.)	/lak-/, /ha-/	/kaa-/, /-quu/
Perfect (1.1.6.)	/-ta-(i)/	/-n̄jita(n)/
Instrumental (1.1.7.)	/ʔii-/	/lii-/

<sup>1</sup> One exception concerns the orthographic system used by researchers affiliated with the Summer Institute of Linguistics for the Totonac languages of Xicotepec de Juárez, Zapotitlán de Méndez, and Papantla. This orthography uses <c> and <qu> to indicate [k], and uses <k> to indicate [q]. Here we employ <k> and <q> to indicate [k] and [q] respectively. In addition, the sequence <hu> is used by SIL to indicate [w], and, in order to avoid confusion, we use orthographic <w> to indicate this sound.

<sup>2</sup> We employ the following abbreviations: 1 = First Person, 2 = Second Person, 3 = Third person, AGT = Agentive, CAUS = Causative, CG = Constricted Glottis, CL = Clitic, COM = Comitative, DAT = Dative, DET = Determiner, DIM = Diminutive, EVI = Evidential, FUT = Future, IMPFV = Imperfective Aspect, INC = Inchoative, INF = Inflection, INS = Instrumental, IO = Indefinite Object, IRR = Irrealis, IS = Indefinite Subject, NOM = Nominalizer, PAS = Past, PERF = Perfect Aspect, PFV = Perfective Aspect, PL = Plural, POS = Possessive, PREP = Preposition, OBJ = Object, RECIP = Reciprocal, REFL = Reflexive, SG = Singular, SUB = Subject.

### 1.1.1. Future

All of the Tepehua languages indicate future tense with the combination of the irrealis prefix /ka-/ 'IRR' together with the future suffix - /-ʔ/ 'FUT' (or, with a second person subject, /-p'i, -ʔi/ '2FUT'), in the imperfective aspect. Thus, the affix sequence /ka-/ 'IRR' + /-ʔ/ 'FUT' or /-p'i, -ʔi/ '2FUT' on a verb in the imperfective aspect indicates the future.

Pisaflores Tepehua

- |     |             |                                  |                           |
|-----|-------------|----------------------------------|---------------------------|
| (1) | [kaʔabáʔ]   | /ka-k'ap'-ya-ʔ/                  | 's/he will forget X'      |
|     |             | IRR-forget.X-IMPV-FUT            |                           |
|     | [kaʔabáábɪ] | /ka-k'ap'-CG-ya-p'i <sup>3</sup> | 'you (sg.) will forget X' |
|     |             | IRR-forget.X-2SUB-IMPV-2FUT      |                           |

None of the Totonac languages indicates the future in this way.

### 1.1.2. Progressive

The Tepehua languages use a periphrastic construction with the auxiliary verb /t'ahun/ 'PROG' to indicate the progressive. The auxiliary /t'ahun/ 'PROG' carries the verbal inflection and, depending on the language, either precedes or follows the main verb.

Pisaflores Tepehua

- |     |                                |                              |                          |
|-----|--------------------------------|------------------------------|--------------------------|
| (2) | [ɬáɬá ɬáʔunááɬɪ̃] <sup>4</sup> | /ɬata t'ahun-CG-ya-t'iti/    | 'you (PL.) are sleeping' |
|     |                                | sleep PROG-2SUB-IMPV-2SUB.PL |                          |

None of the Totonac languages indicates the progressive in this way.

### 1.1.3. Local (1st or 2nd) Subject>Local (1st or 2nd) Object

A pervasive feature of Totonac and Tepehua languages is the neutralization of the usual singular/plural number distinction in contexts involving local speech act participants (i.e., first and second persons) as subject or object. As observed in MacKay & Trechsel (2003), the inflectional systems of these languages do not permit overt specification of the number features of more than one local argument at a time, so fundamental distinctions of number are systematically neutralized. Indeed, a practical way of classifying these languages is by the pattern of neutralization which they exhibit in these contexts, and by the specific combinations of subject and object affixes which express them. Throughout the paper, we will be concerned with the affixes marking 1SUB>2OBJ and

<sup>3</sup> When suffixes of the form /-CV/ are followed by another morpheme (excepting /-ʔ/), the vowel is lengthened. /-CV/ suffixes include the imperfective /-ya/ 'IMPV', the perfect /-ta/ 'PERF', dative /-ni/ 'DAT', and the second person future /-p'i/ '2FUT', among others.

<sup>4</sup> Only the right-most stressed syllable receives primary stress in Totonac and Tepehua. All other stressed syllables receive secondary stress.

2SUB>1OBJ since these help to mark the principal divisions which we see within the family. The patterns of neutralization which are in evidence in these languages represent clear examples of the 'pragmatic skewing' of predications involving first and second person participants which Heath (1998) documents cross-linguistically. Throughout the Totonac and Tepehua language family, forms expressing combinations of 1SUB>2OBJ and 2SUB>1OBJ tend to be fused, irregular, or otherwise opaque.

#### 1.1.3.1. Neutralization in 2SUB>1OBJ contexts

In the Tepehua languages, as in all of the Totonac languages except Sierra Totonac, transitive predicates involving a second person subject and a first person object, where one or both are plural, are formally expressed as reciprocal verbs with a first person object and a first person plural inclusive subject. The verb form in (3), from Pisaflores Tepehua, exhibits the affix combination /kin=laa-...-wi/. Historically, this combination results from the inflection of the first person object marker /kin-/ '1OBJ' on a first person reciprocal verb with /laa-/ 'RECIP' and /-w(i)/ '1SUB.PL'.<sup>5</sup> In the Tepehua languages today however, it induces the non-reciprocal readings 2SUB.SG>1OBJ.PL, 2SUB.PL>1OBJ.SG, and 2SUB.PL>1OBJ.PL.

Pisaflores Tepehua: 2SUB>1OBJ

- (3) [kiláaláʔç'ináaw]  
 /kin=laa-laʔç'in-ya-wi/  
 1OBJ=RECIP-see.X-IMPFV-1SUB.PL  
 'you (SG.) see us', 'you (PL.) see me', 'you (PL.) see us'

It should be noted that the ambiguity of (3) and the use of the affix sequence /kin=laa-...-w(i)/ in 2SUB>1OBJ contexts are not unique and idiosyncratic features of the Tepehua languages, but are also attested in some (but not all) of the Totonac languages. We hypothesize that these features characterized Proto-Totonac-Tepehua as well.

#### 1.1.3.2. Neutralization in 1SUB>2OBJ contexts

In contrast with the Totonac languages, the Tepehua languages also employ reciprocal verbs with /laa-/ 'RECIP' to express combinations of first person subject and second person object (1SUB>2OBJ), again, when one or both are plural. The verb form in (4) differs, minimally, from that in (3). Instead of the first person object prefix /kin-/ in (3) the verb in (4) exhibits the first person

<sup>5</sup> The complex prefix /kin=laa-/ is the result of a historical reanalysis of /kin-/ '1OBJ' and the reciprocal prefix /laa-/ 'RECIP'. We use the equal sign '=' to indicate the unitary nature of the prefix today. A general rule of /n/-deletion in Totonac and Tepehua languages deletes a nasal preceding a continuant, /n/ → Ø/\_ [+cont], yielding the surface form [kiláa]. Evidence of the unitary status of /kin=laa-/ is the lack of secondary stress on the first syllable, [kiláa-]. If the prefix were underlyingly /kin-laa-/ with a closed first syllable, both syllables would be stressed.

subject prefix /ik-/ '1SUB'. This combination, /ik-laa...-w(i)/, yields the first person plural reciprocal reading, as well as the non-reciprocal readings: 1SUB.SG>2OBJ.PL, 1SUB.PL>2OBJ.SG, and 1SUB.PL>2OBJ.PL.

Pisaflores Tepehua: 1SUB>2OBJ

- (4) [ʔikláláʔç'ináaw]  
 /ik-laa-laʔç'in-ya-wi/  
 1SUB-RECIP-see.X-IMPFV-1SUB.PL  
 'I see you (PL.)', 'we see you (SG.)', 'we see you (PL.)', 'we see each other'

As noted earlier, the use of reciprocal verbs with /laa-/ 'RECIP' to express the various non-reciprocal readings in 2SUB>1OBJ contexts is fairly widespread throughout the Totonac-Tepehua language family. The use of reciprocal verbs to express non-reciprocal readings in 1SUB>2OBJ contexts, however, is not. In fact, the Tepehua languages are the only ones in the family that utilize verbs with /laa-/ 'RECIP' in this context. In some (but not all) Totonac languages, forms analogous to (4) are grammatical, but they are unambiguous and only admit the first person plural reciprocal reading. The use of first person plural reciprocal verbs to express non-reciprocal 1SUB>2OBJ readings is a unique feature of the Tepehua languages and thus serves to distinguish this branch of the family from Totonac.

#### 1.1.4. Non-local Subject>Local Object – 3SUB>1/2OBJ

Another unique feature of the Tepehua languages is the use of the affix /ta-/ 'SUB.PL' to mark the plurality of the subject, the object, or both in instances in which a third person subject acts on a first or second person object. As first noticed by Watters (1988), this 'unselective' use of /ta-/ 'SUB.PL' results in neutralization of the number of the subject in 3SUB>1OBJ contexts. In 3SUB>2OBJ contexts, it results in neutralization of the number of both the subject and the object.

##### 1.1.4.1. Neutralization in 3SUB>1OBJ contexts

All of the Tepehua languages utilize the affix sequence /kin-/ '1OBJ' + /ta-/ 'SUB.PL' ... /-n(i)/ '2OBJ' to mark the plurality of a first person object in the presence of third person singular or plural subject. The inflectional systems of these languages do not allow independent specification of the number of the subject in these contexts, so contrasts of number are systematically neutralized. The following form, from Pisaflores Tepehua, is ambiguous with regard to the number of the subject. This pattern of neutralization is a feature of all three Tepehua languages and is found in some Totonac languages as well.

Pisaflores Tepehua: 3SUB>1OBJ

- (5) [kíntamíspáayáan]  
 /kin-ta-mispaa-ya-ni/  
 1OBJ-SUB.PL-know.X-IMPFV-2OBJ  
 's/he knows us', 'they know us'

#### 1.1.4.2. Neutralization in 3SUB>2OBJ contexts

The Tepehua languages utilize the affix sequence /ta-/ 'SUB.PL' ... /-n(i)/ '2OBJ' to specify the plurality of a second person object in the presence of third person singular or plural subject. In this instance, the inflectional system does not permit independent specification of the number of either the subject or the object. The prefix /ta-/ signals that one or both of them are plural, but it does not signal which one(s). Forms like that in (6) below are three-ways ambiguous and specify either a third person singular or plural subject with a second person plural object (i.e., 3SUB.SG>2OBJ.PL and 3SUB.PL>2OBJ.PL) or a third person plural subject with a second person singular object (i.e., 3SUB.PL>2OBJ.SG).

Pisaflores Tepehua: 3SUB>2OBJ

- (6) [tapúškáwyáan]  
 /ta-puškahu-ya-ni/  
 SUB.PL-look for.X-IMPFV-2OBJ  
 's/he looks for you (PL.)', 'they look for you (SG.)', 'they look for you (PL.)'

The pattern of neutralization illustrated in (6) is a feature of all three of the Tepehua languages, but it is not a feature of any of the Totonac languages. In fact, the Tepehua languages are the only ones in the family which utilize the sequences /kin-ta-...-ni/ and /ta-...-ni/ to indicate first and second person plural objects, respectively, in the presence of a third person (singular or plural) subject. In both sequences, /ta-/ 'SUB.PL' acts as an 'unselective' pluralizer in the sense that it specifies the plurality of either the subject, the object, or both in 3SUB>1OBJ and 3SUB>2OBJ contexts. In all other contexts, /ta-/ 'SUB.PL' marks the plurality of third person subjects only.<sup>6</sup>

#### 1.1.5. Third person plural object

The Tepehua languages exhibit two prefixes /lak-/ and /ha-/ to indicate a third person plural object. The prefix /ha-/ is realized as [ha-] in Pisaflores Tepehua and Tlachichilco Tepehua, and [ʔa-] in Huehuetla Tepehua. The exact meaning and distribution of these prefixes appear to vary from one variety to the other,

<sup>6</sup> Example (5) does not admit the singular object reading 'they know me', analogous to the reading 'they know you (SG.)' in (6), because the sequence /kin-ta-...-ni/ refers, necessarily, to a plural entity containing the speaker and at least one other person. In order to express the reading 'they know me', speakers have recourse to the verb form in (i), with the sequence /kin-ta-.../:

- |  |  |
|--|--|
| (i) [kintamispáay]<br>/kin-ta-mispaa-ya/<br>1OBJ-SUB.PL-know.X-IMPFV<br>'they know me' | This form is unambiguous and only expresses the 3SUB.PL>1OBJ.SG reading. The generalization is that in the Tepehua languages, a verb with /kin-ta-...-ni/ cannot be construed with a singular object, but a verb with /ta-...-ni/ can. |
|--|--|

but all varieties exhibit the two prefixes, separately or together, in at least some situations. The following examples illustrate some of the possibilities.<sup>7</sup>

#### Huehuetla Tepehua

- (7) talaklhkaa (Kung 2007: 198)  
/ta-lak-lhkaan/  
3SUB.PL-PL-measure(PFV)  
'They measured them.'
- (8) 7ach'anán juu lakat'uun (Kung 2007: 202)  
7a-ch'an-nVn juu laka-t'uun  
PL.INO-plant(VT)-INO(IMPFV) ART PREP-ground  
'He sows [seeds] in the ground.' [ELIEX1: 066]
- (9) 7alaktantamakxtuukalhch (Kung 2007: 207)  
7a-lak-tan-ta-makxtuu-kan-li+ch  
PL.INO-PL-TORSO-INCH-take.out-INS-PFV+ALD  
'Someone removed them (from the cave).' [T0063: 085]

#### Pisaflores Tepehua

- (10) [lákčítmahʔán]  
/lak-č'it'-mahʔan-ya/  
3OBJ.PL-wring.X-throw-IMPFV  
's/he wrings them out.'
- (11) [hapúškahúy]  
/ha-puškahu-ya/  
3OBJ.PL-look.for.X-IMPFV  
's/he looks for them.'
- (12) [kíhahíiminí, kílákíiminí, kíhalákíiminí]  
/kin-ha-hii=min-ni-ya kin-lak-hii=min-ni-ya,  
1OBJ-3OBJ.PL-bring.X-DAT-IMPFV 1OBJ-3OBJ.PL-bring.X-DAT-IMPFV,  
kin-ha-lak-hii=min-ni-ya/  
1OBJ-3OBJ.PL-3OBJ.PL-bring.X-DAT-IMPFV  
's/he brings them to me', 's/he brings me to them' (all three forms have both meanings, i.e. they are ambiguous)

Watters (1988: 331) reports that in Tlachichilco Tepehua "/lak-/ marks 'third plural (syntactic) object', while /ha-/ marks 'third plural unspecified object'". Kung (2007: 207) indicates that this characterization is roughly accurate for the cognate prefixes in Huehuetla Tepehua. The meaning and distribution of /lak-/ and /ha-/ in Pisaflores Tepehua is still under investigation, but it is evident that both occur, either separately or together, to indicate a third person plural object.

<sup>7</sup> For discussion of the meaning and distribution of /lak-/ and /ha-/ in Tlachichilco Tepehua, see Watters (1988: 329-331, 401-402). For discussion of the cognate prefixes in Huehuetla Tepehua, see Kung (2007: 183-186, 202-207).

This is in contrast with the Totonac languages, where cognates of these prefixes either do not occur or are non-productive and do not function to mark third person plural objects.

### 1.1.6. Perfect Aspect

The Tepehua languages use the suffix /-ta/ 'PERF' in order to indicate the perfect aspect.

Pisaflores Tepehua

- (13) [puškahútaal/puškahúta]  
/puškahu-ta-(hi)<sup>8</sup>/  
look.for.X-PERF-(PFV)  
's/he has looked for X'

The Totonac languages indicate the perfect aspect using the cognate suffix /-nijta(n)/ 'PERF'.

Zapotitlán de Méndez Totonac (Aschmann 1962: 157):

- (14) paxnii't [pašnijit] /paš-nijta(n)/ 's/he has bathed'

### 1.1.7. Instrumental

The Tepehua languages use the instrumental prefix /hi-/ 'INS'.

Pisaflores Tepehua

- (15) [čúňča taača hiibúňčaał ʔán Sánta Rósa]  
/čunča taača hi-p'un-čaa-hi an Sánta Rósa/  
thus how INS-born-there-PFV DET Santa Rosa  
'This is how the Santa Rosa (a flower) was created.'
- (16) [tíisu hiʔiʔtukán ʔán čáaluku?]  
/tiisu hi-ʔiʔtu-kan-ya an č'aaluku/  
what INS-make.X-IS-IMPFV DET tortilla  
'What are tortillas made of?'

The Totonac languages use the cognate instrumental prefix /lii-/ 'INS'.

Misantla Totonac

- (17) [hón čá liičúulakán qáwjiit]  
/hun ča lii-čuula-kan qáwjiit/  
DET tortilla INS-make.X-IS cornmeal  
'Tortillas are made of cornmeal (nixtamal).'
- (18) [číš líiʔanáa lakamílaatiwílán]  
/čiš lii-ʔan-yaa-wa laka-min-laa-ta-wíla-ni/  
how INS-go-IMPFV-1SUB.PL PREP-2POS-PL-INC-seated-NOM  
'How does one get to your town?'

<sup>8</sup> Elements in parentheses are optional. Please note that if present, the final /-li/ 'PFV' suffix causes the preceding suffix /-ta/ 'PERF' to lengthen to [-taa-].

## 1.2. Phonology – Laryngealization/Glottalization

Glottalized obstruents in the Tepehua languages correspond to plain obstruents followed by laryngealized vowels in the Totonac languages. All of the Tepehua languages exhibit glottalized obstruents. Phonetically, these are realized as either implosives or ejectives.

Pisaflores Tepehua:

(19)	[báʃni]	/p'aʃni/	'pig'
	[sd̥áku]	/st'aku/	'star'
	[ɬk'ák'a]	/ɬk'ak'a/	'ashes'
	[č'uk'úy]	/č'uk'u-ya/	's/he slices X'
	[č'ak'áy]	/č'ak'a-ya/	's/he chews X'

None of the Totonac languages exhibits glottalized obstruents. In cognate words, the Totonac languages exhibit non-glottalized consonants followed by laryngealized vowels.<sup>9</sup>

Misantla Totonac:

(20)	[páʃni]	/paʃni/	'pig'
	[stáku]	/staku/	'star'
	[ɬkək]	/ɬkək/	'ashes'
	[čukú]	/čuku-ya/	's/he slices X'
	[čəqə]	/čəqə-ya/	's/he chews X'

## 1.3. Lexicon

Some of the lexical differences between the Tepehua languages and Totonac languages have been noted (e.g. Arana Osnaya 1953). Here we present only a few examples based on our own reconstructions (MacKay & Trechsel in press):

(21)		Proto-Totonac	Proto-Tepehua
	woman	*puskaat	*t'akuʔ
	man	*čjškuʔ	*lapanaak
	son	*kam	*č'ał
	fish	*skjiti	*hataanti
	bird	*spuun	*č'uq'u
	dog	*čičiʔ	*šq'uuy
	bite X	*ška	*čak'ay
	good	*łaan	*q'uši

## 2. Internal relations within the Totonac branch

In this section, we propose morphological, phonological and lexical features which clearly distinguish the four branches of the Totonac family – Misantla

<sup>9</sup> It has not yet been determined whether some varieties of Totonac (e.g. Olintla Totonac and Huehuetla Totonac) still exhibit laryngealization.

(2.1.), Sierra (2.2.), Northern (2.3.), and Papantla (2.4.). The four branches traditionally assumed are retained, but the degree of relatedness between the branches differs from what has been proposed in the past.

## 2.1. Misantla Totonac

Misantla Totonac is the southernmost Totonac language and is quite different from the other Totonac languages. In this section, we present some of the morphological features that distinguish Misantla Totonac from all other varieties of Totonac and from Tepehua. This is not an exhaustive list, but simply serves to demonstrate that Misantla Totonac exhibits numerous features that are not shared by the other varieties of Totonac.

### 2.1.1. Local (1st or 2nd) Subject>Local (1st or 2nd) Object

Combinations involving first or second person subjects and first or second person objects frequently result in ambiguity throughout the Totonac-Tepehua language family. However, the morpheme sequences used to express these combinations and the specific ambiguities that they engender differ from language to language. In this section, we survey these differences in an effort to distinguish the various subgroups within Totonac.

#### 2.1.1.1 Neutralization in 2SUB>1OBJ contexts

Like other Totonac and Tepehua languages (except Sierra Totonac), Misantla Totonac utilizes an affix sequence involving /laa-/ 'RECIP' to express non-reciprocal relations involving a second person subject and a first person object, when one or both are plural. The form in (22) below is analogous to that in (3) in Tepehua and admits the same ambiguity:

Misantla Totonac: 2SUB>1OBJ

- (22) [kiláalaqgnáa]  
 /kin=laa-laqan-ya-wa/  
 1OBJ=RECIP-see.X-IMPFV-1SUB.PL  
 'you (SG.) see us', 'you (PL) see me', 'you (PL) see us'

#### 2.1.1.2 Neutralization in 1SUB>2OBJ contexts

Unlike other Totonac and Tepehua languages, however, Misantla Totonac utilizes the affix sequence /ik-taa-...-na/ (/ik-/ '1SUB' + /taa-/ '2OBJ.PL' ... /-na/ '2OBJ') to indicate combinations of first person subject and second person object, when one or both are plural.

Misantla Totonac: 1SUB>2OBJ

- (23) [ʔiktáalaqgnáan]  
 /ik-taa-laqan-ya-na/  
 1SUB-2OBJ.PL-see.X-IMPFV-2OBJ  
 'I see you (PL.)', 'We see you (SG.)', 'We see you (PL.)'

The affix /taa-/ '2OBJ.PL' is unique to Misantla Totonac and always occurs in combination with the affix /-na/ '2OBJ'. Together, the two affixes mark second person plural objects (as in the form /taa-*laqan*-ya-na/ 's/he/they see(s) you (pl.)'). In combination with the first person subject prefix /ik-/ '1SUB', however, the sequence /taa-...-na/ admits an interpretation in which the second person object is singular and the first person subject is plural. As stated in MacKay & Trechsel (2003), this apparent transfer of the plurality of /taa-/ to the first person subject in this context is a consequence, we believe, of the inability of the inflectional system to specify the number of a first person subject in the presence of a second person object. The suffix /-na/ '2OBJ' is mutually exclusive with the suffix /-wa/ '1SUB.PL' in Misantla Totonac, so there is no way to specify the number of the subject without sacrificing specification of the person of the object. In this situation, and only here, /taa-/ acts as an 'unselective' pluralizer in the sense that it may mark the plurality of the subject, the object, or both. In other situations (i.e., with a third person subject), /taa-/ marks the plurality of second person objects only.

### 2.1.2. Third person subject with local object – 3SUB>1/2OBJ

In Misantla Totonac, neutralization of number of third person subjects with local objects occurs in 3SUB>2OBJ contexts, but not in 3SUB>1OBJ contexts. In this language, the number of a third person subject cannot be specified in the presence of a second person plural object (marked by /taa-...-na/), but it can be specified in the presence of a first person plural object (marked by /kin-...-na/). Misantla Totonac allows the sequence /kin-ta-...-na/ to express the plurality of the subject with a first person plural object, but it does not allow the sequences \*/ta-taa-...-na/ or \*/taa-ta-...-na/ to express the plurality of the subject with a second person plural object. The affixes /ta-/ and /taa-/ are mutually exclusive:

Misantla Totonac

- (24) [kilaqɛnán]
   
/kin-*laqan*-ya-na/
   
1OBJ-see.X-IMPV-2OBJ
   
's/he sees us'
- (25) [kíntalaqɛnán]
   
/kin-ta-*laqan*-ya-na/
   
1OBJ-SUB.PL-see.X-IMPV-2OBJ
   
'they see us'
- (26) [táalaqɛnán]
   
/taa-*laqan*-ya-na/
   
2OBJ.PL-see.X-IMPV-2OBJ
   
's/he sees you (PL.)', 'they see you (PL.)'

This pattern of neutralization is a distinguishing feature of Misantla Totonac. No other Totonac (or Tepehua) language permits expression of the number of a third person subject in 1OBJ contexts, but not in 2OBJ contexts.

### 2.1.3. Third person plural object

Another distinguishing feature of Misantla Totonac is the use of the prefix /laa-/ 'OBJ.PL' in the regular (non-reciprocal) paradigm to mark third person plural objects.

Misantla Totonac

- (27) [laqén]  
/laqan-ya/  
see.X-IMPFV  
's/he sees him/her/it'
- (28) [laalaqén]  
/laa-laqan-ya/  
OBJ.PL-see.X-IMPFV  
's/he sees them'

Since none of the other Totonac and Tepehua languages exhibit /laa-/ as a (non-reciprocal) third person plural object marker, we assume that the use of /laa-/ in this fashion is an innovation in Misantla Totonac. We hypothesize that this innovation was based on an historical re-analysis of the /laa-/ 'RECIP' prefix which appears in the reciprocal construction in Misantla Totonac and elsewhere in the family. Support for this hypothesis comes from the behavior of the prefix /laa-/ in the reciprocal construction below.

### 2.1.4. Reciprocal

In all Totonac and Tepehua languages except Misantla Totonac, the prefix /laa-/ 'RECIP' functions, by itself, to mark a reciprocal relation. In Misantla Totonac, this prefix must be accompanied by two other affixes, /ta-/ 'SUB.PL' and /-kan/ 'REFL/I.S.', to indicate a reciprocal relation. We view this augmentation as a consequence of the hypothesized re-analysis of /laa-/ 'RECIP' as a third person plural object marker in this language. Once /laa-/ was stripped of its historical reciprocal meaning, it needed to be supplemented by additional affixes to indicate a reciprocal relation unambiguously. In Misantla, these other affixes are /ta-/ 'SUB.PL'<sup>10</sup> and /-kan/ 'REFL'. The reciprocal forms of the transitive verb /laqan/ 'see X' in imperfective aspect in Misantla Totonac are given below:

<sup>10</sup> The affix, /ta-/ 'SUB.PL', generally functions as a third person plural subject marker in Misantla Totonac and, indeed, all Totonac languages except Sierra Totonac. In reciprocal forms in Misantla Totonac, however, /ta-/ 'SUB.PL' co-occurs with other subject affixes to indicate the plurality of a subject of any person. This fact, as well as others, led MacKay & Trechsel (2003) to analyze /ta-/ in Misantla Totonac as a 'generalized' plural marker (glossed 'SUB.PL'), unspecified for person. In the absence of any other subject inflection, reciprocal verbs with /ta-laa...-kan/ in this language are interpreted with unmarked, third person (plural) subjects.

Misantla Totonac<sup>11</sup>

- (29) [ʔiktaláalaqéŋkanáa]  
/ik-ta-laa-láqan-kan-ya-wa/  
1SUB-SUB.PL-OBJ.PL-see.X-REFL-IMPV-1SUB.PL  
'we see each other'
- (30) [taláalaqéŋkanáatát]  
/ta-laa-láqan-kan-ya-tat/  
SUB.PL-OBJ.PL-see.X-REFL-IMPV-2SUB.PL  
'you (pl.) see each other'
- (31) [taláalaqéŋkán]  
/ta-laa-láqan-kan-ya/  
SUB.PL-OBJ.PL-see.X-REFL-IMPV  
'they see each other'

No other Totonac or Tepehua language utilizes a sequence like /ta-/ 'SUB.PL' /laa-/ 'RECIP' ... /-kan/ 'REFL' to mark a reciprocal relation.

**2.1.5. Comitative**

Misantla Totonac uses the combination of affixes /laa-...-na/ 'COM' to introduce an applied object interpreted as comitative. All of the other Totonac languages use the prefix /taq-/<sup>12</sup> 'COM' to add a comitative argument and that argument is cross-referenced by object affixes. In contrast, in Misantla Totonac, the comitative argument is cross-referenced by subject affixes (for more discussion, see MacKay (1999)).

## Misantla Totonac

- (32) [tiyúut láawɨlán mínčáap]  
/tiyúut laa-wɨla-na min-čáap/  
who COM-seated-COM 2POS-father  
'Who is your father with?'
- (33) [ʔutún ʔiktaláačálkátnanáan]  
/utun ik-ta-laa-čálkaat-nan-yaa-na/  
they 1SUB-SUB.PL-COM-work-I.O.-IMPV-COM  
'they work with me', 'I work with them'

**2.1.6. Past Tense**

Misantla Totonac uses the suffix /-štən/ 'PAS' to indicate the past. All of the other Totonac and Tepehua languages use the prefix /iš-/ 'PAS'.

<sup>11</sup> The prefix /laa-/ was glossed 'RECIP' in these forms in MacKay & Trechsel (2003). We gloss it as 'OBJ.PL' here in conformity with our view that this affix has been bleached of its former reciprocal meaning and now functions as a marker of object plurality.

<sup>12</sup> The cognate prefix in the Tepehua languages is /t'aa-/.

## Misantla Totonac

- (34) [kinán wáyanáaštán]  
 /kinán waa=yan-ya-wa-štán/  
 we eat.X-IMPFV-1SUB.PL-PAS  
 'we ate it'

**2.1.7. Progressive**

Misantla Totonac is the only Totonac language that indicates the progressive using a periphrastic construction with the verb /ʔan/ 'go' acting as an auxiliary. The verb /ʔan/ 'go' precedes the main verb, which carries the inflection for subject, object, etc.

## Misantla Totonac

- (35) [kinán ʔán wáyanáa]  
 /kinán an waa=yan-ya-wa/  
 we go eat.X-IMPFV-1SUB.PL  
 'we are eating it'
- (36) [ʔán ʔíktatayáa]  
 /an ik-ítata-ya-wa/  
 go 1SUB-sleep-IMPFV-1SUB.PL  
 'we are sleeping'

The other Totonac languages utilize the suffix /-maa()/ 'PROG' on a verb in perfective aspect to indicate the progressive. The suffix /-maa()/ 'PROG' derives historically from the positional stative verb /maa()/ 'to be supine'. Like all positional statives in the Totonac languages, /maa()/ 'to be supine' only occurs in the perfective aspect (indicated by /-hi/ 'PFV' or /-ti/ '2PFV'). Similarly, the progressive suffix /-maa()/ 'PROG' only occurs on verbs in the perfective. In addition, parallel to the positional stative /maa()/ 'to be supine', the progressive suffix /-maa()/ 'PROG' is realized as [-paa] '2PROG' when the subject is second person.

## Zapotitlán de Méndez Totonac (Aschmann &amp; Wonderly 1952: 134)

- (37) ʧukumaʔquuʔ  
 /ʧuku-maa-quu-hi/  
 begin-PROG-3SUB.PL-PFV  
 'they are beginning'
- (38) ʧukupaaʔ  
 /ʧuku-paa-ti/  
 begin-2PROG-2PFV  
 'you (sg.) are beginning'

Many Totonac and Tepehua languages utilize the suffix /-nan/ 'PL' on stative verbs to mark the plurality of their subjects. These same languages also employ

/-nan/ 'PL' to mark the plurality of subjects in the progressive construction with /-maa(')/ 'PROG'.

Apapantilla/Xicotepec de Juárez Totonac (Reid & Bishop 1974: 182)

- (39) staa'paa'na'ntit [staapaanantit]  
 /staa-paa-CG-nan-tit/  
 sell.X-2PROG-2SUB-PL-2SUB.PL  
 'You (PL.) are selling it'

The progressive form /maa(')/ 'PROG' + /-hi/ 'PFV' or /-ti/ '2PFV' is now lexicalized in Totonac and its perfective inflection does not always appear in surface forms. Nevertheless, the presence of the perfective inflection in the underlying form is supported by phonological effects such as stress placement. In the following examples, primary stress falls on the penultimate syllable, which is expected if the final syllable ends in an obstruent.

Ozelonacaxtla Totonac (Román Lobato p.c.)

- (40) qóotnúumaa<sup>h</sup>  
 /qoot-ta-nuu-maa-ɬ(i)/  
 evening-INC-inside-PROG-PFV  
 'evening is coming'

Filomeno Mata Totonac (McFarland 2009: 54)

- (41) [tamimáana]  
 /ta-min-maa-nan-ɬ(i)/  
 3SUB.PL-come-PROG-PL-PFV  
 'they are coming'

### 2.1.8. Perfect

In contrast with the other Totonac and Tepehua languages, Misantla Totonac lacks the perfect aspect.

## 2.2. Sierra Totonac

The languages that have traditionally been considered part of the 'Sierra' branch form a fairly homogeneous group with respect to several morphological features which are clearly distinct from the other Totonac languages. We propose that the Totonac languages that are spoken in the following communities are related and belong to the Sierra branch of Totonac:

Zapotitlán de Méndez, Coatepec, Huehuetla, San Juan Ozelonacaxtla, Ixtepec, Caxhuacán, Olintla, Zozocolco de Hidalgo, Zongozotla, Coxquihui, Chumatlán, Hueytlalpan, Amixtlán, Tepango de Rodríguez, Jojupango, San Marcos Eloxochitlán, Espinal, Ermenegildo Galeana (Coyay), San Andres Tlayehualancingo.

The main diagnostic features that the Totonac languages of the Sierra share include: a) the markers of a second person subject with a first person object, 2SUB>1OBJ; b) the third person plural marker /-quu/ 'PL'; and c) presence of the word-final palatal sonorant [y]. We consider the presence of these three features to clearly indicate that a language belongs to the Sierra branch.

### 2.2.1. Second person subject with first person object – 2SUB>1OBJ

As noted earlier, all Totonac and Tepehua languages except Sierra Totonac utilize a single verb form with the affix sequence /kin=laa-...-w(i)/ to express combinations of a second person subject and a first person object, when one or both are plural. Such inflection precludes simultaneous specification of the number features of both the subject and the object and thus results in systematic neutralization and ambiguity (see examples (3) and (22)). In contrast, the Sierra Totonac languages utilize three distinct affix sequences to express these combinations. This permits full and unambiguous specification of the number features of both the subject and the object. The relevant forms in the Sierra Totonac languages spoken in Coatepec (Pue.) and in Ozelonacaxtla (Pue.) are illustrated below:

Totonac of Coatepec (McQuown 1990: 166)

- (42) kinkaapaaškiiya? 'you (SG.) love us'  
 kimpaaškiiyatín 'you (PL.) love me'  
 kinkaapaaškiiyatín 'you (PL.) love us'

Totonac of Ozelonacaxtla (Román Lobato, p.c.):

- (43) kíŋkáalkapáastaká /kin-kaa-laka-paastak-CG-ya/ 'you (SG.) remember us'  
 kílkapáastakáatitj /kin-laka-paastak-ya-titi/ 'you (PL.) remember me'  
 kíŋkáalkapáastakáatitj /kin-kaa-laka-paastak-ya-titi/ 'you (PL.) remember us'

It is the distinctness and lack of ambiguity of these forms and the absence of the prefix /laa-/ 'RECIP' in these contexts that set Sierra Totonac varieties apart from all other Totonac and Tepehua languages. Only the Sierra Totonac languages allow for the independent specification of the number of both the subject and the object in contexts involving a second person subject and a first person object.

### 2.2.2. First person subject with second person object – 1SUB>2OBJ

An interesting split emerges in the Sierra languages with regard to the inflection of transitive verbs with a first person subject and a second person object when one or both of them is plural. Some of the Sierra languages (Zapotitlán, Ozelonacaxtla, and Huehuetla (Pue.)) exhibit the same pattern as the Northern and Papantla Totonac languages discussed below and utilize a single verb form with the affix sequence /k-kaa-...-ni( )/ to register these combinations. This is illustrated by the forms below from Zapotitlán de Méndez and Ozelonacaxtla (Pue.):

Totonac of Zapotitlán de Méndez (Aschmann & Wonderly 1952: 141)

- (44) k-kaa-pašii-yaa-n  
 1SUB-OBJ.PL-bathe.X-IMPV-2OBJ  
 'I bathe you (PL.)', 'we bathe you (PL.)', 'we bathe you (SG.)'

Totonac of Ozelonacaxtla (Román Lobato, p.c.)

- (45) kkáalkapáastakáan  
 /k-kaa-laka=paastak-ya-ni/  
 1SUB-OBJ.PL-remember.X-IMPV-2OBJ  
 'I remember you (PL.)', 'we remember you (PL.)', 'we remember you (SG.)'

However, according to McQuown (1990), there are three forms in Coatepec Totonac, each one expressing a distinct combination of plural subject and/or object:

Totonac of Coatepec (McQuown 1990: 164,166)

- |      |                         |                     |                    |
|------|-------------------------|---------------------|--------------------|
| (46) | k-kaa-paaškii-yáa-n     | 'I love you (PL.)'  | ('os quiero (yo)') |
|      | k-kaa-paaškii-yáa-w     | 'we love you (SG.)' | ('te queremos')    |
|      | k-kaa-paaškii-quu-yáa-w | 'we love you (PL.)' | ('os queremos')    |

Note that the form with /k-kaa-...-ni/ is reserved for the combination of a first person singular subject and a second person plural object. Combinations with a first person plural subject exhibit the sequences /k-kaa-...-wi/ or /k-kaa-...-quu-...-wi/, depending on the plurality of the object. As far as we know, the Totonac of Coatepec is the only language in the Totonac family which exhibits both the sequences /k-kaa-...-wi/ and /k-kaa-...-quu-...-wi/. It is the only variety of Totonac which permits overt specification of the number of a first person subject in the presence of a second person object. In all of the other languages, the usual distinction of number in the first person is invariably neutralized in this context.

### 2.2.3. Third person subject with local object – 3SUB>1OBJ, 3SUB>2OBJ

In contrast to the Tepehua languages and in contrast to all other Totonac languages except some Northern varieties, the Totonac languages of the Sierra do not exhibit any sort of neutralization in contexts involving a third person subject and a first or second person plural object. The following forms from the Totonac of Ozelonacaxtla demonstrate the unambiguous nature of the various sequences that encode the person and number features of the arguments. These forms should be compared with those from Misantla Totonac in (24-26) above and from Northern and Papantla Totonac in (63-66) below:

Totonac of Ozelonacaxtla (Román Lobato, p.c.)

- |      |                         |                            |
|------|-------------------------|----------------------------|
| (47) | kínkáalkapáastakáan     | 's/he remembers us'        |
|      | kínkáalkapáastákqóoyáan | 'they remember us'         |
|      | káalkapáastakáan        | 's/he remembers you (PL.)' |
|      | káalkapáastákqóoyáan    | 'they remember you (PL.)'  |

With the exception of a few Northern Totonac languages (e.g. Apapantilla and Upper Necaxa), the Sierra Totonac languages are the only ones in the family that permit specification of the number of both the subject and the object in 3SUB>1/2OBJ contexts.

#### 2.2.4. Unselective Plural Marker /-quu/ 'PL'

One of the things that distinguishes the four forms in (47) above is the use of the suffix /-quu/ 'PL' on the verbs with third person plural subjects. This affix, which is unattested outside of the Sierra Totonac languages, is an 'unselective' pluralizer in the sense that it may mark the plurality of either the subject, the object, or both. In the forms above, with overt first or second person object marking, the affix /-quu/ 'PL' unambiguously marks the number features of the subject. In other forms, however, with overt first or second person subject marking, this affix marks the number features of the object. This is illustrated in (48) below, also from Ozelonacaxtla Totonac:

Totonac of Ozelonacaxtla (Román Lobato, p.c.)

(48)	klakapáasták	'I remember him/her/it'
	klakapáastákqóh	'I remember them'
	lkapáastáką	'you (SG.) remember him/her/it'
	lkapáastákqóya	'you (SG.) remember them'

In instances in which the subject and the object are both third person, the affix /-quu/ 'PL' marks the plurality of one, or the other, or both. The form in (49) below from Ozelonacaxtla Totonac is three-ways ambiguous:

Totonac of Ozelonacaxtla (Román Lobato, p.c.)

(49)	lkapáastákqóh	
	/laka=paastak-quu-ya/	
	remember.X-PL-IMPFV	
	's/he/it remembers them', 'they remember him/her/it', 'they remember them'	

Given that the affix /-quu/ 'PL' is not attested in any other Totonac or Tepehua language, we consider it to be diagnostic of the Sierra languages. Its presence, we believe, is both necessary and sufficient to identify a language as Sierra Totonac.

#### 2.2.5. Plural Object Marker /kaa-/ 'OBJ.PL'

In addition to the suffix /-quu/ 'PL' discussed above, the Sierra Totonac languages also exhibit the affix /kaa-/ 'OBJ.PL' on transitive verbs to register the plurality of an object. In some languages, this affix is restricted to contexts involving local (first or second person) plural objects only. In other languages, it is employed more generally to mark the plurality of both local and non-local objects. This split within the Sierra Totonac languages regarding the meaning

and distribution of /kaa-/ 'OBJ.PL' is probably influenced by the distribution of /kaa-/ 'OBJ.PL' in the adjacent Northern Totonac languages, where the affix marks plurality of both local and non-local objects. Since /kaa-/ occurs in the Sierra, Northern, and Papantla branches of Totonac, its presence cannot be considered diagnostic of any particular affiliation. Nevertheless, the restriction of /kaa-/ 'OBJ.PL' to local object contexts is diagnostic of Sierra Totonac languages. Only Totonac languages of the Sierra limit the use of /kaa-/ 'OBJ.PL' to contexts involving local (first and second person) plural objects.

The Sierra Totonac language of Zapotitlán de Méndez (Pue.) is among those which limit the distribution of the affix /kaa-/ 'OBJ.PL'. In this language, /kaa-/ 'OBJ.PL' functions to mark the plurality of local (first and second person) objects. It does not mark the plurality of third person objects.

Totonac of Zapotitlán de Méndez (Aschmann & Wonderly 1952: 138, 142)

- |      |                     |                         |
|------|---------------------|-------------------------|
| (50) | kim-pasii-y         | 's/he bathes me'        |
|      | kin-kaa-pasii-yaa-n | 's/he bathes us'        |
|      | pasii-yaa-n         | 's/he bathes you (SG.)' |
|      | kaa-pasii-yaa-n     | 's/he bathes you (PL.)' |

As noted above, third person plural objects in the Sierra Totonac languages are marked by the suffix /-quu/ 'PL'. The form in (51) below from Zapotitlán is exactly analogous to that from Ozelonacaxtla in (49) above:

Totonac of Zapotitlán de Méndez (Aschmann & Wonderly, 1952: 135)

- |      |              |  |
|------|--------------|--|
| (51) | pašii-quu'-y | 's/he bathes them', 'they bathe them', 'they bathe him/her/it' |
|------|--------------|--|

The ambiguity of the forms in (49) and (51) is due to the 'unselectivity' of the suffix /-quu/ 'PL' in 3SUB>3OBJ contexts. In these contexts, and only these, /-quu/ 'PL' may mark the plurality of the subject, the object, or both.

In contrast to the Sierra Totonac language of Zapotitlán, the languages of Coatepec, Ozelonacaxtla, Huehuetla (Pue.), and San Andrés Tlayehualancingo do not appear to limit the distribution of /kaa-/ 'OBJ.PL' to a local plural object. In these languages, as in the Northern and Papantla Totonac languages, /kaa-/ 'OBJ.PL' functions to mark the plurality of objects of all persons, not just local (first and second) persons. The following forms illustrate the possibilities for third person plural object marking in Coatepec:

Totonac of Coatepec (McQuown 1990: 162,167)<sup>13</sup>

- (52) kaa-paaškii-y 's/he loves them'  
 paaškii-qúu-y 's/he loves them', 'they love him/her/it'  
 kaa-paaškii-qúu-y 's/he loves them', 'they love them'

According to McQuown (1990), the first form with /kaa-/ 'OBJ.PL' above, is unambiguous and expresses the combination of third singular subject and third plural object only. The second form, with /-quu/ 'PL', is ambiguous and expresses both the combination of third singular subject and third plural object and the combination of third plural subject and third singular object. The final form, with /kaa-...-quu/, is also ambiguous and expresses the combinations of third singular subject and third plural object, and third plural subject and third plural object. In essence, /kaa-/ 'OBJ.PL' marks the plurality of objects only, while /-quu/ 'PL' marks the plurality of either subjects or objects. It is this 'unselectivity' of /-quu/ 'PL' that permits the singular subject readings of the last two forms above. Even the presence of /kaa-/ 'OBJ.PL' does not force the plurality of /-quu/ 'PL' to be associated the subject. In Coatepec at least, it is apparently not possible to mark the plurality of both a third person subject and a third person object unambiguously.

However, there are Sierra Totonac languages which do allow unambiguous specification of a third person plural subject in the presence of a third person plural object. In Ozelonacaxtla Totonac, where /kaa-/ 'OBJ.PL' marks the plurality of all objects and not just local objects, forms with /kaa-/, by itself, express 3SUB.SG>3OBJ.PL readings and forms with the combination /kaa-...-quu/ express 3SUB.PL>3OBJ.PL readings. The examples in (53) and (54) below are grammatical and unambiguous:

Ozelonacaxtla Totonac (Román Lobato, p.c.)

- (53) káalkapáasták  
 /kaa-laka=paastak-ya/  
 OBJ.PL-remember.X-IMPV  
 's/he remembers them'
- (54) káalkapáastákqóoh  
 /kaa-laka=paastak-quu-ya/  
 OBJ.PL-remember.X-PL-IMPV  
 'they remember them'

<sup>13</sup> According to our interpretation of McQuown (1990), the second form above, with /-quu/ and not /kaa-/, does not admit the reading 'they love them' in Coatepec. This means that the plurality of /-quu/ in this language does not extend to the subject and the object simultaneously. In this respect, the Totonac of Coatepec differs from that of Zapotitlán, Ozelonacaxtla and other Sierra languages where /-quu(')-/ apparently registers the plurality of the subject, the object, or both.

In Zapotitlán Totonac, where /kaa-/ 'OBJ.PL' marks the plurality of local objects only, forms analogous to those with /kaa-/ and /kaa-...-quu/ above are, of course, ungrammatical in 3SUB>3OBJ contexts. In this language, the readings associated with these forms are all expressed, ambiguously, with /-quu/ 'PL'. It is the possibility of using the combination of /kaa-/ 'OBJ.PL' + /-quu/ 'PL' as a marker of third person plural subject and third person plural object in Ozelonacaxtla Totonac that permits the readings 's/he remembers them' and 'they remember them' to be distinguished.

### 2.2.6. Word-final sonorant [y]

Another distinguishing feature of the Sierra Totonac languages is the presence in word-final position of the palatal sonorant [y]. This sonorant is found in final position in Sierra Totonac, but not in other Totonac languages.

(55) Presence of palatal sonorants in word-final position.

Coatepec Totonac	taštúy	/ta-štu-ya/ INC-outside-IMPFV	's/he exits'
Huehuetla Totonac	maštúy	/maa-štu-ya/ CAUS-outside-IMPFV	's/he takes out X'
Zapotitlán Totonac	taštúy	/ta-štu-ya/ INC-outside-IMPFV	's/he leaves'

In some of the Sierra Totonac languages, the word-final /y/ is realized as either an aspirated palatal (eg. Olintla Totonac, Jorge Tino p.c.) or an aspirated glottal (eg. Ozelonacaxtla Totonac, Román Lobato p.c.).

(56) Olintla Totonac	ıtataç	/ıtata-ya/ sleep-IMPFV	's/he sleeps'
Ozelonacaxtla Totonac	ıtatáh	/ıtata-ya/ sleep-IMPFV	's/he sleeps'

## 2.3. Northern Totonac and Papantla Totonac

One of the more surprising results of our investigation of the comparative morphology of Totonac is the lack of substantial morphological differences between the Totonac languages traditionally designated as 'Northern' and 'Papantla'. With regard to the inflectional categories reviewed here, these varieties of Totonac are essentially identical. We first note some of many features which the Northern and Papantla varieties have in common. We then turn to those few features that distinguish them.

The principal features which the languages traditionally designated as 'Northern' or 'Papantla' Totonac share include: a) the use of /kin=laa-...-w(i)/ to indicate a second person subject with a first person object, 2SUB>1OBJ when at

least one of the arguments is plural; b) the use of the prefix /kaa-/ 'OBJ.PL' to designate a third person plural object; and c) the lack of word-final palatal sonorant [y]. It is this combination of features that indicates a close genetic relationship between these languages and allows us to group them together. The languages that exhibit these features include the Totonac of the following communities: Apapantilla, Patla, Chicontla, Filomeno Mata,<sup>14</sup> Coatzintla, Coahuilán, Tihuatlán, Tlacuilotepec, Mecatlán, Coyutla, Cazonas, El Escolín, El Tajín, Cerro del Carbón, and Papantla.

### 2.3.1. Second person subject with first person object – 2SUB>1OBJ

All of the Northern and Papantla Totonac languages utilize the affix sequence /kin=laa-...-w(i)/ to indicate a second person subject and a first person object when one or both are plural. This is the same sequence employed in these contexts in Misantla Totonac (and also Tepehua), but different from that employed in the Sierra. In all of the languages that have it, the sequence is ambiguous and admits the readings: 2SUB.SG>1OBJ.PL, 2SUB.PL>1OBJ.SG, and 2SUB.PL>1OBJ.PL.

Totonac of Apapantilla/Xicotepec de Juárez (Reid 1991: 45)

- (57) kilaapaaxkii'yaaw  
 /kin=laa-paaškii'-yaa-wi/  
 1OBJ-RECIP-love.X-IMPV-1SUB.PL  
 'you (SG.) love us', 'you (PL.) love me', 'you (PL.) love us'

Totonac of Filomeno Mata (Santiago Francisco, p.c.)

- (58) [kílaaláqçínáaw]  
 /kin=laa-láqçín-ya-wa/  
 1OBJ-RECIP-see.X-IMPV-1SUB.PL  
 'you (SG.) see us', 'you (PL.) see me', 'you (PL.) see us'

Totonac of Papantla (Levy 1990: 85, 86)

- (59) kilaakxilhwi  
 /kin=laa-akxilh-wi/  
 1OBJ-RECIP-see.X-1SUB.PL  
 'you (SG.) saw us', 'you (PL.) saw me', 'you (PL.) saw us'

### 2.3.2. First person subject with second person object – 1SUB>2OBJ

Similarly, all of the Northern and Papantla Totonac languages utilize the affix sequence /ik-kaa-...-ni'/ to indicate a first person subject and a second person object when one or both are plural – i.e., in 1SUB.SG>2OBJ.PL, 1SUB.PL>2OBJ.SG, and 1SUB.PL>1OBJ.PL contexts. This is the same sequence

<sup>14</sup> We have found that the morphology and phonology of Filomeno Mata exhibit the features which we consider diagnostic of the Northern Totonac languages, and thus we have grouped it with the 'Northern' languages here.

employed in these contexts in the Sierra Totonac languages, but different from that employed in both Misantla Totonac and the Tepehua languages (which all lack /kaa-/). The sequence /ik-kaa-...-ni'/ is, once again, ambiguous in these languages and admits the three readings: 1SUB.SG>2OBJ.PL, 1SUB.PL>2OBJ.SG, and 1SUB.PL>1OBJ.PL.

Totonac of Apapantilla/Xicotepec de Juárez (Reid 1991: 45)

- (60) i'kkaapaaxkii'yaani'  
/ik-kaa-paaškii'-yaa-ni'/  
1SUBJ-OBJ.PL-love.X-IMPV-2OBJ  
'I love you (PL.)', 'we love you (SG.)', 'we love you (PL.)'

Totonac of Filomeno Mata (Santiago Francisco, p.c.)

- (61) [kkáaláqçínáan]  
/ik-kaa-láqçín-ya-ni/  
1SUBJ-OBJ.PL-see.X-IMPV-2OBJ  
'I see you (PL.), we see you (SG.), we see you (PL.)'

Totonac of Papantla (Levy 1990: 84-85)

- (62) kkaakxilhni  
/ik-kaa-akxilh-ni/  
1SUBJ-OBJ.PL-see.X-2OBJ  
'I saw you (PL.)', 'we saw you (SG.)', 'we saw you (PL.)'

It is the use of the sequence /kin=laa-...-w(i)/ in 2SUB>1OBJ contexts and the sequence /ik-kaa-...-ni'/ in 1SUB>2OBJ contexts that set the Northern and Papantla languages apart from the rest in the family. Many other languages in the family exhibit one sequence or the other in the relevant contexts, but only the Northern and Papantla languages exhibit both.

### 2.3.3. Plural object /kaa-/ 'OBJ.PL'

All of the Northern and Papantla Totonac languages have /kaa-/, and none has /-quu/. Sierra Totonac, of course, has both, and Misantla Totonac has neither. In the Northern and Papantla Totonac languages, /kaa-/ 'OBJ.PL' indicates the plurality of all objects, not just first and second person. In this respect, it is similar to Coatepec and other Sierra Totonac languages in which /kaa-/ 'OBJ.PL' marks the plurality of all objects. It is dissimilar to those Sierra Totonac languages (e.g. Zapotitlán) in which /kaa-/ 'OBJ.PL' is restricted to local object contexts only:

Totonac of Apapantilla/Xicotepec de Juárez (Reid 1991: 45)

- |      |                          |                          |
|------|--------------------------|--------------------------|
| (63) | kim-paaxkii'             | 's/he loves me'          |
|      | kin-kaa-paaxkii'-yaa-ni' | 's/he loves us'          |
|      | paaxkii'-yaa-ni'         | 's/he loves you (SG.)'   |
|      | kaa-paaxkii'-yaa-ni'     | 's/he loves you (PL.)'   |
|      | paaxkii'                 | 's/he loves him/her/it'  |
|      | kaa-paaxkii'             | 's/he/they love(s) them' |

Totonac of Upper Necaxa (Patla and Chicontla) (Beck 2004: 37):

- |      |              |                       |
|------|--------------|-----------------------|
| (64) | kintúkslj    | 's/he hit me'         |
|      | kinkaátúksnj | 's/he hit us'         |
|      | túksnj       | 's/he hit you (SG.)'  |
|      | kaatúksnj    | 's/he hit you (PL.)'  |
|      | túkslj       | 's/he hit him/her/it' |
|      | kaatúkslj    | 's/he/they hit them'  |

Totonac of Filomeno Mata (Santiago Francisco, p.c.)

- |      |              |                      |
|------|--------------|----------------------|
| (65) | kíláqçǐ(ǐ)   | 's/he saw me'        |
|      | kĩŋkáaláqçǐŋ | 's/he saw us'        |
|      | láqçǐŋ       | 's/he saw you (SG.)' |
|      | káaláqçǐŋ    | 's/he saw you (PL.)' |
|      | láqçǐ(ǐ)     | 's/he saw him/her'   |
|      | káaláqçǐ(ǐ)  | 's/he/they saw them' |

Totonac of Papantla (Levy 1990: 84-87):

- |      |               |                       |
|------|---------------|-----------------------|
| (66) | kíikxilhi     | 's/he saw me'         |
|      | kinkaakxilhni | 's/he saw us'         |
|      | akxilh-ni     | 's/he saw you (SG.)'  |
|      | kaakxilhni    | 's/he saw you (PL.)'  |
|      | ákxilhi       | 's/he saw him/her/it' |
|      | káakxilhi     | 's/he/they saw them'  |

MacKay & Trechsel (2003) analyze /kaa-/ 'OBJ.PL' in the Northern and Papantla Totonac languages as a general object pluralizer that is not specified for person. We add that in all of these languages, /kaa-/ 'OBJ.PL' and /ta-/ 'SUB.PL' are mutually exclusive in 3SUB.PL>3OBJ.PL contexts. Either /kaa-/ 'OBJ.PL' or /ta-/ 'SUB.PL' may occur, but not both simultaneously.<sup>15</sup>

Totonac of Upper Necaxa (Patla and Chicontla) (Beck 2004: 30):

- |      |                |  |                          |
|------|----------------|--|--------------------------|
| (67) | [kaamaawii]    | /kaa-maa-wa-ii/<br>OBJ.PL-CAUS-eat-TRANS           | 's/he/they feed(s) them' |
| (68) | [tamaawii]     | /ta-maa-wa-ii/<br>SUB.PL-CAUS-eat-TRANS            | 'they feed him/her/them' |
| (69) | *[kaatamaawii] | /kaa-ta-maa-wa-ii/<br>OBJ.PL-SUB.PL-CAUS-eat-TRANS | ('they feed them')       |

<sup>15</sup> The two affixes /kaa-/ and /ta-/ are not mutually exclusive in 3SUB.PL>1/2OBJ.PL contexts in some of the Northern Totonac languages. As illustrated in (70) and (71) below, they co-occur in the sequence /kin-kaa-ta-...-ni'/, which marks 3SUBJ.PL>1OBJ.PL, and in the sequence /kaa-ta-...-ni'/, which marks 3SUB.PL>2OBJ.PL, in both Apapantilla Totonac and Upper Necaxa Totonac. They do not co-occur in Filomeno Mata Totonac, and they do not co-occur in Papantla Totonac. We hypothesize that the co-occurrence of /kaa-/ and /ta-/ in 3SUB.PL>1/2OBJ.PL contexts is an innovation within a subset of the Northern Totonac languages.

### 2.3.4. Neutralization in 3SUB>1/2OBJ contexts in Northern Totonac

One possible difference between the Northern Totonac and Papantla Totonac languages concerns the pattern of inflection in contexts involving a third person subject and a first or second person plural object. As demonstrated above, this combination generally results in neutralization of the number of the third person subject in both Totonac and Tepehua languages. In some Northern Totonac languages, however, this neutralization is avoided by the use of the affix sequences /kin-kaa-ta-...-ni/ and /kaa-ta-...-ni/ to mark 3SUB.PL>1OBJ.PL and 3SUB.PL>2OBJ.PL, respectively. Use of these sequences permits overt specification of the number of both the subject and the object. The following forms, from Apapantilla and Upper Necaxa Totonac, are maximally distinct:

Totonac of Apapantilla/Xicotepec de Juárez (Reid 1991: 45)

- |      |                             |                        |
|------|-----------------------------|------------------------|
| (70) | kin-kaa-paaxkii'-yaa-ni'    | 's/he loves us'        |
|      | kin-kaa-ta-paaxkii'-yaa-ni' | 'they love us'         |
|      | kaa-paaxkii'-yaa-ni'        | 's/he loves you (PL.)' |
|      | kaa-ta-paaxkii'-yaa-ni'     | 'they love you (PL.)'  |

Totonac of Upper Necaxa (Patla and Chicontla) (Beck 2004: 37):

- |      |                    |                      |
|------|--------------------|----------------------|
| (71) | kin-kaa-túks-nĭ    | 's/he hit us'        |
|      | kin-kaa-ta-túks-nĭ | 'they hit us'        |
|      | kaa-túks-nĭ        | 's/he hit you (PL.)' |
|      | kaa-ta-túks-nĭ     | 'they hit you (PL.)' |

Not all Northern Totonac languages, however, permit this maximal specification. Filomeno Mata Totonac, for example, does not allow either of the sequences /kaa-ta-...-ni/ or /kin-kaa-ta-...-ni/ (i.e. /kaa-/ 'OBJ.PL' and /ta-/ 'SUB.PL' are mutually exclusive in this language). As a result, Filomeno Mata has a pattern more like that observed earlier in which the number of a third person subject is neutralized in the presence of a first or second person plural object. In Filomeno Mata Totonac, the sequences involved are /kin-kaa-...-ni/ and /kaa-...-ni/ (i.e., like the sequences in Apapantilla and Upper Necaxa above, but without /ta-/ 'SUB.PL'). The absence of /ta-/ 'SUB.PL' in these forms results in ambiguity (or vagueness) with regard to the number of the third person subject.

Totonac of Filomeno Mata (Santiago Francisco, p.c.)

- |      |              |  |
|------|--------------|--|
| (72) | kĩnkáaláqčĩn | 's/he saw us', 'they saw us'               |
|      | káaláqčĩn    | 's/he saw you (PL.)', 'they saw you (PL.)' |

In contrast, the Papantla Totonac languages exhibit a pattern of neutralization in 3SUB>1/2OBJ contexts which differs from that of both Apapantilla and Upper Necaxa Totonac and Filomeno Mata Totonac. This pattern is discussed in section 2.4.1 below.

### 2.3.5. Absence of word-final /y/

In contrast with the Sierra languages, neither the Northern Totonac nor the Papantla Totonac languages (nor Misantla Totonac) allow the palatal sonorant /y/ in word-final position.<sup>16</sup>

(73)	Apapantilla Totonac	chipá	/chipa-ya/ grab.X-IMPFV	's/he grabs X'
	Patla/Chicontla Totonac	taštú	/ta-štu-ya/ INC-outside-IMPFV	's/he exits'
	Filomeno Mata Totonac	máanúu	/maa-nuu-ya/ CAUS-inside-IMPFV	's/he puts X in'
	Papantla Totonac	čukú	/čuku-ya/ begin-IMPFV	's/he begins'
	Misantla Totonac	čúulá	/čuula-ya/ do/make.X-IMPFV	's/he does/makes X'

## 2.4. Papantla Totonac

As stated above, one of the more surprising results of our research is the apparent paucity of morphological distinctions between the Totonac varieties traditionally classified as 'Northern' and 'Papantla'. The only differences that we have discovered thus far are: a) a pattern of neutralization in 3SUB>2OBJ contexts in Papantla Totonac which differs from that found in Northern Totonac; and b) the presence of symmetrical objects in Northern Totonac languages and the lack of such objects in Papantla Totonac languages; and c) more numerous lexical correspondences between the Papantla and Sierra languages than between the Papantla and Northern languages.

### 2.4.1. Neutralization in 3SUB>1/2OBJ contexts in Papantla Totonac

As illustrated in section 2.3.4, the Northern languages are split with regard to the pattern of neutralization in 3SUB>1/2OBJ contexts. Some Northern languages exhibit no neutralization in these contexts, while others exhibit neutralization of the number of the subject in the presence of either a first or second person plural object. In contrast, the Papantla languages exhibit a pattern of neutralization which is distinct from either one of these. In these languages, it is possible to

<sup>16</sup> The underlying presence of the palatal sonorant segment is motivated by the presence of word-final stress on a final open syllable. Throughout the family, when there is a word-final CV syllable, stress normally falls on the penultimate syllable. In the examples in (73), the underlying word-final [y] attracts stress to the word-final syllable. The rules that result in this phonetic form are: a) /-CV/ suffix simplification when following a stem-final vowel,  $V \rightarrow \emptyset / V]_{\text{verb stem}} C \_ \_$ ; and b) the prohibition against the palatal sonorant [y] word finally. These rules are detailed for Misantla Totonac, but apply to other variants as well. For more details, see MacKay (1999).

specify the plurality of either the subject or the object in 3SUB>1/2OBJ contexts, but it is not possible to specify the plurality of both at the same time. According to Aschmann (p.c. 1992), the Papantla Totonac of El Escolín allows either /kin-ta-/ or /kin-kaa...-ni/ in 3SUB>1OBJ.PL contexts and either /ta-/ or /kaa...-ni/ in 3SUB>2OBJ.PL contexts. Forms with /ta-/ mark the plurality of the third person subject (and leave the number of the object unspecified); forms with /kaa-/ mark the plurality of the first or second person object (and leave the number of the subject unspecified). Crucially, forms with \*/kaa-ta-.../ and \*/kin-kaa-ta-.../ are ungrammatical.<sup>17</sup>

Totonac of Papantla (El Escolín) (Aschmann 1973: x)

(74)	kintapaaxkí	'they love me', 'they love us'
	kinkaapaaxkijáan	's/he loves us', 'they love us'
	tapaaxkijáan	'they love you (SG.)', 'they love you (PL.)'
	kaapaaxkijáan	's/he loves you (PL.)', 'they love you (PL.)'

Aschmann (p.c. 1992) states that "which of the possible combinations . . . is used is determined by which would be the least ambiguous for a given context . . . Sometimes if identification of the subject-object participants is deemed insufficient, this is resolved with the addition of another verb to further identify who is who. More often than not, however, because of contextual clues, or when ambiguity is not critical, it is immaterial which possibility is chosen".

The pattern of neutralization illustrated in (74) is unique within the Totonac-Tepehua language family and thus serves to distinguish the Papantla varieties of Totonac from all others, including the Northern varieties. The mutual exclusivity of /kaa-/ 'OBJ.PL' and /ta-/ 'SUB.PL' in Papantla means, among other things, that the number features of a local (first or second person) object cannot be specified in the presence of an overtly marked third person plural subject. The affix combination /kin-/ '1OBJ' + /ta-/ 'SUB.PL' in Papantla specifies both 3SUB.PL>1OBJ.SG and 3SUB.PL>1OBJ.PL, while the affix combination /ta-/ 'SUB.PL' + /-n(i)/ '2OBJ' specifies both 3SUB.PL>2OBJ.SG and 3SUB.PL>2OBJ.PL. In the Northern languages, these two combinations specify only the 3SUB.PL>1OBJ.SG and 3SUB.PL>2OBJ.SG readings, respectively. Compare the first and third examples in (74) above with the following examples from the Apantilla variety of Northern Totonac:

<sup>17</sup> Not all of the forms in (74) above are explicitly mentioned in either Aschmann (1973) or Levy (1990). Levy (1990: 85) notes the ambiguity of forms with /kin-kaa...-ni/ and /ta...-ni/ above, but does not include any forms with /kin-ta-.../ or /kaa...-ni/. While we recognize the apparent discrepancies among our sources, we believe, based on our communication with Herman Aschmann, that we have characterized the facts correctly. Sporadic instances of /kin-ta-.../ and /kaa...-ni/ do occur in our questionnaire data from Papantla. The issue merits further scrutiny.

Apapantilla/Xicotepec de Juárez Totonac (Reid 1991: 45)

- (75) kintapaaxkii'  
/kin-ta-paaškii'-ya/  
1OBJ-SUB.PL-love.X-IMPFV  
'they love me'
- (76) tapaaxkii'yaani'  
/ta-paaškii'-ya-ni'/  
SUB.PL-love.X-IMPFV-2OBJ  
'they love you (SG.)'

Of all of the Totonac languages surveyed here, Papantla Totonac (or, at least the variety of Papantla Totonac described by Aschmann (p.c. 1973)) is the only one that exhibits neutralization of the number of a local (first or second person) object in the presence of an overtly marked third person plural subject. In the Northern languages, this neutralization is avoided by the use of the affix combinations /kin-kaa-ta-...-ni/ and /kaa-ta-...-ni/ to mark 3SUB.PL>1OBJ.PL and 3SUB.PL>2OBJ.PL, respectively.

Apapantilla/Xicotepec de Juárez Totonac (Reid 1991: 45)

- (77) kinkaatapaaxkii'yaani'  
/kin-kaa-ta-paaškii'-ya-ni'/  
1OBJ-OBJ.PL-SUB.PL-love.X-IMPFV-2OBJ  
'they love us'
- (78) kaatapaaxkii'yaani'  
/kaa-ta-paaškii'-ya-ni'/  
OBJ.PL-SUB.PL-love.X-IMPFV-2OBJ  
'they love you (PL.)'

In Papantla, forms analogous to those in (77) and (78) above are ungrammatical due to the mutual exclusivity of /kaa-/ 'OBJ.PL' and /ta-/ 'SUB.PL'.

#### 2.4.2. Object (A)symmetry

Another potential difference between the Northern and Papantla Totonac languages concerns the phenomenon of 'object symmetry'. As documented in MacKay & Trechsel (2008a, 2008b), many languages in both the Totonac and Tepehua branches of the family exhibit ambiguity, or vagueness, with regard to the interpretation of object marking on ditransitive, applicative, and other multi-object verbs. The following example, from Misantla Totonac, is representative:

Misantla Totonac

- (79) [kíliiŋaqaŋiiŋ]  
/kin-líi-ŋaqaŋii-la(ŋ)/  
1OBJ-INS-talk to X-PFV  
's/he talked to me about her', 's/he talked to her about me'

In this example, the object marker /kin-/ cross-references a first person singular argument which may be interpreted as either theme or beneficiary. We construe this ambiguity as evidence that Misantra Totonac is a "symmetrical object" language in the strict sense of Bresnan & Moshi (1990).

Crucially, object symmetry of the sort illustrated above is a pervasive feature of the Northern Totonac languages, but is absent (or at least not attested) in the Papantla languages. In a footnote, Reid *et al.* (1968) cite the following example from Apapantilla Totonac where an overt object marker (/ni/ '2OBJ' in this instance) cross-references either the basic theme or the applied source:

Totonac of Apapantilla (Reid *et al.* 1968: 33, fn. 6)

- (80) na'i'kmaqlhtiiyaani' minqoolu'  
 /na-'i'k-maqlhtii-yaa-ni' min-qoolu'/  
 FUT-1SUB-take-IMPFV-2OBJ 2POSS-husband  
 'I will take you from your husband' / 'I will take your husband from you'

Reid *et al.* remark that "out of context, [the sentence above] means 'I-will-take-him-from-you your-husband', and the second person singular marked in the verb functions as indirect object. But in the context of a father rescuing his daughter, the second person singular functions as direct object." (Reid *et al.* 1968: 33). The fact that this example admits both of the readings in which the second person object is, alternatively, theme or source suggests that this too is a symmetrical object language in Bresnan & Moshi's sense.

In another footnote, Reid *et al.* present a pair of examples which illustrate the phenomenon of 'double object marking' in Apapantilla Totonac. These examples appear in the same text and occur in the context of an exchange between an official and a prisoner:

Totonac of Apapantilla (Reid *et al.* 1968: 171, fn. 1)

- (81) kintamakamaxkii'ni'  
 /kin-ta-makamaškii'-ni'/  
 1OBJ-3SUB.PL-deliver.X.to.Y-2OBJ  
 'they delivered you over to me'
- (82) kimakamaxkii'ni'  
 /kin-makamaškii'-ni'/  
 1OBJ-deliver.X.to.Y-2OBJ  
 'he delivered me over to you'

Note that both examples exhibit the same verb, /makamaškii/ 'deliver X to Y', and both exhibit the same overt object markers, /kin-/ '1OBJ' and /ni/ '2OBJ'. The fact that each of these affixes cross-references an object that can be construed, alternatively, as either theme or recipient demonstrates, once again,

that Apapantilla Totonac is a symmetrical object language. Double object marking alone does not prove object symmetry, but the ambiguity that is associated with double object marking in this language does.

In contrast with Apapantilla and other Northern Totonac languages, Papantla Totonac is an asymmetrical object language. According to Levy (2000), this language requires that in the presence of a primary object (i.e., applied object or causee), a secondary object (patient or theme) must always be third person. This means that there are no constructions like that in (81) or (82) with both a local (first or second person) primary object and a local (first or second person) secondary object. It also means that constructions like that in (80), with only one local object, are unambiguous and only admit readings in which the local object is construed as primary object (i.e., applied object or causee), and never as secondary object (i.e., patient or theme). On the basis of these facts, we conclude that Papantla Totonac is an asymmetrical object language in Bresnan & Moshi's sense. An overt object marker in this language necessarily cross-references the primary object in a multiple object construction. It cannot cross-reference the basic, secondary object.

The restriction on the interpretation of object markers in Papantla Totonac also extends to cases involving two third person objects. Unlike the Northern Totonac languages, Papantla Totonac does not allow the plural object marker /kaa-/ 'OBJ.PL' to cross-reference a basic or secondary object in the presence of any sort of applied object. In example (83), below, the plural marker /kaa-/ 'OBJ.PL' necessarily cross-references the applied (beneficiary or recipient) object, and cannot cross-reference the basic (theme) object.

Papantla Totonac (Levy 2005: 20):

- (83) ka:-ma:-laqacha:-ni-lh                      lakcumaján      kin-qa'wasa  
 OBJ.PL-CAUS-arrive.X-DAT-CPL              girls                      1POS-son  
 'I sent my son to the girls' / \*'I sent the girls to my son'

The failure of this example to receive two distinct interpretations shows, once again, that the variety of Papantla Totonac described by Levy (2000, 2005) is an asymmetrical object language in Bresnan & Moshi's sense. It thus differs from Apapantilla and other Northern Totonac varieties, which, as demonstrated above, are symmetrical object languages.

### 2.4.3. Lexical Differences

The vocabulary of Papantla Totonac has more in common with the Sierra languages than with the Northern Totonac languages.

(84)		water	fire	See.X	moon	
T o t o n a c	Misantla	škáan	múkskut	laxɛn	páp	
	Northern	Apantilla	škaan	makskut	laqéjin	maalkuyú
		Upper Necaxa	škaan	makskút	lakawanán	maalkuyú?
		Filomeno Mata	čúcuti	fkúyaati	laqéjn	papáʔa
	Sierra	Zapotitlán de Méndez	čučut	fkuyaat	ukšila	papá
		Coatepec	čučut	fkuyaat	ʔakšil	papáʔ
		Ozelonacaxtla	čučut	fkúyaat	ʔúkšil	papáʔ
	Papantla	čučut	fkúyaat	akšila	papá	
	T e p e h u a	Pisaflores	škáan	híkmi	laʔé'in	maalkuyúʔu
		Huehuetla	škaan	hip	laqé'in	maalkiyu?
Tlachichilco		škaan	híkmi	laqé'in	maalkuyúʔ	

### 3. Conclusion

The goal of this paper is to identify specific morphological, phonological, and lexical features which can be used to classify the Totonac and Tepehua languages and gauge the nature and extent of grammatical variation within them. Earlier studies, based primarily on comparison of selected lexical items, have not entirely resolved the issues concerning the genetic relationships among these languages. By concentrating on patterns of neutralization within the inflectional systems of these languages, we have succeeded in establishing explicit formal criteria for labeling and classifying them. We have proposed specific diagnostic features that differentiate the Totonac and Tepehua languages and yield a more concrete and definitive classification.

To a great extent, we have found that the traditional classification of the Totonac and Tepehua languages is supported by the morphological, phonological and lexical evidence surveyed here. We have corroborated the clear division between the Totonac and Tepehua branches of the family and we have also corroborated many of the divisions within them. Our principal findings are as follows:

- 1) the division between the Tepehua and Totonac branches of the family is confirmed by numerous morphological, phonological and lexical differences;
- 2) recognition of three branches of Tepehua and at least four distinct branches of Totonac is warranted;
- 3) Misantla Totonac is clearly distinguished from the other Totonac languages by a constellation of features including unique patterns of neutralization in 1SUB>2OBJ contexts and in 3SUB>1/2OBJ contexts;
- 4) the languages comprising the Sierra branch of the Totonac family are also clearly identifiable on the basis of numerous differences including a) a distinct pattern of inflection in 2SUB>1OBJ contexts; b) the third person plural marker /-quu/ 'PL'; and c) the word-final palatal sonorant [y];
- 5) the languages comprising the Northern and Papantla branches of Totonac are less distinct than the traditionally "flat" family tree might suggest. Indeed, these languages constitute a rather homogenous group with respect to the morphological features surveyed here. With the exception of different patterns of neutralization in 3SUB>2OBJ contexts and different constraints on object symmetry, the Northern and Papantla Totonac languages appear to exhibit almost identical patterns of inflection and neutralization;
- 6) although the Papantla Totonac languages share their inflectional morphology with the Northern Totonac languages, there are numerous lexical differences. Based on a preliminary look at a limited set of lexical items, we suggest that there are more significant lexical correspondences between the Papantla and Sierra languages than between the Papantla and Northern languages. Whether this is indicative of a deeper genetic affiliation between the Papantla and Sierra languages or simply the result of borrowing and diffusion has not yet been determined;
- 7) patterns of neutralization within the person and number agreement systems of the Totonac and Tepehua languages can serve as an important indicator of their historical, genetic affiliation. As demonstrated, these languages are remarkable in the extent to which they sacrifice explicitness in favor of economy in their inflectional systems. All of them exhibit some form of neutralization in contexts involving only local (first and second) persons. Many of them also exhibit neutralization in contexts involving third person subjects and first or second person objects. The similarities and differences among these patterns provide formal and explicit criteria for differentiating the languages and arranging them into definable and defensible sub-groups. In this sense, they go a long way toward establishing the history and relationships of the many languages that constitute this important Mesoamerican language family.

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