Potential Conditional Marker Development in Sierra Popoluca

Salomé Gutiérrez Morales
UCSB/CIESAS
Salome@umail.ucsb.edu

1. Introduction
We know that all language undergoes grammatical change through time. The motivations for such evolution can be either language-internal or language-external. In this paper we are going to look at the second, because external motivation has been the mechanism for the development of a potential conditional marker in Sierra Popoluca. Examples will be drawn from spontaneous conversation. This material was recorded and transcribed by me. In the transcription I am using a practical alphabet¹.

2. Contact-induced language change
It used to be thought that in language contact situations, borrowing was generally confined to vocabulary and sounds. Such effects are easy to see in Sierra Popoluca, which has adopted many loanwords from Spanish. Loanwords may in turn prompt the introduction of new phonological features, as speakers become increasingly proficient in the source languages and give borrowed terms their original pronunciation. Sierra Popoluca now contains the lateral /l/, and the fricative /ʃ/, for example, but they appear only in borrowed terms. If we look more deeply, however, we find that the effects of contact can go beyond the lexicon and phonology.

Thomason and Kaufman have pointed out that independently of the degree of phonological interference, structural features can also be borrowed. However, one of the main conditions is that the borrowing-language must be in intense contact with the source language. Speakers of Sierra Popoluca have been in intense contact with the Spanish language to the point that at the current period, all native speakers are bilingual. According to Thomason and Kaufman,

If few speakers of the borrowing language are bilingual in the potential source language, then normally only words will be borrowed... However, if there is extensive bilingualism on the part of borrowing-language speakers, and if this bilingualism persists over a long period of

¹ Most of the Sierra Popoluca graphemes have the same values as their IPA counterparts. However, the following changes should be considered:

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<th>Phonemes</th>
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<td>Graphemes</td>
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time, then substantial structural borrowing is a probability. (Thomason and Kaufman, 1988:47-48)

The basic structure of Sierra Popoluca has been described in two grammatical sketches: Foster and Foster 1948 and Elson 1960. Although language contact in Mesoamerica has generated interest, as in the landmark work by Campbell, Kaufman, and Smith-Stark (1986), there has been no discussion of contact phenomena in Sierra Popoluca. Now we know that grammar can also be borrowed, provided that there is intense contact over a long period of time. In fact we do see evidence of Spanish in Sierra Popoluca grammar with the Spanish function word si ‘if’.

3.1 The Spanish general conditional si\(^2\) ‘if’
In Spanish, si ‘if’ is used to form general conditional clauses, as in examples (1 - 3).

1. Si no estudio para el examen voy a reprobar.
   ‘If I do not study for the test I will fail it.’

2. Si tu no comes te vas a enfermar.
   ‘If you do not eat you will get sick.’

3. Si yo no tuviera trabajo, yo no tendría dinero.
   ‘If I had no job, I would not have money.’

3.2. Potential conditional in Sierra Popoluca
Sierra Popoluca has a potential conditional morpheme si'iga as in example (4) and (5).

\(^2\) In Spanish, the word si is also used for a short affirmative answer but here we are focusing on the general conditional ‘if’.
(4) Si’iga mich an-ya’ach-wat-pa
If 2SG 1ERG-suffer-make-IMPERF
“If you make me suffer

\[ i\,ch \quad n\#k-a \quad an-n\#m-a’y \quad añ-chomo’. \]
1SG go-IMPERF 1ERG-say-APPL 1POSS-grandmother
I will tell it to my grandmother.”

(5) Si’iga a-ka’a-ba
If 1ABS-die-IMPERF
“If I die

\[ i\,ch \quad a-ka’a-ba \quad am-maan\#k \quad i-ty\#k-oom. \]
1SG 1ABS-die-IMPERF 1POSS-son 3POSS-house-LOC
I will die at my son’s house.”

It is evident that si’iga is working as a potential conditional in Sierra Popoluca. Interestingly, we also found many instances that show the same conditional but with the reduced form siga, which obviously means that this form has been further eroded. As we know, erosion is one of the parameters that have been used for identifying instances of grammaticalization (Heine and Kuteva 2005). The eroded potential form is shown in examples (6) - (9)

(6) \[ i\,ch \quad dyatyii \quad w\#'-aa-p \quad mañ-chi’ \]
1SG nothing good-INCH-IMPERF 2ABS-1ERG-give
“I cannot give you anything yet.

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3 Abbreviations
1 First person IMPERF Imperfective
2 Second person PERF Perfective
3 Third person PERFECT Perfect
ERG Ergative COMP Complementizer
ABS Absolutive NUM Numeral
SG Singular PL Plural
POSS Possessive INCL Inclusive
DEF Definite OPT Optative
IMP Imperative CAUS Causative
INST Instrumental PART Particle
LOC Locative ASSUM Assumptive
NOM Nominalizer PASS Passive
APPL Applicative ANTIP Antipassive
INCH Inchoative COMIT Comitative
Before that, I have to check you out to see if your illness has not gotten worse.”

She said,

“If your illness is much worse,

then we cannot give you anything.

If not, then I will give you medicine.”

‘I forgot to ask him if crabs will still leave.’

‘If her mother doesn’t drink, she buys soda for her.’
(9)  
\begin{align*}
\text{Siga} & \quad \text{iñ-xun-pa} \\
\text{if} & \quad \text{2ERG-want-IMPERF} \\
\text{`If you want,} & \\
\text{ich} & \quad \text{man-ak-kuyuj-pa.} \\
\text{1SG} & \quad \text{2ABS-1ERG-CAUS-study-IMPERF} \\
\text{I will teach you.}'
\end{align*}

It appears that *si’iga* was created by fusion of the Spanish *si* ‘if’ with the Sierra Popoluca subordinator *iga*, which is still pervasive and deeply entrenched in the language. There is no doubt that the form *si’iga* or *siga* in each of the examples above has full status as a single potential conditional marker: this is the marker speakers use to indicate that something may or may not happen. In addition, *si’iga* has the phonological properties of a single native word, since the stress falls on the first syllable of the word, as normally happens in words with similar structure. We thus have not only the transfer of a grammatical marker from Spanish into Sierra Popoluca, but an apparent integration of the marker into the existing complex sentence structure.

### 3.3. The issue of time of contact

Thomason and Kaufman (1988) hypothesize that structural borrowing, that is, any kind of borrowing in a broad sense, which includes grammatical and semantic features, occurs only with intense, longterm contact. Sierra Popoluca – Spanish contact is certainly intense now, but it is surprisingly recent. Actually, as recently as 1970, most of the Sierra Popoluca speakers were not able to speak Spanish very well. Modern speakers still remember that whenever they saw anyone who did not belong to the community, they used to close their doors, in order to avoid speaking with foreigners. We could conclude that the length of contact is not significant, or we could delve more deeply into the history of the situation. There is no reason to assume that contact effects began with the arrival of Spanish speakers. The recognition of Mesoamerica as a linguistic area (Campbell, Kaufman, and Smith-Stark 1986) suggests longterm contact among languages indigenous to the region. In fact such contact appears to be responsible for the Sierra Popoluca complementizer *iga*.

The use of the marker *iga* to form dependent clauses in Sierra Popoluca can be seen in examples (10) - (12).

(10)  
\begin{align*}
\text{Ním-pa} & \quad \text{Severo} \\
\text{Say-IMPERF} & \quad \text{Severo} \\
\text{`Severo says}
\end{align*}
*iga* tuku-na-jaama put eexi.
COMP three-NUM-day leave-PERF crab
that crabs were leaving for three days.’

(11) *Dya w#
no good
‘It is not good
*iga dya mi-yoox-aa.
COMP no 2ABS-work-INCH
that you do not work.’

(12) *Jem yoomo a-me’ts
DEF girl 1ABS-look for-PERF
‘The woman looked for me
*iga nig-iñ
COMP go-PERF-OPT
to go
añ-yoox-pa’t
1ERG-work-find-PERF
help
*iga yooya’ ak-ka’-yaj-pa.
COMP pig CAUS-kill-PL-IMPERF
them kill pigs.’

Interestingly, there is no obvious diachronic origin for *iga* within Sierra Popoluca, or even within the Mixe-Zoquean family\(^4\). Its source can be found in a neighboring but genetically unrelated language, Mecayapan Náhuatl.

### 3.4. *Iga* in Mecayapan Náhuatl and Sierra Popoluca
The Mecayapan Náhuatl complementizer *iga* ‘that’ can be seen in examples (13) and (14). Each was elicited from a native speaker of Mecayapan Náhuatl for comparison with the spontaneous sentences from Sierra Popoluca seen above.

(13) *Ayekti iga teh atitekipanowa.
‘It is not good that you do not work.’

\(^4\) Our thought on Mixe-Zoquean is based on Wichmann (1995).
It is unlikely that the phonemic identity of the morpheme in the two languages and the close parallels in distribution are due to chance. Given the history of close contact between speakers of Náhuatl and Sierra Popoluca, a more likely reason for the similarity is language contact. Actually, it is clear that the marker was transferred from Mecayapan Náhuatl into Sierra Popoluca, and not the reverse. As noted, there is no cognate form elsewhere in the Mixe-Zoquean family, but Classical Náhuatl contained a clause introducer ca ‘indeed, in fact’ (Andrews, 2003). Karttunen’s 1983 dictionary of Classical Náhuatl, based primarily on Horacio’s Carochi grammar of 1645, lists the form iica, which consists of the third person singular possessive prefix ii- and the postposition –ca. Iica as a grammatical form has three meanings: ‘means, reason, and cause’. The modern Sierra Popoluca iga shows the same intervocalic voicing as its current neighbor Mecayapan Náhuatl.

3.5. Where was si’iga formed?
The identification of the subordinator iga as a Náhuatl form raises the question of the sequence of events leading to the formation of si’iga. Was it actually formed in Sierra Popoluca, when speakers borrowed the Spanish si ‘if’ and integrated it into the existing family of subordinate constructions based on iga, or was it formed in Náhuatl, then transferred as a piece into Sierra Popoluca?

In Mecayapan Náhuatl, sil is used as a potential conditional morpheme ‘if’, as in examples (15)

(15) Sil ticuaaj, xicprobaaro.
‘If you are going to eat it, try it.’ (Wolgemuth 1981)

Sil ‘if’ in Mecayapan Náhuatl works as a potential conditional marker. What is interesting is that none of the classical Náhuatl sources that we consulted has a similar form. Andrews (2003) reported for Classical Náhuatl the form tlaa: ‘if, in the event that, in case, and provided that’, while Sullivan5 (1988) reported the form intla ‘if’ for Classical Náhuatl, as in example (16)

(16) Auh intla huel itech taciz in altepetl ...
‘And if you reach the town…

5 Sullivan’s grammar is mostly illustrated with examples that come from the sixteenth-century texts.
ma xoconcuitihuetzi in teputzli in cuauhtequiliztli.
take the ax at once in order to cut wood.’

In addition to the form intla ‘if’, we also found in Classical Náhuatl the form quee mah ‘yes’, an affirmative morpheme (Kurttunen 1983). In Mecayapan Náhuatl, the equivalent affirmative form is: quel or quel iga ‘yes’. As we can see, there appears to be no evidence of the potential conditional morpheme sil ‘if’ existing in earlier stages of Náhuatl. Therefore, there is no doubt that the model for this conditional was Spanish. The final l was apparently added by analogy to native forms that also end in l, such as the affirmative quel ‘yes’. The story about the Spanish conditional si in Mecayapan Náhuatl, does not end in here. Later on, probably due to more contact with Spanish, Mecayapan Náhuatl speakers also started to use si for potential conditionals, as we can see in example (17).

(17) Nej anicmati si huaalaj.
‘I do not know if s/he will come.’

It is interesting to see that this language is currently using sil and si as alternative potential conditional morphemes. On the other hand, it is also significant that at some state in the evolution of Mecayapan Náhuatl the conditional si was combined with iga to form si iga ‘if’ as we can see in the example (18).

(18) Si iga quijlisisquej iga quena, huel monaamictij.
‘If he gets permission, he can marry.’

Si iga is working pretty much the same as sil or even as si in Mecayapan Náhuatl. Nevertheless, it is clear that si iga was formed later by the combination of si plus iga. Si iga also alternates with siga in Mecayapan Náhuatl as in examples (19) – (21).

(19) Siga anquipoloosquej, nij anyahuij ancaahuitij.
‘If you lost, you would stay here.’

(20) Siga neh aya’ niwizia atemochiwaya.
‘If I had not been able to come, we could not have done anything.’

(21) Siga the tikneki wel timihtotiskeh.
‘If you want, we can dance.’
Si iga also alternates with the reduced form siga in Mecayapan Náhuatl. Interestingly, Sierra Popoluca shows the same behavior of the potential conditional si’iga as in examples (22), (23), and all of those discussed above.

(22) Si’iga’rech 6  mich  an-ya’ach-wat-pa
  if  2SG 1ERG-suffer-make-IMPERF
  “If you make me suffer

 ich  n’k-a  an-n’m-a’y  añ-chomo’.
1SG  go-IMPERF 1ERG-say-APPL 1POSS-grandmother
I will tell my grandmother.”

(23) Siga  dya  uk-pa   i’-aapa ’
if  no  drink-IMPERF 3POSS-mother
‘If her mother doesn’t drink,

je’  juy-a’y-tyaa-p   refresko.
she  buy-APPL-PASS-IMPERF  sodas
someone buys soda for her.’

An important consideration in the development of the potential conditional form si’iga as a Náhuatl borrowing is phonological. According to Wichmann (1995) in Sierra Popoluca (as in the other Gulf Zoquean languages), the phoneme /s/ is realized as /ʃ/ in the vicinity of a vocalic phoneme /i/. We concur with this statement because it seems that any time we have /s/ either before or after /i/, it becomes /ʃ/, as we can see in example (24) below. (The sibilant /ʃ/ is written x in the practical orthography.)

(24) eeʃi  ‘crab’  źik  ‘laughed’
ʃikciʃ  ‘buzz’  piiʃi  ‘yucca’
riiʃi  ‘bat’  piʃcik  ‘flea’

In Sierra Popoluca all instances of /s/ before the vowel /i/ have been changed to /ʃ/ in native words as a result of a palatalization process. The Sierra Popoluca word si’iga or siga, however, has not been affected because it is not a native word: it thus appears to be borrowed from Náhuatl.

Since the potential conditional si’iga was first formed in Náhuatl, through a combination of the borrowed Spanish si and the native subordinador iga, it

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A glottal stop is automatically inserted between two vowels.
appears that it was passed into Sierra Popoluca as a unit. This transfer may have been facilitated by the presence of the complementizer *iga* in Sierra Popoluca, an earlier borrowing from Náhuatl.

We can only speculate on the motivation behind the transfer of these two conditional markers into Sierra Popoluca. It seems that Sierra Popoluca may have lost its formal marking for conditionals by the time of contact with Náhuatl speakers. Bilingualism in Náhuatl, with overt conditional constructions, could have stimulated a desire for the replication of such overt marking. Actually, San Miguel Chimalapa Zoque (an almost extinct language related to Sierra Popoluca) uses both, a native form *bi’t* ‘if’ and the Spanish ‘*si*’ for ‘if’ clauses (Johnson 2000). The earlier conditional form in Sierra Popoluca may have been similar to the San Miguel Chimalapa form *bi’t* ‘if’. However, we could not find any equivalent form in Sierra Popoluca in the current state of the language.

In any case, the history of the potential conditional construction in Sierra Popoluca shows good evidence of grammatical borrowing several times over, first with the complementizer *iga*, then with the conditionals *si’iga*. The conditional marker *si’iga* was itself formed through borrowing, when Náhuatl speakers combined their native complementizer *iga* with the Spanish *si*. Thomason and Kaufman note that Meillet

> ...believed that grammatical loans are possible only between very similar systems, especially dialects of a single language...Many linguists have shared this view, often with the corollary assumption that, since similar systems will share (most of) the same categories, grammatical categories cannot be transferred from one language to another. (Thomason and Kaufman, 1988:14)

The three languages involved, Sierra Popoluca, Mecayapan Náhuatl, and Spanish, are genetically unrelated. The development of the potential conditional marker supports the idea that in an intense contact language situation, anything can be transferred from one language to another.

6. Conclusion

Sierra Popoluca provides a rich illustration of externally motivated processes of grammatical change. We have seen the results of such motivation in the development of the modern potential conditional morpheme *si’iga*, which was borrowed into Sierra Popoluca from Nahuatl. *Si iga* was formed in Nahuatl by the fusion of the Spanish general conditional *si*, plus the Náhuatl subordinator *iga*.

The Náhuatl native complementizer *iga*, was also transferred to Sierra Popoluca. It then served as a foundation for the development of the potential conditional marker, since the presence of *iga* already in the language allowed the easy transfer of the Náhuatl subordinating morpheme *si’iga*. The result was the addition to the language of certain overtly marked constructions that, so far as can
be determined on the basis of the modern language, were not marked before contact.

7. References


CIESAS-Golfo
Av. Encanto s/n esq. Antonio Nava
Col. El Mirador C.P. 91170
Xalapa, Veracruz, México