

Potential Conditional Marker Development in Sierra Popoluca

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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 *f*, 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:

Phonemes	c	j	ʔ	ʃ	h	ts	ç	ɲ	ŋ
Graphemes	ty	Dy	'	Σ	J	ts	ch	ñ	ng

time, then substantial structural borrowing is a probability. (Thomason and Kaufman, 1988:47-48)

3. Grammar change in Sierra Popoluca.

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 reprobare.*
'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*³
 if 2SG 1ERG-suffer-make-IMPERF
 “If you make me suffer

ich nɬk-a an-nɬm-a'y aň-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

ich a-ka'a-ba am-maanɬk i-tyɬk-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 *siġa*, 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) *ich dyatyii wɬ'-aa-p maň-chi'*
 1SG nothing good-INCH-IMPERF 2ABS-1ERG-give
 “I cannot give you anything yet.

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

wintyi *mang-kʰ-ping-pa*
 before (that) 2ABS-1ERG-hand-pick up-IMPERF
 Before that, I have to check you out to see

sigā *dyaʹ* *jem* *kaʹ-kuy* *pʰmi* *kiʹm-neʹ*.
 if no DEF die-NOM a lot increase-ASSUM
 if your illness has not gotten worse.”

Nʰm-pa
 say-IMPERF
 She said,

Sigā *pʰmiʹ* *kiʹm-neʹ* *jem kaʹ-kuy*
 if a lot increase-ASSUM DEF die-NOM
 “If your illness is much worse,

jesʰ *dyatyii* *wʰ-aa-p* *mañ-chiʹ-tyaʹ*.
 then nothing good-INCH-IMPERF 2ABS-1ERG-give-PL
 then we cannot give you anything.

i *sigā dya* *puj* *jesʰk* *mañ-chiʹ-ba* *tsoy*.
 and if no since then 2ABS-1ERG-give-IMPERF medicine
 If not, then I will give you medicine.”

- (7) *Ang-jaamangnoʹt* *man-ak-waʹk*
 1ERG: forget 2ABS-1ERG-CAUS-ask
 ‘I forgot to ask him

sigā *put-pa-nam* *eexi*.
 if leave-IMPERF-still crab
 if crabs will still leave.’

- (8) *Sigā* *dya* *uk-pa* *iʹ-aapaʹ*
 if no drink-IMPERF 3POSS-mother
 ‘If her mother doesn’t drink,

jeʹ *juy-aʹy-tyaa-p* *refresko*.
 she buy-APPL-PASS-IMPERF soda
 someone buys soda for her.’

(9) *Siga* *iñ-xun-pa*
 if 2ERG-want-IMPERF
 ‘If you want,

ich *man-ak-kuyuj-pa.*
 1SG 2ABS-1ERG-CAUS-study-IMPERF
 I will teach you.’

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) *Nim-pa* *Severo*
 Say-IMPERF Severo
 ‘Severo says

iga *tuku-na-jaama* *put* *eexi.*
 COMP three-NUM-day leave-PERF crab
that crabs were leaving for three days.'

(11) *Dya* *wĩi*
 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 *nʔg-iĩ*
 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 family⁴. 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).

- (14) *Kihtowa sebero iga tekuisih kiskeh eyi tonati.*
'Severo says that crabs were leaving for three days.'

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 xoconcuithuetzi in tepuztli 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 (Kurtunen 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 quijlisquej 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 *sigá* 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' niwitzia 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 *sig*a 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*⁶ *mich* *an-ya'ach-wat-pa*
 if 2SG 1ERG-suffer-make-IMPERF
 “If you make me suffer

ich *nɪk-a* *an-nɪm-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 soda
 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)	<i>eeʃi</i>	‘crab’	<i>ʃik</i>	‘laughed’
	<i>ʃiikciɲ</i>	‘buzzer’	<i>piʃi</i>	‘yucca’
	<i>tiʃi</i>	‘bat’	<i>piʃcɪk</i>	‘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 *sig*a, 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

⁶ 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

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