

THE UNPRODUCTIVENESS OF CHIQUIHUITLAN MAZATEC<sup>1</sup>  
WORD-FORMING PROCESSES

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The Chiquihuitlan variety of the Mazatec language (hereafter CqM) displays various word-forming processes, some of which were evidently productive well into the post-conquest period. Most of the processes involve compounding of independent words, a few involve derivation by prefixation, and then there is the extension of the semantic field of an existing word. In Table I a very few CqM patterns of word formation are listed with examples.

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PATTERN A: The noun *khua*<sup>4</sup> 'word' plus another noun, verb or adjective, produces an abstract noun.

1. *khua*<sup>4</sup>*ki*<sup>3</sup>*nti*<sup>34</sup> 'childhood' word + child
2. *khua*<sup>4</sup>*bi*<sup>3</sup>*sia*<sup>2</sup>*hmi*<sup>2</sup> 'conversation' word + converses
3. *khua*<sup>4</sup>*ntah*<sup>314</sup> 'goodness' word + good

PATTERN B: The stem formative *çi*<sup>3</sup>- 'causative' plus a noun, verb, or adjective produces a verb.

4. *çi*<sup>2</sup>*rki*<sup>2</sup> 'cures, treats' cau. + medicine
5. *çi*<sup>3</sup>*ši*<sup>1</sup> 'dries (trans.)' cau. + dries (intr.)
6. *çi*<sup>3</sup>*ntah*<sup>31</sup> 'fixes, makes' cau. + good

PATTERN C: The noun *ki*<sup>4</sup>*ča*<sup>4</sup> 'metal' plus another noun, verb, or adjective, produces one type of concrete noun.

7. *ki*<sup>4</sup>*ča*<sup>4</sup>*rku*<sup>4</sup> 'ax' metal + head
8. *ki*<sup>4</sup>*ča*<sup>4</sup>*hbu*<sup>3</sup>*ya*<sup>3</sup> 'sewing machine' metal + sews
9. *ki*<sup>4</sup>*ča*<sup>4</sup>*ntuh*<sup>314</sup> 'machete' metal + long

PATTERN D: The adjective *či*<sup>4</sup>*ne*<sup>4</sup> 'prepared' plus a noun or verb produces one type of personal noun.

10. *či*<sup>4</sup>*ne*<sup>4</sup>*tho*<sup>14</sup> 'musician' prepared + wind instrument
11. *či*<sup>4</sup>*ne*<sup>4</sup>*be*<sup>2</sup>*šo*<sup>2</sup> 'mason' prepared + stacks-up

PATTERN E: A verb plus a noun produces another type of personal noun.

12. *ba*<sup>3</sup>*khā*<sup>2</sup>*ča*<sup>2</sup>*kī*<sup>2</sup> 'firewood-splitter' splits + firewood
13. *bi*<sup>3</sup>*ñah*<sup>2</sup>*ča*<sup>2</sup>*kī*<sup>2</sup> 'firewood-hauler' hauls + firewood
14. *bi*<sup>3</sup>*ñah*<sup>2</sup>*na*<sup>2</sup>*nta*<sup>2</sup> 'water-hauler' hauls + water

PATTERN F: The semantic field of an existing word is extended to something related or similar.

15. tu3 'seed' → tu3 ræ34 nã34 'necklace of her'  
 16. tɥh314 '(fish) scale' → 'money'  
 17. śuʔ314 'navel' → 'chisel'  
 18. ki4 śu4 'charcoal' → 'gun powder'

TABLE I

## A few patterns of CqM word formation

The thesis of this paper is that none of the many word-forming processes of CqM is productive today.

I developed an awareness of this unproductiveness gradually during the course of translating materials into CqM, as I made various attempts to invent new CqM words for ideas and things not known to the Mazatecs, and therefore not represented in the CqM lexicon.

Finally I drew up a small list of my attempted inventions, and thought up a few more, to test more systematically on some native speakers. Almost all the words were equally rejected by those tested. The universal means used to indicate rejection were laughter and the statement that "You can't say that," or else, "No one says that." A few times I received the response: "We could say that, but no one does." Initially my list contained a mixture of invented words, some of which applied to concepts I consider nonexistent in the Mazatec worldview, others of which applied to concepts already referred to by Spanish loan words or Mazatec phrases. It was pointed out to me by a colleague that laughter would be an expected response in any language to newly made up words for concepts that already had a name in the language. For instance, if someone suggested that we rename the 'hammer' a 'nailpounder' on the pattern of 'flyswatter', 'dishwasher', 'can opener', etc., we would just laugh, because the concept of a tool for pounding nails already has a name. However, when someone invented the new term 'word processor' for a new machine that processes words, it caught on and is in use today. With that thought in mind, I whittled down my list of invented CqM words to a few that seemed to me to represent concepts that are nonexistent in CqM thinking. The list is presented in Table II. The asterisk is used to indicate a nonacceptable form.

19. \*khua4 bi3 te2 śa2 'rule, regime, reign' word + orders, rules  
 or perhaps: 'law, order'  
 20. \*khua4 ba3 se34 'law, order' word + half

21. *çi <sup>2</sup> nti <sup>2</sup>	'electrifies, installs wiring'	cau. + electricity
22. *çi <sup>4</sup> ne <sup>4</sup> nti <sup>2</sup>	'electrician'	prepared + electricity
23. *çi <sup>4</sup> ne <sup>4</sup> nti <sup>4</sup> ya <sup>2</sup>	'road builder'	prepared + road
24. *be <sup>2</sup> ta <sup>2</sup> nti <sup>2</sup>	'electrician'	puts + electricity
25. *nã <sup>4</sup> ræ <sup>4</sup> ča <sup>2</sup>	'owner, master of him'	nã <sup>4</sup> ræ <sup>4</sup> 'owner of-it'
26. ?nti <sup>2</sup> šã <sup>24</sup>	*'slave' 'orphan'	

TABLE II

CqM inventions rejected by native speakers

Example 19 in Table II is based on Pattern A in Table I. The verb bi<sup>3</sup>te<sup>2</sup>ša<sup>2</sup> means 'orders, rules', and preposing the noun khua<sup>4</sup> should produce an acceptable abstract noun, which could represent 'reign, rule, regime', for which no CqM word exists. The Huautla Mazatec dialect has a word khoatešoma for that concept, and I understand Jalapa Mazatec has a similar word. CqM has no such cognate. However, an attempt has apparently been made to fill that semantic void in CqM with a loan word ?u<sup>3</sup>bie<sup>3</sup>rnũ<sup>34</sup> from Spanish gobierno 'government', but the meaning most CqM speakers give for ?u<sup>3</sup>bie<sup>3</sup>rnũ<sup>34</sup> is 'the President', and they use the respectful pronoun 'he' rather than 'it'. So it seems to me that \*khua<sup>4</sup>bi<sup>3</sup>te<sup>2</sup>ša<sup>2</sup> would be a useful addition to the CqM lexicon. But it is not accepted by native speakers.

Example 20 is also based on Pattern A. There is a word nti<sup>3</sup>?ya<sup>34</sup>ba<sup>3</sup>se<sup>34</sup> 'town hall' from house + half, and a word ša<sup>2</sup>ba<sup>2</sup>se<sup>24</sup> 'town work, tequio' from work + half. So taking that adjective ba<sup>3</sup>se<sup>34</sup> 'half' and preposing the word khua<sup>4</sup> 'word' should produce an acceptable abstract noun for 'town word', or 'law'. The concept of a codified list of rules and regulations does not seem to exist in the CqM language. There are specific Spanish loan words to refer to the Constitution, the Penal Code, etc., but no general term for law of whatever type. But alas, "You can't say \*khua<sup>4</sup>ba<sup>3</sup>se<sup>34</sup>."

Examples 21-24 are based on Patterns B, D, and E, and perhaps they are self-explanatory, with the information that Chiquihuitlan has just recently received a road and electricity, so the ideas in 21-24 are new.

Examples 25 and 26 are attempts to extend the area of meaning of existing words, as in Pattern F. The word nã<sup>4</sup> 'owner' is in everyday use, but its semantic field includes owning

animals and things but not people. It seems like a very slight stretch to include owning people, i.e., slaves, but the concept of slavery is lacking in the CqM world view, and the construction in example 25, \*n̄aj<sup>4</sup> ræ<sup>4</sup> ča<sup>2</sup> 'his master, owner', is not accepted.

To extend the meaning of 'orphan' to cover 'slave', as in example 26, means a little more stretching, but not an excessive amount. There doesn't seem to be a CqM word for 'property' or 'something owned'. But an orphan is someone you take into your home, who does your menial tasks, getting firewood, hauling water, etc., and whom, in return, you feed and clothe, without any other pay. However, \*'He was the owner of a lot of orphans' is not accepted by CqM speakers as a way of saying 'He had a lot of slaves.'

It is clear that the CqM word-forming processes shown in Patterns A, B, and E, were productive before the conquest, but not after, or at least not long after, because there are hardly any post-conquest ideas represented by the compounds resulting from those processes in the CqM lexicon. I will not reproduce the whole CqM lexicon here to prove my point, however. On the other hand, Patterns C and D seem to have been unproductive or barely productive in pre-conquest times, and then became productive in post-conquest times, because almost all the compounds in the CqM lexicon resulting from Patterns C and D represent post-conquest ideas. However now it seems that all such processes are unproductive.

I think that this lack of productivity of CqM word-forming processes is the result of a slow development over time. This gradual development can be seen by comparing different semantic fields. In the area of religion, the new ideas were introduced early in the conquest, and all at once, and therefore almost all the CqM lexical items are native CqM words. The same can be said of the semantic fields of tools and firearms. On the other hand, in the semantic field of government, I believe the new ideas were introduced later and little by little, and the vocabulary is divided between native and loan words. And finally, in the area of education, the new ideas were introduced much later, and almost all the vocabulary consists of Spanish loan words. The same can be said about the semantic field referring to the road, which was just opened up about three years ago, and electricity, which came in just last year.

The gradual development of this situation of unproductiveness can also be seen by inspecting the ways loan words have been incorporated. Since the beginning of contact with the Spaniards, besides making up vocabulary according to the existing patterns, a few Spanish words were borrowed. But at first, the Mazatecs

borrowed very few words, and they assimilated them heavily to their phonetic system. Table III lists just three of the words borrowed from Spanish that show complete assimilation.

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27. rka <sup>3</sup> le <sup>34</sup>	< Sp. alcalde	'one of the authorities'
28. la <sup>1</sup> tu <sup>1</sup>	< Sp. arado	'plow'
29. kue <sup>3</sup> nta <sup>34</sup>	[k <sup>u</sup> enda]	< Sp. cuenta 'account'
30. sa <sup>3</sup> ?m <sub>i</sub> <sup>2</sup> kue <sup>2</sup> nta <sup>24</sup>	ća <sup>2</sup>	'he attends-to, cares-for'
31. n <sub>i</sub> <sup>3</sup> ?ñ <sub>u</sub> <sup>1</sup> kue <sup>14</sup> nt <sub>u</sub> <sup>3</sup>		'you-attend-to, care-for'

TABLE III

## Early Spanish loan words in CqM

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Example 29 shows the phonetic voicing of a voiceless stop after a nasal consonant in CqM. It is also voiced in examples 30 and 31. Example 30 shows the same loan word of example 29, incorporated into the verb word, with the pronoun following. Example 31 shows the same word conjugated for second person, with both tones and final vowel conjugated normally for CqM.

However, in words borrowed from Spanish now, assimilation is minimal, as shown in Table IV.

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32. bu <sup>3</sup> rru <sup>34</sup>	< Sp. burro	'donkey'
33. la <sup>1</sup> pil	< Sp. lápiz	'pencil'
34. kue <sup>3</sup> nta <sup>34</sup>	[kuenta]	< Sp. cuenta 'account'
35. sa <sup>3</sup> ?m <sub>i</sub> <sup>2</sup>	ća <sup>2</sup> kue <sup>2</sup> nta <sup>24</sup>	'he does accounts, figures'
36. n <sub>i</sub> <sup>3</sup> ?ñ <sub>u</sub> <sup>1</sup>	kue <sup>1</sup> nta <sup>14</sup>	'you-do accounts, figure'
37. sa <sup>3</sup> ?m <sub>i</sub> <sup>2</sup>	ća <sup>2</sup> < Sp. depender	'he depends'

TABLE IV

## Recent Spanish loan words in CqM

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Loan words that are not verbs are pronounced more or less as in Spanish, but a final 'o' is usually still changed to 'u' as in example 32, and final consonants still tend to be dropped as in example 33, since all Mazatec syllables end with a vowel. Example 34 is a later reborrowing of the same word in example 29, borrowed much earlier. The earlier borrowing was fully assimilated, both

phonologically and syntactically, as described above. The second time around, however, it was not assimilated, either phonologically or syntactically. Notice that the stop is not voiced after the nasal consonant in 34 as it is in 29. It is not voiced in 35 or 36, either. In example 35 the loan word is not incorporated into the verb word as it is in 30. The pronoun intervenes. In 36, even though there is no pronoun to show that the loan word is not incorporated, as it is in 31, the lack of conjugation of the tones and the final vowel shows it. The changes from tones 3-34 to 2-24 to 1-14 follow automatic morpho-phonemic assimilation rules that are independent of grammatical tone patterns.

Loan words that are verbs, all fall into the pattern of sa<sup>3</sup>?m<sub>i</sub><sup>2</sup> 'does' plus a Spanish infinitive, as in example 37.

It seems that in the past, Spanish words were generally borrowed only when needed for an idea or object not covered by the CqM lexicon. More recently however, some Spanish words are being borrowed to cover one precise area of meaning of a CqM word which is very general and covers a wide area of meaning. Table V gives two examples of this.

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38. śku<sup>4</sup>s<sub>u</sub><sup>14</sup> 'thing, type, custom, photograph'  
 39. ko<sup>3</sup>sa<sup>34</sup> <Sp. cosa 'thing'  
 40. sua<sup>2</sup> 'gives'  
 41. sa<sup>3</sup>?m<sub>i</sub><sup>2</sup> ća<sup>2</sup> ?e<sup>2</sup>ntre<sup>2</sup>ga<sup>2</sup>du<sup>24</sup> <Sp. entregado 'he delivers'

TABLE V

Replacement of CqM words by Spanish loans

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Example 39 shows that the Spanish word cosa 'thing' is beginning to replace one of the meanings of example 38, even though 38 is still also used with the meaning of 'thing'. Example 40 shows the only CqM word for giving, which includes deliver, hand over, give up, bestow, grant, etc. Example 41 shows how a Spanish loan word is being used these days for the area of meaning of 'deliver, hand over'.

At the present time some Spanish words are beginning to compete with existing Mazatec words which cover the same area of meaning. In some speakers, it seems to be a stylistic device to alternate between the CqM word and the Spanish loan word in a given sequence of speech. This is especially true of verbs, as shown in example 37. Almost any Spanish infinitive can be dropped into that slot. I see this phenomenon growing in recent years.

I conclude that this unproductiveness of CqM word-forming processes is somehow a reflection of the general unproductiveness of the CqM culture. In particular, the material culture has been largely lost. All aspects of the distinctive dress are lost, from the cultivation of cotton, to the preparation and weaving of cloth, to the wearing of the traditional dress. Basket weaving, pottery making and most other former arts and crafts are no longer practiced. The material culture thus lost has been replaced by outside forms for the most part. Other aspects of the culture, however, have not changed quite as much. The language, the social organization, and the religion, for instance, have not been so drastically replaced as the material culture, although the religion has undergone extensive superficial changes. But the CqM culture no longer produces anything new from within. Everything new comes from the outside. Perhaps that is why the CqM language now no longer generates new words. All new items, all new ideas, are called by their Spanish names. All the CqM word-forming mechanisms are now unproductive.

## FOOTNOTE

<sup>1</sup> Further information on Chiquihuitlan Mazatec may be found in Carole Jamieson, SIL-Mexico Workpapers 1:1-8 and 2:85-107.