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Body Part Words in Copala Triqui and a Brief Spatial Sketch

Ann Weiner

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Introduction

This paper attempts to describe the spatial and prepositional system of Copala Triqui. This involves dissecting the syntax and semantics of prepositions and a discussion if they can accurately be described as prepositions. I argue that although there are nominal versions that describe body parts that are the same of many simple prepositions and parts of complex prepositions, they are actually separate words and different parts of speech.

I also consider the work done on the spatial categorization of other languages presented in a literature review followed by a practical application to the data I have collected. The goal of this section is to test the ideas of language universals presented by other authors and contribute to the growing database that compares how languages group their prepositions and locatives.

Copala Triqui is a Mixtecan language of the Oto-Manguean stock. It is spoken in Oaxaca, Mexico and has roughly 25,000 native speakers in Oaxaca and total of 30,000 including speakers in diasporas. Copala Triqui is also known as Triqui de San Juan Copala, named for San Juan, the town where it is spoken.¹

My data is all presented in the practical orthography developed by Babara Hollenbach:

<x> = [ʃ], <xr> = [ʂ] (retroflex alveopalatal sibilant), <ch> = [tʃ], <chr> = [tʂ], <c> (before front vowels) = [k], <qu> (before back vowels) = [k], <v> = [β], <'> = [ʔ], and <j> = [h].

¹ Preliminary data was gathered during the Fall 2009 Field Methods class at the University of Albany. The remainder of the data was gathered during meetings with a native Triqui speaker. Roman Vidal Lopez served as my only consultant and I would like to extend my most sincere thanks to him for all his hard work and dedication during the completion of this paper. I would also like to thank George Aaron Broadwell, Teresa Sarles, and Gillian Gay for their assistance in my understanding of the language.

Triqui has five basic tones: 1, 2, 3, 4, and 5 where 1 is the lowest and 5 is the highest. There are also the glides 13, 31, 32.

Copala Triqui is a head initial language and VSO is the preferred word order. It has a variant SVO word order that is frequently volunteered in the context of elicitations but there does not seem to be a great semantic difference between the two word orders.

Elicitation Methods

My elicitations were all done with one native speaker, Roman Vidal Lopez. Throughout our sessions I used a variety of different methods to obtain prepositional or spatial related verbal sentences from him. I first brought in various objects in order to ascertain how Triqui applies body part nouns to name various other objects. This data can be seen in section one in the body part nouns section. This information is useful when trying to judge what the prepositional value of a word used in such a context is.

The second set of elicitation data was acquired, with a few noted exceptions by asking for the translation of English sentences into Triqui. This was done to acquire a basic understanding of English equivalents of prepositions in Triqui, as well as a foundation in the lexicon and syntax of the language.

For the final portion I used pictures to see the most natural formation of spatial grammar for varying situations. These pictures were created and used to create a number of spatial grammar sketches by Stephen Levinson, Melissa Bowerman, et. al. A full scan of the pictures I use throughout this paper is included Appendix 1. I also use various individual pictures provided by Melissa Bowerman in order to identify relations between the ground and the source and how prepositions and spatial verbs account for the relationships. These pictures are included throughout the paper when applicable.

Body Part Nouns In Copola Triqui

Triqui has a set of body parts that are used for both nouns and prepositions. The nouns and their translations are listed below:

1. Human Body Parts:

riaan32	<i>face</i>
rlij3 riaan32	<i>eye</i>
tu'va3	<i>mouth</i>
nuj3 xree5	<i>ear</i>
tacuun5	<i>nose</i>
cuu5 yan'3	<i>teeth</i>
xraa5	<i>back</i>
catuun31	<i>waist</i>
x'nuu5	<i>sides</i>
rque3	<i>belly</i>
stuj5	<i>navel</i>
ru3cuua2	<i>chest</i>
xcoo5	<i>shoulder</i>
rque3 tzij1	<i>armpit</i>
ra'a3	<i>arm</i>
ston3	<i>finger</i>
tacoo5	<i>leg</i>
che'e4	<i>feet</i>
rej tiquii13	<i>buttocks</i>

Triqui also applies body part nouns to name the parts of animals and inanimate objects. The following figures show the names of parts of a stuffed cat, a toy car, a box, a bag, a jug and a pot.

Figure 1 . Body Parts of a Box

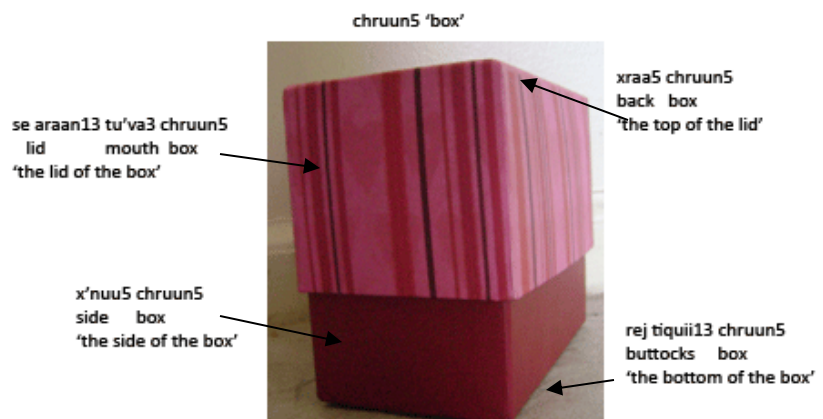


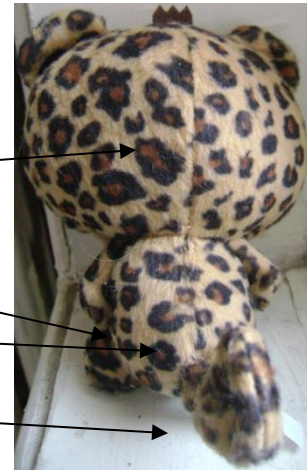
Figure 2. Body Parts of a Stuffed Cat



xree5 luu3 'cat's ear'
rlij3 riaan23 luu3 'cat's eye'
cuu5yave13 'head'
tacuun5 'nose'
cusin tu luu3 'cat's whiskers'
tanej tacanj luu3 'cat's arm'
stuj5 luu3 'cat's belly button'

pinto 'cat's spots'

luu3 'cat'



luu3
rque luu3 'cat's side'
xraa5 luu3 'cat's back'
tiquii13 luu3 'cat's butt'

Figure 3. Body Parts of a Pot



xree5 xruj 'pot's handle'

tu'va3 xruj 'lip of the pot'
rque3 xruj 'the inside of the pot'
x'nuu5 xruj 'the outside of the pot'

xruj 'pot'

Figure 4. Body Parts of a Toy Car

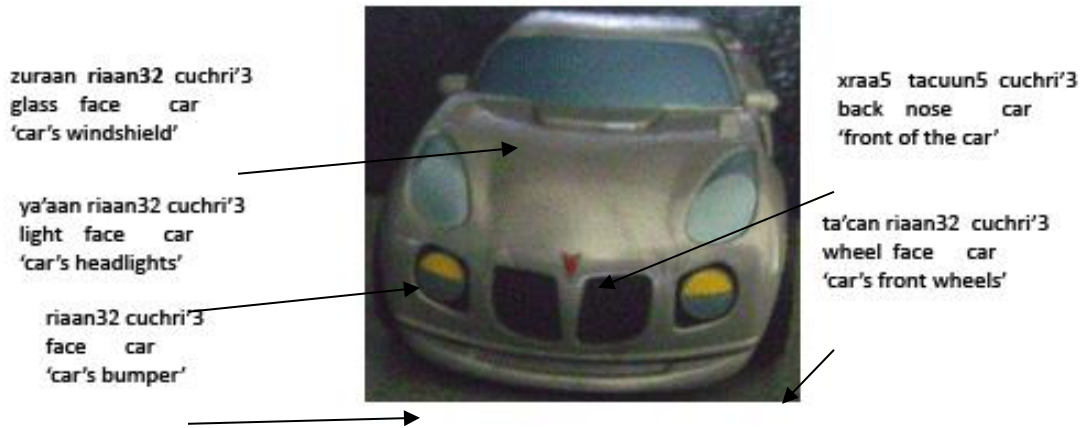
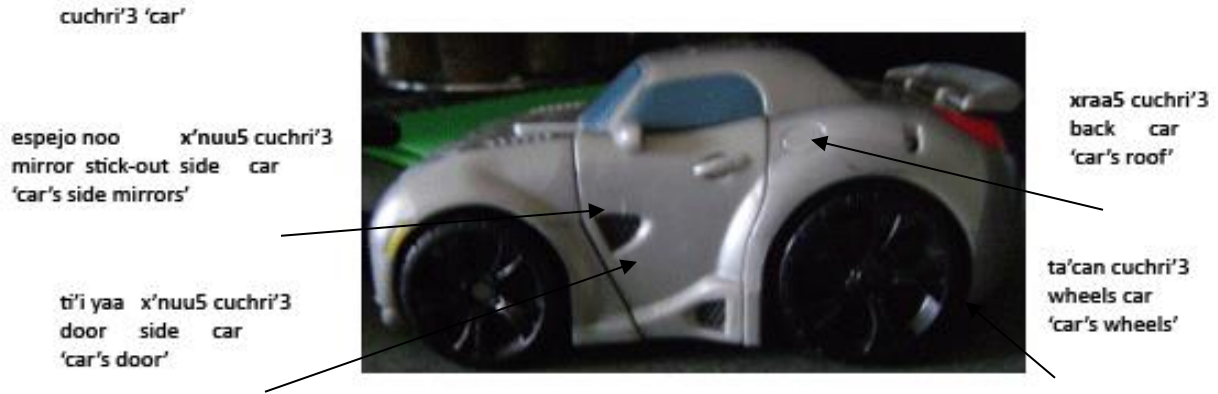


Figure 5. Body Parts of Jug

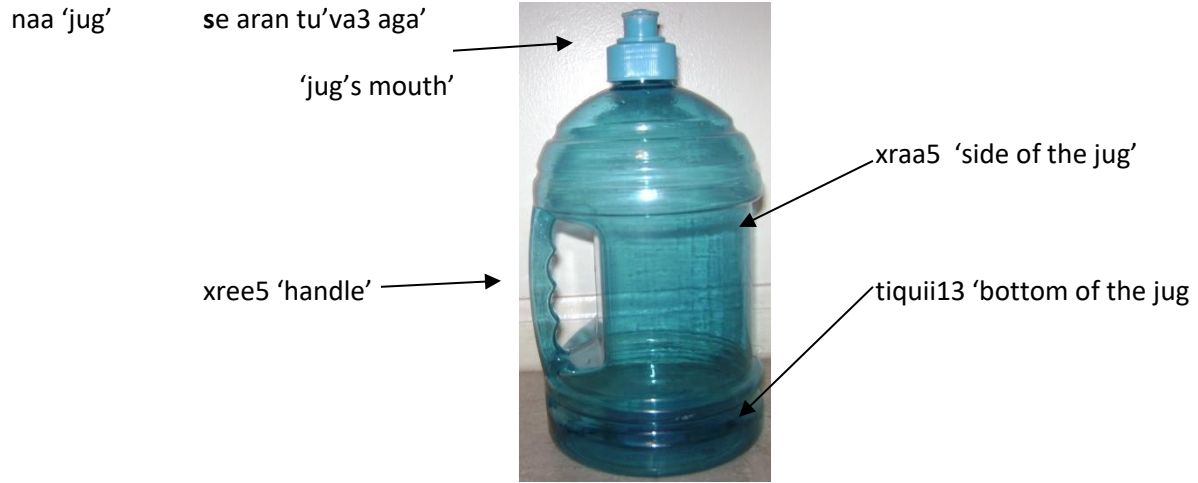


Figure 6. Body Parts of a Bag



As expected the body part names of a stuffed cat match their human equivalent with the exception of *luu3* 'cat' being added as a separate morpheme to clarify its non humanness. My

² This side is considered to be the front because it has a label. The other side (not pictured) is only the pattern.

consultant described the stuffed animal as if it were an actual cat, not a toy. However, as displayed in the other figures, Triqui also uses body parts to name the parts of inanimate objects that have absolutely no human characteristics. The most striking examples are that of the bag and the car where instead of creating new words or borrowing words for new materials, Trique applies body parts to that seem to match the usual placement of elements of the item.

In many cases the word *riaan32* 'face' is used to describe the front of items. *Xree5* 'ear' is commonly used for handles, some alternation of *tiquii13* 'buttocks' is used for the base or bottom of the item, *xraa5* 'shoulder' is used for the back, and *rque3* 'belly' is used to describe the area inside the object. These descriptions will prove important to a discussion of spatial discourse in Triqui and has implications for the use of prepositions.

Prepositions in Copala Triqui

1.1 Simple Prepositions

Triqui has a limited number of prepositions that do not have a nominal counterpart and have a literal English translation. However, these prepositions are fairly easy to elicit from our native speaker and appear in a variety of contexts. These are referred to as "simple prepositions" because unlike other prepositions found in Triqui, they are made up of only one word and have fairly static grammatical function.

They are: *gaa2* 'with', ³ *ni1ca'1* 'under', *xco4* 'beyond', *ndaa13* 'until', *scajnuj5* 'among', and *ra4* 'inside'⁴.

1. **ndaa13** tiquii13 naca naa nuuj32 ra vitzii
until bottom jug is lemon
`There is a lemon at the bottom of the jug`

2. va'nuj1 rmii32 xij1 **gaa2** ca'anj13 rmii32 cunii
three ball big with four ball small
`There are three big balls and four small balls`

3. xcuaa5 chee rej32 **xco4** xnuu chruun3
snake crawls place beyond big tree
`The snake is crawling beyond the tree`

4. xtuu32 naj3 **ni1ca'1** chruun3 xla4
mouse lay under chair
`The mouse is under the chair`

5. tucu3ya32 naj3 **scajnuj5** yaj32
rabbit lay among flower
`The rabbit is among the flowers`

1.2 Body Part Prepositions

³ *Gaa2* frequently appears as *ngaa2*. Our speaker unconsciously freely alternated between the two; however, when it was pointed out he regularly corrected himself to *gaa2*.

⁴ Hollenbach[DATE] notes this preposition but our speaker never volunteered it so there is no data to represent it in this paper.

For the remainder of prepositional contexts Triqui uses words that have been previously discussed as body part nouns but have the grammatical properties of prepositions. The validity of calling these words in these contexts prepositions will be discussed further below.

The following are examples of the most commonly used body part prepositions:

6. chruun3 taa5 **riaan32** mesa catziil
 stick is on face table white

'The stick is on the white table'

/riaan32/ has a variety of definitions and is the most commonly elicited body part preposition. In this context it means 'on'; however, it can also mean 'above', 'facing', 'to', 'for/in place of', 'against', 'before', and 'after' depending on the context. /riaan32/ is also found in a number of complex prepositions.

7. taa nij4 xruj3 **xraa5** **tacoo5** chruun3 nacool
 upside down pot over foot tree dry

'pot is upside down on the stump'

Both /xraa5/ and /tacoo5/ are also often used in prepositional or modifying contexts to create new words. In this example /xraa5/ means 'over' but it can also mean 'beyond'. /tacoo5/ is often used in a locative context to describe the base of something. In this context it is used in a productive way with 'tree' to create the word 'stump'. In an oblique context it often means 'at the foot of' or 'at the bottom of'. With these similarities in direct translation we can begin to see languages tend to use body parts to inanimate objects and often have more than just nominal referents.

8. lestene maree13 taa5 **tu'va3** scaa32
 ribbon red to be on in the mouth of basket
 'the red ribbon is in the basket'

/tu'va3/'s
 its main
 preposition
 inside



nominal counterpart is 'mouth' and this is also
 use as a preposition, 'in the mouth of'. This
 is used uniquely for when something is not fully
 another object. Another way to translate the
 meaning of this preposition is 'at the edge of'; however, this not always semantically accurate.

See the below figure:

Figure 7.

Compare /tu'va3/ with /rque3/ and Figure 8:

9. ichij2 yume32 nuu32 **rque3** scaa32
 seven yucca are in inside basket
 'there are seven yucca inside the basket'

/rque3/ means 'belly' as a noun and its only prepositional meanings are 'inside' or 'within'.

There is a slight difference from /rque3/ 'within' and /tu'va3/ 'in the mouth of'.

Figure 8.

10. 'unj nicun'3 ndaa13 **xcoo5** quij32
I stand until behind mountain

'I am at the bottom of the mountain'

This sentence was elicited in the context of a small mountain, which our speaker said was the only reason for using /xcoo5/. As seen above, /xcoo5/ also means shoulder, but is often used to mean 'behind' or 'over' depending on context.

Verbs with Prepositional Semantics

Many sentences that have the semantics of a preposition are constructed with only a verb, subject and object. The prepositional meaning seems to be built into some of these key verbs in Triqui. These are often but not always found when the speaker is asked to elicit a sentence

with the preposition at the end.

A
word



particularly interesting example of this sort is the /ni'3/. It does not exist in Babara Hollenbach's dictionary and seems to only exist in the context of

an item being held between two surfaces of the same object.

11. Nanj32 **ni'3** tu'va3 chii

Cigarette to be held between mouth man

'The cigarette is in the man's mouth'

12. Me3 ze3 **ni'3** snuj5 tu'maan31 zo'1 ga2?

What is held between between thighs your Q

'What are you holding between your thighs?'

13. Lape chroo **ni'3** xree5 scaa na

Pen is held between ear water jug

'The pen is being held in the water jug's handle.'

Note that the presence of this verb does not preclude the addition of a preposition, body part or otherwise. The use of this verb seems to be reserved for the act of clenching something between two parts.

Another example of this kind of verb is /taa5/ which means 'to be on'.

14. chii **taa5** xraa5 yaij3

man is on back rock

'The man on the rock'

Another prepositional verb that is compounded with a preposition is /nuun31/ which means 'is inside of' when compounded with /rque3/. Unlike the above verbs it is never seen in a sentence without /rque3/ although it does not always precede the preposition.

15. Chruun cunii3 **nuun31 rque3** ca3xrah'1
 Box small is inside of bag
 'The small box is inside the bag'

16. **rque3** xruj **nuun31** cuchri'3
 inside pot is inside car
 'The car is in the pot'

In the construction of sentence 16 it seems that with a change in word order /nuun31/ can be omitted:

17. nanj ituu31 cuchri'3 **rque3** xruj
 is lying face down car inside pot
 'the car is upside down in the pot'

Compounding of Verbs and Directionals

When used in certain contexts, some verbs seem to fuse with a directional adverb to become a compound verb. We separate this unique directional adverbs from the normal grammatical class adverb because their placement in the sentence is entirely different, suggesting that they are, in fact, a different part of speech. However, when discussing the individual word it is easiest to use the term "adverb" or "particle" because this is the closest nomenclature we have.

The two most relevant verbal particles that form compound verbs are /nicun'3/ 'below' and /ituu31/ 'face down'. They are necessary for qualifying the path of motion for many verbs, as well as the spatial location of subjects and objects.

18. Cuchruu31 **nanj** **ituu31**

Put is lying face down

'I laid the baby on its side'

I assume this phrase is some kind of cultural expression because the translation does not fully match the meaning. It seems as though there is some kind of semantics that are not fully understood, as opposed to:

19. **Nicun' 3** caya13 yuvii31

Up standing person

'The person is standing'

Here /nicun'3/ functions as a compound verb to create the meaning 'to stand'. /caya13/ is the only verb it typically compounds with; however, it is not bound to /caya13/ in that it also carries meaning when it is seen on its own.

20. **Nicun' 3** ne' ee2 [chruun3 varaa4] xnuun5 chruun3

Stand lean pole side tree

'the pole is leaning against the side of the tree'⁵

Note that in all of the given sentences the particle or adverb either functions as the main verb or is located within the verb phrase, either preceding or following the main verb. This location is central to the argument that they are in fact different parts of speech than the true adverbs that follow in the next section.

Adverbs

Besides the components of compound verbs discussed above there are also a limited number of directional adverbs that can be elicited in fairly frequent regularity. These adverbs are /xta'1/ 'above'

⁵ From: In Progress Triqui Dictionary: Albany Group

and /nij1/ 'down'. Their place in the sentence is different than the words discussed above in that they can be separated from the verb phrase. Sometimes we can see prepositions functioning in similar contexts, which matches more closely to the English translation of the sentences.

21. ni3'yaj2 unj1 xta'1
look I above
'I looked up'

Compare the use of the adverb in the above sentence with the preposition /ni1ca'1/ below:

22. ni3'yaj2 unj1 ni1ca'1
look I down
'I looked down.'

We can be sure that these are different parts of speech because an adverb can occur directly next a preposition in a slightly more complex sentence, as shown in the following two examples.

In both of these examples the preposition is obligatory and cannot be omitted from the sentence.

23. cuchruu31 nanj ituu31 nij1 maan32 ne'ej3
put upside down down there baby
'I laid the baby upside down'

24. ni3'yaj2 unj1 xta'1 raa31 chruun3
look I above top tree
'I looked up at the top of the tree'

25. ni3'yaj2 unj1 xta'1 riaan32 rasca'3
look I above face sky

`I looked up at the sky'

In contrast, when the adjunct to the verb is a preposition, it is omitted when there is another preposition present.

26. ni3'yaj2 unj1 riaan32 yo'oo5

look I face floor

`I looked down at the floor'

Note that /ni1ca'1/ has been omitted in this example.

Prepositional Phrases

Constituents of Prepositional Phrases

Prepositional phrases in Triqui consist of the preposition, or prepositions if it is a complex preposition, and the noun phrase. Compare the following examples for complex and simple prepositions in Triqui and their accompanying trees:

achraa5 chii3 taa5 xraa5 buroaj

Sings man on back donkey

'the man sings on the donkey'

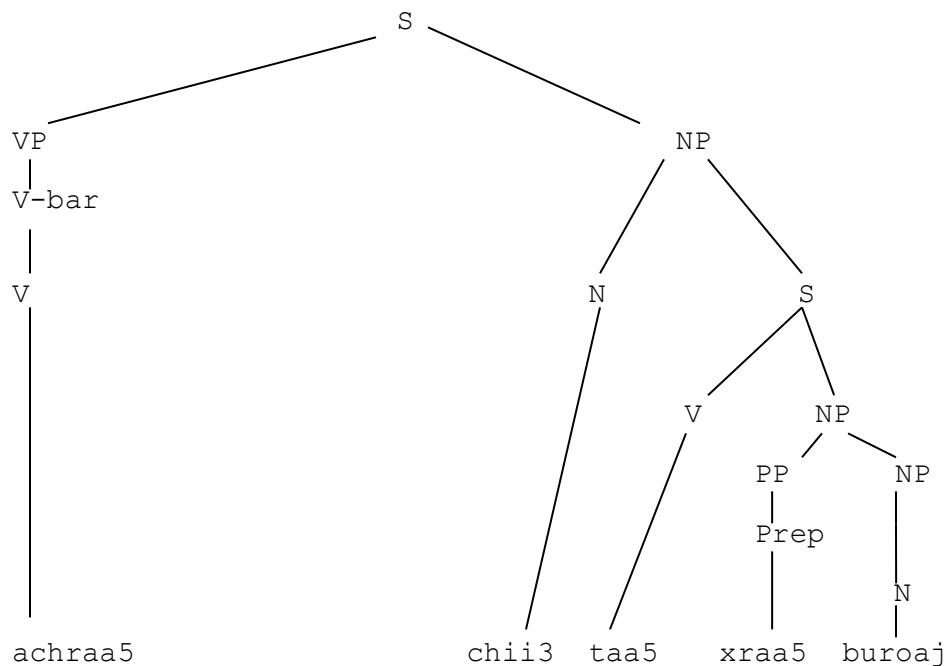


Figure 9. 'the man sings on the donkey'

Literally: 'the man who is on the back of the donkey sings'

27. [aran'3 raj4] xtaj32 [se nij3] sca'nuj4 nij3 xcuu3
 [I like] birds [within] among other animals
 'I like birds among other animals'

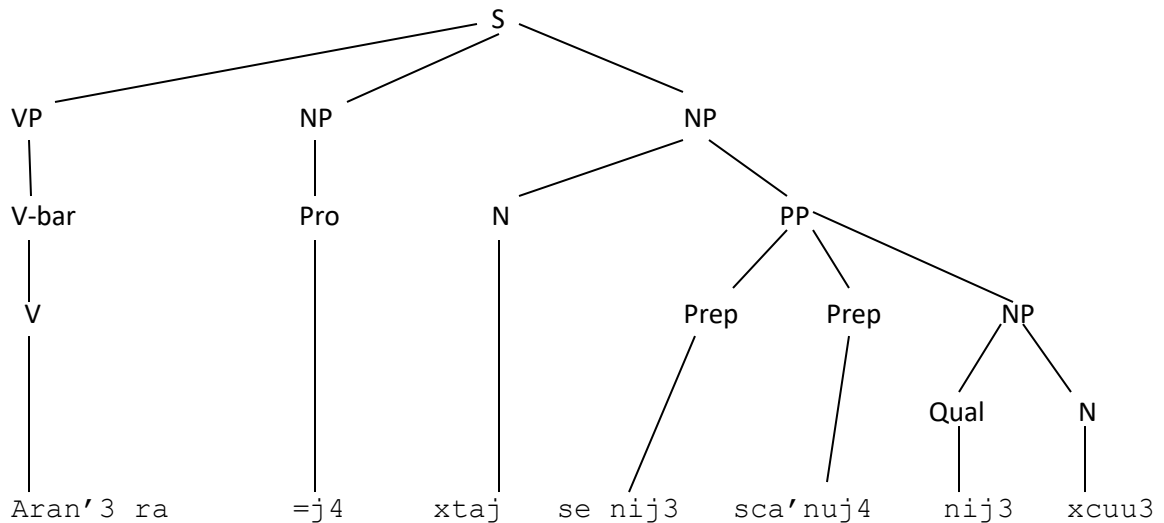


Figure 10. 'I like birds among other animals'

Although the prepositional phrases can be moved throughout the sentence as shown in the following section, the noun phrase must always remain behind the preposition(s) as is shown with examples of pied piping and fronting. No matter where the preposition is moved to in a phrase, the noun phrase always follows it, except in the case of stranding.

Placement in Sentences

Prepositional phrases can occur sentence initially, between the verb phrase and noun phrase when the sentence is in VSO order, and at the end of the sentence before the sentence final and question markers respectively, provided all constituents remain in the phrase whenever it is moved or created. The following examples display the different places of

prepositional phrases in canonical and question sentences in addition to the different forms of pied piping and stranding allowable in Triqui:

28.

a. tucu3ya32 naj5 sca'nuj4 yaj32

Rabbit lay among flowers

b. tucu3ya32 sca'nuj4 yaj32 naj5

rabbit among flowers lay

Preposition Movement

c. sca'nuj4 yaj32 tucu3ya32 naj5

among flowers rabbit lay

Preposition Fronting

29.

a. Me3 rej32 yaan5 chii3 ga2

WH PRO sit man Q

b. me3 rej32 riaan32 yaan5 chii3 ga2

WH PRO on sit man Q

Pied Piping with Inversion⁶

⁶ The addition of the preposition for PP w/ Inversion gave the question a more authoritative tone, as in a police officer trying to obtain information .

'What is the man sitting on?'

c. riaan32 chruun3 xla4 yaan5 chii3

On chair sit man

Preposition Fronting

'the man sits on the chair'

30.

a. ndaa13 gan'1 x'nuu5 luu3 naj5 caan3

until as far as side cat lay pumpkin

Preposition Fronting

b. luu3 naj5 ndaa13 gan'1 x'nuu5 caan3

cat lay until as far as side pumpkin

'The cat is beyond the pumpkin'

Whereas the following sentence where the prepositional phrase is before both the noun phrase and verb phrase in VSO order, is ungrammatical:

31. *me3 zuun ndaa13 gan'1 x'nuu5 naj5 luu3 ga2

WH PRO until as far as side lay cat Q

Pied Piping with Fronting

'What is the cat laying beyond?'

Nouns or Prepositions: An Investigation

As noted by Broadwell (2003) and as is shown by the following examples , it is not possible to strand nouns from their noun phrases. Because of the multitude of examples that show possible nouns in prepositional contexts (especially body part words, the most contentious form of preposition) as fronted in the sentence or stranded, we feel it is safe to assert that the words we have presented do in fact function as prepositions. This reinforces Broadwell's (2003) findings that there are prepositions in the Triqui language and that stranding is the base test for establishing what is a preposition and what may just be a noun or verb. This also correlates with what has been proven in Zapotec, another Oto-Manguen language that uses body parts prepositions that are in a different semantic class than their nominal counterparts. The following are some more examples of movement of prepositional phrases in Triqui:

32. me3 sca'nuj4 naj5 tucu3ya32 ga2
WH among lay rabbit Q

Pied Piping with Inversion

'what is the rabbit laying among?'

33.

- a. tucu3ya32 naj5 sca'nuj4 yaj32
Rabbit lay among flowers
- b. tucu3ya32 sca'nuj4 yaj32 naj5
rabbit among flowers lay

Preposition Movement

c. sca'nuj4 yaj32 tucu3ya32 naj5
 among flowers rabbit lay

Preposition Fronting

34.

a. Me3 rej32 yaan5 chii3 ga2
 WH PRO sit man Q

b. me3 rej32 riaan32 yaan5 chii3 ga2
 WH PRO on sit man Q

Pied Piping with Inversion⁷

'What is the man sitting on?'

c. riaan32 chruun3 xla4 yaan5 chii3
 On chair sit man

Preposition Fronting

'the man sits on the chair'

35.

a. me3 zuun naj5 luu3 ndaa13 gan'1 x'nuu5 ga2
 WH PRO lay cat until as far as side Q

Preposition Stranding

⁷ The addition of the preposition for PP w/ Inversion gave the question a more authoritative tone, as in a police officer trying to obtain information .

b. me3 zuun ndaa13 gan'1 x'nuu5 luu3 naj5 ga2
 WH PRO until as far as side cat lay Q

Pied Piping with Inversion

'What is the cat laying beyond?'

36. me3 zuun naj5 ndaa13 gan'1 x'nuu5 luu3 ga
 WH PRO lay until as far as side cat Q

Preposition Stranding

'What lies beyond the cat?'

Example 33 shows that words whose part of speech is clearly prepositions (lacking alternate meanings as nouns) can be moved and fronted. This is followed up by Examples 35 and 36 which clearly displays that the word /x'nuu5/ is functioning as the same part speech since its grammatical properties in this context also allows movement. Broadwell (DATE) states that a possessed noun would not allow similar fronting using the following ungrammatical example:

37. me3 ze3 tacvii tinuu5 xcuaa5?
 WH N kill brother snake
 'Whose brother killed the snake?'

However, a further investigation of this elicited contradictory results. First we elicited a simple sentence to build up to an attempt to strand a possessed noun.

38. [xcuu3 tacanj3] xta' xraa5 Juan4
 wasp bite back Juan

'The wasp bit John's back.'

We followed up by asking the question that would result in this statement and then tried to strand the possessed noun, which we expected our consultant to tell us would be ungrammatical sentence.

However, he provided both of the following sentences as grammatical utterances.

39. me3 ze3 xraa5 xta' [xcuu3 tacanj3] ga2
WH N back bite wasp Q

40. me3 ze3 xta'1 [xcuu3 tacanj3] xraa5 ga2
WH N bite wasp back Q

'Whose back did the wasp bite?'

One further attempt to strand a body part word functioning as a noun was also successful.

41. xraa5 unj1 cano' riaan32 chraan3
back my touch face wall

'My back touched the wall'

42.

a. me3 ze3 xraa5 cano' riaan32 chraan3 ga2
WH N back touch face wall Q

b. me3 ze3 cano' xraa5 riaan32 chraan3 ga2
WH N touch back face wall Q

'Whose back touched the wall?'

However, this last example still has some enlightening characteristics. As we saw earlier in the adverbs section with Example26, two prepositions cannot be next to each other in a sentence. In part b of

Example 42 the fact that the two body part words are located directly next to in the sentence tells us that they clearly cannot be the same part of speech.

Attempts to conjoin prepositions to prove constituency were met with unexpected results. Certain prepositions must go before others in the sentence; attempts to switch the two prepositions often yielded ungrammatical sentences, perhaps because of the presence of compound prepositions in one or more of the clauses. Often Triqui does not even tolerate the attempt to place two prepositions in the same sentence. Example 26 was elicited when attempting to ask for the sentence ‘The snake is laying beyond and underneath the car.’ However, as the data shows, using two prepositions in this context is not preferable, at least to the native speaker that I attempted to ask. Instead he volunteered the sentence with a combination of a locative verb and a preposition. Further attempts to construct this sentence yielded two prepositions, as shown in part c; however not the prepositions that were originally given in the translation.

43.

a. rej32 nicun'3 cuchri'3 naj5 xcuaa5 nilca1'
 place standing car lay snake under

b. rej32 nicun'3 cuchri'3 naj5 nilca1' xcuaa5
 place standing car lay under snake

c. xcuaa5 naj5 riaan32 yo'oo5 rej32 nilca1'
 snake lay on floor place under

cuchri'3

car

d. *xcuaa5 rej32 nilca1' cuchri'3 naj5 riaan32
 snake place under car lay on
 yo'oo5
 floor

'The snake is under the place where the car is.'

When asked to translate the sentence that he had given, the speaker gave the above gloss.

44.

a. xnuu chruun3 rej32 nicun'3 cuchri'3 naj5 xcuaa5 nilca1'
 big tree place standing car lay snake under

b. xcuaa5 chee rej32 xco4 xnuu chruun3
 snake crawls place beyond big tree

c. xcuaa5 naj5 nica' rej32 cuchri'3 rej32 nicun'3 chruun3
 snake lay under place car place stand tree

d. rej32 nicun'3 chruun3 nicun'3 cuchri'3 rej32 nilca1'
 place stand tree stand car place under
 naj5 xcuaa5
 lay snake

e. *rej32 nicun'3 cuchri'3 rej32 nilca1' naj5 rej32
 place stand car place under lay place
 nicun'3 chruun3 xcuaa5

stand tree snake

f. *xcuaa5 chee xnuu chruun3 rej32 nilca1' cuchri'3
snake crawl big tree place under car

g. *xcuaa5 naj5 rej32 nicun'3 chruun3 nilca1' rej32
snake lay place stand tree under place
cuchri'3
car

'The snake is under the car at the foot of the tree.'

This example shows the speaker's reluctance to use the two prepositions in the same sentence as we also saw in the adverbs section. Without the 'under the car' aspect, this sentence is normally given with body part /taco5/ instead of the locative verb /naj5/. It is unclear if this is a semantic restriction or an aspect of the grammar of prepositions in this language.

28. a. ne'ej3 nicun'3 x'nuu5 [chruun3 mesa] ngaa2 [chruun3 xla4]
baby stands side table with chair

b. ne'ej3 nicun'3 sca'nuj5 [chruun3 mesa]gaa2 [chruun3 xla4]
baby stand between table with chair

c. *ne'ej3 nicun'3 [chruun3 xla4] ngaa2 x'nuu5[chruun2 mesa]
baby stand chair with side table

'The baby stands under the chair at the foot of the table'

This example shows another example conjoining traditional prepositions and body part prepositions. This attempt was successful in obtaining a sentence with multiple prepositions; however, movement of the two phrases was difficult, if not impossible. Although the goal of this exercise was the conjoining and movement of prepositions, another test of constituency was more successfully achieved. In a, the word /x'nuu5/ is clearly used as a preposition, not as a nominal spatial marker, because in the following example b, it is replaced by /sca'nuj5/, a traditional prepositional with no disputed characteristics.

Thus, although a bit conflated, this section furthers the proof that body part nouns and body part prepositions belong to two entirely different parts of speech with different semantic and grammatical properties. However, it also raises more questions about the structure of prepositional phrases and sentences in Triqui. An unclear aspect of these structures is the number of acceptable constituents of each grammatical type and the possible semantics behind certain locative verbs and prepositions that presupposes their supplementation for each other in the context of different sentence structures. The new data that section provides shows that noun versus preposition stranding is not always a clear indicator of the part of speech that the constituent belongs to. However, we can see that the number of constituents from the same grammatical class that can stand next to each other in a sentence seems to play a major role in distinguishing parts of speech of controversial words in Triqui, with further research needed to solidify the argument that body part locatives are in fact prepositions and grammatically different from their nominal counterparts.

We will continue to operate under the assumption that they are in fact prepositions based on the wavering proof we have and the lack of prove to the contrary and move on to a very brief sketch of the spatial grammar of Triqui, with a primary focus on its frame of reference, typology, and locative verbs.

PART TWO: A Discussion of Language Spatial Classes and Triqui

A Review of the Literature

This portion of this paper is dedicated to the attempted discovery of language universals and how Triqui fits in with how other languages that have already been documented use spatial terms and prepositions. This begins with a review of already published literature, the language it categorizes, and how the authors devise such categorizations.

The authors of the current thought all insist upon one commonality: Westernism has plagued the previous model of spatial thought and much that we assume to be universals of language is not (Levinson, 2003). These facets were assumed to be encoded in specific parts of speech, but the research is showing that is actually distributed throughout the clause in ways that represent the individual language's outlook on spatial modality (Levinson & Wilkins 2006). Although languages do not have a broad universal semantic code on matching levels of specificity, that all seem to have conceptual domains on a natural cleavage suggests that some kind of universal pragmatic principles are in play (Levinson & Wilkins 2006). Instead of continuing to rely on these base assumptions, they suggest a reevaluation is needed on how we think of spatial language and that linguistics and anthropologists begin to treat it as the unique subset of grammar that it truly is.

Typology

Typology is the domain of space that governs many notions that are typically expressed with some kind of adposition, in the case of Triqui, prepositions. This is claimed to be the first notion that is grasped at childhood (Levinson, 1996). This area of spatial grammar is of particular interest for us

because “body parts are a frequent source for such close-classed items (positions) and it has been claimed that this mapping of body to world is an essentially metaphorical process...(Levinson, 1996, pp. 364)” If such a statement is true, then each language’s metaphorical process should be at least partially unique and subject to rigorous examination in order to identify its private universals. The key adpositions that the topological domain encompasses is ‘near’, ‘at’, ‘between’, and ‘in’. This proves interesting for Triqui, as some of these are symbolized by body part prepositions and some by separate, simple prepositions that have no nominal homonyms.

The typological dichotomy consists of a dissection of the following components: the figure (i.e. the thing moving or to be located), the ground (i.e. the specifying source, the goal of motion, or both), the path (i.e. the trajectory of motion), the manner of motion, and the predicated event itself (Levinson & Wilkins, 2006). We will be most concerned with how Triqui identifies the figure in regard to the ground, which it does with a mixture of prepositions and/or locative verbs .

Languages are also distinguished between those that are verb-framed or satellite-framed. Verb framed languages package the path with the verb. Prepositions are normally an element of the verb and are inherently included in the singular verbal word, not as separate words within the verb phrase. This framing leaves the motion to an additional clause or gerund. Languages that leave the path to be expressed via particles or other forms of dependent words in the verb phrase are known as satellite languages (Levinson & Wilkins 2006).

Languages that integrate both functions normally chose a characteristic mode of expression.

Triqui is one such language that uses both verb- framed and a satellite- framed methods to articulate typology. However, for the most part Triqui is a satellite-framed language, especially when one takes into the account the number of spatial verbs that compound with other verbs, adverbs, or prepositions in order to specify typology.

Frames of Reference

The three main categories for how a language qualifies space are: the intrinsic frame of reference, the relative frame of reference, and the absolute frame of reference. English has a mixture of an intrinsic and relative system, heavy on the relative frame. Many languages employ a mixture of two of the frames of reference, with only a fraction utilizing all three (Levinson & Wilkins, 2006). Rarely, but possibly languages may belong to entirely separate class that employs no coordinate system at all to give an objects location in regard to an established “ground”. This class avoids angular specification of any sort and instead uses prototype deixis, using simple prepositions to describe unique situations; contiguity, which uses typographical relations; or the language may rely fully on already named locations. However, Triqui does not belong to this class of language so we will instead focus on the different frames of reference that it may, and does, employ.

The intrinsic frame of reference specifies an angle by naming a facet of the round and indicates that the figure lies on an axis extended from that facet (Levinson & Wilkins, 2006). In this frame the object is located with respect to inherent features of the ground object. The nomenclature for this term has come under scrutiny as of late because, arguably, everything that can be defined as “intrinsic” or “inherent” is actually culturally imposed, in example the front of a television is said to be intrinsic; however, it is only because as a cultural, we have assigned the part of the television that we watch as the front. The relative frame of reference specifies an angle using the viewer’s bodily coordinates and is useful when objects lack so-called natural intrinsic facets and for horizontal discrimination. This frame of reference is also called the deictic frame of reference because it has a ternary level relationship as opposed to the binary relationship of the intrinsic frame. Studies claim that it is harder for children to grasp this frame of reference than an intrinsic frame, where they can readily assign parts such as fronts and backs of objects based on intuition at very early ages (Levinson, 1996). Absolute frames of

reference specify angles using a fixed bearing independent from the scene, normally a direction from the ground or landmark (Levinson & Wilkins, 2006). Cardinal directions are often employed as a means of directing the listener to the spatial coordinates of the object. Many systems take their terminology from local landmark features that are actually fully abstracted. This frame of reference is special in that it allows specifications of direction without any reference to the ground.

Triqui is the embodiment of a language with a primarily intrinsic frame of reference. It has a system that gives inherent body parts to most inanimate objects, far beyond the scope of Western languages. At times a speaker may use a relative frame of reference, however, many prepositions used to specify these frames also have an equivalent of a body part noun, as we have already examined in detail in the previous section.

System of Hierarchy

Based on an established system of hierarchy it is predictable when languages are most likely to use a basic locative construction. The following descriptions are ordered from most to least likely to utilize this construction:

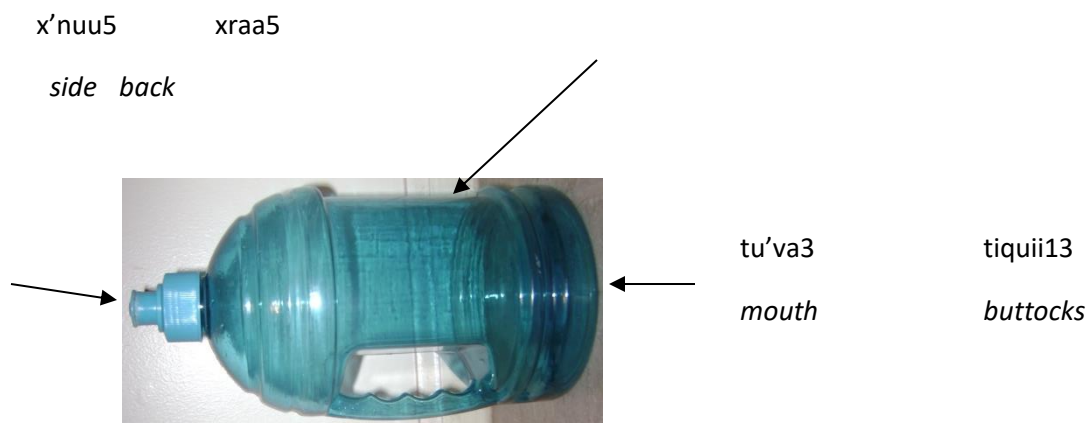
1. Figure is an inanimate movable entity in contiguity with the ground
2. Figure is adornment or clothing
3. Figure is a part of the whole or ground
4. Figure is some kind of “damage” or negative space in the ground
5. Figure is stuck to the ground
6. Figure is impaled by the ground

In Appendix A a chart that of pictures that is commonly used by linguistics to construct spatial grammars (it is also the one that was used to construct the above sequence of hierarchy) can be found

that was used to observe how Triqui uses basic locative constructions. Perhaps surprisingly, Triqui appears to be more simple than the languages previously used by those positing this spatial hierarchy as each of these this pictures uses either basic verb or basic preposition to justify the source in relation to the ground. Even though Triqui often uses complex constructions, either compound prepositions, compound verbs, or adverb and verb duals to create complex locative devices; however, these pictures all resulted in basic locative constructions. The most complex construction that was elicited from these pictures was a locative verb with a prepositional body part, normally a verb plus the preposition /riaan32/. This occurred normally when the figure was stuck to the ground, but not when the figure was impaled by the ground, in contrast to the prediction made by the authors of the hierarchy.

We saw in the previous section Figure 5 identifying the various parts of a water jug in Triqui body part terms. However, we can now append this figure in order to further a discussion on the spatial geometry of Copala Triqui. Languages that use object-centered geometry will change the names of the parts of an object when it is turned in order to match the speaker's point of view. In this case the mouth of the jug would become the side and the sides would become the top and bottom respectively. However, languages that use fixed armatures keep the same body parts no matter where they are in space in relation to the speaker (Bloom, 1996).

Figure 6 B



As can be seen by the figure, Triqui follows what appears to be a primarily fixed armature system, where most of the body parts of an object remain no matter how the object is positioned. However, there seems to be some elements of an object-centered geometry, in that the side that now faces up is labeled the 'back', the typical spatial name for the part of an object that is most upwards of an object in regards to the speaker.

Triqui is also in contention with other elements of language philosophy, furthering the argument that there are perhaps no universals for spatial language. Pederson, et. al (1998) assert that many languages with similar properties to Triqui in regard to typology and frame of reference may identify a top and bottom of a sphere and cube; however, in Triqui it is only possible to label the top and bottom of a cube as /xraa5/ 'back' for the top and /tiquii13/ 'buttocks' for the bottom, but a cube may only have /x'nuu5/ 'sides' and no top or bottom. This is consistent with all of our earlier results indicating that there is no real way to predict how a language will categorize items or space by only examining one realm of spatial discourse.

Conclusion

Copala Triqui has a complex and unpredictable spatial structure that often requires the use of multiple prepositions, multiple verbs, and/or adverbs. I have demonstrated the location of each of these parts of speech within the sentences and phrases and shown with what other parts of speech they can co-occur. I have detailed the body part system used in Triqui and touched upon the debate of separating the nouns and prepositions that use body part words into separate grammatical classes but have fallen

short of providing a reliable test to check the class of every word. However, substantial data has provided that indicates that body part prepositions do indeed function differently from their nominal counterparts. Finally, I have concluded with an overview of Triqui's spatial grammar and detailed it's frame of reference and typology, as well as provided anecdotes about other unique spatial properties and hierarchies. Hopefully in future research more can be examined about the difference between prepositions and nouns and the necessary and optional constituents of prepositional phrases.

Works Cited

- Bloom, Paul. *Language and Space*. Cambridge, Mass.: MIT, 1996. Print.
- Broadwell, George A. (2003). "Optimal order and pied-piping with inversion in Copala Trique"
(Available at <http://www.albany.edu/anthro/fac/broadwell.htm>)
- Hollenbach, Barbara. 1992. A syntactic sketch of Copala Trique. in C. Henry Bradley and Barbara E. Hollenbach, eds. *Studies in the syntax of Mixtecan languages*, vol. 4, pp. 173-431. Dallas: Summer Institute of Linguistics.
- Levinson, Stephen C., and David Wilkins. *Grammars of Space: Explorations in Cognitive Diversity*. Cambridge, UK: Cambridge UP, 2006. Print.
- Levinson, Stephen C. *Space in Language and Cognition: Explorations in Cognitive Diversity*. Cambridge: Cambridge UP, 2003. Print.
- Pederson, Eric, David Wilkins, Stephen Levinson, Sotaro Kita, and Gunter Seft. "Semantic Typology and Spatial Conceptualization." *Language* Vol 74.3 (1998): 557-89. Web.
- SUNY Albany Group. In Progress Triqui Dictionary. Raw data. SUNY Albany, Albany.

Appendix 1

Figures used in elicitation for spatial categorization

From Grammars of Space by Levinson, et al.

