Resumptive pronouns in Colonial Valley Zapotec relative clauses

May Helena Plumb (UT Austin)
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1 Introduction

The Zapotec languages are a diverse group of Otomanguean languages spoken in Oaxaca, Mexico. Colonial Valley Zapotec (CVZ) refers to the Zapotec language attested in a set of documents written in the valleys of Oaxaca in the Mexican colonial period (1550–1810). These texts fall into two main groups: handwritten administrative documents (e.g. testaments) and printed books produced under the auspices of the Catholic church (see e.g. Cordova 1578a, 1578b; Ferri 1567).

Like many other Zapotec languages, CVZ is a non-pro-drop VSO language. Subject pronouns appear as clitics on the verb. T/A/M is obligatorily marked as a prefix on the verb. Modern Zapotec languages have phonetic tone, phonation, and fortis/lenis contrasts, but these features are mainly underspecified in the CVZ orthography, which is generally irregular.

Foreman & Munro 2007 described resumptive pronouns on subject- and object-headed relative clauses. However, in the 10 years since their research, the analyzed CVZ corpus has grown significantly. It is worth re-examining their analysis based on new data, and in particular the expansion of the corpus has allowed for a more detailed description of resumptive pronouns in subject-headed RCs.

1 I'm grateful to Tony Woodbury and Ambrocio Gutiérrez, and the rest of the UT Linguistics documentation and description research seminar, for their comments on this presentation. I'd also like to thank Brook Danielle Lillehaugen for her ongoing role in supporting my research on CVZ. Preliminary analyses of the data in this paper were taken from the CVZ FieldWorks Language Explorer database (see Broadwell & Lillehaugen to appear). However the glosses represent my current understanding of CVZ morphosyntax, and all errors are my own.

2 The baseline of glosses for CVZ data represents the original orthography used in each document. See Smith & Stark 2003 and Broadwell 2015 for discussion of CVZ orthography and phonology.

Figure 1: Classification of Zapotec languages (see Campbell 2011, Broadwell & Lillehaugen to appear).

2 Relative clauses in CVZ

Relative clauses in CVZ appear after the NP they modify and are marked with a relativizer ni. Foreman & Munro 2007 identified both subject- and object-headed RCs in CVZ; genitive-headed RCs are also attested in the current corpus.

3 I use the following abbreviations in glosses: 1, first person; 2, second person; 3, third person; ANAP, anaphoric; COMP, completive; CAUS, causative; DEM, demonstrative; HAB, habitual; h/p, habitual/progressive; INV, invisible; PERF, perfective; PL, plural; POSS, possessive; PROX, proximate; REL, relativizer; SG, singular; ST, stative. On MacZ pronouns: D, dative; N, nominative; A, accusative.
(1) a. Subject-headed
\(x\text{-}qudahuxi\text{ha}i=a\) [ni n-o\text{-}oo lachito=ya]
poss sin=1sg rel st\text{-}be\text{-}contained chest=1sg
‘my sins that are in my chest’ (Aguero-1:9)

b. Object-headed
nique [ni cu\text{-}llaana=lo]
3pl dem rel perf\text{-}steal=2sg
‘those things that you stole’ (Aguero-42:10)

c. Genitive-headed
benni que [ni pee\text{-}ca ñaa=lo
(person that)i rel perf\text{-}caus\text{-}take hand=2sg
\(x\text{-}pellalati=ni\)
poss body=3i
‘that person whose body you took with your hand’ (Aguero-31:4)
(lit. ‘that person that your hand took their body’)

In some subject-headed relative clauses, a resumptive pronoun appears on the verb, for example in (2).

(2) Subject-headed relative clause with a resumptive pronoun
Jesu christo xini Dios [ni Co-ti=ni
(Jesus Christ child God)i rel perf\text{-}die=3i
Lani cruz]
stomach/in cross
‘Jesus Christ, son of God, who died on the cross’ (Al697-3)

In my current set of 102 analyzed subject-headed RCs, 49 (48%) have a resumptive pronoun and 63 do not. Both of the genitive-headed relative clauses I have so far identified also make use of a resumptive pronoun (e.g. (1c)). However, in a set of 54 object-headed RCs, none use a resumptive pronoun. Here I interpret non-occurrence as ungrammaticality.

<table>
<thead>
<tr>
<th></th>
<th>Resumptive pronouns</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject-headed RCs</td>
<td>sometimes attested</td>
</tr>
<tr>
<td>(n=102, 49 RPs)</td>
<td></td>
</tr>
<tr>
<td>Object-headed RCs</td>
<td>never attested</td>
</tr>
<tr>
<td>(n=54)</td>
<td></td>
</tr>
<tr>
<td>Gentive-headed RCs</td>
<td>always attested</td>
</tr>
<tr>
<td>(n=2)</td>
<td></td>
</tr>
</tbody>
</table>

Table 1: Resumptive pronoun attestation in CVZ relative clauses

3 Comparing restrictive vs. non-restrictive relative clauses in CVZ

Further analysis of subject-headed relative clauses revealed that resumptive pronouns are preferred in non-restrictive RCs over restrictive RCs. Distribution of resumptive pronouns across restrictive and non-restrictive RCs is shown in Table 3.

(3) a. Restrictive relative clause (no resumptive pronoun)
toti [ni na-zaca xillani]
any rel st\text{-}be\text{-}good servant
‘any [people] that are good servants [...] they will be given eternal life’ (Feria-40v;1.3)

b. Non-restrictive relative clause (with resumptive pronoun)
na Maria de la Cruz nijchijo [nij n-aca=yaa
1sgi Maria de la Cruz Dionisio rel st\text{-}be=1sgi
xijnij chapa guetao Matias de la Cruz]
child young woman deceased Matias de la Cruz
‘I, María de la Cruz Dionisio, the child of the late Matías de la Cruz’ (lit. ‘I, María de la Cruz Dionisio, who I am the child of the late Matías de la Cruz’) (Co721-1;7–8)
Some specific notes: Determining whether a relative clause is restrictive or non-restrictive is obviously a little tricky. I only included in my counts here those relative clauses for which I felt certain about their status (hence the total count of 77 RCs in Table 3 as compared to the count of 102 subject-headed RCs in Table 1).

Notably, I did not count here any relative clauses headed by either dios ‘God’ or bitao ‘God/life spirit’, to avoid making claims about how any individual Zapotec person understood the Christian god they were referring to. Knowing that resumptive pronouns are preferred in NNRCs, we can investigate how these ‘God’-headed relative clauses pattern. These data are insufficient to support any strong conclusion (only 18 examples) There are some observable patterns, however we would expect different speakers to potentially pattern differently, and furthermore this data may be impacted by the formulaic nature of these clauses. This is a possible area of future research as the corpus grows.

Table 2: CVZ resumptive pronoun distribution in NRRCs vs. RRCs

<table>
<thead>
<tr>
<th></th>
<th>No resumptive pronoun</th>
<th>Resumptive pronoun</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-restrictive RCs</td>
<td>7 (25%)</td>
<td>22 (75%)</td>
</tr>
<tr>
<td>Restrictive RCs</td>
<td>36 (75%)</td>
<td>12 (25%)</td>
</tr>
</tbody>
</table>

Table 3: Resumptive pronouns in CVZ RCs modifying ‘god’

<table>
<thead>
<tr>
<th></th>
<th>No resumptive pronoun</th>
<th>Resumptive pronoun</th>
</tr>
</thead>
<tbody>
<tr>
<td>‘dios, truly bitao’</td>
<td>4 (100%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>dios</td>
<td>2 (14%)</td>
<td>12 (86%)</td>
</tr>
<tr>
<td>All</td>
<td>6 (33%)</td>
<td>12 (67%)</td>
</tr>
</tbody>
</table>

4 Resumptive pronoun typology

Keenan & Comrie (1977) argue that certain NP position are more accessible to relativization that others and posit the accessibility hierarchy in (4). They find that if the pronoun retention strategy of relativization is used with a particular NP position, it will also be used with all the lower positions (Keenan & Comrie 1977: 92).

(4) Accessibility Hierarchy (Keenan & Comrie 1977: 66)

Subject > Direct Object > Indirect Object > Oblique > Genitive > Object of Comparison

Keenan & Comrie also posit that any relativization strategy (e.g. resumptive pronouns) must apply to a continuous segment of the Accessibility Hierarchy (1977: 67). Additionally, Keenan & Comrie suggest that once resumptive pronouns are permitted for relativizing some position, they should also be permitted for all lower positions (1977: 92; Table 2). The CVZ data presented above is a counter-example to both of these propositions.

However, the dependence of resumptive pronouns on the restrictiveness of the RC is attested cross-linguistically. This tendency is also found, for example, in Brazilian Portuguese and Hebrew (Ariel 1999: 223). A related effect is found in English, where non-restrictive readings are only permitted with relative pronouns which encode some information about the head (e.g. who) and not with the relativizer that (a similar effect is also found in Polish, see Szczegielniak 2013).

Ariel (1999) motivates this tendency by arguing that resumptive pronouns are preferred over the gap strategy when the “degree of accessibility” of the head entity is low by the time the relativized position is reached. The degree of accessibility is based on many factors, for example the complexity of the head, the head category’s position on Keenan & Comrie’s accessibility hierarchy, and the restrictiveness of the relative clause, evaluated as whole. Ariel’s theory does not explain the ungrammaticality of resumptive object pronouns in CVZ, but further research in Zapotec resumptive pronouns should consider multiple accessibility factors.
5 Relative clauses (and resumptive pronouns) in modern Zapotec languages

5.1 San Lucas Quiavini Zapotec (Central, Valley)

Foreman & Munro (2007) describe relative clauses in San Lucas Quiavini Zapotec (SLQZ), a presumed descendant of CVZ. In SLQZ, resumptive pronouns are disallowed in subject- or object-headed RCs, even when they would prevent ambiguity.

(5) San Lucas Quiavini Zapotec

R–uhnybèe=nn bùnnny [nih gw–àa’ìzy Jwaany.]
HAB–know=1PL person REL PERF–hit Juan
‘We know the person who hit Juan’ / ‘We know the person who Juan hit’ (Foreman & Munro 2007: ex. 9)

(6) a. San Lucas Quiavini Zapotec

* R–uhnybèe=nn bùnnny [nih gw–àa’ìzy=ììng
HAB–know=1PL person REL PERF–hit=3SG.PROX
Jwaany.]
Juan
Intended: ‘We know the person who hit Juan’ (Foreman & Munro 2007: ex. 14a)

b. San Lucas Quiavini Zapotec

* R–uhnybèe=nn bùnnny [nih gw–àa’ìzy Jwaany
HAB–know=1PL person REL PERF–hit Juan
la’anning, ]
3SG.PROX
Intended: ‘We know the person who Juan hit’ (Foreman & Munro 2007: ex. 14b)

SLQZ requires resumptive pronouns in genitive-headed relative clauses.

5.2 (San Pablo) Macuiltianguis Zapotec (Northern)

Foreman & Munro (2007) also describe relative clauses in Macuiltianguis Zapotec (MacZ), a Northern Zapotec language. In MacZ, resumptive pronouns are optional in subject-headed RCs but disallowed in object-headed RCs.

(8) a. Macuiltianguis Zapotec

Nabìia’=ni=tè bèmmè’ nu’ guccu(=nà)
st.know=PREP=1SG.D person REL COMP.cut(=3N)
ittsa–ichá=ììh’.
hair–head=2SGG
‘I know the person who cut your hair’ (Foreman & Munro 2007: ex. 10)

b. Macuiltianguis Zapotec

Carru gu’o’ yanìguo’o Felipe=à(=*nà)
car REL COMP.buy Felipe=INV(=3A)
bitappa’=nà.
COMP.break=3N
‘The car that Felipe bought broke down.’ (Foreman & Munro 2007: ex. 11)

If the context is potentially ambiguous, a resumptive subject pronoun is required, avoiding the ambiguous sentences found in SLQZ.
(9) Macuiltianguis Zapotec

Beyù’ man begwia*(=nà) Felipe=á náyá’

man REL COMP see*(=3N) Felipe=1NV yesterday

naa=nà bêttsi’=yà’. st.be=3N brother.M.sg=1SGG

‘The man who saw Felipe yesterday is my brother’ (Foreman & Munro 2007: ex. 12)

Like SLQZ, MacZ also requires resumptive pronouns in genitive-headed relative clauses.

5.3 (San Juan) Atepec Zapotec (Northern)

Nellis & Nellis (1983) describe that in Atepec Zapotec, subject-headed relative clauses with a restrictive meaning (“una función especificativa”) appear without a resumptive pronoun, i.e. with the gap strategy (“El verbo de la oración de relativo suprime el pronombre dependiente que se refiere al antecedente”).

(10) a. Atepec Zapotec

Biria nûbeyu’ [nù bêt ti bécu’a’].

‘Salió el hombre que mató a ese perro.’ (Nellis & Nellis 1983: 365) (‘The man that killed that dog left.’)

b. Atepec Zapotec

bêt ti b bécu’a’.

‘mató él a ese perro.’ (Nellis & Nellis 1983: 365) (‘He killed that dog.’)

However, in a non-restrictive relative clause (“[que simple] información adicional sin calificar o determinar al sustantivo”) there is a resumptive pronoun.

(11) Atepec Zapotec

Bécu’ perro que mordió él a mí aquel mató

nûbeyu’a’ na.

hombre ese

‘Aquel perro que me mordió, ese hombre lo mató.’ (Nellis & Nellis 1983: 365)

(‘That dog, which bit me, that man killed it.’ or ‘That man killed that dog, which bit me.’)

Nellis & Nellis do not describe object-headed or genitive-headed relative clauses.

5.4 Summary

<table>
<thead>
<tr>
<th></th>
<th>Subject-headed</th>
<th>Object-headed</th>
<th>Genitive-headed</th>
</tr>
</thead>
<tbody>
<tr>
<td>CVZ</td>
<td>Optional, preferred in NRRCs</td>
<td>never attested (n=54)</td>
<td>always attested (n=2)</td>
</tr>
<tr>
<td>SLQZ</td>
<td>Ungrammatical</td>
<td>Ungrammatical</td>
<td>Obligatory</td>
</tr>
<tr>
<td>MacZ</td>
<td>Optional, obligatory in ambiguous contexts</td>
<td>Ungrammatical</td>
<td>Obligatory</td>
</tr>
<tr>
<td>AZ</td>
<td>Ungrammatical in RRCs, required in NRRCs</td>
<td>[no data]</td>
<td>[no data]</td>
</tr>
</tbody>
</table>

Table 4: Distribution of resumptive pronouns in different Zapotec languages

SLQZ is very typical of what we would expect based on Keenan & Comrie’s (1977) accessibility hierarchy: resumptive pronouns are required low on the hierarchy (genitive-headed RCs) but ungrammatical higher up (subject- and object-headed RCs).

CVZ and MacZ, on the other hand, are typologically unusual in several ways. Both languages allow resumptive subject pronouns, which Keenan & Comrie find is unusual cross-linguistically. Furthermore in both languages
resumptive pronouns are permitted along a non-continuous section of the proposed accessibility hierarchy (subject- and genitive-headed but not object-headed), which Keenan & Comrie claim to be impossible. As Foreman & Munro (2007) note, the presence of this typologically unusual system in both Central (CVZ) and Northern (MacZ and AZ) Zapotec languages motivates reconstruction of the system to Proto-(Core)-Zapotec.

Both CVZ and AZ prefer/require resumptive pronouns when the (subject-headed) relative clause is non-restrictive, a trend which is found cross-linguistically (Ariel 1999). As this tendency is attested in two branches of Core Zapotec (and as Ariel’s research suggests that restrictiveness is a prominent factor in resumptive pronoun use), future research on Zapotec relative clauses should consider restrictiveness and include studies of text corpora to examine both tendencies and absolutes.

6 Side note: Ambiguous sentences and Foreman & Munro’s SPC

Foreman & Munro (2007) propose the following constraint to explain why CVZ and MacZ allow resumptive subject pronouns, and in particular why they are required in MacZ when the sentence would otherwise be ambiguous:

(12) Subject Parsing Constraint (SPC) (Foreman & Munro 2007: ex. 23)
If an overt NP immediately follows the verb and satisfies the verb’s selectional restrictions for subject, parse it as the grammatical subject.

Foreman & Munro found no ambiguous RCs in their CVZ data from 2007. However, I have found one potentially ambiguous example, shown below, where the object NP lechelani ‘his spouse’ immediately follows the verb (with no resumptive subject-pronoun).

(13) beni niguio [ni ri-gapa] [ni
(person male) REL H/P-hit REL
ri-bibeloo lechel=ni ] [ni t-axe=ni
H/P-trash.face (spouse=3) REL H/P-pull.hair=3
quichaquique=ni| hair=3
‘a man that hits, that thrashes his spouse in the face, that he pulls her hair’ (Feria-64v:5.2)
CVZ Sources

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aguero</td>
<td>Aguero 1666 (Confessionario en la mesma lengua zapoteca)</td>
</tr>
<tr>
<td>Al697</td>
<td>1697 Testament from San Pedro el Alto (AGN, Tiererras, Leg. 310, Exp. 2, 62r–63r). Available online at <a href="https://ticha.haverford.edu/en/texts/Al697/">https://ticha.haverford.edu/en/texts/Al697/</a>. Originally analyzed by linguistics students at Haverford College (Fall 2013).</td>
</tr>
<tr>
<td>Feria</td>
<td>Feria 1567 (Doctrina cristiana en lengua castellana y zapoteca)</td>
</tr>
</tbody>
</table>

Table 5: CVZ documents referenced

References


