Language description and the lexicon: Verbs of wearing in two Oaxacan languages

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Abstract

Verbs of wearing show unusual linking properties in two languages of Oaxaca: San Dionisio Ocotepec Zapotec and Copala Triqui. Several distinct lexical types must be recognized, and their linking to grammatical relation is not predictable on general principles.

1. Two Oaxacan language documentation projects

Oaxaca is a state in southern Mexico with a rich variety of indigenous languages. I and my students at University at Albany have been engaged in language documentation projects on two of these languages since about 1998.

The two languages are San Dionisio Ocotepec Zapotec and Copala Triqui. San Dionisio Ocotepec Zapotec is a Zapotecan language spoken in Oaxaca, Mexico by about 2,000 people. It is spoken in the town of San Dionicio Ocotepec, which is 15-20 miles south of Tlacolula and 10-15 miles southwest of Mitla in the Central Valley of Oaxaca.

Copala Triqui is a Mixtecan language, spoken in the mountains of western Oaxaca, Mexico. There about 30,000 speakers in Oaxaca, Mexico (and in other parts of Mexico and the United States).

Zapotecan and Mixtecan languages are part of the larger Otomanguean stock, but Proto-Otomanguean has a time-depth of 4000-7000 years (Kaufman and Justeson 2009). Zapotec and Triqui languages are thus not very closely related to each other. They are also spoken in non-adjacent parts of Oaxaca, so similarities are probably due to influences of the language area, rather than direct contact or borrowing.

I thank the audience at HPSG 2014 for helpful comments and suggestion. I also thank speakers of San Dionisio Ocotepec (Luisa Martinez and Pedro Morales) and Copala Triqui (Román Vidal-López, Monica deJesus Ramírez, and others) for their patience and help in understanding their languages.

1 San Dionicio Ocotepec Zapotec (ISO 639-3 code: ztu) is written in a practical orthography, which is adapted from the practical orthographies for other Zapotec languages spoken in the Valley of Oaxaca. In this orthography, <x> = /ʃ/, <zh> = /ʒ/, <dx> = /dʒ/, <ch> = /tʃ/, and <qu> = /k/ before front vowels, <c> = /k/ elsewhere. <y> represents IPA /j/. Doubled vowels are long. SDZ is a language with four contrastive phonation types: breathy <Vh>, creaky <V′V>, checked <V′>, and plain <V>. High tone is marked with an acute accent, low with a grave.
2. Basic syntactic properties

Both of these languages are head initial, with Verb Subject Object order and prepositions.

(1) [ztu] Ù-cà' Juáñý bgúù lòò dù'ù
    com-put Juan knot to rope

    'Juan tied the rope'

(2) [trc] A’níí Mariá chraa rá yoó a.
    put Maria tortilla in straw:container decl

    'Maria puts the tortilla in the tenate (straw container).'

Both have the possessum before the possessor and both show a distinction between inalienable (3, 5) and alienable (4, 6) possession.

(3) [ztu] lòò Juáñý
    face Juan

    'Juan's face'

(4) [ztu] x-pè'cw Juáñý
    poss-dog Juan

    'Juan's dog'

²The orthography for Copala Triqui (ISO 639-3 code: trc) used in this paper is based on the practical orthography developed by Barbara and Bruce Hollenbach of the Summer Institute of Linguistics for their translation of the New Testament. I follow their usage in the representation of the consonants, including the following conventions: <x> = [ʃ], <xr> = [ʂ] (a retroflex alveopalatal sibilant), <ch> = [tʃ], <chr> = [ʈʂ], <c> = [k] (before front vowels), <qu> = [k] before back vowels, [v] = [β] and <j> = [h]. <Vn> represents a nasalized vowel. Triqui has five level tones (1, 2, 3, 4, 5) and three contour tones (13, 31, 32), as discussed in Hollenbach (1984), but this paper shows only the tonal marking of the popular orthography, which is detailed enough to show the relevant morphological distinctions of the language.

³One might compare them to languages in two different branches of Indo-European, such as German and Spanish.
Unlike Zapotec, Copala Triqui has case marking. An accusative particle \textit{man} is obligatory before pronominal objects and optional before other objects:

(7) \textit{Que-ne'e Mariá (man) Juán.}
\text{com-see Maria (acc) Juan.}

'Maria saw Juan.'

(8) \textit{Que-ne'e Mariá man so'.}
\text{com-see Maria (acc) 3msg.}

'Maria saw him.'

(9) \textit{*Que-ne'e Mariá so'.}
\text{com-see Maria 3msg.}

(Intended: 'Maria saw him. ')

3. Verbs of wearing and linking theory

Both Zapotec and Triqui have complex sets of verbs that are used to describe ‘wearing situations’. Different types of ‘clothing/adornment’ require different verbs:

(10) \textit{Cáá lèént lòò Màrii.}
\text{wear glasses face Maria}

'Maria is wearing glasses.'
Below I will demonstrate that in (10), lèènt 'glasses' is the subject of the sentences, while in (11), the wearer Juààny 'Juan' is the subject.

For San Dionisio Ocotépec Zapotec, there are five verbs of wearing.

<table>
<thead>
<tr>
<th>Verb</th>
<th>Subject</th>
<th>Object</th>
<th>Clothing/Adornment</th>
</tr>
</thead>
<tbody>
<tr>
<td>R-àjcw</td>
<td>wearer</td>
<td>clothing</td>
<td>shirts, dresses</td>
</tr>
<tr>
<td>Rr-cáá</td>
<td>clothing</td>
<td>poss'd body part</td>
<td>glasses, shoes, watches</td>
</tr>
<tr>
<td>R-áày</td>
<td>wearer</td>
<td>clothing</td>
<td>skirts, diapers</td>
</tr>
<tr>
<td>Rr-bè'cy</td>
<td>wearer</td>
<td>clothing</td>
<td>pants, underwear</td>
</tr>
<tr>
<td>N-ù'ú</td>
<td>clothing</td>
<td>poss'd body part</td>
<td>earrings, false teeth, wigs, stockings, belts, girdles, gloves, ribbons, hats</td>
</tr>
</tbody>
</table>

In order to discuss the two possible syntactic realizations of verbs in this group, I will introduce some terms to distinguish the types.

Zapotec verbs which make the wearer the subject of these verbs have a mapping like English. I will call these W-verbs (mnemonic for “wearer subject”). Verbs for wearing pants, underwear, skirts, shirts, diapers, and dresses show this mapping. The subcategorization for W-verbs is <wearer, clothing>. The body part is not explicit, but must be a large part of the trunk.

Zapotec verbs which make the clothing the subject have the reverse mapping from English. I will call these C-verbs (For “clothing subject”). Verbs for wearing items such as hats, shoes, belts, earrings, etc. show this mapping. The subcategorization for C-verbs is <clothing, <body part <wearer> >. Peripheral body parts use C-verbs, and this is also the case for clothing worn on the trunk that fails to cover all the trunk (belt, girdle).

The following table shows the five Zapotec verbs categorized by type.

<table>
<thead>
<tr>
<th>Verb</th>
<th>Type</th>
<th>Clothing/Adornment</th>
</tr>
</thead>
<tbody>
<tr>
<td>R-àjcw</td>
<td>W-verb</td>
<td>shirts, dresses</td>
</tr>
<tr>
<td>Rr-cáá</td>
<td>C-verb</td>
<td>glasses, shoes, watches</td>
</tr>
<tr>
<td>R-áày</td>
<td>W-verb</td>
<td>skirts, diapers</td>
</tr>
</tbody>
</table>
### Verb Type Clothing/Adornment

<table>
<thead>
<tr>
<th>Verb</th>
<th>Type</th>
<th>Clothing/Adornment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rr-bè'cy</td>
<td>W-verb</td>
<td>pants, underwear</td>
</tr>
<tr>
<td>N-ù'ú</td>
<td>C-verb</td>
<td>earrings, false teeth, wigs, etc.</td>
</tr>
</tbody>
</table>

#### 3.1. The linking problem for Zapotec

Many/most syntactic theories assume that the linking of arguments to grammatical relations is predictable given the semantics or semantic roles. E.g. Lexical Mapping theory in LFG (Bresnan and Kanerva 1989) or Proto-role entailments (Dowty 1991).

However, in what way are the semantic roles for ‘John’ different in the sentences like the following?
- ‘John is wearing pants’
- ‘John is wearing glasses’

For verbs of wearing, neither argument necessarily displays the semantic properties that have most frequently been cited as diagnostic-- e.g. volition, causation, incremental themes, or movement.

Since these general approaches to linking do not offer clear insight into these verbs, it seems more promising to pursue approaches that use more carefully structured accounts of lexical semantics, such as Simpler Syntax (Culicover & Jackendoff 2005) or some work in HPSG (Davis 2001).

#### 4. The syntax of wearing in San Dionisio Ocotepec Zapotec

##### 4.1. Subject properties in Zapotec

What is the evidence that for some verbs of wearing, the wearer is subject, while for others the clothing is the subject? First, Zapotec is a strictly VSO language so simple word order is an excellent diagnostic. VOS is never grammatical in Zapotec:

(12) *Cáá lèênt lòò Màriì.  
[ztu] wear glasses face Maria

'Maria is wearing glasses.'

(13)  
[ztu] *Cáá lòò Màriì lèênt.  
wear face Maria glasses
Zapotec also shows subject raising with negative predicates like ííty ‘not’ and cáády ‘still not’ (Broadwell 2012). Consider these C-verbs (clothing=subject):

(14) Ííty lèènt ní-càà lòò Mârìì.

*Maria didn't wear glasses.*

(15) Cáády lèènt ní-càà lòò Mârìì.

*Maria didn't wear glasses.*

Raising applies only to the subject; other objects of the verb cannot appear after negatives:

(16) *Ííty lòò Mârìì ní-càà lèènt .

(Intended: 'Maria didn't wear glasses.')

W-verbs have a VSO order which shows that the wearer is the subject:

(17) Bé’cy Juààny pàntlòòn

*Juan is wearing pants.*

The wearer subject of a W-verb may also undergo raising:

(18) Cáády Juààny gwé’cy pàntlòòn.

*Juan is still not wearing pants.*

The subject of a W-verb passes an additional subject test: ability to be an equi target:

(19) B-yè'là’z Juààny gwé’cy pàntlòòn

*Juan is wearing pants.*
'Juan forgot to wear pants.'

In contrast, C-verbs cannot undergo equi, since the subject of a matrix verb like 'forget' cannot be equal to the clothing which is the subject of its complement:

(20) *B-yè'là'z  Juààny  n-yà'ú  xhùmbrèl  ìicy
    [ztu]  com-forget  Juan  neg-wear  hat  head

'Juan forgot to wear pants.'

(21) *B-yè'là'z  ìicy  Juààny  n-yà'ú  xhùmbrèl
    [ztu]  com-forget  head  Juan  neg-wear  hat

'Juan forgot to wear pants.'

4.2. Causation and wearing in Zapotec

Because ‘wear’ represents a stative event, we might expect its mapping to be less predictable. ‘Put (clothing) on [SELF]’ might be expected to contain CAUSE and an agent in the semantics. Yet even in this case, the agent is not necessarily the subject.

My consultant reports that both C-verbs and W-verbs have another possible reading -- ‘put (clothes) on [SELF]’. The mapping is identical for this reading.

Consider the following examples:

(22) Ú-lè'cy  Juààny  pàntlòòn.
    [ztu]  perf-wear  Juan  pants

'Juan wore pants.' OR 'Juan put his pants on.'

(23) Cwáá  ìèènt  lòò  Màriì.
    [ztu]  perf:wear  glasses  face  Maria

‘To express a roughly equivalent meaning, speakers have to switch the complement verb to something like ‘pick up’ or ‘take’ which has the wearer as subject.

‘To get the ‘put on’ reading, it is necessary to shift the examples into an aspect, such as perfective, that is compatible with the eventive reading. ‘Wear’ readings typically have a verb in the stative aspect, which has either the prefix /n(i)-/ or is the bare stem of the verb.
'Maria wore glasses.' OR 'Maria put on her glasses.'

Thus even when the subject is agentive, as in (23), it is not the subject of a C-verb.

Although there is no morphology that differentiates the stative and eventive versions of these verbs, there are morphological causatives which refer to 'putting (clothing) on (another person)'. Distinct valence patterns are seen for W-verbs and C-verbs.

The causative of a C-verb is a ditransitive:

(24) Ù-càà doctòrr lèènt lòò Màrìì.
[zu] perf-put doctor glasses face Maria.

'The doctor put glasses on Maria.'

The causative of a transitive W-verb, however, is still a transitive. The 'wearer' must undergo 'possessor lowering':

(25) B-cwè'cy Juààny x-pàntlòòn xì'ny=nì'.
[zu] perf-put Juan poss-pants child=3ref

'Juan put pants on his child.'

(26) Ù-gwááy Màrìì x-fààld xì'ny=nì'.
[zu] perf-put Maria p-skirt child=3ref

'Maria put a skirt on his child.'

In these examples, xpàntlòòn xì'nynì' 'his child's pants' and xfààld xì'ny=nì' 'his child's skirt' are NP constituents, as shown by standard constituency tests.

(27) [Tùú x-pàntlòòn] b-cwè'cy Juààny.
[zu] who poss-pants perf-put Juan

'Who did Juan put pants on?' (Lit. 'Whose pants did Juan put?)'

In the causative of C-verbs, the NP of clothing/adornment and the possessed body part do not form a constituent. This can be seen by the inability of these two elements to undergo pied-piping in wh-questions.
The causative wearing verbs in Zapotec are shown in the following chart.\(^7\)

<table>
<thead>
<tr>
<th>Verb</th>
<th>Type</th>
<th>Subj</th>
<th>Obj</th>
<th>Second Obj</th>
<th>Clothing</th>
</tr>
</thead>
<tbody>
<tr>
<td>rr-gwàjcw</td>
<td>W-verb</td>
<td>Causer</td>
<td>Poss'd clothing</td>
<td>--</td>
<td>shirt, dress</td>
</tr>
<tr>
<td>rr-cwàá</td>
<td>C-verb</td>
<td>Causer</td>
<td>Clothing</td>
<td>Poss'd body part</td>
<td>glasses, etc</td>
</tr>
<tr>
<td>rr-gwàày</td>
<td>W-verb</td>
<td>Causer</td>
<td>Poss'd clothing</td>
<td>--</td>
<td>skirt, diaper</td>
</tr>
<tr>
<td>rr-cwè'cy</td>
<td>W-verb</td>
<td>Causer</td>
<td>Poss'd clothing</td>
<td>--</td>
<td>pants, underwear</td>
</tr>
<tr>
<td>r-gù'ú</td>
<td>C-verb</td>
<td>Causer</td>
<td>Clothing</td>
<td>Poss'd body part</td>
<td>earrings, etc</td>
</tr>
</tbody>
</table>

4.3. Tentative analysis of Zapotec wearing

Tentative analyses of the three W-verbs are shown below:

\(^7\)The morphological causative is expressed in a number of distinct ways in Zapotec, but for these verbs by a /gw-/ or /g-/ prefix or a /-w-/ infix.
Verbs of this type involve an implied body part (abdomen, legs, thighs) which is not expressed as an argument. We can call these body parts central; they serve as metonymies for the whole person.
BE-AT predicates are symmetrical, with Figure-Ground relations established by preferences like Person > Non-Person; More mobile > Less mobile. For these verbs, one argument qualifies as a Person, and is thus the Figure.⁸

In contrast, the C-verbs require expression of the body part, thus their ARG-ST shows three elements linked to the lexical semantics. I tentatively give them the following analyses:

For verbs where the body part must be explicit in the argument structure, the wearer is in an embedded structure in both CONTENT and ARG-ST. I have given the same structures for cáá and úúú, on the assumption that the subtle difference between them is probably a matter of selection.

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⁸I list the Figure before the Ground in the lexical decomposition.
4.4. Uses of these verbs outside wearing contexts

The three W-verbs of Zapotec are specialized for wearing various items, and don't have other uses. In contrast, the C-verbs are specialized uses of locational verbs that are used for other items as well:

*Rr-cáá* is used to describe the location of high or hanging objects, e.g. fruit on a tree. *N-ù'tù* is used as a general verb of existence when no more specific verb (sit, stand, hang, …) is appropriate.

The use of these verbs in wearing situations shares the semantics of BE-AT with other uses of these verbs.

5. Verbs of wearing in Copala Triqui

5.1. Types of wearing verbs in Copala Triqui

Copala Triqui is like San Dionisio Ocotépec Zapotec in having multiple verbs of wearing, but shows an even more complex system, with three types of wearing verbs.

In addition to the C-verb and W-verb types, there is a third type, which I label B-verb, in which the subject must be a possessed body part. Consider the following examples:

(30)  
\[\text{trc}] \quad 'nij \quad ra'a \quad Juán \quad nuj \quad guanté\]  
wear \quad hand \quad Juan \quad glove

'Juan is wearing gloves.'

(31)  
\[\text{trc}] \quad Nuu \quad rihaan \quad Juán \quad scurag\]n.  
wear \quad face \quad Juan \quad glass

'Juan is wearing glasses.'

The following table shows the four verbs used in wearing expressions in Copala Triqui:

<table>
<thead>
<tr>
<th>Verb</th>
<th>Type</th>
<th>Subj</th>
<th>Obj</th>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>'nij</td>
<td>B-verb</td>
<td>poss'd body part</td>
<td>clothing</td>
<td>shoes, gloves, sashes</td>
</tr>
<tr>
<td>nuu (1)</td>
<td>W-verb</td>
<td>wearer</td>
<td>clothing</td>
<td>shirt, huipil, pants, dress, underwear</td>
</tr>
<tr>
<td>nuu (2)</td>
<td>C-verb</td>
<td>clothing</td>
<td>poss'd body part</td>
<td>hat, mask</td>
</tr>
</tbody>
</table>
Copala Triqui has only one W-verb (wearer =subject), but it is used for a wide variety of clothing.

(32) \textit{Nuu Juán cotoó marçe.} [trc]  
wear Juan shirt red 

'Juan is wearing a red shirt.'

\textit{Nuu} thus covers the same range as three different Zapotec verbs.

In contrast to Zapotec, C-verbs are rather marginal in the Copala Triqui system. The only examples are \textit{táá} for something that sits on top of the head, but not in the usual 'hatlike' way. (Our speaker suggested a turban or cloth for this.) \textit{Nacutáj} is used for something that encircles a person like a diaper.

5.2. Three uses of \textit{nuu}

The verb \textit{nuu} is remarkable in Copala Triqui, in that it shows three different subcategorizations, depending on the type of clothing and body part. Example (32) above shows its use as a W-verb. However, C-verb and B-verb patterns are also found:

(33) \textit{Nuu nave raaju Juan}. [trc]  
wear hat head Juan 

'Juan is wearing a hat.' (C-verb)

(34) \textit{Nuu rihaan Juán scurgan}. [trc]  
wear face Juan glass 

'Juan is wearing gloves.' (B-verb)

It is surprising that 'hat' appears with the verb \textit{nuu} in both the C-verb and B-verb frames. Thus in addition to (33), it is also possible to say
'Juan is wearing a hat.' (B-verb)

This is currently the only verb in our lexicon that shows this kind of subject/object variety, and I do not have a good explanation of this variability.

5.3. Textual examples

'Wear' must be translated in several different ways in Copala Triqui, depending on the clothing and body part. For this reason, textual examples translated from European languages often show interesting alternations in verb choice. Consider the following:

\[(36)\ldots \text{nē νy̱ sō'} \text{ yatzīj } xca̱n \ , \ \text{nē 'nij} \text{ and wear 3mSg clothes long and wear catu̱n sō'} \text{ merquē caxra̱' ...} \text{catu̱n sō'} \text{ marquē caxra̱' waist 3mSg sash wide}\ldots\]

'...and he was dressed in a robe reaching down to his feet and with a golden sash around his chest.' (Rev 1:13)

Because the verbs for wearing a robe and wearing a sash are of different types, it is necessary to coordinate the two clauses here, and it is not possible to have a coordinated NP object.

5.4. Variable treatment of arguments and figure-ground geometry

Copala Triqui verbs of wearing are sensitive to the geometry of wearing verbs, so the grammar reflects clothing/adornment worn in an unusual way. Consider the three different ways in which wearing a crown may be expressed in the texts:
'When Jesus came out wearing the crown of thorns and the purple robe...' (John 19:5)
Lit. 'And then Jesus went out and his head wore a crown of thorns and he wore those good purple clothes.' B-verb

'...and it had ten crowns on the horns on its head.' (Rev 19:14)

'and they wore golden crowns.' (Rev 4:4) (B-verb)
Notice that in these examples, the choice of the appropriate verb is determined by the appropriate contact relationship between the wearer and the clothing/adornment. 'nij is appropriate in (38) because the crown is stuck into the skin. When the crowns are on the horns of a monster in (39), táá is the appropriate verb because the canonical contact relation between the crown and the skin does not hold. (I.e. the crown is above the head, not on it.) Nuu is the most normal verb for 'wear' with a crown in (40), but notice that it is a regular B-verb, in contrast to the (irregular) treatment of 'hat' seen in examples like (33) above where it is a C-verb.

5.5. Analysis of the Triqui verbs

For W-verbs in Copala Triqui, I use a structure very similar to that for Zapotec:

\[
\text{PHON: nuu} \\
\text{CAT: [HEAD verb] ARG-ST \langle NP: 1, NP: 2 \rangle} \\
\text{CONT: BE-IN \langle \text{BODY-OF}(X 1), Y 2 \rangle}
\]

This structure accounts for examples like (32) above. Triqui differs from Zapotec in having one general 'body-of' element, while Zapotec differentiates upper, lower, and middle body areas.

C-verbs also have an analysis similar to that for Zapotec. Consider the structure for táá below.

\[
\text{PHON: táá} \\
\text{CAT: [HEAD verb] ARG-ST \langle NP: 1, NP: 2 \langle SPR 3 \rangle \rangle} \\
\text{CONT: BE-ON \langle X 1, \langle \text{BODY-PART-OF}(Y 2, Z 3) \rangle \rangle}
\]
This structure accounts for examples like the following:

(41)  
\[ Táá tzej raa̱ Juán. \]

\[ \text{be: on cloth head Juan} \]

'Juan is wearing a turban.'

Lit. 'A cloth is on top of Juan's head."

Finally, B-verbs have a structure like the following:

B- and C-Predicates like \( \text{táá} \) 'be on top of', \( \text{nij} \) 'be (tightly) inside, \( \text{nacutáj} \) 'encircle' are inherently asymmetrical. To account for the multiple uses of \( \text{nuu} \), the least costly account probably posits BE-IN). \( \text{Nuu} \) as a B-verb shows is the most regular use (since the body part is inside the clothing). \( \text{Nuu} \) as a W-verb is probably a metonymy, with an implied element 'body'. I do not have a good account of \( \text{nuu} \) used as a C-verb with 'hat', and have to treat this as irregular.

Unlike Zapotec, Copala Triqui does not seem to have any verbs that are specialized for wearing clothing. All the verbs discussed here function as general locatives for other situations:

- \( \text{táá} \) 'be on top of'
- \( \text{nuu} \) 'be inside'
- \( \text{'nij} \) 'be stuck inside; be inside with tight contact'
- \( \text{nacutáj} \) 'be wrapped in'

6. Conclusions

The kinds of considerations that seem to be relevant to the mapping of Zapotec and Copala Triqui verbs of wearing include the following:

- Which parts of the body may stand as metonyms for the whole
• The geometry (IN, ON, AT) of the relationship between clothing and the body of the wearer
• The relative prominence of arguments for Figure/Ground assignment
• Lexical exceptions (hats in Copala Triqui; shoes in Zapotec)

Few syntactic theories are constructed in such a way as to allow reference to all the relevant factors. Theories based on a small number of semantic roles are particularly poor at accommodating these facts.

REFERENCES


