

Conjunction in Colonial Valley Zapotec

May Helena Plumb

Haverford College

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Abstract

Colonial Valley Zapotec (CVZ) was spoken in Oaxaca, Mexico, during the colonial period; the language is attested a set of printed texts and handwritten documents. In this paper I discuss the four primary conjunction strategies in CVZ: *chela*, *huanee*, *=la*, and asyndetic conjunction. These conjunction strategies are used interchangeably in CVZ (§2) and throughout a wide time frame and geographic area (§3). In some passages, a scribe alternates between different conjunction strategies to emphasize semantic and syntactic groupings within the construction. To explain these constructions I introduce a theory of localized semantic/syntactic sensitivity, an expansion of the current typology of conjunction (§4).

1 Introduction¹

1.1 Colonial Valley Zapotec

The Zapotec languages are a diverse group of Otomanguean languages spoken in Oaxaca, Mexico; the time-depth and diversity of Zapotec is comparable to

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All errors are my own.

the Romance languages. Colonial Valley Zapotec (CVZ) refers to the Zapotec language attested in colonial era documents written in the Valley of Oaxaca. It is a direct ancestor of the Valley Zapotec languages (Broadwell & Lillehaugen to appear).

In this paper I examine the four primary methods of conjunction (‘and’ coordination) in CVZ. I discuss these conjunction strategies in terms of syntactic and semantic sensitivity (§1.2), as described in Haspelmath 2004. I describe the usage of each conjunction strategy and show that the presence of multiple conjunction strategies in CVZ cannot be fully explained by Haspelmath’s typology (§2), nor by dialectal variation over time or geography (§3). In §4, I propose a system of localized semantic/syntactic sensitivity which explains the use of CVZ conjunction strategies. This paper adds to a growing body of linguistic literature on CVZ and also contributes to the larger discussion of conjunction typology.

CVZ, like modern Valley Zapotec languages, is a non-pro-drop VSO language; subject pronouns appear as clitics on the verb. Tense/mood/aspect is obligatorily marked by a prefix on the verb (Smith Stark 2008). Modern Zapotec languages are tonal and have complex vowel phonation contrasts, and it is reasonable to suppose that CVZ was similar, although these contrasts cannot be read from the CVZ orthography (Smith Stark 2003: 230). While the modern Valley Zapotec languages are linguistically diverse, CVZ shows surprising homogeneity throughout the 300 year time span and across documents from different towns.

The CVZ corpus is formed by two categories of documents spanning from the middle of the 16th-century up until the beginning of the 19th-century: printed books written under the auspices of the Catholic church and manuscripts written by native speakers. The printed resources include a grammar and dictionary written by Fray Juan de Cordova (1578a; 1578b) and a bilingual Catholic doctrine (Feria 1567). These documents were clearly translated into CVZ, but there is no information about the method of translation or the degree of fluency, in either language, of the translators.

The handwritten manuscripts are legal documents such as testaments, land deeds, and bills of sale, written by native speakers of CVZ. These documents, while narrated from the point of view of a testator or land owner, were written by scribes who decided on the actual wording of the document and may have worked from templates. In this paper I refer to the “scribe” instead of the

“speaker” when discussing the author of a document.² In some cases, the documents were later translated into Spanish for use in court cases (e.g. to prove ownership of a piece of land); again, in the case of the contemporary Spanish translations, there is no information as to the fluency of the translator, although Heher et al. 2014 found that at least some translators were not native Spanish speakers. Both categories of CVZ documents are written using Roman letters, although the orthography is highly inconsistent.³

Additionally, there are modern resources on CVZ including an index of Junta Colombina de México 1893 by Whitecotton & Whitecotton (1993), an online, searchable version of Cordova’s dictionary (Oudijk & Miceli 2015), and a Field-Works Language Explorer (FLEx) database (see Broadwell & Lillehaugen to appear).

This paper uses data from 16 documents spanning from 1567 to 1740, from 9 different towns. A full list of these documents and the abbreviations used in this paper is given in Table 5 on page 39.⁴

1.2 Conjunction typology

The focus of this paper is CONJUNCTION, that is, ‘and’ coordination, as opposed to disjunctive (‘or’) or adversative (‘but’) coordination. In such constructions, two or more CONJUNCTS are linked by a CONJUNCTION MARKER; in English, this is the word *and*. Conjunction constructions vary considerably across languages. In this section, I summarize the typology of conjunction marker placement within conjunction constructions and introduce semantic and syntactic sensitivity of conjunction markers, as discussed in Haspelmath 2004. In §1.3 I introduce the conjunction strategies present in CVZ.

Conjunction constructions, and coordination constructions in general, are either ASYNDETIK or SYNDETIK. Asyndetic conjunction constructions lack an overt conjunction marker (e.g. ‘Mary, John, Paul’; this is sometimes referred to

²It is unclear to what extent CVZ was actually spoken. As discussed above, CVZ shows surprising homogeneity across different towns in comparison to the modern Valley Zapotec languages. There are two theories to explain this: (1) that CVZ was a purely written language using the orthography developed by the local priests (that is, the scribes from different towns pronounced words differently but spelled them the same), or (2) that CVZ was a pre-colonial lingua franca used to communicate between different towns, which was then utilized in colonial legal documents (Brook Danielle Lillehaugen p.c.).

³See Smith Stark 2003 and Broadwell 2015 for discussion of CVZ orthography and phonology.

⁴The preliminary analyses of these documents were taken from the current version of the CVZ FLEx database (Broadwell & Lillehaugen to appear), but the analyses in this paper reflect my personal understanding of CVZ morphosyntax, and all errors are my own.

as conjunction by juxtaposition), while syndetic constructions contain one or more conjunction markers (e.g. ‘Mary, John, and Paul’). I use the term CONJUNCTION STRATEGIES to refer to both overt conjunction markers and the process of asyndetic conjunction.

Syndetic conjunction constructions may be BISYNDETIC, where there is one conjunct marker for each conjunct (e.g. ‘Mary and John and Paul and’). When there is less than one conjunction marker for each conjunct, as in the English construction ‘Mary and John and Paul’, the construction is called MONOSYNDETIC. The monosyndetic conjunction constructions in English also allow for CONJUNCTION OMISSION, where all but the last conjunction marker are omitted (‘Mary, John, and Paul’). Since the syndesis of a conjunction construction is determined by the conjunction marker, the markers themselves are described as monosyndetic or bisyndetic.

Conjunction markers often attach to a particular conjunct. They may be either PREPOSITIVE, that is appearing before the conjunct (e.g. ‘and Mary and John’), or POSTPOSITIVE, appearing after the conjunct (e.g. ‘Mary and John and’). Distinguishing between prepositive and postpositive conjunction markers is not always straightforward in monosyndetic constructions; for example, in the English construction *Mary and John* it is not obvious whether *and* is attached to *Mary* or *John*. However, conjunction markers in non-verb-final languages, like English, tend to be prepositive, while those in verb-final languages tend to be postpositive (Schachter & Shopen 2007: 46).

The analysis in this paper draws on Haspelmath’s (2004) discussion of conjunction typology, in particular his discussion of semantic and syntactic sensitivity in languages with multiple conjunction markers. The conjuncts of a conjunction construction are not always noun phrases; they may generally be any grammatical category, although some languages disallow conjunction of a particular category, such as adjectival phrases. The SYNTACTIC SENSITIVITY of a conjunction marker limits the grammatical categories that a particular marker can conjoin. In Xârâcùù ([ane]; Oceanic, New Caledonia), for example, noun phrases and verb phrases are conjoined by *mê* and clauses are conjoined by *nã* (Haspelmath 2004: 11). On the other hand, the Dagbani ([dag]; Gur, Ghana) conjunction marker *mini* conjoins noun phrases while *ka* conjoins verb phrases and clauses (Haspelmath 2013). Somali ([som]; Cushitic, Somalia) has three conjunction markers: *iyó* for NPs, *oo* for VPs, and *-na* for clauses (Haspelmath 2007: 21). *And* does not have syntactic sensitivity, as it performs all of the types of conjunction found in English.

There are not, apparently, conjunction markers which conjoin both noun phrases and clauses, but not verb phrases. Haspelmath presents an implicational sequence for syntactic sensitivity, shown in (1). The ‘range’ of a given conjunction strategy must cover a continuous segment of the sequence. For example, if a conjunction marker can conjoin both noun phrases and verb phrases, then it must also be able to conjoin adjectival phrases, assuming such conjunction constructions exist in the language (Haspelmath 2004: 11).

- (1) noun phrase – adjective phrase – verb phrase – clause

In §2, I show that each conjunction strategy in CVZ may conjoin both noun phrases and clauses. I have found just one example of verb phrase conjunction in CVZ, and if adjectival phrase conjunction exists then it is equally rare, so these types of conjunction are not discussed in this paper. Using Haspelmath’s implicational sequence, however, since each conjunction strategy can conjoin NPs and clauses, each should also conjoin adjectival phrases (should such conjunction exist in CVZ) and verb phrases.

The SEMANTIC SENSITIVITY of a conjunction marker limits the use of the marker based on the semantics of the conjuncts or on their relationship. For example a particular conjunction marker might be used only to conjoin proper names (as opposed to common nouns), animate objects (as opposed to inanimate), or conjuncts which are conceptually grouped (as opposed to conceptually distinct). In Asmat (Trans-New Guinea, West Papua), *enërim* conjoins proper names, while other noun phrases are conjoined by the suffix *-am* (Haspelmath 2004: 12). Sgaw Karen ([ksw]; Sino-Tibetan, Myanmar) requires no overt conjunction for a very close relationship, like ‘my mother and my father’, but does require a conjunction for a relationship like ‘my mother and my brother’ (Haspelmath 2004: 13). A conjunction marker that conjoins closely related items is a TIGHT conjunction marker, while one that conjoins more distantly related items is a LOOSE conjunction marker.

Semantic sensitivity is harder to determine than syntactic sensitivity as the relationship between objects is highly culturally specific. In this paper I will show examples of tight and loose conjunction for each conjunct, in addition to examples involving proper nouns and common nouns. I contend that these examples show that each conjunction strategy is used in a wide variety of semantic contexts.

1.3 Conjunctions in CVZ: overview and existing literature

There are four primary conjunction strategies attested in the CVZ corpus. Three of these are described by either colonial or modern sources on the language. In 1578, the Dominican priest Fray Juan de Cordova wrote a grammar of CVZ, the *Arte en lengua zapoteca*. In the *Arte*'s section on conjunction, Cordova describes two conjunction markers: *chela* and *=la* (an enclitic), as shown in (2). He describes *=la* as bisyndetic and gives an example construction; this example is glossed in (3).⁵

- (2) “Et, que, y atque, y mas, quoque, tambien. Para las dos primeras sirve *chēla* vel *lă*, postpuesto. vt. V.g. Llamame a pedro y a juan y alonso, *coxēni* pedro *lă* juan *lă* alonso *lă*.”

“Et [and], que [and], and atque [and also], additionally, quoque [also], also. *Chēla* vel [or] *lă* (postposed) serve for the first two, vt [as in] v.g. [for example] ‘Call to Pedro and to Juan and to Alonso’, *coxēni* pedro *lă* juan *lă* alonso *lă*.”⁶

(Cordova 1578a: 50r)

- (3) co-xēni pedro =lă juan =lă alonso =lă
 PERF-call Pedro =and Juan =and Alonso =and
 ‘Call Pedro and Juan and Alonso!’ (Cordova 1578a: 50r)

Chela is also listed in Whitecotton & Whitecotton 1993 as meaning ‘and’, ‘also’, and ‘consequently’ (1993: 45); *=la* is listed with the definition “y (pospuesta)” [and (postposed)] (1993: 143).

Additionally, Whitecotton & Whitecotton list *huanee* as meaning “tambien, juntamenta, y[gualmente]” [also, together, equally] (1993: 125). Asyndetic conjunction constructions, while not described in colonial resources, are attested in the native speaker manuscripts. These four conjunction strategies (i.e. the three conjunction markers and asyndetic conjunction) account for the majority of conjunction constructions in CVZ documents. The Spanish conjunction marker *y* is sometimes used, and there are a few other conjunction markers described by Whitecotton & Whitecotton which appear only occasionally in the documents;

⁵I use the following glossing abbreviations in this paper: 1, first person; 3, third person; CAUS, causative; DEF, definite aspect; EMPH, emphatic; F, feminine; FP, free pronoun; H/P, habitual/progressive aspect; IRR, irrealis aspect; M, masculine; PERF, perfective aspect; PL, plural; POSS, possessive; PRF, perfect aspect; REL, relativizer; SG, singular; ST, stative aspect; and ?, uncertain gloss.

⁶All translations of Spanish given in this paper are mine.

these are discussed in the appendix.

Broadwell 2002 is the only previous linguistic study that deals specifically with CVZ conjunction constructions. Broadwell's analysis focuses on data from *Feria 1567*, a Catholic doctrine written in Spanish with a parallel Zapotec translation. He describes the use of *=la* (the conjunction marker discussed above) as well as other CVZ coordination markers, with a comparison to coordination in modern Zapotec languages.

In this paper I discuss the four primary conjunction strategies listed above: *chela*, *huanee*, *=la*, and asyndetic conjunction. All of the conjunction strategies are used interchangeably throughout the corpus. In §2 I describe each strategy in turn and show that none of them have syntactic or semantic sensitivity. In §3 I described the geographic and temporal distribution of the conjunction strategies and briefly consider the potential for overlap with comitative markers. §4 deals with conjunction constructions which make use of multiple markers; to explain this I introduce the concept of localized semantic and syntactic sensitivity.

2 Basic conjunction constructions

2.1 *Chela*

In this and the following sections, I address each conjunction marker in turn. For each marker I describe its basic construction and show that it carries neither syntactic nor semantic sensitivity.

The conjunction marker *chela* is described in Cordova 1578a and Whitecotton & Whitecotton 1993 (see §1.3) and is also attested frequently in the handwritten documents. It is possible that *chela* is morphologically complex, containing the morpheme *=la* 'and' (see §2.3), although *che* does not apparently carry meaning in CVZ. *Chela* is used in other morphologically complex words, such as *lechela* 'spouse'. *Chela* is also a verb root with a wide variety of meanings related to togetherness and joining: 'to be joined', 'to fit together', 'to set bones', 'to bind books', 'to thicken or harden' (Whitecotton & Whitecotton 1993).

Chela (as a conjunction marker) is monosyndetic, as shown in (4) where the conjunction marker appears twice to conjoin three conjuncts. In (4) and throughout the paper, I label each conjunct using numbered brackets.

- (4) [1 50 ps cama xiteni xi-coquij=ttoo=na dios
50 pesos treasury of POSS-king=big=1p God
reys 1] **chela** [2 chona peo lichi quiba 2] **chela**
King and three month home metal and
[3 chona tozena azote lao picota 3]
three dozen flogging face/on whipping.post
‘50 pesos to the treasury of our lord God King and three months in jail
and three dozen lashes at the whipping post’ (Al642;31–32)

In conjunction constructions with more than two conjuncts, *chela* allows conjunction omission, as shown in (5), where *chela* appears only once, between the third and fourth conjuncts.

- (5) [1 tobi porcellana 1] [2 tobi escudilla 2] [3 chona plato 3]
one china one bowl three plates
chela [4 yaga lona 4]
and wood bed
‘one (piece of) china, one bowl, three plates, and a wooden bed’ (Te618-1;38)

Recall from §1.2 that conjunction markers may have syntactic sensitivity, which limits the grammatical categories the marker can conjoin. *Chela* can conjoin phrases of any grammatical category. (4) and (5) above both show conjunction constructions involving noun phrases. (6) shows a construction with two clauses as conjuncts.

- (6) [1 hua-ti-yelijcalachi=a chitaa quelalij ni là
PRF-H/P-truly.believe=1SG fourteen truth REL be.named
articulos de la fee 1] **chela** [2 ti-yelijlachi=a
articles of the faith and H/P-believe=1SG
xi-ticha xi-ñana sancta yglesia 2]
POSS-word POSS-mother holy church
‘I truly believe the fourteen truths that are named the articles of the faith
and I believe the words of the Holy Church’s mother’ (Doc-115v;13-16)

I have not seen *chela* used as an adjective phrase or verb phrase conjunction marker. However, according to Haspelmath’s implicational sequence (see (1)), *chela* should be a permissible conjunction marker for verb phrases and adjective phrases (assuming such conjunction is found in CVZ at all). Thus, *chela* is not

syntactically sensitive.

Additionally, *chela* is not semantically sensitive; there is no restriction as to the semantic category of the conjuncts or the relationship between them (§1.2). In order to show lack of semantic sensitivity for each of the CVZ conjunction strategies, I will show that the strategy can conjoin both proper and common nouns and that the conjuncts may be either tight or loose (this will also cover both animate and inanimate conjuncts).

(7) shows a construction where *chela* conjoins proper noun phrases. Example (4) above shows a construction with common noun phrases.

- (7) [1 gabriel de sactana 1] [2 marcos átoni 2] **chela**
 Gabriel de Santa Ana Marcos Antonio and
 [3 naa 3]
 1SG.FP

‘Gabriel de Santa Ana, Marcos Antonio, and I,’ (Al642;26)

The examples below show tight and loose conjunction constructions. In (8), the conjuncts ‘turkey hen’, ‘sterile native turkeys’, and ‘hens’ are very closely related. In (9), the conjuncts ‘a saddle’ and ‘three tomnes’ are very different.

- (8) [1 tobi pere gozana 1] [2 topa pere coconi hualachi 2]
 one turkey hen two turkey sterile native
chela [3 xopa gozana 3]
 and six hen

‘one turkey hen, two sterile native turkeys, and six hens’ (Te618-1;40)

- (9) [1 xilla 1] **chela** [2 gui-ona na-guichela tomines 2]
 saddle and PERF-three ST-serve.people tomines
 ‘a saddle and three (to serve the people) tomnes’ (Te626-3;20-21)

As discussed in §1.2, the tight/loose distinction is by nature entirely subjective. Without a native speaker, it is impossible to definitively state an absence of semantic sensitivity. It is entirely conceivable, for example, that *pere gozana* ‘turkey hens’ and *pere coconi hualachi* ‘native sterile turkeys’ were considered very different. However, I contend that the examples in this paper show that each CVZ conjunction strategy may be used in a wide variety of circumstances and thus that the presence of semantic sensitivity is extremely unlikely.

2.2 *Huane*

The conjunction marker *huane* is described in Whitecotton & Whitecotton 1993 (see §1.3) and is attested frequently in the handwritten documents. It seems to be morphologically complex. Consider the following entries from Whitecotton & Whitecotton 1993:

- (10a) *hua*: “sirue que anteponiendole al nombre le haze significar abundancia de lo que contiene el nombre”
 “when prefixed, this serves to make a noun mean an abundance of that to which the noun refers” (119)
- (10b) *ñee*: “con (preposición); y (pospuesto)”
 “with (preposition); and (suffixed)” (186)⁷

A translation of *huane* using these definitions might be ‘very much with’ or ‘very much and’, which would imply that *huane* is a tight conjunction. However, this meaning does not seem to be productive in CVZ, as *huane* does not have semantic sensitivity (see (15) and (16)).

Huane has identical construction and usage to *chela*. Example (11) shows that *huane* is monosyndetic (two instances of the conjunction marker conjoin three conjuncts) and (12) shows that the conjunction marker permits conjunction omission.

- (11) [1 20 pos 1] **huane** [2 tobi beo lichi quiba 2]
 twenty peso and one month house metal
- huane** [3 3 tozena azoti loo picota 3]
 and three dozen lash face/on whipping.post
- ‘twenty pesos and one month in jail and three dozen lashes at the whipping post’ (Ti700;11)

- (12) [1 tobi lari lace 1] [2 tobi çahuel rarihui 2] [3 çe-tobi
 one cloth cloak one ? ? DEF-one
- cuello 3] **huane** [4 tobi sunbrero 4]
 collar and one hat
- ‘one cloak, one [cloth with Madeira embroidery?],⁸ another collar, and one hat (Te618-1;36-37)’

⁷These morphemes are discussed in the appendix.

⁸This possible translation is based on the contemporary Spanish translation for this conjunct: “un tela de labrar Madera”.

parently monosyndetic uses of *=la* are quite distinct — (18) shows conjunction of proper names, while (19) shows conjunction of prepositional phrases — and *=la* is used bisyndetically in a wide variety of circumstances, as is shown below, even for clauses (see (22)). *=la* is not described as a monosyndetic conjunction marker in any of the colonial resources on CVZ, and these two examples are the only monosyndetic cases I have found in the 54 confirmed cases of this morpheme in the FLEx database, making the second conclusion quite unlikely. In light of this, I assume these examples are errors, but further study may reveal otherwise as the CVZ corpus grows.

The conjunction marker *=la* does not carry syntactic sensitivity. It may conjoin noun phrases, as in (20).

- (20) [1 Agostatino₁] **=la** [2 P^o mulino₂] **=la**
 Agostino =and Pedro Molino =and
 ‘Agostino and Pedro Molino’ (Al697-62v;22)

In (21), *=la* (spelled <laa>) conjoins two relative clauses. In (22) it conjoins two independent clauses.

- (21) [1 nii pe-zaa=nii llaayoo₁] **=laa** [2 nii
 REL PERF-create=3 land =and REL
 pe-[za]=nii cabilaa₂] **=laa**
 PERF-create=3 hell =and
 ‘that he created the land and that he created hell’ (Tes740-41r;5-6)

- (22) [1 qui-toxo=ni₁] **=la** [2 t-olacàpa=ni₂] **=la**
 IRR-distress=3 =and H/P-hit=3 =and
 ‘they become angry and they hit [you]’ (Doc-111v;21)

Furthermore, *=la* is not semantically sensitive. (20) above shows conjunction of proper nouns with *=la*. Example (23) shows conjunction of common nouns.

- (23) [1 guicha₁] **=la,** [2 xilla₂] **=la,** [3 seda₃] **=la**
 wool =and cotton =and silk =and
 ‘wool and cotton and silk’ (Doc-10v;5)

Sometimes, as in example (23) above, *=la* conjoins lists of similar items in a particular category (in this case, types of cloth). In many cases in Feria 1567, it conjoins pairs of opposites, as shown in (24) and (25)

- (24) [1 quelacobiña₁] =**la** [2 quelahuechaganiç₂] =**la** [3 nalla₃]
 hunger =and thirst =and cold
 =**la** [4 nàgui₄] =**la**
 =and heat =and
 ‘hunger and thirst and cold and heat’ (Doc-27v;21)

- (25) [1 niguio₁] =**la** [2 gennà₂] =**la** [3 beni gòla₃]
 man =and woman =and person old
 =**la** [4 pini zanici₄] =**la**
 =and person young =and
 ‘man and woman and old and young’ (Doc-43v;1-2)

In other cases, as in (26), =*la* conjoins groups of unrelated objects.

- (26) [1 mesa₁] =**la** [2 cochillo₂] =**la** [3 tixera₃] =**la**
 table =and knife =and scissors =and
 [4 caxa₄] =**la** [5 puerta₅] =**la**
 box =and door =and
 ‘a table and a knife and scissors and a box and a door’ (Te577;41-42)

2.4 Asyndetic conjunction

Asyndetic conjunction, while not described in colonial resources on CVZ, is attested in the corpus. In asyndetic conjunction constructions, conjuncts are conjoined by juxtaposition (there is no overt conjunction marker), as shown in (27).

- (27) [1 nachoo cache lari laçe₁] [2 tobi bitanij₂] n-aca
 distinct seven cloth cloak one huipil ST-be
 xono lari na-coobi
 eight cloth ST-new
 ‘seven different cloaks and one huipil which make eight pieces of new clothing’ (Te626-2;1-2)

In CVZ, asyndetic conjunction constructions may involve noun phrases, as above in (27), or clauses, as in (28). Thus the conjunction strategy is not syntactically sensitive.

- (28) [1 qui-ta=ni 1] [2 qui-togo-ticha=ni quira=li
IRR-come=3 IRR-judge-word=3 all=true
beni-na-bani=la beni-co-ti=la 2]
person-ST-be.alive=and person-PERF-die=and
'He shall come and he shall judge truly all the living people and the dead
people.' (Tl675;9-10) ¹⁰

Asyndetic conjunction does not have semantic sensitivity either. Example (27) shows asyndetic conjunction of common nouns. Examples (29) and (30) show the asyndetic conjunction constructions involving animate and inanimate proper nouns, respectively.

- (29) [1 tes P^o ernades 1] [2 testico Fracisgo luis 2]
witness Pedro Hernández witness Francisco Luis
[3 po mural testico 3]
Pedro Morales witness
'witness Pedro Hernández, witness Francisco Luis, and Pedro Morales
(witness)' (A1697-62v;22-23)

- (30) [1 quinaa quecoyohuea 1] [2 quinaa lachiyalana 2] [3 quinaa
field Quecoyohuea field Lachiyalana field
lachizaque 3] [4 quinaa queco 4]
Lachizaque field Queco
'the field Quecoyohuea, the field Lachiyalana, the field Lachizaque, and
the field Queco' (A1697-62v;10-11)

Examples (27), (29), and (30) all involve items from a specific semantic category (clothing, people, fields) and appear to be tight conjunction constructions. I have found no examples of obvious loose asyndetic conjunction. However, asyndetic conjunction constructions are by nature difficult to locate in a text corpus (since they may not be readily searched for), so I believe this to be a limitation of my examples, not the grammar.

¹⁰It is conceivable that these conjuncts are simply separate clauses. However, the meaning that Christ will come and judge (as a single action) is very salient.

3 Other considerations

3.1 Geographic and temporal distribution

Having shown that the four CVZ conjunction strategies are linguistically interchangeable, in this section I show that none of the conjunction strategies are correlated with a particular time or place. The modern Valley Zapotec languages exist on a dialect continuum, with each pueblo speaking a distinct form of the language. Despite this modern diversity, CVZ is surprisingly consistent across many different towns and over the course of about 300 years; this homogeneity is represented in the conjunction strategies.

All four conjunction strategies are used in documents from San Bartolome Coyotepec, San Sebastian Tectipac, and San J ronimo Tlacoahuaya (Co721, Te626, and Tl675, respectively). *Chela* and *=la* are also attested in documents from San Antonio Ocotl n (Oc686). This represents most of the geographic range of CVZ documents (see Figure 1), showing that the different conjunction strategies are not dialectal variants. All of these documents were produced by a single scribe, and so documents like Co721, Te626, and Tl675 show that an individual CVZ scribe could make use all of the conjunction strategies.

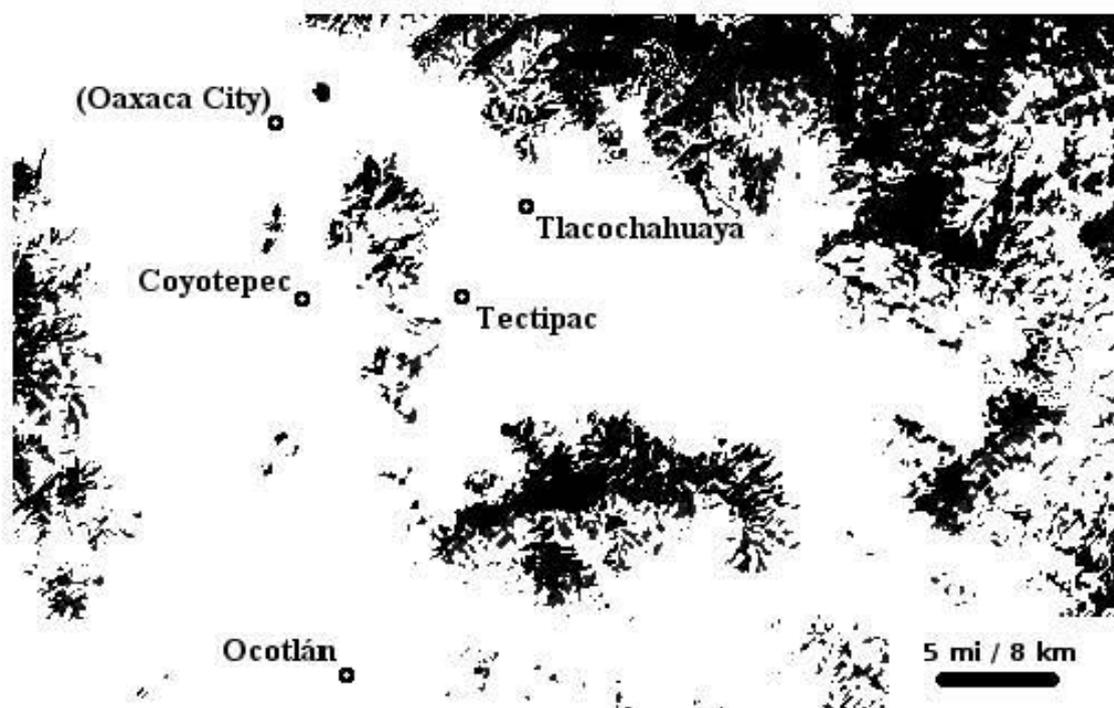


Figure 1: Map of the Valley of Oaxaca (adapted from Google Maps).

Table 1 on the following page shows the distribution of the conjunction

strategies over time between 1560 and 1740. After 1600, the distribution is even; the blank spaces can be explained by the variation in corpus size over time.

Huane is the only conjunction marker not attested in the 16th-century, and notably it is the only conjunction not attested in Feria’s (1567) *Doctrina*, which is a very long document. It is possible that *huane* was not commonly used at the time, but the omission could also be due to the nature of the document, since this is a printed resource which was created under instruction from the church. Since native speaker manuscripts from the 16th-century are relatively rare, it might be coincidental *huane* is not attested in our current corpus for the time period.

	<i>Chela</i>	<i>Huane</i>	<i>=la</i>	Asyndetic
1560-1580	X		X	X
1580-1600	X			X
1600-1620	X	X		X
1620-1640	X	X	X	X
1640-1660	X	X	X	X
1660-1680	X		X	X
1680-1700	X	X	X	X
1700-1720	X	X		X
1720-1740	X	X	X	X

Table 1: Temporal distribution of CVZ conjunctions.

3.2 Conjunction vs. comitative marker

We must consider the possibility that one or more of the CVZ conjunction markers could be a comitative (‘with’) marker, or at least sometimes have a comitative meaning. In so-called WITH-languages, comitative markers (‘with’) and conjunction markers (‘and’) share the same form. For example, in Jakalteko ([jac]; Yucatecan-Core Mayan, Guatemala), *boj* can be interpreted to mean either ‘and’ or ‘with’ (Stassen 2000: 23).

There is abundant evidence that the strategies described in §2 are indeed conjunction strategies. All of the CVZ conjunction markers conjoin non-NP categories (see (6), (13), (22), and (28)). Additionally, *chela* and *huane* allow coordinator omission (see (5) and (12)). Finally, *=la* is bisyndetic. All of these characteristics are disallowed by comitative markers (Haspelmath 2004: 15–19). Asyndetic conjunction and *=la* are both attested with 4 conjuncts (see (30) and

(24)). Except for very specific situations (e.g. *the girl with the dog with the collar with the bell*), comitative markers do not occur in lists of three or more items (Haspelmath 2004: 18).

It is possible that these conjunctions could also have been used comitatively; however, the examples in this paper have been chosen such that their contexts imply conjunction. It is rather unlikely that they were also comitative markers, as most languages in Central America have a distinct morpheme as a comitative marker (Stassen 2000: 41). CVZ does have a comitative marker *ñee* ‘with’, which is discussed briefly in the appendix.

3.3 Summary

Aside from syndesis, the four CVZ conjunction strategies have identical usage. None of the conjunction strategies show syntactic or semantic sensitivity. This fits with Haspelmath’s claim that “identity of the two markers [for NP and VP/clause conjunction] is the only type found in Europe and Mesoamerica” (Haspelmath 2013). Each conjunction strategy is attested in a wide range of locations, and each is used throughout the time period for CVZ documents, except for *huanee*, which is only attested after 1614. In sum, the four conjunction strategies are interchangeable.

However, the multitude of conjunction markers in CVZ does not go to waste. In the next section I discuss conjunction constructions which make use of more than one conjunction marker and introduce the concept of localized semantic/syntactic sensitivity in CVZ.

4 Localized semantic and syntactic sensitivity

4.1 Introduction: Constructions with multiple conjunction markers

Throughout the CVZ corpus, a scribe will sometimes use two or more separate conjunction strategies in the same conjunction construction. In (31), for example, the scribe uses both *huanee* and *chela*.

- (31) xini=a anpro시오 **huanee** Jaçinto **chela** lichela=ya
 child=1SG Ambrosio and Jacinto and spouse=1SG
 ‘my sons Ambrosio and Jacinto and my wife’ (Te626-3;30)

Notice that *huanee* is used in the construction ‘my sons Ambrosio and Jacinto’, who as siblings might be considered a pair (tight conjunction), while *chela* is used to attach the conjunct ‘my wife’, who is separate from the testator’s sons (loose conjunction). In looking at just this example, we might conclude that *huanee*, then, is a tight conjunction marker and *chela* is a loose conjunction marker, as described in §1.2.

However, in §2.1 and §2.2 we saw that *chela* and *huanee* do not have semantic sensitivity. While *huanee* is playing the role of tight conjunction marker in this particular construction, it can easily play the role of loose conjunction marker elsewhere (see (16)). The scribe is sensitizing *huanee* as tight, but only in this construction; elsewhere in the same document, it is used for tight conjunction. I refer to this as LOCALIZED SEMANTIC SENSITIVITY. A conjunction strategy is locally sensitized for a particular role within a construction, and that local sensitivity expires or is removed when the construction is complete.

In (32), example (31) has been rewritten with the tight/loose conjunction marked. In the glossed examples in this section, I mark loose conjunction with an L and tight conjunction with a T. So in (32), ‘Ambrosio’, the first conjunct of the tight conjunction construction is marked with T1, while ‘Jacinto’ is marked with T2, and the unit ‘my sons Ambrosio and Jacinto’ is marked L1, being the first conjunct of the loose conjunction construction. The conjunction markers are also marked with a subscript showing which type of conjunction they are performing (e.g. *huanee*_T, since *huanee* is the tight conjunction in this case). In the free translations, loose conjuncts are set off with curly brackets {...} while tight conjuncts are set off by slashes /.../.

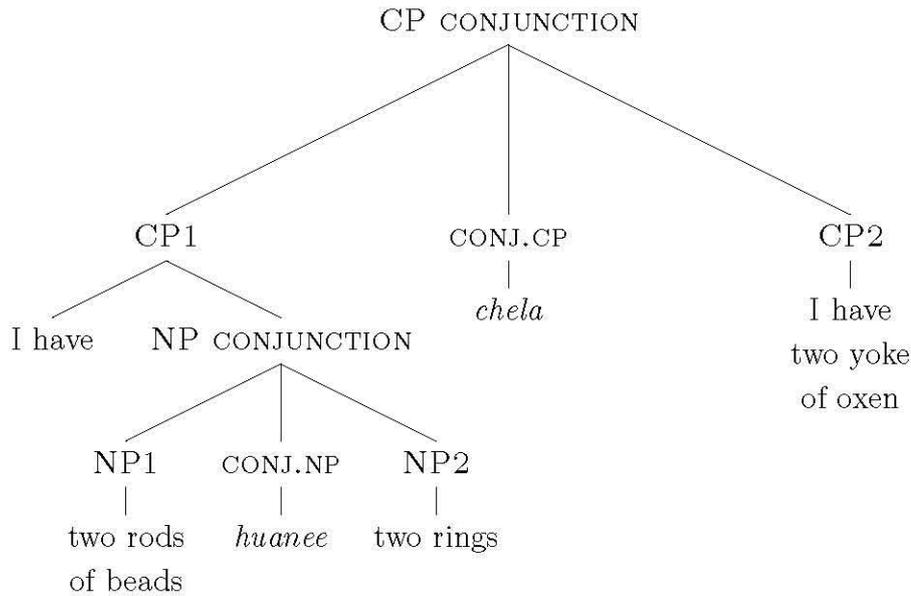
(32) [L1 xini=a [T1 anpro시오 T1] **huanee**_T [T2 Jaçinto T2]L1]
 child=1SG Ambrosio and Jacinto

chela_L [L2 lichela=ya L2]
 and spouse=1SG

‘{my sons /Ambrosio/ and /Jacinto/} and {my wife}’ (Te626-3;30)

This hierarchical tight/loose structure can be represented by the tree shown in (33). The switch to *huanee* alerts the reader that the conjunctive relationship is going to change, that is that there has been a shift to a new part of the tree.

(35)



As with localized semantic sensitivity, syntactic sensitivity acts only on this particular conjunction construction, and *huabee*, for example, is elsewhere used as a CP-level conjunction. Localized syntactic sensitivity is discussed further in §4.3.

Presented in the following sections are 6 examples of localized semantic sensitivity and 6 examples of localized syntactic sensitivity. In total I show 11 examples of localized sensitivity from 8 different documents from 7 different towns.¹¹ These represent most of the examples of localized sensitivity in corpus which I have identified so far; a full list of examples is shown in Table 2 on page 32.

4.2 Localized semantic sensitivity

As introduced in §4.1, localized semantic sensitivity in CVZ occurs when two or more different conjunction strategies are used to indicate different levels of semantic tightness within the construction. This is similar to the semantic sensitivity described by Haspelmath (see §1.2), except that an instance of localized semantic sensitivity is restricted to one conjunction construction and is enacted in the moment by the scribe instead of being a feature of the lexical item. A scribe sensitizes the conjunction strategy to perform a specific task within a single sentence.¹²

¹¹Not included in this count are two examples, one case of localized semantic sensitivity and one of localized syntactic sensitivity, involving the Spanish conjunction marker *y*. These examples are discussed in the appendix.

¹²The exact boundaries localized sensitivity are unknown and are not determinable with a purely text-based corpus. In some cases the sensitivity seems to last until a clause bound-

In (32), repeated below as (36), the scribe sensitizes *huanee* as a tight conjunction and *chela* as a loose conjunction. When the reader sees the switch to *chela*, while they may not know whether *chela* will be loose or tight, they know to look for a new semantic relationship between the conjuncts.

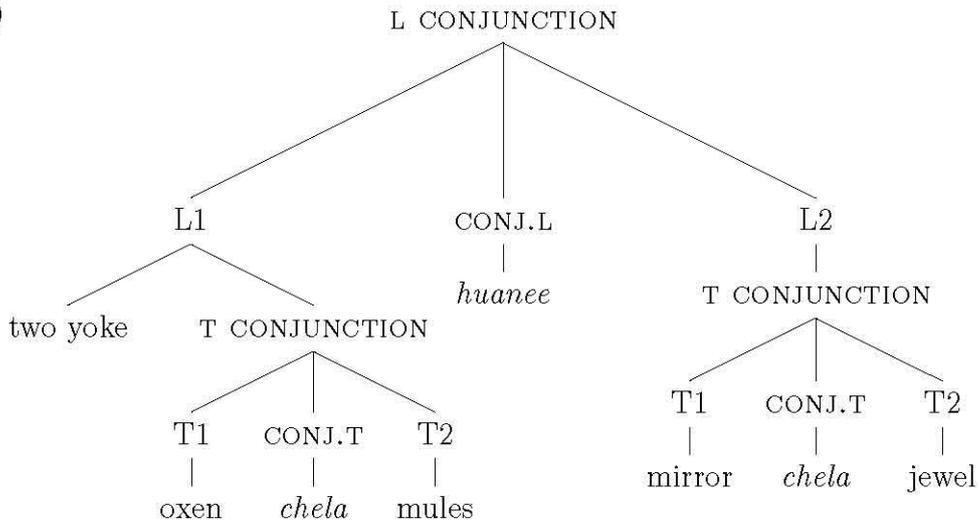
- (36) $[_{L1}$ xini=a $[_{T1}$ anpro시오 $_{T1}]$ **huanee** $[_{T2}$ Jaçinto $_{T2}]_{L1}$
 child=1SG Ambrosio and Jacinto
- chela** $_L$ $[_{L2}$ lichela=ya $_{L2}]$
 and spouse=1SG
- ‘{my sons /Ambrosio/ and /Jacinto/} and {my wife}’ (Te626-3;30)

When the sentence is completed, *huanee* and *chela* lose their local semantic sensitivity. Elsewhere in the same document their semantic sensitivity is swapped: in (37), *huanee* is the loose conjunction marker (conjoining ‘the two yoke of oxen and mules’ and ‘a mirror and a jewel’) and *chela* is the tight conjunction marker (conjoining, or example, ‘oxen’ and ‘mules’). This is the same document (and thus the same scribe) as in example (32), so this pair of examples represents the ability of a scribe to change the semantic sensitivity of a conjunction marker within a single text; thus the semantic sensitivity of a conjunction strategy must be removed at the end of the sentence, or at least before the next use of the conjunction strategy, as discussed above.

- (37) $[_{L1}$ gui-ropa nez $[_{T1}$ bichinagona $_{T1}]$ **chela** $[_{T2}$ macho $_{T2}]_{L1}$
 IRR-two yoke ox and mule
- huanee** $_L$ $[_{L2}$ $[_{T1}$ guehuana $_{T1}]$ **chela** $[_{T2}$ biga $_{T2}]_{L2}$
 and mirror and jewel
- ‘{the two yoke of /oxen/ and /mules/} and {/a mirror/ and /jewel/}’
 (Te626-3;11-12)

ary; sometimes a conjunction strategy will change sensitivity within a clause. It is also unclear whether the localized sensitivity expires after a certain point, or if it is replaced when the conjunction strategy is used in a new context. Sentences are not consistently marked in the corpus, but I use them as rough boundaries for localized sensitivity.

(38)



Te626, the document referenced in (36) and (37), has many instances of localized sensitivity, but this phenomenon is also attested in other documents. In (39), as in (37), *huanee* is locally sensitized as a loose conjunction while *chela* is sensitized as a tight conjunction. In the contemporary Spanish translation of this document,¹³ the first conjunct (*tooby cueelayoo solar xijtenia*) is translated as “un pedazo de tierra y solar mia” [a piece of land and a house plot of mine], indicating that asyndetic conjunction could also be at work here, sensitized as another tight conjunction strategy.

- (39) [_{L1} tooby cueelayoo solar xijteni=a_{L1}] **huanee_L**
 one land.plot house.plot of=1SG and
- [_{L2} tiopa yocho [_{T1} tobij n-ohuij-lao=nij nesaa
 two house one ST-look-face/on=3 toward
- loolaha_{T1}] **chela_T** [_{T2} see-toobij n-ohuij-lao=nij
 Oaxaca and DEF-one ST-look-face/on=3
- nesena late r-asi goobijcha_{T2}] _{L2}
 toward place H/P-go.into sun
- ‘{one land plot/house plot of mine} and {two houses, /one facing towards Oaxaca/ and /the other facing towards the west/}’ (Co721-2;12–15)

Localized semantic sensitivity is not restricted to the conjunction markers *chela* and *huanee*. In (40), *=la* is locally sensitized as a tight conjunction marker, conjoining the list of kinds of cloth, while *chela* is the loose conjunction

¹³ Archivo General del Poder Ejecutivo del Estado de Oaxaca, Oaxaca City, Mexico, Alcaldias Mayores, Legajo 42, Exp 13, 1734, 6r-8v. Available at ds-omeka.haverford.edu/ticha/en/handwritten_texts.html#373.

marker.

- (40) pe-zaalachi=ni=tono: [L1 [T1 guicha T1] =**la**_T [T2 xilla T2]
 PERF-be.provided=3=1PL wool =and cotton
- =**la**_T [T3 seda T3] =**la**_{T L1} **chela**_L [L2 ce-chacue
 =and silk =and and DEF-some
- ciani loo xaba L2]
 many face clothes
- ‘He provides us with: {/wool/ and /cotton/ and /silk/} and {other types of clothes}.’ (Doc-10v;3-6)

Localized semantic sensitivity of asyndetic conjunction is shown in (49) on page 30.

(37) is an excerpt from a much longer conjunction construction which is shown in (41). This example shows the impressive complexity which is available using localized semantic sensitivity. *Huanee* is still the loose conjunction marker, and within this larger construction the scribe uses *chela huanee*,¹⁴ =*la*, and *chela* as tight conjunction markers to mark pairs of items which should be interpreted as units.

- (41) ca-pa=ni [L1 gui-ropa yoho lichia=a L1] **huanee**_L
 IRR-have=3 IRR-two house own.home=1 SG and
- [L2 puerta huacaa guiba L2] **huanee**_L [L3 tobi guña
 door filled? metal and one box
- caxa [T1 huacaa guiba T1] **chela huanee**_T [T2 batao
 box filled? metal and life.force
- niño Jesus T2]L3] **huanee**_L [L4[T1 taa T1] =**la**_T
 child Jesus and mat =and
- [T2 pecogo T2] =**la**_{T L4}
 altar =and

‘They shall have {the two houses of mine} and {the door with a lock} and {one box with /a lock/ and /a baby Jesus/} and {/mat/ and /altar/}’

huanee_L [L5 xilla ri-biba=ni L5] **huanee**_L [L6 gui-ropa
 and seat H/P-ride =3 and IRR-two

¹⁴This unusual conjunction marker *chela huanee* is discussed briefly in the appendix.

neza	[_{T1} bichinagona _{T1}]	chela _T	[_{T2} macho _{T2}] _{L6}]	
yoke	ox	and	mule	
huanee _L	[_{L7} [_{T1} guehuana _{T1}]	chela _T	[_{T2} biga _{T2}] _{L7}]	
and	mirror	and	jewel	
huanee _L	[_{L8} cochillo	nigaa _{L8}]	huanee _L	[_{L9} lari
and	knife	this	and	cloth
laiçe _{L9}]				
cloak				

‘and {a saddle} and {the two yoke of /oxen/ and /mules/} and {/a mirror/ and /jewel/} and {this knife} and {a cloak}.’ (Te626-3;8-13)

It should be noted from these examples that, in cases of localized semantic sensitivity, *chela* and *huanee* seem to be preferred for loose conjunction over *=la* and asyndetic conjunction (this is discussed further in §5). However, as shown in §2.3 and §2.4, it is still possible for *=la* to be used in loose conjunction constructions and it is hypothesized that asyndetic conjunction is also available for loose conjunction.

Localized semantic sensitivity can give insight into a scribe’s understanding and opinions. In (42), scribe is stating the testator’s religious beliefs. Specifically, he lists the various doctrines of the Catholic faith which the testator believes in. In listing these doctrines, he alternates between *chela* (here spelled <cheela>) and *huanee*.

(42)

[_{L1} [_{T1} xi-ticha	Bejuana=na	dios	Articulos	de	la
POSS-word	lord=1PL	God	articles	of	the
fee _{T1}]	huanee _T	[_{T2} cache	xibaa	xi-ticha	yobi
faith	and	seven	mystery	POSS-word	same
Jesus _{T2}] _{L1}]	chela _L	[_{L2} [_{T1} chii	xibaa	madamieto	
Jesus	and	ten	mystery	commandment	
xi-ticha	Bejuana=na	dios _{T1}]	oanee _T	[_{T2} Cayo	
POSS-ticha	lord=1PL	God	and	five	
xibaa	xi-tichapea	xiniaa	lii	Santa	
mystery	POSS-commandment	mother	true	Holy	
yglesia _{T2}] _{L2}]	cheela _L	[_{L3} quiraa	loo	loo	xi-ticha
church	and	all	?	?	POSS-word

B dios *L3*
 our.Lord God

‘{/the words of our Lord God the articles of the faith/ and /the seven mystery words of Jesus himself/} and {/the ten mystery commandment words of our Lord God/ and /the five mystery commandments of the true Mother the Holy Church/} and {all the words of our Lord God}.’ (A1697-62r;8-12)

Since *chela* is used to conjoin the last conjunct ‘all the words of our Lord God’, a very general statement, I have analyzed *chela* as the loose conjunction in this construction. However, it is unclear how a native speaker would interpret the semantic sensitivity of the various conjunction markers as they read this text. I believe scribe is referring to, in order, the twelve Articles of the Faith (the Apostles’ Creed), the Seven Sacraments (Baptism, Confirmation, Eucharist, Penance, Anointing of the Sick, Holy Orders, and Matrimony), the Ten Commandments, and the Five Precepts of the Church (attend Mass, confess your sins, receive the sacrament, observe days of fasting and abstinence, provide for the needs of the Church). This means that, by my analysis, the scribe categorizes the Apostles’ Creed and the Seven Sacraments as a pair and the Ten Commandments and the Five Precepts as a pair. In terms of modern Catholic theology, this is not an intuitive or salient grouping of these doctrines. However, it is possible that when a native CVZ speaker read the third conjunct (‘ten mystery commandment words’), they would have immediately understood that *huanee* was the tight conjunction and *chela* the loose one.¹⁵

4.3 Localized syntactic sensitivity

As discussed in §4.1, conjunction markers in CVZ may also have LOCALIZED SYNTACTIC SENSITIVITY. This functions in a similar way to localized semantic sensitivity: within a particular sentence, a conjunction strategy is sensitized for conjunction of a particular grammatical category, and at the end of that sentence the sensitivity is lost. In (34), repeated below as (43), *chela* is locally sensitized to conjoin clauses, conjoining ‘I have two rods of beads...’ and ‘I have two yoke of oxen’. *Huanee* operates as an NP conjunction marker within the first clause.

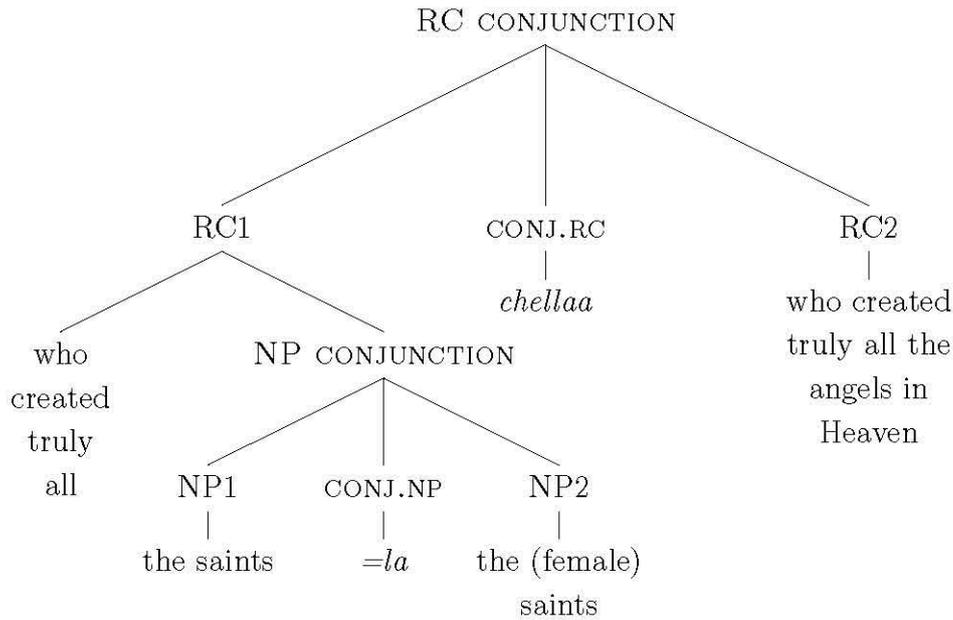
¹⁵Thank you to Helen Felker for discussion of this passage as it relates to Catholic doctrine.

- (43) $[_{CP1}$ n-apa=ya $[_{NP1}$ topa bara pigaa $_{NP1}]$ **huanee** $_{NP}$
 ST-have=1SG two rod bead and
 $[_{NP2}$ top pee (...) $_{NP2}]_{CP1}$ **chela** $_{CP}$ $[_{CP2}$ n-apa=ya
 two ring and ST-have=1SG
 topa neza mani bichinagona $_{CP2}]$
 two yoke animal ox
 ‘ $[_{CP}$ I have {two rods of beads} and {two rings} $_{CP}$] and $[_{CP}$ I have two
 yoke of oxen $_{CP}$.’ (Te626-2;11-13)

Chela and =*la* often appear as locally sensitized pairs. In (44), *chela* (here spelled <chellaa>) is sensitized for relative clause conjunction and =*la* is sensitized for NP conjunction.

- (44) $[_{RC1}$ nii pe-zaa=nii quii-raa-lii=caa
 REL PERF.CAUS-create=3 IRR-all-true=EMPH
 $[_{NP1}$ santto $_{NP1}]$ =**la** $[_{NP2}$ santa $_{NP2}]$ =**la** $_{RC1}$
 saint.M =and saint.F =and
chellaa $_{RC}$ $[_{RC2}$ nii pe-zaa=nii quii-raa-lii=caa
 and REL PERF.CAUS-create=3 IRR-all-true=EMPH
 Angel lanii quiiebaa $_{RC2}]$
 angel stomach/in heaven
 ‘ $[_{RC}$ who created truly all {the saints} and {the (female) saints} $_{RC}$] and
 $[_{RC}$ who created truly all the angels in Heaven $_{RC}$.’ (Tes740-41r;7-9)

(45)



In (46), *chela* is sensitized as a CP conjunction marker while *=la* is sensitized for NP conjunction.

(46)	goba	xi-ticha	Justicias	chela	anna
	comply.with	POSS-word	justices	and	now
	ti-llahanallii	yoo	=la	yoho	=la
	H/P-divide?	land	=and	house	=and
	=la				
	=and				

‘ $[_{CP}$ the words of the justices are complied with $_{CP}$] and [$_{CP}$ now the {land} and {the house} and {the plot} are divided $_{CP}$]’ (Te590-1;18-20)

In (47), *chela* is locally sensitized for CP conjunction while *=la* is sensitized for VP conjunction.¹⁶ However, *chela* is not properly conjoining two clauses. This example is from Agüero 1666. The text is a bilingual *Confessionario*, a guide (produced by the Catholic church) for taking confessions in CVZ. (47) is a complete utterance on the part of the priest, with sample responses from the confessor on either side.

(47)	Chela	huay-aaca	=la	hua-llaabi	=la	quiraa
	and	PRF-do	=and	PRF-accounted?	=and	all
	loo	niquee	?			
	face/on	those				

¹⁶This is the only case of VP conjunction that I have seen in the CVZ corpus.

- (50) [c]hela [CP hue-ti-elilachi=a [NP tibi=si=ca
and PRF-H/P-believe=1SG one=only=EMPH
- Dios_{NP}] **chela** [NP qui-onna presona santicima
God and IRR-three person Holy
- trinidad_{NP}] CP]
Trinity
- ‘And [CP I have believed in {only one God} and {the Holy Trinity} CP].’
(Oc686-1;7-8)

While localized sensitivity is not always used, it does hold significant benefit for the reader in interpreting garden path sentences.

5 Conclusion

While the four conjunction strategies attested in CVZ (*chela*, *huanee*, *=la*, and asyndetic conjunction) do not carry semantic or syntactic sensitivity as described by Haspelmath (2004), they may be locally sensitized by the scribe in a specific sentence to differentiate between two types of conjunction within that sentence. Based on the document Te626, a single conjunction strategy can even play multiple roles throughout a long text. No patterns based on location or time are apparent, but they may appear as the corpus of analysed data grows.

In this paper I have presented 11 examples of localized sensitivity. 8 different documents from 7 different towns are represented. Table 2 summarizes all the instances of localized sensitivity I have identified in CVZ, including some examples not shown in this paper. In total, there are 17 examples, from 11 different documents. Localized sensitivity is attested from the mid 16th-century (Doc, Feria 1567) to the mid 18th-century (Tes740), covering most of the CVZ timeline.

Almost every localized sensitivity construction involves *chela* (in total, it appears in 16 examples). The only exception is (48), which involves only *=la* and asyndetic conjunction. *Chela* is more common than the other three conjunction strategies,¹⁷ so it is unsurprising that it is more frequently locally sensitized. *Huanee* and *=la* each appear in 9 examples of localized sensitivity. Asyndetic conjunction appears in only 3 examples.

¹⁷In the current CVZ FLEx database, there are 120 confirmed instances of *chela*. In contrast there are only 47 confirmed instances of *huanee* and 54 confirmed instances of *=la*. These counts do not include Feria (1567), which is very long and is unusual in its frequent use of *=la*.

Construction	Example	<i>Chela</i>	<i>Huane</i>	= <i>La</i>	Asyndetic
Agüero-3;4	(47)	CP		VP	
Al697-62r;8-12	(42)	loose	tight		
Co721-2;12-15	(39)	tight	loose		tight?
Doc-10v;3-6	(40)	loose		tight	
Doc-25r;7-9		loose		tight	
Te589;11-12		CP		NP	
Te590-1;18-20	(46)	CP		NP	
Te618-1;33-34		loose	tight		
Te618-2;9-10		loose	tight		
Te626-2;1-7	(49)	CP loose	NP		tight
Te626-2;11-13	(43) (34)	CP	NP		
Te626-3;8-13	(37)	tight	loose	tight	
Te626-3;30	(31) (32) (36)	loose	tight		
Te702-2;6		CP	NP		
Tl675;9-10	(48)			NP	CP
Tes740-41r;7-9	(44)	RC		NP	
Tes740-41r;19-20		CP		NP	

Table 2: Instances of localized sensitivity in CVZ.

There are a few patterns in the data as to which conjunction strategy is sensitized for which role. If *chela* is locally syntactically sensitized, it is always sensitized as the clause conjunction marker. In fact, *chela* is the clause conjunction marker in all but one example of localized syntactic sensitivity. The exception is (48), where asyndetic conjunction is the CP conjunction strategy; I have already noted that this example is unusual example since it does not involve *chela*. *Huane* and =*la* are both sensitized as local NP conjunction markers; =*la* is once sensitized as a VP conjunction marker. Asyndetic conjunction is not attested as a local NP conjunction marker, but this could be a limitation of the data. *Chela*, as it is used as the CP conjunction marker, is never locally sensitized as a NP conjunction marker.

With regards to localized semantic sensitivity, *chela* and *huane* can both be locally sensitized as tight and loose. However, *chela* is only locally sensitized as a tight conjunction marker when *huane* is the loose conjunction marker, and this happens only twice. =*la* and asyndetic conjunction are only locally sensi-

tized as loose conjunction strategies. In general, *chela* is preferred for CP and loose conjunction and the other three conjunction strategies are preferred for NP and tight conjunction.¹⁸ Of course, as shown in §2, all four conjunction strategies are available for each type of conjunction individually.

This diversity of conjunction strategies is not attested in modern Zapotec languages. Table 3 on the following page shows the conjunction markers used in six Zapotec languages: two Valley Zapotec languages; two additional languages from the Central Zapotec branch (to which Valley Zapotec belongs); and two from the Sierra Norte Zapotec branch (spoken in the mountains north of the Valley of Oaxaca).¹⁹ San Dionicio Ocoatepec Zapotec and San Lucas Quiavini Zapotec are direct descendants of CVZ (Broadwell & Lillehaugen to appear); the other languages represented show the overwhelming similarity in conjunction morphology between Central and Sierra Norte Zapotec languages.

Each modern Zapotec language in Table 3 uses a conjunction marker beginning with /n/. Kaufman (2014) reconstructs a Proto-Zapotec conjunction **nok* and a comitative marker **ne* (cognate to CVZ *ñee* ‘and, with’, which is discussed in the appendix). He also reconstructs a word **la* ‘times, in multiplication’, which could be related to CVZ *=la* ‘and’. No other cognates of CVZ conjunction markers appear in Kaufman’s reconstruction. None of the sources on these languages make any reference to asyndetic conjunction, and notably each modern Zapotec language has only one conjunction marker.

None of the modern Zapotec languages shown in Table 3 have documented syntactic or semantic sensitivity (local or otherwise); the complex conjunction system of CVZ has disappeared. Indeed, there is no documentation of localized sensitivity in any other languages. Conjunction in CVZ calls for an expansion of

¹⁸In this paper, I describe alternation between conjunction strategies in CVZ in terms of sensitivity. An alternate but similar analysis of this phenomenon is that the switch in conjunction strategies defines the scope of the conjunction marker. While the operation of conjunction is associative (the grouping of the conjuncts does not affect the truth conditions), conjuncts are often analyzed as grouped into pairs, and a list of three conjuncts has ambiguous constituency. Under this alternate analysis, a switch from one conjunction strategy to another marks a shift in or out of a particular constituent. *Chela* is preferred for conjoining higher constituents (CP and loose), while *huanee*, *=la*, and asyndetic conjunction are preferred for conjoining lower constituents (NP and tight).

¹⁹The language vs. dialect distinction is a matter of current debate for all Zapotec languages, as many of the languages exist on a dialect continuum. This debate is charged by the pejorative use of the word *dialecto* in Spanish. Given these considerations, I refer to the languages with as much specificity as possible, including town names. The ISO codes shown in Table 3 refer to the language(s) spoken in a geographic range, and may not represent individual languages. For example, [zab] does not specifically refer to San Dionicio Ocoatepec Zapotec or San Lucas Quiavini Zapotec, but instead refers to the Zapotec languages spoken in the Western Tlacolula Valley.

Zapotec Language	Conjunction	Construction
San Dionicio Ocotepec Central, Valley [zab] (Broadwell 2002)	=nà	monosyndetic with possible coordinator omission (maximally appears on all but the first conjunct)
San Lucas Quiavini Central, Valley [zab] (Munro et al. 1999)	nah	bisyndetic, postpositive
Mitla Central, Mitla [zaw] (Briggs 1961)	naj, najza	monosyndetic
Isthmus Central, Isthmus [zai] (Pickett & Black 2001)	ne	monosyndetic
San Bartolome Zoogocho Sierra Norte, Zoogochoan [zpq] (Sonnenschein 2004)	na'	monosyndetic
Macuiltianguis Sierra Norte, Sierra de Juárez [zaa] (Foreman 2006)	=nna	bisyndetic

Table 3: Conjunction markers in modern Zapotec languages.

the current typology.

Appendix: Other CVZ conjunctions

In this appendix I describe six CVZ conjunctions markers which appear less frequently in the corpus than the four conjunction strategies discussed in the body of this paper.

Whitecotton & Whitecotton (1993) present three other conjunction markers in CVZ: *chelañee*, *huachela*, and *ñee* (also listed as a comitative marker). The only definition given for *hua* here is to connote an abundance of a noun, but it is used as a conjunction marker in the CVZ manuscripts. All these words appear to be rearrangements of the morphemes used in *chela* and *huanee*. These markers are used so infrequently that it is difficult to reach solid conclusions on their usage. Table 4 shows the distribution of these markers, using evidence from the FLEx complex concordance feature. For each marker, I list the number of instances that the appropriate analysis ('and' or 'with') has been confirmed

within FLEEx, as well as the number of unconfirmed analyses which FLEEx has predicted (these numbers include common alternate spellings).

Word	Definition in Whitecotton & Whitecotton	Confirmed Analyses	Unconfirmed Analyses
<i>chelañee</i>	“asimismo; también; e ó y (con-junción)” [likewise; also; and (con-junction)] (1993: 45)	‘and’: 3	‘and’: 40
<i>hua</i>	“sirue que anteponiendole al nombre le haze significar abundancia de lo que contiene el nombre” [when prefixed, this serves to make a noun mean an abundance of that to which the noun refers] (1993: 119)	‘and’: 7	‘and’: 0
<i>huachela</i>	“juntamente” [together] (1993: 121)	‘and’: 0	‘and’: 0
<i>ñee</i>	“con (preposición); y (pospuesto)” [with (preposition); and (suffixed)] (1993: 186)	‘with’: 1 ‘and’: 0	‘with’: 22 ‘and’: 0

Table 4: Other CVZ conjunctions.

Chelañee is the most common of these conjunction markers, but it appears almost exclusively in documents produced by the Catholic church, which are both less reliable and less fully analyzed. I know of one CVZ document containing *chelañee* which is not yet in the FLEEx database and therefore is not represented in these counts.²⁰

There are two places in the corpus where the conjunction marker *chela huane* appears. In (51) it conjoins two common NPs; in (52) it conjoins three proper NPs. Like *chela* and *huane*, it is monosyndetic.

- (51) tobi guiña caxa huacaa guiba **chela huane** batao
 one box box filled? metal and life.force
- niño Jesus
 child Jesus
- ‘one box with a lock and a baby Jesus’ (Te626-3;9-10)

²⁰ Archivo General del Poder Ejecutivo del Estado, Alcaldías Mayores, Leg. 51 Exp. 01 1596, 20r-20v; available at ds-omeka.haverford.edu/ticha/en/handwritten_texts.html#381.

- (52) testigos Fran Lorenzo **chela huanee** Bisente de
witnesses Francisco Lorenzo and Vicente de
Mendossa **cheela huanee** Pedro de la Cruz
Mendoza and Pedro de la Cruz
‘the witnesses Francisco Lorenzo and Vicente de Mendoza and Pedro de la Cruz’ (Co721-6;2-4)

The examples appear in two different contexts, occur in wills from different towns, and are separated in time by nearly a century; this indicates that it may have been used just like any other conjunction strategy. I found no cases of *huanee chela*. It is possible that this double-conjunction marker construction was meant to convey emphasis (i.e. ‘both X and Y’). It is not described in any colonial resource on CVZ.

The conjunction marker *y*, borrowed from Spanish, appears several times in the CVZ corpus. The construction is monosyndetic with conjunction omission, as it would be used in Spanish. This conjunction marker is always used in the (recited) declaration of ‘Jesus, Mary, and Joseph’, as seen in (53).

- (53) Jusus Maria **y** Joseph
Jesus Maria and Joseph
‘Jesus, Maria, and Joseph’ (Ti711-1;1)

Y is also used to conjoin other proper names, as seen in (54), and in other contexts that include Spanish borrowings, like numbers in (55).

- (54) baltasar hernadez **y** dgo de lerida
Baltazar Hernández and Domingo de Lerida
‘Baltazar Hernández and Domingo de Lerida’ (Te589;2)

- (55) mill setesientos **y** Beynte
thousand seven.hundred and twenty
‘one thousand seven hundred and twenty’ (Co721-1;3)

In total, *y* is used 9 times in the FLEx database, and in all cases other Spanish borrow words are involved.

In two cases, *y* appears to take on localized sensitivity. In (56), *y* is used for NP conjunction while *chela* is used for CP conjunction. In (57), *e* (another spelling of *y*) is used for loose conjunction while tight conjunction is performed by *=la*.

- (56) $[_{CP1}$ nayohu çiane $[_{NP1}$ ya=granados $_{NP1}]$ **Y***NP*
 are.located many tree=pomegranate and
- $[_{NP2}$ menbrillo $_{NP2}]_{CP1}$ **chela***CP* $[_{CP2}$ nayoo çiane
 quince and are.located many
- pia $_{CP2}]$
 prickly.pear
- ‘ $[_{CP}$ There are many {pomegranate} and {quince} trees $_{CP}$] and $[_{CP}$ there are many prickly pear cacti $_{CP}$].’ (Te618-1;31-32)

- (57) $[_{L1}$ Ju^o goncalez regidor $_{L1}]$ **e***L* $[_{L2}$ $[_{T1}$ Ju^o cortes $_{T1}]$
 Juan González regidor and Juan Cortés
- =**la***T* $[_{T2}$ Ju^o sanchez $_{T2}]$ =**la** $_{L2}]$
 =and Juan Sánchez =and
- ‘{Juan González, regidor,} and {/Juan Cortés/ and /Juan Sánchez/} ’
 (Te590-2;12)

In both of these cases, *y* is also conjoining Spanish words, so it is unclear whether the scribe is consciously sensitizing *y* or using it by reflex since Spanish words are involved. It is particularly unclear in (56), since the use of *chela* is on the boundary of the shift from Spanish back to CVZ. The reflex scenario is less likely in (57), since all of the conjuncts are in the same language.

CVZ Sources

Archives:

AGN: Archivo General de la Nación, Mexico City

AGEO: Archivo General del Poder Ejecutivo del Estado de Oaxaca, Oaxaca City

Abbreviation	Description
Aguero-page;line	Agüero 1666 (Confessionario en la mesma lengua zapoteca)
Al642;line	1642 Bill of Sale (Gabriel de Santa Ana and Marcos Antonio) from San Pedro el Alto; AGN, Tierras, Leg. 310, Exp. 2, 40r–40v; originally analysed by the UCLA Zapotexts group
Al697-page;line	1697 Testament (Maria Barbula) from San Pedro el Alto; AGN, Tierras, Leg. 310, Exp. 2, 62r–63r; originally analysed by LING215 at Haverford College (Fall 2013)
Co721-page;line	1721 Testament (Maria de la Cruz Dionisio) from San Bartolome Coyotepec; AGEO, Alcaldías Mayores, Leg. 42, Exp. 13, 2r–4v; originally analysed by the UCLA Zapotexts group; available at ds-omeka.haverford.edu/ticha/en/handwritten_texts.html#372
Doc-page;line	Feria 1567 (<i>Doctrina cristiana en lengua castellana y çapoteca</i>)
Oc686-page;line	1686 Testament (Pedro Gómez) from San Antonio Ocotlán (no archive information available); originally analyzed by the UCLA Zapotexts group
Te577;line	1577 Testament (Pedro Hernández) from Tectipac (no archive information available)
Te589;line	1589 Land Dispute (Baltazar Hernández and Domingo De Lerida) from Tectipac; AGN, Tierras, Leg. 256, Exp. 2, 84v
Te590-page;line	1590 Land Litigation (Baltazar Hernández and Domingo De Lerida) from Tectipac (no archive information available)
Te618-page;line	1618 Testament (Juan López) from San Juan Tectipac; AGN, Tierras, Leg. 256, Exp. 2, 112r–112v; originally analysed by the UCLA Zapotexts group

Te626-page;line	1626 Testament (Juan López) from San Sebastian Tectipac; AGN, Tierras, Leg. 256, Exp. 2, 88r–90r; originally analysed by the UCLA Zapotexts group
Te702-page;line	1702 Testament (Lorenza Valencia López) from San Sebastian Tectipac (no archive information available); originally analysed by the UCLA Zapotexts group
Tes740;line	1740 Testament (Pedro Gómez), town unknown; AGN, Tierras, Leg. 1058, Exp. 1, 41r–43v; originally analyzed by linguistics students at the University of Nevada, Reno (Spring 2012)
Ti700;line	1700 Bill of Sale (Melchor Antonio and Tomás Gómez) from Tiltepec (no archive information available)
Ti711-page;line	1711 Testament (Tomás Gómez) from Tiltepec (no archive information available)
Tl675;line	1675 Testament (Sebastiana de Mendoza) from San Jerónimo Tlacoahuaya; AGEO, Alcaldías Mayores, Leg. 42, Exp. 10, 1732, 7r; originally analysed by the UCLA Zapotexts group; available at ds-omeka.haverford.edu/ticha/en/handwritten_texts.html#367

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