Conjunction in Colonial Valley Zapotec

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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 Introduction

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. 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.

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.

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 ASYNDETIC or SYNDETIC. Asyndetic conjunction constructions lack an overt conjunction marker (e.g. ‘Mary, John, Paul’; this is sometimes referred to

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2 It 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.).

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

4 The 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 synthesis 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 XarâcÈu ([ane]; Oceanic, New Caledonia), for example, noun phrases and verb phrases are conjoined by mè and clauses are conjoined by na (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: iyø 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), enērīm 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 chela vel la, postpuesto. vt. v.g. Llamame a pedro y a juan y alonso, coxeni pedro la juan la alonso la.

"Et [and], que [and], and atque [and also], additionally, quoque [also], also. Chela vel or [postposed] serve for the first two, vt [as in] v.g. [for example] 'Call to Pedro and to Juan and to Alonso', coxeni pedro la juan la alonso la."\(^6\) (Cordova 1578a: 50r)

(3) co-xeni pedro =lã juan =lã alonso =lã
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 huance as meaning "tambien, juntamenta, y[ualmente]" [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;\(^6\)

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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.
50 pesos to the treasury of our lord God King and three months in jail and three dozen lashes at the whipping post’ (AI642;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 forth conjuncts.

(5)  
\[
\begin{align*}
[1 & \text{ tobi porcellana}_1]  \\
[2 & \text{ tobi escudilla}_2]  \\
[3 & \text{ chona plato}_3]  \\
\text{chela} & [4 yaga lona_4]  \\
\text{and} & \text{ wood bed}
\end{align*}
\]

‘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)  
\[
\begin{align*}
[1 & \text{ hua–ti–yelijcalachi=a chitaa quelalij } ]  \\
\text{PRF–H/P–truly.believe=1SG fourteen truth REL be.named}  \\
\text{articulos de la fee}_1]  \\
\text{articles of the faith and H/P–believe=1SG}  \\
\text{xi–ticha xi–ñana sancta yglesia}_2]  \\
\text{POSS–word POSS–mother holy church}
\end{align*}
\]

‘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) \[ \text{[1 gabriel de sactana 1] [2 marcos atoni 2] chela} \\
\text{Gabriel de Santa Ana Marcos Antonio and} \]
\[ \text{[3 naa 3]} \\
\text{1SG.FP} \]
\text{‘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 tomines’ are very different.

(8) \[ \text{[1 tobi pere gozana 1]} \text{[2 topa pere coconi hualachi 2]} \text{chela} \]
\text{one turkey hen two turkey sterile native} \\
\text{[3 xopa gozana 3]} \\
\text{and six hen} \\
\text{‘one turkey hen, two sterile native turkeys, and six hens’ (Te618-1;40)}

(9) \[ \text{[1 xilla 1]} \text{chela} \text{[2 guia-ona na-guichela tomines 2]} \text{saddle and PERF-three ST-serve.people tomines} \]
\text{‘a saddle and three (to serve the people) tomines’ (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 **Huanee**

The conjunction marker *huanee* 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)  *nee:* “con (preposición); y (pospuesto)”

“with (preposition); and (suffixed)” (186)

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

*Huanee* has identical construction and usage to *chela*. Example (11) shows that *huanee* 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] **huanee** [2 tobi beo lichi quiba₂]

twenty peso and one month house metal

*huane* [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 rarihui₂] [3 çe–tobi cuello 3]

one cloth cloak one ? ? DEF-one

**huanee** [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)”

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7 These morphemes are discussed in the appendix.

8 This possible translation is based on the contemporary Spanish translation for this conjunct: “un tela de labrar Madera”. 
*Huanee* shows no evidence of syntactic sensitivity. NPs are conjoined with *huanee* in (11) and (12) above. Example (13) shows a conjunction construction involving two clauses using *huanee* as the conjunction marker.

(13) \[ \begin{array}{ll}
1 & g-\text{ati}=a \\
2 & \text{huanee} \\
\end{array} \begin{array}{ll}
1 & \text{qui-xee}=\text{nij} \\
2 & \text{tobij} \\
3 & \text{missa}_2 \\
\end{array} \]

IRR-die=1SG and IRR-pay=3 one mass

‘I shall die and he/they shall pay one mass’ (Co721-2;4)

*Huanee* is not semantically sensitive. (14) shows conjunction of proper NPs and (11) above shows conjunction of common NPs.

(14) \[ \begin{array}{llll}
1 & \text{Anprosio}_1 \\
2 & \text{Ambrosio} \\
3 & \text{Madgalena}_3 \\
\end{array} \begin{array}{llll}
1 & \text{Jacinto}_2 \\
2 & \text{Jacinto} \\
3 & \text{lichela}=\text{ya} \\
\end{array} \begin{array}{llll}
1 & \text{pigaa} \\
2 & \text{pee} \\
\end{array} \]

‘Ambrosio and Jacinto and my spouse, Magdalena’ (Te626-3;7)

In example (15), *huanee* conjoins two very similar conjuncts (pigaa ‘necklace’ and pee ‘ring’). Example (16) shows a conjunction construction with very distinct conjuncts (macho ‘mule’ and guehuana ‘mirror’). Thus *huanee* is used in both tight and loose conjunction constructions.

(15) \[ \begin{array}{llll}
1 & \text{topa bara} \\
2 & \text{two pottery necklace} \\
\end{array} \begin{array}{llll}
1 & \text{huanee} \\
2 & \text{topa pee} \\
\end{array} \]

‘two pottery necklaces and two rings’ (Te626-3;7)

(16) \[ \begin{array}{llll}
1 & \text{macho} \\
1 & \text{mule} \\
\end{array} \begin{array}{llll}
1 & \text{huanee} \\
2 & \text{guehuana} \\
\end{array} \]

‘mules and a mirror’ (Te626-3;12)

2.3 =la

The conjunction marker =la is described by both Cordova (1578a) and listed in Whitecotton & Whitecotton (1993) as a postpositive clitic (see §1.3), and is seen throughout the CVZ corpus. It is notably prominent in Feria’s Christian doctrine (1567). This conjunction marker is bisyndetic, as shown in (17), where =la attaches to both the phrases beni nabani and beni coti.

(17) \[ \begin{array}{llll}
1 & \text{beni-na-bani} \\
2 & \text{person-ST-alive} \\
\end{array} \begin{array}{llll}
1 & =\text{la} \\
2 & =\text{la} \\
\end{array} \begin{array}{llll}
1 & \text{beni-co-ti} \\
2 & \text{person-PERF-die} \\
\end{array} \begin{array}{llll}
1 & =\text{and} \\
2 & =\text{and} \\
\end{array} \]
‘the dead and the living’ (Tes740-41r;19)

I have identified two places in the corpus, shown in (18) and (19), where =la appears to be monosyndetic.

(18) \[1 \text{ pasqual}_{1} \] =la \[2 \text{ Juan}_{2} \] zica na-zoo
Pascual =and Juan thus ST-be.standing ‘Pascual and Juan. Thus it stands...’ (Al697-62v;1)

(19) \[1 \text{ laoo face/on guelaaguichija xijten=}=a_{1} \] =la \[1 \text{ laoo face/on guelagooti xteni=}a_{2} \]
\[ \text{of=}=1SG 20 \text{ p} \text{ of=}=1SG \text{ death twenty peso} \]
‘for [the expenses of] my sickness and for [the expenses of] my death, twenty pesos.’ (Co721-5;14-15)
Contemporary Spanish translation: “para el gasto de mi enfermedad o para mi entierro 20 pesos” [for the expenses of my sickness or for my burial, 20 pesos]9

These examples occur in different documents, Al697 and Co721, which were written in different towns and are separated by about 20 years. In Al697, =la is also used bisyndetically (see (20)). =la is not used anywhere else in Co721.

The contemporary Spanish translator of Co721 interpreted the coordination as disjunctive; that is, it is translated as ‘or’. =la, a bisyndetic, prepositive clitic, is indeed a disjunction marker in CVZ (Broadwell 2002). However, the disjunctive interpretation seems less intuitive; it is unusual in CVZ wills for a testator to give a two options as to how to spend a certain sum. Furthermore, contemporary Spanish translations of CVZ documents often contain errors (we can make no guarantee as to the translator’s degree of fluency in either language). If this is a disjunction marker, it is still an irregular use, as the disjunction marker is usually bisyndetic (Broadwell 2002: 8).

There are three possible conclusions to draw from the examples in (18) and (19): =la was used monosyndetically, at least in some contexts; CVZ had another conjunction marker, la, which was monosyndetic; or, these examples were errors on the part of the scribe. According to Haspelmath, bisyndetic conjunctions are, in some languages, monosyndetic “when the coordinands are long, and especially when they are clauses” (Haspelmath 2004: 9). However, the ap-

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9Archivo General del Poder Ejecutivo del Estado de Oaxaca, Oaxaca City, Mexico, Alcaldías Mayores, Legajo 42, Exp 13, 1734, 6r-8v. Available at ds-omeka.haverford.edu/ticha/en/handwritten_texts.html#373.
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 Agostatino] =la [2 P* mulino 2] =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 llaayoo_1] =laa [2 nii pe-[za]=nii cabilaa_2] =laa
REL PERF-create=3 land =and REL
PERF-create=3 hell =and

‘that he created the land and that he created hell’ (Tbs740-41r;5-6)

(22) [1 qui-toxo=ni 1] =la [2 t-olacapa=ni 2] =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 guicha_1] =la, [2 xilla 2] =la, [3 seda 3] =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)
In other cases, as in (26), =la conjoins groups of unrelated objects.

   table    =and    knife    =and    scissors    =and
   [4 caxa] =la [5 puerta] =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 lacre] [2 tobi bitanij] 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.
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.

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.

\[^{10}\text{It is conceivable that these conjuncts are simply separate clauses. However, the meaning that Christ will come and judge (as a single action) is very salient.}\]
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 Jerónimo Tlacochahuaya (Co721, Te626, and Ti675, respectively). Chela and =la are also attested in documents from San Antonio Ocotlán (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 Ti675 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).](image)

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. 

*Huante* 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 *huante* 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 that *huante* is not attested in our current corpus for the time period.

<table>
<thead>
<tr>
<th></th>
<th>Chela</th>
<th>Huante</th>
<th>=la</th>
<th>Asyndetic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1560-1580</td>
<td>X</td>
<td>X</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>1580-1600</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1600-1620</td>
<td>X</td>
<td>X</td>
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<td>X</td>
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<tr>
<td>1620-1640</td>
<td>X</td>
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<tr>
<td>1640-1660</td>
<td>X</td>
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</tr>
<tr>
<td>1660-1680</td>
<td>X</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>1680-1700</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>1700-1720</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1720-1740</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

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 *huante* allow co-ordinator 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
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 *nee ‘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 anproslO huanee Ja~into chela lichela=ya
child=1SG Ambrosio and Jacinto and spouse=1SG
‘my sons Ambrosio and Jacinto and my wife’ (Te626-3;30)
Notice that *huane* 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 *huane*, 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 *huane* do not have semantic sensitivity. While *huane* 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 *huane* 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. *huane* T, since *huane* 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)  
\[
\begin{align*}
\text{L1 xini=} & \text{a child=1SG} \\
\text{[T1 anprosio T1] Ambrosio and} \\
\text{huanee T} & \text{[T2 Jacinto T2]L1]}
\end{align*}
\]

\[
\begin{align*}
\text{chela L} & \text{[L2 lichela=ya L2] and} \\
\text{and spouse=1SG} & \text{Jacinto} \\
\text{'} & \text{my sons /Ambrosio/ and /Jacinto/} \text{'} \text{ and } \text{my wife} \text{'} \text{ (Te626-3;30)}
\end{align*}
\]

This hierarchical tight/loose structure can be represented by the tree shown in (33). The switch to *huane* 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.
Localized semantic sensitivity is discussed further in §4.2.

Additionally, CVZ conjunction markers may have localized syntactic sensitivity, as demonstrated in (34), where *chela* operates at the clause (CP) level, 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. The corresponding tree structure is shown in (35). In the free translations, clauses are set off by labelled straight brackets *[CP ... CP]* while noun phrases are marked with curly brackets.

\[
(34) \begin{align*}
[C_P \text{ n-apa=ya}] & \quad [N_P \text{ topa bara pigaa}_{N_P}] & \quad \text{huanee}_{N_P} \\
\text{ST–have=1SG} & \quad \text{two rod bead} & \quad \text{and} \\
[N_P \text{ topa pee (...) CP}] & \quad \text{chela}_{CP} & \quad [C_P \text{ n-apa=ya}] \\
\text{two ring} & \quad \text{and} & \quad \text{ST–have=1SG} \\
\text{topa neza mani bichinagona}_{CP} & \quad \text{two yoke animal ox} & \quad \text{‘[CP I have } \{\text{two rods of beads}\} \text{ and } \{\text{two rings}\}_{CP} \text{ and } [C_P \text{ I have two yoke of oxen } CP],’ (Te626-2;11-13)}
\end{align*}
\]
As with localized semantic sensitivity, syntactic sensitivity acts only on this particular conjunction construction, and *huanee*, 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.\(^{12}\)

\(^{11}\)Not 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.

\(^{12}\)The 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) \[ \text{chela}_L \quad [L_2 \text{lichela}=ya \quad L_2] \quad \text{and} \quad [T_2 \text{bichinagona} \quad T_2] \quad \text{ox} \quad \text{mule} \]

\[ \text{huanee}_L \quad [L_2 \text{guehuana} \quad T_1] \quad \text{chela}_T \quad [T_2 \text{biga} \quad T_2] \quad \text{mirror} \quad \text{jewel} \]

‘my sons /Ambrosio/ and /Jacinto/’ and ‘my wife’ (Te626-3:30)

When the sentence is completed, *huanee* and *chela* loose 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) \[ \text{guı̈-ropa} \quad \text{nez} \quad [T_1 \text{bichinagona} \quad T_1] \quad \text{chela}_T \quad [T_2 \text{macho} \quad T_2] \quad \text{ox} \quad \text{mule} \]

\[ \text{huanee}_L \quad [L_2 \text{guehuana} \quad T_1] \quad \text{chela}_T \quad [T_2 \text{biga} \quad T_2] \quad \text{mirror} \quad \text{jewel} \]

‘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.
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 marker, as in (39). This phenomenon demonstrates the flexibility and adaptability of these conjunction markers in adapting to the context and meaning of the text.

---

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.

\[
\begin{align*}
(40) \text{pe-zaalachi=ni=tono:} & \quad [L_{1} \text{t1 guicha}_{T1}] =la_{T} \quad [T_{2} \text{xilla}_{T2}] =la_{T} \quad \text{wool} =\text{and} \quad \text{cotton} \\
& \quad [T_{3} \text{sedal}_{T3}] =la_{T} \quad \text{chela}_{L} \quad [L_{2} \text{ce-chacue}] =\text{and} \quad \text{DEF-some} \\
& \quad \text{ciani loo xaba}_{L_{2}} \quad \text{many face clothes}
\end{align*}
\]

‘He provides us with: {/wool/ and /cotton/ and /silk/} and {other types of clothes}.’ (Doc-10v;3-6)

‘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/}’

\[
\begin{align*}
(41) \text{ca-pa=ni} & \quad [L_{1} \text{gui-ropa yoho lichia=a}_{L_{1}}] \quad \text{huanee}_{L} \\
& \quad [L_{2} \text{huacaa guiba}_{L_{2}}] \quad \text{huanee}_{L} \quad [L_{3} \text{tobi guina}] \quad \text{and} \\
& \quad [L_{4} \text{taa}_{T_{1}}] \quad \text{huanee}_{L} \quad [L_{5} \text{ri-biba=ni}_{L_{5}}] \quad \text{huanee}_{L} \quad [L_{6} \text{gui-ropa}] \quad \text{and} \\
& \quad \text{alvar} =\text{and} \quad \text{H/P-ride} =\text{and} \quad \text{IRR-two}
\end{align*}
\]

\(^{14}\)This unusual conjunction marker chela huanee is discussed briefly in the appendix.
It should be noted from these examples that, in cases of localized semantic sensitivity, *chela* and *huane* 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 *huane*.

(42) \( L_1 [T_1 \text{xi-ticha Bejuana-}na \text{dios Articulos de la fe} T_{11} \text{lord=1PL God} \text{articles of the faith} \) and seven mystery POSS-word same
\( T_2 \text{cache xibaa xi-ticha yobi} \) and ten mystery commandment
\( L_2 [T_1 \text{chii xibaa madamieto Jesus} T_{11} \text{lord=1PL God} \text{and five mystery commandment} \) and all ? ? POSS-word
\( L_1 \text{xi-tichapea xiniaa lii Santa yglesia} T_{12} \text{lord=1PL God} \text{and all ? ? POSS-word} \)
\( L_3 \text{quiraa loo loo xi-ticha church} T_{13} \text{lord=1PL God} \text{and all ? ? POSS-word} \)
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 huane’ was the tight conjunction and chela the loose one.

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’. Huane’ 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) \[CP_1 n\text{-}apa=ya \quad [NP_1 \text{topa} \quad \text{bara} \quad \text{pigaa}_{NP_1}] \quad \text{huane}_e_{NP} \quad \text{ST}\text{-}have=1SG \quad \text{two} \quad \text{rod} \quad \text{bead} \quad \text{and} \]

\[NP_2 \text{top} \quad \text{pee} \quad (\ldots) \quad CP_1 \quad \text{chela}_{CP} \quad [CP_2 \quad n\text{-}apa=ya \quad \text{ST}\text{-}have=1SG \quad \text{two} \quad \text{ring} \quad \text{topa} \quad \text{neza} \quad \text{mani} \quad \text{bichinagona}_{CP_2}] \quad \text{two} \quad \text{yoke} \quad \text{animal} \quad \text{ox} \]

‘[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) \[RC_1 \quad \text{nii} \quad \text{pe\text{-}zaa=ni} \quad \text{qui\text{-}raa-lii=caa} \quad \text{REL} \quad \text{PERF.CAUS\text{-}create=3} \quad \text{IRR\text{-}all\text{-}true\text{-}EMPH} \]

\[NP_1 \quad \text{santto}_{NP_1} \quad =la \quad [NP_2 \quad \text{santa}_{NP_2} \quad =la_{RC_1} \quad \text{and} \quad \text{san} \text{t.F} \quad =and] \quad \text{chellaa}_{RC} \quad \text{RC_2 \quad nii} \quad \text{pe\text{-}zaa=ni} \quad \text{qui\text{-}raa-lii=caa} \quad \text{REL} \quad \text{PERF.CAUS\text{-}create=3} \quad \text{IRR\text{-}all\text{-}true\text{-}EMPH} \quad \text{and} \quad \text{ang} \text{el \text{lanii} \quad quiiebaa}_{RC_2} \quad \text{ang} \text{el \text{stomach/in \text{heaven}}} \]

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

(46)  

coba  

comply.with  

chi-ticha  

POSS-word  

Justicias  

justices  

and  

chela  

anna  

and  

now  

ti-llahanallii  

yoo  

=la  

yoho  

=la  

solar  

=la  

=and  

land  

=and  

house  

=and  

solar  

=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. 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  

looc  

niquee?  

face/on  

those

\[16\] This is the only case of VP conjunction that I have seen in the CVZ corpus.
‘And \( [\text{CP are all those things } [\text{VP done } \text{VP}] \text{ and } [\text{VP accounted for } \text{VP}]?]\)’

(Aguero-3;4)

The previous statement (on the part of the confessor) has the Spanish translation ‘Ordenóme el Padre, que rezara, vno, v[el] dos rozarios, que mandara dezir vna, v[el] dos Missas, que me azotara vna, v[el] dos vezes.’ [The father ordered me, that I pray one or two rosaries, that I ask for one or two masses to be said, that I be whipped one or two times.] In (47), chela could be interpreted as conjoining the confessor’s statement with the priest’s question.

(48) is unique among instances of localized sensitivity in not involving chela. Instead, asyndetic conjunction is locally sensitized as a clause conjunction strategy and –\( la \) is sensitized as the NP conjunction marker.

\[
\text{\textit{(48) }} \text{[CP1 \text{qui-ta=ni CP1]} \text{[CP2 qui-togo-ticha=ni quira=li}} \text{IRR-come=3 IRR-judge-word=3 all=true}\]
\[
\text{\textit{[NP1 beni-na-bani person-ST-be.alive =la \text{NP1]} [NP2 beni-co-ti person-PERF-die =and][NP2]} CP2}\]
\[
\text{=and}\]
\[
\text{‘[CP He shall come CP] and [CP he shall judge CP] truly all {the living people and the dead people} CP].’ (Tl675;9–10)}
\]

Conjunction strategies which are syntactically sensitized may also be semantically sensitized. That is, a strategy which is locally sensitized for NP level conjunction may also be sensitized for tight or loose conjunction at the NP level. In (49), chela is sensitized as the CP conjunction marker and conjoins three clauses (the gloss is split up based on the clause boundaries). Within the first clause, chela is also sensitized as the loose NP conjunction marker between ‘one box with a lock’ and ‘seven different cloaks and one huipil...’, while asyndetic conjunction is the tight NP conjunction strategy, conjoining ‘seven different cloaks’ and ‘one huipil’. This complex construction is repeated in the second clause (which begins ‘and I have one cloak worth five pesos...’) where chela is both the CP conjunction marker and the loose NP conjunction marker, and asyndetic conjunction is again sensitized as a tight NP conjunction strategy. Finally, in the third clause, chela is the CP conjunction marker and huanee is the NP conjunction marker, with no localized semantic sensitivity.
However, it should be noted that localized sensitivity is not always used. For example in (50), the scribe uses *chela* for both clause and NP conjunction in a single construction, instead locally sensitizing another conjunction strategy.
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.
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*. *Huanee* 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 *huanee* can both be locally sensitized as tight and loose. However, *chela* is only locally sensitized as a tight conjunction marker when *huanee* is the loose conjunction marker, and this happens only twice. *=la* and asyndetic conjunction are only locally sensi-

<table>
<thead>
<tr>
<th>Construction</th>
<th>Example</th>
<th>Chela</th>
<th>Huanee</th>
<th>=La</th>
<th>Asyndetic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agüero-3:4</td>
<td>(47)</td>
<td>CP</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Al697-62r;8-12</td>
<td>(42)</td>
<td></td>
<td></td>
<td></td>
<td>tight</td>
</tr>
<tr>
<td>Co721-2;12-15</td>
<td>(39)</td>
<td></td>
<td>tight</td>
<td>loose</td>
<td></td>
</tr>
<tr>
<td>Doc-10v;3-6</td>
<td>(40)</td>
<td></td>
<td>loose</td>
<td>tight</td>
<td></td>
</tr>
<tr>
<td>Doc-25r;7-9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>tight</td>
</tr>
<tr>
<td>Te588;11-12</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>NP</td>
</tr>
<tr>
<td>Te590-1;18-20</td>
<td>(46)</td>
<td></td>
<td>CP</td>
<td></td>
<td>NP</td>
</tr>
<tr>
<td>Te618-1;33-34</td>
<td></td>
<td></td>
<td>loose</td>
<td>tight</td>
<td></td>
</tr>
<tr>
<td>Te618-2;9-10</td>
<td></td>
<td></td>
<td>loose</td>
<td>tight</td>
<td></td>
</tr>
<tr>
<td>Te626-2;1-7</td>
<td>(49)</td>
<td></td>
<td>CP</td>
<td>loose</td>
<td>NP</td>
</tr>
<tr>
<td>Te626-2;11-13</td>
<td>(43)</td>
<td></td>
<td>CP</td>
<td>NP</td>
<td></td>
</tr>
<tr>
<td>Te626-3;8-13</td>
<td>(37)</td>
<td></td>
<td>tight</td>
<td>loose</td>
<td>tight</td>
</tr>
<tr>
<td>Te626-3;30</td>
<td>(31)</td>
<td></td>
<td>loose</td>
<td>tight</td>
<td></td>
</tr>
<tr>
<td>Te702-2;6</td>
<td></td>
<td></td>
<td>CP</td>
<td>NP</td>
<td></td>
</tr>
<tr>
<td>Te740-41r;7-9</td>
<td>(44)</td>
<td></td>
<td>RC</td>
<td>NP</td>
<td></td>
</tr>
<tr>
<td>Tes740-41r;19-20</td>
<td>(48)</td>
<td></td>
<td>CP</td>
<td>NP</td>
<td></td>
</tr>
</tbody>
</table>

Table 2: Instances of localized sensitivity in CVZ.
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. 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). San Dionicio Ocotepec 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 *nee* ‘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

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18 In 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).

19 The 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 Ocotepec Zapotec or San Lucas Quiavini’ Zapotec, but instead refers to the Zapotec languages spoken in the Western Tlacolula Valley.
Table 3: Conjunction markers in modern Zapotec languages.

Appendix: Other CVZ conjunctions

In this appendix I describe six CVZ conjunction 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: *cheläñe*, *huachela*, and *ñe* (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 *huane*.

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

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

Table 4: Other CVZ conjunctions.

Chelaiiee 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 chelaiiee which is not yet in the FLEX database and therefore is not represented in these counts.20

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

(51) tobi guña caxa huacaa guiba chela huanee 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)

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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.
testigos Francisco Lorenzo and 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) J usus Maria y Josep h
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 hernandez 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.
There are many pomegranate and quince trees and many prickly pear cacti.

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

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aguero-page;line</td>
<td>Águero 1666 (Confessionario en la misma lengua zapoteca)</td>
</tr>
<tr>
<td>Al642;line</td>
<td>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</td>
</tr>
<tr>
<td>Al697-page;line</td>
<td>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)</td>
</tr>
<tr>
<td>Co721-page;line</td>
<td>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</td>
</tr>
<tr>
<td>Doc-page;line</td>
<td>Feria 1567 (Doctrina cristiana en lengua castellana y zapoteca)</td>
</tr>
<tr>
<td>Oc686-page;line</td>
<td>1686 Testament (Pedro Gómez) from San Antonio Ocotlán (no archive information available); originally analyzed by the UCLA Zapotexts group</td>
</tr>
<tr>
<td>Te577;line</td>
<td>1577 Testament (Pedro Hernández) from Tectipac (no archive information available)</td>
</tr>
<tr>
<td>Te589;line</td>
<td>1589 Land Dispute (Baltazar Hernández and Domingo De Lerida) from Tectipac; AGN, Tierras, Leg. 256, Exp. 2, 84v</td>
</tr>
<tr>
<td>Te590-page;line</td>
<td>1590 Land Litigation (Baltazar Hernández and Domingo De Lerida) from Tectipac (no archive information available)</td>
</tr>
<tr>
<td>Te618-page;line</td>
<td>1618 Testament (Juan López) from San Juan Tectipac; AGN, Tierras, Leg. 256, Exp. 2, 112r–112v; originally analysed by the UCLA Zapotexts group</td>
</tr>
<tr>
<td>Document</td>
<td>Description</td>
</tr>
<tr>
<td>----------</td>
<td>-------------</td>
</tr>
<tr>
<td>Te626-page;line</td>
<td>1626 Testament (Juan López) from San Sebastian Tectipac; AGN, Tierras, Leg. 256, Exp. 2, 88r–90r; originally analysed by the UCLA Zapotexts group</td>
</tr>
<tr>
<td>Te702-page;line</td>
<td>1702 Testament (Lorenza Valencia López) from San Sebastian Tectipac (no archive information available); originally analysed by the UCLA Zapotexts group</td>
</tr>
<tr>
<td>Tes740;line</td>
<td>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)</td>
</tr>
<tr>
<td>Ti700;line</td>
<td>1700 Bill of Sale (Melchor Antonio and Tomás Gómez) from Tiltepec (no archive information available)</td>
</tr>
<tr>
<td>Ti711-page;line</td>
<td>1711 Testament (Tomás Gómez) from Tiltepec (no archive information available)</td>
</tr>
<tr>
<td>Tl675;line</td>
<td>1675 Testament (Sebastiana de Mendoza) from San Jerónimo Tlacochahuaya; 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</td>
</tr>
</tbody>
</table>

Table 5: CVZ Documents referenced in this paper.

References


Broadwell, George Aaron. 2015. Discovering orthographic traditions in Colonial


