10

Language Documentation & Conservation Special Publication No. 2 (May 2010):
Fieldwork and Linguistic Analysis in Indigenous Languages of the Americas,
ed. by Andrea L. Berez, Jean Mulder, and Daisy Rosenblum, pp. 223-261
http://nflrc.hawaii.edu/ldc/
http://hdl.handle.net/10125/4457

Revisiting the source: Dependent verbs in Sierra Popoluca (Mixe-Zoquean)[1]

Lynda Boudreault

The University of Texas at Austin

Sierra Popoluca (SP) is a Mixe-Zoquean language, spoken by about 28,000 individuals in southern Veracruz, Mexico. The objectives of this paper are (1) to explore the structures of dependent verb constructions in SP and the contexts in which they occur and (2) to highlight the stages in which data is gathered and the interplay between text collection, elicitation, and analysis. SP is an ergative, polysynthetic, head-marking language. It has five dependent verb construction types. Early analyses suggested that dependent verbs were non-finite, nominalized forms. Further research indicated that the verbs are components in complex predicates that share inflection for aspect/mood, person, and number. Implicated in the analysis of these constructions are: the prosodic system; the alignment system, which is hierarchically driven with split ergativity; and the number system, also hierarchically driven. The teasing apart of the various grammatical features led to a multi-step process of analyzing and collecting data. By looking at a complex grammatical structure, this paper highlights the interdependency of corpus building, text analysis, and elicitation and the strategies used to negotiate between naturally occurring speech, in which data may be obscured by phonology, and elicited data, which frequently produces periphrastic constructions or alternative utterance types.

1. INTRODUCTION. Sierra Popoluca (SP), also known as Soteapanec (Kaufman 1994, among others), is a Mixe-Zoquean language, spoken in southern Veracruz, Mexico. SP is spoken by 28,194 individuals throughout four municipalities: Soteapan, Tatahuicapan, Hueyapan de Ocampo, and Benito Juarez (INEGI 2000, 2005).[2] It is one of three Gulf Zoquean languages. Its sister languages, Ayapanec and Texistepec, are moribund. Of the three languages, Soteapanec is the only Gulf Zoquean language being learned by children. The analysis presented here comes from data gathered in three communities—Soteapan, Piedra Labrada (Tatahuicapan) and Santa Rosa Cintepec (ten minutes by bus from Los Mangos)—in numerous field visits between 2004 and 2009.

---

[1] My gratitude goes to the speakers of Soteapan, Santa Rosa Cintepec, and Piedra Labrada. The analysis presented in this paper has benefitted greatly from comments from Andrea Berez and Daisy Rosenblum, as well as two anonymous reviewers. It should be noted that all reviewers are not in agreement with certain points in the analysis and all errors are my own. Support for the research presented in this paper comes from grants from Fullbright-Garcia Robles and NSF Doctoral Dissertation Research Grant (BCS-0642425).

[2] 'Sierra Popoluca' is the term commonly used in the communities where Popoluca is spoken. 'Sierra Popoluca' and 'Soteapanec', however, are both exonyms.

The purpose of this paper is two-fold. The first is to explore the structures of dependent verb constructions (DVCs) in SP and the contexts in which they occur. The second is to highlight the stages in which the data have been gathered.

In SP, verbs in the basic clause are obligatorily inflected for aspect or mood (or both) and person. For example in (1),[3] the verb *nɨkk* 'go' is inflected with *ʔa+* '1st absolutive' (subject) and *-pa* 'incompletive' aspect.

(1) *ʔa+nɨktaʔmpa+m* *niʔi=kɨʔim*
ʔa+nɨkk-taʔm-pa+ʔam niʔ=kɨʔim
XB+go-12PL-INC+ALR river=to
'We go to the river.' (MAB.026a)

There are five contexts in which dependent verbs occur; three of which are auxiliary verb constructions (2) and two of which involve temporal/aspectual subordination (3). DVCs are composed of two[4] verbs: the first verb (V1)[5] is inflected for aspect, and the second verb (V2), takes dependent verb morphology and no inflection for aspect or mood. In these sentences the V1 always takes inflection for aspect and mood and may optionally take inflection for person. The V2 is always dependent on the V1 for its aspectual information and obligatorily takes inflection for person.

---

[3] Many of the examples are from texts and are coded to indicate which text (a key to the codes is found in the appendix). When an example is from elicitation, it is coded with the date it was recorded. The orthography used here has the following symbols: y = [j], dy = [dʲ], ty = [tʲ], ch = [tʃ], j = [h], x = [ʃ], tz = [ts], e = [ɛ], o = [ɔ], VV = [V:]. For discussion of phonology I use IPA symbols throughout this paper. The abbreviations used in example glosses this paper are: 1, 2, 3=person; 12PL='1st and 2nd person plural'; 3PL='3rd person plural'; A=Set A person markers; ALR='already'; ANTIP='antipassive'; ASSOC='associative'; AUX='auxiliary'; B=Set B person markers; CAUS='causative'; CMP='completive'; COMP='complementizer'; DEP_{ia}='dependent intransitive-a'; DEP_{ib}='dependent intransitive-b'; DEP_{t}='dependent transitive'; DERIV='derivational morpheme'; DESID='desiderative'; DJO='it is said'; FILL = 'filler'; I='inclusive'; IMP='imperative'; INC='incompletive'; IND='indirective'; INS = 'instrumental applicative'; NEG='negation'; NOM='nominalizer'; OPT='optative'; PASS='passive'; PAST = 'past tense adverb'; PERF='perfect'; PL_{HUM}='plural human'; PL_{NONHUM}='plural nonhuman'; PRO='pronoun'; PROG='progressive'; REP = 'repetitive'; SUBORD='subordinator'; VERS='versive'; X='exclusive'. In glosses, H is an unspecified underlying segment with four surface forms, $-W_2$ is dependent transitive suffix, and $-W_3$ is dependent intransitive type b.

[4] These constructions differ from compounds or serial verb constructions (Crowley 2002; Foley & Olson 1995; Zavala 2000) in that compound verbs in SP are phonologically and morphologically bound and there is no dependent verb morphology. See Boudreault (2009).

[5] I follow Aissen (1994) in labeling the verbs with respect to their position in the construction (i.e. V1 and V2) rather than identifying verbs as 'main', 'auxiliary', or other verbs in a dependency relation to one another.

(2)

	V1	V2		
ʔɨch	*mojo+m*	*ʔa+puʔunyi*	*jeʔm*[6]	*niʔi=kɨʔim*
ʔɨch	moj-W[7]+ʔam	ʔa+puʔn-i	jeʔm	niʔ=kɨʔim
1PRO	begin-CMP+ALR	XB+swim-DEPia	that	water=in

'I began to swim in the water.' (MAB.027)

(3)

ʔi+yóʔy	*jeʔm*	*pakus*	*jeʔm+gamun*
ʔi+yoʔy-W	jeʔm	pak=jos	jeʔm+gak+ʔam+ʔun
3A+jump-CMP	that	trench	that+REP+ALR+DJO

'He jumped the trench there,' (VYT.081)

V1	V2
ʔanhwéj	*mo+ʔi+nyɨ́k*
Ø+ʔanh.wej-W	mo+ʔi+nɨkk-W
3B+shout-CMP	SUBORD+3A+go-DEP_{ib}

'and he ran off mooing (lit. shouting).'[8]

In this paper, I use *DVC* to describe constructions consisting of two verbs in which at least one is syntactically dependent on another for its aspectual information, is inflected with dependent verb morphology, and shares the subject with the verb it depends on.

The verbs in V2 position (the dependent verb) exhibit a number of features that indicate that they pattern like verbs in some contexts and like nouns in others. In fact, early descriptions of Popoluca identified verbs in these contexts as 'gerundial' (Foster & Foster 1948). Work on languages of Mesoamerica has also inquired as to the status of dependent (or non-finite) verbs particularly in Mayan languages, which have been called nominalized verbs or verbal nouns. For example, Larsen (1981:137) states that in Aguacatec "Ss are not cross-referenced by the customary absolutive morphemes but rather by the same ergative prefixes that cross-reference As, thus giving the appearance of nominative/accusative verb agreement system in those environments" and suggests that "derived verbal nouns and, thus the ergative prefixes cross-referencing their respective Ss and As may be viewed as being formally noun possessors." England (2006) has also suggested that non-finite verbs

---

[6] *Je[ʔ]m* 'that' is part of the demonstrative pronoun paradigm *yɨ[ʔ]p* 'this', *je[ʔ]m* 'that', *pe[ʔ]m* 'that yonder'. Nevertheless, usage in texts indicates that *je[ʔ]m* is undergoing reanalysis as a determiner. Because it preserves its function as demonstrative pronoun, I have chosen to use the glossing convention 'that' for the sake of consistency.

[7] The symbol -W represents an underlying phonemic segment of an unknown shape. This segment has four allomorphs in its surface form [-wɨ] ~ [ɔ] ~ [u] ~ Ø. Evidence for the Ø realization is the stress system in Sierra Popoluca. For a detailed description, see Boudreault (2009). Further evidence comes from comparative work with other languages in the Mixe-Zoquean language family (Kaufman 1963, 1997, 2005). The shape of the completive has been reconstructed as *-wɨ in proto-MZ.

[8] *ʔanhwej,* which literally means 'to scream or shout', was translated by the speaker as *bramar* 'to moo (also howl)'. I preserved the speaker's Spanish translation in the English.

in Mam are 'verbal nouns'. Vasquez (2007) has examined non-finite verbs in dependent verb positions in Chol, which do not resemble verbs in terms of focus or modification despite manifesting a number of properties associated with nouns. Mateo-Toledo (2006) has also questioned whether it is possible to analyze non-finite clauses as nominalized forms in his work on Q'anjob'al. In more recent work, Mateo-Toledo (2008) describes verbs in these contexts as 'aspectless' (following in the descriptive Mayanist tradition, citing Craig (1977), England (1983), Zavala (1992), among others) and argues that they form part of complex predicate constructions that have a single value of time, aspect, and modality, and a single set of arguments.

My primary objective here is to show differences between verbs in independent clauses and dependent verbs in SP. The secondary objective is to show the unique properties associated with the different construction types, some of which exhibit features associated with nouns with respect to inflection for person and number. A third objective is to show that while some constructions exhibit some properties associated with nouns, DVCs in each construction type preserve their verbal properties in most contexts. My final goal is to demonstrate the interdependent processes of data collection and analysis by addressing how different observations emerge at different stages of analysis. The final goal essentially recounts the process through which the complete story has been obtained.

Taken as a whole, DVCs pose numerous puzzles with respect to defining categories. In SP, analyzing DVCs has led to regularly revisiting the data, as well as the field, and teasing apart the various interrelated aspects of the grammar to get the complete story. In order to accomplish the objectives of this paper, in section 2 I begin by laying out a brief description of verbs in simple clauses and their associated morphosyntax. The main body of this paper (section 3) lays out the contexts in which dependent verbs occur, the characteristics associated with dependent verbs, and how they differ from verbs in simple clauses. Finally in section 4, I present my methodology and address the evolution that the analysis has undergone, demonstrating how different aspects of the grammar were broken down and investigated over a number of field visits. Presenting the independent stages of analysis is significant, because it illustrates that dependent verbs cannot be taken as a whole, but rather require an understanding of different aspects of SP morphophonemics and morphosyntax.

2. TYPOLOGICAL OVERVIEW AND CHARACTERISTICS OF THE BASIC CLAUSE. SP is an ergative, head-marking language (with split ergative alignment in dependent clauses). It is a polysynthetic and highly agglutinating language. In (4), the subject of the clause *jeʔm pɨ̈ɨxiny* 'the man' is optionally expressed and both the adverb and the O[9] have been incorporated into the verb. SP is predominantly verb-initial, although entire sentences can be communicated with a single word, particularly in naturally occurring speech if a nominal referent is expressed in a preceding sentence (see Payne 1986). When arguments precede the verb, it is pragmatically motivated.

[9] Following Dixon (1979, 1994), I adopt the convention of representing subject, agent, and object as S, A, and O, respectively.

(4) *ʔanh+jeʔega=jukti=ʔak+núʔkpa* *(jeʔm* *pɨɨxiny)*
Ø+ʔanh+jeʔek.ʔaH=jukti=ʔak+nuʔk-pa (jeʔm pɨɨxiny)
3B+quickly=hearth=CAUS+arrive-INC (that man)
'Hurredly, the man got his fire going.' (ESK.063)

2.1. CHARACTERISTICS OF THE VERB IN SIMPLE CLAUSES. In SP, the independent clause consists of a predicate. Verbal predicates minimally take inflection for person and for aspect and/or mood, as shown in (5).

(5) *dya* *dya* *ʔa+monhtoʔoba*
dya dya ʔa+monh-toʔ-pa
NEG NEG XB+sleep-DESID-INC
'No, no I'm not sleeping.' (VYT.016b)

Person is marked with proclitics.[10] Set A clitics mark A, and Set B clitics mark S and O. The person marking proclitics are shown in Table 1.

[10] The term clitic is used to refer to morphemes that are extrametrical (do not take stress) and that occur with different word classes, following Klavans (1985), Zwicky (1977), and Zwicky & Pullum (1983). These characteristics are shown in (i) for enclitics and (ii) for proclitics. The penultimate syllable receives primary stress (unless the final syllable is heavy, e.g. CVːC; CVC is not heavy) and the leftmost syllable of the stressable word (following clitics) receives secondary stress (the phonemic transcriptions are in IPA).

(i) *ʔɨch ʔa+pɨɨxiny+tam* [ʔɨch ʔaˈpiː.ʃɨŋ.tʸaᵑ̩m] 'We are men.' (20070720anonS10)
ʔi+jootʔonh+yaj+nam [ʔiˈjoː.doŋ.jah.nam] 'They still knew.' (GU1.002)

(ii) *ʔanh+ku+jeep-ʔaʔy-pa* [ʔaŋ.kuˌhɛʔːˈbaʔj.paʔ] 'I'm going to scale (the fish).' (20070719anonS5)
na+ku+wih-ʔaʔy-taH-pa [na.kuˌwiʔ.haʔjˈtʸaːpʰ] 'It unravels itself.' (20070603jafs55)

TABLE 1. Person Inflectional Proclitics in Sierra Popoluca[11]

	Set A	Set B
Exclusive	*ʔan+*	*ʔa+*
Inclusive	*tan+*	*ta+*
2nd	*ʔin+*	*mi+*
3rd	*ʔi+*	*Ø+*
1st > 2nd	*man+*	
2nd > 1st	*ʔan+*	

SP exhibits a hierarchical system[12] (Silverstein 1976) in which only higher ranking participants are marked on the verb, and as such only one clitic appears on the verb (Boudreault 2006, 2009). The verb is inflected with Set A markers when A is 1st, 2nd, or 3rd person and O is 3rd person, indicative of a DIRECT alignment pattern. (6) shows a 2nd person A marked with 2nd person Set A *ʔin+*. When A is 3rd person and O is 1st or 2nd person, only Set B clitics for 1st and 2nd person appear on the verb, indicative of INVERSE alignment.[13] In (7), the agent of the derived transitive verb *pak.kaʔ* 'throw off' is the exclusive 1st person, which is marked on the verb with the Set B proclitic *ʔa+*. A third pattern, referred to as the LOCAL configuration by Algonquianists (Hockett 1966), is marked with proclitics that encode speech act participants (SAP)—the speaker (1st person) and the hearer (2nd person)—acting on one another. When A is 2nd person and O is 1st person, the morpheme *ʔan+* is marked on the verb (8). When A is 1st person and O is 2nd person, the transitive verb is marked with the proclitic *man+* (9).

[11] Note that Set A morphemes are used to indicate the agent of a transitive verb, the subject of an intransitive verb, and the possessor of a noun. In an earlier draft of this paper, I distinguish between nouns and verbs by glossing Set A morphemes as ERG when they occur on verbs and PSR when they occur on nouns. This is strictly a glossing convention and does not indicate that person markers and possessive proclitics are homophonous. Here I follow in the Mayanist tradition, labeling Set A for ergative and possessor and Set B for absolutive.

[12] This hierarchical system (Silverstein 1976) is common to Mixe-Zoquean languages. The person marking system reflects a ranking in which speech act participants (1st and 2nd person) rank higher than non-speech act participants (3rd person). This has been noted for the Mixe-Zoque languages Texistepec (Reilly 2002), Chiapas Zoque (Faarlund 2004), Olutec (Zavala 2004), and San Miguel Chimalapa Zoque (Johnson 2000).

[13] An alternative explanation based on the morphophonemics of Sierra Popoluca is possible, although it does not account for the local alignment. In Boudreault (2006) I present the existing analyses—morphosyntactic and morphophonemic—to show that both analyses are not only possible, but they both reinforce the hierarchical system. This analysis is supported by evidence from other languages in the Mixe-Zoque family, which show similar patterns.

(6) 2nd agent > 3rd object (direct):
ʔiny+nyoʔoba ***ʔiny****+wɨdyaaya*
ʔin+noʔ-pa **ʔin**+wɨty=ʔaaya
2A+burn-INC **2A**+husband
'You'll burn your husband.' (Comal.026)

(7) 3rd agent > Exclusive object (inverse):
ʔɨch dya ***ʔa****+pakkáʔ* *maachu*
ʔɨch dya **ʔa**+pak.kaʔ-wɨ maachu
1PRO NEG **XB**+throw.off-CMP macho
'The macho (horse) didn't throw me.' (VVA.017)

(8) 2nd agent > 1st object (local):
tyi+ʔiga ***ʔan****+yaʔachwát?*
tyi+ʔiga **ʔan**+yaʔach=wat-W
why **2>1**+suffer=make-CMP
'Why did you make me suffer?' (ESK.130)

(9) 1st agent > 2nd object (local):
ʔɨch dya ***man****+yaʔachwát*
ʔɨch dya **man**+yaʔach=wat-W
1PRO NEG **1>2**+suffer=make-CMP
'I didn't make you suffer.' (ESK.132)

The distribution of the alignment pattern is shown in Table 2.

Table 2. Alignment Pattern Distribution in Sierra Popoluca

direct	1, 2 > 3
inverse	3 > 1, 2, 3
local	1 > 2, 2 > 1

Verbs in simple clauses are inflected with aspect and/or mood with the suffixes: completive *-W*,[14] incompletive *-pa*, perfect *-neʔ*, imperative *-iʔ*, optative *-ʔiny*, frustrative *-tɨʔp*, and desiderative *-toʔ*. In (10)[15] the verb *ʔak+nuʔk* 'gather, put together' is inflected

[14] See footnote 2 for description of underlying *W* segment.

[15] Tense in Sierra Popoluca is conveyed lexically or indicated through context. Aspect and mood are morphologically expressed. INCOMPLETIVE indicates events that are habitual or not completed; COMPLETIVE indicates events that are completed regardless of the time that the event occurred. It is possible to have an event in the incompletive aspect occur in the past, the present, or the future. In

with the *-W* completive and the verb *nuʔk* 'arrive' is inflected with the incompletive *-pa* and the desiderative *-toʔ*.

(10) incompletive:

jesɨg	*ʔɨch*	*ʔarak+nuʔk**u**+m*	*ʔan+jukti*
jesik	ʔɨch	ʔan+ʔak+nuʔk-**W**+ʔam	ʔan+jukti
then	1PRO	XA+CAUS+arrive-**CMP**+ALR	XA+fire

'Then I put together my fire,'

pero	*dya*	*nuʔk**toʔoba***
pero	dya	Ø+nuʔk-**toʔ-pa**
but	NEG	3B+arrive-**DESID-INC**

'but it didn't want to light (lit. come).' (Comal.008)

Another feature of verbs in independent clauses is that number is indicated through agreement suffixes on the verb: *-taʔm* indicates plurality of the arguments of the verb if the argument is 1st or 2nd ((11) and (12)), and *-yaj* indicates plurality of the arguments of the verb if the argument is 3rd person (13). (Plural marking on the verb does not indicate event plurality.) The plural suffixes are stress bearing inflectional morphemes that precede inflection for aspect or mood.

(11) 1st person plural:

*ʔarak+wiʔk**táʔm**pa*	*ʔan+weewej*
ʔan+ʔak+wiʔk-**taʔm**-pa	ʔan+weewej
XA+CAUS+eat-**12PL**-INC	XA+grandfather
'We fed my grandfather.'	(MAB.038b)

(12) 2nd person plural:

ʔentonsej	*ʔinhku+màtonh**táʔm**um*
ʔentonses	ʔin+ku+matonh-**taʔm**-W+ʔam
then	2A+hear-**12PL**-CMP+ALR

'So, you've all heard'

yɨʔp	*pɨixiny+tyam*	*nɨm**yáj**pa*
yɨʔp	pɨixiny+tam	Ø+nɨm-**yaj**-pa
this	man+PL$_{HUM}$	3B+say- **3PL**-INC

'[what] these men say.' (CP5.002)

---

the anecdote from which the example was taken, the speaker refers to events that occurred in the past and translated these events into Spanish as such. (I later translated the Spanish into English.) Tense in this case was established by context.

(13) 3rd person plural:

peeroj	*ʔagi+tzɨ̀kso ʔps**yáj***	*jeʔm*	*piiyuj*
pero	ʔagi+ʔi+tzɨk=soʔps-**yaj**-W	jeʔm	piiyuj
but	much+3A+CAUS=tire-**3PL**-CMP	that	chicken

'But boy did they tire out that chicken.' (PQH.014)

2.2. CHARACTERISTICS OF THE NOUN. Nouns in SP may occur as arguments of verbs or as the predicate in non-verbal predicate constructions. When they occur as nouns, they may be inflected with Set A clitics to indicate the possessor, as shown in (14). When nouns occur as non-verbal predicates, they are inflected with Set B clitics to mark S, as shown in (15).

(14) *ʔan+pɨ́k* *jeʔm* ***ʔan**+ʔaganh*
ʔan+pɨk-wɨ jeʔm **ʔan**+ʔakʔanh
XA+grab-CMP that **XA**+griddle
'I grabbed my griddle.' (CML.018)

(15) *ʔa* *mich* ***mi**+parteeraj*
ʔa mich **mi**+parteeraj
ah 2PRO **2B**+midwife
'Ah, you're a midwife.' (SoyPartera.001)

Nouns may also be inflected to indicate plurality with the plural enclitics +*tam*, which indicates plurality of human entities (16a), and +*yaj*, which indicates plurality of nonhuman entities (16b).

(16) a. *yoomo+**tam*** 'women' *yoomo* 'woman'
*tzɨ̈xi+**tam*** 'children' *tzɨ̈xi* 'child'

b. *chimpa+**yaj*** 'dogs' *chimpa* 'dog'
tzaʔ+**yaj** 'rocks' *tzaʔ* 'rock'

The plural markers may also agree with the possessor of the noun. In this case, the markers agree with respect to whether the possessor is a SAP or a nonSAP. In (17a), the clitic that appears on the human noun is +*tam*, which agrees with the human noun. In (17b) the noun is inflected with the marker +*yaj,* which in this case agrees with the nonSAP possessor. It cannot agree with the noun, which is human. The examples in (18) illustrate possessed non-human nouns. In (18a) the plural marker agrees with the noun in terms of its non-human property. It may not agree with the 1st person possessor because it is a 3rd person referent. In (18b) the plural marker +*tam* may only agree with the 1st person possessor; it may not agree with the non-human noun. It is also important to note that plural marking is not obligatory, and therefore, in (18) the plural enclitic agrees with the possessor indicating that the possessor is plural; however, the plurality of *chimpa* 'dog' is ambiguous.

(17) a. *ʔi+yom=tɨ́ɨwɨ+**tam***
ʔi+yoomo=tɨɨwɨ+**tam**
3A+woman=sibling+**PL**$_{\text{HUM}}$
'his sisters' / 'their sisters' / *'their sister'

b. *ʔi+yom=tɨ́ɨwɨ+**yaj***
ʔi+yoomo=tɨɨwɨ+**yaj**
3A+woman=sibling+**3PL**
'their sister' / 'their sisters' / *'his sisters'

(18) a. *ʔan+chimpa+**yaj***
XA+dog+**PL**$_{\text{NONHUM}}$
'my dogs' / *'our dog'

b. *ʔan+chimpa+**tam***
XA+dog+**12PL**
'our dog(s)' / *'my dogs'

Finally, when nouns occur as non-verbal predicates, plural markers agree with S. In (19a) the human noun *yoomo* 'woman' is inflected with 1st person and the plural marker *+tam,* which agrees with the 1st person. In (19b) *yoomo* 'woman' is inflected with 3rd person and the plural enclitic *+yaj*, which agrees with the 3rd person subject.

(19) a. *ʔich ʔa+yoomo+tam*
1PRO XB+woman+12PL
'We are women.' (20070704 JAFS13)

b. *jeʔ Ø+yoomo+yaj*
3PRO 3B+woman+3PL
'They are women.'

2.3. SUMMARY OF THE BASIC CLAUSE AND MORPHOLOGICAL CHARACTERISTICS OF VERBS AND NOUNS. Verbs are generally defined as heading the verb phrase and taking inflection for person, aspect, and optionally for number. The alignment system is ergative: Set A marks A and Set B marks S and O. Nouns may head the noun phrase or occur as non-verbal predicates. They take inflection for person: Set A marks possessors and Set B marks S. They are optionally inflected to indicate plurality of the noun or number agreement with the possessor or the S of non-verbal predicates.

3. THE DEPENDENT VERB. In SP, DVCs are those that do not receive inflection for aspect or mood, are dependent on another verb for aspect/mood, and share the subject with the verb that is inflected for aspect or mood. In DVCs, the verb inflected with aspect occurs

in V1 position and the dependent verb occurs in V2 position, with one exception (*mo* subordinator clauses discussed in section 3.1.4). The V1 is always marked with aspect/mood inflection, and the V2 is marked with dependent verb morphology, person marking and plural marking. In (20) the V1 is the auxiliary verb *yaj* 'finish', which is inflected with the incompletive morpheme *-pa*. The V2 is the verb *chinh* 'bathe', which is inflected with the Set B exclusive proclitic *ʔa+*, the dependent suffix *-i* and the plural enclitic *+tam*. In addition, the person may be marked on the V1, and it always agrees with the subject marked on the V2 (21).

(20) *yáj**pa**+m* ***ʔa**+chíinh**i**+**tyam***
yaj-**pa**+ʔam **ʔa**+chiinh-**i+tam**
finish$_{AUX}$-INC+ALR XB+bathe-**DEP$_{ia}$+12PL**
'We finished bathing.' (MAB.031b)

(21) *mich dya+m* ***mi**+ʔóy* ***ʔiny**+ʔáʔm* *ʔiny+choomo*
mich dya+ʔam **mi**+ʔoy-W **ʔin**+ʔaʔm-**W$_2$** ʔin+choomo
2PRO NEG+ALR **2B**+go/return$_{AUX}$-CMP **2A**+see-**DEP$_t$** 2A+grandmother
'You didn't go see your grandmother.' (VVA.040)

Depending on the type of DVC, the dependent verbs in V2 position may be overtly inflected with dependent verb morphology or appear Ø-marked. For example in (22) the verb *mɨ̈ich* 'play' is inflected with the dependent suffix *-i*. (23) shows a construction in which the dependent verb in V2 is transitive and has no overt dependent morphology.

(22) *ʔodoy nɨ́giny mɨ̈ichi*
ʔodoy nɨkk-ʔiny Ø+mɨ̈ich-i
NEG go$_{AUX}$-OPT 3B+play-DEP$_{ia}$
'They shouldn't go play.' (CQS.005)

(23) *ʔestej yɨʔp tuunh+gak sɨʔp ʔi+wɨ̀ɨkuyujkáʔ*
ʔeste yɨʔp tuunh+gak sɨʔ-pa ʔi+wɨ̈=ku+yuj-kaʔ-W$_2$
FILL this other walk$_{AUX}$-INC 3A+good=learn-INS-DEP$_t$
'This other one, he's learning it well.' (CP5.004)

We know there is a segment underlyingly present because stress falls on the final syllable.[16] Establishing dependent morphology in SP is problematic because in a number of the construction types verbs appear bare. Constructions in which the verb in V2 position is intransitive following a small set of auxiliary verbs are inflected with the dependent intransitive suffix *-i*. However, in all constructions in which the verb in V2 position is transitive, the verb is Ø-marked for dependent morphology. As with the completive suffix *-W*, there is evidence to posit an underlying segment. SP prosody and comparative analysis

[16] See fn. 7 above. See fn. 10 for stress rules. See Boudreault (2009) for a description of phonology.

suggest that there is an underlying segment; however the shape of this segment is unknown. Following Kaufman (1997), I assign the label *-W* to account for the presence of said suffix in the morpheme breakdowns.

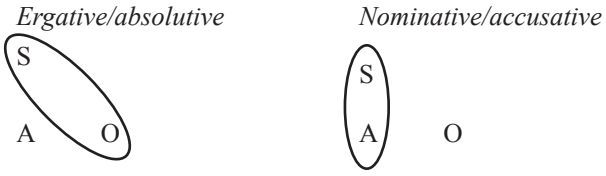
In a number of DVCs, when the dependent verb is intransitive, S is marked with Set A person markers as well as being Ø-marked as a dependent. The pair of examples in (24) and (25) illustrate the intransitive verb *put* 'exit' in independent and dependent contexts, respectively. (24) shows the verb inflected with a Set B person marker in the completive aspect. (25) shows the same verb in V2 position—inflected with a Set A person marker—in a dependent relation to the V1 and inflected for perfect and completive aspect.

(24) *ʔɨch* *ʔa+putu+m.*
ʔɨch ʔa+**put**-W+ʔam
1PRO XB+**exit**-CMP+ALR
'I already went out.' (PQ2.109b)

(25) *dya* *ʔa+joʔynyéʔu+m* *ʔam+**pút***
dya ʔa+joʔy-neʔ–W+ʔam ʔan+**put**-W_3
NEG XB+be.angry-PERF-CMP+ALR XA+**exit**-DEP_{ib}
'I wasn't angry when I left.' (060722ERG061)

This alignment pattern corresponds to a Split-S system conditioned by subordination (Dixon 1994:71, 101-4). That is, independent verbs are marked with Set A person markers to indicate A and Set B person markers to indicate S and O (an ergative/absolutive pattern). Dependent verbs in most contexts, however, are marked with Set A person markers to indicate A and S and Set B to indicate O (a nominative/accusative pattern). The pattern is shown in Figure 1.

FIGURE 1. Ergative/absolutive and nominative/accusative alignment systems.



In DVCs, inflection for aspect/mood and dependent marking are independent of one another.[17] The dependent morphology of the dependent verb is determined by the

[17] Within the Mixe-Zoquean language family, this characteristic is unique to Sierra Popoluca (as noted by Wichmann 1995:103). The person marking in Sierra Popoluca distinguishes between transitive and intransitive, whereas in the other languages of the family dependent marking corresponds with aspect.

type of subordination and the transitivity of the verb. The following examples illustrate constructions with the V1 in completive aspect (26), incompletive aspect (27), and optative mood (28). (26a) shows an intransitive dependent verb marked with *-i*, (26b) shows a transitive dependent verb Ø-marked but bearing person marking, which is shared with the V1, and (26c) shows an intransitive dependent verb Ø-marked as dependent but S is referenced with a Set A person marker. Illustrating incompletive aspect, (27a) shows an intransitive dependent verb inflected with *-i,* (27b) shows a transitive dependent verb Ø-marked as dependent, and (27c) shows an intransitive dependent verb Ø-marked as dependent but whose S is referenced with a Set A person marker. Finally, to illustrate inflection for mood, (28a) shows an intransitive dependent verb with *-i* and (28b) shows a transitive dependent verb that is Ø-marked and bearing person marking referencing the S shared by the V1 and V2. (There are no combinations of optative V1 with dependent clauses showing split ergativity, although other moods are attested.)

(26) completive aspect:

a. *moj**o**+m* *toy-**i*** *ʔi+puʔu*
moj-**W**+ʔam Ø+toy-**i** ʔi+puʔu
begin$_{AUX}$-**CMP+ALR** 3B+ache-**DEP$_{ia}$** 3A+belly
'Her belly began to hurt.' (SA2.009b)

b. *moj**u**+m* *ʔi+ku+wogáʔy* *jeʔm* *ʔi+jaʔyuk*
moj-**W**+ʔam ʔi+ku+wok-ʔaʔy-**W$_2$** jeʔm ʔi+jayʔuk
begin$_{AUX}$-**CMP**+ALR 3A+scold-IND-**DEP$_t$** that 3A+brother
'He began to scold his little brother.' (Anecdota.012)

c. *komo* *dya+m* *wɨʔáaj* *ʔi+yoʔoma=séet*
komo dya+ʔam wɨʔaH-**W** ʔi+yoomo.ʔaH=seet-**W$_3$**
like neg+ALR be.able$_{AUX}$-**CMP** 3A+woman-VERS=return-**DEP$_{ib}$**
'As she could not transform into woman.' (VYT.109)

(27) incompletive aspect:

a. *ʔii* *jemum* *ʔeste* *moj**pa**+m* *wɨ̈ɨ̈=tzɨʔy**i***
ʔii jemɨʔam ʔeste moj-**pa**+ʔam Ø+wɨ̈ɨ̈=tzɨʔy-**i**
and right.there this begin$_{AUX}$-**INC**+ALR 3B+good=remain-**DEP$_{ia}$**
'And there it begins to turn out well.' (CP2.006)

b. *miny**pa**+m* *ʔan+ʔaʔmtáʔm*
miny-**pa**+ʔam ʔan+ʔaʔm-taʔm-**W$_2$**
come-**INC**+ALR 2>X+see-12PL-**DEP$_t$**
'Are you (two) coming to see me?' (Cangrejo.040)

c. *ʔagi+siʔ**p*** *ʔi+mɨichyáj*
ʔagi+siʔ-**pa** ʔi+mɨich-yaj-**W$_3$**
very+walk$_{AUX}$-**INC** 3A+play-3PL-**DEP$_{ib}$**
'They're playing a lot.' (CQS.013b)

(28) optative mood:

a. *ʔokmɨ* *ʔaranh+wejaʔypa* *nɨg**iny*** *wiʔik**i***
ʔok-mɨ ʔan+ʔanh+wej-ʔaʔy-pa nɨkk-**ʔiny** Ø+wiʔk-**i**
afterwards 3A+shout-IND-INC go$_{AUX}$-**OPT** 3B+eat-**DEP$_{ia}$**
'Afterwards we called to him (to ask) if he was going to eat.' (CNC.054b)

b. *ʔagakuʔaʔmyájpa*
ʔagi+ʔa+ku+ʔaʔm-yaj-pa
very+XB+seek.out-3PL-INC
'They look for me a lot,'

ʔiga+ʔɨch *nɨg**iny*** *ʔarak+poʔoyáj*
ʔiga+ʔɨch nɨkk-**ʔiny** ʔan+ʔak+poʔ-yaj-**W$_2$**
COMP+1PRO go$_{AUX}$-**OPT** XA+CAUS+give.birth-3PL-**DEP$_t$**
'that I go help them give birth.' (Partera.029/30)

3.1. CONTEXTS IN WHICH DEPENDENT VERBS OCCUR. The five contexts in which dependent verbs occur include: with Type I auxiliary verbs, with Type II auxiliary verbs, in temporal/aspectual subordinator *mo* 'when' clauses, in temporal/aspectual with no overt subordinator clauses, and progressive auxiliary *siʔ*. In most of these constructions the alignment pattern appears to manifest what Dixon (1994:71, 101-4) calls a 'split-S' of the type described as 'main' versus 'subordinate'. The distribution of construction types and the associated alignment patterns are shown in Table 3. This section will look at each of the five types of multi-verb constructions (and their subtypes), the conditions under which the alignment systems are ergative or nominative, and the unique properties exhibited by each of these constructions.

TABLE 3. Multi-verb constructions with dependent verbs

I	Auxiliary I (Active)	ergative
	(Passive)	nominative
II	Auxiliary II: Modals	nominative
III	Temporal/aspectual subordinator (without *mo*)	nominative
IV	Temporal/aspectual subordinator (with *mo*)	nominative
V	Progressive auxiliary *sɨʔ*	nominative

3.1.1. AUXILIARY VERBS, TYPE I. One context in which dependent verbs occur is Auxiliary Type I verb constructions. Auxiliary verbs in SP are verbs that belong to a small, fixed set and take inflection for aspect/mood.[18] There are seven Type I auxiliary verbs. These are *nɨkk* 'go', *miny* 'come', *ʔoy* 'go and return', *yaj* 'finish' (29), *moj* 'begin' (30), *kus* 'have enough of VERB' (31), *jaʔy* 'be late to VERB'.

(29) ***yáj**pa+m* *wíʔiki*
yaj-pa+ʔam Ø+wiʔk-i
finish$_{AUX}$-INC+ALR 3B+eat-DEP$_{ia}$
'They were already finished eating.' (ESK.073a)

(30) ***moj**pa+m* *ʔi+jetz=tím* *ʔi+way*
moj-pa+ʔam ʔi+jetz=tim-W$_2$ ʔi+way
begin-INC+ALR 3A+brush=stretch.out-DEP$_t$ 3A+hair
'She begins brushing out her hair.' (VYT.010b)

(31) *tan+yoomo* ***kús**u+m* *jóʔyi*
tan+yoomo **kus**-wɨ+ʔam Ø+joʔy-i
IA+woman **be.enough**$_{AUX}$-CMP+ALR 3B+be.angry-DEP$_{ia}$
'Our lady got sufficiently angry. (She'd had enough.)' (ESK.083)

When auxiliary I verbs occur with intransitive verbs, as in (32), the verb is marked with the suffix *-i* and person is marked with Set B person markers. When the dependent verb is transitive, the verb is Ø-marked as dependent. With respect to person marking, the hierarchical system is preserved. (33) and (34) illustrate the DIRECT and INVERSE configurations, respectively. In (33) A is 1st person and O is 3rd person. A is the higher ranking participant and is therefore marked on the verb. In (34) A is 3rd person and O is

[18] Definitions of auxiliary verbs are generally language-specific (Heine 1993). The criteria for defining auxiliary verbs in Sierra Popoluca meet those described by Steele et al. (1981:21).

1st person, the higher ranking participant; therefore, O is marked on the verb with Set B proclitic *ʔa+*.[19]

(32) *ʔich* *mojo+m* ***ʔa****+puʔunyi* *jeʔm* *niʔi=kiʔim*
ʔich moj-W+ʔam **ʔa**+puʔn-i jeʔm niʔ=kiʔim
1pro begin$_{AUX}$-W+ALR **XB**+swim-DEP$_{ia}$ that water=in
'I began to swim in the river.' (MAB.027)

(33) *ʔabeesej* *dya+tyi* *ʔi+kiʔispa* *nikpa* ***ʔan+ʔáʔm***
ʔabeesej dya+tyiH ʔi+kiʔis-pa nikk-pa **ʔan+ʔaʔm-W$_2$**
ʔabeeseh NEG+what 3A+eat-INC go$_{AUX}$-INC **XA+see-DEP$_t$**
'Sometimes he doesn't eat anything. I'm going to see him.' (CNC.055)

(34) *ʔokmi* *ʔóy* ***ʔa****+**ʔáʔm*** *ʔa+ʔich*
ʔok-mi ʔoy-W **ʔa+ʔaʔm-W$_2$** ʔa+ʔich
afterwards go/return$_{AUX}$-CMP **XB+see-DEP$_t$** XB+1PRO
'Afterwards they went to see me.' (Partera.004)

3.1.1.1. PLURAL MARKING OF AUXILIARY I DEPENDENT VERBS. Dependent verbs take inflection for person and number; however, unlike independent verbs, dependent verbs in Auxiliary I constructions are inflected with plural enclitics, rather than stress bearing suffixes. We saw in section 2 that verbs are inflected to indicate number agreement of their arguments with the plural suffixes *-taʔm* '1st and 2nd person plural' and *–yaj* '3rd person plural suffix'.[20] (11) and (13) are repeated here in (35) and (36).

(35) *ʔarak+wiʔk****táʔm****pa* *ʔan+weewej*
ʔan+ʔak+wiʔk-**taʔm**-pa ʔan+weewej
XA+CAUS+eat-**12PL**-INC XA+grandfather
'We fed my grandfather.' (MAB.038b)

[19] This example is one of few in the corpus of naturally occurring text that shows a higher ranking patient. This story was recorded and transcribed in the summer of 2006, however, its significance was not evident until I began investigating non-finite verbs with the goal of determining their status as compared to finite verbs.

[20] The plural marking pattern observed in SP, described as 'plurality split' by Smith-Stark (1974) and Corbett (2000), distinguishes between SAP/nonSAP and HUMAN/nonHUMAN depending on whether markers agree with nouns, arguments, or possessors (Boudreault 2007).

(36) *peeroj* *ʔagi+tzɨksoʔps**yáj*** *jeʔm* *piiyuj*
pero ʔagi+ʔi+tzɨk=soʔps-**yaj**-W jeʔm piiyuj
but much+3A+CAUS=tire-**3PL**-CMP THAT chicken
'But boy did they tire out that chicken.' (PQH.014)

Dependent verbs in this context mark number agreement with enclitics. In (37) the enclitic *+tam* agrees with the 2nd person S, and in (38) *+yaj* agrees with the 3rd person S.

(37) *ʔóy* ***mi**+mɨichi+**tyam***
ʔoy-W **mi**+mɨich-i+**tam**
go/return$_{AUX}$-W **2B**+play-DEP$_{ia}$+**12PL**
'You (all) went to play.' (VVA.041)

(38) *yaju+m* *wiʔiki+**yaj***
yaj-W+ʔam **Ø**+wiʔk-i+**yaj**
finish$_{AUX}$-CMP+ALR **3B**+eat-DEP$_{ia}$+**3PL**
'They finished eating.' (Cangrejo 012)

To summarize, Auxiliary I (active) constructions occur with a closed set of verbs. Intransitive verbs in V2 position are marked with the dependent suffix *-i* and plurality is indicated with plural marking enclitics. Transitive verbs in V2 position are Ø-marked as dependent and plurality is indicated with number agreement suffixes. Person marking is ergative/absolutive.

3.1.1.2. AUXILIARY I CONSTRUCTIONS AND PASSIVE DEPENDENT VERBS . The dependent verb in V2 position may be passive. In SP, passive constructions are those in which the O of a transitive verb—or the primary object (PO)[21] of a ditransitive verb (Dryer 1986)—are advanced to S. The passive suffix is *-taH*. (39) shows the transitive verb *suy* 'to lasso' inflected with the 3rd person Set A clitic to mark A. In (40), the same verb *suy* 'to lasso' is marked with the passive *-taH*. Here S is Ø-marked for 3rd person (Set B).

(39) *ʔi+**xúy*** *jeʔm* *ʔi+wɨyaaya*
ʔi+**suy**-W jeʔm ʔi+wity=ʔaaya
3A+**lasso**-CMP that 3A+husband
'The husband lassoed her.' (VYT082b)

[21] Sierra Popoluca is a primary object (PO) language (Dryer 1986:815). In PO languages, the recipient (benefactive, goal, etc.) of a ditransitive verb is marked on the verb. That is, the recipient shares the object properties of the O of monotransitive verbs; the theme assumes secondary object status. This differs from direct/indirect object languages in that it is the theme that shares the object properties of the O of monotransitive verbs, the recipient is often marked as dative.

(40) ***suy****tyáaj* *jeʔm* *yoomo*
Ø+**suy**-taH-W jeʔm yoomo
3B+**lasso**-PASS-CMP that woman
'The woman was lassoed.' (VYT079)

Auxiliary I constructions are interesting because when the dependent verb is passive, S is marked with Set A person markers. Recall from section 3.1.1 that intransitive dependent verbs mark S with Set B person markers. In (41) the V2 is the transitive verb *toj* 'pay' marked with the passive suffix *-taH*. Yet S in this context is marked with a Set A proclitic. This is the only context in which intransitive dependent verbs in auxiliary I constructions mark S with Set A clitics.

(41) *pues* *nɨkpa* *ʔi+yojtáaj*
pues nɨkk-pa ʔi+yoj-taH-W
then go$_{AUX}$-INC 3A+pay-PASS -DEP$_{ib}$
ʔidyɨk *ʔiga+tzɨɨxi=pinhpa*
ʔityʔɨk ʔiga+Ø+tzɨɨxi=pinh-pa
PAST COMP+3B+child=gather-INC
'She went to be paid to deliver babies (lit. 'to pick babies').' (MAB.274)

In contrast, antipassive verbs in V2 do not exhibit ergative split. In SP, antipassive constructions are those in which the valency of a transitive verb is reduced and only the 'notional' A[22] is expressed on the verb as S. For example, in (42), the transitive verb *wɨɨt* 'massage, rub' is inflected with the Set A clitic *ʔi+*, referencing both an A (the midwife) and O (the woman being massaged). The example in (43) shows the same verb derived with the antipassive suffix *-ʔoʔy* and the verb Ø-marked for 3rd person S. (44) shows the same verb with the antipassive as the dependent of the auxiliary *ʔoy* 'go/return'. Here it is marked with *-i* dependent suffix and Ø-marked for 3rd person S.

(42) *nɨmpa+ʔun* *jesɨk* *ʔi+**wɨɨt**pa*
Ø+nɨm-pa+ʔun jesɨk ʔi+**wɨɨt**-pa
3B+say-INC+DJO when 3A+**massage**-INC
'She says, when she [the midwife] massages [the woman],'

dya+ʔun *ta+nɨmpa* *yɨʔp* *dya* *jeʔ* *tzɨɨxi*
dya+ʔun ta+nɨm-pa yɨʔp dya jeʔ tzɨɨxi
NEG+DJO IB+say-INC this NEG 3PRO child
'it isn't, as we say, this isn't a child.' (GU1.078/9)

[22] Following Gildea (1998).

(43) *ʔii komo tanimpa ʔagi+**wiʔidoʔy**pa ʔi+chíʔ ʔi+xaaja*
ʔii komo ta+nim-pa ʔagi+Ø+**wiɨt-ʔoʔy**-pa ʔi+chiʔ-W ʔi+saaja
and as IB+say-INC much+Ø+**massage-ANTIP**-INC 3A+give-DEP_t 3A+gift
'And because, as we say, she massaged often, they gave her her gift.' (MAB.169)

(44) *ʔóy wiʔid**oʔyi***
ʔoy-W Ø+wiɨt-**ʔoʔy-i**
go_{AUX}-CMP 3B+massage-**ANTIP-DEP_{ia}**
'She went to massage.' (MAB.123)

In this context agreement for number differs from that of inflection of dependent verbs in active Auxiliary I constructions and patterns with number marking of independent verbs. Plural markers in these contexts bear stress, indicating that they are suffixes.

(45) *jaʔypa ʔi+ri+miny**yáj***
jaʔy-pa ʔi+na+miny-**yaj**-W_2
$be.late_{AUX}$-INC 3A+ASSOC+come-**3PL**-DEP_t
'They're late in bringing the chairs.' (20070726rcrS4)

(46) *kus ʔan+ʔuk**táʔm** ʔuunu*
kus-W ʔan+ʔuk-**taʔm**-W_2 ʔuunu
have.enough-CMP XA+drink-**12PL**-DEP_t atole
'We've drunk enough atole.' (20070726rcrS4)

Additional evidence to support the claim that plural inflection in these constructions is with suffixes, rather than enclitics, comes from the order of suffixes. On independent verbs, plural suffixes precede the passive suffix in the verbal template (47). In DVCs, the plural markers also precede the passive suffix (48), demonstrating that plural markers in passive DVCs of Auxiliary I constructions are stress bearing suffixes and not extrametrical clitics.

(47) *ʔa+pajtaʔmtáap*
ʔa+paj-taʔm-taH-pa
XB+enclose-12PL-PASS-INC
'We were locked up.' (CNC.019b)

(48) *ʔantej di kwaatruj diaj ʔo siinkuj*
antes di kwaatruj diaj ʔo siinkuj
before part four days or five
'Four or five days before'

mojpa	*ʔi+k+joodonha**yajtyáa***	*jeentej*
moj-pa	ʔi+ʔak+joodonh-ʔaH-**yaj-taH**-W_2	jeentej
$begin_{AUX}$-INC	3A+CAUS+knowledge-VERS-**3PL-PASS**-DEP_t	people

'he begins to inform the people (the people begin to be informed),'

ʔiga+míny	*mar+ak+joodonhatáʔm*	*ʔɨch*	*ʔam+moʔosba*
ʔiga+miny-W	man+ʔak+joodonh-ʔaH-taʔm-W_2	ʔɨch	ʔan+moʔos-pa
COMP+come-CMP	X>2+CAUS+knowledge-VERS-12PL-DEP_t	1PRO	XA+cook.corn-INC

'"I came to inform you (that) I will cook corn."' (PDLMA.Fiesta.020)

3.1.2. AUXILIARY VERBS, TYPE II. Another context in which dependent verbs occur is with the verbs *wɨʔaaj* /wɨH-ʔaH/ 'to be able to VERB' (49), *jutzaaj* /jutz-ʔaH/ 'be such that VERB' (50), and *ʔanh+jagoʔy* /ʔanh+jak-ʔoʔy/ 'be the first to VERB' (51) .[23] The *wɨʔaaj* and *jutzaaj* constructions have been identified as auxiliary verbs of Type II by Elson (1960a, b), Himes (1997), and Kaufman (1997). In (49), the dependent verb is the intransitive *nay* 'be born'. Notice that the subject, *jeʔm tzɨɨxi* 'the child', is referenced on the verb with the Set A proclitic *ʔi+*. In (50), the dependent verb of *jutz-ʔaH* is the intransitive verb *nuʔk* 'arrive', whose subject is also marked with the exclusive Set A person marker. In (51) *ʔanh+jagoʔy* occurs in V1 position and is inflected with the incompletive. The V2 is the intransitive verb *kaʔ* 'to die', which is marked with a Set A person marker. In Auxiliary II constructions, the V1 may be inflected with person markers (52). Although inflection for person on the V1 is rare in these constructions, when the V1 is inflected, the person markers are Set B.

(49)

***wɨʔaa**+m*	*ʔi+**nyáy***	*jeʔm*	*tzɨɨxi*
wɨʔ-ʔaH-W+tyi+ʔam	ʔi+nay-W3	jeʔm	tzɨɨxi
be.able-CMP+just+ALR	3A+**be.born**-DEP_{ib}	that	child

'It was still possible that the baby will be born.' (PAR.039)

(50)

ʔii	*nɨmyajpa*	*jeʔm*	*pwesteru*	*siʔɨp*	***jutzʔaap***
ʔii	Ø+nɨm-yaj-pa	jeʔm	pwesteru	siʔɨp	**jutz-ʔaH-pa**
and	3B+say-3PL-INC	that	vendors	now	**be.such.that**$_{AUX}$**-INC**

ʔan**+**nuʔktáʔm	*ʔɨch+tyam*	*porkij*	*dya+ʔii*	*ʔanhjakʔoʔoyi*
ʔan+nuʔk-taʔm-W_3	ʔɨch+tam	porkij	dya+ʔiH	ʔanhjak-ʔoʔy-i
XA+arrive-12PL-DEP_{ib}	1PRO+12PL	because	NEG+who	govern-ANTIP-NOM

'And the vendors say, "How can we arrive because there's no president."' (PDLMA.presidente.091)

[23] The verbs *wɨH-ʔaH*, *jutz-ʔaH*, *ʔanh+jagoʔy* are derived verbs that have undergone lexicalization. *wɨH-ʔaH* is derived from the adjective *wɨH* 'good' derived with the versive suffix *-ʔaH*. *Jutz-ʔaH* is derived from *juʔutz* 'how' derived with the versive *-ʔaH*. *ʔanh+jagoʔy* is derived from *juʔutz* 'how'and the versive *-ʔaH*. This requires further research.

(51) *ʔii* *ʔanhjagoʔypa* *ʔi+káʔ*
ʔii ʔanh+jak-ʔoʔy-pa ʔi+kaʔ-W
and be.first-ANTIP-INC 3A+die-DEP_{ib}
'and he'll die first.' (Yerno.016b)

(52) ***ʔa**+wiʔaap* *ʔanh+wíty* *ʔagi+ʔa+tzutpa+m*
ʔa+wiH-ʔaH-pa ʔan+wity-W ʔagi+ʔa+tzut-pa+ʔam
XB+$be.able_{AUX}$-INC XA+walk-DEP_{ib} a.lot+XB+fall-INC+ALR
'I couldn't walk well and I fell a lot.' (PDLMA.rodilla.006)

When the dependent verb is transitive, A is marked with Set A person proclitics and Ø-marked for dependent (53).

(53) *juutza+m* ***ʔiʔ+nyíx***
jutz.ʔaH+ʔam **ʔin+ʔix-W_2**
be.such.that+ALR **2A+see-DEP_t**
'How do you see it?' (SoyPartera.020a)

Like transitive verbs in V2 of Auxiliary I constructions, dependent verbs in modal auxiliary constructions are also observed in the passive. (54) illustrates an Auxiliary Type II construction with a passive V2. Notice in (54) that S is marked with Set A markers.

(54) *dya* *wiʔáap* ***ʔam+metztáaj***
dya wiH-ʔaH-pa **ʔam+metz-taH-W_3**
NEG be.able-INC **XA+look.for-PASS-DEP_{ib}**
'We can't be looked for.' (2070727RCR)

Additionally, the hierarchical system described in section 2 is preserved on the dependent verb. This is illustrated in (55), which shows a higher ranked patient—in this case, the primary object—marked on the verb *seet* 'return' derived with the causative *ʔak+* to mean 'give back'.

(55) *dya* *wiʔaap* ***mi**+k+seedáʔy*
dya wiʔ-ʔaH-pa **mi**+ʔak+seet-ʔaʔy-wi_2
NEG $be.able_{AUX}$-INC **2B**+CAUS+return-IND-DEP_t
'He can't return it to you.' (20070726RCR)

3.1.3. SUBORDINATION WITH NO OVERT SUBORDINATOR. There are two temporal/aspectual contexts in which dependent verbs occur. The first is used to express two events occurring simultaneously. There is no overt subordinator in this construction. The verb in V1 takes inflection for aspect/mood and person (56)-(57). When the V2 is intransitive, the

S of the dependent verb is marked with Set A person markers (56). Note in (57) that both verbs may be transitive and that the V1 takes a Set A person marker.

(56) *dya* *ʔa+joʔynyéʔɨ+m* *ʔam+pút*
dya ʔa+joʔy-neʔ-wɨ+ʔam ʔan+put-W_3
NEG XB+be.angry-PERF-CMP+ALR XA+leave-DEP_{ib}
'I wasn't angry as I left.' (A060722.061)

(57) *yɨkxi* *ʔal.rratuj* *ʔany+nyíx* *minyu+m* *ʔam+miʔɨ*
yɨkxi al.rato ʔan+ʔix-W Ø+miny-W+ʔam ʔan+miʔɨt
like.so later XA+see-CMP 3B+come-CMP+ALR XA+brother-in-law
'A while later I saw my son in law come'

kun *ʔi+yeewa* *ʔi+jɨɨkneʔ* *ʔi+ri+níkk*
con ʔi+yegua ʔi+jɨɨk-neʔ-W ʔi+na+nɨkk-W_2
with 3A+mare 3A+pull-PERF-CMP 3A+ASSOC+go-DEP_t
'with his mare; he was pulling her as he brought her.' (PQ2.056)

These constructions often involve a verb of motion or direction. In most cases the same verbs that occur as an auxiliary in V1 position may occur in V2, however not in the capacity of an auxiliary verb. There is a clear semantic difference in the meaning of the verb when it occurs as an auxiliary in V1 or as a dependent verb in V2. For example, in (58) the auxiliary *miny* 'come' indicates motion towards an event for the purpose of performing the event expressed by the V2. The example in (59) shows the same verb *miny* 'come', however, here the events encoded by the verbs in V1 and V2 position occur simultaneously.

(58) *ʔɨch* ***míny****+am* *ʔa+ʔɨityi+tyam* *yɨʔɨm* *náxwiny*
ʔɨch **miny**-wɨ+ʔam ʔa+ʔity-i+tam yɨʔɨm nax=winy
1PRO **come**-CMP+ALR XB+be-DEP_{ia}+12PL here below
'We came to live down here.' (MAB.174)

(59) *poypa* *ʔi+**míny***
poy-pa ʔi+**miny**-W_2
run-INC 3A-**come**-DEP_{ib}
'It comes running. (It runs as it comes.)' (200707JAF)

3.1.4. SUBORDINATOR MO 'WHEN' CONSTRUCTIONS. The second temporal/aspectual context in which dependent verbs occur is expressed with the subordinator *mo* 'when'. Similar to the subordination constructions described above, the dependent takes person marking and S is marked with Set A clitics. The constructions differ in that the *mo* clause can precede the main verb. *Mo* constructions are used to indicate that an event will occur at the time a second event occurs. (60) shows a *mo* clause in which the dependent *nɨkk* 'go' is inflected with dependent morphology. S in this example is marked on the verb with a Set A person marker. Although any verb may occur as the verb inflected for aspect or the

dependent of the *mo* clause, verbs in these constructions tend to involve a verb of motion or direction.

(60) *ʔi+yóʔy* *jeʔm* *pakus* *jeʔm+ga+m+ʔun*
ʔi+yoʔy-W jeʔm pak=jos jeʔm+gak+ʔam+ʔun
3A+jump.over-CMP that canyon that+also+ALR+DJO

ʔanh+wéj *m+i+nyɨ́k*
ʔanh+wej-W mo+ʔi+nɨkk-W_3
shout-CMP WHEN+3A+go-DEP_{ib}
'He jumped the canyon and shouted when he went.' (VYT.081)

In addition, *mo* clauses may precede or follow the verb inflected for aspect. (61) shows a *mo* clause with the derived verb *mɨj-ʔaH* 'get big' preceding the 'main' clause. The verb of the *mo* clause is marked with dependent morphology—here shown overtly with an allomorph of the shape [wɨ]—and S is marked with a Set A person marker. *Mo* subordinator clauses are the only exception to the rule that the dependent verb occurs in V2 position.

(61) *mo* *ʔi+mɨjaawɨ+m* *nɨmpa*
mo ʔi+mɨj-ʔaH-W_3+ʔam Ø+nɨm-pa
when 3A+big-VERS-DEP_{ib}+ALR 3B+say-INC
'When he grows up, he says'

ʔiga+jeʔ *ʔi+kuʔtpa* *ʔi+jaatunh*
ʔiga+jeʔ ʔi+kuʔt-pa ʔi+jaatunh
COMP+3PRO 3B+eat-INC 3A+father
'that he will eat his father.' (PDLMA.JUU.022)

Finally, passives are also observed in subordinator *mo* constructions. (62) shows the transitive verb *tzam* 'to raise' derived with the passive and inflected with a Set A clitic.

(62) *ʔɨch* *ʔaga+yaʔacháaj* *kwandoj*[24] ***m+an+tzamtáaj***
ʔɨch ʔagi+ʔa+yaʔach-ʔaH-W kwandoj **mo+ʔan+tzam-taH-W_3**
1PRO a.lot+XB+suffer-VERS-CMP when **when+XA+raise-VERS-DEP_{ib}**
'We suffered a lot when we were growing up (lit. being raised).' (7anjatunh.001)

3.1.5. PROGRESSIVE AUXILIARY Sɨʔ. The final context in which dependent verbs occur is with the auxiliary verb *sɨʔ* 'walk'. Like the auxiliary verbs described in section 3.1.1, *sɨʔ* occurs independently as an intransitive verb meaning 'walk' (63). *Sɨʔ* also occurs as an auxiliary verb and indicates progressive aspect. (64) and (65) illustrate *sɨʔ* occurring with transitive and intransitive dependent verbs, respectively.

[24] The use of the Spanish loan word *kwandoj* 'when' serves as a discursive filler in this example. It is rare in these constructions; it is redundant co-occurring with *mo* here.

(63) *jemɨk+piʔk* ***siʔ****iyajpa* *tɨgɨskiʔim*
jemɨk+piʔk Ø+**siʔ**-yaj-pa tɨk=ʔɨskɨ=kɨʔim
there 3B+**walk**-3PL-INC house=behind=at
'There he walks among the houses.' (GU2.105)

(64) *ʔentonses* *mój* *ʔi+m+madáʔy*
ʔentonses moj-W ʔi+ʔanh+mat-ʔaʔy-W
then begin-CMP 3A+speak-IND-CMP
'Then he begins to tell him'

...ʔiga+jeʔm *ʔi+wɨtyyoomo* ***sib*** ***ʔi+péj***
...ʔiga+jeʔm ʔi+wɨty=choomo **siʔ-pa** **ʔi+pej-W**
...COMP+that 3A+wife **PROG$_{AUX}$-INC** **3A+cheat.on-DEP$_t$**
'...that his wife is cheating on him.' (VYT.042a/3)

(65) *dya+m* ***siʔib*** ***ʔi+tyîtz*** *nɨmpa.*
dya+ʔam **siʔ-pa** **ʔi+titz-W** nɨm-pa
NEG+ALR **PROG$_{AUX}$-INC** **3A+dry-DEP$_{ib}$** Ø+say-INC
'"It's not drying," she says.' (SA2.022)

These constructions differ from the auxiliary verb constructions and the temporal subordinator constructions described above in two significant ways. First, unlike the temporal subordinators, *sɨʔ* can occur in V1 or V2 position. Examples are shown in (66) and (67). In (66), the sentence means 'they are playing a lot'. *Sɨʔ* is in V1 position, inflected with the incompletive suffix *-pa*, and the intransitive V2 *mɨɨch* 'play' is inflected with dependent morphology and the Set A proclitic *ʔi+*. In (67), the sentence means 'that's why she's crying'. The verb *wej* 'cry', which is intransitive, is in V1 position, and *sɨʔ* is in V2 position. The V1 is inflected for aspect, the V2 is marked with dependent morphology, and S of the intransitive V2 is marked with 3rd person *ʔi+* (Set A). Therefore, when *sɨʔ* occurs in either position, the V1 takes inflection for aspect/mood, and the V2 marks S with Set A markers.

(66) *ʔagi+**siʔ**p* *ʔi+mɨɨch**yáj***
ʔagi+**siʔ**-pa ʔi+mɨɨch-**yaj**-W$_3$
very+**PROG$_{AUX}$**-INC 3A+play-**3PL**-DEP$_{ib}$
'They are playing a lot.' (CVS.013b)

(67) *jeʔeyukmɨ* *wéjpa* *ʔi+**xîʔ***
jeʔe-yukmɨ wej-pa ʔi+**siʔ**-W$_3$
for.this cry-INC 3A+**PROG$_{AUX}$**- DEP$_{ib}$
'That's why she's crying.' (MAB.019)

The second significant difference between *sɨʔ* constructions and the auxiliary constructions described above is that the meaning conveyed by both orders is the same. In section 3.1.3 we saw that constructions in which the auxiliary verb occurs in V1 position convey motion towards a deictic center to carry out the event expressed by the dependent. (68) shows the auxiliary verb *nɨkk* 'go' in V1 position. When the same verb occurs in V2, the construction conveys that the two events are occurring simultaneously (69).

(68) *ʔan+choomo* ***nɨkpa*** *chiinhi* *nɨʔɨ=kɨʔɨm*
ʔan+choomo **nɨkk**-pa Ø+chinh-i nɨʔ=kɨʔɨm
XA+grandmother **go**$_{AUX}$-INC 3B+bathe-DEP$_{ia}$ river =in
'My grandmother goes to bathe in the river.' (MAB.024)

(69) *ʔɨch* *ʔa+jooppa+m* *ʔan+**nɨk***
ʔɨch ʔa+joop-pa+ʔam ʔan+**nɨkk**-W$_2$
1PRO XB+roll-INC+ALR XA+**go**-DEP$_t$
'I roll as I go along (playing).' (MAB.097)

In *sɨʔ* constructions, however, the meaning conveyed by *sɨʔ* is the same regardless of whether *sɨʔ* occurs in V1 position (70) or in V2 position (71). Notice that in both sentences the V1 takes inflection for aspect, that the V2 takes inflection for person, and that the person marked on the intransitive verb in both cases is Set A.

(70) *sɨʔ**b*** ***any***+*yooxáah*
sɨʔ-**pa** **ʔan**+yooxaH-W$_3$
PROG$_{AUX}$-**INC** **XA**+work-DEP$_{ib}$
'I am working.' (20070706JAF2)

(71) *ʔa+yooxaa**b*** ***an***+*sɨ̂ʔ*
ʔa+yooxaH-**pa** **ʔan**+sɨʔ-W$_3$
XB+work-**INC** **XA**+PROG$_{AUX}$-DEP$_{ib}$
'I am working.' (20070706JAF2)

Sɨʔ constructions manifest similar properties to those described for temporal/aspectual subordination with and without *mo* and auxiliary II constructions with respect to plural marking and passivization. (72) shows a *sɨʔ* construction with plural inflection in which the plural marker *-yaj* is a stress bearing suffix. (73) shows the progressive *sɨʔ* construction in which the transitive verb *pej* 'commit adultery' is passive and S is marked with a Set A marker.

(72) *ʔagi+sɨʔɨb* *i+mɨɨchyáj*
ʔagi+sɨʔ-pa ʔi+mɨɨch-yaj-W$_3$
very+walk$_{AUX}$-INC 3A+play- 3PL-DEP$_{ib}$
'They are playing a lot.' CQS.013b)

(73) *ʔentonses mój* *ʔi+m+madáʔy*
ʔentonses moj-W ʔi+ʔanh+mat-ʔaʔy-W_2
then begin$_{AUX}$-CMP 3A+speak-IND-DEP_t
'Then he began to tell him,'

ʔiga+jesɨk *ta+nimpa* *sɨʔip* ***ʔi+pejtáaj***
ʔiga+jesɨk ta+nɨm-pa sɨʔ-pa **ʔi+pej-taH-W_3**
COMP+then IA+say-INC PROG$_{AUX}$-INC **3A+comit.adultery-PASS-DEP_{ia}**
'that then, as we say, he was being cheated on.' (VYT.096)

3.2. SUMMARY AND DISCUSSION OF DEPENDENT VERBS IN SIERRA POPOLUCA. To summarize, there are five constructions that take dependent verbs. The characteristics shared by each of these constructions are that (1) the V1 takes inflection for aspect/mood, (2) the V2 takes inflection for person and number, and (3) the V2 is marked with dependent morphology. Each of these constructions exhibit unique properties. Auxiliary I active constructions are unique in that the verb in V1 belongs to a closed verb class. The intransitive dependent verbs in V2 are marked with the dependent suffix *-iʔ* and indicate plural agreement with plural marking enclitics. Auxiliary I passive constructions differ from Auxiliary I active constructions in that the subject of a passivized transitive verb is marked with Set A person agreement markers and the dependent morphology is the underlying –W segment. Auxiliary II constructions are unique in that the verb in V1 belongs to a second closed subclass of verb, the dependent in V2 manifests split ergativity in its person marking, and plurality is indicated with plural marking suffixes. Temporal/aspectual *mo* subordinator constructions are unique in that in addition to manifesting split ergativity they employ the subordinator *mo* 'when'. The temporal/aspectual constructions with no overt subordinator are unique in that any verb may occur in V1 and V2 position and no subordinator is required. And finally, *sɨʔ* progressive constructions are unique in that they require the auxiliary verb *sɨʔ*; however, it is not limited to V1 position and may occur in V1 with inflection for aspect or in V2 with inflection for person and number, as well as dependent morphology. I lay out the characteristic properties of each dependent construction in Table 4.

In looking at each of these constructions independently, it is apparent that dependent verbs preserve characteristics of verbs in simple clauses. These characteristics include the passivization of transitive verbs (as well as other derivational processes), plural inflectional morphology, and the hierarchical person marking system. (74) illustrates a transitive root in V2 derived as intransitive with the passive suffix *-taH*.

(74) *yaju+m* *ʔi+kum**táaj*** *jeʔm* *jaam*
yaj-W+m ʔi+kum-**taH**-W_3 jeʔm jaama
finish$_{AUX}$-CMP+ALR 3A+bury-**PASS**-DEP_{ib} that day
'He was finished being burried that day.' (PDLMA.Muerto.035)

(75a and b) also show passive verbs in V2. In (75a) S is plural. Notice that plural inflection precedes the passive suffix, providing further evidence that plural inflectional

morphology is stress bearing (as shown for independent clauses in (47) above). Clitics, however, are extrametrical (non-stress bearing) and occur at the right edge of the word.

(75) a. *ʔantej di kwaatruj diaj ʔo siinkuj*
antes di kwaatruj diaj ʔo siinkuj
before PART four days or five
'Four or five days before'

*mojpa ʔi+k+joodonha**yajtyáa*** *jeentej*
moj-pa ʔi+ʔak+joodonh-ʔaH-**yaj-taH**-W_2 jeentej
$begin_{AUX}$-INC 3A+CAUS+knowledge-VERS-**3PL-PASS**-DEP_t people
'the people begin to be informed (by him),' (PDLMA.Fiesta.020)

b. *ʔiga+míny **mar**+ak+joodonha**táʔm*** *ʔich*
ʔiga+miny-W **man**+ʔak+joodonh-ʔaH-**taʔm**-W_2 ʔich
COMP+come-CMP **x>2**+CAUS+knowledge-VERS-12PL-DEP_t 1PRO

ʔam+moʔosba
ʔan+moʔos-pa
XA+cook.corn-INC
'"I came to inform you all (that) I will cook corn."' (PDLMA.Fiesta.020)

In addition, the person marking hierarchy is preserved in DVCs. (76) shows a dependent verb in which O is the higher ranking participant, and therefore marked on the verb with the Set B marker *mi+*, illustrating an INVERSE configuration. (77) shows a 2nd person A and a 1st person O with the person marker *man+*, illustrating the LOCAL configuration.

(76) *jesɨga ʔukpa mojpa **mi**+maal.mal=nɨʔmáʔy*
jesɨk+ʔiga Ø+ʔuk-pa moj-pa **mi**+mal.mal=nɨm-ʔaʔy-W_2
when+that 3B+drink-INC $begin_{AUX}$-INC **2B**+bad.REDUP=say-IND-DEP_t
'When he's drunk he starts talking bad to you.' (Yerno.004)

(77) *nɨmpa míny **maʔ**+náʔm*
Ø+nɨm-pa miny-W **man**+ʔaʔm-W_3
3B+say-INC $come_{AUX}$-CMP **2>1**+look-DEP_t
'She says, "I've come to see you."' (PAR.005)

Finally, additional evidence indicating that dependent verbs in SP are verbal comes from work on other languages in the Mixe-Zoquean family, which shows that dependent verbs carry aspectual information. It was shown above in (26)–(28) that dependent morphology of dependent verbs is independent of aspect/mood. Auxiliary verbs in San Miguel Chimalapa Zoque also take dependent verbs; however, dependent morphology does distinguish between completive -E and incompletive aspect -wɨ. Dependent marking of depen-

dent verbs in V2 agrees in terms of aspect with the V1: -E if V1 is completive (78);[25] -wɨ if incompletive (79) or in non-declarative mood (80) (i.e. imperative or hortative).

(78) *nək-tam-**wə*** *ʔən+juy-**E*** *boleto*
go-12PL-**COM** 1A+buy-**dCOM** ticket
'We went to buy the tickets.' (Johnson 2000:206)

(79) *jemji* *gaji* *nək-**pa*** *ʔəy-pək=con-**wə***
all there go-**INC** 3A+get=join-**dINC**
'They all go there to receive them.' (Johnson 2000:203)

(80) *min-**ʔo*** *ʔəm+pək=coN-tam-**wə**+ʔam* *haxake+haaʔ*
come-**IMPV2** 2A+get=join-12PL-dINC+NOW female.in.law+NPL2
'Now come meet your mothers-in-law.' (Johnson 2000:209)

The evidence from other languages in the Mixe-Zoquean family shows that while dependent verbs in SP do not convey aspectual information, aspectual marking in V2s does occur in the Mixe-Zoquean family, providing further evidence from a comparative standpoint of the verbal status of independent verbs.

[25] In the San Miguel Chimalapa Zoque examples, the abbreviations are as follows (Johnson 2000): COM, completive suffix; dCOM, dependent completive; dINC, dependent incompletive; IMPV2, imperative; NOW, the equivalent of 'already' in SP; and NPL2, plural marker for pronouns and some nouns.

TABLE 4. Properties of independent and dependent verbs in Sierra Popoluca

Construction Type	Occurs with Aux	Aspect/ mood	Person on V1	Person onV2	Plural suffix	Plural enclitic	Alignment	Subordi-nator	Restrictions
Independent verb	N/A	+	+	N/A	+	-	Erg/Abs	N/A	N/A
V1	N/A	+	depends on type	N/A	-	-	N/A	N/A	N/A
V2									
Aux I, *active*	+	-	optional	+	-	+	Erg/Abs	-	Must be V2
Aux I, *passive*	+	-	optional	+	+	-	Nom/Acc	-	Must be V2
Aux II	+	-	optional	+	+	-	Nom/Acc	-	Must be V2
Subordinator mo 'when'	-	-	oblig. (must agree with S of V1)	+	+	-	Nom/Acc	+	Dependent may precede or follow verb inflected with aspect
Subordination with no overt subordinator	-	-	oblig. (must agree with S of V1)	+	+	-	Nom/Acc	-	Must be V2
si? 'progressive'	+/-	-	optional	+	+	-	Nom/Acc	-	*si?* may be V1 or V2

4. ON THE STATUS OF THE DEPENDENT VERB AND THE EVOLUTION OF THE ANALYSIS. The data on which this analysis is based come from a number of sources. The primary sources consist of transcriptions of narratives and conversations and data from elicitation sessions gathered during a number of field visits ranging from four weeks to 11 months with speakers from the communities of San Pedro Soteapan, Santa Rosa Cintepec, and Piedra Labrada in the state of Veracruz, Mexico. During these field visits, conducted from 2004 through 2009, I have recorded and transcribed narratives and descriptive texts by men and women ranging between the ages of 30 and 70 years. Each field visit consists of conducting text transcription in order to consistently build the corpus of naturally occurring data, as well as elicitation to supplement the analysis of data from texts and complete paradigms in the grammar. The secondary sources consist of materials I obtained from the Project for the Documentation of Languages of Meso-America (PDLMA). These resources include a lexical database (Kaufman & Himes, in preparation), transcribed texts produced by the PDLMA, and texts collected by researchers associated with the Summer Institute of Linguistics. An additional source of textual data on SP is the published text *Hem Tzitzimat* 'La Chichimeca' (Gutiérrez Morales & Wichmann 2001). And finally, examples (text and elicitation) come from Elson (1960a, 1960b), Foster & Foster (1948) and Himes (1997) .

Each of the dependent verb constructions described here has previously been described to some degree, the most detailed and most recent being that of Himes (1997). I have attempted to build on these previous descriptions. The first step in doing so sought to reframe the analysis from the perspective of the dependent verbs and their unifying characteristics; whereas previous analyses characterized constructions based on the auxiliary verbs, lack of auxiliary verbs, and subordinator constructions. The similarity in my approach to my predecessors is that the analysis looks at the language synchronically. Having distinguished the characteristics of each of the constructions independently, a second step and subject of further study in understanding DVCs in SP, as well as those of the languages of the Mixe-Zoquean language family, is to approach the study form a diachronic standpoint.

An important question that arose in describing constructions in which dependent verbs occurred is whether dependent verbs were verbs or nouns, or lay somewhere in between on some continuum. There are two characteristics observed in the early analysis that suggested that dependent verbs were somehow associated with nouns or that verbs in these positions were to some extent nominalized. One observation is associated with plural marking and the other with person marking, specifically that Set A person markers indicate agents of transitive verbs and possessors of nouns. In order to determine the status of dependent verbs, and further investigate plurality and alignment, I needed to focus on each DVC type independently. Upon returning to the field and exploring plurality and alignment with a revised agenda, the observations began to point to dependent verbs preserving verbal characteristics, including derivational properties, the hierarchical system, and plural inflection. Although the position that dependent verbs manifest characteristics of nouns has been revised, it is interesting to note the process through which the analysis went, as well as to demonstrate the interrelated nature of corpus building, text analysis, and elicitation.

4.1. QUESTIONS ABOUT THE STATUS OF DEPENDENT VERBS. The first characteristic suggesting the noun-like behavior of DVCs emerged from an analysis that sought to explain

the Type II auxiliary verbs in terms of complementation (Dixon 2006; Noonan 1985, 2007). The tentative analysis treated *wɨʔ-ʔaH* 'be able to VERB' and *jutz-ʔaH* 'be such that VERB' as complement taking verbs that took subject complements.[26] Set A proclitics, which mark the A of transitive verbs in independent clauses, also mark possessors on nouns. According to the complementation analysis, the examples shown in (81) and (82) (repeated from (49) and (50)) were reanalyzed as: 'The baby's birth was still possible' and 'He knows what our jokes are like'. In this scenario the dependent verb is analyzed as a nominalized verb inflected with possessive person marking and the NP is the subject of the verb.

(81) *wɨʔáa+tyim* *ʔi+náy* *jeʔm* *tzɨɨxi*
wɨʔ-ʔaH-W+tyi+ʔam ʔi+nay-W_2 jeʔm tzɨɨxi
3B+be.able-CMP+JUST+ALR 3A+be.born-DEP_{ib} that child
'The baby's birth was still possible.' (PAR.039)

(82) *jeʔ* *tambyeen* *ʔi+joodonh*
jeʔ tambyeen ʔi+jootonh
3PRO also 3A+know
'He also knows'

jutzáap *tan+moʔogíʔy*
jutz-ʔaH-pa tan+mok-ʔoʔy-W_2
be.such.that-INC IA+joke-DEP_{ib}
'what our jokes are like.' (AVC.016b)

This analysis was taken to the field in the summer of 2007. Evidence indicating that the V2s in these scenarios were not nominalized verbs comes from examples such as the one shown in (83) (repeated from (55)). In this example two characteristics stand out as indicating the verbal status of the V2. First, based on what we know about the hierarchical system, the example shows a higher ranked patient marked on the verb *ʔak+seet* 'return' with a Set B person marker. Second, this example, which was offered spontaneously during elicitation, also demonstrates the extent to which verbs may be derived in the dependent clause. The root verb *seet* 'return, turn around' is intransitive. Here it is derived with the causative *ʔak+*. A secondary object is added with the indirective suffix *-ʔaʔy*. Observations such as these indicate that dependent verbs pattern more like verbs.

(83) *dya* *wɨʔaap* ***mik+seedáʔy***
dya wɨʔ-ʔaH-pa **mi+ʔak**+seet-ʔaʔy-W_2
NEG be.able$_{AUX}$-INC **2B+CAUS**+return-IND-DEP_t
'He can't return it to you.' (20070726 RCR)

[26] *ʔanh+jagoʔy* 'be first to VERB' had not yet been observed at this stage of analysis.

Furthermore, it was noted in section 3.1.2 that person is optionally marked on the V1 in Auxiliary II constructions and that the S of the V1 and V2 are the same. According to the complementation analysis, if the dependent verbs were a possessed nominal S, the V1 *wɨʔaaj* would be Ø-marked for 3rd person. As shown in (84), person marking on V1 and V2 agree.

(84) *ʔa+pɨkpa ʔiga+jeʔ* ***ʔa****+wɨʔaap* ***ʔan****+yooxáaj* *ʔidyɨk*
ʔa+pɨk-pa ʔiga+jeʔ **ʔa**+wɨH.ʔaH-pa **ʔan**+yoox.ʔaH-W_3 ʔityʔɨk
XB+take.wife-INC COMP+3PRO **XB**+be.able$_{AUX}$-INC **XA**+work-DEP$_{ib}$ PAST
'He took me (as wife) because I can work.' (CNC.002b)

The second characteristic suggesting noun-like behavior of dependent verbs comes from plural marking morphology. Nouns may be inflected to indicate plurality of the noun. Plural markers may agree with the noun, with the possessor, or with S when the noun occurs as a non-verbal predicate. As described in section 3.1.1.1, there are two plural enclitics that occur on nouns: *+tam* 'human plural' and *+yaj* 'nonhuman plural'. The fact that enclitics occur on intransitive dependent verbs in the V2 of Auxiliary I (active) constructions suggested that NVPs might pattern like nouns.

(85) *ʔa* *mojo+mun* *ku+pudáʔyi+**yaj***
ʔa moj-W+ʔam+ʔun Ø+ku+put-ʔaʔy-i+**yaj**
ah begin$_{AUX}$-CMP+ALR+DJO 3B+DERIV+exit-IND-DEP$_{ia}$**-3PL**
'They began to escape.' (GU1.123)

Early transcriptions made available provided examples that were inconsistent in marking plurality on dependent verbs, marking some suffixes as clitics and some as stress bearing segments. What was not apparent, although now obvious, was that plural enclitics occurred only on Auxiliary I active verbs, while suffixes occurred everywhere else. In other words, these characteristics did not apply to all dependent verb types. Essentially, what was required was a focused analysis of stress in dependent verbs to determine that there were different patterns.

4.2. THE INTERPLAY BETWEEN TEXT AND ELICITATION. The descriptive work presented here relies first on making observations about what happens in the language, initially on structures that occur in narratives and conversation. Elicitation comes into play in order to verify forms and their uses and to understand what the language does not do, as well as what it does. Understanding the behavior of dependent verbs requires analysis of each of the components that make up these characteristics; some of which appear frequently in texts and some of which require elicitation focusing on paradigms and in some cases attention to the phonology in isolated contexts.

There are several examples that demonstrate the interdependency of corpus building, text analysis, and elicitation, which is crucial to understanding the grammar of the language. One example is illustrated with the *mo* subordinator constructions and the DVCs lacking an overt subordinator, which occur frequently in texts and naturally occurring discourse.

Efforts to elicit these constructions, however, tend to result in periphrastic explanations of the scenarios or the use of the progressive *si?* construction. When these forms do occur in elicitation, they are typically offered spontaneously while working on another aspect of the grammar. Therefore, obtaining examples of the *mo* construction, as well as other subordinator constructions, requires that the text corpus constantly be built and include a range of different genres in which a range of aspectual and temporal information may be expressed.

Similarly, the *jutzaa* 'how is it that, be such that' constructions occur rarely in texts, as well as proving difficult to elicit. *Jutzaa* in texts appears in questions meaning 'how is it that VERB' and declarative statements meaning 'to be such that VERB'. In elicitation, however, only the question form can be obtained. In fact, both meanings tend to be provided with borrowed Spanish expressions in elicitation. In addition, the construction with the Auxiliary II *ʔanh+jagoʔy* 'be the first to VERB' (51) was only observed in a recently transcribed text while writing this paper and has not yet been researched in the field. A large corpus is essential to obtaining a large number of tokens of these constructions.

Elicitation is also invaluable where the data might be obscured by the phonology, especially in cases in which the sentence level prosodic features interacted with word level stress. For instance, it appeared that many dependent verbs are inflected for number agreement with enclitic plural markers, rather than the verbal suffixes that mark independent verbs, which explains inconsistencies observed in a number of text transcriptions. Analysis of these forms was problematic because clitics do not take stress in SP, and they interact with other stress bearing morphemes in verb final position. Isolating DVC construction types in paradigms was necessary to determine that the suffix markers occurring on dependent verbs were in fact suffixes and not clitics. The analysis, however, showed that the plural clitics occur only in intransitive Auxiliary I active dependent verbs and the suffixes occur in the dependent verbs of all other construction types, including Auxiliary I passives. Therefore, understanding the dependent verb template required a clear description of the phonology of independent and dependent verbs.

Research seeking to explicate the structure of the dependent verbs produced more questions, which involved more aspects of the grammar. Returning to the field with new questions and a new lens through which to view the corpus resulted in new observations. The most salient are examples of Auxiliary I constructions in which dependent verbs show ergative alignment. In fact, Auxiliary I constructions were the only multi-verb constructions that showed ergative alignment in the dependent clause, whereas a nominative pattern was observed in all other DVC types.

5. CONCLUSION. My primary objective here has been to show differences between independent and dependent verbs in SP. Verbs in simple clauses are inflected for aspect/mood, number and person, and the alignment system is ergative/absolutive. Although each of these constructions manifests unique properties, the unifying characteristics of the dependent verbs in these constructions are that: (a) they are inflected with dependent verb morphology, (b) they do not take inflection for aspect/mood, (c) they take inflection for person and share the subject with the V1 of the construction, and (d) they take inflection for number.

The second objective is to show the unique properties of each of the DVC types. Dependent verbs occur in five contexts: with Auxiliary I (active and passive), with Auxiliary II, in temporal/aspectual with subordinator *mo* constructions, in temporal/aspectual with no overt subordinator constructions, and with the progressive auxiliary *si?*. The constructions described here differ with respect to the alignment system and plural agreement marking. Like verbs in simple clauses, intransitive dependent verbs of Auxiliary I active constructions show an ergative/absolutive person marking pattern. Unlike independent verbs, intransitive dependent verbs in all other constructions show a nominative/accusative person marking pattern. With respect to plural marking, intransitive dependent verbs of Auxiliary I active constructions mark plurality with clitics, and intransitive dependent verbs of all other construction types mark plurality with stress bearing suffixes.

The third objective is to address observations about the status of dependent verbs, which at early stages of analysis showed characteristics associated with nouns with respect to inflection for person and number, and to demonstrate the interdependent process of data collection and analysis. The discussion presented here demonstrates a predominantly verbal pattern.

Text transcription, data mining, *post hoc* analysis, and controlled elicitation, as demonstrated here, is a cyclic process that looks to data to corroborate predictions driven by linguistic theory and that in turn bear on theory. The analysis presented here illustrates this cycle, providing evidence to show that many independent verb characteristics are preserved on the dependent verb. Some questions that have been raised include: (1) Why do passive dependent verbs in Type I Auxiliary constructions exhibit nominative alignment, while intransitive verbs in Type I Auxiliary (active) constructions do not?; and (2), Why do Auxiliary I (active) constructions differ from all other dependent verb construction in plural inflection? A broader question that emerges is whether these constructions can be reconstructed. Having defined the properties of each of the dependent verbs independently, the next step will consist of comparative analysis with other languages in the Mixe-Zoquean family.

Appendix

The examples in this paper come predominantly from texts I recorded and transcribed with speakers from the communities of Soteapan, Santa Rosa Cintepec, and Piedra Labrada.[27] These texts are archived at the Archive of Indigenous Languages of Latin America at the University of Texas at Austin (http://ailla.utexas.edu).

Code	**Title**	**Speaker**	**Recorded**
Burro	Donkey (personal narrative)	Juliana Albino Franco	02 July 2004
Cangrejo	The crab keeper (local legend)	Juliana Albino Franco	11 July 2007
CNC	When we were married (personal narrative)	Juliana Albino Franco	02 July 2005
Comal	Skillet (personal narrative)	Juliana Albino Franco	19 July 2006
CP5	Construction, part 5 (description)	Braulio Rodrigo Nolasco	10 Sept 2005
CQS	Chaneque (personal narrative)	anonymous	05 May 2005
ESK	Skeleton (local legend)	anonymous	05 May 2005
GU1	Worms, version 1 (local legend)	anonymous	05 May 2005
GU2	Worms, version 2 (local legend)	Eugenia Rodríguez Gutiérrez	11 Nov 2005
MAB	My grandmother (personal narrative)	anonymous	05 May 2005
PAR	Midwife (personal narrative)	Juliana Albino Franco	18 June 2004
viaje	Viaje (PDLMA) (personal narrative)	unknown	unknown
rodilla	Knee (PDLMA) (personal narrative)	unknown	unknown
xuunujti	Xuunujti (SIL) (local legend)	unknown	unknown

[27] Note that where the speaker is listed as anonymous more than one speaker is represented.

PQ2	Broken leg, version 2 (personal narrative)	Juliana Albino Franco	16 July 2006
PQH	Run away chicken (personal narrative)	anonymous	04 April 2005
SA2	Avocado seed, version 2 (ethnomedical desc.)	Juliana Albino Franco	16 July 2006
SoyPartera	'I'm a midwife' (Conversation)	Juliana Albino Franco/ Eugenia Rodríguez Gutiérrez	20 July 2006
VVA	Trip to visit grandma's (personal narrative)	Juliana Albino Franco	02 July 2004
VYT	The cow and the bull (local legend)	anonymous	05 May 2005
Yerno	My son in law (personal narrative)	Juliana Albino Franco	02 July 2005

References

Aissen, Judith. 1994. Tzotzil auxiliaries. *Linguistics* 32. 657-690.

Boudreault, Lynda. 2006. Person marking in Sierra Popoluca: A hierarchical system where phonology matters. Paper presented at the Linguistic Society of America Annual Meeting. Albuquerque.

Boudreault, Lynda. 2007. Plurality splits and hierarchy in Soteapanec (Mixe-Zoquean). Paper presented at the Conference on Indigenous Languages of Latin America III. University of Texas at Austin.

Boudreault, Lynda. 2009. *A grammar of Sierra Popoluca (Soteapanec, Mixe-Zoquean)*. Austin TX: University of Texas dissertation.

Corbett, Greville G. 2000. *Number*. Cambridge: Cambridge University Press.

Craig, Colette G. 1977. *The structure of Jacaltec*. Austin: University of Texas Press.

Crowley, Terry. 2002. *Serial verbs in Oceanic: A descriptive typology*. Oxford: Oxford University Press.

Dixon, R.M.W. 1979. Ergativity. *Language* 55. 59-138.

Dixon, R.M.W. 1994. *Ergativity*. Cambridge: Cambridge University Press.

Dixon, R.M.W. 2006. *Complementation in typological perspective*. Oxford: Oxford University Press.

Dryer, Matthew S. 1986. Primary objects, secondary objects, and antidative. *Language* 62. 808-845.

Elson, Benjamin F. 1960a. *Gramática Popoluca de la Sierra*. Xalapa: Universidad Veracruzana.

Elson, Benjamin F. 1960b. Sierra Popoluca morphology. *International Journal of American Linguistics* 26. 206-223.

England, Nora C. 1983. Ergativity in Mamean (Mayan) languages. *International Journal of American Linguistic*s 49. 1-19.

England, Nora C. 2006. Cláusulas no finitas en Mam. Paper presented at IX Encuentro Internacional de Linguistica en el Noroeste. Sonora, Mexico

Engel, Ralph, Mary Allhiser de Engel & José Mateo Alvarez. 1987. *Diccionario Zoque de Francisco Leon*. México, D.F.: Instituto Lingüístico de Verano.

Faarlund, Jan Terje. 2004. Person marking in Chiapas Zoque - An optimality account. Paper presented at the Society for the Study of Indigenous Languages of the Americas Annual Meeting. Boston.

Foley, William A. & Mike Olson. 1985. Clausehood and verb serialization. In Johanna Nichols & Anthony C. Woodbury (eds.), *Grammar inside and outside the clause: Some approaches to theory from the field*, 17-67. Cambridge: Cambridge University Press.

Foster, George McClelland & Mary Frazer Le Cron Foster. 1948. *Sierra Popoluca speech* (Smithsonian Institute of Social Anthropology, Vol 8). Washington, DC: Smithsonian.

Gildea, Spike. 1998. *On reconstructing grammar: Comparative Cariban morphosyntax*. Oxford: Oxford University Press.

Gutiérrez Morales, Salome & Søren Wichmann. 2001. Hem ¢i¢imat, 'La Chichimeca'. *Tlalocan* 13. 315-334.

Harrison, Roy, Margaret Harrison & H. Cástulo García. 1981. *Diccionario Zoque de Copainlá*. Mexico, D.F.: Instituto Lingüístico de Verano.

Heine, Bernd. 1993. *Auxiliaries: Cognitive forces and grammaticalization*. New York: Oxford University Press.

Himes, Valerie. 1997. *Multi-verb constructions in Sierra Popoluca*. Pittsburgh, PA: University of Pittsburgh MA thesis.

Hockett, Charles F. 1966. What Algonquian is really like. *International Journal of American Linguistics* 32. 59-73.

Instituto Nacional de Geografía, Estadística e Informática. 2000. *Manual y catálogo para la codificación de las lenguas indígenas, XII Censo General de Población y Vivienda*. México, D.F.

Instituto Nacional de Geografía, Estadística e Informática. 2005. *Manual y catálogo para la codificación de las lenguas indígenas, XII Censo General de Población y Vivienda.* México, D.F.

Johnson, Heidi. 2000. *A grammar of San Miguel Chimalapa Zoque*. Austin, TX: University of Texas dissertation.

Kaufman, Terrence. 1963. Mixe-Zoque diachronic studies. Unpublished ms.

Kaufman, Terrence. 1994. The native language of Meso-America. In Christopher Moseley & R.E. Asher (eds.), *Atlas of the world's languages*, 46-76. London & New York: Routledge.

Kaufman, Terrence. 1997. Grammaticalization through incorporation in the diachrony of Mije-Sokean verbs. Paper presented at The Seventh Biennial Symposium of the Department of Linguistics of Rice University: "On the Interface Between Comparative Linguistics and Grammaticalization Theory: Languages of the Americas". Rice University. Houston.

Kaufman, Terrence. 2005. A typological sketch of the Mije-Sokean languages. Unpublished ms.

Kaufman, Terrence & Valerie Himes. Forthcoming. Soteapanec lexical database. The project for the documentation of the languages of Meso-America. Pittsburgh: University of Pittsburgh.

Klavans, Judith. 1985. The independence of syntax and phonology in cliticization. *Language* 61. 95-120.

Larsen, T.W. 1981. Functional correlates of ergativity in Aguacatec. Paper presented at the Berkeley Linguistic Society. University of California, Berkeley.

Mateo-Toledo, B'alam. 2006. Explorations in nonfinite clauses in Q'anjob'al. Paper presented at the IX Encuentro Internacional de Linguistica en el Noroeste. Sonora, Mexico.

Mateo-Toledo, Eladio. 2008. *The family of complex predicates in Q'anjob'al (Maya): Their syntax and meaning*. Austin, TX: University of Texas dissertation.

Noonan, Michael. 1985. Complementation. In Timothy Shopen (ed.), *Language typology and syntactic description*, 42-140. Cambridge: Cambridge University Press.

Noonan, Michael. 2007. Complementation. In Timothy Shopen (ed.), *Language typology and syntactic description,* 2nd edn., 52-150. Cambridge: Cambridge University Press.

Payne, Doris L. 1986. Basic constituent order in Yagua clauses: Implications for word order universals. In Desmond C. Derbyshire & Geoffry K. Pullum (eds.), *Handbook of Amazonian languages*, 407-439. Berlin: Mouton de Gruyter.

Reilly, Ehren. 2002. A survey of Texistepec Popoluca verbal morphology. Unpublished ms.

Silverstein, Michael. 1976. A hierarchy of features and ergativity. In R.M.W. Dixon (ed.), *Grammatical categories in Australian Languages*, 112-171. Canberra: Australian Institute for Aboriginal Studies.

Smith-Stark, Thomas C. 1974. The plurality split. Paper presented at the Chicago Linguistics Society. University of Chicago.

Steele, Susan, Adrian Akmajian, Richard Demers, Eloise Jelinek, Chisato Kitagawa, Richard Oehrle & Thomas Wasow. 1981. *An encyclopedia of AUX: A study in cross-linguistic equivalence*. Cambridge, MA: MIT Press.

Vasquez Alvarez, Juan J. 2007. *Non-finite clauses in Chol*. Austin, TX: University of Texas MA thesis.

Wichmann, Søren. 1995. *The relationship among the Mixe-Zoquean languages of Mexico: Studies in the indigenous languages of the Americas*. Salt Lake City: University of Utah Press.

Zavala, Roberto. 1992. *El Kanjobal de San Miguel Acatán*. México: Universidad Nacional Autónoma de México.

Zavala, Roberto. 2000. *Inversion and other topics in the grammar of Olutec (Mixean)*. Eugene, OR: University of Oregon dissertation.

Zavala, Roberto. 2004. Obviación en oluteco (mixeana). Paper presented at the Conference on Indigenous Languages of Latin-America-I. The University of Texas at Austin.

Zwicky, Arnold M. 1977. On Clitics. Bloomington: Indiana University Linguistics Club.

Zwicky, Arnold M. & Pullum, Geoffrey K. 1983. Cliticization vs. inflection: English *n't*. *Language* 59. 502-513.

Lynda Boudreault
ldejong@mail.utexas.edu