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A DESCRIPTIVE GRAMMAR OF SAN BARTOLOMÉ ZOOGOCHO ZAPOTEC

by

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Dedication

This dissertation is dedicated with love to

my daughter,

Cordelia Maria Beatrice Sonnenschein

and my wife,

Ruth Anne Crossley.

Acknowledgements

I would like to take this opportunity acknowledge the many people without whose help and assistance I would not have been able to complete this dissertation.

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Finally, I would like to take this opportunity to thank my family for their help and support with the dissertation. My mother, father, stepmother, and sisters have been a great source of inspiration and support. My aunt, Susan Sonnenschein, helped me greatly with the formatting and in converting/making legible the two maps. Most importantly, my daughter Cordelia Maria Beatrice Sonnenschein, and her mother, Ruth Anne Crossley, deserve many thanks for being my inspiration to write, to take time off to lie in the grass and collect my energies, and to breathe.

Table of Contents

List of Tables

List of Figures

Abstract

In this dissertation, I provide a grammatical description of San Bartolomé Zoogocho Zapotec, an endangered Otomanguean language spoken in the southern Mexican state of Oaxaca. The initial six chapters are concerned with providing a description of the major grammatical features of the language, while the final two examine two major current theoretical issues: parts-of-speech and word order.

The first six chapters provide descriptions of the ethnographic and sociolinguistic situations of the Zoogocho Zapotec community, the sounds of the language, the pronominal system, the morphology, and the syntax of the language. While no particular theoretical framework is used, the inspiration for much of the description comes from the typological universal grammar research program. SBZZ (as I will refer to San Bartolomé Zoogocho Zapotec) is a tonal language which can be complex phonologically. It is an agglutinative, slightly fusional language. It is a prototypical VSO language having prepositions, NAdj, NDem, NGen, and NRel orders. Various means of combining clauses exist, including complementation, coordination, and relativization.

Chapter Seven is an examination of the lexical classes present in SBZZ. While I try to define necessary and sufficient conditions for each lexical class, it can be difficult to find conditions which are both necessary and sufficient. I try to rely, therefore, on multiple definitions which, while informed by a variety of cross-linguistic data, are based on and presented by the SBZZ grammar. I devote much of the discussion to the grammaticalization of relational nouns, a topic which has received a great deal of discussion in the literature, both specifically for Zapotecan and Otomanguean languages and more generally. I conclude that relational nouns are a separate category from prepositions and regular nouns in SBZZ, while sharing characteristics with both.

In Chapter Eight, I examine verb initial word order, place SBZZ in two typologies of verb initial languages, and compare a study of word order in two SBZZ texts with other textual studies of word order in verb initial languages. Chapter Eight also confirms a hypothesis about the processing of VSO languages which comes from the processing theory of John A. Hawkins.

Abbreviations and glossing conventions

List of abbreviations

1plexcl	first person plural exclusive
1plincl	first person plural inclusive
1sg	first person singular
1sgexp	first person singular experiencer
1sgfsf	first person singular fast speech form
2pl	second person plural
2sg	second person singular
2sgexp	second person singular experiencer
2sgfsf	second person singular fast speech form
2sgm	second person singular male to male form
3an	third person animal
3f	third person formal
3fexp	third person formal experiencer
3fo	third person formal object form
3inan	third person inanimate
3inf	third person informal
A	agent of transitive clause
adv	adverb
an	animate
and	andative
caus	causative
clan	classifier for animates
clinan	classifier for inanimates
clsm	classifier for babies and small things

comp	completive
cond	conditional
cont	continuative
cop	copula
demadv	demonstrative adverb
demdist	distal demonstrative
demmed	medial demonstrative
demprox	proximate demonstrative
dim	diminutive
dir	directional
DO	direct object
dp	definite past
dub	dubitative
emph	emphatic
freq	frequentative
genan	animate generic noun
geninan	inanimate generic noun
gensm	small generic noun
inan	inanimate
IO	indirect object
indef	indefinite
inf	infinitival form
instr	instrumental
int	intensifier
itr	intransitive
neg	negative
negan	negative for animate

neginan	negative for inanimate
num	numeral
O	object of transitive clause
pl	plural
poss	possessive
pot	potential
rel	relative pronoun
rep	repetitive
S	subject of intransitive clause
s.o.	someone
Sp.	Spanish
stat	stative
s.t.	something
tr	transitive
v	verb
ven	venitive

Glossing conventions

I followed the Leipzig Conventions for glossing. Those conventions will be followed strictly in the final draft for typing. The hyphen (-) is used to indicate a word internal morpheme boundary and an equal sign (=) is used to indicate clitic boundary. A period (.) is used in those cases where the morphemes are separate but not segmentable (e.g. a suppletive form or some type of fusion). The ordering of fused morphemes should be in the order which corresponding non-fused morphemes normally would take. A _ is used when a single SBZZ lexeme corresponds to more than one English lexeme. In addition, plurality is not marked for the third person pronouns, as either a separate morpheme marks plurality (often not adjacent to the pronominal form) or it is recoverable from context.

Chapter One: Introduction

1.1   **Basic information about San Bartolomé Zoogocho Zapotec**

San Bartolomé Zoogocho Zapotec[1] (or *dizha zxon* 'Zxon language' as it is

referred to in SBZZ) is an Otomanguean language primarily spoken in San

Bartolomé Zoogocho in the Northern Sierra of Oaxaca at 170°15" north by 96°1" E.

As of the year 2000, there were fewer than 45 monolinguals out of a total population

of 638 according to the Mexican National Census

(http://www.ini.gob.mx/indica2000/mpo/oax83.htm).

The number of speakers in the village has dropped considerably over the

years. In 1980, according to the Mexican National Census, there was a population of

750 speakers out of a total population of over 2200 total residents in Zoogocho. This

number had dropped to 560 total bilingual speakers and 72 monolingual speakers out

of a total population of 716 residents according to the 1990 census as reported in

Long and Cruz (1990:11).

There has been significant migration out of the village over the past fifty

years to Oaxaca City, Santa Cecilia and Santa Teresa Nigromante in the state of

Veracruz[2], Mexico City and the surrounding areas, especially the state of Mexico,

and, even as far away as the United States, primarily Los Angeles, California (p.c.

Alberta Martinez Marcial). This migration has often been as the result of government

programs such as the Bracero program in the United States and Mexican programs

such as one which gave young Zapotecs training in Mexico City to be barbers.

According to Zoogochense in Los Angeles, there are more than 500 people from

Zoogocho in Los Angeles. Of these 500, not everyone speaks Zapotec and some are

probably cross-listed in Zoogocho, maintaining legal status both in Los Angeles and

in Zoogocho. In Los Angeles, the Zoogochense do not live in one single area but are

rather dispersed. The following map shows the approximate location of the primary

SBZZ-speaking communities mentioned so far.

Figure 1.1: Approximate Locations of SBZZ-speaking Communities

Map Abbreviations	
LA:	Los Angeles
DF:	Distrito Federal
EdM:	Estado de México
O:	Oaxaca
Z:	Zoogocho
N:	Santa Teresa Nigromante
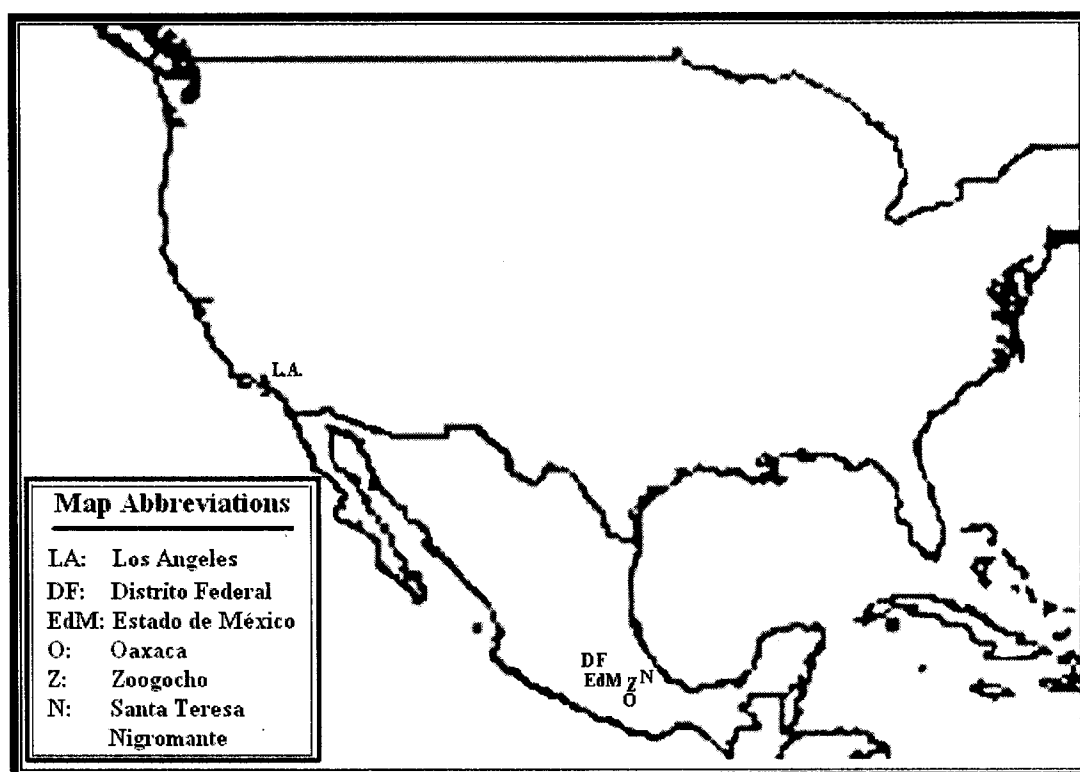
1.2   The sociolinguistic situation

As already noted, the great majority of SBZZ speakers are no longer

monolingual, and many note that the language has changed as a result of contact with

Spanish during their lifetimes. Most of the children of whom I know in the village

grow up learning both Zapotec and Spanish in the household, and the influence of

Spanish is definitely increasing, along with the increase in the number of households which have television, often with satellite programming.

There are still, however, many households where Zapotec is the primary language used; and Zapotec is still used in the market, some business transactions, in the city government, and the local internado (government boarding school). The internado serves many other communities, both Zapotec and non-Zapotec, and is not attended by every Zoogochense student. The other primary and secondary schools in Zoogocho all use Spanish as the medium of instruction. There is a radio station in Guelatao which broadcasts in Zapotec occasionally, but rarely if ever is this in the Zoogocho or even the Villa Alta variety. However it is an important and encouraging resource to speakers, who are happy to hear any variety of Zapotec being broadcast. From what I know of the situation among speakers who have migrated out of Zoogocho, as based on personal communication and observation during the saint's day festival for San Bartolomé, an occasion which sees many Zoogochense return from afar, SBZZ is not actively learned by the majority of the first generation born outside the village. In general, I feel that, especially with a concerted effort on the part of native speakers (which is very possible) and with an incredibly improved local economy (which is conceivable), there is some potential for the language to still be spoken in 50 years. I would suppose that the situation was similar in most of the towns within the **Zxon** dialect grouping.

1.3   Genetic and dialectal information

SBZZ is a member of the Northern grouping of the Zapotecan sub-family of

the Otomanguen stock. Note that Zapotec comprises anywhere between 5 languages

(Kaufman 2004) to perhaps as many as 58 languages, as per the classification on

Ethnologue (Grimes et al 2000).

The Northern grouping encompasses at least four distinct dialect groupings as

a conservative estimate, and perhaps as many as five. The way the language

grouping is divided by the authors of the *Diccionario Zapoteco-Español: Reglas*

para el entendimiento de las variants dialectales de la sierra: Hechos por zapotecos

de la variante del sector xhon[3] (Castellanos et al 1995), a bilingual dictionary

compiled by native speakers of the speakers of the **Zxon** dialect grouping which

includes Zoogocho Zazpotec, is as follows.

The **lhe'ja** dialect grouping includes varieties spoken in the district of Ixtlan

de Juaréz (such as Chicomezuchitl, Atepec, Analco, Aloapam, Amatlán, San Miguel

del Rio, Macuiltianguis, Yarenia, Ixtepeji, Lachatao, Jaltíanguis, Yavesia,

Soquiapan, and Teococuilco) and is said to be the most distinct of all the varieties of

the Sierra (ibid. 12).

Xidsa is spoken in both the district of Ixtlán in the towns of Yaneria, Josaa,

Tiltepec, Ysagila, Teolaxco, Yagavila, Tepanzacoalco, Cacolotepec, and Yotao; and

the district of Villa Alta in the towns of Juquila Vijanos, Yaee, Yatzona,

Temacalapa, Camotlán, Lalopa, Roayaga, Tanetze, and Villa Alta (ibid. 13).

Xhon, the variety to which SBZZ belongs, is spoken primarily in the Villa Alta district in the towns of Solaga, San Andrés Yaa, Yatzachi el Bajo, Zoogocho, Lachirioag, San Francisco Cajonos, Taba, San Mateo Cajonos, Betaza, Yaganiza, San Pedro Cajonos, Yalina, Zoochila, Xagacia, and Yalálag. Castellanos et al also note the existence of the community in Nigromante, Veracruz. I will obviously come back to this language grouping later in this section (ibid. 14).

Xan, considered to be 'una extensión de la variante **xidsa**' 'an extension of the **xidsa** variety' (ibid. 14), is spoken in the district of Choapan in the towns of Comaltepec, Lachixoba, Jaltepec, Latani, Hahuive, Yaveloxi, and Choapan (ibid. 15).

Finally, **welab**, is spoken in 'algunos pueblos del Districto de Tlacolula, que se encuentran en la colindancia con los pueblos Cajonos y son conocidos como las Albarradas', 'some towns in the Tlacolula District which are found neighbouring Cajonos towns known as the Albarradas' (ibid. 15), Santa María Albarradas, Santo Domingo Albarradas, San Lorenzo Albarradas, and San Bartolo Albarradas. It is very doubtful whether this dialect grouping belongs with the other Northern Zapotec languages or rather should be classified as belonging to the Valley Zapotec subgroup, as has been mentioned to me by Pamela Munro (Munro p.c.). The authors of the dictionary do not discuss the intelligibility of **welab** with any of the other groupings listed.

In general, the authors claim, outside of **welab**, that the **lhe'ja** dialect

grouping is the most unintelligible to speakers of other Sierra Zapotec language

(ibid. 18). They state that speakers of **xhon**, **xidsa**, and **xan** can communicate if need

be, especially speakers of **xhon** and **xidsa**, but only on a basic level.

The following map is significantly adapted from maps obtained from

www.maps-of-mexico.com and from 'Mapa 2' in Castellanos et al (1995). It shows

the geographic distribution of the language groupings discussed above.

Figure 1.2: Map of Language Groupings
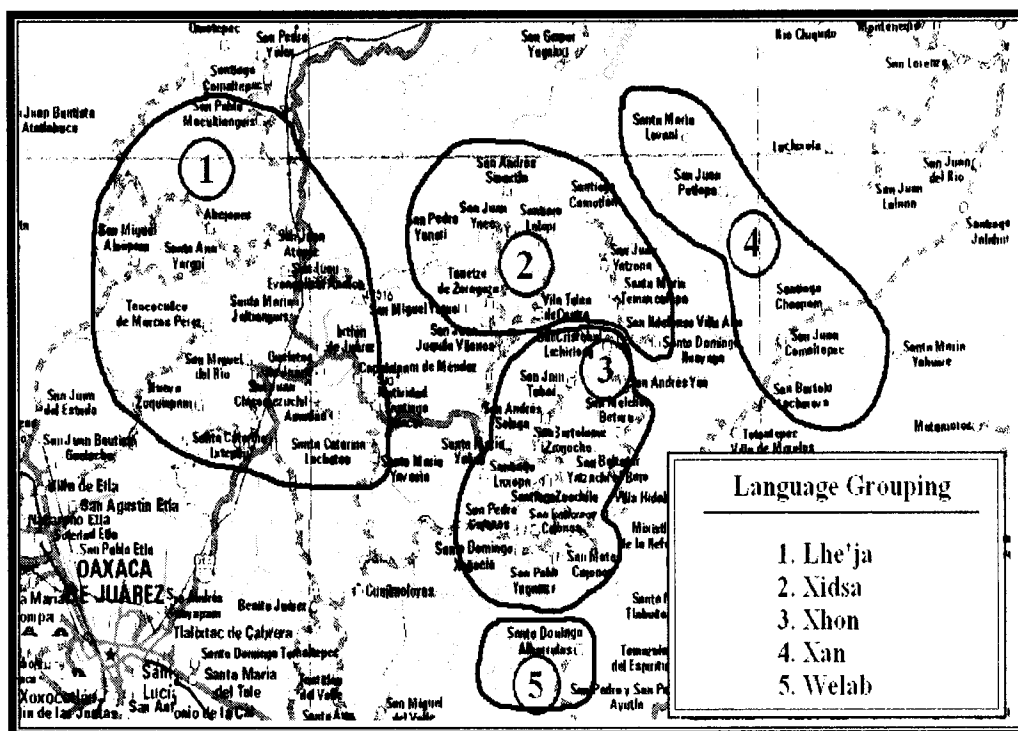
Sources: www-maps-of-mexico.com (5/1/2004), Castellanos et al. (1995)

However, as the authors of the dictionary note, these are not discrete

groupings. There is a great diversity within these dialect groupings where an

individual language might pattern like a member of another dialect grouping. For example, within the **zxon** grouping, there is ' the tendency for Tabaa and Yojovi to make (>retain [4]a.s.) polysyllabic words which are characteristic of the **xidsa** and **lhe'ja** sectors, the tendency of San Pedro Cajonos, Betaza and Laxopa to use **tz** as used in the **xidsa** and **xan** sectors, (and) tendency of Yalálag to use **k** as they do in the **xidsa** and **xan** sectors' (ibid. 20). They also note lexical differences, such as pronominal forms. There are also significant syntactic differences between the different **zxon** languages. For example, there are differences between Yalálag, Yatzachi, and SBZZ, in the co-ocurrence of subject and object pronominal clitics, the retention of pronouns in relative clauses (first mentioned in Marlett (1990,1993)), plurality (Marlett and Picket 1999) and focus and topic constructions.

The nature of and causes for the dialect differentiation are interesting topics for future research. It needs to be determined what exactly the situation is. There could be a dialect chain, where one dialect fuses into the next without any clear-cut boundaries. There could be discrete groupings in which individual members of the grouping might pattern on some levels with members of another grouping. Perhaps most likely, the situation is a combination of the two above, where, based on contact with the nearest neighbor, speakers of one dialect grouping can understand the dialect of their closest neighbors, and, to varying degrees, those of the rest of the dialect grouping and perhaps close neighbors belonging to other dialect groupings, but where, by and large, the groupings do constitute different languages.

Depending on the reasons for contact, and the geographic proximity, any two varieties will have differing degrees of mutual intelligibility. For example, as my collaborators have repeatedly pointed out to me and has been reported in Ethnologue (Grimes et al 2000), because of the weekly market in Zoogocho, speakers from Yatzachi, who are forced to come to Zoogocho to buy products, can communicate with Zoogocho Zapotec speakers. Speakers from Zoogocho, however, generally report difficulty in understanding those from Yatzachi and report using Spanish. If one examines the rate of mutual intelligibility among languages of the **zxon** dialect grouping as reported in Ethnologue, one can see that there seems to be no one particular factor (such as geographic proximity) which is the determining factor for intelligibility. In addition, the access to transportation which no longer requires people to travel to and through near-by villages in order to conduct business with the outside world is in all likelihood aiding in the destruction of the social and linguistic networks which used to exist between related dialects. A systematic study of the dialectal differences based on geography, and also crucially on social networks and other social factors is a necessary step in the further description of the language family.

1.4   Previous linguistic research

In terms of work done on the **zxon** dialect, the earliest work done on the dialect known to me was done by Jaime de Angulo (1926). In the 1940s, there was work done by Eunice Pike (1949) and Mary and Otis Leal (1954). Later, Inez Butler has done considerable work on Yatzachi to which we all, as Long points out, are

indebted. Marlett and Pickett, working both together and separately, have also included data from various **zxon** dialects in various comparative papers. When I began working on Zoogocho Zapotec, there were only two articles written on the Zoogocho Zapotec variety (Long (1985), Butler (1985)). However, since that time, a formidable dictionary Cruz and Long (1999) with a grammatical sketch has been published. The current dissertation represents the most thorough grammatical description of Zoogocho Zapotec to date.

1.5　　　　　Non-Zapotec languages spoken in the region

There are non-Zapotec languages spoken in relatively close proximity to SBZZ, most notably Mixe and Chinantec. Because of the large amount of money that is brought in from outside the village and outside of the region, San Bartolomé Zoogocho is relatively affluent in comparison with many of these other communities. As a result of this, many Mixes and a few Chinantecs come to work as migrant laborers in Zoogocho because of the much higher wages. In general, my primary consultant's husband, Eduardo Vasquez, a Mixe, has reported to me that, circa 2000, Mixes made only 10-15 pesos a day without food being included if they work in the Mixe region, whereas they will earn around 35 pesos a day plus meals, if they work as day laborers in Zoogocho. Most of the Mixes and Chinantecs who I know do not learn Zapotec, communicating in Spanish instead. However, some, who stay for an extended period, such as Eduardo, do pick up some Zapotec (p.c. Eduardo Vasquez 2000).

1.6   Other geographic and ethnographic information

San Bartolomé Zoogocho is situated on the side of a mountain in a pine scrub forest. Its lands extend to the top of the mountain and down to the hot, dry valley below. As a result of this wide range of microclimates, the cultivation of a great variety of produce is possible. Peaches and pears can be local, as can mangos and bananas. The mountainous terrain does make it difficult to have horses, or large herds of cattle.

The primary economy in Zoogocho is agricultural. At this point, it is mostly subsistence level farming. Coffee is frequently grown as a cash crop, and, in the past, there were government programs encouraging the growth of silkworms as a potential crop, but few people currently raise silkworms. Livestock are raised by some in the village to sell. Most of the population, however, keeps livestock for personal use. There are also some artisans involved in trades such as weaving, and pottery. There are not as many artisans today as there once were, given the availability of cheap imported products. Also, as the regional market town, with a weekly market on Thursdays which draws people in from all over the region, there is also a thriving mercantile sector. There are also a number of individuals who have thrived outside of the village as engineers, teachers, sociologists, anthropologists, business people, and so on.

In terms of the belief system of the average Zoogochense, it would be fair to say that it was syncretic Catholicism; Catholicism which shows traits of indigenous beliefs. Even though, as with many other traditions, such practices are on the wane,

there are still various practices which predate the conquest. Many popular myths involve the 'lord of the woods', or other mythical figures. There is also a fair amount of talk of witchcraft.

There are very few that remember traditional forms of healing in all of its forms. However there are still native healers who are widely used by both people from the village and outsiders. Some beliefs persevere, such as that of 'susto' or 'fright', in which by being startled or frightened people, especially small children, can become spiritually and physically ill. However, some of the elaborate rituals which used to be performed in such cases are no longer performed, some abbreviated version being performed if anything at all.

Similarly, many of the other traditions which still existed in the early part of the twentieth century have also fallen by the wayside. See Julio de la Fuente's description of Yalálag (1977), to see a description of many of these.

Unfortunately, there are very few current comprehensive ethnographies of San Bartolomé Zoogocho or the near-by communities of which I am aware. There is a great discussion of the market economy from the 1970's written by Ralph Berg (1974), a description of traditional medicine by Zoogocho native Filemon Beltran Morales (1982) and a monograph about the Mountain Zapotecs as a whole and a collection of essays about the region by Zoogocho native Manuel Rios (1994).

1.7 Typological characteristics

Zoogocho Zapotec is a tonal, agglutinating VAO/VS language with noun adjective, noun genitive, noun determiner, noun relative clause, and numeral noun orderings. I will describe its typological characteristics in much greater depth over the course of the dissertation.

1.8 Theoretical framework

For the most part, I will attempt to be as theory neutral as possible in the actual description of the language. Of course, this is easier said than done. I will attempt to define those terms which are unclear or vary considerably crosslinguistically. I will strive to use definitions which correspond to the grammar of Zoogocho Zapotec as much as possible while retaining some degree of cross-linguistic applicability.

In a few chapters of the dissertation, I will present some arguments based on the theory of grammaticalization (See Bybee et al. (1994), Heine et al. (1991), Lehmann (1982), etc.). I will refer heavily to theories of word order typology such as Greenberg (1963), Comrie (1989), and others; and will also appeal to the processing approach to the explanation of linguistic universals as espoused in Hawkins (1994) at various points in the dissertation. Overall, I intend the theoretical framework to be a loose one, and am more concerned with the description of the language than the promotion of theories.

---

[1] Henceforth referred to as SBZZ, and Zoogocho Zapotec. I will continue to refer to the language as Zoogocho Zapotec, even though this is a name given from outside the speech community because of the fact that is specifies the specific dialect, and *dizha zxon* has a wider usage, also referring to the dialect grouping to which Zoogocho Zapotec belongs.

[2] In the 1940's, after either a plague of locusts according to some stories or as a result of economic necessity according to others, there was a government sponsored migration of speakers from a number of towns, including San Bartolomé Zoogocho, to Nigromante, Veracruz. When there, the speakers reportedly formed a sort of koine based on the various Villa Alta dialects. It is this researcher's intention to someday travel to Nigromante to document and analyze this variety.

[3] In the orthography used by the authors of the dictionary, *xhon* corresponds to *zxon* in the orthography used for the purposes of the present work.

Chapter Two: Phonology/Phonetics

2.1 Orthography and inventory of sounds

The orthography which will be used in this dissertation, while sharing many points of similarity with other orthographies in use for Zoogocho Zapotec and related languages, is solely intended for the current dissertation. It is a practical orthography originally devised by Terrence Kaufman and consequently revised by speakers of the language and myself.

There are various other orthographies that have been devised for the language grouping, including various orthographies devised by native speakers, and by the Summer Institute of Linguistics. The only reason why I use this particular orthography is that I am familiar with it and that it does adequately represent the phonemes of the language.

In the following exposition of the orthography, I will write segments in the orthography which I am using surrounded by slashes, and will put the International Phonetic Alphabet symbol which corresponds to the phoneme in the orthography in square brackets in those cases where there is a difference between the standard IPA symbols and the current orthography.

There are five vowels in SBZZ. Note that these correspond to a four-vowel system, with the addition of the vowel /u/ in loanwords. Doubled vowels represent creaky voice /VV/ [V̰], vowels with an /h/ between them represent breathy voice

/VhV/ [V̲], and vowels followed by an apostrophe represent checked vowels /V'/

[Vʔ]. These phonation types will be discussed later in the current chapter.

Table 2.1 SBZZ Vowels

i	(u)
e	o
	a

Phonation types: VV,VhV,V'

While it is noted that tone is indeed a very important part of the language and

is phonemic, I will only mark tone as it is relevant to the discussion of the

morphosyntax at hand. Tone is not marked in most native orthographies, instead

being recovered from context. Unfortunately, I have not completed a systematic

study of tone in all of its myriad aspects at this point. For the purposes of the

description of the phonetics and phonology of this language, and for later parts of the

dissertation I will represent the five tones which are tentatively identified (high, mid,

low, rising, falling) as in the IPA, with [v́] corresponding to high tone, a plain [v]

corresponding to mid tone, [v̀] corresponding to low tone, [v̂] corresponding to

falling tone, and [v̌] corresponding to rising tone.

The following table represents the native phonemic consonantal inventory of

SBZZ.

Table 2.2 SBZZ Consonants

	Labial	Alveolar	Palatal	Retroflex	Velar	Labiovelar	Uvular	Glottal
Fortis stops	p	t			k	kw		' [ʔ]
Lenis stops	b	d			g			
Fortis affricate			ch [tʃ]					
Lenis affricate			dx [dʒ]					
Flap		r [ɾ]						
Fortis fricatives		s	sh [ʃ]	x [ʂ]				
Lenis fricatives		z	zh [ʒ]	zx [z̧]			gh [ʁ]	
Fortis nasals	m	nh						
Lenis nasal		n						
Fortis lateral		lh						
Lenis lateral		l						
Approximates	w		y[j]					

The following sounds are found in loan words from Spanish: /f/, /r/[ɾ], /rr/[r],

/ñ/[ɲ], and /j/ [x]. /r/[ɾ] also shows up in variation with the native phoneme /l/.

The fortis/lenis distinction in non-resonants is represented by the standard voiced/voiceless symbols for stops. For resonants, the fortis version is marked with an /h/ following the /l/ or /n/, as in /lh/ and /nh/.

/w/ can also represent labialization of the preceding consonant, as will be discussed in greater detail below.

2.2   Consonants

While I have represented the fortis/lenis distinction for the stops orthographically as a voicing distinction (fortis being voiceless and lenis being voiced), it is not the case that voicing is the primary distinction which is being made in fortis/lenis pairs. As discussed in Ladefoged and Maddieson (1996: 98), Jaeger (1983) 'concluded that in two quite different languages she was investigating, Zapotec and Djauan, the phonetic factors underlying the contrast were primarily duration, glottal width and possibly closure width. She suggests that in both these languages, the proto-typical fortis obstruent is long, voiceless, has no variation in stop closure and has higher amplitude noise; the prototypical lenis obstruent is short, usually voiced but often voiceless, has much variation in closure type, and lower amplitude noise.' The length of the preceding vowel is often greater for lenis consonants. Lenis consonants can also become voiced fricatives intervocalically. These observations might all follow from the fact that lenis consonants are said above to have a higher variation in the type of closure and in voicing. I will discuss the fortis/lenis distinction in sonorants in greater detail below. The exact characterization of the distinction between fortis and lenis consonants in Zoogocho Zapotec requires greater study.

2.2.1 Examples

2.2.1.1 Stops

Table 2.3 Stops

	Initial position	Medial position	Final position
/p/	No native ex. (see /kw/)	*lapa'* 'hat'	*tap* 'four'
/t/	*te* 'grey'	*gata'* 'I will die.'	*bat* 'when'
/k/	*ke* ' 'really (tag question)'	*dxaka'* 'I can do ... '	*nak* 'how'
/b/	*be* 'animal classifier'	*laba'* 'drop (n)'	*lcont* 'base'
/d/	*dehe* 'ash'	*xada'* 'flattened, smashed'	*yid* 'skin, hide'
/g/	*ge* 'interrogative particle-where on'	*lhaga'* 'leaf'	*zahag* 'cold'
/kw/	*kwan* 'edible herb'	none[1]	none[2]

Lenis consonants are often devoiced word-initially, especially when immediately followed by fortis consonants. At this point, I have only found nonderived examples of /kw/ word initially. In all other positions, putative examples of /kw/ all appear to be derived.

2.2.1.2   Nasals

Table 2.4 Nasals

	Initial position	Medial position	Final position
/m/	*me'* 'baby sheep'	*zhome'* 'basket'	*dam* 'owl'

/m/ is fortis and has no lenis counterpart.

	Initial position		Medial position	Final position
/n/	*nez*	'path, road'	*bena'* 'I made ...'	*ton* 'to be hungry'
/nh/	*nhe*	'no'	*benha'* 'I gave ...'	*tonh* 'long, tall'

One way of distinguishing between fortis and lenis nasals is by assimilation in place of articulation of the lenis nasal to the following morpheme.

(1) benhbe'   to   yet

     b-enh=be'   one   tortilla

     comp-give=3inf   one   tortilla

     'He gave a tortilla.'

(2) bembe'   to   yet

     b-en=be'   one   tortilla

     comp-make=3inf   one   tortilla

     'He made a tortilla.'

2.2.1.3   Laterals

Table 2.5 Laterals

	Initial position		Medial position	Final position
/l/	*le'*	'you'	*nile* 'this way'	*yel* 'sandal'
/lh/	*lhe'*	'him/her'	*nilhe* 'cooked corn'[3]	*belh* 'fish'

The lenis lateral often turns up in free variation with the flap as seen below

(3)   da   lis

      clinan   small

      'small'

(4)   da   ris

      clinan   small

      'small'

2.2.1.4 Fricatives

Table 2.6 Fricatives

	Initial position		Medial position	Final position
/s/	*setw*	'squah plant/vine'	*dxasa'* 'I get up.'	*dxas* 'fall vitr.'
/z/	*zee*	'wall'	*dxaza'* 'I plant ... '	*dxaz* 'begin (aux)'
/sh/	*shi*	'or, if'	*gwasha'* 'I left.'	*yash* 'loose'
/zh/	*zhe*	'night'	*dxonlazha'* 'I am lying.'	*yazh* 'plum'
/x/	*xeene'*	'saliva'	*yixe'* 'woods, wild'	*bex* 'tomato'
/zx/	*zxen*	'big'	*dxazxa'* 'I am calling ... '	*yizx* 'grass'
/gh/	*ghed*	'chicken, hen'	*weghe'* 'each one'	*begh* 'spring'

The retroflex/non-retroflex distinction in the fricatives is sometimes accompanied by a slight rhotacization of the vowel preceding the retroflex fricative.

2.2.1.5 Affricates

Table 2.7 Affricates

	Initial position	Medial position	Final position
/ch/	*che* 'of, poss'	*bichia'* 'my child	*lhach* 'even though'
/dx/	*dxee'* ' She says'	*xladxa'* 'my clothes'	*nadx* 'then'

2.2.1.6 Glides

Table 2.8 Glides

	Initial position		Medial position	Final position
/w/	*wego'*	'youth'	*zxawed* 'stick insect'	*NA*
/y/	*yego*	'river'	*lhaye'* 'green onion'	*lhay* 'cichicastle'

/w/ can represent a [β] or even an [f] in some speaker's varieties. /y /is preaspirated

by some speakers, even becoming a [ç] before /i/.

2.2.1.7 The glottal stop

Table 2.9 The glottal stop

	Initial position	Medial position	Final position
/ʔ/	no initial	*ble'ida'* 'I see'	*Lha'* 'Oaxaca'

While I am currently representing it as a separate symbol, I should note that

the glottal stop is a feature of the vowel as it does not occur word-initially and it does

not occur directly following consonants.

2.2.2 Loans

Sounds which are only found in loan words in SBZZ are: /f/, /ñ/, /rr/, and /j/

as seen below in (5). /r/ is primarily found in loans, although, as mentioned above, it

does alternate with the native lenis lateral in some words.

(5)   *febrer* 'February [Sp.]'

   kafe 'coffee [Sp.]'

   rranshw 'ranch [Sp.]'

   karrw 'car [Sp.]'

   jarrw 'pitcher [Sp.]'

2.2.3   Labialization

Labialization occurs in environments where historically, a labial vowel had occurred. Words that had the shape CVCV, with stress falling on the penultimate syllable often reduced the first vowel. If the first vowel was labial, this resulted in labialization of the first consonant, as in the following.

(6)   *gwbizh* 'sun (from inf.dry)'

Also, there are examples, especially in the case of Spanish loan words, where post tonic labial vowels are the source of labialization, as in (7)

(7)   *platw* 'plate [Sp.]'

 Labial consonants are not further labialized.

There are also aspectual prefixes that become labialized in certain environments. This will be discussed in greater detail in Chapter Four.

2.2.4   Consonant clusters

Initial consonant clusters are generally of the shape, CCV. Consonant clusters generally come from earlier CV<u>CV</u> morphemes in which the pretonic vowel has been lost. There are also cases where an earlier prefix has lost a vowel resulting in a CCV structure. If a consonant cluster begins with a stop, then the following

consonant could either be a fricative as in (8), a resonant, as in (12), a glide as in (9), or potentially another stop. I will discuss the case of when it is a stop-stop cluster following the examples. By far, stop-resonant clusters are the most frequently found stop initial clusters in the lexicon.

(8)   *bsia'* 'eagle'

(9)   *byinhe'* 'bird

(10)   *bzhina'* 'foam'

(11)   *Dmingw* 'Sunday [Sp.]'

(12)   *glan* 'spotted'

(13)   *platw* 'plate [Sp.]'

All examples of initial clusters beginning with /t/ will be described in the following section.

(14)   *kleka'* 'than (used in comparative constructions)'

In those cases of stop-stop clusters, there are a few explanations. As with all other clusters, they all appear to come from lexemes which historically had the shape CVCV, where the initial CV has simplified to a C, or, in the case when the V was /u/, a CW. The original CV seems to have frequently been another morpheme diachronically, especially *be* 'animal classifier' for roots beginning with /b/, or *to* 'one' for all of the roots beginning with /t/. There are also cases where loan words from Spanish have been reduced as well. There is often either a bit of aspiration following the initial stop (a reflex of its syllabic origin), and, as already mentioned, labialization, when the original vowel was /u/ or /o/.

(15) *bdao'^4* 'baby'

(16) *bgope'* 'armadillo' (from *be=gope)*

(17) *gden* 'chain [Sp.]' (from Spanish *cadena*)

(18) *gwbizh* 'sun' (from inf.dry)

(19) *tdia'* 'one generation' (from to+dia')

There are some examples of affricate initial clusters, but these are all verbs, where the initial affricate is a continuative aspect marker as in (20). (When the following consonant is a fortis consonant *dx-* becomes *sh-.*) Affricates are not otherwise part of consonant clusters.

(20) *dxbab libren'*

      dx-bab   libr=en'

      cont-be.counted   book=definite marker

      'The books were counted.'

Resonant-stop order is also found.

(21) *lhbaha* 'vine'

(22) *ltonh'* 'appetite'

(23) *mba'* 'happy'

(24) *nga* 'demonstrative (medial)'

Fricative-stop order is also frequently encountered. Note that *gh* does not occur initially in consonant clusters.

(25) *steb* 'stale coffee'

(26) *shbal* 'dawn'

(27) *zxdan* 'pretty, beautiful'

(28) *zban* 'ugly/bad' (most of the clusters which begin with /z/ are either adjectives or adverbs)

(29) *zhta'* '14'

There are also resonant-resonant clusters, as in the following.

(30) *lnha'* 'bright (color)'

(31) *nlha'* 'to be seen'

Resonants more frequently begin clusters with either following stops, as seen above, or fricatives, as in the following.

(32) *lghezh* 'reciprocal pronoun'

(33) *lhshil* 'hallway'

(34) *lhzxozh* 'dangerous'

(35) *nzha'* 'different'

/l/ can also occur before an affricate, as in the following.

(36) *lchegho'* 'your skirt'

(37) *lchelh* 'rotation'

The stative marker *n-* can also occur before many consonants, assimilating in place to the following consonant, as in the following.

(38)   *mbane'*

      n-ban=e'

      stat-live=3f

      'He lives.'

Fricatives can occur before stops, as seen above, before resonants, as seen immediately below, and before other fricatives and before glides, as I will show later in this section.

(39)   *shlaa* 'side'

(40)   *shlak* 'while'

(41)   *shnegh* 'once'

(42)   *zxnha'* 'red'

(43)   *zxlapa'* 'my hat' (There are many examples with either /x/ or /zx/ preceding a consonant in their use as possessive prefixes.)

Fricatives can also occur before glides, as in the following.

(44)   *zxwaye'* 'malamujer (plant species)'

(45)   *xya* 'damage'

(46)   *zwia'* 'cocoa bean'

(47)   *zxwaga'* 'my firewood'

(48)   *xwe'* 'lunch'

Fricatives may also precede other fricatives. They do not precede fricatives of the same place of articulation.

(49) *sshaa* 'hot'

(50) *sshag* 'noisy'

(51) *shgheza'* 'cacomixtle' (cat or raccoon like mammal)

(52) *zxgheda'* 'my hen'

(53) *xsil* 'breakfast, morning'

(54) *z_xi* 'salty'

Example (54) shows a potential problem with the orthography currently being used and with other similar orthographies, in that it represents a cluster of two fricatives and not a single voiced retroflex fricative. Where necessary I will represent the fact that there are two phonemes by placing an underline between. While glides do not normally occur as the initial consonant in a consonant cluster, there is one notable exception.

(55) *ygho* 'the area behind a house'

I will now turn to syllable final consonant clusters. Most syllable final consonant clusters are only two consonants in length. There is nowhere near as wide a range of potential consonant clusters as initially. The most common consonant cluster final segment in syllable final consonant clusters is /gh/. Stops may show up after a resonant, fricative, or glide as in the following.

(56) *bant* 'sash [Sp.]'

(57) *gasgh* 'black'

(58) *bolgh* 'egg yolk'

Stops may also occur before fricatives, though this seems to primarily be restricted to the uvular fricative.

(59)   *guditgh Lalo* 'Lalo played.'

(60)   *yapgh* 'chayote(edible plant)'

Affricates can also occur before /gh/.

(61)   *yichgh* 'head'

Fricatives can generally only occur before /gh/, as in the following.

(62)   *gasgh* 'black'

Resonants can occur before /gh/.

(63)   *bechgh* 'pottery figurine'

        While it may appear that there are consonant cluster final glides in syllable final consonant clusters, these are always the result of labialization.

(64)   *setw* 'squash vine'

(65)   *bankw* 'bench [Sp.]'

(66)   *belghw* 'cloud'

        Word medial consonant clusters are viewed in the current work as either being syllable initial clusters, syllable final clusters, or combinations of both.

(67)   dxzozxghbizxghwa' 'I crumble s.t.'

Example (67) can be viewed as being.

(68)   dx-zozxgh-bizxghw=a'.

cont-tear-small=1sg

'I crumble something.'

2.3   Vowels

Zoogocho Zapotec has a five vowel system synchronically, with /u/ only

occurring in loans. Unlike Yatzachi Zapotec, SBZZ does not have phonemic schwa.

With the exception of the word for year, *iz* (which could be interpreted as being

underlying *yiz*), there are no native vowel initial words. Some examples of minimal

and near minimal pairs for vowels follow.

Table 2.10 Vowels

/a/	*ba* 'tomb'	*yaa* 'raw, green, unripe'
/e/	*be* 'classifier-animal'	*yee* 'excrement'
/i/	*bi* 'negative'	*yiinh* 'coffin'
/o/	*bolhgh* 'yolk'	*yoo* 'house'

There are also the following sequences of vowels:

(69)   /ao/   *bao'* 'charcoal', *dao* 'maguey'

       /ai/   *gwbaai* 'broom'

       /ae/   none attested

       /ea/   *ghea* 'rooster'

       /ei/   *beida'* 'I sense ... '

       /eo/   *shgheonda part* 'You will go to sue me.'

       /ia/   *lia/ria'* 'Ms.'

       /ie/   *chie'* 'his'

       /io/   *chio'* 'your'

       /oa/   *dxoabe'* 'his mouth'

       /oe/   *dxoe'* 'he gave'

       /oi/   *moises* 'Moses [Sp.]'

/o/ is sometimes pronounced as a /u/, apparently in free variation. As mentioned above, lenis consonants sometimes tend to lengthen the previous vowel. This appears to be the only case whereby vowels are long. The vowels themselves do not appear word-initially, although they can occur word finally.

There are also cases where vowels are nasalized. This only occurs in vowel-final stems when they are followed by the definite article, *-n'/-na'*. Vowels are also slightly nasalized preceding regular nasal segments.

2.3.1 Phonation

Vowel quality may be creaky, breathy, checked, or regular. The following are the ways the various types of phonation types are being represented. V' represents a checked vowel (such as *ya'*, 'reed'), VV represents creaky voice (such as *yaa* "temazcal' (steam bath)), and VhV represents a vowel with breathy voice (such as *yaha*, 'iron, rifle').

2.3.2 Tone

As mentioned above, there are three level tones in SBZZ and one rising tone and one falling tone. There also appears to be tone sandhi, especially with the personal prefixes. The first person clitic *-a'* appears to raise the tone of the preceding root, for example. This is something which needs to be more systematically examined in the future.

There is not enough information about the interaction of phonation type with tone to say that one is predictable based on the other. It has been claimed for other Zapotec languages that tone and phonation type are linked and it has even been tentatively claimed for Villa Alta Zapotec (Pike 1946). It is well known that consonants can influence tone. Jean-Marie Hombert in on "Consonant Types, Vowel Quality, and Tone" Hombert in Fromkin (1978) states that, "In the Lolo-Burmese family, Burmese high tone corresponds to the Jingpho glottal stop ... and Lahu high rising tone developed through glottal dissimilation ... (and that) the development of a falling tone from a post vocalic [h] has been observed in two cases (Vietnamese and Middle Chinese)" (Hombert 93). While breathy voice might have a lower tonal

quality, and checked vowels, a higher tonal quality, it appears that they are distinct phenomena and that tone is not predictable from phonation type. This is not entirely decided and it will be interesting to determine how they do influence tones, even if it turns out that they are distinct. The following set shows examples of words with the same phonation type and different tones and vice versa.

(70)   *yaa*   'plaza'

(71)   *yáá*   'hill'

(72)   *yá'*   'reed'

(73)   *yáhà*   'weapon'

(74)   *yàhá*   'temascal'

(75)   *zhàhà*   'day'

A systematic analysis of tone and phonation type is of the utmost urgency.

2.3.3   Intonation

In addition to tone, there is a rising intonation used for yes/no questions.

2.4   Syllable structure

Syllable structure in Zoogocho Zapotec is as follows. The basic syllable is generally of the shape:

(76)   (C)CV(V)(C)(C)

There are no restrictions as to the type of phonation on the vowels in the schema above.

2.5 Stress

Stress in Zoogocho Zapotec primarily falls on the penultimate syllable of the stem, except for those cases where a word is composed of more than one root (incorporated noun or adverb) in which case the accent falls on the second root. Here, the stressed syllable is marked in bold.

(77)   **ni**lhe 'nixtamal'

(78)   **yet**en' 'the tortilla'

(79)   zoa**law**a' 'I begin.'

2.6 Phonological word

Dixon and Aikhenvald (2002) offer the following definition of phonological word, noting that there was no single criterion among the following which would apply to all languages:

> A **phonological word** is a unit larger than the syllable (in some languages it may minimally be just one syllable) which has at least one (and generally more than one) phonological defining property chosen from the following areas:
>
> (a)   *Segmental features* – internal syllabic and segmental structure; phonetic realizations in terms of this; word boundary phenomena; pause phenomena.

(b)   *Prosodic features* – stress (or accent) and/or tone assignment;

prosodic features such as nasalisation, retroflexion, vowel harmony.

(c)   *Phonological rules* – some rules may only apply within a

phonological word; others (external sandhi rules) apply specifically

across a phonological word boundary. (ibid 13)

All phonological words in Zoogocho Zapotec consist of at least a CV(C(V))

base. The stress is on the penultimate syllable. The place assimilation to the

following consonant which lenis nasals undergo does not occur across word

boundaries.

(80)   dxombe'   to   yoo

        dx-on=be'   to   yoo

        cont-make=3.inf   one   house

        'He made a house.'

(81)   dxon bedo' to yoo

        dx-on   Bedo'   to   yoo

        cont-make   Pedro   one   house

        'Pedro built a house.

In addition, phonological words can have a great deal of prefixed materials,

as will be seen in 4.5. These prefixed materials vary depending on the conjugation

and do not alter the stress placement. There are some adverbial suffixes in the

language. These also do not affect the stress placement.

There are a number of enclitics in the language, such as the pronominal clitic

seen above. While phonologically these are not words, grammatically they behave as

independent words, as will be discussed in 4.5.

---

[1] There are some examples which show medial /kw/, but these, such as *zxikwa'* are always the result of labialization before a vowel.

[2] Once again, word-final /kw/ is the result of the labialization of a /k/ where a word final labial vowel had been lost, as in *yegh sikw* 'onion'.

[3] For corn dough for tortillas [Sp. *nixtamal*].

[4] This comes from the SBZZ word *bidao* 'child'. The reduction indicates that it is a very small child, or a baby.

Chapter Three: Pronominal forms

3.1   Introduction

In this chapter, I will describe the pronominal elements in SBZZ. I will look at a small selection of what has been claimed for other Zapotecan languages with respect to pronominal clitcs/suffixes, and come to an initial morphological classification of these elements. This is an issue which has received much attention, and I hope to shed new light on the subject, or at least clarify the issue for Zoogocho Zapotec. While parts of this chapter could potentially be part of the chapter on lexical classes and other parts in the morphology chapter, I feel that, given their central role in the grammar of SBZZ, pronominal forms deserve their own chapter.

3.2   Independent pronouns

The following are the independent pronouns.

Table 3.1 Independent pronouns

	Singular	Plural
1 (excl.)	neda'	neto
1 (incl.)		dxioo
2	lee (loo)	le
3 (formal)	lhe'	lhegake'
3 (informal)	lhebe'	lhegakbe'
3 (animals)	lheba'	lhegakba'
3 (inanimate)	lhen	lhegaken

The first person inclusive includes the second person, which is excluded in the exclusive form. Independent pronouns are used in isolation, as subjects (quite often preverbally as in (1)), objects of predicates in cases where a dependent pronominal form would be infelicitous (10), such as when the subject is a full noun phrase or is of the identical person or a person lower on the person hierarchy[1], and objects of prepositions which cannot take clitic forms[2] (15).

(1) **neda'** b-shaaga-na=a'

   1sg   comp-join-hand=1sg

   'I got married.'

(2) gakate   gd-izxghw=e'   **lee**

   when   comp-pay=3f   2sg

   'When did they pay you?'

(3) na'   gon   sh-da-lenh=be'   **lh=e'**

   and   no_more   cont-walk-with=3inf   base=3f

   'She only walks with him.'

(4) to-z   **lhe=be'**   n-de-kse

   one-emph   base=3inf   stat-lie-emph

   'Only one is lying down.'

(5) kate' g-zoa   fayo che **lhe=be'**,   dx-shash-lenh=a'

when comp-stand   error of base=3inf,   cont-complain-with=1sg

lhe=be'

base=3inf

'When he messes up, I will admonish him.'

(6) na'   zhia   to   benhe   **lhe=ba'**

and   stat.sit   one   person   base=3an

'And a person is sitting on it.'

(7) na'   **lhe=n**   gu-zh=be'   na'

and   base=3inan   comp-say=3inf   now

'And tell him this now...'

(8) no   b-en   **lhe=n**   na'

who   comp-make   base=3inan   demdist

'Who made that there?'

(9) na   g-ak-lenh=to=be'   **neto**

and   pot-be-with=1plexcl=3inf   1plexcl

'And we will help him.'

(10) dx-os-tee-shke=ba   **dxioo**

cont-caus-tire-emph-3an   1plincl

'It makes us very tired.'

(11) gu-yaa-lenh=a'   **le**

pot-dance-with=1sg   2pl

'I'm going to dance with you all.'

(12) na   ka   y-eyozh   g-oso-yaa   **lhe-gak=be'**

and   demadv   pot-finish   pot-pl-dance   base-pl=3inf

'And like that they finish dancing.'

(13) gage   **lhe-gak=be'**   g-oso-a=be=nda'   ke

neg   base-pl=3inf   comp-pl-carry=3inf=1obj   really

'They aren't the ones who took me, you know?'

(14) ga   dx-ogh   **lhe-gak=e'**

where   cont-exit   base-pl=3inf

'Where do they leave?'

(15) dxi   to   be'ko'   trasde   **lhe-gak=en'**

stat.sit   one   dog   behind   base-plural=3inan

'A dog is sitting behind them. (A group of trees.)'

The form for the second person singular in the chart above in parentheses, *loo*, while reportedly used more generally in other towns such as Betaza, is said to be something which would be used primarily by men by my primary consultant. I can confirm that I have also only heard men use this form in Zoogocho. Men and boys also refer to each other using the form normally reserved for animals, *lheba'*.

(16) lez   kate   weghe   g-saka   che=le=n',   ke, loo

      equal   when   each one   comp-cost   of-2pl=det   tag, 2sgm

      'All of your all's cost the same, didn't they, you?!'

(17) **lheba'**   n-ak   bixag

      base=3an   stat-be   deputy

      'He's the deputy.'

While speech act participant pronouns are pretty clearly monomorphemic, the forms for the third person require explanation. As described in Pickett and Marlett (1999) and Marlett (1993), the third-person independent forms in most Zapotec languages are constructed out of a pronominal base with the dependent form attached as an enclitic. In SBZZ, the form of the base is *lhe-.* *-gak-* can also appear by itself as a plural marker. In the following table, I have segmented these independent forms.

Table 3.2 Forms for the third person

3 (formal)	lhe=e'	lhe-gak=e'
3 (informal)	lhe=be'	lhe-gak=be'
3 (animals)	lhe=ba'	lhe-gak=ba'
3 (inanimate)	lhe=n	lhe-gak=en

3.3   **Dependent forms**

The following chart shows the dependent pronominal forms used for subjects of verbs, possessors of nouns (in possessive constructions), objects of relational nouns, objects of prepositions, adjectives, and quantifiers. The following chart shows these forms. I will return to the question of whether to consider these

forms to be clitics or affixes later in the current chapter in section 3.8 and also, from

a perspective based on a processing analysis of quantitative textual data, in 8.7.

Table 3.3 Dependent pronouns

	Singular	Plural
1 (excl.)	=a'	=to
1 (incl.)		=dxo
2	=o'	=le
3 (formal)	=e'	=(gak=)e'
3 (informal)	=be'	=(gak=)be'
3 (animals)	=ba'	=(gak=)ba'
3 (inanimate)	=(e)n	=(gak=)(e)n

The vowel in parentheses for the third person inanimate forms does not occur

following vowel final roots. The morphophonology of the pronominal forms and

certain stem changes that occur to verbal roots with the first and second persons will

be discussed briefly in 4.3.12. The forms used for the third person are the same in the

singular and the plural in most instances. Plurality, as will be seen in later chapters,

is a sporadically marked category in Zoogocho Zapotec, and the forms with =gak=

are often not seen, as discussed above. What follows are examples of the dependent

subject forms. I have put in bold and in parentheses the part of speech to which the

dependent forms are attached.

(18)   zoalao=**dxo (Verb)**

       stat.begin=1plincl

       'We begin.'

(19)   sh-daa=tont=**o' (Verb)**

       cont-walk=fool=2sg

       'You go around like a fool'

(20)   gasgh=**ba' (Adjective)**

       black=3an

       'It is black.'

(21)   to=**be' (Quantifier)**

       one=3inf

       'one of them'

(22)   che=**be' (Preposition)**

       of=3inf

       'his/her'

(23)   lao=**to' (relational noun/body part)**

       eye=1plexcl

       'our eyes/in front of us'

(24)   chizxghw=**a' (noun)**

       poss.tortilla=1sg

       'my tortilla'

The following is an example of the plural marker *-gak=* in use. This is the only occurrence of *-gak=* not used in an independent pronoun found in a corpus of over 2000 clauses.

(25) shi   nhe=e'   y-ese-zi-ks=e'   che=**gak**=be'

      if   pot.say=3f   pot-pl-buy-emph=3f   of=pl=3inf

'If they$_i$ say what they$_i$ bought from them$_j$...'

3.4   Experiencer and instrumental forms

What follows is the set of dependent pronominal forms used with a particular subset of verbs which either have experiencer subjects or are the causativized version of one of these verbs. These verbs include *-en* 'hear', *-een* 'want/desire', *-le'i* 'see', *-lhei* 'to show' *–lan* 'tener asco/feel sick'[3], *-eghnii* ' understand'-*zeghnii* 'teach how to do something', *-ak* ' be or be able to do something, when used in the sense of, to believe', *-nez* ' know', *-zhel* 'find', *-gee* ' to hate s.o. or s.t.'-*soozh* 'be drunk', *-zhee* 'feel hot', *-zue* 'be capable of enduring, stand up to', *-sed* 'to teach', *-lhee* 'to smell' and probably many others[4].

Table 3.4 Experiencer forms

	Singular	Plural
1 (excl.)	=da'	=to
1 (incl.)		=dxo
2	=do'	=le
3 (formal)	=de'	=(gak=) e'
3 (informal)	=be'	=(gak=)be'
3 (animals)	=ba'	=(gak=)ba'
3 (inanimate)	=(e)n	=(gak=)(e)n

These forms can also be used to introduce a new argument, most often an experiencer, as seen in the following examples.

(26) sh-lhee=be'   kushin

      cont-smell=3inf   piggy

      'He smells bad.'

(27) sh-lhee=da'   to be'ko'

      cont-smell=1sgexp   one dog

      'I smell a dog.'

There are also phonologically identical forms which are used to introduce an instrument[5]. The experiencer subject form is used in (28) and the instrumental marker in (29). Unfortunately this instrumental marker only shows up with the first, second, and third formal singular, exactly as with the experiencer form, making it difficult to distinguish between the two.

(28)   b-le'i=da'   bidao lizh=a'

        comp-see=1sgexp   child poss.house=1sg

        'I saw a child in my house.'

(29)   b-en-d=a'   lizh=a'   martiyw

        comp-make-instr=1sg   poss.house=1sg   hammer

        'I made my house with a hammer.'

One potential way of distinguishing between these two constructions is afforded by the reflexive-of-possessor[6] construction. Example (30) shows a normal clause which uses the experiencer form of the subject. In (31) through (33), the reflexive-of-possessor construction allows the subject to be expressed as the possessor of the object, but does not allow any evidence of the experiencer form to show up in any of the places where it might be expected to, as seen in (34)-(36).

(30)   b-le'i=da'   lish=a'

        comp-see=1sgexp   poss.paper=1sg

        'I saw my paper.'

(31)   b-le'i   lish=a'

        comp-see   poss.paper=1sg

        'I saw my paper.'

(32)   dx-eene   kuin=a'

        hab-like   refl=1sg

        'I like myself.'

(33)   b-le'i   kuin=a'

        comp-see   self=1sg

        'I see myself'

(34)   *ble'id lisha'

(35)   *ble'i kuinda

(36)   *ble'id kuinda'

So, if there is no pronominal marking on the verb, there is no evidence of the experiencer form. In the following one can see that, unlike the cases with the instrumental, the –d= in the instrumentals can be separated from the pronominal clitic, which enables one to distinguish between the experiencer and the instrumental.

(37)   b-en-d   lizh=a'   martiyw

        comp-make-instr   poss.house=1sg   hammer

        'I made my house with a hammer.'

In fact, if the d is not left behind with the verbal root in these cases as in (39) it turns out to be ungrammatical as in, it turns out to be ungrammatical as in (40) and (41).

(38)   b-en-d=a'   lizh=a'   yag

        comp-make-instr=1sg   poss.house =1sg   wood

        'I made my house with wood.'

(39) b-en-d   lizh=a   yag

comp-make-instr   poss.house=1sg   wood

'I made my house with wood.'

(40) *ben lizha yag

(41) *ben lizha' martiyw

Neither the experiencer form nor the instrumental form can be used as the possessor of an object as seen above in (36) and below in (42).

(42) *ben lizhda' martiy

3.5   Dependent pronominal forms for the object.

The following are the dependent pronominal forms used for the object. For the most part, they are identical to the regular dependent forms with the following exceptions. The first and second person forms are fast speech forms of the full forms of the pronoun and perhaps should not be included with the other forms on this chart, as they are reflexes of the person hierarchy which will be discussed later in the current chapter[7]. The third person formal form might potentially be analysed as showing the only real case marking in the language. However, as all of the other subject and object forms begin with either a glottal stop or with a vowel, the nasal in this form could be seen as being epenthetic. These forms are all used after dependent pronominal subjects. The examples which follow the chart also show how these markers do not show up if the corresponding object is present. They also do not occur if the subject is not a dependent pronominal form. These forms can be used for either indirect or direct objects.

Table 3.5 Dependent object forms

	Singular	Plural
1 (excl.)	=nda'	=nto
1 (incl.)		=dxo
2	=le'	=le
3 (formal)	=ne'	=(gak=)e'
3 (informal)	=be'	=(gak=) be'
3 (animals)	=ba'	=(gak=) ba'
3 (inanimate)	=(e)n	=(gak=)(e)n

(43) b-i=a'   bidao' to libr

      comp-give=1sg   child   one book

      'I gave the child the book.'

(44) b-i=a=**n**   bidao'

      comp-give=1sg=3inan   child

      'I gave it to the child.'

(45) b-i=a=**be'**   to libr

      comp-give=1sg=3inf one book

      'I gave her a book.'

(46) b-i=a'   to libr   **lhebe'**

      comp-give=1sg   one book   3inf

      'I gave a book to her.'

(47) *b-i=a'   to libr=**be'**

comp-give=1sg   one book=3inf

'I gave a book to her.'

(48) b-i=a=**be=n**

comp-give=1sg=3inf=3inan

'I gave it to him.'

(49) b-i=a=**ba=be'**

comp-give=1sg=3an=3inf

'I gave it to her.'

As seen in examples (48) and (49), the order for the pronominal elements is V-SUBJ-DO-IO.

3.6   Emphatic pronouns

There are also forms which are used emphatically following an identical clitic pronoun or in-lieu of a full form for an object pronoun when the clitic is not allowed because of the person hierarchy. These are only used for the first and second person singular forms. The use of these forms will be discussed in Chapter Eight.

(50)   bibi b-en=o'=**le'**   bi   g-ot=o'

neg comp-make=2sg=2sgfsf   gensm   pot-sell=2sg

'You didn't make what you were going to sell.'

(51) na b-id=a'=**nda'**

and comp-come=1sg=1sgfsf

'and I came'

(52) ba b-elha=a'=**nda'** na

already comp-arrive=1sg=1sgfsf there

' I already arrived there.'

(53) pero ka dx-ak=da'=**nda'** nool chi=e'=n'

but so hab-be=1sgexp=1sgfsf woman of=3f=det

ba gw-et

already inf=die

'But I think that his wife was already dead.'

(54) dx-bezh=ks=a'=**nda'** lao dio

hab-cry=emph=1sg=1sgfsf eye/face god

'I cried in front of God.'

(55) g-on=a'=**nda'** danh

pot-make=1sg=1sgfsf geninan

'I will make it.'

3.7 Co-occurrence restrictions between subject and object clitics

I include here three tables, showing the co-occurrence restrictions between subject and object clitics in Yalálag Zapotec, Yatzachi Zapotec, and Zoogocho Zapotec. The first chart shows the co-occurrence of subject and object clitics in Yalálag Zapotec, as reported in Lopez and Newberg (1990: 9). It shows the

following person hierarchy where 1st and 2nd person singular objects cannot appear as clitics with any subject, and must instead show up as independent forms. Third formal objects cannot occur as clitics with third informal, animals, or inanimate subjects. Third informal objects cannot occur as clitics with third animal or inanimate subjects. Third animal object clitics can show up with everything except third animal and inanimate subject clitics, and, finally third inanimate object clitics can show up in every case except when the subject is a third inanimate. In all cases where the object clitics cannot occur, a full form of the pronoun must be used. In all of these charts, an X is used to indicate that a particular combination of subject and object clitics is not allowed. (I have converted their ll to dx, l to lh, and n to nh.)

Table 3.6 Yalálag Zapotec co-occurrence restrictions

	1,2	3f	3inf	3an	3inan
1sg	X	-a'-e'	-a'-be'	-a'-ba'	-a'-nh
1plincl	X	-dxo-e'	-dxo-be'	-dxo-ba'	-dxo-nh
1plexcl	X	-to-e'	-to'-be'	-to'-ba'	-to'-nh
2sg	X	-o-e'	-o'-be'	-o'-ba'	-o'-nh
2pl	X	-lhe-e'	-lhe-be'	-lhe-ba'	-lhe-nh
3f	X	X	-e'-be'	-e'-ba'	-e'-nh
3inf	X	X	X	-be'-ba'	-be'-nh
3an	X	X	X	X	-ba'-nh
3inan	X	X	X	X	X

In the second chart, which shows the co-occurrence restrictions as shown in

Yatzachi Zapotec by Butler (1980: 175-179), a slightly different story emerges, with

the differences being that, with the exception of the first and second persons which

cannot occur as object clitics, third person animal and third person inanimate subject

pronouns, which cannot co-occur with any of the object clitic pronouns, and cases

where the subject and object are of the same form and must be dissimilated, one can

pretty much combine subject and object clitics willy-nilly. The third person formal

object form in Yatzachi, like the corresponding form in SBZZ is =ne ' and as such is

different from the subject form and does not block the combination, unlike the form

for the 3rd informal object which is identical to the subject form and therefore blocks

the combination.

Table 3.7 Yatzachi Zapotec co-occurrence restrictions

	1,2	3f	3inf	3an	3inan
1sg	X	Ok	Ok	Ok	Ok
1plincl	X	Ok	Ok	Ok	Ok
1plexcl	X	Ok	Ok	Ok	Ok
2sg	X	Ok	Ok	Ok	Ok
2pl	X	Ok	Ok	Ok	Ok
3f	X	Ok	Ok	Ok	Ok
3inf	X	Ok	X	Ok	Ok
3an	X	X	X	X	X
3inan	X	X	X	X	X

In Zoogocho Zapotec pretty much the same pattern as in Yatzachi Zapotec emerges with the sole exception being that 3rd singular animal subjects do not disallow the object clitics. Other than the person hierarchy which disallows first and second person dependent pronominal forms to be used as objects with third person dependent pronominal subjects, the other combinations on the chart which are disallowed are instances of dissimilation where two identical morphemes would otherwise co-occur.

Table 3.8 Zoogocho Zapotec co-occurrence restrictions

	1,2	3f	3inf	3an	3inan
1sg	X	=a=ne'	=a=be'	=a=ba'	=a=n
1plincl	X	=dxo=ne'	=dxo=be'	=dxo=ba'	=dxo=n
1plexcl	X	=to=ne'	=to=be'	=to=ba'	=to=n
2sg	X	=o=ne'	=o=be'	=o=ba'	=o=n
2pl	X	=le=ne'	=le=be'	=le=ba'	=le=n
3f	X	=e=ne'	=e=be'[8]	=e=ba'	=le=n
3inf	X	=be=ne'	X	=be=ba'	=be=n
3an	X	=ba=ne'	=ba=be'	X	=ba=n
3inan	X[9]	X	X	X	X

3.8   The classification of the forms discussed above

Stephen Marlett (1993) classifies Zapotec pronouns into three major types: prosodically independent pronouns, syntactically independent pronouns, and syntactically dependent pronouns. He begins the paper by mentioning the wide range

of terminology used in discussions of Zapotec to describe the personal pronouns, noting that linguists have traditionally described only two types.

Prosodically independent pronouns 'occur(s) in one (or more) of three positions: (a) in isolation, as a simple utterance, such as in answer to a question; (b) preverbally without a phonological host; [and *A.S.*] (c) as object of a Spanish preposition'(Marlett 83). These correspond to the independent pronouns in Zoogocho Zapotec described above.

He then goes on to discuss 'syntactically independent pronouns'. His main criterion is that the 'pronoun may occur in object of verb position FOLLOWING A NONPRONOMINAL SUBJECT' (ibid 88) (emphasis mine). In Zoogocho Zapotec, all of the prosodically dependent pronouns are also syntactically dependent, so this is not relevant to the current discussion.

The next type which he looks at, which are incredibly important to the current discussion are, the syntactically dependent pronouns. Marlett claims that all third person pronouns in Zapotec are prosodically dependent. He asserts that these pronouns are the unmarked type of pronoun. He maintains that syntactically dependent pronouns are like French clitic pronouns, a paradigm case of a special clitic in the terms of Zwicky and Pullum (1983).

He goes on to state that '(F)or the most part, pronouns and noun phrases which are coreferential are mutually exclusive in Zapotec' (ibid. 91). In SBZZ, as the following examples show, this is not the case. While pragmatically marked, pronouns and coreferential noun phrases can co-occur, especially in copular

sentences, as in the following example. This issue will be discussed in greater detail in Chapter Eight.

(56) na'   n-ak=ba'   to   kabayw shish

and   stat-be=3an   one   horse white

'And there was a white horse.'

Marlett claims that syntactically dependent pronouns must be adjacent to a projection of the head. This means that they do not have to follow the head directly, but can instead follow some element which is final in the phrase. Thus, he explains that they can follow adverbs. In Zoogocho Zapotec, dependent pronominal forms cannot follow non-suffixal adverbs. He finishes this section by saying that there are two different versions of his hypothesis concerning adjacency: a strict version and a lax version.

The strict version states that syntactically dependent pronouns 'must directly follow a projection of the head' (ibid 95). The lax version states that syntactically dependent pronouns must directly follow a projection of the head if they are not third person, but can be separated from the head by other syntactically dependent pronouns if they are third person (ibid 95). As has been demonstrated in the previous section, the lax version is applicable to SBZZ.

Marlett's classification partially covers the SBZZ forms which have been discussed in this chapter. The independent forms described in section 3.2 correspond to both Marlett's syntactically independent pronouns and his prosodically independent pronouns. The syntactically dependent pronouns with the lax version of

the adjacency hypothesis correspond to the dependent subject forms which were discussed in section 3.3. The dependent experiencer subject forms described in section 3.4 also correspond to Marlett's syntactically dependent forms with an even stricter version of his adjacency hierarchy: the experiencer forms must immediately follow a verb. There are then two types of pronominal forms found in SBZZ which do not correspond to any described by Marlett: the dependent forms for the object, and the emphatic pronouns.

Before going any further, I would like to introduce a number of terms that I find to be useful at this juncture. As described in Zwicky and Pullum (1983), the distinction between *simple* and *special* clitics (which was also made in Zwicky (1977) as well) is as follows: "(T)he basic property of SIMPLE clitics is that their distribution in sentences is exactly the same as that of associated full forms..." (ibid 510). "All other clitics are SPECIAL clitics... either no corresponding full forms exist... or else the clitics do not have the same distribution as the corresponding full forms... as in the pronominal clitics of many Romance and Slavic languages...' (ibid 510). Stephen Anderson (1992: 223) makes the point that special clitics can potentially be viewed as being phrasal affixes, affixes which apply at the phrase-level rather than the word-level. While there will be a more in-depth discussion of grammatical word in the following chapter (4.5), I will tentatively define independent word as a stress bearing lexical item. I will also define a fast speech form as being a phonologically reduced form that is phonologically more complex than the other clitics and which is a result of phonological reduction in fast speech.

To sum up, Marlett describes three classes of pronominal elements in Zapotecan languages: syntactically and prosodically independent pronouns which occur either in isolation (e.g. as an answer to a question), preverbally as an argument of a verb, or as an object of a Spanish preposition and cannot co-occur with a coreferent noun phrase; syntactically independent and prosodically dependent pronouns which occur as the object of a verb following a non-pronominal subject and which also cannot co-occur with a coreferential noun phrase; and, finally, syntactically and prosodically dependent pronouns which must be adjacent to a projection of a head (strict and lax versions) and which cannot co-occur with a coreferential noun phrase. Using the terms which were introduced in the previous paragraph, one could view the syntactically and prosodically independent pronouns as being independent words, the syntactically independent and prosodically dependent pronouns as being simple clitics (occurring where the corresponding full noun phrases would and in complementary distribution with full noun phrases), and the syntactically and prosodically dependent pronouns as being special clitics (not occurring in exactly the same distribution as the corresponding full noun phrases).

The following chart is a classification of the pronominal elements found in Zoogocho Zapotec. I will take up the issue of whether or not to consider the dependent forms to be agreement markers or not in Chapter 8, and will treat them as clitics through the course of the dissertation.

Table 3.9 Classification of pronominal elements in Zoogocho Zapotec

	Primary syntactic environments	Co-occurrence restrictions	Classification per Marlett	Morphological classification
Independent pronouns	a) Preverbally b) Object due to person hierarchy c) Object following full noun phrase subject d) Following some prepositions, especially Spanish loans (see 7.12.6)	N	Syntactically and prosodically independent pronouns	Independent word

Table 3.9 Classification of pronominal elements in Zoogocho Zapotec(cont.)

	Primary syntactic environments	Co-occurrence restrictions	Classification per Marlett	Morphological classification
Dependent subject/ possessive \forms	a) Following the verbal complex b) Following a possessed object (used as a subject in the subject-possessor of object construction) c) As a possessor d) Following a relational noun e) Following a preposition f) Following a quantifier or adjective	N	Syntactically dependent and prosodically dependent	Special Clitics-cannot co-occur everywhere the corresponding full form does.

Table 3.9 Classification of pronominal elements in Zoogocho Zapotec(cont.)

	Primary syntactic environments	Co-occurrence restrictions	Classification per Marlett	Morphological classification
Experiencer subject forms	Following a small subset of verbs	N	No corresponding form in Marlett's classification.	Affixes-They are moved as whole-there are obvious gaps in the coverage, and there are selectional restrictions which look more affix-like than clitic-like.
Object forms	Following pronominal subjects. See **3.4** and **3.6**	Y	Syntactically dependent and prosodically dependent pronouns	Special clitics, cannot co-occur everywhere the corresponding full form does.
Emphatic forms	1st and 2nd persons only, following pronominal subjects	N	No corresponding form in Marlett's classification	Fast speech clitics.

---

[1] I will discuss the person hierarchy and its application to pronouns later in the current section.

[2] The types of prepositions will be discussed in some depth in the lexical classes chapter.

[3] Note that the causativized form *–lhan* 'dar asco/mak s.o. feel sick' does not take this form, unlike other causativized forms here.

[4] Unlike in Yatzachi (Butler 1980 p. 65), these forms do not seem solely used only in certain phonological contexts, but rather are used with verbs which have an experiencer subject.

[5] The instrumental usage will be discussed in greater detail in 6.4.

[6] See the complex constructions chapter for an in-depth discussion of this construction.

[7] I will also discuss the fast speech forms later in the current chapter.

[8] Unfortunately, I have no data on experiencer subjects at this point.

[9] Interestingly, in the case of the third singular inanimate subject clitics, if a first or second person pronominal form is the object, an independent form of the first or second person pronoun must be used, even the fast speech forms are disallowed.

Chapter Four: Morphology

4.1   Introduction

In this chapter, I will give a brief sketch of the morphology of the language. I will focus on nominal and verbal morphology, noting where it may be extended to other word classes.[1] The structure of this chapter will be as follows: I will begin by discussing the nominal morphology of the language. I will then go on to discuss in greater detail the verbal morphology. I will treat the morphology associated with pronouns separately after discussing the verbal morphology, and will finish this chapter with a brief discussion of the morphological classes present in the language and a brief discussion of where the morphology of SBZZ fits into overall morphological typologies.

4.2   Nominal morphology

4.2.1   Possession

A much fuller description of possession is found in 5.3.5. Inherent possession (possession of items which, while alienable, are still closely associated with the possessor) is marked prenominally with the prefix x- and the possessed nominal is followed by either a pronominal clitic or a noun phrase, as in the following examples.

(1)   x-migw=a'

        poss-friend=1sg

        'my friend'

(2) x-kuzh   lalo

poss-pig   lalo

'Lalo's pig'

(3) xtaobe'

x-dao=be'

poss-corn.tassel=3inf

'his corn tassel'

While for the most part, the possessive prefix only causes a following lenis consonant to become fortis, as in (3) above, there are also examples such as the following which show a great deal of assimilation.

(4) zxwikw=a'

poss.dog=1sg

'my dog'

Presumably, this form comes from a combination of the possessive prefix *x-* and the word for 'dog' *be'ko'*, as in the following:

(5) x-be'ko'=a'->zxwikwa'

The change caused by the possessive prefix, however, is by no means a productive process in the language, as there are also examples such as the following:

(6)   xpexa'

        x-bex=a

        poss-tomato=1sg

        'my tomato'

For a small, closed class of inalienably possessed nouns (which are always or almost always possessed), possession is marked solely by the juxtaposition of a noun phrase (7) or a pronoun (8).

(7)   yichgh lalo

        head   lalo

        'Lalo's head'

(8)   yichgh=a'

        head=1sg

        'my head'

The possessive marker which is used syntactically to mark possession of alienable nouns, *che=* 'of' has the allomorph *chi=* before vowel initial pronominal clitics. Its use will be exemplified along with more of the idiosyncrasies of the possessive construction will be discussed in 5.3.5. See also Sonnenschein (pending) for another description. I hope to provide more in-depth discussion of all of the idiosyncrasies relating to individual lexical items, including information about suppletive forms, in the monolingual dictionary/trilingual lexicon I am preparing for Zoogocho Zapotec.

4.2.2   Lexical compounds

There are also a number of lexical compound nouns, such as the following:

(9)   lizhya

lizh=ya

poss.house=iron

'Jail'

(10)   yetextil

yete=xtil

tortilla=castillian (or foreign [from Sp.*castellano*])

'bread'

(11)   bidao'

bi'=dao'

child=dim

'child'

4.2.3   Nominal template

The following is the very basic template for nominal morphology in Zoogocho Zapotec:

(12)   (poss-) noun (=pronominal clitic)

I will discuss the pronominal clitics in greater depth later in the current chapter in section 4.5.

4.3 Verbal morphology

4.3.1 General overview

In this section, I will give an initial sketch of what is by far the richest part of the morphology of SBZZ: the verbal morphology. I will attempt to give both formal descriptions and demarcations, and also to discuss the uses of the verbal morphology. This section of this chapter will be primarily concerned with aspect, though there will also be discussions of the fossilized passive and causative marker, andative/venitive markers (directional markers), frequentative, repetitive, the marking of plural subjects and objects, the marking of infinitives, the marking of imperatives, deverbalizations, incorporation, adverbial clitics, and pronominal clitics, among other things. Where necessary, I will cross-reference more in-depth discussions in other chapters.

4.3.2 Primary Aspect

I will begin this section with a brief discussion of the meanings and uses of the four primary aspects. Before going any further it is imperative to emphasize that there is no tense in this language. Like many other Mesoamerican languages, aspect is much more salient than tense in the grammar of the language[2]. In order to discuss temporal placement or sequencing, Zoogocho Zapotec relies on temporal particles such as za 'just, barely, hardly (Spanish apenas)', ba 'already, at this/that point (Spanish ya)', or na' 'now'; adverbs such as gxe 'tomorrow', or neghe 'yesterday'; or discourse knowledge.

To begin the discussion, consider the continuative aspect. As its name indicates, the continuative aspect is used to discuss events which are either still occurring or which occurred or will occur over a period of time. While it is often used in environments where other languages might use a present tense, it can be used in non-present environments. The continuative aspect is marked by the prefix *dx-*, as seen in the following examples. I am following Butler (1980) for Yatzatchi, and Long and Cruz (1999) for Zoogocho who have called it the 'aspecto continuativo', 'continuative aspect'. It has also been called the 'presente', 'present' by Lopez and Newberg (1990) for Yalalág. The following are a few initial examples. Note that this aspect is mostly translated into Spanish with either the simple present or with the present progressive.

(13) **dx-e-ban-e'**   yogo   zhaha

cont-freq-wake=3f   every   day

'She wakes up every day.'

(14) bi **dx-aog**   zxoana

what cont-eat Juan

'What is Juan eating?'

Note that the continuative aspect is quite often also used to describe events which took place in the past, but which regularly occurred, as in the following sentence where a speaker described a feature of a job that she had for a number of years.

(15) waana **dx-eyozh=a'** **dx-on=e'** danh **dx-aw=a'**

imagine cont-finish=1sg cont make=3f geninan cont-eat=1sg

xsil=en'

breakfast=det

'Imagine that, when I finished there, they would make me breakfast.'

In another life history, a speaker described how children would play with avocado

seeds.

(16) b-en=to=n strom

comp-make=1pl(excl)=3inan top

'We made them into tops.'

dx-on=t=on ka'

cont-make=1plexcl=3inan demadv

'That's what we did with them.'

Note that the continuative aspect can also be used with a future temporal

reading as in the following.

(17) **dx-on=a'** shinh gxe

cont-make=1sg work tomorrow

'I work tomorrow.'

The next aspect marker which will be discussed is the completive aspect,

usually marked with a *b-*, *gw-*, *gud-*, *g-*, or another marker. The choice of form will

be discussed below. The completive aspect (called 'completivo' or 'completive' by

Butler (1980) and by Long and Cruz (1999), but called the 'preterito' 'preterite' by

Lopez and Newberg (1990)) is used to discuss events that have or will come to completion or ended or will end. This completion could be occurring as the sentence is being said or could occur in the future or in the past, which is why a tense based description of this aspect would be erroneous. The following are examples of the completive aspect.

(18) **b-e-ban=e'**

comp-freq-wake=3f

'She used to wake up.'

(19) ga   **gud-ao=be'**   yet

where   comp-eat=3inf   tortilla

'Where did he eat the tortilla?'

The following example from a recipe shows a non-past usage of the completive aspect.

(20) ba   **b-eyozh**   **go-k**   gelatina   kate

already comp-finish   comp-become gelatin   when

0-zozxgho=dxo   wi

pot-tear_up=1pl(incl)   orange

'When the gelatin is finished (boiling), we tear an orange up into pieces.'

Similarly, we see a present perfect use of the completive in the following example.

(21) per   le   galgh   mil=en'   dx-onh=e'   kanate

but   foc   20   thousand=det   cont-give=3f   before

'but they used to give 20 thousand before'

dx-onh=e'   kanate   galgh   mil=en'

cont-give=3f   before   20   thousand=det

'Before they used to give 20,000.'

galhgh peso   ba   **b-ey-on=en**   na'

20   peso   already   comp-freq-be=3inan   now

'20 pesos, it's now become.'

The completive is also used for imperatives, as will be discussed in detail later in the current chapter.

The potential mood, which sometimes corresponds to a future time reference and sometimes corresponds to a subjunctive mood, is marked by *gu-*, *gw-* (*gw* is realized as a *w* when it is word initial preceding a vowel (#gwV-->#wV-), *g-*, *y-*, and *w-*). It also occurs with a zero allomorph or as a change to the root-initial consonant. The choice of form will be discussed below. In general, it refers to an event that either has not occurred yet or which is not specific. I call it the potential aspect following the term 'aspecto potencial' as used by Butler and by Long and Cruz and more generally in the literature on other Zapotecan languages and Mixtec (Macaulay 1996). Lopez and Newberg refer to this aspect in Yalalág as the 'future tense'. The following are examples of this aspect.

(22) **gw-e-ban=e'**

pot-freq-wake=3f

'She will wake up.'

(23) dx-bez=a'   **w-aow** bidao yeth

cont-hope=1sg   pot-eat child tortilla

'I hope the kid eats the tortilla."

(24) bate' **y-egh=o'**   nis

when pot-drink=2s water

'When are you going to drink water?'

(25) shows an irrealis use of the potential marker. (26) shows a past use of the potential marker, and also, as seen elsewhere here, the importance of temporal adverbs in locating expressions in time.

(25)	kage bi juguet ba		dee	**0-chitghe=dxo'**	na	lenh
	neg no toy	ya	exist	pot-play=1plincl	demdist	3inan
	gu-zh-be'		na'			
	pot-say=3inf		now			

'There were no toys to play with, tell him this now.

(26)	nadxe	**y-egh=dxo**	kafe	lizh=e'
	afterwards	pot-drink=1plincl	coffee	poss.house=3inf

'Afterwards we drank coffee at her house.'

(27) shows the use of the potential marker in a non-future context, as in (26) as well.

(27) shi   ba   gu-zhed=o'   le   **gu-zheb=o'**

if   ya   comp-get.late=2sg   cause pot-get_frightened=2sg

dx-zxit=o'

cont-jump=2sg

'If you've gotten yourself so late that you get startled by your hurry.'

The fourth aspect is the stative aspect, which is referred to as such by all the authors mentioned above. The stative aspect seems to have a number of uses, including the expression of states and conditions (28) and (29), and habitual meaning (30). The stative is marked with the prefix *n-* or by nothing at all. Note that the lenis nasal will assimilate in place of articulation to the following consonant, as in (28). The following are examples of this aspect.

(28) **m-ban=a'**

stat-live=1sg

'I am alive.'

(29) kuzh la   n-dxe=be'   ke?

pig focus   stat-carry=3sginf   no

'He's carrying a pig, right?'

(30) nake gu-ditgh=le   kate **n-ak=le**   bidao=na'

how comp-play=2pl   when stat-be=2pl   child=det

'How did you all use to play when you were children?'

(31)   Maria n-ak-dx=e'   benhe zxen ka   xoan

       Maria hab-be-more=3f   person large than   Juan

       'Maria is larger than Juan.'

I will now go on to discuss the classification of the verbs in the Zoogocho

Zapotec lexicon according to the aspectual forms. I will not talk about the

classification of the verbs with respect to the difference between verbs which take

the =a' set of pronominal clitics or verbs in =da' which take the =da' set of

pronominal clitics as this has already been discussed in the chapter on the

pronominal forms. Similarly, we will not discuss other ways in which verbs might be

classified here, such as by the type of pluralization they take, but will instead leave

that discussion until later in the current chapter.

There are many ways in which one could potentially group SBZZ verbs

according to their aspectual forms. One way which is quite common (as used by

Butler (1980), López and Newberg (1990), Crúz and Long (1999), and others) is to

form groups of verbs which have the same potential form (which for this dialect

grouping would be four main conjugations) and then to make smaller subgroups

based on the form of the completive. López and Newberg arrive at 44 separate

conjugations. As mentioned to me by Pamela Munro, one could just as easily classify

the verbs according to the completive forms and then form subgroups based on the

potential. (In fact, on a broad level, while this would be more compact with three

main groupings, the subgroupings would be even more confusing than the morass I

present below.) In general, the person trying to learn this language will have to learn

the forms for each verb on a verb by verb basis. Unfortunately there are neither formal or functional means of predicting what aspectual form an individual verb will have. In what follows, I will follow previous researchers in making the primary groupings based on the potential form, and then the subgroupings based on both the potential and completive forms. Except where noted, the continuative is always **dx-** and the stative is always **n-**.

The first group which I will discuss are the verbs which take, as their potential marker, **gw-**. **gw-** is pronounced as **gu-** before consonants and **w-** before vowels. This set is the most regular; all of the verbs take **b-** as the completive marker and **dx-** as the continuative marker. All of these verbs are transitive.

(32)   gu-yaa=be'

       pot-dance=3inf

       'He will dance.'

       b-yaa=be'

       comp-dance=3inf

       'She danced.'

       dx-yaa=be'

       cont-dance=3inf

       'He is dancing

(32cont.) n-yaa=be'

      stat-dance=3inf

    'She dances.'

Table 4.1 Conjugation in gw-

	Conjugation in **gw-**
Potential	gw-
Completive	b-
Continuative	dx-
Stative	n-

The next aspectual verb class which I will discuss is composed of verbs which take **y-** as the potential marker. This is made up of three subclasses; verbs that take **b-** as the completive marker, verbs which take **gw-** as the completive marker, and verbs which take **gd-** as the completive marker.

The first subclass to be discussed are those which take **b-** as the completive marker. Note that there are no real semantic generalizations which can be made here unique to this subclass. Formally, one can observe that all of these roots are vowel initial.

(33) y-eyalh=a'

pot-get_cold=1sg

'I will get cold.'

b-eyalh=a'

comp-get_cold=1sg

'I got cold.'

dx-eyalh=a'

cont-get_cold=1sg

'I am getting cold.'

n-eyalh=a'

stat-get_cold=1sg

'I get cold.'

Table 4.2 Conjugation in y-, completive subclass in b-

	Conjugation in **y**-, completive subclass in **b**-
Potential	y-
Completive	b-
Continuative	dx-
Stative	n-

The next subclass is composed of those verbs which take **y-** as the potential marker and have as the completive marker **gd-**. Note that this subclass is made up of one verb. (It is a result of my following Butler's classification initially; more verbs may turn up at a later date.)

(34)   y-eb=a=n

pot-swallow=1sg=3inan

'I will swallow it.'

gd-eb=a=n

comp-swallow=1sg=3inan

'I swallowed it.'

dx-eb=a=n

cont-swallow=1sg=3inan

'I am swallowing it.'

n-eb=a=n

stat-swallow=1sg=3inan

'I swallow it.'

Table 4.3 Conjugation in y-, completive subclass in gd-

	Conjugation in **y-**, completive subclass in **gud-**
Potential	gw-
Completive	b-
Continuative	dx-
Stative	n-

The final subclass of verbs which take **y-** as the potential marker are those which take **gw-** as the completive marker. This too is a small subclass.

(35)   y-egh=a=n

pot-drink=1sg=3inan

'I will drink it.'

gw-egh=a=n

comp-drink=1sg=3inan

'I drank it.'

 dx-egh=a=n

cont-drink=1sg=3inan

'I am drinking it.'

n-egh=a=n

stat-drink=1sg=3inan

'I drink it.'

Table 4.4 Conjugation in y-, completive subclass in gw-

	Conjugation in **y-**, completive subclass in **gw-**
Potential	y-
Completive	gw-
Continuative	dx-
Stative	n-

The next class of verbs which will be discussed are those verbs which take **g-** as the potential marker. There are 5 subclasses: verbs which take **g-** in the completive concomitant with a change in the vowel of the verb from **-a-** to **-o-** (this subclass and those which similarly involve a completive beginning with **g-** and having a change from **-a-** to **-o-** should be considered to actually have **gw-** as the completive marker with the rule (**gw-a->go)**), verbs which take **g-** as a completive marker, verbs which take **b-** as the completive marker with no change to the vowel in the verb, verbs which take **b-** as the completive marker along with a change to **-e-** of the vowel in the verb, and finally verbs which take **b-** as the completive marker along with a change to the vowel to **-i-** in the verb.

The first subclass is made up of those verbs which take **g-** as the potential marker and have, as their completive marker, **g-** along with a change from **-a-** to **-o-** in the verbal root. There is no semantic explanation I can come up with for this grouping. All of these roots are **a-** initial.

(36)   g-azgh=a'

pot-bathe=1sg

'I'm going to bathe myself.'

go-zgh=a'

comp-bathe=1sg

'I bathed myself.'

dx-azgh=a'

cont-bathe=1sg

'I am bathing myself.'

n-azgh=a'

stat-bathe=1sg

'I bathe myself.'

Table 4.5 Conjugation in g-, completive subclass in go-

	Conjugation in **g-**, completive subclass in **go-**
Potential	g-
Completive	**go-** (Root initial vowel is deleted.)
Continuative	dx-
Stative	n-

The following is the sub-class which takes **g-** as the potential marker and takes **g-** as the completive marker. The only way these forms can be differentiated is by the tone. The potential has a higher tone than the completive. Note that there is no semantic generalization to be made here, nor are there any phonological generalizations which can be made about this subclass.

(37) g-ozxghe   yish=en'

      pot-rip   paper=det

      'The paper will rip.'

      g-ozxghe   yish=en'

      comp-rip   paper=det

      'The paper ripped.'

      dx-ozxghe   yish=en'

      cont-rip   paper=det

      'The paper rips.'

      n-ozxghe   yish=en'

      stat-rip   paper=det

      'The paper is ripped.'

Table 4.6 Conjugation in g-, completive subclass in g-

	Conjugation in **g-**, completive subclass in **g-**
Potential	g- (Higher tone than the completive.)
Completive	g-
Continuative	dx-
Stative	n-

The following subclass is made up of verbs which take **g-** as the potential marker and have **b-** as the completive marker. With the exception of *gosia*ʼ ʻI will scream', all members of this class are transitive, and there are quite a number of morphologically causativized verbs.

(38) g-os-bizh=a=n

pot-caus-dry=1sg=3inan

ʻI'm going to dry it'

b-os-bizh=a=n

comp-caus-dry=1sg=3inan

ʻI dried it.'

dx-os-bizh=a=n

cont-caus-dry=1sg=3inan

ʻI am drying it.'

(38 cont.)n-os-bizh=a=n

stat-caus-dry=1sg=3inan

'I dry it'

Table 4.7 Conjugation in g-, completive subclass in b-

	Conjugation in **g-**, completive subclass in **b-**
Potential	g-
Completive	b-
Continuative	dx-
Stative	n-

The following subclass consists of /o/ initial roots which take **g-** as the potential marker and which take **b-** along with a change from /o/ to /e/ as the completive marker. There are no semantic or formal generalizations which can be made here.

(39) g-ot=a'   to   kuzh

      pot-sell=1sg   one   pig

      'I will sell a pig.'

      be-t=a'   to   kuzh

      comp-sell=1sgone   pig

      'I sold a pig.'

(39 cont.)dx-ot=a'   to   kuzh

     cont-sell=1sg   one   pig

    'I am selling a pig.'

   n-ot=a'   kuzh

   pot-sell=1sg   pig

  'I sell pigs.'

<u>Table 4.8 Conjugation in g-, completive subclass in be-</u>

	Conjugation in **g-**, completive subclass in **be-**
Potential	g-
Completive	be-
Continuative	dx-
Stative	n-

The following subclass is composed of /o/ initial verbs which take **g-** as the potential marker and **b-**, accompanied by a change in the vowel from **o** to **i,** as the completive marker.

(40)   g-olh=a'

        pot-sing=1sg

        'I will sing.'

        bi-lh=a'

        comp-sing=1sg

        'I sang.'

        dx-olh=a'

        cont-sing=1sg

        'I am singing.'

        n-olh=a'

        stat-sing=1sg

        'I sing.'

Table 4.9 Conjugation in g-, completive subclass in bi-

	Conjugation in **g-**, completive subclass in **bi-**
Potential	g-
Completive	bi-
Continuative	dx-
Stative	n-

I have saved the most difficult aspectual verb class for last, those that have potential forms which do not have a prefix[3]. All of these verb roots are consonant initial. The first division is rather easy: there are two sub-classes, based on whether they have completive forms beginning with **b-** or beginning with **gw-**. The second of these subclasses is rather complex and is divided into further subclasses. I will discuss this subclass in greater detail after first having a brief discussion of the subclass which has as its completive marker **b-**. This subclass is quite regular, although there are no semantic or phonological generalizations which can be made.

(41)   0-ganh=a'

pot-stay=1sg

'I will stay.'

b-ganh=a'

comp-stay=1sg

'I stayed.'

dx-ganh=a'

cont-stay=1sg

'I am staying.'

n-ganh=a'

stat-stay=1sg

'I am staying.'

Table 4.10 Conjugation in 0-, completive subclass in b-

	Conjugation in 0-, completive subclass in b-
Potential	0-
Completive	b-
Continuative	dx-
Stative	n-

Now I will look at the subclass consisting of verbs that have no prefix or a change from lenis to fortis for the potential form of the verb and which take some form of **gw-** for the completive aspect. The subclasses of this subclass will be based on either whether the potential causes a change to the initial consonant or what the form of the completive or, for one subclass, the continuative is.

The first subclass involves those verbs for which the potential is zero marked and for which the completive begins in **gw-** and which are otherwise regular. While I can offer no real semantic generalizations (other than the fact that there are many verbs which express states here, but not enough to say that it is really a trend), all of these roots are consonant initial.

(41)   0-bizh=a'

pot-dry=1sg

'I'm going to be very dry.'

gu-bizh=a'

comp-dry=1sg

'I was very.'

dx-bizh=a'

cont-dry=1sg

'I am very dry.'(Right now)

m-bizh=a'

stat-dry=1sg

'I'm very dry.'(In general)

Table 4.11 Conjugation in 0-, completive subclass in gu-

	Conjugation in **0-**, completive subclass in **gu-**
Potential	0-
Completive	gu-
Continuative	dx-
Stative	n-

The next subclass in which the potential conditions a change from lenis to fortis for the initial consonant is basically defined by being those which have as their

completive form **gud-** (with the omission of the root initial consonant), and has two

further subclasses; one which has the regular form of the continuative **dx-**, and one in

which the continuative is contrasted with the potential by being marked with **dxy-**.

(42) 0-kap=a=ne'

pot-slap=1sg=3fo

'I will slap him.'

gud-ap=a=ne'

comp-slap=1sg=3fo

'I will slap him.'

dx-gap=a=ne'

cont-slap=1sg=3fo

'I am slapping him.'

n-gap=a=ne'

stat-slap=1sg=3fo

'I slap him.'

Table 4.12 Conjugation in 0-, completive subclass in gud-, regular continuative

	Conjugation in **0**-, completive subclass in **gud**-, regular continuative
Potential	0- (accompanied by a change in the initial consonant of the root from lenis to fortis)
Completive	gud- (accompanied by the omission of the root initial consonant)
Continuative	dx-
Stative	n-

Table 4.13 Conjugation in 0-, completive subclass in gud-, continuative in dxy-

	Conjugation in **0-**, completive subclass in **gud-**, continuative in **dxy-**
Potential	0- (accompanied by a change in the initial consonant of the root from lenis to fortis)
Completive	gud- (accompanied by the omission of the root initial consonant)
Continuative	dxy- (accompanied by the omission of the root initial consonant)
Stative	n-

(44)　0-chitgh=a'

　　　pot-play=1sg

　　　'I will play.'

　　　gud-itgh=a'

　　　comp-play=1sg

　　　'I played.'

(44cont.) dxy-itgh=a'

  cont-play=1sg

  'I am playing.'

 n-dxitgh=a'

 stat-play=1sg

 'I play.'

The next subclass are those which have as their completive form, **gulh-** (which involve the omission of the root initial consonant) and also has two further subclasses, those which alternate between fortis and lenis for the initial consonant for the potential and those which alternate between **kw-** for the potential and **-b-** for the continuative.[4] The sub-subclass mentioned first only has stems beginning in the potential with **k** and in the continuative with **g**. There are no semantic generalizations to be made here either.

(45) 0-ko=a'

  pot-climb=1sg

  'I will climb.'

  gulh-o=a'

  comp-climb=1sg

  'I climbed.'

(45cont.) dx-go=a'

     cont-climb=1sg

     'I am climbing.'

     n-go=a'

     stat-climb=1sg

     'I climb.'

Table 4.14 Conjugation in 0-, completive subclass in gulh-

	Conjugation in **0-**, completive subclass in **gulh-**
Potential	0- (accompanied by a change in the initial consonant of the root from lenis to fortis)
Completive	gulh- (accompanied by the omission of the root initial consonant)
Continuative	dx-
Stative	n-

Table 4.15 Conjugation in kw-, completive subclass in gulh-

	Conjugation in **0-**, completive subclass in **gulh-**
Potential	0-(The initial consonant of the root is kw-)
Completive	gulh- (accompanied by the omission of the root initial consonant)
Continuative	dx-
Stative	n-

(46)   0-kwez=a'

    pot-wait=1sg

    'I will wait.'

    gulh-ez=a'

    comp-wait=1sg

    'I waited.'

    dx-bez=a'

    cont-wait=1sg

    'I am waiting.'

(46cont.) m-bez=a'

    stat-wait=1sg

    'I wait.'

The next subclass involves all those verbs which have the potential marked

by a fortis consonant and which have the completive subclass marked by **gw-**. There

are no semantic generalizations which can be made.

(47)   0-si=a'   to   be'ko'

    pot-buy=1sg one   dog

    'I will buy a dog.'

    gu-zi=a'   to   be'ko'

    comp-buy=1sg   one   dog

    'I bought a dog.'

    dx-zi=a'   to   be'ko'

    cont-buy=1sg one   dog

    'I am buying a dog.'

    n-zi=a'   be'ko'

    stat-buy=1sg   dog

    'I buy dogs.'

Table 4.16 Conjugation in 0-, completive subclass in gu-

	Conjugation in **0-**, completive subclass in **gu-**
Potential	0-(accompanied by a change from lenis to fortis in the initial consonant of the root)
Completive	gu-
Continuative	dx-
Stative	n-

The final class which I will mention here are those which have potentials which begin in **sh-** and completives which begin in **gy-**.

Table 4.17 Conjugation in sh-, completive subclass in gy-

	Conjugation in **sh-**, completive subclass in **gy-**
Potential	sh-
Completive	gy-
Continuative	dx-
Stative	n-

(48)   sh-oo=a'   to   yoo

        pot-enter=1sg   one   house

        'I will enter a house.'

        gy-oo=a'   to   yoo

        comp-enter=1sg   one   house

        'I entered a house.'

        dx-oo=a'   to   yoo

        cont-enter=1sg   one   house

        'I am entering a house.'

        y-oo=a'   yoo

        pot-enter=1sg   house

        'I enter houses.'

In general, as already mentioned, the determination of the aspectual forms for an individual verb is a lexical task. I hope here to have given an initial idea of what patterns there are.

4.3.3   Other, more rarely encountered preverbal aspectual markers

In addition to the primary aspects discussed so far and secondary aspects which will be discussed in 4.3.5, there are a few other preverbal aspectual markers which have been found by previous researchers which I have not investigated as of yet and deserve to be mentioned. The first of these is the dubitative for which we have found the following examples.

(49)   w-ak=a'[5]

      dub-be=1sg

      'I might be able to.'

(50)   w=ak-z=e'

      dub-can-emph=3f

      'He can !?'

As mentioned in Long and Cruz (1999: 429-430), this aspect is only used with a handful of verbs.[6] Its specific use[7] and forms are issues which require further research.

There is also a form which is discussed in Butler (1980: 113) and Long and Cruz (1999: 451-452) which they both describe as being an interrogative form. When I first began studying Zoogocho Zapotec, I found no evidence of this form, and I believed that it was no longer in use. I have found however the following evidence of

use by older monolingual speakers. The form is an invariant *z-*. As described by Butler, and Long and Cruz, affirmative responses use the same form, as in the following examples.

(51) z-ag=o'   yet   yelha'

dp-eat=2sg   tortilla   banana

'Did you eat banana tortillas?'

z-agu=a'   yet   yelha'

dp-eat=1sg   tortilla   banana

'Yes, I ate banana tortillas.'

However, I have also found a few examples like the following, which seem to indicate to me that it could perhaps be considered to be a definite past. Unfortunately, these forms could also be viewed as being long distance answers to questions. There were around five lines of intervening materials.

(52) bi   gud-aow=a=nda'   yet   dao=n'

neg   comp-eat=1sg=1sgfsf   tortilla   corn_tassel=def

'I didn't eat corn spike tortillas.'

z-agw=a=nda'   yet   yelha

dp-eat=1sg=1sgfsf   tortilla   banana

'I did eat banana tortillas.'

There are two additional forms which Long and Cruz mention which I have not encountered to date, a form which indicates termination, indicated by **-ed-** in the secondary aspect slot[8] and a form which means 'can' (which has too many

allomorphs to mention presently, though note that two of the forms are just formed by taking the experiencer form of the personal pronoun). I have not found either of these forms in either elicitation or in the texts, although I was not aware of them until recently and have not had a chance to consider them as a possibility. They both deserve further research.

4.3.4 Plural marking for third person subjects

Plurality is an sporadically marked category in Zoogocho Zapotec. If it can be recovered from context, it is very typically not marked. When it is marked verbally, it is marked with a prefix which is fused with aspectual markers. As mentioned in Butler for Yatzachi (1980: pp. 77-78), there are two major classes of plural marking of 3rd person subjects: those which have as their completive **b-**, and those which have as their completive marking **g-**. Whether or not a verb belongs to one of these categories is lexically determined.

The first conjugation that we will discuss is the forms which have completive beginning in **b-**. Note that, as mentioned in (Long and Cruz 435), there are two subclasses of this type of plural conjugation. The first of these subclasses involves those verbs which have **b-** as their completive marker in the singular and **gw-** for the potential. The 3rd person plural paradigm for this subclass is as follows, the forms to the right are the singular forms.

Table 4.18 -o- plural forms

Plural forms	**Singular forms**	
zghan-sede=be' 'They are studying.' (Stative)	**n**-sede=be'	'He studies.'
dxose-sede=be' 'They are studying.'(Continuative)	**dx**-sede=be'	'He is studying.'
boso-sede=be' 'They have studied.'(Completive)	**b**-sede=be'	'He studied.'
yoso-sede=be' 'They will study.'(Potential)	**gw**-sede=be'	'He will study.'

The second major class also involves verbs which have **b-** in their singular completive forms, but which lack the potential prefix. Note that the main difference between this form and the last is that in this conjugation the vowel is an **e** whereas it is an **o** in the previous conjugation.[9]

Table 4.19 -e- plural forms

Plural forms	**Singular forms**	
zghan-zxit=be' 'They are jumping' (Stative)	**n**-zxit=be'	'He jumps.'
dxese-zxit=be' 'They are jumping.'(Continuative)	**dx**-zxit=be'	'He is jumping.'
bese-zxit=be 'They jumped.'(Completive)	**b**-zxit=be'	'He jumped.'
yese-zxit=be' 'They will jump.'(Potential)	0-zxit=be'	'He will jump.'

The next type of plural marking which we will discuss are those verbs which take **g-** in the plural. This class consists of those verbs which in the singular, are consonant initial and have completives which begin in **gw-** (Butler 76-77).

Table 4.20 Plural forms with completive in gw-

Plural forms   **Singular forms**

zghan-nheb=be' 'They are asking' (Stative)   no form

dxese-nheb=be' 'They ask.' (Continuative)   dx-nheb=be' 'He is asking.'

gose-nheb=be' 'They have asked.' (Completive)   gw-nheb=be' 'He asked.'

yese-nheb=be' 'They will ask.' (Potential)   nheb=be'   'He will ask

Finally there are those roots which are vowel initial.

Table 4.21 Plural forms for vowel initial roots

Plural forms   **Singular forms**

(No stative found)   n-olh=be' 'He sings.'

dxes-olh=be' 'They sing.'   dx-olh=be' 'He is singing.'

gos-olh=be' 'They sung.'   b-ilh=be' 'He sang.'

yes-olh=be' 'They will sing.'[10]   g-olh=be' 'He will sing.'

4.3.5   Secondary aspect

What has been called the frequentative in the literature will be the first secondary aspect to be discussed here. The semantics of this morpheme are, in most cases, relatively transparent. This morpheme is used to express actions which are repeated. It might be considered to be an iterative, but I will follow the tradition in the literature and call it a frequentative. A good example which Long and Cruz use is the following 'el verbo **chyib** (dxyib- in our orthography) *lavar* no se usa en el aspecto frecuentativo cuando se refiere a lavar ropa, pero es siempre frecuentativo cuando se refiere a lavar platos' ' the verb **chyib-** *to wash* is not used in the

frequentative aspect when it refers to washing clothes, but it is always frequentative

when it refers to washing plates' (ibid. 442). There are some further uses which

deserve to be discussed here.

Similar to the example cited, we see examples like (53) below.

(53)   b-o-s-ol=a=n

comp-freq=caus=go_out=1sg=3inan

'I put it out over and over again' (As though it is a light bulb and I am turning

it off and it keeps coming back on.)

We also see examples like the following, which indicate repetition of an

already completed task.

(54)   g-o-sha=a'   chizx=o'

pot-freq-heat=1sg   poss.tortilla=2sg

'I'm going to reheat your tortilla.'

With verbs of arrival, the use of the frequentative can indicate that a person

has arrived at the same place where they left from. Note the following examples.

(55)   b-le=be'

comp-arrive=3inf

'He arrived (at a different place than he left from).'

(56)   b-e-le=be'

comp-freq-arrive=3inf

'He arrived (at the same place that he left from).'

When used with the verb **dxzhel** 'to find', the frequentative indicates that someone has been searching for the item. Without the frequentative, it can have an almost accidental quality, potentially being glossed 'bumped in to'.

(57)　b-zhel=da'　　　　　　Lia　Lank

comp-find=1sgexp　　Dona　Angela

'I bumped into Dona Angela.'

(58)　b-e-zhel=da'　　　　　　Lia　Lank

comp-freq-find=1sgexp　　Dona　Angela

'I found Dona Angela.' (Like I couldn't find her and I was looking for her)

Finally, one can see the following example, which, like many verbs when used in the frequentative, is not semantically transparent

(59)　y-ey-ak=a'

pot-freq-feel=1sg

'I'm going to get myself better.'

The frequentative has two basic forms, one with the prefix -e- and one with the prefix -o-. They must both be followed by a -y- if the root is vowel initial. The forms of the aspectual marker that these verbs are used with are basically the verbs with a potential in y- subclass in b- as mentioned above with the exception that the stative begins in z-. The following table, adapted from Long and Cruz (1999: 442), shows the basic paradigm of the frequentative aspect.

Table 4.22 Frequentative aspect

Frequentative	Cont.-Freq.	Stat.-Freq.	Compl.-Freq.	Pot.-Freq.
e 3rd plural	dxe(y)- dxesye(y)-	ze(y)- zesye(y)-	be(y)- besye(y)-	ye(y)- yesye(y)-
o 3rd plural	dxo(y)- dxosyo(y)-	zo(y)- zosyo(y)-	bo(y)- bosyo(y)-	yo(y)- yosyo(y)-

The other secondary aspect which will be discussed here is what is called the repetitive in the literature. Verbs do not take both the repetitive and the frequentative at the same time. The repetitive form is formed with the prefix -ez- or -oz- preceded by dx- for continuative aspect, z- for stative, b- or g- for completive, and y- for the potential. Verbs which take -ez- take -esez- for the 3rd person plural and verbs which take -oz- take -osoz-. The repetitive is used when an action is repeated after a long while. Whereas the frequentative can indicate rapid repetition, the repetitive · indicates that there is a period of time before the action is repeated. It is quite rare in the texts. This example, from the first text I transcribed, remains one of my best examples of the repetitive.

(60) Na   despues   b-**ez**- beyah=a'   yezx, b-eyah=a'

　　 Then   afterwards [Sp.]   comp-**rep** go=1sg   village comp-go=1sg

　　 Mexico   lenh   familia   chi=a'

　　 Mexico   with   family   of=sg

'Afterwards, I went to the village again, and went to Mexico City with my

family.'

4.3.6　　　　　Andative/venitive

There are also andative and venitive markers in this language. The andative

marker, -gh-, is used to describe actions where the subject is 'going (literal) to do

something'. The venitive marker, -ede-, is used when the subject is 'coming to do

something.' We will discuss each in turn. The andative marker could potentially be

derived from the verb *zegh*= 'to go', and the venitive from the verb -*id*= *to come.*

The andative marker -**gh**-becomes -**gha**- before a consonant, while -**gha**-

becomes -**ghase**- for the third person plural in front of a consonant and -**ghas**- before

a vowel. The aspect markers used with the andative are: **dx**- (continuative), **z**-

(definite past)/stative), **0**- (completive), and **zh**- (potential). For an in-depth

discussion of the forms of the andative marker and the combination of the andative

marker with the frequentative and the repetitive markers see Butler (1980), or Long

and Cruz (1999). The use of the andative marker indicates that someone is going to

do something, but may not actually arrive and do it. (They may of course, but they

also may not.) For example, compare the following question and answer.

(61) ga zegh=be?

where comp.go=3inf

'Where did he go?'

If one were to give the following answer, it would state that he went to sing (where ever he would go to sing), but that he might not have made it there.

(62) z-gh-elh=be'

stat-and-sing=3inf

'He goes to sing.'

If one wanted to specify that the person actually did go somewhere and sang, one would use a construction like (63).

(63) zegh=be'   skwel   na'   g=olh-be'

comp.go=3inf   school   there   comp-sing=3inf

'He went to the school   and sang there.'

Other constructions which need to be differentiated here include the infinitival construction (64) and the participial construction (65).

(64) zegh=be'   golhe'

comp.go=3inf   inf.sing

'He went (in order) to sing.'

(65) zegh=be'   dx-olh=be'

comp.go=3inf   cont-sing=3inf

'He goes singing.' (He goes while singing.)

The basic form of the venitive is **-ede-** before consonant initial roots and **-edey-** before verb initial roots. The plural forms are **-edese-** before consonant initial roots and **-edes-** before verb initial roots. The aspectual markers used with the venitive are: **dx-** (continuative), **z-** (stative), **b-** (completive), and **y-** (potential). I refer the readers once again to Butler (1980) and Long and Cruz (1999) for a more in-depth discussion of the forms of the venitive and of its interaction with other secondary aspect markers. I will finish the discussion of the venitive with a pair of textual examples.

(66) b-id=a'   b-ede-zo=a'   xono bio

comp-come-1sg   comp-ven-be=1sg   8 month

'I came and stayed for 8 months.'

(67) g-os-id=e'   b-ede-s-elag=e'   dxioo

comp-pl-come=3inf   comp-ven=pl=run.off=3f   1plincl

'They came to run us off.'

4.3.7   Imperatives

Imperatives are formed using the completive form of the verb (68), or, in the case of plural imperatives, by taking the potential form of the verb (69). In neither of these cases is a subject present. Negative imperatives are formed using the potential and *bi* 'negative word' (70). In this case, a subject is generally present.

(68)   b-enh   to   dulc   chi=a'

comp-give   one   candy   of=1sg

'Give me a candy!'

(69)   g-onh   to   dulc   chi=a'

pot-give   one   candy   of=1sg

'Give me a candy you all!'

(70)   bi   g-onh=o=be'   to   dulc

neg   pot-give=2sg=3inf   one   candy

'Don't give him a candy!'

4.3.8   Infinitives

Infinitives are constructed using the completive form of the verb root preceded by **g-** before an **o** or **w-** in all other cases. Infinitives are used in complex constructions which will be described in greater detail in **6.5.2**, mostly following the verb 'to go'; as deverbal adjectives; and as deverbal nouns.

(71)   **g-**   gos 'to plant/sow'

sha=a'   g-os   zaha

stat.go=1sg   inf-plant   beans

'I go to plant beans.'

(72) w-   waow 'to eat', wen' to do'

benhe   w-en   shinh

person   inf-do   work

'workers'

(73) w-e-yaa

inf-freq-dance

'the dance'

4.3.9   Valence changing operations

There are a number of morphological valency changing operations in SBZZ. Here I will concentrate on the causative.

First, however, I will dispense with the notion of the passive. In both Butler (1980) and in Long and Cruz (1999), there is mention of a passive. It is my opinion that, given the small number of examples that are cited by both authors and the fact that this is not a productive process in the language, this should be relegated to the lexicon. As further evidence of this, unlike the case of the causative which will be examined shortly, native speakers do not recognize the connection between the putative passive and active forms. Causatives are easily recognized and produced when elicited. While experiments with novel stems might be in order to confirm this, it appears to be the case that Zoogocho Zapotec does not have a productive passive. An example which follows the patterns described in Butler and in Long and Cruz is the following.

(74)   gw-chexo=a=n

comp-toast=1sg=3inan

'I will toast it'

(75)   y-exo=n

pot-pass.toast=3inan

'It will be toasted.'

Speakers have informed me, however, that the first was a causativized

version of the second, and, if anything, the more transitive form is morphologically

more marked than the less transitive form, confirming those intuitions.

I will now move on to discuss the causative. The syntax of causatives will be

discussed in greater depth in 6.1. Although speakers for the most part will produce

analytic causatives in elicitation, both native speakers and myself recognize synthetic

causatives. I will therefore tentatively consider them to be a productive part of the

grammar. Of course, psycholinguistic experiments using novel stems would be of

use in verifying the previous statement.

There are a number of ways in which the causative may be identified. If the

root is vowel initial, then the causative can be formed by adding a -**w**- initially as in

the following example.

(76)   dx-aog   bi   chi=a'   yet

cont-eat   child   of=1sg   tortilla

'My child is eating tortillas.'

(77)   dx-w-aog=a'   bi   chi=a'   yet

        cont-caus-eat=1sg   child   of=1sg   tortilla

        'I'm feeding my child tortillas.'

In other cases where the verbal root is vowel initial, the addition of a -s- or a -z- causativizes a root.

(78)   g=ozxgh   yish=en'

        comp-rip   paper=det

        'The paper ripped.'

(79)   b-z-ozxgh=a'   yish=en'

        comp-caus=rip=1sg   paper=det

        'I tore the paper.'

Note that it can cause changes in the frequentative as in the following.

(80)   b-e-ban=a'

        comp-freq-wake=1sg

        'I woke up.'

(81)   b-os-ban=a'=le

        comp-caus-wake=1sg=2sg(o)

        'I woke you up.'

There are also cases of verb initial roots where a change in the root signals the causative. This change is often a change to a labial vowel as in the following.

(82)　y-eyee=n

　　　pot-cook_itr=3inan

　　　'It will cook.'

(83)　g-oya=a=n

　　　pot-cook_tr=1sg=3inan

　　　'I will cook it.'

Verb roots which are consonant initial can be causativized in a number of ways. One of the most common ways for consonant initial verb roots to be causativized is via a change in the initial consonant from lenis to fortis, as in the following example.

(84)　0-lulh=a'　　　　　dxeelhe

　　　pot-roll=1sg　　　　downwards

　　　'I'm gonna roll downwards (down the hill).'

(85)　0-lhulh=a=n　　　　　　　　dxeelhe

　　　pot-caus-roll=1sg=3inan　　　downwards

　　　'I'm gonna roll it downwards (down the hill).'

Another common way of forming a causativized form of a consonant initial verbal root is through the addition of **-os-** or **-oz-**, as in the following example.

(86)　0-biz=a'

　　　pot-get_wet=1sg

　　　'I will get wet.'

(87) g-os-biz=a=le

comp-caus-get_wet=1sg=2sg

'I will get you wet.'

The final way in which a consonant initial verbal root is causativized is by some other change than fortition to the root initial consonant, as in the following example.

(88) dx-bab=dxo

cont-itr.count=1plincl

'We are counted.'

(89) dx-lab=dxo   zaha

cont-tr.count=1plincl   beans

'We count beans.'

4.3.10   Incorporated nouns

I will briefly mention a few facets of noun incorporation here, as noun incorporation is not synchronically a productive process in the language. Note that incorporated nouns must directly follow the verbal root, as in (89). Adverbial suffixes cannot intervene, as seen in the contrast between (90) and (91).

(90) zoa-lao-tek=a'

stat.stand-eye-alot=1sg

'I start out a lot.'

(91) *zoateklaoa'

Most cases of noun incorporation are fossilized incorporations of body-parts such as (92).

(92)   bi   dx-on-lazh=o', aron

       no   cont-make-liver/heart=2sg, Aaron.

'Don't lie Aaron!'

More lexical and historical work is needed on noun incorporation both in SBZZ and in Zapotecan in general.

4.3.11   Adverbial suffixes

Below I will discuss a few of the more prominent adverbial suffixes. I consider them to be suffixes on the grounds that they do not correspond to any full form, and that they only attach to one lexical class (verbs), obligatorily before the pronominal clitics. The first adverbial suffix I will discuss will be the suffix **-lgha-** which is used to express hearsay or doubt. The following is an example of **-lgha-**.

(93)   b-en-lgha=o'   to   legh

       comp-make-doubt=2sg   one   fence

'I heard you made a fence.'

By far, the most common type of adverbial suffix are the adverbial suffixes which express quantity or emphasis, these include, but are not limited to **-tek-**, **-z(e)-**, **-dxgwa**, **-dx-**, etc. An example follows.

(94)   konte' b-en-dx=a'   ganh

       so_that comp-do-more=1sg   earn [Sp.]

       '... so that I earned more...'

Multiple adverbial suffixes can potentially co-occur Zapotecanists generally distinguish between primary adverbials which occur directly following the root and secondary adverbials which follow primary adverbials if the primary adverbials are present.

(95)   b-en-tek-dxgw=a'   lizh=a'

       comp-make-more-emph=1sg   poss.house=1sg

       'I really did build my houses.'

4.3.12   Pronominal clitics

Pronominal clitics have already been discussed in some detail in the previous chapter. They are placed after all other material has already been placed on the verb. The vowel initial pronominal clitics do cause some changes to the verbal root. See Long and Cruz (1999: 418) for a summary of the main changes. The first and second person also can cause changes to the verbal root, typically in speech or transfer verbs. The following examples show different forms for the verb 'to say'.

(96)   dx-e=be=ne'

       cont-say=3inf=3fo

       'He says to him ...'

(97)   dx-ap=a=ne'

cont-say=1sg=3fo

'I say to him ...'

4.3.13   Verbal template

In this section, I will describe briefly what a fully inflected verb looks like. The following verbal diagram represents a fully loaded verb.

(98)   Aspect-andative/venitive-secondary aspect-plural-Causative-VERB-Incorporated Noun-primary adverbial suffix-secondary adverbial suffix=Clitic pronoun (Su)=Clitic pronoun (Obj).

An example of an almost fully inflected verb is as follows.

(99)   b-edey-ey-os-ban-tont-tek=e=nda'

comp-ven-freq-caus-live-fool-really=3f=1sg

'He keeps on coming and causing me to foolishly wake up.'

4.4.1   Adjectives

We have but two things to say about predicative adjective. They can take adverbial suffixes and pronominal clitics, as in (100) and (101).

(100)   tonhe-dxgw=o'

tall-emph=2sg

'You are really tall.'

(101) tonhe-dxgwa n-ak=e'   jef=en'   kleka benhe yeto

       tall-emph stat-be= 3f   boss=det   than   person other

       'The boss is taller than the other person.'

4.4.2   Quantifiers

Quantifiers can also take adverbial suffixes and pronominal clitics, as in (102) and (103) and are sentence initial.

(102) to=ba'   dxi   na'

       one=3an   stat.sit   there

       'One of them is sitting there.'

(103) to-z=ba'   dxi   na'

       one-only=3an stat.sit   there

       'Only one of them is sitting there.'

4.5   The morphological typology of SBZZ

Zoogocho Zapotec is an agglutinative, rarely fusional VAO/VA language. While it is low on the index of fusion to use the terms introduced by Comrie (1981: 43-52), ZZ is moderately high on the index of synthesis, often containing many morphemes in one word. Zoogocho Zapotec is a primarily prefixing language, although there are adverbial suffixes and noun incorporation is post-verbal. There are a number of enclitics in the language, such as the pronominal clitics discussed in Chapter Three. While phonologically these are not words, grammatically they behave as independent words.

In contrast with their definition of **phonological word** (cf 2.6.), Dixon and

Aikhenvald (2002) believe that the following is a universal definition of

grammatical word.

A **grammatical word** consists of a number of grammatical elements which:

(a)   always occur together, rather than scattered through the clause (the
       criterion of cohesiveness);

(b)   occur in a fixed order;

(c)   have a conventionalised coherence and meaning (ibid. 19).

(d)   Morphological processes involved in the formation of words tend to
       be non-recursive. That is, one element will not appear twice in a word
       (ibid. 21).

(e)   There will be just one inflectional affix per word (ibid. 22).

(f)   A speaker may pause between words but not within a word (ibid. 23).

(g)   A word may constitute a complete utterance, all by itself (ibid. 24).

In terms of these criteria, I arrive at the following definitions: a grammatical

word in Zoogocho Zapotec consists of a root or a compound and may potentially

have prefixes or suffixes attached to it. These prefixes and suffixes only appear

attached to some element. (Thus, although it would be phonologically acceptable,

one never sees the plural marker *–ese–* in isolation.) The roots and affixes occur in a

fixed order. (Thus one always sees *x-kuzh=a'* 'my pig' and never *a'-x-kuzh* or

kuzh=a'-x.) Together they have a conventionalized coherence and meaning. (Thus

zoalao means 'to begin'.) These first three are the crucial criteria for defining a

grammatical word in SBZZ. Additionally, there are no recursive word formative processes. (Thus we do not see *b-ese-ese-zxit=be'* 'They jumped.' but only *b-ese-zxit=be'* 'They jumped.'.) Criterion (e) does not apply. Speakers do pause between words but not within a word. (The bold underlines below represent pauses for the current purposes.)

(104) dxombe'___ to___ yoo

    dx-on=be'   to   yoo

    cont-make=3inf   one   house

    'He made a house.'

(105) dxon ___bedo'____ to___ yoo

    dx-on   Bedo'   to   yoo

    cont-make   Pedro   one   house

    'Pedro built a house.'

(106) ***dxom____be'__ to___ yoo**

    dx-on=be'   to   yoo

    cont-make=3inf   one   house

    'He made a house.'

Finally, grammatical words may constitute a complete utterance. This criterion only applies to nouns and verbs.

(107) A:no   b-zxit?

who   comp-jump

'Who jumped?'

B: bedo'

Pedro

'Pedro'

(108) b-zxit=be'

comp-jump=3inf

'He jumped.'

If one considers the types of elements which have been found in SBZZ so far,

one can see that all of the preverbal inflectional and derivational elements which

have been seen earlier in the current chapter are neither phonological words (not

being stressed) nor grammatical words (not being able to pause between them, not

being able to occur in isolation). Similarly, the possessive prefix and adverbial suffix

are neither grammatical nor phonological words. Note that all of the elements

discussed above in the current paragraph either only attach to one type of word class

or to single words.

The only elements which act as proclitics in the language are the classifiers,

which, although they can occur on their own as an independent phonological word,

are phonologically weak and often attach to the following wordThe directional clitic

and the determiner clitic are not phonologically words, but they attach to the noun

phrase as a whole, either attaching to the noun if the noun is the only word present in

the NP or attaching to following material such as an adjective, thus I will consider them to be special (phrasal) clitics. I will treat similarly the sentence-level emphatic discourse particle enclitic –x, which attaches to the last word of an utterance.

Finally, I will discuss the pronominal clitics[11] from this perspective. As they have no independent stress, they are not phonological words. As already seen, they form a part of a phonological word with a verb. As seen below, they also do with a possessed noun.

(109) xbembe'

x-ben=be'

poss-finger=3inf

'her finger'

By the criteria given above, the pronominal clitics are not grammatical words either. However, the grammar of SBZZ almost requires one to look at them as grammatical words. In pragmatically neutral contexts, the pronominal clitics occur in complementary distribution with full NP's.

(110) ?b-zxit=be'   bidao

comp-jump=3sg   child

'The child jumped.' (marginally ok with emphatic reading)

(111) *x-kuzh=be'   bidao

poss-pig=3inf child

'the child's pig'

I will return, in 8.7, to a fuller explanation of the status of the pronominal subject

clitics.

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[1] The morphology which occurs with other word classes such as adjectives and quantifiers can be related to nominal and verbal morphology.

[2] See Bohnemeyer (1998) for a comprehensive discussion of this issue for Yucatecan Mayan.

[3] While there is no prefix used for the potential forms, I will mark potentials with a zero prefix. The potential can cause alternations in the root initial consonant for some of these verb classes.

[4] Note that this is quite interesting given certain reconstructions of Proto-Zapotec which reconstruct an alternation between fortis *kw* and lenis *b*.

[5] The potential form for this verb is *gok*.

[6] The verbs which are listed are: *-ak* 'can', *-agw* 'eat', *-at* 'die', *-dxogh* 'take out', and *-ezhaa* 'be hot' (Long and Cruz 430).

[7] In Butler (1980:114) and Long and Cruz (1999: 450), an apparently identical form is claimed to be used for interrogatives in the future tense, although neither investigator notes that the form is identical.

[8] An interesting possibility would be to investigate potential connections between this form and the **gwd-** form of the completive.

[9] I can see no reason for the variation between /o/ and /e/ in this and other conjugations at this point.

[10] Note that this is an interesting point of comparison between Yatzachi Zapotec and Zoogocho Zapotec in that the potential of the Yatzachi form has no **ye-**.

[11] As seen in Chapter Three, the experiencer pronominal forms, should be considered to be affixes, as they have no corresponding full forms and obligatorily attach to a small subclass of verbs.

Chapter 5: Simple Constructions

5.1 Introduction

In this chapter, I will give an in-depth sketch of the primary features of simple constructions in Zoogocho Zapotec. I am using the term 'simple constructions' to refer to all those syntactic constructions which are at or below the level of the clause. Multi-clause constructions and constructions with additional noun phrases which are introduced either by morphological derivation or by prepositions will be discussed in the following chapter.

I will begin this chapter by giving a brief sketch of the basic features of Zoogocho Zapotec word order, go on to a more in-depth discussion of simple constructions, and will then go on to use the (near) universals put forth in Greenberg (1966) as the basis for further discussion. Note that a more comprehensive discussion of the contribution Zoogocho Zapotec makes to the knowledge of word order typologies, especially to those that deal primarily with verb initial languages, will be given in Chapter Eight.

5.2 Basic Word Order

Zoogocho Zapotec is a relatively rigid VSO language. SVO, and OVS do occur as alternates, in focused or topicalized constructions as seen in (1) through (7) below, which will receive more discussion in section 5.5 below. OSV never occurs, and SOV never occurs in elicitation[1].

(1)   V   S   O

dx-aogo   be'ko'   yet

cont-eat   dog   tortilla

'The dog is eating tortillas.'

(2)   S   V   O

be'ko'=n'   dx-aogo   yet

dog=det   cont-eat   tortilla

'It's the dog that's eating tortillas.'

(3)   S   V=s   O

be'ko'   dx-aogo=ba'   yet

dog   cont-eat-3an   tortilla

'The dog, it's eating tortillas'

(4)   O   V   S

yet   dx-aogo   be'ko'

tortilla   cont-eat   dog

'Tortillas, the dog is eating.'

(5)   S   O   V=s

*be'ko'   yet   dxaogoba'

(6)   O   S   V

*yet   be'ko'   dxaogoba'

(7) V   O   S

*dxaogo   yet   be'ko

Descriptive adjectives, genitives, and demonstratives all follow their head

nouns, numerals and quantifiers precede the nouns which they modify, and relational

nouns and prepositions precede the noun phrase they modify, as seen in the

following examples.

(8) Noun Adjective

be'ko' gasgh

dog   black

'Black dog'

(9) Noun Genitive

yichgh   bedw

head   Pedro

'Pedro's head'

(10) Noun Demonstrative

be'ko' nga'

dog   dem.med

'This dog'

(11)   Relnoun Noun

     lao   bedw

     eye   Pedro

     'Pedro's eye'/ 'in front of Pedro'

(12)   Num Noun

     chupe be'ko'

     two   dog

     'Two dogs'

(13)   Preposition Noun

     lenh   acha

     with   ax

     'With an ax'

5.3   The Noun Phrase

5.3.1   Adjective-noun order:

The ordering of adjectives and nouns is noun-adjective as in the following examples.

(14)   yoo shish

     house white

     'White house'

(15) be'ko' gasgh

dog   black

'Black dog'

(16) yag gasgh zxen

tree black big

'The big, black tree'

(17) bekozxo   shnaa zxen shtaha

shawl   red big   pretty

'pretty, big, red shawl'

Verbs can be deverbalized by using the infinitival form to give deverbalized adjectives such as *w-ate* ' 'dead' or *bchog* 'cutoff'.

(18) dx-oso-kwash=e'   **ghea** **w-at=en**

cont-pl-inter=3f   hen   inf-dead=def

'The buried **the dead hen**.'

(19) n-di=e'   to   **pantalon**   **b-chog**

stat-wear_on_legs=3f one   **pants**   **inf-cut**

'He's wearing a **pair of cut-offs**.'

Note that when asked to cite adjectives in isolation native speakers will invariably put *da* 'inanimate classifier' (which will be discussed in greater detail in 7.7), in front of the adjective as in (20).

(20) da   shish

clinan   white

'White'

Furthermore, *da* 'inanimate classifier', *bi* 'classifier for small things', and *be* 'animate classifier' can occur in sentences agreeing with the head noun. The reason behind and conditioning for this remain to be determined. The following comparative sentence exemplifies this use.

(21) n-ak-dx   bdxee **be**   **lis**   kleka'   be'ko'

stat-be-more   ant   clan small comp   dog

'Ants are smaller than dogs.'

5.3.2   Cardinal Numbers and Quantifiers

Cardinal numbers and quantifiers precede the noun

(22) to bidao'

one child

'A child'

(23) ye-to   ghed

some-one   chicken

'Another chicken'

(24) ye^2 ghed

some chicken

'some chicken'

(25)   do kafe=n'

        all coffee=det

        'All the coffee'

(26)   toto bidao

        every child

        'Every child

(27)   yogo ghed

        all   chicken

        'All chickens'

(28)   balhe benhe bio

        some person masc

        'Some men'

(29)   zgha-nita=be'   shlaa   wegh=be'

        plur.stat-be=3inf   side   eachone=3inf

        'They are each on their own side.'

5.3.3   Plural marker

While the plural marker is not always present in plural noun phrases, and plurality is either recovered from context or from the verbal marking, there are a couple of examples in the text where the marker *ka* is used to mark a plural noun phrase. Note that this is very rare, occurring 2 times in over 2000 clauses which I investigated. The following are the two examples.

(30)   na   yego   ka

       and   river   plural

       'and the rivers'

(31)   shgh-een=a'   benhe bila   ka

       cont.and-visit=1sg   person sister_of_woman   plural

       ' I went to visit my sisters.'

5.3.4   Demonstratives

Demonstratives follow their nouns, and either appear by themselves as in (32) or with a classifier as in (33). See the discussion of demonstratives in 7.8 for further explanation of the use of demonstratives.

(32)   bia   na'

       animal   demdis

       'This animal'

(33)   be'ko' be=nga

        dog   clan=demmed

'That dog'

5.3.5   Possession

5.3.5.1   Introduction

Zoogocho Zapotec is a language which could potentially be characterized as making a distinction between alienable and inalienable possession; however, one of the main points of this subchapter will be that there is a great need to refine these terms and be more careful in the description of this phenomenon. I will refine these terms over the course of this subchapter. The structure is as follows: I will begin by giving a brief description of attributive possession in Zoogocho Zapotec, give a brief overview of what has been said about possession in the literature, delve into a brief discussion of a potential processing explanation, and finish by looking at the use of attributive possession in SBZZ texts.

5.3.5.2   A brief overview of attributive possession in Zoogocho Zapotec

There are various ways in which one could potentially describe possession in Zoogocho Zapotec. In terms of functional characteristics, one might take into account the semantics of the noun, the frequency the individual noun is possessed, and many other factors, most of which are, as the two which were mentioned, interrelated. For example, many Zoogocho Zapotec kinship terms and body-parts are usually possessed and use no formal marking to indicate that they are indeed possessed, such as examples (34) and (35). In these instances in Zoogocho Zapotec, possession is marked solely by the juxtaposition of possessee and possessor. In cases

like (35) where the possessor is marked by a pronominal clitic, it is important to note that the pronominal clitics which are used are the same forms which are used for marking subjects.

(34)   yichgha'[3]

        yichgh=a'

        head=1sg

        'My head'

(35)   tao   lalo

        grandmother   Lalo

        'Lalo's grandmother.'

On the other end of the spectrum, there are nouns which belong to a large, open class of nouns which are not possessed very often (material objects, celestial objects, etc) and which take the preposition *che* followed by the possessor in order to mark possession. I will call this syntactic possession.

(36)   libr chebe'

        libr   che=be'

        book   of=3inf

        'His/her book'

In between lies a potential source of confusion. There is an open class of nouns, which, while frequently possessed, can take either the possessive prefix *x-* (quite often resulting in a great deal of change to the root or an altogether different suppletive form), or can use syntactic possession. The semantic difference, which, on first approach seems to be the difference between inherent possession (possession which, while potentially alienable, is strongly associated) and non-inherent possession (possession which is not already presupposed), can initially be seen in the

difference between (41) and (42), below. I will return to these differences later in the current subchapter.

(37) x-kuzh=a'

poss-pig=1sg

'My pig'

(38) kuzh chia'

kuzh   che=a'

pig   of-1sg

'My pig'

(39) yet chia'

yet   che=a'

tortilla of=1sg

'My tortilla'

(40) chizxa'

chizx=a'

poss.tortilla=1sg

'My tortilla'

(41) yoo chia'

yoo   che=a'

house of=1sg

'My house'

(42) lizha'

lizh=a'

poss.house=1sg

'My house','My home'

As I have shown in this brief sketch of possession in Zoogocho Zapotec, there are three formal classes motivated by functional considerations; one of which shows no formal change to the root and which involves a small, closed class which is always possessed[4], one with purely syntactic marking of possession involving a large, open class of nouns, and one, involving a large, open class of nouns which shows both types of marking, depending on whether the possession is inherent or not. I will now move on to discuss how attributive possession has been discussed more generally in the literature.

5.3.5.3   Discussion of attributive possession in the literature

As analytical frameworks, I will rely on Hansjakob Seiler's *Possession as an Operational Dimension of Language* (1983) and Bernd Heine's *Possession* (1997).

Heine (1997) distinguishes between attributive and predicative possession by pointing out of attributive possession that:

(a)((I)t) presents typically presupposed rather than asserted information

b)   it involves object-like, time stable contents rather than event-like

contents; and

c)   it involves phrasal rather than clausal syntax (ibid. 143)

Consider the following two examples from English, in which one can see the distinction which Heine is making.

(43)   My money **(Attributive possession)**

(44)   I have money. **(Predicative possession)**

Example (43) shows a presupposed object-like entity with phrasal syntax and in (44) an event-like assertion with clausal syntax is seen. For the purpose of this chapter, I will only be considering examples in Zoogocho Zapotec which correspond to (43), however as a brief excursion, consider the following Zoogocho Zapotec

examples which correspond to the English examples seen above and show the use of positional verbs for predicative possession.[5]

(45) xmedxoa'

x-medxo=a'

poss-money=1sg

'My money.'

(46) zehe xmedxoa'

zehe x-medxo=a'

hang poss-money=1sg

'I have money.'

Heine also gives the following table of potential diachronic sources for the grammaticalization of attributive possession (Table 3.1, p 144) as 'A formulaic description of source schemas used for the expression of attributive possession' (ibid. 144).

Formula	Label of event schema
Y at X	Location
Y from X	Source
Y for/to X	Goal
X with Y	Companion
(As for) X, X's Y	Topic (ibid. 144)

Zoogocho Zapotec possessive constructions may potentially be related to the 'Goal Schema'. Heine cites the '*pal* periphrastic possessive' that Campbell describes for Pipil, as being evidence for the presence of the Goal Schema because of its use in benefactive constructions (ibid. 147). Zoogocho Zapotec also uses possessive constructions for benefactive constructions, as in the following.

(47) Bzoghale' to kart.

    b-zogh=a'=le'   to   kart.

    comp-write=1sg=2sgo   one   letter

    'I wrote you a letter.'

(48) Bzogha' to kart chio'.

    b-zogh=a'   to   kart   che=o'

    comp-write=1sg   one   letter of=2sg

    'I wrote a letter for you.' (As though the second person cannot write, and the first is doing her a favor. Can be followed with another clause like 'which you sent to the municipal authorities'.)

(49) Bzoghale' to kart chio'

    b-zogh=a=le'   to   kart   che=o'

    comp-write=1sg=2sgo   one   letter of=2sg

    ' I wrote you a letter.' (No potential benefactive reading)

In (47) and (49), there is no potential benefactive reading in the sense of (48) because the second singular person is specified as a recipient. Possession in general is used in many syntactic constructions, as will be shown in depth in Chapter Six. Whether the Goal Schema is really present in Zoogocho Zapotec remains to be seen.

I will now move on to discuss Hansjakob Seiler's definition of possession. . He begins by defining possession as:

> the representation of a relationship between a substance and another
>
> substance. Substance A, called the POSSESSOR, is prototypically
>
> [=animate], more specifically [=human], and still more specifically [=EGO]
>
> or close to the speaker....Substance B, called the POSSESSUM is either

[=animate] or [-animate]. It prototypically includes reference to the relationship as a whole and to the POSSESSOR in particular (Seiler 4).

He also defines possession as being crucially 'bio-cultural' and differentiated from other linguistic relations such as valence and location in the following ways.

VALENCE is the relationship between an action or process or state and its participants. The number of participants can range from zero to three or four, whereas POSSESSION is a strictly binary relationship (ibid. 4).

He continues to state that although location is also a binary relationship, it, like valence, crucially relies on a relator (ibid. 4). That is, possession can consist solely of possessor and possessee, but location relies on a figure, ground, and relation between the two. This is different from what has already been shown for the case of possession as possession can often go unmarked as in the first class of nouns discussed in 5.3.5.2.

Seiler then goes on to distinguish between <u>inherent possession</u> and <u>established possession</u>. Inherent possession for him implies that '(S)emantically this kind of representation implies more intimate POSSESSION: Prototypically, of 'self' to his kinsmen, his body parts, etc' (ibid. 5). In other words, this is what is normally considered to be inalienable possession.

Established possession is 'established by explicit means, which are, in principle, means of predication' (ibid. 5). Furthermore Seiler claims that:

'The more explicit, more predicate-like expressions are marked vis-a-vis the less explicit, more inherent expressions. On the other hand, the latter are more grammaticalized, more morphologically expressed, while the former are more syntactically expressed and less grammaticalized.' (ibid. 6)

The explicit type of possession is often called alienable possession. Of interest to Zoogocho Zapotec and to Otomanguean languages in general is the distinction which Seiler is making here between the more 'morphologically expressed' inalienable possession and the more 'syntactically expressed' alienable possession. As will be shown later there are potential processing explanations for why these functional groupings receive these types of formal expression. However first, I will examine what Heine has to say about these distinctions.

Heine defines the alienable/inalienable distinction as follows:

Superficially, the distinction is a straightforward one: Items that cannot normally be separated from their owners are inalienable, while all others are alienable. Thus, items belonging to any of the following conceptual domains are likely to be treated as inalienable:

(a)   Kinship roles

(b)   Body-parts

(c)   Relational spatial concepts, like 'top', 'bottom', 'interior', etc

(d)   Parts of other items like 'branch', 'handle', etc.

(e)   Physical and mental states like 'strength', 'fear', etc. (cf. Lichtenberk 1985:105)

(f)   Nominalizations, where the 'possessee' is a verbal noun, for example 'his singing', 'the planting of bananas' (ibid. 11).

He goes on to note that in individual languages there are other terms which might end up being treated as inalienable. However, as he notes and I will show later when trying to explain the distribution of the formal marking of this phenomenon, the specific items which are alienable or inalienable in a given language might have less to do with their specific semantics and more to do with their occurrence in

discourse. Before going on to this point, however, I feel that it is useful to discuss how categories (a) through (f) above relate to Zoogocho Zapotec.

Zoogocho Zapotec fits neatly into Heine's categorization of inalienably possessed items. Kinship terms (with the exception of loanwords which will be discussed at the end of this section) are inalienables, as in the following:

(50) xa=be'

father=3inf

'Her father'

It is interesting to note that, other than kinship terms (category a), all of the other applicable categories up to and including (d) are expressed with body-part terms. As is widespread in the language family and in the area, most spatial concepts are expressed with the use of body-part terms as relational nouns. In Zoogocho Zapotec, these are used for most of the relational spatial concepts and for the constituent parts of most items as well. Note that even those terms such as *ladghw* 'in between' which are not currently associated with a body part in Zoogocho Zapotec and might be claimed to be prepositions also behave like possessed nouns.

(51) lao=be'

eye=3inf

'her eye'

(52) lao   xa-xna=be'

eye   father-mother=3inf

'in front of her parents'

(53) lao   plum

eye   pen

'tip of the pen'

Mental and physical states are often expressed using an incorporated form of a word like *lazhe*= 'liver', so they also potentially correspond to this categorization, if tangentially. I have nothing to say at this point about nominalizations where the possessee is a verbal noun, except that this is an interesting issue for further investigation.

One final thing which should perhaps be discussed here is the issue of loan words. Loan words are a good indicator of the limitations of a purely blind semantic approach to the issue of inalienability. Loan words in Zoogocho Zapotec, such as tio 'uncle [Sp.]' are possessed with the preposition che= as in example (54) below.

(54)   tio chia'

   tio   che=a'

   uncle[Sp.]   of=1sg

   'My uncle'

However, one could justifiably say that this word has not had the time to be fully grammaticalized, as is quite common for both loan words and kinship terms not related to the nuclear family cross-linguistically. This brings up an important issue: what is responsible for the differentiation of the formal marking of possession in Zoogocho Zapotec (and other languages)? One could potentially claim that this is an issue of iconicity (as discussed in, say, Haiman (1983)) in which the lack of marking on inalienables corresponded directly to their closer semantic bond. However, there is another possible explanation that will be investigated in the next section.

5.3.5.4   A processing explanation of the formal marking

Having seen the distribution of the differing means of marking possession in Zoogocho Zapotec, and some of the functional theoretical explanations and definitions of the different ways of marking attributive possession in the languages

of the world and the alienable/inalienable distinction, it remains to work towards an explanation of the different means of marking possession.

Johanna Nichols rightly points out that:

inalienable possession is not primarily a semantic distinction but the automatic consequence of the closer formal bonding that results in head-marked possession: inalienables typically include kin terms, part/wholes and/or body-parts, nouns which are most likely to occur possessed in discourse, and the formal marking of inalienability simply grammaticalizes that possession. (Nichols 1992:121-122)

Suarez (1985) also hints at the importance of frequency of possession in the following quote, which discusses various means of marking possession in Mesoamerican languages.

Nouns are very frequently obligatorily possessed, optionally possessed and unpossessable. Nouns referring to parts of the body, personal belongings (e.g. clothes), and kin terms are obligatorily possessed, but in Tlapanec, for instance, only kin terms are obligatorily possessed, and in Classical Nahuatl probably any noun could occur, at least in quotation form, as unpossessed and, in this case, marked with the absolutive suffix. The class of nouns that never occurs possessed seems to be determined by largely non-linguistic factors; nouns that are usually unpossessable are those referring to natural phenomena such as the sun, wind, etc. (Suarez 84)

More generally, Hawkins posits the following principle in "Efficiency and Complexity in Grammars: Three General Principles" (Hawkins 2003)

Minimize forms

The human processor prefers to minimize the formal complexity of each linguistic form F (its phoneme, morpheme, word or phrasal units) and the number of forms with unique conventionalized property assignments, thereby expanding the compatibility of F with a larger set of properties {P}. These minimizations apply in proportion to the ease which a given P1 can be assigned in processing to a formally reduced F with expanded property compatibilities. (ibid. 135)

Hawkins mentions various examples (such as pronominalization to name but one) to support this claim which basically says that the human processor prefers to process more reduced forms as long as the meaning is still easily recoverable. He then goes on to make the following predictions.

Form Minimization Predictions

a)   The formal complexity of each F is reduced in proportion to the frequency of that F and/or the processing ease of assigning a given P1 to a reduced F (e.g. to zero).

b)   The number of unique F:P1 pairings in a language is reduced by grammaticalizing or lexicalising a given F:P1 in proportion to the frequency and preferred expressiveness of that P1 in performance. (ibid. 137)

For my purposes, (a) provides an easy explanation of the lack of marking of possession on nouns which are obligatorily possessed such as body-part and kinship terms. In the case of body part terms and other lexical items which are always or almost always possessed there is no need to mark anything other than the possessor, because the listener already knows that they are possessed. The only thing that varies is the possessor which is marked. This is directly parallel to markedness hierarchies

or feature hierarchies (ibid. 11). Consider for a moment, the well-known markedness hierarchy related to number marking in (55).

(55)   Singular>Plural>Dual>Trial/Paucal (From (ibid. 11), (23))

As is well known (Greenberg 1966, Croft 1990), a category high in a hierarchy such as this one will be much more frequent than a category low on this hierarchy. Conversely, a category low on this hierarchy will be much more likely to be marked than a category high on this hierarchy. In other words, singular nouns are more frequent than plural nouns; thus, one would expect to see explicit marking of plurality in a given language more often than explicit marking of singularity. This leads to Hawkins's 'Quantitative Formal Marking Prediction'.

> Quantitative Formal Marking Prediction
>
> For each hierarchy H the amount of formal marking (i.e. phonological and morphological complexity) will be greater or equal down each hierarchy position. (ibid. 140)

Now I will return to the tentative classification of possessive marking from 5.3.2, restated here in the form of a table. If one takes the labels on the left to be the terms in a hierarchy, one can see similar results to that mentioned above for number. The more frequently possessed nouns are less marked, and vice versa. However a number of questions remain, some of which will be answered in the next section.How frequently are nouns from these three classes possessed in texts? What is the distribution of the middle class? (The nouns which can show either type of marking.)

Table 5.1 Methods of possession in Zoogocho Zapotec

	Possession unmarked (inherent possession)	Possession marked morphologically (Inherent possession)	Possession marked syntactically (non-inherent possession)
Always possessed, small closed class (Inalienables)	yichgha' yichgh=a' head=1sg 'my head'	n/a	n/a
Frequently possessed, large closed class (More frequently possessed alienables)	n/a	xkuzhe' x-kuzh=e' poss-pig=3f 'her pig' (one she has at the house)	kuzh chie' kuzh che=e' pig of=3f 'her pig' (which she might be selling at the market)
Not very frequently possessed, large open class (Less frequently possessed alienables)	n/a	n/a	tigr chebe' tigr che=be' tiger of=3inf 'her tiger'

5.3.5.5   **The use of attributive possession in three Zoogocho Zapotec texts**

In this section, I will discuss the marking of possession in three texts, one, an instructional text, which I will call 'Tigr', another, a conversation, which I will call 'G', and another, a narrative history, which I will call 'Miner'. These texts were

transcribed and translated with the help of my primary collaborator, Alberta Marcial Martinez. Any errors are obviously my own. Rather than look at every noun in the texts, I have examined nouns from each of the three types of possession exemplified in Table One. I will begin by briefly discussing the first text in which a community leader instructs a group of children in a traditional dance ('La danza de los tigres') which they then perform in the village's saints day festival.

This text consists of 760 Zoogocho Zapotec utterances[6]. I will examine five words: *xna*= 'mother', *ni*= 'foot', *yoo/lizh*= 'house', *son* 'song [Sp.]', and *tigr* 'tiger [Sp.]' The first two, *xna*=[7] and *ni*=, are both not separately marked for possession with a possessive marker and belong to the first class which was discussed in section II. Correspondingly they are always possessed in this text. *xna*= occurs 14 times in the text, and is possessed every time. Similarly *ni*= occurs 28 times in the text and it is possessed every one of those times. Interestingly, only the possessed form of the word for 'house', *lizh*=, occurs three times. The other form never occurs in the text. *son* occurs 18 times in the text. Four times it is possessed (*son chedxo* ' 'our song', *son che tigr* ' the tiger's song'). 14 times it occurs on it's own. *Tigr* is present 15 times in the text. Not surprisingly, it is never possessed.

Table 5.2 Possession in Tigr

	Possessed	Not possessed	Total
xna=	14	0	14
ni=	28	0	28
lizh=	3	0	3
yoo (che=)	0	0	0
son (che=)	4	18	22
tigr (che=)	0	15	15

In the second text, a conversation between Alberta and a monolingual 83-year-old speaker of Zoogocho Zapotec, to whom I will refer as G, the participants discussed how things had changed in G's lifetime. The text consists of 1450 Zapotec utterances. The word *xna=* 'mother' shows up 26 times in those 1450 lines, possessed each and every time. Similarly, the word for head, *yichgh=*, occurs three times, each time possessed and the word for neck, *lbaha=*, occurs four times, possessed in each instance. The word for maize, *zxoa*, and the word for bean, *zaha*, occur unpossessed in the text 13 and 12 times respectively. Now, to move on to the interesting and not so interesting cases, the word for coffee, *kafe*, occurs 13 times in total, and is unpossessed 11 of those times, and the word for house, *yoo* when unpossessed, and *lizh=* when possessed, shows up a grand total of 47 times in the text. It shows up unpossessed 28 times (as *yoo*) and possessed 19 times (as *lizh=*).

Table 5.3 Possession in 'G'

	Possessed	Not possessed	Total
xna=	26	0	26
yichgh=	3	0	3
lbaha=	4	0	4
lizh=/yoo	19	28	47
zxoa (che=)	0	13	13
zaha (che=)	0	12	12
kafe (che=)	2	11	13

Finally, I will briefly examine a third text, from a 70-year-old bilingual speaker of Zoogocho Zapotec. This text, which recounts a time when American miners came to Zoogocho in search of ores, consists of 350 SBZZ utterances. I will examine three words: *xna=* 'mother', *lizh=/yoo* 'house', and *yegh* 'rock'. *xna=* occurs five times, always possessed. *yoo* occurs seven times unpossessed, and once possessed (*yoo cheto* 'our house'). I will return to the one time when it occurs possessed in a moment. The word *lizh=* occurs four times in the text, possessed every time. *Yegh* shows up six times, never possessed.

Table 5.4 Possession in Miner

	Possessed	Not possessed	Total
xna=	5	0	5
lizh=	4	0	4
yoo (che=)	1	7	8
yegh	0	6	6

Before finishing this section, it will be useful to examine the use of the words for house. As has already been noted, there are two ways of possessing the word *yoo* 'house', one is by using the suppletive form *lizh=*, the other is to use the word *yoo* and the possessive preposition *che=*. When the word is unpossessed, it is generally when the speaker was referring to something that happened to the house, such as (56) below, from the G text. When *yoo* is used with *che=* it is also when discussing something which has happened to the house as in (57) below, from the Miner text. When it shows up possessed, as *lizh=*, it is generally when the referring to something which occurred in the location or to the owners of the house, as in (58) below, from the G text.

(56) na'   kate   bento   yoo   nga

na'		kate	b-en=to		yoo	nga
and		when	comp-make=1plexcl	house	demmed

'and when we made this house.'

(57) na' gonteto yoo cheto

na'	g-on=te=to		yoo	che=to
and	pot-make=int=1pl(excl)		house	of=1plexcl

'We are going to make our house.'

(58)   nadxe yeghdxo kafe lizhe'

     nadxe   y-egh=dxo   kafe   lizh=e'

     afterwards   pot-drink=1plincl   coffee poss.house=3f

     'Afterwards we drank coffee in his house'

The hypothesis stated in the previous section appears to have been tentatively confirmed. It seems that those items which can be possessed without having an overt possessive marker do occur always possessed in the texts examined so far. Those that are possessed syntactically appear to occur mostly unpossessed. Those that show both syntactic and morphological marking of possession seem to be more variably possessed. Additionally, those belonging to the middle class show the morphological marking for possession when they are more inherently possessed and the more syntactic marking for possession when they are non-inherently possessed, such as when they are in the process of being constructed and when they are not currently being resided in and therefore are not intimately associated with the possessor.

5.3.6   Determiners

The determiner is a clitic which has three main variants; one which occurs following a non-nasal consonant as in (59) is =*en*', one which occurs with words ending in *n* or *nh* is =*na*', as in (60), and, finally, the one which occurs after a vowel is =*n*[8] or =*na*' in free variation as in (61). Determiners occur at the end of a noun phrase, as in (62).

(59)   yet=en'

tortilla=det

'the tortilla'

(60)   dizha   zxon=na'

tongue   Zxon=det

'Zxon language'

(61)   a)zxoa=n

corn=det

'the corn'

b) zxoa=na'

corn=det

'the corn'

(62)   mbis   shish=en'

cat   white=det

'the white cat'

5.3.7   The directional clitic

The clitic =*le* is used to indicate direction towards a location. It is always phrase final. The following are examples of the directional clitic.

(63)   soalaga=le

soalaga=dir

'Towards Soalaga'

(64)   yaa   zxen=le

       mountain   big=dir

       'Towards the big mountain'

5.3.8   Overall NP order

NP word order is relatively straightforward. As already seen, numerals and

other quantifiers come before the noun and adjectives come after, as in the following.

(65)   to   sita'   zito' zxen

       one   country   distant large

       'A large, distant country'

(66)   yogo manzana ga'   zxen

       all   apple   green   big

       'All big, green apples'

(67)   xon libr nga

       three books demmed

       'These three books.'

(68)   xon libr exo'

       three books old

       'Three old books'

(69)   yogo libr nga

       all books demmed

       'All these books'

(70)   yogo libr   exo   nga

        all   books   old   demmed

        'All these old books'

The only combination that I have seen disallowed is when a demonstrative precedes

a numeral, as in the following.

(71)   * yogo xon libr

        all three books

        'all three books'

One reason I can point to for this at this point is that numerals, when taken by

themselves, already quantify the NP they modify and are often interpreted as being

the totality of the set as in the following.

(72)   taph   bi   chi=e'   nita'   ni'

        four   child   poss=3f   stat.be   demprox

        'All four of his children are here.'

The ordering for a maximal NP is therefore: Quantifier/Numeral Noun

Adjective Possessive Demonstrative/Determiner as seen in (73).

(73)   shone   be'ko' xo   chi=a'   ni'

        three   dog   old   of=1sg   demprox

        'these three old dogs of mine'

5.4 Declarative clauses

Before going on to discuss the various types of declarative clauses in SBZZ, it will be useful to discuss what the main grammatical relations in the language are. Subjects are those NP's which, in non-exceptional cases (cf. 6.4), immediately follow the verb and are semantically the agent, experiencer, or undergoer. Direct objects are the semantic patient/stimulus/addressee/causee in a transitive clause. Direct objects immediately follow the subject in non-exceptional clauses (cf. 6.4). Indirect objects are recipients, instruments, or former direct objects which have been demoted by a causative (cf. 6.1). Note that the strict VSO order found in most non-pragmatically marked transitive clauses is evidence for SBZZ being a nominative/accusative language. Grammatical relations will be discussed in greater detail in Chapter Eight.

5.4.1 Intransitive clauses

The most basic, non-pragmatically marked clause in Zoogocho Zapotec consists of an inflected verb with either a pronominal clitic or a full noun phrase as the subject following the verb, as in (74) and (75) below.

(74) dxi=a'

sit=1sg

'I sit.'

(75)   b-zxit   lalo

comp-jump   lalo

'Lalo jumped.'

5.4.2   Transitive clauses

In clauses which are not pragmatically marked, direct objects directly follow the subject as seen in (76) through (79) below.[9]

(76)   kate   b-edey-a   mansia   yish=en'

when   comp-ven-take   Amansia   grinding_stone=det

'When Amansia came to take the grinding stone...'

(77)   bi   gud-aw=a'   yet=en'   dao

neg   comp-eat=1sg   tortilla=det   corn_tassel

'I didn't eat tortillas made from corn tassels.'

(78)   n-chee=ba'   lheba'

stat-take=3an   3an

'It takes them.'

(79)   g-zxi=to=n

pot-buy=1plexcl=3inan

'We buy it.'

5.4.3   Ditransitive clauses

Simple indirect objects, such as the one in (80), which are not introduced by another morpheme, are found in non-derived ditransitive clauses. Note that the canonical order for ditransitive clauses is: V SU IO DO. The order of indirect object

and direct object is quite free when they are non-pronominalized as seen in (81) and (82). Also, if either the IO or DO is pronominalized, it will attach to the subject clitic, as in (83) and (84). I will discuss other indirect objects which are introduced by prepositions, verbal suffixes, or causatives in greater depth in the chapter on complex constructions.

(80) b-enh   bidao neda'   to   libr

      comp-give   child 1sg   one   book

      'The child gave me a book.'

(81) b-enezxghw=a'   to libr   to bidao

      comp-give=1sg   one book   one child

      ' I gave a book to a child.'

(82) b-enezxghw=a'   to bidao   to libr

      comp-give=1sg   one child   one book

      'I gave a child a book.'

(83) b-enh=a=be'   to libr

      comp-give=1sg=3inf   one book

      'I gave him a book

(84) b-enh=a=n   lalo

      comp-give=1sg=3inan   lalo

      'I gave it to Lalo.'

5.4.4   Negation

Negation of a clause is achieved by including a preverbal particle as seen in

(85).

(85)   bi   dx=aog   mbis   yet=en'

neg   cont=eat   cat   tortilla=det

'The cat is not eating the tortilla.'

(86)   bi   g-ak   y-id-e'

neg   pot-be pot-come-3f

'He cannot come.'

(87)   bi b-it=be'   neghe'

no comp-come=3inf   yesterday

'He didn't come yesterday.'

To negate a noun phrase, another negative word is oftentimes used in conjunction with the regular negative marker. The following two examples show the construction *bi...neto*. In Cheryl Black's dissertation, she claims that a similar form to *neto* in Quiegolani Zapotec is actually a verb (Black 1994). These may not be more of an emphatic negative than anything else.

(88)   bi   b-daow-a'   neto   yet

neg   comp-eat=1sg   neg   tortilla

'I ate no tortillas.' (I didn't eat even one tortilla.)

(89) bi   b-le'id-a'   neto   bis

      neg   comp-see=1sg   neg   cat

      'I saw no cat.'

Note that *neto* can be used on its own as in the following example.

(90) neto zha kana zha=a'   tiend=en'

      neg   day that cont.go=1sg   store=det

      'There isn't one day that I don't go to the store.'

The word, *nono* 'nobody', is used as in the following.

(91) nono   zoa'

      nobody   stand

      'There is no one here.'

In addition, the word *gag* can be used preceding a quantifier, thereby negating the quantifier.

(92) gag yogo benhe   dx-ak=de'   be'ko'

      not all   people   cont-like=3fexp   dog

      'Not everyone loves dogs.'

'Never', *bite'*, occurs before the verb.

(93) bite'   dx-ib=e'   ni'

      never   cont-come=3f   demprox

      'He never comes here.'

5.4.5 Adverbs

The adverbial suffixes have already been discussed in Chapter Four. The emphasis, now, will be on prosodically independent adverbs and their placement in the sentence.

5.4.5.1 Time

While temporal adverbs may potentially be placed between the verb and its non-pronominal subject as in (94) or between a verb and its object as in (95), they are often found in sentence final position as in (96), and in sentence initial position as in (97) and (98).

(94) dx-on   dezd   octubr   xoan   to   yoo

     cont-make   since[Sp.]   october   Juan   one   house

     'Juan's been building a house since October.'

(95) b-en=a'   neghe   to yoo

     comp-make=1sg   yesterday   one house

     'I built a house yesterday.'

(96) b-id   zxoan   gxe'?

     comp-come   Juan   tomorrow

     'Will Juan come tomorrow?'

(97) gxe'   ba   zan   zxoan

     tomorrow   already   stat.come .   Juan

     'Juan will come tomorrow.'

(98)   mil novecientos cuarenta   dx-on=a=n

1940   cont-make=1sg=3inan

'In 1940, I made it.'

5.4.5.2   Place

Locative adverbs are often found sentence finally as in (99).

(99)   na   chup=be'   sh-naa-te=be'   yaa   zxen=le

and   two=3inf   cont-look-emph=3inf   mountain   big=dir

'And the two of them are looking towards the big mountain.'

Locative adverbs can also occur sentence initially as in (100).

(100)   yaa   zxen=le   ze-naa=be

mountain   big=dir   pl.cont-look=3inf

'Towards the mountain they look.'

5.4.5.3   Manner

Many manner adverbs are adverbial clitics, but those that are not tend to be relatively free in their placement as seen in (101) through (104) below.

(101)   be-na'   dx-lonhgh=e'   sholazhe

clan=demdist   cont-run=3f   slowly

'That person runs slowly.'

(102)   sholazhe   dx-longh   be=na'

slowly   cont-run   clan=demdist

'That person runs slowly.'

(103) be=na' sholazhe dx-longh

clan=demdist slowly cont-run

'That person runs slowly.'

(104) dx-lonhgh be=na sholazhe

cont-run clan=demdist slowly

'That person runs slowly.'

The following example shows that manner adverbials are preferentially not placed between verb and subject.

(105) *dxlongh sholazhe bena'

Similarly, both manner adverbial and subject may not both be fronted.

(106) *sholazhe bena' dxlongh

5.4.5.4 Time/Manner/Place

When multiple adverbs co-occur, the preferred order seems to be as seen in (107).

(107) neghe dx-longh benhe bio bedaones dxeele

yesterday cont-run person masc quickly below

'Yesterday the man ran quickly down below.'

While (107) is acceptable to native speakers, it is preferable to break this up into two clauses, as in other expressions of destination, as in (108).

(108) neghe   dx-longh   benhe bio   bedaones,   zegh=e'

dxeele

yesterday   cont-run   person masc   quickly   stat.go=3f

below

'Yesterday the man ran quickly down below.'

In (108), bedaones could potentially belong to either clause. Further research is

necessary to determine which clause it actually belongs to. Also, while either the

locative or the manner adverb can be placed verb initially by themselves, only one

adverb may be fronted. Also, the temporal adverb *neghe* 'yesterday', can be placed

after the verb, but not with both the manner and place adverb as well.

(109) bedaones   dx-longh   benhe bio

quickly   cont-run   person masc

'The man runs quickly.'

(110) *bedaones neghe dx-longh benhe bio

(111) *dxeele neghe dxlongh benhe bio

(112) *bedoanes dxeele dxlongh benhe bio

(113) dx-longh   benhe bio   neghe

cont-run   person masc   yesterday

'The man ran yesterday.'

(114) * dx-longh benhe bio bedaones dxeele neghe

5.5 Pragmatic Fronting of Elements

5.5.1 Topicalization

Topicalization, which will be discussed and defined in 8.6, involves the dislocation of a noun phrase to the left of the verb, with a corresponding resumptive clitic or independent pronoun following the verb as seen in (115) below. Both subjects and objects, as seen in (116), may be topicalized.

(115) benhe g-onh=e' yete=n' na

   person pot-give=3f tortilla=det demdist

   'The people give food there.' (In a reference to a place where, in addition to the daily wage, people also feed their workers.)

(116) yet=en' dx-on=a=n

   tortilla=det cont-make=1sg=3inan

   'Tortillas, I make.'

Note that when a subject is a full noun phrase, an independent pronoun is used.

(117) bedo b-et   zxoan lhebe

   Pedro comp-hit Juan 3inf

   'Pedro, Juan hit him.'

5.5.2. Focus

Focus will also be discussed in greater detail in 8.6. The noun phrase that is focussed is also found in sentence initial position without a corresponding resumptive pronoun, as seen in (118) below. Once again, both subjects, and objects, such as in (119), can be focused.

(118)   primer   yag=en'   zoa

           first   tree=det   stat.stand

'The tree is what goes first.' (This sentence occurred in a text where one

speaker was asked to recreate a scene that another speaker was describing.

This was in response to 'where does the tree go?' The speaker was trying to

specify that the tree, as opposed to other potential referents, went in such and

such a place.)

(119)   pelot-en'   dxy-itghe-d=e'

           ball-det   cont-play-instr=3f

'She played with the ball.'

5.5.3   Fronting of non-core arguments

Other elements which are not core arguments can also be fronted, as in the

following example.

(120)   lenh   yaa wag   dx-ogo=a'   wage=n'

           with   iron firewood   cont-cut =1sg   firewood=det

'With an axe, I cut firewood.'

In these cases, the fronting serves to emphasize the element being fronted. I

will discuss fronting in greater detail in Chapter Eight.
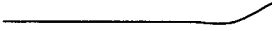
5.6   Interrogative sentences

5.6.1   Overall

Questions normally[10] involve a rising intonation, or the sentence final particle

ke for yes/no questions or a sentence initial interrogative for content questions. In the

case of content questions, much as is the case with relative clauses, as I will show in

the following chapter, there is no resumptive pronoun in the position questioned

unless it serves to disambiguate a potentially ambiguous VX structure. Also, many

question words like *no* 'who', and *bi* 'which' result in the pied-piping of the

argument that is being questioned resulting in gaps in the sentential structure. This

too will be taken up later in this section.

5.6.2   Yes/no questions

In example (121) below, shows the use of rising intonation in order to ask a

yes/no question.

(121) ⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯⎯

sh-tas	bidao'	chi=a'
cont-sleep	child	of=1sg

'Is my child sleeping?'

Example (122) seen below shows the use of the tag question formative, *ke*.

(122) na zghe-zhia=dxgwa   tushe   nahago=ba,   ke?

      and plur.stat-stand=emph   pointy   ear=3an,   right?

      'And their ears are very pointy, right?'

The semantic difference between these two expressions is that the basic yes/no question with *ke* seems to be more emphatically asking for an answer.

5.6.3   Content questions

5.6.3.1   *no*

In order to ask who did something one uses the word *no* which means 'who'. I have a few examples of *bi* the word which means 'what' being used to ask 'who' as well, but those other examples will be shown later in the present chapter. Arguments, which would otherwise have to be encoded post verbally, cannot be if they are the element which is being questioned unless they are redundantly present as a means of disambiguating the sentence. This will be discussed in greater detail at the end of this section.

(123) no   b-lee

      who   comp-arrive

      'Who came?'

(124) no   zoa   yoo

      who   stand   house

      'Who is at the house?'

(125) no   b-e-gan   yoo

who   comp-freq-remain   house

'Who remained at the house?'

(126) no zegh   tiend

who comp.go   store

'Who went to the store?'

(127) no   g-olghe

who   comp-be_born

'Who was born?'

The following show examples of questions with the direct object as the object of the question word. Note that there is no direct object following the verb.

(128) no b-le'i=do'

who comp-see=2sgexp

'Who did you see?'

(129) no b-dizxgh-o'

who comp-pay=2sg

'Who did you pay?'

The following example shows the use of *no* as something that would roughly translate to 'which' in English. Note that in this case the noun phrase *no benhe bio* 'which man' comes before the verb.

(130)　no　　　benhe　　　　bio　　b-le'i=do'

　　　　what　person　　　　masc.　comp-see=2sgexp

　　　　'Which man did you see?

The following examples show the use of *no* as 'whose'. Note the order *no xna'*, the opposite from what one would expect from a possessive construction in a non-interrogative environment, and the lack of an obligatory possessor on the normally obligatorily possessed NP.

(131)　no x-na　　　　　　zoa　　　Los Angeles

　　　　who poss-mother　　stand　Los Angeles

　　　　'Whose mother is in Los Angeles?'

(132)　no　　　kuzhe　b-le'i=do'=be'

　　　　who　　back　comp-see=2sgexp=3inf

　　　　'Behind whom did you see him?'

This example could equally well be translated, if awkward in English, as 'At whose back did you see him?'

Furthermore, in order to question an indirect object, *no* is used with the possessive marker *che=* as in the following example.

(133)　no　　　　　　chi=e'　　　　b-eselh=o=n

　　　　who　　　　　of-3f　　　　comp-send=2sg=3inan

　　　　'To whom did you send it?'

This is an example of the indirect object 'lowering', which I will discuss in the following chapter in section 6.3. Note the following corresponding declarative sentences.

(134) b-eselh=a=n   lalo

comp-send=1sg=3inan   lalo

'I sent it to Lalo.'

(135) b-eselh=a'   libr   che   lalo

comp-send=1sg   book   of   lalo

'I sent a book to Lalo.'

5.6.3.2   *bate'*

In order to ask 'when', one uses *bate'*. The following is an example of this.

(136) bate'   y-egh-o'   nis

when   pot-drink=2sg   water

'When are you going to drink water?'

5.6.3.3   *ga/gan*

The following examples use *ga/gan*[11] to ask 'where'.

(137) ga   b-le'i=de=ne'

where comp-see=3fexp=3fobj

'Where did he see him?'

(138) ga   b-le'i=de=nda'

where comp-see=3fexp=1sgobj

'Where did he see me?'

The basic locative question has two forms. The first form, which seems to be more common, is as follows.

(139) WHERE   **Positional**   Figure

Gan   dxi   be'ko'?

Where   sit   dog

'Where is the dog?'

The answer to this type of locative question generally presupposes the figure and position and therefore does not include the positional verb or the subject and consists solely of the relational noun and the ground.

(140) lhoo   yixe

in   grass

'In the grass'

An alternative form doesn't include the positional and is as follows.

(141) WHERE   Figure

gan   be'ko'

where   dog

'Where is the dog?'

The answer to this type of question is generally a fully formed construction which includes a positional verb.

(142) dxi=ba   lhoo   yixe

       stat.sit=3an   in   grass

       'It's sitting in the grass.'

For more on locative constructions, see 7.2.1.

5.6.3.4   *bal/bale*[12]

In order to ask 'how many', one uses the question word, *bale*'. Note that questions like 'How many trees are there?' require the subject to directly follow *bale*'. However, examples (144) and (147) below both show that if the entity is nonspecified, *bale*' is all that is necessary. Note however that these examples do appear to show the optional retention of a pronoun. I will come back to this point in chapter eight.

(143) bale' plum n-ak(=en)

       how_many pens stat-be(=3inan)

       'How many pens are there?'

(144) bale'   n-ak(=en)

       how_many   stat-be(=3inan)

       'How many are there?'

(145) bale'   bidao   n-ak(=be')

how_many   children   stat-be(=3inf)

'How many children are there?'

(146) bale'   yag=en   n-ak(=en)

how_many   trees=det   stat-be(=3inan)

'How many trees are there?'

(147) bale'   zak

How_many   stat.come

'How many are coming?'

(148) bal   dxioo   ba   gu-dag=dxo

how_many   1plincl   already   comp-eat=1plincl

'How many of us already ate?'

Bale' is related to the word for some, seen below.

(149) bale'   benhe bio   zghe-nita   zxwikwe'

some   person masc.   Plural-exist   poss-dog=3f

'Some men have dogs.'/ 'How many men have dogs?'

(149) is an ambiguous sentence, meaning either of the two glosses which I have given above.

Note that there are many examples such as (150) which do not include a resumptive pronoun.

(150)　bale'　　　　vaca　g-os-ede

　　　　how_many　　cows　comp-pl-passed

　　　　'How many cows have gone by?'

However, similar to that which will be seen later in this section and in 6.5.7, the

pronoun may be retained if it serves to disambiguate the clause. Thus, in (151), =e'

is retained, as without it, although a bit awkward, (152), in which the second person

is interpreted as the subject would be the result.

(151)　bale'　　　　benhe bio　　g-os-ot=e'　　　　le

　　　　how_many　　person masc　comp-pl-hit=3f　　2sg

　　　　'How many men hit you?'

(152)　bale'　　　　benhe bio　　g-os-ot le

　　　　how_many　　person masc　comp-pl-hit 2sg

　　　　'How many men did you hit?'

There are also examples such as (153) which show similar retention of a pronoun in

order to disambiguate the clause.

(153)　bale'　　　　bidao　　g-os-ot=be'　　　le

　　　　how_many　　children　comp-hit=3inf　　2sg

　　　　'How many children hit you?'

5.6.3.5 *kaka*

The following examples show the use of *kaka* to ask 'how much'. The difference between *bale'* and *kaka* is that one questions count nouns (*bale'*) and one questions mass nouns (*kaka*).

(154) kaka   nis   yozh   lhoo vaso

how_much   water is.inserted   in glass

'How much water is there in the glass?'

(155) kaka b-dizxgh=o'

how_much comp-pay=2sg

'How much did you pay?'

(156) kaka   tsaka=n   plum

how_much   cost=3inan   pen

'How much does the pen cost?'

5.6.3.6 *nake'*

The following are examples of *nake'* which is used to ask 'how'.

(157) nake' b-dizxgh=o'

how comp-pay=2sg

'How did you pay?'

(158) nake'   dx-igib-dx=o'   ladxe

how   cont-wash-int=2sg clothes

'How do you wash your clothes?'

(159) nake' b=lazho   taso=na'

how   comp-fall   cup=def

'How did the cup fall?'

5.6.3.7   *bicheen*

The following two examples are ways in which one can say 'why', using *bicheen*.

(160) bicheen   b-dizxgh=o'

why   comp-pay=2sg

'Why did you pay?'

(161) bicheen   b-dxogh=o'

why   comp-leave=2sg

'Why did you leave?'

5.6.8   *bi*

I have left potentially the most complicated set of data for last. The following section will describe how *bi* is used in a way that corresponds to 'what'. *bi* 'what' is segmentally the same as *bi* 'neg'.

(162) bi   b-zi=o'

what   comp-buy=2sg

'What did you buy?'

(163) bi   dx-aog=e'   zxoan

what   cont-eat=3f   Juan

'What is Juan eating?'

Example (164) shows that when an object is questioned using *bi* it is pied-pied to sentence initial position.

(164) bi   or=en'   zaa=o'

       what   hour=det   stat.leave=2sg

       'At what time do you leave?'

The following four examples show the potential confusion between *bi* meaning 'what' and the negative *bi*.

(165) bi   b-le'i=do'

       what   comp-see=2sgexp

       'What did you see?'/ "You didn't see.'

(166) bi   bi   b-le'i=do'

       what   neg   comp-see=2sgexp

       'What didn't you see?'

(167) bi   b-zi=o'

       what   comp-buy=2sg

       'What did you buy?'/ 'You didn't buy.'

(168) bi bi   b-zi=o'

       (what neg)   comp-buy=2sg

       'What didn't you buy?'

Examples like (169), (170), and (171) show that the correct analysis should be that the first *bi* is the one meaning 'what' and that the second *bi* is the negative. One can see from examples (169)-(171) that when an object is questioned, it follows the *bi*

meaning what. (171) is what crucially confirms this fact, as it does not have any

potential ambiguity with respect to a potential negative interpretation.

(169) bi   camion   dx-o'=o'

       what   bus   cont-take=2sg

       'Which bus do you take?'

(170) bi   camion   bi   dx-o'=o'

       what   bus   neg   cont-take=2sg

       'What bus do you not take?'

(171) bi   pelicula   bi   b-lei=do'

       what movie   neg   comp-see=2sgexp

       'What movie didn't you see?'

(172) through (174) provide additional confirmation of this.

(172) pelicula=na' bi   b-le'i=do'

       picture-det   no   comp-see=2sgexp

       'The picture, you didn't see it.'

(173) bi pelicula b-le'i=do'

       what movie comp-see-2sgexp

       'What movie did you see?'

(174) bi   libr   bi   b-zi=o'

       what book neg   comp-buy=2sg

       'What book didn't you buy?'

5.6.4   Interrogative clauses- a synopsis

As seen in (175) below, content questions can potentially be ambiguous. There are two potential interpretations, one in which Pedro is the subject and one in which Pedro is the object. Normally, the first NP (bedo) found after the verb is interpreted preferentially as the subject, the primary interpretation of the position of the gap is that of the object, and a pronoun can be optionally retained (as in (176)) in order to disambiguate the clause. However, as seen in (177), a resumptive pronoun can be included in the subject position to assert that Pedro is the object. The general nature of SBZZ as a verb initial language lends itself to potential ambiguities of this sort.

(175)   No gu-dap_bedo _?

Who pot-slap _ pedro _?

'Who will Pedro slap?'/ 'Who will slap Pedro?'

(176)   No   gu-dap=e'   bedo?

Who   pot-slap=3f   pedro

'Who will slap Pedro?'

(177)   No   gu-dap   bedo (lee)?

who   pot-slap   pedro 3f

'Who will Pedro slap?

Multiple wh-questions appear to be ruled out by the grammar, at least among the speakers whom I have asked and on the basis of the texts that I have analyzed.

5.7.   Zoogocho Zapotec and Greenberg's universals
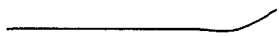
Mitla Zapotec[13] was one of the original languages in the sample which Greenberg used for his seminal paper, 'Some universals of grammar with particular reference to the order of meaningful elements' (Greenberg 1966). SBZZ, on the surface level of word order, corresponds exactly to his Type 1 of Appendix II, being VSO/Pr/NG/NA (ibid. 87). It also could very well stand in as a double for the exact variety exemplified in Appendix I: VSO with prepositions, Noun Adjective, Noun Demonstrative, and Numeral Noun. Having looked at basic ways in which SBZZ corresponds to the variety of Zapotec used in Greenberg's sample, I will now move on to look at some of the specific claims made in his collection of 'Universals'.

Universal 1 which states that '(I)n a declarative sentence with nominal subject and object, the dominant order is always one in which the subject precedes the object' (ibid. 61) is easily verified. Although OVS orders exist, they are, as will be seen later, pragmatically marked structures.

Universal 2 states that '(I)n languages with prepositions, the genitives almost always follow the governing noun, while in languages with postpositions it almost always precedes' (ibid. 62). This is also validated by the data seen above from Zoogocho Zapotec.

Universal 3 which states that 'languages with VSO order are always prepositional' (ibid. 62) is also verified by the data. Universals 4 ('With overwhelmingly greater than chance frequency, languages with normal SOV order are postpositional' (ibid. 62)) and 5 (' If a language has dominant SOV order and the

genitive follows the governing noun, then the adjective likewise follows the noun' (ibid. 62)) are both inapplicable given that SOV is neither the dominant nor normal order. However, SBZZ is also consistent with universal 6 which states that 'All languages with dominant VSO order have SVO as an alternative or as the only alternative basic order' (ibid. 63). Universal 7 ('If in a language with dominant SOV order, there is no alternative basic order, or only OSV as the alternative, then all adverbial modifiers of the verb likewise precede the verb' (ibid. 63)) does not apply to VSO languages such as SBZZ. Universal 8 is borne out. As seen in example (178), in a yes-no question which is not a tag question, the intonational patterns do seem to be 'reckoned from the end of the sentence rather than from the beginning' (ibid. 63).

(178) ⌐‾‾‾‾‾‾‾‾‾‾⟋

      zoa   yag yedx=en'?

      stand   tree pine=det

      'Is there a pine tree?'

Universal 9 which states that '(W)ith well more than chance frequency, when question particles or affixes are specified in position by reference to the sentence as a whole, if initial, such elements are found in prepositional languages, and, if final, in postpositional' (ibid. 64) is not verified by the data from Zoogocho Zapotec. This bears on Greenberg's statement that 'Zapotec (I/Pr) has either an initial particle alone or this same particle in conjunction with a final particle' (ibid. 64). Zoogocho Zapotec does not have an initial particle and the status of the final

particle, which indicates a tag question more than anything else, has been discussed in greater depth above.

(179) kuzh le   n-dxe=be',   ke?

        pig   focus   stat-carry=3inf,   really

        'He's carrying a pig, isn't he?'

Note the focus marker following pig. This focus marker is related to the base for the third person pronominal forms.

The fact that SBZZ, as a VSO language, only has sentence initial particles which precede the word they question and does not have question particles or affixes which follow the word they question confirms Universal 10 ('Question particles or affixes, when specified in position by reference to a particular word in the sentence. almost always follow that word. Such particles do not occur in languages in dominant order VSO' (ibid. 64)).

Given that the basic word order of SBZZ is verb-initial, Universal 11 which states that '(I)nversion of statement order so that the verb precedes subject only occurs in languages where the question word or phrase is normally initial. This same inversion occurs in yes-no questions only if it occurs in interrogative word questions.' (ibid. 65) is inapplicable.

Universal 12 is also definitely confirmed by the data from SBZZ. Universal 12 states that VSO languages have interrogative words in sentence initial position, as has been seen earlier in the current chapter (ibid. 65).

Universal 13, '(I)f a nominal object always precedes the verb, then verb forms subordinate to the main verb also precede it' (ibid. 66), is not applicable to the normally verb-initial Zoogocho Zapotec.

Universal 14, 'In conditional statements, the conditional clause precedes the conclusion as the normal order in all languages' (ibid. 66), finds no opposition in SBZZ as seen in example (180).

(180) **CONDITIONAL**   **CONCLUSION**

shi	dx-een=de,	dx-o-dxo	avante
if	cont-want-3fexp,	cont-get=1plincl	ahead

'If we want to, we can get ahead.'

Universal 15 which states that '(I)n expressions of volition and purpose, a subordinate verbal form always follows the main verb as the normal order except in those languages in which the nominal object always precedes the verb' (ibid. 66) is also verified as seen in the following example.

(181)	dx-eene=be'	y-id=be'	ni'
	cont-want=3inf	pot-come=3inf	demprox

'He wants to come here.'

Universal 16 which states that '(I)n languages with dominant order VSO, an inflected auxiliary always precedes the main verb' (ibid. 67) can be seen in the following example in which the auxiliary –ak= which is inflected for aspect precedes the main verb.

(182) bi g-ak y-id=e'

   neg pot-be pot-come=3f

   'He cannot come.'

See the discussion of auxiliary constructions in 6.5.4 for more details.

Universal 17 which can be stated '(I)f VSO then in all likelihood NA' is also valid for SBZZ as seen above. Universal 18 ('When the descriptive adjective precedes the noun, the demonstrative, and the numeral, with overwhelmingly more than chance frequency, does likewise' (ibid. 68)) does not apply given the postnominal nature of descriptive adjectives in SBZZ.

Universal 19, which states that 'when the general rule is that descriptive adjective follows, there may be a minority of adjectives which usually precede' (ibid. 68), is valid if one considers the following examples applicable.

(183) be zaan be'ko'

   clan many dog

   'many dogs'

(184) be'ko' be zaan

   dog clan many

   'many dogs'

Universal 20 '(W)hen any or all of the items-demonstrative, numeral, and descriptive adjective- precede the noun then they are always found in that order. If they follow, the order is either the same or its exact opposite' (ibid. 89) is verified for

the descriptive adjective and demonstrative, as the following example shows. With

only two items, this is really a moot point.

(185) Quantifier　　N　　DescAdj　　Dem

　　　　shone　　　libr　exo　　　　nga

　　　　three　　　books　old　　　　demmed

　　　　'these three old books'

Adverbs do not follow the adjective they modify but precede them, as seen in (186)

below, however 'the qualifying adjective follows the noun and verb precedes its

nominal object' (ibid. 69), which makes Universal 21 irrelevant to the current

discussion.

(186) leka　　fwert　n-ak　　kafe=n

　　　　much　strong　stat-be　coffee=det

　　　　'The coffee is very strong.'

SBZZ is prepositional and the order of comparison of superiority is adjective-

marker-standard, as one would expect from Universal 22 ('If in comparisons of

superiority, the only order or one of the alternative orders, is standard-marker-

adjective, then the language is postpositional. With overwhelmingly more than

chance frequency if the only order is adjective-marker-standard, the language is

prepositional' (ibid. 71)), and as seen in (187) below.

(187)   **adjective**   **marker   standard**

n-ak=dx   bdxee be lis   kleka'   be'ko'

stat-be=more   ant   clan small   comp   dog

'Ants are smaller than dogs.'

Universal 23 states that 'If in apposition the proper noun usually precedes the common noun, then the language is one in which the governing noun precedes its dependent genitive. With much greater than chance frequency, if the common noun usually precedes the proper noun, the dependent genitive precedes its governing noun' (ibid. 71). As already seen, the dependent genitive precedes its governing noun, but as seen in the following examples, the common noun precedes the proper noun, thereby verifying this claim as well.

(188)   yezx zxghozho

town zoogocho

'The town of Zoogocho'

(189)   yego estudiante

river student

'Guelatao river'

Universal 24 which talks of relative clauses preceding their head noun does not apply to SBZZ. Universal 25, which states that if the pronominal object follows the verb, so does the nominal object, also holds for SBZZ.

(190) y-egh=a'   nis

pot-drink=1sg water

'I will drink water'

(191) gu-nopa   lia   lank   neda'

pot-kiss   lady   angela water

'Doña Angela will kiss me.'

To sum up the previous section on syntax, SBZZ is, as will be shown in much more depth in Chapter Eight, a prototypical VSO language, and could have stood in for Mitla in Greenberg's original sample. While this is all very unsurprising, it is a good thing to be able to confirm. There have been over 35 years of work done on typology and on linguistic universals since Greenberg wrote the paper I have been discussing. There have been numerous refinements to this theory such as Hawkins (1983, 1994, 2001), Dryer (1992, 1996), etc. However, this is the initial starting point of modern typology and I am using it, along with other works, as one of the initial starting points of this typological descriptive grammar.

I will now briefly examine the claims which Greenberg made about morphology, continuing with the list of universals. Universal 26 ('If a language has discontinuous affixes, it always has either prefixing or suffixing or both' (ibid. 73)); this, discontinuous affixes (infixes and circumfixes), does not apply to Zoogocho Zapotec given the lack of discontinuous affixes.

Universal 27, '(I)f a language is exclusively suffixing, it is postpositional; if it is exclusively prefixing, it is prepositional' (ibid. 73), does not apply, as SBZZ is neither exclusively prefixing or suffixing. Nor do 'both the derivation and inflection follow the root or...both precede the root' (ibid. 73) making Universal 28 (' If both the derivation and inflectional follow the root, or they both precede the root, the derivation is always between the root and the inflection' (ibid. 73)) inapplicable. Universal 29 ('If a language has inflection, then it always has derivation' (ibid. 73)) is confirmed, as SBZZ has both inflection and derivation as seen in chapter four.

Universal 30, which claims that ' If the verb has categories of person-number or it has categories of gender, it always has tense-mode categories' (ibid. 73), is worthy of a very brief bit of discussion. SBZZ verbs do indeed have tense-mode categories, and a limited number category, but no real productive person or gender categories, as I have demonstrated in Chapter Four. Thus, given the lack of person or gender categories, I must conclude that SBZZ has little to contribute to discussions of this universal.

Universal 31 states that ' (I)f either the subject or object noun agrees with the verb in gender, then the adjective always agrees with the noun in gender' (ibid. 74). Given the fact that I have shown that there is no clear person or gender agreement between the noun and the verb, this universal is not applicable to Zoogocho Zapotec. Universal 32, '(W)henever the verb agrees with a nominal subject or nominal object in gender, it also agrees in number' (ibid. 74), similarly does not apply.

Universal 33 which states that 'when number agreement between the noun and verb is suspended and the rule is based on order, the case is always one in which the verb precedes and the verb is in the singular' (ibid. 74) is inapplicable, as the rule is never based on order. Examples like (192)-(195) below show that order is not relevant and thus the universal is not applicable to SBZZ.

(192) chupe blozh=dao   nkwaa=ba   ni

two   frogs=dao   stat.be_stacked_up=3an   demprox

'Two little frogs are stacked up there.'

Similarly, one can see the following.

(193) chupe blozh=dao   zghe-nkwaa=ba   ni

two   frogs=dim   stat.pl.be_stacked_up =3an   demprox

'Two little frogs are stacked up there.'

(194) na   zghe-nkwaa   pur   blozh=dao

demdist   stat.pl.be_stacked_up   only   frog=dim

'There's only little frogs in there'

(195) nkwaa   chupe blozh=dao   ni

stat.be_stacked_up   two   frog=dim   demprox

'There's two little frogs here.'

SBZZ has neither a morphological dual nor a trial, so Universal 34. '(N)o language has a trial number unless it has a dual. No language has a dual unless it has a plural' (ibid. 74), does not apply. Universal 35, '(T)here is no language in which the plural does not have some non-zero allomorphs, whereas there are languages in

which the singular is expressed only by zero' (ibid. 74) is valid-there are some non-zero allomorphs of the plural(at least with respect to verbal morphology), and the singular is expressed only by zero.

Universal 36, '(I)f a language has the category of gender it always has the category of number' (ibid. 74), is also not relevant given that SBZZ does not have the category of gender. Universal 37, '(A) language never has more gender categories in non-singular numbers than in the singular' (ibid.75), is valid as there are not more gender categories in non-singular numbers than in the singular.

Universal 38, which states that '(W)here there is a case system, the only case which ever has only zero allomorphs is the one which includes among its meanings that of the subject of the intransitive verb' (ibid. 75) is marginally relevant, especially given the dubious nature of the case system of Zoogocho Zapotec: as has been seen in the discussion of the pronominal system, the only case which is marked is that for pronominal objects, and the only one which is clearly marked (as opposed to being a fast speech phenomenon) is that of the third person formal pronominal object clitic. Universal 39, '(W)here morphemes of both number and case are present and both follow or both precede the noun base the expression of number almost always comes between the noun base and the expression of case' (ibid. 75), is not applicable, as the noun is not inflected. Similarly, Universal 40, '(W)hen the adjective follows the noun, the adjective expresses all the inflectional categories of the noun. In such cases the noun may lack overt expression of one or all of these categories' (ibid. 75), is not applicable.

Being a verb initial language, ZZ has nothing to contribute to Universal 41 which states that, '(I)f in a language the verb follows both the nominal subject and the nominal object as the dominant order, the language almost always has a case system' (ibid. 75). Universal 42, '(A)ll languages have pronominal categories involving at least three persons and two numbers' (ibid. 75), is definitely true, given that there are more than three persons and exactly two numbers included in the pronominal categories of SBZZ. There are no gender categories in then Zoogocho Zapotec noun, making Universal 43('(If) a language has gender categories in the noun, it has gender categories in the pronoun' (ibid. 75)) inapplicable. Universal 44, '(I)f a language has gender distinctions in the first person, it always has gender distinctions in the second or third person, or in both' (ibid. 76), is similarly inapplicable, as there are no gender distinctions made in the first or second person. Finally, there are gender differences in the plural of the pronoun and in the singular, thereby verifying Universal 45 which states that '(I)f there are any gender distinctions in the plural of the pronoun, there are also some gender distinctions in the singular also' (ibid. 76).

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[1] See Chapter Eight for a fuller discussion of these facts.

[2] *ye* 'some' is a morpheme which either occurs on its own, as in (24) or occurs with a numeral, as in *yeto* in (23). It has been mentioned to me (Rosemary Beam de Azcona p.c.) that this might be related to the potential marker *ye*.

[3] Note that both the suppletive form and the preposition can cooccur when the noun is further modified by an

adjective, as in	lizh	golh	chi=a'
	poss.house	old	of=1sg
	'My old house'.		

One could also express this as in the following:

	lizh=a'		da	golh
	poss.house =1sg		clinan	old
	'My old house.'			

[4] Speakers do not offer these forms without a possessor. In questions, the question word stands as a preposed possessor. There are a few words such as *xsil* 'breakfast' which could potential come from a form like

> x-zil
> poss-morning
> 'breakfast (of the morning)'. Note that this form is almost always used with the verb 'to eat'.

[5] This use will be described in slightly greater depth in chapter seven.

[6] When transcribing and translating the text, Alberta and I broke up each text into individual lines based on the intonation patterns of the speaker whose text we were transcribing. These could be made up of one sentence, one noun phrase, interjection, etc.

[7] While it may appear that the word *xna=* includes the possessive prefix *x-* it is not the case. *Xna* never occurs on its own, and the vocative form for 'mother' is *ma*. Note that the word *nowe* is used as the vocative form for grandmother, and is potentially related.

[8] Note that for words which end with a labialized consonant, such as *conejw* 'rabbit [Sp.]', the addition of a determiner, causes the form to change to *conejo=n* 'the rabbit', evidencing partially the nature of labialization.

[9] There are constructions where the object can precede the subject, but these are pragmatically marked and will be discussed below, for the case of topic and focus constructions and in the following chapter, for the case of the reflexive of possessor construction.

[10] Recall from the previous chapter (4.3.3) that an obsolete morphological is used by some older speakers, although it is not currently used by the majority of speakers

[11] At this point, I can come up with no reasons for the different forms. This issue will require further research.

[12] I can see no reason for the difference between these two forms at the present time. More research is needed.

[13] This was not listed in Greenberg's paper, but always referred to as 'Zapotec' (Hawkins p.c. 1998).

Chapter Six: Complex Constructions

6.1   **Causatives**

There are two causative constructions in Zoogocho Zapotec: a morphological construction which involves affixes or a change to the verb root (described in 4.3.9) and a syntactic construction which involves the root –*Vn* 'to make'.

6.1.1   **Morphological causative**

As has already been discussed in 4.3.9, a morphological causative is marked by a change from lenis to fortis in the verb root, the addition of –*os*- or –*s*- or –*z*- or another consonantal or vocalic change. The net effect of this is that a formerly intransitive or transitive verb becomes, respectively, transitive or ditransitive, as seen in the following examples. This can apply to verbs with experiencer subjects as well as seen in (3) and (4).

(1)   gu-zizh   campan

          comp-ring   bell

          'The bell rang.'

(2)   b-sizh=a'   campan

          comp-caus.ring=1sg   bell

          'I rang the bell.'

(3)   b-le'i=da'   to   yag   yelha

          comp-see=1sgexp   one   tree   banana

          'I saw a banana tree.'

(4) b-lhe'i=da=ne'   to   yag   yelha

     comp-caus.see=1sgexp=3fo   one   tree banana

     'I showed him a banana tree.'

Inanimate subjects can also be causers, as seen in (5) and (6).

(5) dx-zxiz-edx-gw=a'

     cont-shake-much-int=1sg

     'I shiver a lot.'

(6) leka   ch-xiz   da   zague   neda

     much   cont-cause.shake   clinan   cold   1sg

     'The cold makes me shiver a lot.'

6.1.2   Syntactic causative

The syntactic causative is based on a structure like (7), with the verb *ben* 'to

make or do' directly followed by the causer, sometimes followed by the word *ga* 'so

that', followed by the second verb and then followed by the causee and optionally

another object. In the following schema, *ga* is optional, as is the object. Subj1 refers

to the causer and subj2 refers to the causee.

(7) cause subj1 (ga) verb subj2 (obj)

(8) b-en=a'   ga   b-sizh   bidao   campan

     comp-make=1sg   so_that   comp-caus.ring   child   bell

     ' I made the child ring the bell.'

(9) b-en=e'   b-lab   bidao to libr

comp-make=3f   comp-read   child one book

'He made the child read a book.'

There seem to be no restrictions on what verbs can occur in this construction, not even potential blocking by the morphological causative.

6.1.3   Differences between the two constructions

These two constructions differ basically in how direct the causation is. As is common crosslinguistically (cf. Haiman 1985), the morphological causative indicates that the causer had a direct role in the main event. Conversely, the syntactic causative generally indicates that the causer caused someone else to perform the action or made the situation such that the action could come to pass. Note that the causee can be implied.

(10) b-en=a'   ga   gu-zizh   campan

comp-make=1sg   so_that   comp-ring   bell

' I made it so that the bell rang.' (I got someone else to do it or set it up such that the bell rang. I did not directly ring the bell.) (Compare with (2) above.)

(11) b-en=a'   ga   b-e-yegh   Jose

comp-make=1sg   so_that   comp-rep-go jose

'I made Jose leave.'

6.2   Instrumentals and comitatives

Once again, there are both syntactic and morphological strategies which increase the valency of a verb, introducing an instrumental noun phrase. Both of these strategies are productive. The morphological form includes the use of a suffix $d=$ and has a pure instrumental reading. Example (12) below exemplifies the use of $d=$. See 3.4 for a more in-depth discussion of its morphological characteristics.

(12)   benda' lizha' martiyw

b-en-d=a'	lizh=a'	martiyw
comp-make-instr=1sg	poss.house=1sg	hammer

'I made my house with a hammer.'

The comitative/instrumental involves the use of *lenh* 'with' as in (13). *lenh* is also used to conjoin NP's as in (14) below.

(13)   dx-aw=a'   lenh sede

cont-eat=1sg with salt

'I eat with salt.'

(14)   dx-een=da'   yinha' lenh sede

    cont-want=1sgexp   chile   with   salt

'I want chile with salt'

(15)   b-le'i=da'   lia lank   lenh lia bert

    comp-see=1sgexp   doña angela   with doña alberta

'I saw Doña Angela and Doña Alberta'

In general, the semantic difference between these two is as seen in the following.

(16) dx-awa-d=a'   naa'

      cont-eat-instr=1sg   hand

      'I am eating with my hand.

(17) dx-awa=a'   lenh   naa'

      cont-eat=1sg   with   hand

      'I eat with my hands.'

(18)a) dx-awa=a'   lenh plat

        cont-eat =1sg   with plate

        'I am using a plate to eat.'

   b) *dxawada' plat

   c) *dxawada' to plat (putting the plate in the mouth, not normally done with a

plate)

The difference between the two constructions is that the morphological

instrumental implies a much closer use of an object, either in terms of physical

proximity or in terms of amount of usage.

Furthermore, in other contexts, the instrumental marker –d- implies direct use

as opposed to the comitative meaning of *lenh*.

(19) dx-aw=a'   lenh   bi   chi=a'

      cont-eat=1sg   with   child   of=1sg

      ' I am eating with my child.'

(20)   dx-awgo-d=a'   bi   chi=a'

cont-eat-instr=1sg   child   of-1sg

'I am using my child in order to eat.' (For example, if one's child was

working and one was eating the fruits of their labor, one would use this

form.)

6.3   IO 'lowering' and benefactive constructions

6.3.1   IO 'lowering'

As described in Croft (1985), '(i)ndirect object 'lowering' is the realization of

a recipient or a benefactive argument as the possessor of the direct object NP' (ibid.

41). It is debatable if indirect object 'lowering' constructions in Zoogocho Zapotec

should be considered the same as beneficiary constructions as will be discussed

below. The following are examples of indirect object lowering.

(22)   b-enh=a=le'   to libr

comp-give=1sg=2sgfsf   one book

'I gave you a book.' (But not necessarily permanently.)

(22)   b-enh=a'   to libr   chi=o'

comp-give=1sg   one book   of=2sg

'I gave a book to you.' (Permanent transfer.)

Note that in example (22), the transfer is not necessarily permanent, but in

(23), with indirect object lowering, the transfer is permanent. Beneficiaries are also

marked as the possessor of the direct object in SBZZ, but do not have a

corresponding form including the beneficiary as a core argument as seen in the following section.

6.3.2 The basic expression of beneficiaries

There are two basic ways in which to express a beneficiary in Zoogocho Zapotec: the use of *par* 'for (from Sp. *para* 'for')' (as in (23)) which gives an unambiguous beneficiary reading and the use of a possessive construction, as in (24). It is the use of the possessive construction to express beneficiaries (as in (24)) with which we will be primarily concerned.

(23) Bchexoa' to yet par le'.

b-chexo=a'	to	yet	par	le'
comp-toast=1sg	one	tortilla	for	2sg

' I toasted a tortilla for you.'

(24) Bchexoa' chizxghwo'.

b-chexo=a'	chizxghw=o'
comp-toast=1sg	poss.tortilla=2sg

' I toasted a tortilla/tortillas for you.' / 'I toasted your tortilla.'

Trying to differentiate between these two constructions is not easy, a potential clue is seen in the contrast between (25) and (26).

(25)   Bia' to zhome chio'

     b-i=a'   to   zhome che=o'

     comp-carry=1sg   one   basket of=2sg

     ' I carried a basket for you.' (As though I went over to your house and carried

a basket for you, perhaps glossed best as 'I carried your basket for you.')

(26)   Bia' to zhome par le'

     b-i=a   to   zhome   par   le'

     comp-carry=1sg   one   basket for   2sg

     ' I carried a basket for you.' (As though I carried and brought it for you from

Oaxaca City for you, perhaps 'I carried a basket for you.')

Note that example (27) below shows the effects of oversaturation of the argument structure of the verb. *-chexo=*, 'to toast', is a verb which normally takes two core arguments, the subject (a semantic agent, the toaster) and the object(a semantic patient, the object which is being toasted). Through the use of either of the prepositions *par* or *che=* or through an inherently or inalienably possessed NP, an additional NP, the beneficiary, can be added to the clause. However, it cannot be included as a pronominal clitic on the verb, as the default interpretation will be that the object clitic will be interpreted as the patient and not as the beneficiary. Thus, sentences like (27) are judged to be unacceptable (on both semantic and syntactic grounds).

(27)   *Bchexoale' chizxghwo'.

    b-chexo=a'=le'   chizxghw=o'

    comp-toast=1sg=2sgo   poss.tortilla=2sg

    (Too many arguments, would mean ' I toasted you.' without the object NP.)

    However, as we will see in the next section, there is a potential for ambiguity

with verbs which can take three core arguments.

6.3.3   Beneficiaries or recipients?

    For some verbs such as -zogh 'to write', there is a potential ambiguity as to

whether the non-agentive animate argument is a benefactive or a recipient. Consider

the following three examples. In example (28), the second person object pronoun is

clearly a recipient. There is no way of interpreting it as a beneficiary.

(28)   Bzoghale' to kart.

    b-zogh=a'=le'   to   kart.

    comp-write=1sg=2sgo   one   letter

    'I wrote you a letter.'

Conversely, in (29), the second person is interpreted as a beneficiary and cannot be a

recipient.

(29) Bzogha' to kart chio'.

b-zogh=a'   to   kart   che=o'

comp-write=1sg   one   letter   of=2sg

'I wrote a letter for you.' (Literally, 'I wrote your letter.' As though you can't

write, and I'm doing you a favor. Can be followed with another clause like .

'which you sent to the municipal authorities'.)

However, in (30) the second person, which is marked both as an argument on

the verb and as the possessor of the letter must be interpreted as a recipient. One

could not follow it with another clause like 'which you sent to the municipal

authorities.'

(30) Bzoghale' to kart chio'

b-zogh=a=le'   to   kart   che=o'

comp-write=1sg=2sgo   one   letter   of=2sg

'I wrote you a letter.'

In the following section, a further explanation of the potential difficulties in

differentiation between recipients and benefactives will be developed.

6.3.4   What is whose?

The following sentence is ambiguous.

(31)   Gde Zxoan to tas kafe chia'

g-de	Zxoan	to	tas	kafe	che-a'
comp-pour	John	one	cup	coffee	of-1sg

' John poured a cup of coffee for me.'

The coffee could potentially be mine and John just poured it for me, or, in what is considered a more natural reading, it is John's and he is giving me a cup of coffee. In order to specify that it is indeed my coffee first, one must use a definite construction as in the following.

(32)   Gde Zxoan to tas kafe chian'

g-de	Zxoan	to	tas	kafe	che=a'=n'
comp-pour	John	one	cup	coffee	of-1sg=det

'Juan poured me a cup of my coffee.'/'John poured a cup of my coffee' (He could have then potentially given it to someone else.)

This may somehow be analogous to the difference between the following English examples.

(33)   John poured me a cup of coffee.

(34)   John poured a cup of my coffee.

The use of the definite marker can make for some interesting constructions like (35) which clearly show the benefactive use of the *che=* construction.

(35) Gde Zxoan to tas kafe chian' chio'

g-de	zxoan	to	tas	kafe	che=a'=n'	che=o'
comp-pour	John	one	cup	coffee	of=1sg=det	of=2sg

'John poured a cup of my coffee for you.'

One could also have an example like (36), in which the first person is made definite as above, this is however viewed as being a bit odd by native speakers .

(36) Gde Zxoan to tas kafe chian' chia'

g-de	zxoan	to	tas	kafe	che=a'=n'	che=a'
comp-pour	John	one	cup	coffee	of=1sg=det	of=1sg

'John poured a cup of my coffee for me.'

Of course, (37) would be a more natural way of expressing this.

(37) Gde Zxoan to tas kafe chian' par neda

g-de	zxoan	to	tas	kafe	che=a'=n'	par neda
comp-pour	John	one	cup	coffee	of=1sg=det	for 1sg

'John poured a cup of my coffee for me.'

Note that (35) can also be expressed as in (38).

(38) Gde Zxoan to tas kafe chian' par le'

g-de	zxoan	to	tas	kafe	che=a'=n'	par	le'
comp-pour	John	one	cup	coffee	of=1sg=det	for	2sg

'John poured a cup of my coffee for you.'

Also, note that the use of the determiner to differentiate between potential possessors is seen outside of beneficiary constructions as in the following examples.

(39)   Gzxia' to libr chio'

g-zxi=a'   to   libr   che=o'

comp-buy-1sg one   book   of-2sg

'I bought a book for you.'/'I bought one of your books.'

Note that both of the potential readings of (39) could be interpreted as being beneficial to the person whose book was bought. (In one case, the person will be the recipient and in the other case the person will profit from it.) In order to specify that it was not bought with the intention of giving it to the person one uses a construction like (40). The use of the definite marker here, as above, specifies that the book was the second person's possession before the first person purchased it.

(40)   Gzxia' to libr chion'

g-zxi=a   to   libr   che=o'=n'

comp-buy   one   book   of=2sg=det

' I bought one of your books.'

One can also use the Spanish loan word *par* 'for', in order to specify that the book was bought and intended to be given to someone as in (41).

(41) Gzxia' to libr par le'

g-zxi=a   to   libr   par le'

comp-buy   one   book   for 2sg

' I bought a book for you.'

6.4   The reflexive-of-possessor construction

6.4.1   Introduction

In Zoogocho Zapotec a construction, first described by Inez Butler for

Yatzachi Zapotec (Butler 1976) and since described by Cheryl Black (Black 1995,

1996), exists which appears to violate binding theory. I will follow Butler in

referring to this construction as the 'reflexive of possessive'. In this construction, as

seen below in (42), a subject may be omitted if it is coreferential with the possessor

of the object.

(42)   b-en   lizh=a'

comp-make   poss.house=1sg

'I built my house.'

Reflexives and reciprocals are formed using the terms *kwin*+ 'self' and

lghezh+ 'each other' as possessed nouns in this construction .

(43)   sh-naa   kwin=a'

cont-wash   self=1sg

'I washed myself.'

(44)   sh-naa   lghezh=dxo

         cont-wash   fellowof=1plincl

         'We washed each other.'

The reason why this construction is puzzling to Zapotecanists is that

Zoogocho Zapotec (and other languages which take part in this construction[1]), as

with most if not all Zapotecan languages, is a staunchly VSO verb initial language,

as seen in the previous chapter, and does not allow apparent VOS constructions in

any other environment. As a result of this, it may be necessary to posit a null element

in the subject position as in (45) or (46) below, this null element would, however, be

restricted to this construction. Outside of this construction, Zoogocho Zapotec is not

a language which readily allows for null structural arguments.

(45)   b-en=pro   lizh=be'

        comp-make=nullpro   house.poss=3f

        'She made her house.'

(46)   b-en=pro   lizh   Lalo

        comp-make=nullpro   poss.house   Lalo

        'Lalo made his house.'

Furthermore, in terms of both linear precedence and the structure of the

clause, the position of the anaphor in a superior position to its antecedent would

appear to violate binding condition A. I will examine the binding conditions in more

depth in the following section.

6.4.2   Binding conditions

In this section, I will largely follow the exposition of Black (1996). The

familiar binding conditions are restated below (Haegeman 1991: 216).

A.   An anaphor(e.g. reflexive or reciprocal element) must be bound in its

governing category.

B.   A pronoun must be free in its governing category

C.   r-expressions(names) are free.

These conditions were largely devised in order to account for the following

core types of data (based on Black (1996), example (11) pg. 77).

(47)   John$_i$ slapped himself$_i$.

(48)   *Himself$_i$ slapped John$_i$.

(49)   John$_i$ slapped him $_{j/*i}$.

(50)   John $_i$ slapped John$_{j/*i}$.

(51)   He$_{j/*i}$ slapped John$_i$.

Principle A would account for the ungrammaticality of (48) given the unbound

anaphors, B for the ungrammaticality of the coreferential version of (49) given the

bound pronoun, and C for the lack of potential coreferential readings in (50) and (51)

given the impossibility of the binding of r-expressions.

Before looking at the actual Zoogocho Zapotec examples, it might be useful

to investigate what the core examples used to corroborate the Binding Theory in

English would be like if reordered to mimic the strict VSO syntax which the majority

of Zoogocho Zapotec clauses conform to.

(52) Slapped John$_i$ himself$_i$.

(53) *Slapped himself$_i$ John$_i$.

(54) Slapped John$_i$ him $_{j/*i}$.

(55) Slapped John $_i$ John$_{j/*i}$.

(56) Slapped he$_{j/*i}$ John$_i$.

With the exception of (59), Zoogocho Zapotec behaves exactly as we would expect it to with respect to these judgements.

(57) gud-ap   Ron$_i$ kwin=be$_i$'

      comp-slap   Aaron self=3sgf

      'Aaron$_i$ slapped himself$_i$.'(Emphatic reading)

(58) *gud-ap   kwin+be$_i$ Ron$_{i/j}$

      comp-slap   self+3sgf   Aaron

(59) gud-ap   kwin   Ron

      comp-slap   self   Aaron.

      'Aaron slapped himself.'

(60) gud-ap   Ron$_i$ lhebe$_{j/*i}$

      comp-slap   Aaron   him

      'Aaron$_i$ slapped him$_{j/*i}$.'

(61) gud-ap   Ron$_i$ Ron$_{j/*i}$.

      comp-slap   Aaron$_i$ Aaron$_{j/*i}$

      'Aaron$_i$ slapped Aaron$_{j/*i}$.'

(62)   gud-ap   lhebe$_j$ Ron$_{i/*j}$

comp-slap   him$_j$ Ron$_{i/*j}$

'He slapped Aaron.'

As we can see, except for (59) above, ZZ neatly conforms to the predictions which one might make for a strict VSO language. We might want to consider (59) to have a structure as in (63) below.

(63)   gud-ap   0$_i$ kuin Ron$_i$

comp-slap   0$_i$ self   Aaron$_i$

'Aaron slapped himself.'

However, I do not want to analyze this construction as being one which involves pro-drop, as it would be very anomalous with the rest of the grammar of Zoogocho Zapotec. I will not go into GB internal theoretical depth here. However, it seems that one could appeal to reconstruction effects, movement, or even backwards binding as proposed by Black (1996) to explain this data within the GB theoretical framework. Even though I have a great deal of data on this construction, the discussion of these data is outside of the scope of the current chapter. I will return briefly to this construction in Chapter Eight.

6.5   Constructions with multiple verbs

6.5.1   Introduction

In the following sections, I will discuss various constructions which all involve multiple verbs which show varying degrees of integration. The following

cline (adapted from Thomas Payne (1997)), shows the range of possibilities in

human languages.

High degree of grammatical integration

One clause

Serial verbs

Complement clauses

Adverbial clauses

Clause chains

Relative clauses

Coordination

Two separate clauses

No grammatical integration (ibid. 307)

In terms of what will be shown in the following sections, the following cline is more appropriate for Zoogocho Zapotec.

One clause

Infinitival constructions

Auxiliary constructions

Complement clauses

Argument sharing

Relative clauses

Coordination

Separate clauses

6.5.2   Infinitival constructions

The following construction is one in which a verb with an aspect marker and a pronominal enclitic is followed by an infinitive. An infinitive is a verb with special aspectual marking, as discussed in 4.3.8. An infinitival verb form is not required to have an overt subject in subject position. The subject of both verbs is the same, and only one of the verbs can be negated. While I am not aware of any particular restrictions on which verbs can be used, the verb *zegh* 'to go' seems to show up quite often in this construction. Examples of this construction follow.

(64) zegh=be'   g-os   zaha

comp.go=3inf   inf-plant   bean

'S/he went to plant beans.' (But might not have made it there, this would be

an answer to a question such as 'Where did s/he go?')

Note that only the main verb can be negated, as in the following.

(65) bi   zegh=be'   g-os   zaha

neg   comp.go=3inf   inf-plant   bean

'She didn't go to plant beans.'

Examples like the following are viewed as being ungrammatical.

(66) *zegh=be'   bi   g-os   zaha

comp.go=3inf   neg   inf-plant   bean

'She didn't go to plant beans.'

(67) zhaa-dxo   no   w-e-shib   kafe

stat.say=1plincl   indef   inf-freq-cut   coffee

'We're saying we cut/harvested coffee.'

6.5.3   Verbs borrowed from Spanish

There are also the following examples which show how Spanish loan-verbs

are incorporated into SBZZ.

(68)   dx-on=e'   pensar

        cont-make=3f   pensar

        'He thinks.'

(69)   dx-on=e'   to   pensar

        cont-make=3f   one   pensar

        'She thinks. She has a thought.'

(70)   *dx-on=e'   chupe pensar

        cont-do=3f   two   pensar

        'He thinks. He has two thoughts.'

So far, based on the possible quantification of the Spanish verb, it looks like the Spanish verb has possibly been borrowed as a noun as opposed to being borrowed as a verb. See the following similar examples.

(71)   dx-on=e'   **to** shinh

        cont-do=3f   **one** work

        'He has a job.'

(72)   dx-on=e'   **chupe** shinh

        cont-do=3f   **two**   work

        'She has two jobs.'

(73)   dx-on=e'   shinh

        cont-do=3f   work

        'He works.'

6.5.4   Auxiliary constructions

I will call constructions that consist of two verbs with aspectual prefixes, the first of which has no subject and the second of which has a subject, auxiliary constructions. The verbs which make up the first element of this construction are a restricted set of verbs some of which might be considered to be modals in languages such as English or Dutch, having meanings such as 'can', and 'should' and others which are not such as 'begin', or 'finish'. These verbs can take a full range of primary aspect markers, but typically do not have the requirement that verbs have a subject, even when used by themselves, as seen in (74) below. They can potentially co-occur with subjects as seen in (75) below.

(74)   na   kate   gu-zoalao

           and   when   comp-begin

           'and when it began'

(75)   gu-zoalao=a'

           comp-begin=1sg

           'I started ... '

Normally, auxiliary verbs are used with other verbs with more specific meanings. In this case they do not usually cooccur with a subject noun phrase, when they do it is always of the same person as the main verb. However, they do not necessarily agree with the main verb in terms of aspect.

(76) na'   **y-eyozh**   **g-onh=dxo**   da=na'

and   pot-finish   pot-make=1plincl   clinan=demdist

'Now that we have finished making this...'

(77) na'   kate   **gu-zoalao**   **dx-a=a'**

and   when comp-begin   cont-go=1sg

'And when I began to go.'

(78) per   yogo benhe benh dx-ake   **dx-ak dx-on=o'**   **rmed**

but   all   people genan cont-be_sick cont-be cont-make=2sg remedy

'But you can cure everyone who is sick?'

(79) **dx-eyala**   **si-i=e'**   shon   gayoa

cont-should pot.grab=3f   three hundred

'She should grab three hundred.'

Normally, only one of the verbs, the auxiliary, is negated. However, as seen below in (81) the main verb can also be the one which is negated. This does have slightly different semantics, as seen in the gloss.

(80) bi   **dx-ak**   **gu-ta=a=n**

neg   cont-be   pot-play=1sg=3inan

'I cannot play it (a musical instrument).'

(81) **dx-ak**   bi   **gu-ta=a=n**

cont-be   neg   pot-play=1sg=3inan

'I alone cannot play it (a musical instrument).'

Both auxiliary and main verb can be individually negated at the same time, as in

(82). This seems to give an emphatic negative.

(82)   bi   **dx-ak**   bi   **gu-ta=a=n**

     neg   cont-be   neg   pot-play=1sg=3inan

     'There is really no way can I play it (a musical instrument).'

In the textual study I completed for Chapter Eight, there were some examples of

auxiliaries appearing with apparently no subject whatsoever, as in the following, as

already seen above in (74).

(83)   ka   bi   g-ak

     demadv   neg   pot-be

     'It's not going to be possible.'

This is a most unusual construction, and one which deserves further research.

6.5.5   Complementation

In this section, I will discuss complementation. Complement clauses in

Zoogocho Zapotec are fully inflected for tense and have the normal argument

structure requirements. The majority of verbs which have complement clauses as

arguments can also have full NP's satisfying the verb's argument structure

requirements. Compare the following.

(84)   dx-een=da'   to   dulc

     cont-want=1sgexp   one   candy

     'I want a candy.'

(85) dx-eene=be'   y-egh=be'   kuan   wizh=en

na'

cont-want=3inf   pot-drink=3inf   herb   'thepill'=det

demdist

'She wanted to take the contraceptive herb there.'

(86) dx-eene=be'   zegh=be'

cont-want=3inf   cont.go=3inf

'He wants to go.'

The majority of complement clauses have the same subject as the main clause as seen above. There are cases, however, in which the subject of the complement clause differs from that of the main clause. Many such clauses show little difference from normal, verb-initial clauses as in the following.

(87) dx-bez=a'   g-aow bidao yet

cont-hope=1sg   pot-eat child tortilla

'I hope the kid eats the tortilla.'

(88) dx-bez=a'   bi   g-ak yegho

cont-hope=1sg   neg   pot-be rain

'I hope it doesn't rain.'

Notice the topicalized example seen below.

(89)   Maria n-dxeen=da'   go-yeb-e'   zaha

Maria stat-want=1sgexp   pot-cook=3f   beans

'I want Maria to cook beans.'

The subject of the complement clause can also be raised, although a resumptive pronoun remains in the complement clause. This raising is optional for most verbs, as seen below.

(90)   dx-eene   pan$_i$ g-ab   lia lank$_j$ to yel

cont-want   Panfila   pot-weave   Doña Anglea one shawl

chi=e'$_i$

of=3f

'Panfila wants Dona Angela to weave her a shawl'

(91)   dx-eene   pan$_i$ lia lank$_j$ g-ab=e'$_j$

cont-want   Panfila   Doña Anglea pot-weave=3f

to yel   chi=e'$_i$

one shawl of=3f

'Panfila wants Doña Angela to weave her a shawl.'

The meaning difference between these two options is the following, with the raised subject and resumptive pronoun giving a more emphatic reading.

(92)   n-ez=da'   shegh=o'   gxe

stat-know=1sgexp   stat.go=2sg   tomorrow

'I know that you are going to leave tomorrow '

(93) n-ez=da'   lee   shegh=o'   gxe

     stat-know+1sgexp 2sg   stat.go=2sg   tomorrow

     'I know that **you** are going to leave tomorrow '

Raising can even be ruled out. Examples like the following are ungrammatical.

(94) dx-ene=be'   zegh   benhe bio

     cont-want=3inf   comp.go   person masc.

     'He wants the man to go.'

(95) *dx-ene=be'   benhe bio   zegh(=be')

     cont-want=3inf   person masc   comp.go(=3inf)

     'He wants the man to go.'

With ditransitive clauses, this raising is obligatory, as seen below. Example (96) shows a simple ditransitive clause, and examples (97)-(100) show that raising is obligatory for complement clauses in these constructions.

(96) zeghnii   Pan   Lia Lank   to yegh

     stat.show   Panfila   Doña Angela   one flower

     'Panfila showed Doña Angela a flower.'

(97) zeghnii   Pan   Lia Lank   g-ab=e'   to yel   chi=e'

     stat.show   Panfila Doña Angela pot-weave=3f one shawl   of=3f

     'Panfila$_i$ showed Angela$_j$ how she$_j$ was going to weave her$_i$ shawl.'

(98) *zeghnii   Pan   g-ab   Lia Lank   to yel

stat.show   Panfila   pot-weave   Doña Angela one shawl

chi=e'

of=3f

'Panfila; showed Angela; how she; was going to weave her; shawl.'

(99) b-lhe'i   lia lank   chach   gu-lhab=be'

comp-caus.see   Doña Anglea   Chacho   comp-read=3inf

'Dona Angela taught Chacho to read'

(100) *b-lhe'i   lia lank gulhab chacho

6.5.6   Argument Sharing

In this section, I will discuss what I am tentatively labelling argument

sharing. In these constructions, which differ from relative clauses in not having a

relative pronoun, an argument (either a subject or an object) is shared by two clauses.

These are sometimes translated as relative clauses and sometimes as conjoined

clauses.

(101) bizx   ka   dx-ghe-za-kse   benhe zghe-noa

which demadv   cont-pl-walk-emph   person stat.pl-take

bidao'

child

'How is it that people go around and take children?

Note that (101) is odd, largely because the second verb *zghenoa* does not have a subject. This looks on some level like it is an internally headed relative clause, but the preverbal positioning of benhe would be extremely odd. Consider, as more evidence, the following example.

(102) le   bate'   gu-za=be'   nox=e'

        foc   when   pot-walk=3inf   pot.grab=3f

        'It's when she walks that they grab her.'

Once again, it appears that the subject of the first verb is fulfilling an argument role in the lower clause. In the following example, the translation which was given was unequivocally a relative clause the first time I elicited it. The second time I elicited it, I got the second reading.

(103) zxoa'   dx-on=o'   yet=en   b-dxogh   wen.

        corn   cont-do=2sg   tortilla=det   comp-turnout good

        'It's corn you make the tortillas that turn out good.'/ 'Its corn you make tortillas with and they turn out well.'

6.5.7   Relative clauses

In this section, we will examine relative clause formation and see how SBZZ should potentially be classified according to the criteria set forth in Keenan and Comrie (1977). The first two examples are relative clauses where the head noun is the subject of the relative clause. Relative clauses in Zoogocho Zapotec are postnominal. The generic noun *benh*[2] introduces the relative clause, and appears to serve the function of satisfying the argument structure requirements of the verb

dxban. *benh* and the other generic nouns play an analogous role to relative pronouns in spoken Spanish. The form of the generic noun is invariant with respect to the case of the role it is filling.

(104) b-le'i=da'   benhe bio   benh   dx-ban

comp-see=1sgexp   person masc genan   cont-steal

'I saw the man who was stealing.'

(105) b-le'i=da'   benhe bio   benh   dx-bezh

comp-see=1sgexp   person masc. genan   cont-cry

'I saw the man who was crying.'

In the following examples, the direct object is the position relativized on.

(106) gage   n-ak=en   yet   go   danh   dx-es-on=e'

neg   stat-be=3inan tortilla   root   geninan   cont-pl-make=3f

naa

now

'They are not like the tamales that they make now.'

(107) na'   b-edey-aa-te=e'   dao   chi=a' danh

and   comp-ven-take-emph=3f   corn_tassels of=1sg geninan

b-edey-e=e'

comp-ven-take=3f

'And they came to take the corn tassels of mine that they had come to take.'

In the following, an indirect object is relativized on.

(108) benhe bio   benh   b-i=o'   libr   sh-tas-e'

person masc. genan   comp-give=2sg   book cont-sleep=3f

'The man to whom you gave the book is sleeping.'

For instrumentals, we see examples such as the following:

(109) machet   danh   dx-ogo=d=a'   yelhe   ni

machete   geninan   cont-cut=instr=1sg   maize_field   demprox

de=ks=en

stat.lie=rep=3inan

'The machete with which you cut the maize field is here.'

In the following, we see an example of a relative clause in which a possessor is relativized. The possessor no longer appears in the relative clause.

(110) b-le'i=da'   bidao benh dx-zxite   x-kabayo   lho

comp-see=1sgexp   child genan cont-jump   poss-horse   belly

tronkw

trunk

'I saw the child whose horse jumped over the tree trunk.'

Finally, we will see how Zapotec relativizes on 'objects of comparison'[3]. The following is an example of a regular comparative sentence.

(111) Maria n-ak-dx=e'   benhe zxen   ka zxoan.

Maria stat-be-more=3f   person large   than Juan

'Maria is larger than Juan.'

The following example is a relative clause formed on an object of comparison.

(112) b-le'i=da'   benhe bio   benh n-ak   zxen ka

Maria

comp-see=1sgexp   person masc genan stat-be big   demadv

Maria

'I saw the man who is bigger than Maria.'

I will now briefly see how these constructions correspond to the statements made about relative clauses in Edward Keenan and Bernard Comrie's 1977 article 'Noun Phrase Accessibility and Universal Grammar'. There are two issues which are important to the classification set forth in that paper: 1) whether a particular grammatical relation is relativizable and 2) whether the strategy used gives some indication as to the grammatical role in the relative clause of the NP being relativized on. As has been seen above, all of the potential positions which could possibly be relativized on, are relativized.

Zoogocho Zapotec does not normally retain pronouns in relative clauses, using a gap strategy instead in order to indicate the grammatical role of the relativized NP. However, SBZZ is furthermore a VSO language. As a result of these two factors a potential ambiguity arises in sentences such as (113).

(113) b-le'i=da'   benhe bio   benh gud-ap   Maria

      comp-see=1sgexp   person masc. genan comp-slap   Maria

      'I saw the man who slapped Maria.' 'I saw the man who Maria slapped.'

This ambiguity comes from the fact that the sentence could be interpreted as having either of the following structures (where a _ indicates the position of the gap).

(114) bleida' benhe bio benh gudap_ Maria   'I saw the man who slapped Maria.'

(115) bleida' benhe bio ben gudap Maria _   'I saw the man who Maria slapped.'

In order to avoid this type of ambiguity, one can retain a resumptive pronoun[4] in ZZ.

(116) b-le'i=da'   benhe bio   benh gud-ap=e'   Maria.

      comp-see=1sgexp   person masc. genan comp-slap=3f   Maria.

      'I saw the man who slapped Maria.'

(117) b-le'i=da'   benhe bio   benh gud-ap   Maria lhee

      comp-see=1sgexp   person masc. genan comp-slap   Maria 3f

      'I saw the man who Maria slapped.'

In (116), the bound pronoun must be the subject because of its immediate post verbal position and therefore 'Maria' must be the object, and similarly in (117), 'Maria' must be the subject given the immediate post-verbal positioning and the pronoun must be the object.

There are also headless relatives such as the following.

(118) dx-on=a'   danh   g-ao   bi   chi=a'

      cont-make=1sg   geninan   pot-eat   child   of=1sg

      'I make what my child eats.'

6.5.8   Coordination

In this section, I will briefly investigate the interpretation of pronouns in

constructions which are formally made up of two clauses, conjoined both with the

conjunction *na'* as in (119), and with two juxtaposed clauses as in (120), which I will

refer to as the 'conjunction construction'[5] and the 'juxtaposition construction'

respectively.

(119) b-et   zxoan   bedo   na'   gu-chu=e'

      comp-hit   Juan   Pedro   and   comp-cough=3f

      'Juan$_i$ hit Pedro$_j$ and he$_j$ coughed.'

(120) b-et   zxoan bedo   gu-chu=e'

      comp-hit   Juan pedro   comp-cough=3f

      'Juan$_i$ hit Pedro$_j$ and he$_i$ coughed.'

Although these two constructions are formally almost identical, the pronouns

in the second clause of both constructions can have very different interpretations. In

many but not all of the instances of constructions similar to example (119), the

intended antecedent of the second clause is the patient of the preceding clause.

The interpretation of pronouns in the second clause of constructions such as

those exemplified in example (120) varies between the patient and the agent of the

first clause. This construction is sometimes glossed with a participial construction in

Spanish, thus making it falsely reminiscent of a control construction. In the remainder of this section, I will concentrate on the properties of each of these constructions separately.

As a first step to clarifying the constructions with *na'*, it may be helpful to first describe a few of the differences and similarities between this construction and corresponding constructions in English. Conjunction reduction is not allowed in Zoogocho Zapotec. Thus, one of the primary means of clarifying structures corresponding to the ZZ example (119) above is not allowed. For example, although the following sentence might have as its preferred reading (in my dialect) that John is the one who is coughing, it is still potentially ambiguous, being more likely determined by real world knowledge. (For example if we knew that Paul had a cough, we would be more likely to interpret Paul as being the one who was coughing.)

(121) $John_i$ hit $Paul_j$ and $he_{i/?j}$ coughed.

However, the following example with the use of conjunction reduction is unambiguous.

(122) $John_i$ hit $Paul_j$ and $coughed_i$.

John must be the one who coughed. The interpretation of the subject in conjoined sentences with conjunction reduction varies depending upon the language. Thus, in a syntactically ergative language like Dyirbal, the interpretation of the omitted subject would be Paul.

One of the potential explanations for the interpretation of the pronoun in (119) which jumped to my mind at first was that the language was syntactically ergative, even though it shows no morphological traces of ergativity. ZZ is surrounded by morphologically but generally not syntactically ergative languages (such as Mixe[6]) and one of the typological characteristics of the Mesoamerican area (as posited by Campbell et al (1985)) is, of course, ergativity. Traces of syntactic ergativity have also been found in other Otomanguean languages such as Chinantec (Foris 1994). Unfortunately, examples such as (123) came up as quickly as I started to investigate the phenomenon more carefully.

(123) gw-eene   Maria   Zxoan   na'   b-osi=e'

       comp-want   Maria   Juan   and   comp-scream=3f

       'Maria wanted John and she screamed.'

It began to become clear that perhaps the interpretation of (119) above had more to do with real world knowledge than with grammatical patterning, although every speaker with whom I checked the example gave the same interpretation. People are more likely to cough if they have been hit than if they have not, perhaps, and this is what probably led to this particular interpretation.

The juxtaposition construction is perhaps a bit more understandable, but still provides some difficulties in its analysis. I would have liked to be able to differentiate between different types of these constructions as in the prototypical control construction in a language like English, having a verb of cognition or

perception and those constructions which have an agentive verb (such as 'to hit'), but the data do not seem to lead in any general direction with respect to this issue.

Although there are a number of cases where the reference changes, it is by no means regularly determined by the type of verb, as seen in the following examples. In the juxtaposition constructions, there tends to be a great deal of variation on the interpretation of the pronoun in the second clause, which is co-dependent upon, among other things, the aspectual markings on both verbs. See the following examples.

(124) gw-eene   maria zxoan   dx-osi=e'.

        comp-want   maria juan   cont-scream=3f

        'Maria wants Juan screaming.'(Juan is screaming. (Maria might think it to be cute.))

(125) dx-eene   maria zxoan   b-osi=e'

        cont-want   maria juan   comp-scream=3f

        'Juan screamed before Maria wanted him.'

(126) y-eene   maria zxoan   b-osi=e'

        pot-want   Maria Juan   comp-scream=3f

        'Maria is going to scream after wanting juan.'

(127) y-eene   maria zxoan   dx-osi=e'

        pot-want   Maria Juan   cont-scream=3f

        'Juan is going to scream because M wants him.'

The aspectual markers of both the first and the second verb and the interpretation of the enclitic pronoun of the lower verb are definitely co-dependent, as seen in the above examples. It is rather difficult at this point to determine exactly how they are dependent however, as discourse knowledge and other factors clearly play some role as well. This is an area which deserves a great deal of investigation at some point in the future.

6.5.9 Adverbial clauses and indirect questions

Adverbial clauses and indirect questions are formed in much the same way. Adverbial clauses are introduced by a complementizer such as *kate'* 'when' as in the following:

(128) g-on   tibo   ka   kate' bi   na

      pot-make   Primitivo   demadv   when   neg   demdist

      y-esey-ela lhegakbe'

      pot-pl-arrive 3plinf

'Primitivo will do it like that when they get over there.'

Indirect questions are introduced by an interrogative form such as no 'who' as in (129):

(129)   per   bi   n-ez=da'   no   b-en

          but[Sp.]   neg   stat-know=1sgexp   who   comp-make

          ka'

          demadv

'But I don't know who did it.'

6.6   Comparatives

In the following two examples we see two examples of the comparative

where it is a quality which is being compared. The basic construction appears to be

with the first noun either before or after the copula:

(130) (N) COPULA (N)   ADJ   (kle)ka'   NP

                                          QUAL MARKER   STANDARD

The following examples exemplify this.

(131)   Maria n-ak-dx=e'   benhe zxen   ka Juana

           Maria stat-make-more=3f   person large   than Juan

           'Maria is larger than Juan.'

(132) n-ak-dx   bdxe' be   lis   kleka' be'ko'

           stat-be-more   ant   clan   small   than   dog

           'The ant is smaller than the dog.'

The adjective can be fronted as in (133).

(133)   tonhe-dxgwa n-ak=e'   jef=en'   kleka benhe yeto

           tall-emph   stat-be= 3f   boss=det   than   person other

           'The boss is taller than the other person.'

Although the adverbial clitic –dx= is often found in this construction it is not

absolutely necessary as seen in (134).

(134) n-ak   nise   ye   yanha'   kleka' kafe

       stat-be water corn_porridge   thick   than   coffee

       'Corn porridge is thicker than coffee.'

One can make statements of equality such as the following, with the word for same being optional:

(135) NP   COPULA   (same)   kanak NP

(136) yixe' che=be   n-ak=en   (lebze)   kanak chi=a'

       field of-3inf   stat-be=3inan   (same)   as   of=1sg

       'His field is the same (size) as mine.'

One can also compare actions, in which case the structure is as follows with the subject optionally appearing before or after the verb:

(137) (NP) V (NP) ADV kleka'   NP

               QUAL MARKER   STANDARD

(138) avion=na'   dx-ghe-dx=en   bedaones   kleka'

       airplane=det   cont-go-more=3inan   quick   than

       camion=na

       bus=def

       'The plane goes faster than the bus.'

(139) be'ko' zaa-dx=ba   bedaones   kleka' bdxe'

       dog   stat.walk-more=3an faster   than   ant

       'Dogs walk faster than ants.'

6.7 Conditionals

Conditionals are normally in the order if-then, as seen in the following example.

(140) shi   dx-eene',   dx-o-dxo   avante

      if   cont-want,   cont-get=1plincl   ahead

      'If we want to, we can get ahead.'

They can however also follow.

(141) bi dx-i=o'   shi   bi   g-ak   b-ei=dxo

      neg cont-say=2sg   if   neg   pot-make   comp-sense=1plincl

      shoo

      pot.enter

      benhe   lho   yoo   dx-ap=a=ne

      person   in   house   cont-say=1sg=3f

      '"Don't say anything if we notice people going into the house", I said to

      him.'

---

[1] See Avelino et al. (2004) for a description of this and similar constructions in Zapotecan languages.

[2] See the lexical classes chapter for an explanation of why *benh* is considered to be a generic noun.

[3] See the following section on comparatives for a larger discussion of comparatives.

[4] Content question could also potentially have this ambiguity and have the ambiguity resolved in a similar fashion as seen in 5.6.4.

[5] Note that there are a number of other means of conjoining two clauses, for instance, using words such as *le* 'because', or *per* 'but'(these two are coordinating conjunctions, in spite of the English gloss). I chose the two discussed in this section because they are both glossed in the majority of cases as being simple conjoined sentences in Spanish. While one can, of course, force more exact definitions, these seem to be the basic interpretation of these two. Note that in personal communication with Rebecca Long, I mentioned these constructions in order to get her opinion and she told me that there was definitely something going on with respect to change of reference, but that she did not feel as though she had the training to classify them. (This is all basically to confirm my suspicion that these two should be grouped together and to indicate that I am not the first to be confounded by these constructions.)

[6] Though note that Olutec, a Mixe-Zoque language described by Roberto Zavala (2000), shows ergativity in its word order with VS and AVO ordering (Zavala p.c.).

Chapter Seven: Lexical Classes

7.1   Introduction

Before proceeding to the actual classification of the parts of speech or lexical

classes in Zoogocho Zapotec, I will first discuss the general means by which I will

attempt to rigorously and consistently classify the categories and category

boundaries of SBZZ.

Munro (2002) lists the following criteria:

The number of separate parts of speech one recognizes (whether or not we count

particles!) depends on a number of factors. My analysis in (1), for any target

word, is based on consideration of the criteria listed in (3):

(3) Some criteria for determining part of speech

syntactic factors: what other types of words a target word can combine with,

in what types of phrases;

morphological factors: what affixes the target word is used with;

semantic factors: what the target word and the phrases it is used in means.

(Munro 2002: 5)

In another discussion of how a linguist might classify a lexical item,

specifically the English word, *walking*, Thomas Payne mentions the three following

possibilities:

1. Taking some nominal properties as criteria. For instance, we could simply

define noun for English as a form that can refer to its only argument with a

genitive pronoun. In this case *walking* is a noun. However, if we decided that

ability to pluralize or take a wide range of descriptive modifiers were the criteria for nounhood, then *walking* would not be a noun. We would just have to make a somewhat arbitrary decision and stick to it consistently.

2. Making up a different grammatical category for each complex of nominal features instantiated by some form or forms in the language. In this case only those lexical items that have all nominal properties would be considered nouns. Forms such as *walking* would be considered something else, such as present participles...

...3. Acknowledging that the difference between nouns and verbs is a continuum, and that verbs with the *-ing* suffix fall somewhere in between the two extremes. (Payne 1997: 35-36)

Payne then goes on to reject any single one of these three potential means of determining whether *walking* should be classified as a noun or a verb, taking the position that a combination of 2 and 3 is preferable from the perspective of the descriptive linguist. Solution 1 is unacceptable because '(C)riterial definitions are inherently questionable for supposedly universal categories because there is always the possibility that some language might not display a particular criterion' (ibid. 36). He goes on to state that often these criterial definitions are biased towards the better known languages. The other problem is that, while ideally one would be able to find necessary and sufficient conditions for the placement of a particular lexical item or class in a particular category, this is a difficult prospect.

'Most descriptive linguists use solution 2. However, unless great care is taken in the definition, this can lead to confusion among readers' (ibid. 37). It can potentially lead to the overproliferation of lexical classes and to a lack of generalizations which otherwise should be made. As will be seen later, the terms 'preposition' and 'relational noun' are often bandied about in descriptions of Zapotecan languages without any real definition[1]. It can also lead to over specification. While one might want to differentiate verb classes in Zapotec based on the form of aspectual prefixes which each verb takes, this differentiation is, in all likelihood, the result of historical residues, not having any synchronic semantic or formal basis, and therefore, from the point of view of lexical classes, irrelevant.

Solution 3 is, as Payne points out, what 'reflects most accurately the nature of linguistic categorization' (ibid. 37). However, it is incredibly difficult, even for native speakers of a given language, to come up with rigorous clines which ideally would include, with justification, all of the many thousand words of an individual language and doing so would be of little use to the general reader.[2]

Arbitrary, language-specific categories, based on the type of categorization which Munro mentions above, are therefore necessary. It is also necessary to acknowledge that forms which straddle these arbitrary categories exist and provide a description of them. Such a multi-factorial approach, as explicitly taken by Comrie (1989) in his discussion of definitions and categories and adjectival and substantival properties of Russian numerals, which can be used to 'establish criteria that correlate with the focal values' (ibid. 107) of clearly definable categories, will also enable the

description of the 'continuum separating those prototypes from one another, much as with colour terms, even though here we are clearly dealing with grammatical categories' (ibid. 109). The grammar will therefore be both static and self-contained, yet also self-referencing and 'emergent' in the sense of Hopper (1987). I will attempt to both discuss and acknowledge what parts of speech or lexical categories are already grammaticalized and what the basis for that grammaticalization is and also where select individual lexical items which are difficult to categorize fall on the cline and what the reasons for their positions are.

I will also discuss Paul Schachter's (1985) seminal paper, 'Parts-of-speech systems', which will be used to provide definitional assistance over the course of this chapter.

> While it is assumed here that the assignment of words to parts-of-speech classes is based on properties that are grammatical rather than semantic, and often language-particular rather than universal, it is also assumed that the *name* that is chosen for a particular parts-of-speech class in a language may appropriately reflect universal semantic considerations. Thus, although the familiar notional definition of noun mentioned above does not always provide an adequate basis for deciding whether or not a given word is a noun, once the words of a language have been assigned to parts-of-speech classes on grammatical grounds and it is found that one of these classes includes the preponderance of words that are the names of persons, places, and things, then it is perfectly reasonable to call this class the class of nouns, and to

compare the class so named with the similarly named classes of other

languages. (Schachter 1985: 4)

An important concept to be used in the current discussion is that of the

necessity and use of necessary and sufficient conditions, as discussed in Matthews

(2003) and Dixon and Aikhenvald (2003). Necessary conditions are those which all

entities within a particular class possess, but which might also be possessed by

another class. Sufficient conditions are those conditions which are only possessed by

a particular class, but which may not be possessed by every member of that class. If

one can find individual conditions within a language for the definition of a particular

element which are both necessary and sufficient, then the task is relatively easy.

Unfortunately, it is very rare that one can find conditions or properties which are

both necessary and sufficient to define a particular class. For example, one might

describe candy as being sweet. This is indeed a property of candy, even if individual

candies also have the property of being very sour or spicy. However, it is also a

property of other things, such as ice cream, cake, and prawns in coconut milk with

walnuts, and so will not serve to define candy by itself. One might try again to come

up with a definition of candy as being made from boiled sugar and then flavored with

peppermint oil. All things which match this definition are, in my book, candy.

Unfortunately (or quite fortunately as the case may be), although this definition

might be necessary and sufficient to define all peppermint candies, there are also

candies made from cocoa butter, sugar, and chocolate liqueur which would not fit

this definition. One must be careful then in our definitions to be neither too broad nor

too narrow. One shall, therefore, strive to find a combination of necessary and sufficient conditions which define an individual class, taking into account Whorf's (1945) admonition not to look to the use as the primary criterion, but rather to look to other independent facts. In all likelihood, I will be unable to come up with such criteria and will have to come up with a list of conditions, both necessary and sufficient, which, combined, can be said to be prototypical of a particular category.

For the most part, I will not distinguish between lexical classes on the basis of whether or not they are able to enter into constructions with pronominal clitics, as there would be one category which does and subsumes everything except for demonstratives, adverbs, interjections, and particles. As suggested in the quotation by Munro above, I will crucially use three factors in determining category membership: syntactic (what combinations the particular lexical item can be a part of), morphological (what morphological marking there is), and semantic (what the meaning is and how it interacts with other lexical items). I will sporadically follow Schachter (1985) in my presentation and, where possible, use his data as a means of comparison. In general, I will try to state whether or not a particular part of a characterization of a lexical class is necessary or sufficient by placing it in parentheses. Unfortunately, it is very rare that I have found definitions which are simultaneously both necessary and sufficient.

7.2　　　　　Verbs

The large open class of verbs can be defined in Zoogocho Zapotec as consisting of those lexical items which take aspectual prefixes (see 4.3 for more information) (necessary and sufficient). Most verbs also require the presence of a nominal or pronominal subject. The following examples exemplify the preceding statements.

(1)　　y-e-zhinh=dxo

　　　　pot-freq-arrive=1plincl

　　　　'We arrive...'

(2)　　b-e-ban=e'

　　　　comp-freq-live=3f

　　　　'S/he woke up.'

(3) (a)　b-zhinh=a'

　　　　comp-arrive=1sg

　　　　'I arrived.'

　　(b) *b-zhinh

Schachter characterizes verb as 'the name given to the parts-of-speech class in which occur most of the words that express actions, processes, and the like. The characteristic function of verbs is as predicates' (Schachter 9). However, he does cite examples like the following Tagalog data to show that verbs can be used in some languages as arguments. In the first sentence, the verb *pinanood* 'watched' requires a subject and an object. In this case, the object is the verb *sumasayaw*.

(4)   Pinanood   ko   ang   mga   *sumasayaw.*

watched   I   TOP   PL   were dancing

'I watched the ones who were dancing.'

Cf.   *Sumasayaw*   ang   mga   tao

Were dancing   TOP   PL   person

'The people were dancing.'(Schachter's 13) (ibid. 9)

He does note that it is more common to use a verbal *noun* (meaning a noun morphologically related to a verb) as an argument, as in the following example he gives from Akan (5).

(5)   MehwEE   *asaw*   no

Iwatched   dancing   the

'I watched the dancing.'(Schachter's 14) (ibid. 9)

If we consider the following examples from Zoogocho Zapotec, we see in (6) the verb root *-yaa-* used as a verbal predicate.

(6)   gu-**yaa**-lenh=a=le   zha=be'

pot-**dance**-with=1sg=2pl   stat.say=3inf

'I will dance with you all, he said.'

In (7) and (8), we see it used as a verbal noun.

(7)   0-chaz=a'   **weyaa**

pot-participate=1sg   inf.dance

'I will take part in the dance.'

(8)   0-wi=a'   **weyaa**

pot-see_performances=1sg   inf.dance

'I will see the dance.'

Schachter notes that '(T)he categories for which verbs may be specified

include tense, aspect, mood, voice, and polarity' (ibid. 10) and that many languages

have a subclass of *'copulative* verbs' (ibid. 11). As seen in the Chapter Four,

Zoogocho Zapotec verbs are specified at least for aspect. There is one copulative

verb, as seen in the following example.

(9)   benhe n-ak   noolh wego

person stat-be   woman virgin

'The person is a young woman.'

7.2.1   Auxiliary verbs

Auxiliary verbs, a small, closed class, are the only verbs which do not have to

have an obligatory subject (necessary and sufficient). See 6.5.4 for further

discussion.

7.2.2   Positional verbs

In this section, I will discuss a particular closed subclass of verbs, positional

verbs. Positionals differ from other verbs, forming their own subclass, in not having

an aspect marking on the stative form of the verb (necessary) when taking part in the

Basic Locative Construction[3] (sufficient). The Basic Locative Construction is

defined to be the default response to a question which asks where something is.

Many verbs can take stative marking in the form of a lenis nasal prefix for which the

place of articulation assimilates to the following consonant as in (10).

(10)   m-ban=e'

        stat-live=3f

        'S/he is alive.'

The positionals and the existential (among a few other verbs) do not use the nasal

prefixal stative form. Also, when used to describe location the positionals are always

in the stative aspect. As Zoogocho Zapotec has no tense marking, the stative can be

used for past, present, and future temporal domains. When used in the Basic

Locative Construction, regardless of temporality, the stative form of the positional

verb is used. The following table shows the basic positional verbs.

Table 7.1 Positional verbs

Dxi	Zhia	Zee	Nala	Zehe	Yoo
'sit' (persons or animals, but also things)	'sit' (not used with persons and animals except if a person is mounted on a horse)	'stand' animates	'hang'	'hang' (especially at a higher altitude, like an electrical wire)	'be inserted in, wrap around'
Daa	Zxoa	Nkwaa	Ndobe	Ndosa	Shtulhe
'be stuck on'	'lie in an extended fashion'	'to be heaped'	'to be folded or wrapped around'	'to be upside down'(as in a pot lying on its opening)	'to be lying on its side'

In addition there is a word *dee* which means 'to lie (but not necessarily be spread out)', a word *nase* which means 'to be spread out (multiple objects such as beans)' and a doubtful existential which will be discussed later.

The Basic Locative Construction is as follows:

(11) (dem) **Positional** Figure (Relational Noun Ground)

(na') dxi be'ko' (lho yixe)

(there) stat.sit dog (in weeds)

'A dog is in the weeds.'

As indicated by the parentheses, either a demonstrative or the relational noun and ground must be present, or potentially both. The basic locative question has two forms. The first form, which seems to be more common, is as follows.

(12) WHERE **Positional** Figure

Gan dxi be'ko'?

Where stat.sit dog

'Where is the dog?'

The answer to this type of locative question generally does not include the positional verb and consists solely of the relational noun and the ground as in the following.

(13) Relnoun   Ground

      lho   yixe'

      in   weeds

'In the weeds'

An alternative form doesn't include the positional and is as follows.

(14) WHERE   Figure

      gan   beko'

      where   dog

'Where is the dog?'

The answer to this type of question is generally a fully formed construction such as in (11) above.

I have some difficulties in determining what to consider the verb *zoa* to be in the general scheme of the positionals. It is quite often glossed as 'to be standing' when used with inanimate objects such as trees or mushrooms as in the following example.

(15) na'   zoa   to   bi'a'

      demdist   exist   one   mushroom

'There was a mushroom standing there.'

Note that the corresponding word *zee* 'to stand (of an animate) cannot be used with inanimate objects.

(16) na'   zoa   to   bas   lho   mes=en'

     demdist   stat.stand   one   glass stomach table=det

     'There is a glass standing on the table.'

(17) *na' zee to bas lho mesen'

Zoa can also be glossed quite often as 'to be' as in the following[4].

(18) ni   zoa   to   zhome'

      here stat.exist   one   basket

      'Here is a basket.'

It also quite often means 'to live' as in the following

(19) gan   zoa=be'

      Where   stat.exist=3inf

      'Where does he live?'

It is noteworthy that the majority of the pictures in elicitation tasks such as the Bowerman-Pederson book, which I used while working at the Max-Planck Institute for Psycholinguistics in Nijmegen and which were described with this verb showed inanimate figures in a vertical position. Note that the verb *dee* can also be used in such a way as well, but is much more common in negative constructions.

The general locative *zoa* is used to describe location in a space such as a town.

(20)   zo=a'   yezh

       stat.exist=1sg   town

       'I am in town'

The specific positionals are used to indicate location, as we have already seen.

However, the positionals *dxi, nala,* and *zehe* can be used to assert the existence of abstract nominals, as in the following examples.

(21)   zehe-dxgwa   yizhwe

       stat.hang-much   sickness

       'There are many sicknesses.' (From time to time)

(22)   dxi-dxgwa   yizhwe

       stat.sit-much   sickness

       'There are many sicknesses.' (Most of the time.)

(23)   dxi-dxgwa   dizha'

       stat.sit-much   words

       'There are many words.'

(24)   nala   magia

       stat.hang   magic

       'There is magic'

(25)   zehe   x-medxu=a'

       stat.hang   poss-money=1sg

'I have money.' (It used to be that money would be hung from the rafters in small ceramic containers.)

(26)   dxi   yelha justis   yezh=en'

       stat.sit   dream justice   town=det

' There is justice in the town.'

7.3   Adverbs

There are two classes of adverbs in Zoogocho Zapotec: a closed class of adverbial suffixes, which have been discussed in 4.3.11, and an open class of full adverbs. Full adverbs are distinguished from other lexical categories in the following ways: they cannot take pronominal clitics (necessary) (cf. (27)), and they have a relative freedom of ordering in the sentence (sufficient) (cf. (28)-(30)). Adverbs are an open class, especially locative adverbs which can be easily created from most any place name or location with the directional marker discussed in 5.3.7.

(27)   *bedaones=a'

       quickly=1sg

(28)   b-zxit   lalo   bedaones

       comp-jump   Lalo   quickly

       'Lalo jumped quickly.'

(29)   bedaones   b-zxit   lalo

     quickly   comp-jump   Lalo

     'Lalo jumped quickly.'

(30)   b-zxit   bedaones   lalo

     comp-jump   quickly   Lalo

     'Lalo jumped quickly.'

Schachter notes many difficulties in defining adverbs and comes to the conclusion that, in order to avoid limitations which a definition of adverbs as 'modifiers of verbs, adjectives, and other adverbs' might have with respect to adverbs which operate on the level of the verb phrase or sentence, that it is best to 'say that adverbs function as modifiers of consitituents other than nouns' (ibid. 20). Temporal particles such as za 'barely, hardly (Spanish 'apenas')' or ba 'now, at this point (Spanish 'ya') also should be considered to be adverbs by the current definition.

7.4   Nouns

7.4.1   Nouns

The large, open class of nouns crucially can cooccur with demonstratives (sufficient) (cf. (32) below), can be modified by adjectives (sufficient) (cf. (32) below), and do not take aspect markers (necessary) (cf. (33) below).

(31) x-kabayw=a'

poss-horse=1sg

'my horse'

(32) mbis   ni'

cat   demprox

'This cat'

(33) nis   zahag

water   cold

'cold water'

(34) *gw-mbis

comp-cat

Schachter states the most common function of nouns is to act as arguments, and this is what nouns (and noun phrases) in Zoogocho Zapotec do most commonly as well. He notes that they can also function as predicates, as in the following examples, either with copulas (35) and (36) or without.

(35) They are *teachers*.

(36) Su   *malamai*   ne. (Hausa)

they   teachers   COP

'They are teachers.'

(37) Mga *guro* sila (Tagalog)

  PL teachers they

  'They are teachers.'

(38) Oni u(ch)itelja (Russian)

  they teachers

  'They are teachers.' (Schachter's (3)-(6)) (ibid. 7)

Zoogocho Zapotec uses either a copula or juxtaposed noun phrases, as in the

following example.

(39) a) n-ak=be maestr

  stat-be=3inf teacher

  'They are teachers.'

b) maestro lhegakbe'

  teacher 3plinf

  'They are teachers.'

7.4.2 Reflexives and Reciprocals

Reflexive pronouns are pronouns 'which are interpreted as coreferential with

another nominal, usually the subject, of the sentence or clause in which they occur'

(ibid. 27). Schachter notes that there are 'many languages (,) where reflexive forms

are analyzable as a head nominal modified by a pronominal possessive agreeing with

the subject.... There are also languages such as Malagasy, (69) (our (40) A.S.), that

use a common noun *without* a modifying possessive' (ibid. 28). Zoogocho Zapotec,

as seen in (41) could be viewed as being one such language, with the inalienably possessed noun *kwin=* 'self' acting as a reflexive marker and the inalienably possessed noun *lghezh=* 'fellow' acting as the reciprocal marker. This is a form of the reflexive-of-possessor construction, which has been discussed in 6.4. The reason for separating these elements from the rest of the nouns is that these elements obligatorily take part in the reflexive of possessor construction. (Necessary and sufficient.)

(40)   Namono   *tena*   Rabe

        Killed   body   Rabe

        'Rabe killed himself.'

(41)   gud-ap   kwin   ron

        comp-slap   self   Aaron

        'Aaron slapped himself.'

'Reciprocal pronouns, like reflexive pronouns, are interpreted as coreferential with a co-occurring nominal, but are used to express mutual actions, conditions, etc'(ibid. 29). See the following example from Zoogocho Zapotec.

(42)   shone nia'   gw-a   lghezh=dxo

        three feet/times   pot-carry   recip=1plincl

        'We are going to carry each other, three times.'

7.4.3 Pronouns

The closed class of personal pronouns can be defined as being the class of words which, in clitic form, can cliticize to nouns, verbs, adjectives, and quantifiers (necessary and sufficient). In non-cliticized forms, pronouns are not modified by adjectives (necessary and sufficient).

(43)   dxoalao=a'

outheye(face)=1sg

'my face'

(44)   gw-dezh=a'

comp-cry=1sg

'I cried.'

(45)   gol=to

old=1plexcl

'We are old.'

(46)   yogo=ba

all=3an

'all of them'

(47)   *neda zahag

The personal pronouns have been discussed in greater depth in Chapter Three.

'*Indefinite pronouns* are pronouns like English *someone, something, anyone, anything*' (ibid. 30).

A prominent indefinite pronoun in Zoogocho Zapotec is the following: *no* 'someone, something', However, this is used much more commonly as a quantifier, meaning 'some', or as a question word. In the following example, the word *no* is used meaning someone. It appears that the part of the sentence following *no* might possibly reflect an earlier way of forming a disjunction.

(48) zegh   no   zegh   bi   zegh

      comp.go   someone   comp.go   no   comp.go

      to-z=be'

      one-alone=3inf

'Someone went who (normally) might or might not go by themself.'

7.4.4   Generic nouns

Generic nouns are a small closed class of nouns derived from the classifiers which will be discussed below in 7.7. I am following Marlett (1985) in calling them generic nouns, although they are generally used in reference to a previously mentioned entity as in (49). They are distinguished from nouns and regular pronouns in that they cannot, by themselves, serve as subjects, as seen in (50). (Necessary and sufficient.) They differ from the classifiers in that they can occur on their own in a sentence, not requiring either a demonstrative or adjective unlike the classifiers and occur after the noun which they modify.

(49) bi   gud-aw=a'   danh

      neg   comp-eat=1sg   geninan

      'I didn't eat that.'

(50) *b-zhinh   danh/benh/bi

      comp-arrive   geninan/genan/gensm

Generic nouns crucially serve the function of introducing a relative clause and as

such are also used as relative pronouns. As Schachter writes:

'*Relative pronouns* are pronouns like English *who* and *which* in (51).

(51) The man *who* wrote that was a genius.

      The book *which* he wrote was brilliant.' (ibid. 31)

      ZZ has the following corresponding example. I choose to call the elements

benh, *danh*, and *binh* relative pronouns when used as such because they agree in

gender with the head noun, even if they do not otherwise show any grammatical

relation within the relative clause. (See Keenan (1985), Payne (1997)).

(52) b-zhinh   noolhe=n'   **benh** dx-on   rmed

      comp-arrive   woman=det   who   cont-make   remedy

      'The woman arrived who cures.'

7.5   Adjectives

Adjectives can be distinguished from the other lexical categories in the following ways: adjectives co-occur with nouns (necessary) (53), follow the noun (54) unless used as a predicate (55) (necessary (this differentiates them from demonstratives, determiners, and quantifiers)), do not take aspectual markers (56) (necessary (differentiates them from verbs)), and never show the morphosyntax of possession (57) (necessary (this distinguishes them from nouns)). It is very difficult, in Zoogocho Zapotec to find a single criterion which is *sufficient* to classify an adjective. However, the criteria which have already been stated are enough to distinguish them from all other lexical classes in SBZZ.

The adjectival class is a relatively large, open class, containing recent loan words such as *tont* 'foolish'. Along with the nouns, and verbs, these are the three main open class lexical categories in SBZZ. In San Lucas Quiavini Zapotec, as described by Pamela Munro (2002), there is a lenis nasal alveolar prefix which accompanies some adjectives, and for which we find the occasional reflex in Zoogocho Zapotec (such as the SBZZ word, *mba* 'happy'). Unfortunately, it is not very common and is fossilized in SBZZ. See Munro (2002) for an enlightening description of the difficulties in determining parts of speech in a number of languages.

(53) bekozxo   shish

     rebozo   white

     'White rebozo'

(54) be'ko'   gasgh=en'

     dog   black=det

     'the black dog'

(55) lhaa-dxgwa   kushiyo=n'

     sharp-very   knife=det

     'The knife is very sharp.'

(56) *gu-gasgh=a'

     comp-black=1sg

     *'I was black.'

(57) *x-gasgh=a', *gasgh chi=a'

Schachter notes that other researchers (Jespersen (1924) and Lyons (1971)) have mentioned the shortcomings of a definition of adjectives as being 'the class of words denoting qualities or attributes' (ibid. 13), and that 'adjectives have usually been defined at least in part in functional terms as words which modify nouns' (ibid. 13). He also states that along with their function modifying nouns (as we have seen above), adjectives can also be predicates and can either occur in some languages with a copula, in other languages without a copula, or in some languages with and without a copula (ibid. 13), as seen in the following examples from Zoogocho Zapotec.

(58) yag=en   n-ak=en   da   ga

tree-det   stat-be=3inan   clinan   green

'The tree is green.'

(59) tonhe-dxgw=a'

long/tall-int=1sg

'I am really tall.'

7.6   Quantifiers

Quantifiers form a distinct lexical class because they are invariably prenominal nominal modifiers (sufficient) which do not take aspectual markers (necessary). This is a small closed class, although in the case of numerals, members of this class, they can be combined to create a potentially infinite number of members.

(60) yogo   mbis

all   cat

'all cats'

(61) yogo=ba

all=3an

'all of them'

(62) *gw/y/dx/n/...-yogo=ba

(63)   **shone** be'ko'

three dog

'three dogs'

7.7   Noun and verb adjuncts

In this section, I will discuss what Schachter calls *noun adjuncts*, 'several

classes of words that typically form phrasal constituents with nouns' (ibid. 35) and

verb adjuncts 'two classes of words that form phrasal constituents with verbs:

auxiliaries and *verbal particles*' (ibid. 35). He differentiates four classes of *noun*

adjuncts: *role markers, quantifiers, classifiers*, and *articles* (ibid. 35). '*Role markers*

include *case markers, discourse markers*, and (other) prepositions' (ibid. 35). As will

be seen in Chapter Eight, discourse function in SBZZ is marked via word order, as is

syntactic and semantic role. One is then left with the prepositions and relational

nouns, as described below in 7.12. *Quantifiers* 'consist of modifiers of nouns that

indicate quantity or scope' (ibid. 38) and have been discussed above. *Classifiers* 'are

words which are required by the syntax of certain languages, when a noun is also

modified by a numeral' (ibid. 39).

At this point, I will discuss the classifiers. There are three classifiers in the

language. These differ from the classifiers which Schachter discusses in that they are

not of the numeral or mensural type described by Schachter, but are instead more

like a small system of noun classes as in Bantu languages. Classifiers correspond to

the generic nouns which, with the exception of the alternate form *hi*, are constructed

from classifiers by the addition of a fortis nasal /nh/. Classifiers are sometimes used

with adjectives, and form demonstrative pronouns with the demonstrative adjectives (see 7.8 below) (necessary and sufficient). The following are the classifiers.

(64)   *be* 'animal classifier'

(65)   *da* 'inanimate classifier'

(66)   *bi* 'classifier for small things (both animate and inanimate)

(67)   n-ak-dx   bdxee **be**   **lis**   kleka'   be'ko'

       stat-be=more   ant   clan   small   comp   dog

       'Ants are smaller than dogs.'

Finally, Schachter discusses *articles* in which category he includes, 'in addition to the words usually identified as definite and indefinite articles (e.g. English *the, an*), words that are sometimes identified as demonstrative adjectives or modifiers (e.g. *this* in *this man, that* in *that woman*)'. His reasoning is that demonstrative adjectives and modifiers often have the same distribution as articles, which is true of SBZZ if one considers the examples below, where all follow both noun and adjective. Determiners are distinguished from other postnominal modifiers in that they cliticize to the final word in the noun phrase (necessary and sufficient).

(68)   be'ko' gasgh   nga

       dog   black   demmed

       'this black dog'

(69)   be'ko' gasgh=en'

       dog   black=det

'the black dog'

However, note that *to* which is often translated as an indefinite article, shows up prenominally.

(70) to be'ko' gasgh

one dog black

'one black dog'

Schachter goes on to talk about *verb adjuncts*, primarily *auxiliaries* and *verbal particles*. 'Auxiliaries are words that express the tense, aspect, mood, voice, or polarity of the verb' (ibid. 41). As has been discussed in greater detail in 6.5.4, -*ak=*, among other verbs act as auxiliaries in SBZZ. Note that they are differentiated from regular verbs in that they can occur without the normally obligatory subject.

(71) dx-ak   dx-on=o'   shinh

cont-can   cont-make=2sg   work

'You can work.'

The other class of *verbal adjunct* which Schachter mentions are *verbal particles*, 'a closed class of uninflected words that co-occur with certain verbs' (ibid. 45). These are elements such as the *up* in English *hurry up*. There are no *verbal particles* in Zoogocho Zapotec.

7.8   Demonstratives

As discussed in Diessel (1999), there are two important facets which one must take into account when examining demonstratives from a categorial perspective: the distributional characteristics of the item, and separately the

categorial status of the item. He notes four distributions and corresponding

categories, his Table 1, modified and repeated here:

Table 7.2 Distributions and categories of demonstratives

Distribution	Category
pronominal demonstrative	demonstrative pronoun
adnominal demonstrative	demonstrative determiner
adverbial demonstrative	demonstrative adverb
identificational demonstrative	demonstrative identifier (ibid. 4)

While they do not on first consideration form a unified lexical class, unlike

the classes which I have discussed so far, I choose to discuss them together in the

current section because they are derived from the same roots. The base

demonstrative would be considered to be a demonstrative adverb[5], which can be

used as a nominal modifier[6] as well, as seen below. Note that they are homonymous

and I see no reason to separate them into different classes.

To begin with, the base demonstratives *ni* 'proximate demonstrative', *nga*

'medial demonstrative', and *na'* 'distal demonstrative' can either be used as nominal

modifiers, as in (72) or as verbal modifiers (locational deictic) as in (73). I use the

terms *proximate*, *medial*, and *distal*, because they seem to be the best terms to use.

When I elicited them, *ni'* has been used to describe objects or actions that happen in

the immediate vicinity of speaker (say within an arm's length), *nga* to describe

objects or actions that occur somewhat close , and *na'* to describe objects which

occur further away. When lining up three pencils, *ni'* is used to describe the one

closest to the speaker, *nga* the one in the middle, and *na'* the one furthest. All three pencils could potentially be described as being *ni'* or *nga*. This having been said, however, it is my intention to more rigorously test these meanings.

Note that, when used as a nominal modifier, its position in the noun phrase is fixed (as seen by the ungrammaticality of (74)), but when used as a verbal modifier, its position is as free as that of any other locational adverb (normally[7] not being able to intervene between verb and subject) (as seen in (75)).

(72) benhe xo   nga

      person old   demmed

      'This old person.'

(73) nga   0-nkwaa-shka   dao

      demmed   stat-lie_stacked-emph   corn_tassels

      'The corn tassels lay out there stacked up.'

(74) * nga benhe xo

(75)a) 0-nkwaa-shka   dao   nga

      stat-lie_stacked-emph   tassel demmed

      'The corn tassels lay out there stacked up.'

   b) *0-nkwaa-shka   nga   dao

      stat-lie_stacked-emph   demmed tassel

      'The corn tassels lay out there stacked up.'

One issue here which is of interest with respect to Diessel's typology is that, in Zoogocho Zapotec, adnominal and adverbial demonstratives seem to class together in opposition to the derived pronominal demonstratives, which is a pattern which Diessel does not mention. The addition of a classifier (*bi, be,* and *da* (cf. 7.7)) allows the demonstrative determiner to be used in pronominal demonstrative contexts[8], as seen in the following examples:

(76) *bi=ni*   this one (proximate) (used for small things)

      bi=nga   this one (medial) (used for small things)

   . *bi=na'*   this one (distal) (used for small things)

      be=ni   this one (proximate) (used for animates)

      be=nga   this one (medial) (used for animates)

      be=na'   this one (distal) (used for animates)

      da=ni   this one (proximate) (used for inanimates)

      da=nga   this one (medial) (used for inanimates)

      da=na'   this one (distal) (used for inanimates)

(77) bi   dx-een=da'   be=nga   dx-een=da'

      neg   cont-want=1sgexp   clan=demmed   cont-want=1sgexp

      be=na'

      clan=demdist

      'I don't want this one, I want that one.'

Demonstratives are not used in the identificational sense which Diessel

mentions, such as the French *cela*.

Now, as promised, I will discuss the categorial status of demonstratives in

Zoogocho Zapotec. It would appear that, with respect to the base demonstrative

which serves adnominal and adverbial functions, there are two potential options with

respect to its lexical classification. One could differentiate between the two functions

and classify the locative deictic with other adverbs and the demonstrative adjective

by itself (it cannot be used predicatively); or, in my view more correctly, one could

claim that there was one lexical class of demonstrative, and that, necessarily and

sufficiently, its ability to be used adverbially and adnominally serves as a means of

distinguishing it from other lexical classes.

7.9   Question Words

I include a class of question words, even though, as Schachter mentions,

question words or *interrogative proforms* as he refers to them, cut across many

lexical classes. There *interrogative pronouns* like English *who* or SBZZ *no* 'who',

interrogative adverbs like English *how* or SBZZ *nak*, and *interrogative adjectives*

like English *which* or SBZZ *bi*. These and the rest of the set are discussed in greater

detail in 5.5.3. Note that there is overlap between these. For example *no* can be used

as an interrogative adjective and *bi* can be used as an interrogative pronoun. The only

conditions one needs initially to separate this whole lot as a lexical class are that they

must be placed preverbally, which is necessary to define individuals of this lexical

class as belonging to a separate lexical class (unfortunately it is not sufficient, as the

focus marker *le* also must occur sentence initially), and to state that they are used in

content questions (which is sufficient, but unsatisfactory as it is notional). Note that

while these are syntactic criteria and could be said to define the class as a syntactic

position, it is consistent with the general framework set out in 7.1 to consider them to

be a separate class based on their syntactic uniqueness.

(78)   *bi*   sh-laa-dxgwa?

             what   cont-smell-emph?

             'What really smells?'

(79)   *sh-laa=dxgwa   *bi* ?

             *cont-smell=emph   what?

             'What really smells?'

7.10   Conjunctions

Schachter defines conjunctions as 'words that are used to connect words,

phrases, or clauses' (ibid. 46) distinguishing between *coordinating* (which assign

equal weight to the coordinated elements (such as English *and* or SBZZ *na'*)) and

subordinating conjunctions (in which one clause or element is marked as being

subordinate to the other one (like English *that* or SBZZ *ga*, as seen below)) (ibid.

48). In SBZZ, there are coordinating conjunctions which conjoin two noun phrases,

and coordinating conjunctions which conjoin both nouns and verbs. No element

cliticizes to a conjunction (necessary) and conjunctions require two arguments

(necessary and sufficient). I will briefly address the reasons for distinguishing

between conjunctions and prepositions below in 7.12.

(80) yina' o sed̦e

chile or (Sp.,) salt

'Chile or salt'

(81) g-za=a' na' gu-ya=a'

comp-walk=1sg and comp-go=1sg

'I walked and I went.'

(82) yina' na' sede

chile and salt

'Chile and salt'

Schachter goes on to differentiate three main types of subordinating conjunctions: *complementizers*, *relativizers*, and *adverbializers*. 'Complementizers* mark a clause as the complement of a verb (cf. (ibid. 138) [repeated as (83) below *A.S*]), noun, or adjective '(ibid. 50). Example (84) shows the use of the complementizer *ga* 'where'.

(83) Itinanong ko *kung* nasan sila Tagalog

asked I where they were

'I asked where they were.' (ibid. 50)

(84) ba n-zhaga-lao=dxo ga zegh=dxo

already stat-encounter-eye=1plincl where stat.go=1plexcl

'We are already rushed to where we go.'

'Relativizers are markers of relative clauses 'which crucially do not include relative pronouns which crucially serve a nominal function within the relative clause' (ibid. 51). There are no relativizers in Zoogocho Zapotec. However, the issue of

resumptive pronouns (discussed in 6.5.7) muddies the water a little bit, as in those

cases, the relative pronoun could potentially be said to not play a central nominal

role in the relative clause.

'*Adverbializers* mark clauses as having some adverbial function, such as the

expression of time, purpose, result, etc' (ibid. 51). Note the following use of an

adverbializer in SBZZ.

(85) nake gu-ditgh=le   kate   n-ak=le   bidao=na'

      how comp-play=2pl   when   cont-be=1pl   child=det

      'How did you all play when you were children?'

7.11 Other closed classes

Schachter mentions a number of other closed classes, including '*clitics,*

copulas and *predicators, existential markers, interjections, mood markers, negators,*

and *politeness markers*' (ibid. 53). *Clitics* have been discussed in Chapters Three and

Four.

'*Copulas* are words used to indicate the relation between a subject and a

predicate nominal or adjective' (ibid. 55). In Zoogocho Zapotec, these words are a

subset of the verbs. Note that while it is difficult to find any criteria which define

copulas as opposed to other verb classes, they do tend to have repeated subjects and

preverbal subjects more than other verbs and without the pragmatic implications of

focus or topicalization which such preposing or repetition would have for other

verbs. See Chapter Eight for more on the issues of the repetition and preposing of

subjects.

(86)   bidao   n-ak=be'

child   cont-be=3inf

'He is a child.'

Schachter also makes a distinction between *predicators* which are used when

there is no overt subject. Zoogocho Zapotec does not have a separate set of

predicators.

Emphasis markers/clitics which serve to emphasize the predicate such as -

dxgw=, are found in Zoogocho Zapotec. I have discussed the morphological status

and use of such markers in greater depth in Chapter Four. A verbal predicate,

adjectival predicate, or quantifier can be emphasized.

' *Existential markers* are words which are equivalent to English *there is/are*

etc' (ibid. 57). He gives the following example form Hausa.

(87)   *Akwai*   littafi   a   kan   tebur

EXIST   book   at   top   table

'There is a book on the table.' (Schachter's (175) (ibid. 57)

He then goes on to mention that '(L)anguages that do not have existential

markers often use verbs meaning 'be (located)' to express equivalent meanings`, as

in the following example from Akan.

(88)   sika   bi   wɔ   me   foto   mu

money   some   islocated   my   bag   in

'There is some money in my bag.' (Schachter's 178) (ibid. 57)

The reader is referred to the earlier discussion of positional verbs in this chapter, to see how locative constructions are used to express existential meanings.

Negative existentials are formed in the following way. The forms *bibi* (used with inanimates) and *nono* (used with animates) do not occur outside of the following construction which involves *bibi* or *nono* followed by the word *dee* or another positional. Note that they only appear in this constructions.

(89) bibi   dee   zaha

      neginan   lie(exist)   beans

      'There are no beans.'

(90) bibi   dxi   justis

      neginan   stat.sit   justice

      'There is no justice.'

(91) nono   dee   doktor

      negan   exist   doctor

      'There is no doctor.'

As an interesting side note, SBZZ speakers consider the following lexical items to be animate, by this classification, and by the use of the classifiers.

(92) nono   dee   juguet

      negan   exist   toy

      'There are no toys.'

(93) nono   dee   camion

      negan   exist   bus

'There is no bus.'

Schachter also states that it is relatively common for there to be a relationship between existential and *possessive* constructions. He cites the following example from Tagalog which I have adapted.

(94)(a.)Mayroon-g   libro   sa   mesa

       EXIST/POSS-LINK   book   on   table

'There is a book on the table'

       Wala-ng   libro   sa   mesa

       EXIST/POSS(NEG)-LINK   book   on   table

'There isn't a book on the table'

(b.)Mayroon-g   libro   ang   bata

    EXIST/POSS-LINK   book   TOP   child

'The child has a book.'

    Wala-ng   libro   ang   bata

    EXIST/POSS(NEG)-LINK   book   TOP   child

'The child doesn't have a book.' (Schachter's 180) (ibid. 57-58)

Note the following Zoogocho Zapotec examples, using positional verbs.

(95)   dxi   libr=en'

       stat.sit   book=det

       'There is a book./The book is there.'

(96)   dxi   libr chi=a'

       stat.sit   book of=1sg

       'My book is there.'/ 'I have a book.'

'*Interjections* are words, often of an exclamatory character, that can

constitute utterances in themselves and that usually have no syntactic connection to

any other words that might occur with them' (ibid. 58). The following is an example

of an interjection in Zoogocho Zapotec.

(97)   bi   gu-yegh=o?

       not   comp-drink=2sg

       'You didn't drink?'

       õ̃õ̃

       'no'

'*Mood markers* are words that indicate the speakers attitude or that solicit the

hearer's attitude, toward the event or condition expressed by a sentence' (ibid. 58).

One such marker in Zoogocho Zapotec is *sheka* which marks that the speaker is not

entirely sure about the veracity of the statement, as seen in the following example.

(98)   sheka   bi   g-ak   yogh

        belief   neg   pot-be   rain

'I don't think its going to rain.'

'*Negators* are words like English *not*, which negate a sentence, clause, or

other constituent' (ibid. 59). I will now just say that they are differentiated in the

following way: they occur immediately prior to the element which they negate.

Consider the following example of a negator in Zoogocho Zapotec.

(99)   **bi**   gu-daw=a'

        neg   comp-eat=1sg

'I didn't eat.'

Schachter mentions *politeness markers*, which 'express a deferential attitude

towards the person addressed' (ibid. 60). There are no such markers in Zoogocho

Zapotec. There are formal and informal forms of the third person pronominal forms,

but these are among the only grammaticalized ways one can express such attitudes.

Among the other lexical classes which Schachter mentions as potentially

occurring in a language are proforms such as; *pro-sentences*, 'words like English *yes*

and *no* which are used in answering questions and are understood as equivalent to

affirmative and negative sentences respectively' (ibid. 32) (as seen in examples

(100a) and (100b) below (note that these are both interjections)), *pro-clauses*, as in

the question tag *ke* in example (101) below, *pro-verbs* (which do not apply to ZZ),

pro-adjectives, pro-adverbs (see example (102) below to see examples of the use of

ka in SBZZ as a *pro-adverb)*, and finally *interrogative pro-forms* which as he notes

cut across lexical classes, and which were discussed earlier in the current chapter. While I am describing them here, they do not form part of a discrete lexical class and are included here because they do not fit discretely anywhere else.

(100)   zegh=be'

comp.go=3inf

'Did she go?'

(a) õõ 'no'

(b)uhuh' 'yes'

(101)   gu-da=lenh=e=be', ke?

comp-walk-with=3f=3inf, really?

'She went with him, didn't she?'

(102)   dx-osia   bsia=n '   ka'

cont-scream   eagle=det   demadv

'The eagle screams like that.'

7.12   The Relational Noun/Locative Preposition Continuum.

7.12.1   Introduction

The grammaticalization of prepositions from relational nouns (body part terms for human and animal bodies used in spatial description) is an issue which has received a great deal of attention from descriptive and comparative linguists. In Zoogocho Zapotec, human body part terms form a nascent grammatical category which has not undergone the amount of semantic bleaching (abstraction) which has occurred in many languages (members of this class are mostly still not used in a

grammatical sense, which, as we will see, is a major defining criterion for the category of preposition), and which is not uniform in the status of its members. Some body part nouns do have generalized locative uses; yet even in these cases, there is still both the potential for interaction with the base metaphorical system and the canonical, fixed use which makes them differ from locative prepositions in a language like English, or the varieties of Valley Zapotec discussed in Lillehaugen (2003) and Munro (2002). As has been mentioned in other contexts, including the discussion in Hollenbach to which I will come later, the presence of positional verbs which indicate, in part, the relation of figure to ground and thus share some of the relational burden of the body part term, both help to be the source of and also to explain the variability in the status of the individual body part terms.

In this section, I will discuss the continuum which exists between relational nouns and prepositions in Zoogocho Zapotec. I will begin by an examination of one example of what has been said crosslinguisticallly on the issue, namely Heine et al.'s (1991) position on the grammaticalization of body part terms, largely based on data from African languages. I will then go on to a discussion of the issues in one Zapotec language (MacLaury (1989)) and Mixtecan (based mostly on Hollenbach (1995)). I will then propose a synthesis of the various approaches for the relational noun/preposition cline, apply this synthesis to the relational body part terms of Zoogocho Zapotec, and end with a comparison of a group of Zapotec languages in which the body part terms have been much more grammaticalized than in SBZZ (Lillehaugen (2003) and Munro (2002)).

7.12.2 Heine et al.

Heine et al. (1991) list the following stages as a typical conceptual path through which body parts develop into spatial concepts in African languages. This is meant to model the cognitive development from concrete object to spatial description, and is not meant to represent categorial changes.

(103)

STAGE		CONCEPTUAL DOMAIN
0	Body part of X	OBJECT
I	Subpart of X, spatially defined	OBJECT/SPACE
II	Space as part of and adjacent to X	SPACE/OBJECT
III	Space Adjacent to X	SPACE (Heine et al. 130)

Examples from Swahili are given for stages I-III. Note that no example of stage 0 is given, as the word *mbele* (which originally came from 'the lexeme *-bele* 'breast''(ibid. 131)) no longer functions as a body part term. In the following example, *Stage III* has adverbial syntax. The importance that I am placing on it is the (extremely) general semantics associated with it.

(104) *Stage I:*

mbele	ya	gari	lake	ni	nyeusi
front	of	car	his	is	black

'The front part of his car is black.'

(104 cont.) *Stage II:*

> taa ziko mbele ya gari
>
> lamps are front of car
>
> 'The lamps are on the front part of the car.'

or

> mbele ya gari lake ni peusi
>
> front of car his is LOC.black
>
> 'The space in front of his car is black (e.g. in a garage).'

Stage III:

> gari liko mbele
>
> car is front
>
> 'The car is in front/ahead.' (ibid. 131)

Heine et al. then go on to list a number of positions which Africanists have used in the description of prepositions derived from nouns. They are repeated in (105) below.

(105) (a) Adpositions, or 'prepositions', are words that can be translated by prepositions in a given matrix language, like English, German, or French.

(b) They are homophonous with or similar to nouns.

(c) They are nouns or form a distinct subclass of nouns.

(d) They are cognate with nouns.

(105 cont.)(e) They are historically derived from nouns. (ibid. 132)

They go on to state a typology for the 'continuum of decreasing nominality along which any given adposition may be located' (ibid. 132).

(106)   (a) ability (+) versus inability(-) to express a morphological number

distinction, that is, typically, to take a plural marker (PL);

(b) ability (+) versus inability(-) to take a demonstrative (DEM);

(c) ability(+) versus inability(-) to take adjectival qualifiers (ADJ);

(d) ability (+) versus inability (-) to permit relativization when not being

qualified by a genitive noun phrase (REL);

(e) ability (+) versus inability (-) to form the sentence subject when not being

qualified by a genitive noun phrase(SUBJ; cf.. *h* below)

(f) ability (+) versus inability (-) to take first- or second-person

possessive pronouns as modifiers (PRON)

(g) presence (+) versus absence (-) of a genitival/subordinating

morphology (GEN);

(h) ability (+) versus inability (-) to permit relativization when

qualified by a genitive noun phrase (REL GEN);

(i) ability (+) versus inability (-)to form the sentence subject as the head of a

genitive noun phrase (SUBJ GEN;cf.. e above);

(j) ability (+)versus inability (-) to take third-person possessive pronouns as

modifiers (PRON 3RD; cf.. f above) (Heine et al. 133)

I will come back to these criteria in greater depth later in the current section. One issue which might be considered at this junction is the issue of metaphor in the grammaticalization of body part terms. When used metaphorically, the original characteristics of a set of source concepts will not necessarily transfer to the target dominain. Thus, one would potentially be remiss to say, in a discussion of the metaphorical transfer from the human body to locative constructions, that because a certain thing which might have been able to be said about the human body cannot be said in the locative construction that this means that one apriori claims that two different lexical classes exist. For example, while one may talk of the foundations of a theory and one might construct theories like buildings, one generally does not construct tall theories (Lakoff and Johnson 1987). Or, perhaps in a better example, if one was using the metaphor *anger is heat*, exemplified by statements like <u>That really steams me</u> or <u>His blood boiled,</u> and found that statements like <u>That really quick (or quickly) steams me</u> or something in that sense to be nonsensical, one would not want to necessarily say that a categorical shift has occurred. Metaphorical mappings are not one to one, onto mappings (otherwise known as isomorphisms), to use the mathematical terms. There are likely to be some semantic cooccurrence restrictions on the interaction of the source and target domains of any metaphorical mapping, and one should not be surprised if a mapped term does not have all the properties of the original. I will come back to this point briefly when reformulating these characteristics.

7.12.3   Mixtecan

In this section, I will focus on the 1995 IJAL paper, 'Semantic and Syntactic

Extensions of Body part terms in Mixtecan: the Case of 'Face' and 'Foot'', by

Barbara Hollenbach. In this paper, Hollenbach shows how syntactic reanalysis and

semantic shift has led to a wide range of meanings and functional use of those body

part terms in Mixtecan languages. She lists the following range of uses of words

diachronically derived from Proto-Mixtecan words for 'face': face, front of, top of,

in front of, on top of, in presence of, to, in place of, than, place (where), time (when),

when, and if (Hollenbach 170). The uses of words derived from the word for 'foot'

are: foot, bottom of, beginning of, basis for, at foot of, at beginning of, for benefit of,

on behalf of, about, in exchange for, and because.

She claims the following with respect to the path which these words have

taken. First, '(W) ithin the spatial domain, the core meaning of a body part of a

person or animal is extended to some analogous part of an inanimate object. The

mechanism that accounts for this change is metaphor, i.e., the mapping of an image

from one domain into another' (ibid. 171). Next, '(A) second extension moves from

a part of an object to the space that projects out from that part' (ibid. 171). This is

described by the term 'projecting space' (ibid.171), or 'adjacent location' by

MacLaury (1995). This change comes about via metonymy, however, rather than a

part/whole approach to metonymy, Hollenbach takes the approach that metonymy is

'the use of a word for something associated with its original meaning'(Hollenbach

171). Following this, '(A) second path of semantic extension moves from the spatial

domain to the temporal' (ibid. 172). Then, '(A) nother kind of change moves from the spatial domain to the domain of logical entailment' (ibid. 172). This could include a detour through the temporal domain. I will not discuss the semantic extensions further here, but will discuss the semantic extensions more fully in our discussion of MacLaury and Ayoquesco Zapotec and Zoogocho Zapotec.

Syntactically, 'they [body part terms *A.S.*] move from the major lexical class noun, the members of which prototypically refer to concrete objects, to other parts of speech, the members of which prototypically mark grammatical relations' (ibid. 172). While Hollenbach posits two different types of syntactic change to account for all of the various meanings that *face* and *foot* have taken, we will concentrate on the change from noun to preposition, as the change from noun to subordinating conjunction is not relevant to the discussion of Zoogocho Zapotec. The mechanisms which she posits for the syntactic change are reanalysis and then generalization based on the reanalysis (ibid. 173).

As Hollenbach notes, 'syntactic function is shown mainly by word order and not by case...(T)here are therefore no grammatical signals that distinguish the schema preposition +complement NP... from the schema body part noun + possessor NP' (ibid. 177). This could also be said of Zoogocho Zapotec. As will be seen, possessive noun phrases and body part terms which are reanalyzed are indistinguishable. However, the 'trigger' for the reanalysis is, as Hollenbach rightly points out, 'to be found in the nature of the verbs with which the phrases occur' (ibid. 178). One such set is the positional verbs, which 'link a subject and the place

where it is located' (ibid. 178), and 'express most of the relational notions that are expressed by spatial prepositions in English and other European languages' (ibid. 178). 'The locational element in the sentence frequently contains a body part noun and its possessor' (ibid. 178). We will come back to this later in our discussion of the Zoogocho Zapotec data. Before moving on to the description of the reanalysis and the generalizations, we shall note that Hollenbach also states that '(V)erbs of movement, transport, placement, and change of possession' (ibid. 178) are also similar in that they 'express spatial concepts and all of them commonly occur with possessible noun phrases containing body part nouns' and ' the relation is expressed by the verb' (ibid. (178). With the high frequency of body part nouns being used in such constructions, '(I)t is, however, also possible to view such sentence more like English, with the relation found in the body part noun, as well as in the verb'(ibid. 179). Once such reanalysis has taken place, the door is opened to the generalization of this construction to other verbs. The change in the syntactic category of the lexical item has occurred (ibid. 180).

7.12.4   MacLaury and Ayoquesco Zapotec

In the important 1989 IJAL paper, 'Zapotec Body part Locatives: Prototypes and Metaphoric Extensions', Robert E. MacLaury discusses the grammaticalization of body part terms in Ayoquesco Zapotec and compares this with the grammaticalization of similar elements in Trique and Mixtec. He notes that Ayoquesco Zapotec differs from the Mixtecan cases because, in addition to the fact

that Ayoquesco Zapotec uses only the human body as a metaphorical model for the description of space:

> [Ayoquesco] Zapotec does not use body part terms as prepositions, nor even as markers of goal, path and source; its dative extensions are restricted to verbs of speaking, which locate one person in front of another. Whereas Mixtecan generalizes some of these directional functions, Zapotec has innovated use of body part words to differentiate whether a figure is close to its ground or in contact. (MacLaury 120)

Even though he acknowledges that other Zapotecan languages also have a class of prepositions, he reasons that the body part locatives are not prepositions on the following grounds:

> Unlike English prepositions, they are identical in form to the nouns applied to body organs, their use in syntax is optional, they only add specificity to other locative expressions, they do not complicate syntax, they do not denote direction, and they do not mark grammatical relations as do case markers. (ibid. fn. 3, 120)

MacLaury notes that these nouns behave exactly like possessed noun phrases in the language. He also mentions that 'face' is the only body part term that 'functions as a dative marker and as an expression of abstract location' (ibid. 121). While it is the most widely used term in Zoogocho Zapotec, we would be amiss to say that it is used as a dative marker in SBZZ. He discusses, as I will note later in the discussion of Zoogocho Zapotec, how the human body is used as a metaphorical

model for the description of the location of most objects, even for objects such as flat

mats or pieces of paper which are difficult to map the human body to or featureless

items such as balls, even using occasional novel body parts in such a function.

When body part terms specify the shape of a location and its relation to a

ground, they appear to mark goal, path, or source of motion. Nevertheless, all

information regarding direction and manner of motion is encoded by verbs,

such as 'go', 'pass', and 'leave'. (ibid. 137)

MacLaury also makes the following distinction, which also will be relevant

to the later discussion, when discussing how the use of naming a part of an object

and naming a space adjacent to an object can lead to potential confusion.

Removed location versus location-in-contact

(107) b-zaby-ma   gik   yag

      C-fly-3+animal   head   tree

      (a) 'The bird flew over the tree.'

      (b) 'The bird flew to the treetop.' (37 in (ibid. 143))

(108) bzaby-ma   gik   lo   yag

      C-fly-3+animal   head   face   tree

      'The bird flew to the treetop.' (38 in (ibid. 143))

Similar ambiguity to that in (107) can be found in Zoogocho Zapotec and will

be discussed later.

One final claim which MacLaury makes for Ayoquesco Zapotec which does

not apply to Zoogocho Zapotec is that Ayoquesco Zapotec does not have locational

verbs without 'further specification of containment'. As I will show in the discussion

of Zoogocho Zapotec and has already been seen in Hollenbach's discussion of the

issue in Mixtecan, the combination of positional verb and body part term or other

locative expression is absolutely necessary in the description of locative relations.

7.12.5 An initial description and textual exploration of relational nouns in Zoogocho Zapotec.

I have examined and quantified the use of the words : *ni* 'foot, below'; *yichgh*

'head, above'; *dxoalao* 'face, around'; *kwit* 'side, beside'; *lee* 'belly, middle'; *lho*

'intestines, inside'; *kwitlee* 'middle of side'; *dxoa* 'mouth, in front of'; *lao* 'eye, in

front of, to'; *kuzhe* 'back, behind'; and *zxan* 'buttocks, below' in a variety of contexts

which I will immediately enumerate in a corpus of over 2000 clauses. I looked at

their primary use as body part terms, as in (109)-(110) below.

(109) gw-e-le'i-kse=do'   **dxoalao=be'** do   gxe   do

pot-freq-see-emph=2sgexp   face=3inf   indef tomorrow   indef

wizhghe

day_after_tomorrow

'You will see his face tomorrow or the day after tomorrow.'

(110) na'   zha   yeshe ye   **nia=dxo**

       and   stat.prick   thistles   foot=1plincl

       'And the thistles pricked us in the feet.'

I examined their use when used to describe a part of an item (cf. (111)-(112) belo

(111) na'   b-zu=e'   yetgha   **dxoa**   trapish=en'

       and   comp-put=3f   cane   mouth   mill=det

       'And they put the sugar cane in the mouth of the mill.'

(112) za   b-zu=e'   azulejo **yichgh=en'** na'

       just comp-put=3f   tile   head=3inan demdist

       'He had just put tiles on the roof (its head).'

I also examined their use when used to describe a location in relation to a part

of an item (cf. (113) and (114) below).

(113) na   g-loo=be=ba'   **lho**   danh

       now   comp-insert=3inf=3an   inside   geninan

       'She put it in it.'

(114) nak   g-on=to   y-e-dxogh=to   **yichgh=e'**

       how   pot-do=1plincl   pot-freq-exit=1plincl   head=3f

       'How are we going to do it so that we leave there by his head?'(This was

       taken from a text in which children are instructed in a traditional dance, 'La

       danza de los tigres', and in which they are going to exit the stage by

       someone's head. Thus, it is in an extended relation to the body part.)

I also looked into those cases where, instead of just marking a location in relation to a part, it marked a more general location.

(115) b-e-zhinh=be' **lao** xa-xna=be

comp-freq-arrive=3inf face father-mother=3

'She arrived in front of her parents.'

(116) dx-bezh-ks=a'=nda' **lao** dio

cont-cry-emph=1sg=1sgfsf face god

'I cried in front of god.'

I also tried to look for instances in which the body part term could potentially be deemed to be a grammatical preposition, and found none. In all cases, the use of *lao* in constructions such as (115) and (116) is constrained to situations where the object of the relational noun is either directly in face to face contact or metaphorically in face-to-face contact. The term *lao* and all other body part terms do not have abstract dative like uses.

Body part terms can also quite frequently become parts of noun-noun collocations which have fixed meanings, as in the following.

(117) b-e-z=e'   zgh-ed=e'   kapiya chi=e' da

comp-freq-go=3f comp.and-arrive=3f   chapel of=3f clinan

zoa   **dxoa bla'o**

stat.stand mouth zapote

'She left and went to her chapel which is at Zapotesmouth (a location in the village).'

Finally, I examined the incorporation of body part terms into verbs, quite common both within Otomanguean and crosslinguistically.

Some of these uses are relatively transparent, as in (118).

(118) to bi kuñad chi=a'   0-zhiaha-lao=be'

one clsm inlaw of=1sg pot-go-eye=3inf

'One of my in laws went in front.'

Note the repetition of *lao* in (119) used below as a means of specifying location.

(119) 0-zhia-lao meka=n' lao=a'

pot-go-face Mika=det eye=1sg

'Mika went in front of me.'

Other transparent uses are as in the following.

(120) kabi   0-sue=dxo   0-za-**nia**=dxo

      neg   pot-handle=1plincl   pot-walk-foot=1plincl

      0-shinh=dxo   tlaclul=le

      pot-arrive=1plincl   Tlacolula=dir

      'We aren't going to handle walking to get to Tlacolula.'

Note that the meaning of these incorporated roots can become quite opaque as in (121), which also exemplifies the use of *lao* in phase verbs.

(121) na'   ze-lao   g-lez=en

      demdist   stand-eye   comp-standup=3inan

      'There it stopped (standing).'

I noted each use of the body part terms I have been discussing in a corpus of over 2000 clauses and classified their use according to the criteria I have just discussed in an attempt to see the degree to which each individual item had been lexified and to see as a group what use they had. I have included *lho* here and above as a potential point of comparison, even if synchronically it is not a body part term.

Table 7.3 Textual usage of body part terms

	bp	p	loc	rel	prep	n=bp	v=bp	Total
nia	9						2	11
yichgh	3	3	8					14
dxoalao	7							7
kwit			7					7
lee	2	2	3	4				11
kwitlee	1		9					10
dxoa	2	7	3			1		13
zxan	2	2	16	10				30
kuzhe	5	10	8	1				24
lao	2	6	20	24			35	87
lho	2	1	5	26		2		36
Total	**35**	**31**	**79**	**65**	**0**	**3**	**37**	**250**

In the chart above, bp=body part, p=part of object, loc=locative in relation to an object, rel=more generalized relational noun, prep=prepositional with grammatical uses, n+bp =nounbody part compound, and v+bp = verb body part compound.

As seen in the chart above, and, as I will show later, confirming other studies of body part terms in Zapotecan languages, *lao* is used by far the most of any of the body part terms currently in use and should be considered to be the most grammaticalized body part term. Furthermore, it is used less referring to the body part and more referring to a location. It is by far the most grammaticalized of any of the body part terms. Next was *lho* which is no longer a body part term, followed by *zxan* and *kuzhe*. Note that these are the next most grammaticalized members of this set, and their predominance in this study is probably a result of this. It would seem

that it is much rarer to talk of body parts than it is to talk of locative relations.

Furthermore, it would appear, however, that *nia* and *dxoalao* were among the least

grammaticalized elements of this set, followed by *yichgh*, *kwitlee*, *dxoa*, and finally

lee. With respect to their uses, it is hard to claim any real generalizations. It was very

difficult differentiating between locations and relations. This is something which

needs to be cleared up in the future. The SBZZ body part terms do show the range of

variation which one would expect from a lexical class which was in the process of

being grammaticalized.

7.12.6   Non-body part derived prepositions

As already mentioned there is also a class of non-body part derived

prepositions, both locational such as those very partially listed in (122) below (which

also include various Spanish loan words) and purely relational such as the comitative

marker *lenh* and the possessive marker *che*.

(122)   *ladgho* 'between', *gadxol* 'in the center of', *galha'* 'near, *entr* 'between

        [Sp.]', *fuerle* 'outside of [Sp.]', *trasde* 'behind [Sp.]', etc

The first task is to distinguish a class of prepositions. This is not a trivial task.

They could be said to be words which introduce a new phrase into a clause (123).

Unfortunately, this is a property which is also shared by body part locatives, some

possessed nouns, and place names as seen in (124). Thus, this is a necessary

condition, but is not sufficient in and of itself to classify the prepositions of the

language. I choose to classify all of these items as prepositions (as opposed to all

other lexical classes with the exception of relational nouns, which will be discussed

later) because they occur in a prenominal position (necessary), they crucially express a relation between one or more noun phrases or a noun phrase and the predicate (necessary), and their application is not based intrinisically, meaning that they vary with respect to the positioning of the figure or ground, crucially distinguishing them from many of the relational nouns we will describe below and also conjunctions(sufficient). I am excluding the body part terms at this point, even though they could easily meet many (but not all) of these criteria.

(123)(a)   sh-cho=a'

           cont-cough=1sg

           'I coughed.'

(b)   *sh-cho=a'   bedo

           cont-cough=1sg   Pedro

           *'I coughed Peter.'

(c)   sh-cho=a'   galha   bedo

           cont-cough=1sg   near   bedo

           'I coughed near Peter.'

(124)(a)   sh-cho=a'   lizha=a'/tiend   chi=a'

           cont-cough=1sg   house=1sg/store   of=1sg

           'I coughed in my house/store.'

(124cont.)   (b)   sh-cho=a'   yezh=en

                      cont-cough=1sg   town=det

               'I coughed in town.'

It is also not necessarily an easy task to distinguish between various classes

of prepositions within the language. The primary grammatical distinction that we can

make is between prepositions which take pronominal clitics (which include many of

the locative prepositions and the two relational prepositions mentioned above) (125)

and prepositions (many of which are Spanish borrowings) which cannot take

pronominal clitics (126).

(125)   ladgho=dxo

               between=1plincl

               'between us'

(126)(a)   trasde neto

               behind 1plexcl

               'behind us'

     (b)   *trasde=to

               behind=1plexcl

7.12.7   The cognitive development of body part terms in Zoogocho

               Zapotec

Before I attempt to discuss the classification of the body part terms discussed

above, I would like to point out how they correspond to the conceptual continuum set

forth above for Swahili. If we were to consider similar examples in Zoogocho

Zapotec, we would see the following. Once again note that we are discussing the cognitive stages here, not the categorial stages.

(127)	STAGE	CONCEPTUAL DOMAIN
0	Body part of X	OBJECT
I	Subpart of X, spatially defined	OBJECT/SPACE
II	Space as part of and adjacent to X	SPACE/OBJECT
III	Space Adjacent to X	SPACE (Heine et al. 130)

(128) *Stage 0:*

(a) nadxen   0-sala   **yichgh=to**   ka'

afterwards   pot-throwback   head-1plexcl   demadv

'Afterwards we will throw our heads back like this.'

Stage I:

(b) za   b-zu=e'   azulejo **yichgh=en**   na'

just   comp-pit=3f   tile   head=3inan   demdist

'He had just put tiles on the roof (its head).'

Stage II:

(c) nak   g-on=to   y-e-dxogh=to   **yichgh=e'**

how   pot-do=1plexcl   pot-freq-exit=1plexcl   head=3f

'How are we going to do it so that we leave there by his head?'

(128 cont.) *Stage IV*:

(d)	to	gonh	pintw	zoa	**yichgh=en**	na'
	one	bull	spotted	stand	head=3inan	demdist

'One spotted bull is standing there in front of it.' [9]

Before I go on to classify the body part terms, it will be useful to first discuss the metaphorical mappings which occur. To begin with, the basic model is indeed that of the human body, as mentioned by MacLaury above. Novel body part terms based on terms for an animal's body are for the most part resoundingly rejected by native speakers[10]. Objects described in relation to animals can use the canonical orientation of the animal as a model for the description. For example, the word *kuzhe* can refer to either a human back or to an animal back. As humans canonically are upright and their back is behind their point of view, the generalized use of *kuzhe* in describing spatial relations refers to things which are behind other things (with in front of and behind defined either in reference to the speaker or to a reference point like the door of a house). In contrast, an animal is canonically on all fours and as such its back is upwards. Thus things that are on an animal's back will be described as being *kuzhe=ba'* 'on its back' as in example (129). Note first that this is an instance of stage I above, and furthermore that one would not be able to say this in any other way using the body part terms. (All of the other terms would potentially be ambiguous.)

(129) to=ba'   dxi   kuzhe=ba=n'

one=3an   stat.sit   back=3an=det

'One of them is on the other's back.'

The human model is predominant and is used in most instances which describe

animals, as in the following.

(130) na' pshina' yixe=n' zeghe=ba'   dx-zxlonhgh=ba'

and deer wild=det comp.go=3an   cont-run=3an

kuzhe=ba'

back=3an

' ... and the deer went running behind it(a dog).'

It is also important to note that the model of the human body, when

metaphorically mapped to objects in this construction is often mapped in an

incomplete fashion. When I was first attempting to learn about the use of relational

nouns, I asked one of my teachers if I could describe some crows on top of a tree as

being *yichgh yag* 'head of tree', and was told that that would be impossible given

that 'trees do not have heads'. As it turns out, a large part of the problem was with

the choice of tree. It was a pine tree and as such one would describe those crows as

being *zxiine yag* 'nose of tree' or *punt che yag* 'point of the tree'. One could

potentially say *yichgh yag* if they were above the tree, but that was still deemed to be

odd and it would be better to say *lao yag* 'eye tree' or one of the two discussed

above.

In a similar vein, one can see body part terms which are used not normally used in locative constructions being used in locative constructions for individual items. As an example of one such extension, take the word for 'nose', *zxiin=* just discussed in the previous paragraph. In San Bartolomé Zoogocho, many of the traditional sandals or *yelh* come to a point in the front, like a pair of cowboy boots. When one is describing that part one can use the phrase *zxiin yelh* 'nose of sandal'. One can then use that term to describe something which is on top of that area or directly in front of it. Now, interestingly, when one puts a sandal up on its nose (holding it there, of course), and something is below the nose, one can still say that it is *zxiin yelh*. Similarly, if the sandal is placed on its back, and something is either suspended above it or put on the tip of the shoe one can still say *zxiin yelh.*[11] Note that this term goes through all of the stages which Heine defines.

(131)   STAGE   CONCEPTUAL DOMAIN

             0: Body part of X   OBJECT

    (a)   dx-ak=da'   zxiin=a'

             cont-feel=1sg nose=1sg

             'My nose hurts.'

             I: Subpart of X, spatially defined   OBJECT/SPACE

    (b)   puntiagud   n-ak   zxiin yelh

             pointy   cont-be   nose sandal

             'The point of the sandal is pointy.'

(131 cont.)   II: Space as part of and adjacent to X SPACE/OBJECT

 (c) dxi to caj yes   zxiin yelh

      stat.sit one box cigarettes nose sandal

     ' A pack of sandals is on/in front of the sandals.'

     III: Space Adjacent to X   SPACE (Heine et al. 130)

 (d) zehe   to yishe   zxiin yelh

      stat.hang one paper   nose sandal

     'A piece of paper is hanging above the sandal.'

This point brings up the final point which I will discuss here with respect to the conceptual origin and limitations of relational nouns; the issue of canonical relations or intrinsic reference. Certain items, such as the shoes which we have just described, or, for example a leaf which has a pronounced curve and a spine, like a banana leaf, have parts that are typically labeled in a certain way.

For example the banana leaf, *lahaga yelha*[12], can be described as having a front and a back, labeled *lhee lahaga* 'stomach leaf/front of leaf (without spine)' and *kuzhe lahaga* 'back leaf/back of leaf (with the stem running down the leaf)'. Once it is so labeled, things described with respect to the leaf will always refer to these parts, regardless of the orientation of the leaf. If the leaf is placed on top of a package of cigarettes with the stem-side down, and one asks where the cigarettes are, they will be described as being *kuzhe lahaga*. Similarly, if the smooth side is placed down on top of the cigarettes, the cigarettes will be described as being *lhee lahaga*. Once

again, the use of other body part terms is possible, but these are what I was told were

preferable.[13]

7.12.8   The lexical classification of body part terms

I will attempt to discuss ways in which one might go about classifying the

body part terms we saw above. To begin with, note that nouns and prepositions form

a continuum, with nouns as described above on one end of the continuum, and

prepositions as described above on the other end of the continuum. One might

consider this continuum to be something like the following

(132) nouns   locational adverbs   relational nouns   prepositions

Returning now to Comrie's discussion of defining categories in terms of

prototypes, I will attempt to come up with a chart similar to the one which Heine et

al. proposed above, by examining the definitions of nouns and prepositions which

have been arrived at and then positing them as being on either end of the continuum.

The nominal criteria which will be considered are the following: possession,

cooccurrence with demonstratives, ability to be the sentential subject either with or

without being possessed, ability to be modified by an adjective, and quantification.

The last three are a bit tricky. While they make sense in Heine et al.'s discussion of

Hausa, there are some inherent difficulties in the case of SBZZ. To begin with, when

used as parts of the body, these nouns are always possessed, so whether or not they

are able to be the subject without taking genitival modification is a moot point as

they will always take genitival modification.

In a different vein, I should note that, when used to describe location, it is very difficult to come up with contexts where relational nouns can be described with adjectives. It is questionable whether relational nouns could be modified in this way at any of the points in their historical, cognitive, and linguistic development. If one considers the discussion above on metaphor theory, it would be a case where one does not map all of the elements or potential combinations of a source domain to a target domain. The test is, however, very useful in determining whether a relational noun/preposition still can be used nominally, as all of the relational nouns can, by themselves, be used with adjectives when being used as body parts or parts of an object.

The prepositional criteria I will consider are: prenominal position, expression of a relation between one or more noun phrases and each other or the predicate, and freedom of application. Finally, I will distinguish between prepositions which can take pronominal clitics and prepositions which cannot.

Before going any further, consider the following chart, in which, using the criteria we have discussed above, the criterial status of prepositions in Zoogocho Zapotec is considered. In this chart, we will include as items we are testing:

(133) I.   Body part terms used to label parts of the human body

yichgh=a'

head=1sg

'my head.'

(133 cont.) II. Body part terms used to describe objects

zxan   yishe

buttocks   quern (grinding stone)

'bottom of the quern'

III. Body part term used to describe part of and space adjacent to an object.

nak   g-on=to   y-e-dxogh=to   **yichgh=e'**

how   pot-do=1plexcl   pot-freq-exit=1plexcl   head=3f

'How are we going to do it so that we leave there by his head?'

IV. Locations

lizh=a'

poss.house=1sg

'my home'

V. Body part terms used to describe locative relations

zxan   mes=en'

buttocks   table=det

'below the table'

VI. Locative prepositions not related to body part terms

ladgho   nia=be'

between   foot=3inf

'between his feet'

VII.   Relational prepositions

lenh=a'

with=1sg

'with me'

I will be testing the following criteria.

Property A, a nominal property, is whether the item can be the sentential

subject.

        A.   Sentential subject[14]

(134)   (a)   nala   nia=be'

                 stat.hang   foot=3inf

                 'His feet hung.'

    (b)   *nala   lenh=a'

             stat.hang   with=1sg

          *'With him hung.'[15]

Property B, also a nominal property, has to do with whether an item is able to

be modified by an adjective.

(135)   B.   Adjective

    (a)   yichgh zxen chi=a'

          head   big   of=1sg

          'my big head'

(135 cont.)   (b)   *gadxol zxen nia=be'

between big foot=3inf

Property C, yet another nominal property, deals with whether a

particular lexical item can be quantified.

(136)   C.   Quantification

(a)   chupe ni=a'

two   foot=1sg

'My two feet'

(b)   *chupe gadxol   bedo[16]

two   between   Pedro

The next two criteria which will be tested are actually irrelevant, given the

post nominal syntactic structure of demonstratives and determiners. Unfortunately

one cannot know what is being modified, i.e. whether it is the whole PP or RelNP or

whether it is the noun.

(137)   D.   Demonstrative

lizh=o'   na'

poss.house=2sg   demdist

'Your house there'

(138)   E.   Determiner marker

yezh=en'

town=det

'the town'

The next criterion which will be tested will be whether a pronominal clitic can attach to the lexical item. Most of the lexical items which are being discussed will be positive for this test.

(139)   F.   Pronominal clitics

(a)   ladgho=dxo

between=1plincl

'between us'

(b)   trasde neto

behind 1plexcl

'behind us'

(c)   *trasde=to

behind=1plexcl

The next criterion I will test, a property of prepositions, will be whether or not the particular lexical item will be able to be inserted into a sentence whose core argument structure is already filled.[17]

(140)   G.   Freedom in syntax

(a)   sh-cho=a'

cont-cough=1sg

'I coughed.'

(b)   *sh-cho=a'   bedo

cont-cough=1sg   Pedro

*'I coughed Peter.'

(c)   sh-cho=a'   galha   bedo

cont-cough=1sg   near   bedo

'I coughed near Peter.'

(d)   sh-cho=a'   lizha=a'

cont-cough=1sg   house=1sg

'I coughed in my house.'

(e)   sh-cho=a'   yezh=en'

cont-cough=1sg   town=det

'I coughed in town.'

(f)   sh-cho=a'   lao=o'

cont-cough=1sg   eye=2sg

'I coughed in front of you.'

(140 cont.)   (g)   b-id=a'

comp-come=1sg

'I came.'

(h)   b-id=a'   zxghozxo

comp-come=1sg   Zoogocho

'I came to Zoogocho'

(i)   *b-id=a'   bedo

(j)   b-id=a'   lao   bedo

comp-come=1sg   eye   pedro

'I came to Peter.'

The final test which I will apply will be whether the lexical item, in expressing a relation between two items, expresses an intrinsic relationship as described above.

(141)   I. Intrinsic

(a)   kuzhe bedo

back   Peter

'at Peter's back' (no matter what orientation Peter has to a speech act participant)

(141 cont.)   (b)   trasde bedo

behind Peter

'behind Peter' (could vary depending on Peter's positions with

respect to the speaker or hearer, much like English

prepositions)

I will repeat the labels once again here:

(142) **Lexical items tested**

I.   Body part terms used to label parts of the human body

II.   Body part terms used to label parts of objects

III.   Body part term used to describe part of and space adjacent to

an object.

IV.   Locations

V.   Body part terms used to describe locative relations

VI.   Locative prepositions not related to body part terms

VII.   Relational prepositions

(143) **Nominal and prepositional criteria**

    A.   Sentential subject

    B.   Adjective

    C.   Quantification

    D.   Demonstrative

    E.   Determiner marker

    F.   Pronominal clitics

    G.   Freedom in syntax

    H.   Intrinsic

Table 7.4 Noun-preposition cline

	I	II	III	IV	V	VI	VII
A	+	+	+	+/-	-	-	-
B	+	+	+	+	-	-	-
C	+	+	+	+	?	-	-
D	+	+	+	+	*	*	*
E	+	+	+	+	*	*	*
F	+	+	+	+	+	+/-	+
G	-	-	+	+	+	+	+
H	*	*	+	*	+	-	-

In the previous table, + means that a particular criterion was successfully tested, a - means that the test was not successful, +/- means that a particular group of lexical items varies, a * means that a particular test was inapplicable and a ? means that the information is incomplete.

Note that items which are used to describe a part of/space adjacent to seem to pattern both like nouns and like prepositions. This is what one would expect for a transitional lexical class. While it would appear that body part terms used to describe locative relations pattern more closely with prepositions, it must also be noted that they also pattern with locations. One possibility, as mentioned above is that the metaphorical extension, possible before a change of category has taken place, applies only to a limited portion of the source domain. In general, it seems like this is a class that is definitely in transition. It might be useful to compare briefly, the situation in Zoogocho Zapotec with the situation in Valley Zapotec, based on the very thorough master's thesis of Brook Lillehaugen.

7.12.9 Comparison with Valley Zapotec

In this section, I will briefly compare our findings in SBZZ with what has been said about 'The Categorial Status of Body Part Prepositions in Valley Zapotec', a 2003 UCLA Master's Thesis by Brook Lillehaugen. In this insightful work, Ms. Lillehaugen comes up with a variety of compelling reasons to consider the body part terms in Valley Zapotec to be prepositions, and not relational nouns. Her data compares nicely with what has been discussed so far. Her main reasons for considering these terms to be prepositions in Valley Zapotec are the following.

(144) a) Their ability to be used with intransitive verbs, where normal NP's lack that

ability (Lillehaugen 2003:14).

b) The fact that certain verbs (especially positional verbs) require body part

prepositions (and not just any body part term but only those are

grammaticalized) as complements to express the ground (ibid. 17).

c) The fact that body part prepositional phrases enters into coordinate

structures with other prepositional phrases (ibid. 18).

d) The fact that certain uses of body part terms are infelicitous as descriptions

of parts of objects but can be used as prepositions with those same objects

(ibid. 18-19).

e) The fact that no novel body part terms can be extended to become

prepositions (ibid. 20).

f) The fact that when parts of objects are named in Valley Zapotec languages,

these names do not correspond to locative descriptions (ibid. 20-22).

g) The fact that the canonical orientation of an object does not seem to affect

locative constructions (ibid. 22-23).

h) The fact that certain structures are structurally ambiguous (ibid. 23-24).

i) The fact that directional verbs require prepositional complements (ibid.

25).

Note that, with respect to her first argument, intransitive verbs in SBZZ can

also take locations, both relational nouns and non-relational nouns. Her second

argument also does not apply to SBZZ locative verbs, as they can either take body

part nouns (and novel body part terms as well), demonstratives, or can appear bare. I have no data on her third argument at this point. Her fourth argument is partially valid for SBZZ body part terms; however, in those cases where the body part terms are infelicitous, most speakers do prefer to use other ways of describing the location without using the infelicitous terms. Her fifth argument is not valid at all for SBZZ. Novel body part terms can be extended in Zoogocho Zapotec. Her sixth argument is also not valid for SBZZ body part terms as when they are used to name parts of objects, this naming can then be extended to locative descriptions. With respect to her seventh argument, it is definitely the case that in SBZZ the canonical orientation of an object affects the way in which location is described.

Her ninth argument deserves a bit more explanation. First, consider the data, which she bases this on.

(145)   Nàa' ca-cwaà=a' làa'iny yudòòo'. (San Juan Guelavia Zapotec)

I PROG-paint=1s in church

'I am painting in the church.'

'I am painting the inside of the church.' (Her 16) (ibid. 24)

Examine also the following data from Heine et al. (Heine et al. 135).

(146)   me-kpɔ   e-me

1sg.see   3sf.POSS-IN

(i) 'I saw its interior'

(ii)'I saw inside it.' (Their 8c)(ibid. 135)

There is similar evidence from Zoogocho Zapotec as well, as in (147)

(147) sh-na=ba   kuzhe=ba

cont-look=3an   behind/back=3an

'It$_i$ is looking at its$_j$ back'

'It$_i$ is looking behind it$_j$.'

Heine et al. analyze this as being 'an inherent characteristic of transitional stages in grammaticalization: when a new structure (i.e. an adverbial morphosyntax in this example) is introduced, the old structure (a nominal morphosyntax) is generally still in use, the result being overlapping' (ibid. 135-136). One might therefore consider this a similar case. Finally, her tenth argument is not valid for SBZZ body part terms. As has been seen above, verbs like *go* and *come* in SBZZ which encode directional information do not necessarily require a prepositional complement.

One other argument which Pamela Munro has used for the San Lucas Quiavini Zapotec word for face, *loh*, (Munro 2002:23), is that there non-locative uses, as in the following.

(148) **Loh**   Jwaany   b-zì=a'=ih.   'I bought it from Juan'

face/from Juan   perf-buy=1s=3s.prox (her 52)

(149) B-zhùu'azh=a' gueht **loh**   bèe'cw.   'I tore up the tortilla for the dog'

perf-tear=1s tortilla face/for   dog (her 53)

(150) Zyuùa'll=ru'   Rrodriiegw   **loh**   Lia   Oliieb

tall=more   Rodrigo   face/than Ms.   Olivia

'Rodrigo is taller than Olivia' (her 54) (ibid. 23)

Note that in Zoogocho Zapotec, there are no such dative uses. Based on these comparisons, I feel confident in saying that the corresponding terms in Zoogocho Zapotec are not prepositions, but are rather something else, something we will label 'relational nouns'.

7.12.10   Conclusion

In conclusion, I have found that, while they are definitely a separate lexical class from garden variety nouns, the lexical class I have been calling body part locatives and will now call relational nouns are also distinct from prepositions in the language. That they share adverbial morphosyntax is unimportant. I consider the semantic and cross-linguistic generalizations to have shown a nascent lexical class, and one which fits in its own well defined point on the noun-preposition continuum, and shares many qualities with non-body part, non prepositional locatives. Comparison both within the Zapotec language family and outside the family leads me to call these terms 'relational nouns', being careful to keep in mind that they form a chain, as described in Heine et al. and are definitely being grammaticalized on their way towards being prepositions, but have not yet gotten there.

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[1] Though see Lillehaugen (2003) for a very good example of a description which does provide a definition.

[2] This would however be potentially of great use to historical linguists and people who specialize in grammaticalization for, as we will see later, the status of an individual lexical item on an individual cline could potentially help to further our knowledge of the nature of linguistic change.

[3] I am using this term as it is used at the Max-Planck Institute for Psycholinguistics in Nijmegen, Holland.

[4] As is quite common crosslinguistically, see the roots of Spanish *estar*.

[5] I have described what Diessel refers to as *manner demonstratives* using Schachter's term *pro-adverbs* in the section on *proforms* below.

[6] It is interesting to note that the determiners, discussed above in 7.7 appear to be historically related to the demonstratives.

[7] Though see 6.4 to see some examples of locative adverbs intervening between verb and subject.

[8] I will classify these forms as being like independent pronouns and therefore in the noun category.

[9] Once again note that this is from a task in which speakers were asked to describe scenes to each other (the man and tree task) and in which there is a bull in front of a cart. The front of a cart is its head, and thus the present description.

[10] For example some words, such as *xkogoba'* 'its neck' cannot be used in describing objects at all, whereas other terms such as xbanhba' 'its tail' can only be used in very restrictive environments (in one case, to describe a single gully coming off of a ravine).

[11] Of course, one could potentially say *zxan yelh* 'under the sandal' or *yichgh yelh* 'above the sandal' to describe either of these situations as well.

[12] I will refer to it as *lahaga* 'leaf' and not specify that it is a banana leaf, as it is redundant.

[13] Note as a point of comparison, in English, if one is describing an object with respect to a person who was standing with their side facing the speaker, to say that that object was *behind* someone could mean two things: it could mean that it was behind the person with respect to the speech act participants, or it could mean that it was to the rear of the person (at the person's back). In Zoogocho Zapotec, one would preferably say *kuzhe* 'behind the person' preferably for those instances where the item was at the person's back, as it does not have the generality which English *behind* has. There has been a great deal of work done on absolute versus relative systems for spatial descriptions at the Max Planck Institute for Psycholinguistics in Nijmegen and elsewhere. (See Levinson (1996) among others.)

[14] Note that, among the word types are being tested, all of them with the exception of some of the locations and some of the non-body part prepositions must be possessed in order to use them as a well formed complement.

[15] Interestingly, although the possessive preposition by itself cannot act as the sentential subject, if it
is definite it can. *nala chia' (ok) nala chi=a'=n' 'mine hung'

[16] Note that I have collected data like the following:

(A)	lho	chupe	shaa	dao
	inside	two	casseroles	dim

'inside two little casseroles'

(B)	chupe	lho	shaa	dao
	two	inside	casseroles	dim

'Inside two little casseroles'

This is for the most grammaticalized of the putative relational nouns. Also, note that this does not
mean 'the two insides of the little casseroles'. Otherwise, constructions like this are unheard of.
However, I will be forced to put a ? in the box corresponding to relational nouns for this criterion until
I have more data.

[17] For example, an intransitive verb for which there is already a subject.

Chapter Eight: A performance approach to VSO order in

Zoogocho Zapotec

8.1   Introduction: Basic word order properties

Before delving into the more detailed typologies I will present in the next

section, I will begin by reviewing the basic word order universal tendencies which

were proposed by Joseph Greenberg (1963) and which were presented above in 5.7.

To begin with, SBZZ is a type I language (VSO) as per Greenberg's typology. It is a

VSO language as seen in (1):

	Verb	**Subject**	**Object**
(1)	gud-ap	delia	xa=be'
	comp-slap	Cordelia	poss.father=3inf

'Cordelia slapped her father.'

It has prepositions/prenominal relational nouns, as seen in (2).

	Preposition Noun	
(2)	yichgh	be'ko'=n'
	head	dog=det

'above the dog'

The ordering of noun and adjective is noun followed by adjective as in (3).

Noun Adjective

(3)   yoo   zxen

        house big

        'big house'

The order of noun and genitive is noun genitive as in (4).

Noun	Genitive
(4) lizh	Franco
poss.house	Franco

        'Franco's house'

Relative clauses follow the noun which they modify.

		Noun	Relative clause	
(5) na	b-esey-eyu=e'	metal=en'	danh	g-os-ot=e'
and	comp-pl-carry=3f	metal=det	geninan	comp-pl-grind=3f

        'and they carried the metal they had ground...'

The order in comparative sentences is adjective marker standard as in (6).

Adj-Mkr-Std

(6) n-ak-dx	Maria benhe zxen ka'	zxoan
cont-make-more	Maria person large demadv	Juan

        'Maria is bigger than Juan.'

Auxiliaries precede the main verb as below.

(7)   bi   dx-eyalha   shegh=dxo=x

        neg   cont-should   stat.go=1plincl=well

        'Well, we shouldn't really go.'

Contrary to what one might expect and to what Greenberg predicted, there is no sentence initial question particle for polar questions, the only particle involved in yes/no questions is the tag formative *ke* as in the following[1].

(8)   na zghe-zhia-dxgwa   btushe   nahago=ba, ke?

        and stat.pl-stand-emph   pointy   ear=3an, right?

        'And their ears are very pointy, right?'

Interrogative words do appear sentence initially as in (9);

(9)   balhe   benhe gringo na   b-ese-laak-s=e'

        how-many   people gringo demdist   comp-pl-arrive-emph=3f

        'How many gringos came?'

As seen in the morphology chapter, most of the inflectional and derivational morphology is in the form of prefixes, although there are some suffixes as well. Finally, as will be seen in much greater depth over the course of this chapter, Greenberg's universal # 6 is entirely applicable to SBZZ.

        Universal #6: All VSO languages have SVO as an alternate order.

(10)　S　　　　　V　　　　　O

delia　　　　gu-dap　　　xa=be'

Cordelia　　comp-slap　poss.father=3inf

'Cordelia slapped her father.'

(11)　S　　　　　**V=pro**　　　　　O

delia　　　　gu-dap=be'　　xa=be'

Cordelia　　comp-slap=3inf　poss.father =3inf

'Cordelia slapped her father.' (I will translate both of these sentences with the same English gloss for the time being, and come back to them with individual translations which better indicate their meanings later in the current chapter.)

In the remainder of the chapter, I will investigate various claims which have been made in much greater detail about verb-initial languages and then present a corpus study I have conducted on SBZZ. I will investigate claims which have been made from a variety of functional and structural perspectives, although I will limit myself to claims which have been made within typological universal grammar. This exploration will begin with an investigation of structural statements which have been made about verb-initial languages, will continue with an exploration of discourse/pragmatic claims which have been made, and will pause briefly at a potential processing explanation for VSO and alternate structures before reaching the main destination, an examination of 1942 clauses in two SBZZ texts with comparison of other textual investigations of verb-initial languages.

8.2   Structural approaches to the typology of verb initial languages

In this section, I will discuss three different approaches to the typology of verb initial languages which have been expounded in the literature. I will begin with a discussion of Doris Payne's 1990 restatement of Keenan's (1977) and (1979) characterization of verb initial languages[2], and will discuss the extent to which SBZZ conforms to these characterizations. I will then briefly discuss the reasoning which Matthew Dryer uses in collapsing VSO and VOS into one type (his VS and VO type) (Dryer 1996). Finally, I will end this section with an in-depth discussion of claims made by Maria Polinsky (1997) about verb initial languages.

8.2.1   Payne's restatement of Keenan

I will begin this section, by exploring how Zoogocho Zapotec conforms to the Verb Initial Norm which Doris Payne describes[3] in The Pragmatics of Word Order-Typological Dimensions of Verb Initial Languages (1990). Payne bases this on 'a number of observations extracted from Keenan's (1977) 'Summary of word order typologies' and from his 1979a manuscript on 'Word order typologies: the verb initial typology' (Payne 1990: 10). I will discuss briefly how Zoogocho Zapotec corresponds to the claims made in this typology as I go along.

1. ***General.*** *Verb initial languages are largely, though not entirely, the mirror image of verb final languages.*

2. ***Morphology*** *Verb initial languages evidence significant prefixing, though normally there is some suffixing as well. There is a possibility of ambi-*

fixing (discontinuous affixes), and a somewhat greater than chance

tendency for discontinuous demonstratives.

Zoogocho Zapotec does have both 'significant' prefixing and 'some' suffixing, especially if one takes the post-verbal pronominal clitics as evidence of suffixing. I see no evidence of ambifixing, and no discontinuous demonstratives.

2.1. *Verb initial languages may be agglutinative and polysynthetic.*

While SBZZ is agglutinative, it is definitely not polysynthetic. See 4.5 for discussion of this issue.

3. Basic word order

3.1. Verb initial languages are comprised of the following types:

[1] verb initial plus free order of full NP's (Tagalog)

[2] V-DO-S-Obl (Fijian, Toba Batak)

[3] V-Do-Obl-S (Malagasy, Tzeltal)

[4] V-S-DO-Obl (Celtic, Eastern Nilotic, Polynesian, Jacaltec)

Type [4] is by far the most common.

SBZZ is firmly a type 4 language if we only consider simple transitive clauses. The most common ordering of verb, subject, and object is as seen below in (12). I will demonstrate later that although this is by far the most common ordering, there is a great deal of variation, and, amazingly, every possible ordering with the exceptions of VOS and OSV is encountered.

(12)   dxy-izxgho   benhe gringo=na'   dxioo

       cont-pay   person gringo=det   1plincl

       'The gringos paid us.'

The following examples of variation with respect to direct object (patient) and

indirect object (recipient) order are found.

(13)   b-i=a'   bidao   to libr

       comp-give-1sg   child   one book

       'I gave the child a book.'

(14)   b-i=a'   to libr   bidao

       comp-give-1sg   one book   child

       'I gave a book to the child.'

Note that the ordering for this particular verb[4] is verb subject indirect object

direct object when the nouns and objects are pronominalized.

(15)   **V S IO DO**

             b-i-a-be-n

             comp-give-1sg-3inf-3inan

             'I gave him it.'

On the basis of simple transitive sentences, SBZZ should be considered to be

Type 4. On the basis of ditransitives, it is not as clear.

   3.2. Freedom. Fronting of subject NPs to the left of the verb is always a

   possibility, though often it is morphologically marked in some way (not

necessarily on the NP). The order after the verb is frequently rigid, though

sometimes quite free as in Tagalog and, to a lesser extent, in Chinook.

Subject NPs may be fronted in SBZZ, however there is often greater

morphological marking, with a coreferential pronominal clitic on the verb, as in (16).

There are also other fronting constructions, which lack this coreferential pronominal

clitic (as in (17) and (18)). I will discuss the pragmatics of these constructions later

in the current chapter. The order after the verb is quite fixed, with the possible

exception of the reflexive of possessor constructions, as has been discussed in

chapter 4.

(16) na   da   dolor=en   dx-e=e=ne'

      and   deceased   dolores=det   cont-say=3f=3fo

      'And the late Dolores said to him....'

(17) to=be'   zegh

      one=3f   stat.go

      'One of them went.'

(18) pelot-en'   dxy-itghe-d=e'

      ball-det   cont-play-instr=3f

      'She played with the ball.'

4. Sentence level syntax

4.1. Topicalization. Topicalization may be done by fronting, though there is

   a tendency in Nilotic to move old information to the end of the clause

Topicalization is done by fronting as in (16). I will discuss the definitions for focus and topic in SBZZ towards the end of the current chapter, and for now will use the term topic to refer to those constructions where there is a repeated pronominal clitic after the verb and focus to those constructions where there is no repeated pronominal clitic after the verb.

4.2. Focussing. Focussing of information as in a cleft or information question is done by fronting. Often this may be accompanied by particles separating the subject from the rest of the clause. The result is always pragmatically marked, i.e. emphatic, contrastive, focussed, etc.

Focussing is done by fronting. What is meant by 'particles separating the subject from the rest of the clause' is unclear, however I can say that focussed nouns are often marked by quantifiers or definite markers as in (17).

4.3. Comparisons. The comparative form precedes the standard. The comparative marker is commonly a verbal form, or else an adposition. Thus,' John is taller than Bill' may be expressed as 'Tall John from Bill', or as' Tall John exceed Bill'.

In SBZZ, comparatives are formed with an adverb (the *ka'* in (18) or the *kleka'* in (19)) both of which are accompanied by the adverbial suffix *-dx=* on the verb as seen in the following examples.

(18) n-ak-**dx**   Maria benhe zxen   **ka'**   zxoan

stat-make-more   Maria person large demadv   Juan

'Maria is bigger than Juan.'

(19) Bdxe n-ak-**dx**=ba'   be   lis   **kleka'**   be'ko'

Ant   stat-be-more=3an   clan small   than   dog

'Ants are smaller than dogs.'

4.4. Questions

> *4.4.1. In yes-no questions, the question particle, if any, occurs*
>
> *sentence initially.*

As seen above (in (8)), the tag question formative is sentence final. There is no question particle.

> *4.4.2. In NP questions, a questioned NP is always frontable and this*
>
> *is the normal pattern. It is possible, but less normal, to leave*
>
> *the questioned NP in the position questioned. A few cases of*
>
> *rightward movement of question words are attested, but there*
>
> *is no attested tendency for the question word to attract to the*
>
> *normal DO position (as is the case for verb final languages).*

Questioned NPs are fronted, as seen in (20) and (21).

(20) no   b-le'i=do'

who   comp-see=2sgexp

'Who did you see?'

(21)   balhe   benhe gringo=na'   b-ese-laak-s=e'

       how_many   people gringo=det   comp-pl-arrive-emph=3f

       'How many gringos came?'

4.5. Subordinate clauses and sentence complements

4.5.1   It is very common for many types of subordinate clauses to be finite.

As I will show below, subordinate clauses are generally finite.

4.5.2. Subordinating markers such as complementizers, nominalizers, and

subordinate conjunctions precede their clauses.

As seen in (22), complementizers precede their clauses.

(22)   zxenlazh=a'   leka=n'   dx-on=dxo   **kate'**

       stat.get_used_to=1sg much=det   cont-do=1plincl   when

       n-ak=dxo   bidao

       stat-be=1plincl   child

       'I got used to it as we do when we are children'

4.5.3. Sentences which are subordinate to verbs, adjectives, or nouns

invariably follow the element to which they are subordinate.

Subordinate clauses follow their head in SBZZ as seen in (22).

4.5.4. Adverbial subordinate clauses usually follow their main clauses. For

example 'Will leave John because is tired Mary' occurs for 'John will leave

because Mary is tired'. However, frontability of conditionals is likely

universal (cf. Greenberg 1963)

Adverbial subordinate clauses do indeed usually follow their main clauses, as seen above. Conditionals are indeed optionally fronted, as in (24).

(24) Shi   ba   b-zhinh=dxo   na   b-le'id=a'

     if   already   comp-arrive=1plincl   dem   comp-see=1sg

     'If we've already gotten there, then I'll see.'

4.6. Coordinate sentences are commonly expressed as [S and S]. [S, S and]

is not attested. Perhaps the existence of overt coordinate conjunctions at

the S level, especially or, is less well attested than in verb medial

languages.

While coordinate sentences are very often expressed as [S and S] as seen in (25), they can also be expressed without an overt coordinate conjunction. As I have shown in 6.5.8, this potentially affects coreference possibilities. The structure [S, S and] does not occur. The Spanish loan word *o* 'or' is most commonly used for *or*.

(25) dx-eene   zxoan   noole=n'   na   zegh=e'

     cont-want   Juan   woman=det   and   stat.go=3f

     lawe   yaa

     face   plaza

     'Juan wants the woman and she went to the market'

4.7. Speech act indicators (e.g. question particles, etc.) are normally

sentence initial, though other positions are possible.

As already seen, this is the case for interrogatives (cf. (20)), but not for the yes/no question particle (cf. (8)).

5. The noun phrase

5.1. Case marking

5.1.1. All major NPs may be case marked (Tongan, Nandi), but it is very common for most major NPs to carry little or no nominal case marking. Where affixal case marking occurs, it is more likely to be prefixal than in verb final languages, but suffixing is still fairly common.

There is no case marking of full NPs in Zoogocho Zapotec. For the third person singular respectful forms of the enclitic pronoun, there is a distinction between *-e'* for 3f subjects as seen in (25) and *-ne'* for 3f objects as seen in (26).

(26)   dx-ap=a=ne'

cont-say=1sg=3f

'I told her.'

This difference has been discussed in 3.6.

5.1.2. Where case marking exists it is normally done by prepositions (though some Amerindian languages are the exceptions here, such as Machiguenga and Quileute, which have postpositions).

Instrumentals can be marked by a preposition, and benefactives and indirect objects can be marked by possession, as discussed in 6.2 and 6.3. However, oblique[5] case is neither marked prepositionally nor with case marking.

(27) sh-chog=a'   yag-en   lenh   yaa wag

      cont-cut-1sg   tree-det   with   iron wood

      'I cut the tree with an ax.'

(28) b-en=a'   lizh=o'

      comp-make=1sg   poss.house=2sg

      'I made a house for you'

5.1.3. Verbal case marking is attested to a very significant degree. That is,

verbs carry affixes indicating that an instrumental, goal, locative, benefactee,

etc. is present and the corresponding full NP's carry no adpositions or

distinctive case marking.

In (29), there is evidence of an instrumental affix in SBZZ. However, note

that this is the only such potential verbal case marking present in the language.

(29) b-en=d   lizh=a'   martiyw

      comp-make=instr   poss.house=1sg   hammer

      'I built my house with a hammer.'

One might also consider the experiencer set of pronominal enclitics to serve a

similar function as in (30).

(30) b-lei=da'   to be'ko'

      comp-see=1sgexp   one dog

      ' I saw a dog.'

See 3.4 for more detail.

5.1.4. As with verb final languages, but in distinction to verb medial languages, case marking (and verb agreement) may follow an ergative pattern.

This statement is inapplicable to Zoogocho Zapotec. As briefly discussed in 5.3 and 6.5.8 and as will be discussed below, Zoogocho Zapotec is most definitely not an ergative language.

5.2. Adjectives

5.2.1. The demonstrative, numeral, and qualifying adjective follow the common noun in that order or its mirror image (Adj=Num=Dem).

Zoogocho Zapotec is an exception to this pattern in that all three of these modifers do not follow the verb. In SBZZ, the ordering is Num N Adj Dem as seen in (31).

(31) **Num N**   **Adj Dem**

shon   libr   xo   nga

three books   old   demmed

'These three old books'

5.2.2. There is probably less agreement with common nouns than in verb final languages, especially case agreement.

There is no nominal agreement in SBZZ.

5.2.3. Adverbs follow adjectives (but this needs further checking).

Adverbs appear to precede the adjective they modify, as seen in (32) below.

(32) leka fwert n-ak kafe=n'

much strong stat-be coffee=det

'The coffee is very strong.'

5.3. Articles

5.3.1. The presence of definite articles distinct from demonstratives is much more common than in verb final languages.

As already seen, demonstratives are distinct from definite articles (compare (31) and (32)).

5.3.2. The existence of several articles (definite, indefinite, specific, plural, proper noun) is much more common than in verb final languages (e.g. Maori, Fijian).

While there is a definite article, and an indefinite article, this appears to be the extent of it.

5.4. Possessors: with great regularity Possessor NPs follow the head NP, as in father of John rather than John's father.

This is the case for both alienable and inalienable possession as seen in (33) and (34) respectively.

(33) be'ko' che delia

dog of Cordelia

'Cordelia's dog'

(34)   nahag   lalo

         ear   lalo

'Lalo's ear'

5.5. Relative clauses

5.5.1 The dominant order is always postnominal.

Relative clauses are postnominal as in (35).

(35)   na   b-esey-eyu=e'   metal   danh   g-os-ot=e'

        and   comp-pl-carry=3f   metal   geninan   comp-pl-grind=3f

'They took the metal which they ground.'

5.5.2. Occurrence of personal pronouns in positions relativized is fairly common, though relativization by deletion is still the most common strategy

While deletion is the standard practice, personal pronouns can appear in then position relativized, if they disambiguate the clause. See 6.5.7 for a discussion of this issue. Note that this is a general strategy among VI languages, especially those that do allow free WO after the verb. (See Thomas Payne (1997) for more discussion.)

5.5.3. In distinction to verb final languages, co-relatives are not attested.

This is true of SBZZ.

5.5.4. Like verb final languages, but in distinction to verb medial languages, relative pronouns which code the case of the position relativized are rare. It is less rare than in verb final languages, however (e.g. Tamazight, Berber).

Relative pronouns do not code the case of the position relativized; see 6.5.7 for more information.

5.5.5. Relative pronouns which agree with the head noun in noun class and sometimes even case are attested (e.g. Classical Arabic, Nandi).

As seen in Chapters Five and Seven, relative pronouns agree with the head noun in noun class. See section 7.4.4.

5.5.6. In distinction to verb final languages, internally headed relatives are not attested, though the phenomenon is not well studied.

Internally headed relatives are not attested.

6. The verb phrase

6.1. Tense/aspect, passive, inchoatives, causatives, negation, modals, disideratives, and volitionals may appear marked on the verb. There is significantly more prefixing in verb initial languages than in verb final ones, and very possibly more ambifixing and infixing. There is, to Keenan's knowledge, always some suffixing, however.

Aspect and causatives appear marked on the verb. There is also more prefixing than the some suffixing which is present. See the 4.5 for confirmation of this statement.

6.2. If expressed by morphemically independent forms, modals, auxiliaries (if such exist), negative particles or words, disideratives and volitionals always precede the main verb and may themselves have independent verbal morphology. (This may also be true for tense/aspect, passive, inchoatives,

and causatives.) The strength of the order correlation here is better than its converse for verb final languages.

This is most definitely true. Consider the following in which an auxiliary, inflected for aspect but with no marker for the subject, precedes a main verb.

(36) dx-ak   dx-le'i=da'

      cont-be   cont-see=1sgexp

      'I can see.'

See 6.5.4 for a fuller discussion of auxiliaries.

6.3. Manner adverbs follow the verb if they are a distinct category (which often they are not).

As seen in the following, manner adverbs do indeed follow the verb.

(37) b-en=a'   sholazhe   chup   lizh=a'

      comp-make=1sg   slowly   two   poss.house=1sg

      'I slowly built my two houses.'

6.4. Sentential objects always follow the subject and are very commonly finite as opposed to the more usual non-finite/nominalized treatment they receive in verb final languages.

As seen in 6.5.5 this is indeed the case.

6.5. Sentential objects are never embedded. They normally follow the main sentence but may precede, especially in direct quote contexts.

Sentential objects follow the main sentence, as in (38).

(38)   dx-een=da'   dx-aog=a'   to   yet

        cont-want=1sgexp   cont-eat=1sg   one   tortilla

        'I want to eat a tortilla.'

Direct quotes generally precede the verb of speaking, as seen in (39). It is possible,

however, for direct quotes to follow as in (40).

(39)   "na   y-e-yo=a=n"   dx-ap=a=ne'

        demdist   pot=freq=carry=1sg=3inan   cont-tell=1sg=3fo

        ' "I'll carry it there", I told him.'

(40)   per   dx-ee-te   xna=a'   le   "sha   ka

        but   cont-say-emphposs.mother=1sg   3sgf   "cond   demadv

        shegh=o'"

        stat.go=2sg"

        'But my mom said to her, "You shouldn't go like that."'

6.6. Verbal forms subordinate to the 'main' verb (e.g. complements of verbs

like want, try, etc.) always follow the main verb, and are commonly finite.

This is true, as seen below in (41).

(41)   dx-eene=ba'   xob=ba'   bishede=n'

        cont-want=3an   pot.want=3an   beehive=det

        'It wants to grab the beehive.'

6.7. Causativized verbs follow the causativizing verb.

Causativized verbs do follow the causativizing verb, as seen below.

(42)   dx-on=a'   sh-le'i   bidao

        cont-make=1sg   cont-see   child

        'I made the child see.'

6.8. 'Backward' equi-deletion may occur. That is, ' want John go ' or 'want go John' may occur for 'John wants to go'. This is never a possibility in verb final languages.

'Backward' equi-deletion does indeed occur, as seen below. See 6.5.4 for a fuller discussion of this and related constructions.

(43)   dx-ak   dx=aog   x-kuzh=o'

        cont-can   cont=eat   poss-pig=2sg

        'Your pig can eat.'

6.9. There is possibly less rich means for nominalizing and definitizing verb phrases than in verb final languages. On the other hand, in many but not all verb initial languages, the verbal complex seems historically to be a nominal construction, at least in part (Middle Egyptian, Welsh, Malagasy, Philippine languages, Mayan)

I would not say that there are incredibly 'rich means for nominalizing' verb phrases, yet would say that there are some, though the following is a deverbal noun and not an action nominalization. See 4.3.8 for more information.

(44)   gubanh

inf.rob

'thief'

(45)   dx-banh=e'   zxikw=a'

comp-rob=3f   poss.dog=1sg

'He's stealing my dog!'

At this juncture, I do not have much to contribute to Payne's second statement, except to state that, while it would be interesting to study the historical development of the verbal complex in Zapotecan and Otomanguean languages, I do not know enough about its sources to comment at this point.

> *6.10. Verbal initial languages always have a passive voice and it is almost always marked in the verbal morphology (rather than by a serial verb construction as in Chinese, for example). It may be marked by a verb plus nominalization as in 'John receive hitting from Bill' (Tzeltal, Mayan).*

As discussed in 4.3.9, there is no productive passive voice.

> *6.11. With possibly greater than chance frequency, the verb in verb initial languages either agrees with no NPs, or with two NPs (both subject and direct object, or sometimes subject and indirect object).*

While I will return to this issue in greater depth later in this current chapter and have already discussed it in 3.8 and 4.5, I would say that, if the pronominal clitics are seen to be a form of agreement, then there is indeed agreement with the

subject. However, as already discussed, it is questionable if it is desirable to consider it to be agreement on par with affixal agreement.

6.12. Verb initial languages normally have no overt copula.

There is indeed an overt equational copula However, there are also other ways of expressing copular relations, as discussed in 7.2.

8.2.2   Dryer

I will now briefly summarize and discuss the arguments which Dryer has made for rejecting the traditional six-way word order typology. Within this paper, Dryer has also proposed collapsing VSO and VOS languages into a VS&VO type. The first argument which he presents for the desirability of collapsing these two types is that it provides for an easier way of classifying the many languages of the world which, while verb initial, possess relatively free word order after the verb (Dryer 1996: 74-75). His second argument is that VSO and VOS languages pattern quite similarly when one takes into account the general word order properties which have been claimed for VSO languages since Greenberg's original paper (ibid. 75-76). His third argument is that if one looks within individual genetic groupings which show propensities for being verb initial (such as Otomanguean), there are both languages which are VSO (such as Zapotec) and languages which are VOS (such as certain varieties of Otomí such as Estado de Mexico Otomí (Grimes 2000)), which he takes to indicate that the possibility of changing from one language type to the other is relatively easy, further showing that the difference between these two types is rather insignificant (ibid. 76-77).

This last point appears to be valid on some very general level, but it seems that one could make a similar argument for VSO and SVO languages and language families which have both VSO and SVO daughter languages. Also, there are very few Otomanguean languages which are VOS and many Otomanguean languages which are VSO, like SBZZ, are relatively strictly VSO. As shown by Polinsky (1997), there are certain ways in which VOS languages differ from VSO languages as well. His fourth argument, one which I will examine in greater depth later in this chapter, is that clauses which contain both a noun subject and a noun object are very rare. Thus, it is much more common to find either VO structures or VS structures in most languages which are characterized as being either VSO or VOS, but it is very rare to find clauses which contain both subject and object as full nouns.

Dryer goes on to discuss other reasons for his proposed reformulation of the word order typology, most important for the purpose of this chapter being the differences between transitive and intransitive subjects in terms of their word order properties. He claims that there is quite frequently variation about the positioning of verb and subject dependent on the transitivity of the verb (ibid. 87-89). I will investigate the validity of this claim for Zoogocho Zapotec when discussing the textual data. He also notes, as noted by Du Bois, that transitive clauses are more likely to have pronominal subjects than intransitive clauses (ibid. 90). This too will be discussed. The importance of his typology is that it will allow for more exact classifications of individual languages. One language which he cites as an example is

Salinan which is SVO for clauses with two lexical arguments but predominantly VO

and VS for languages with only one lexical argument (ibid. 93).

8.2.3 Polinsky

As the final approach to verb initial typologies which will be examined in the

current section, Polinsky (1997) differentiates four basic word order types:

VSO/*VOS

VOS/*VSO

VSO/VOS

VOS/VSO (ibid. 254)

The last two types are differentiated by what the default interpretation is of

what would be potentially ambiguous clauses in languages which allow both VSO

and VOS orderings like:

(46)   kicked George Harry

VSO/VOS languages preferentially interpret George as being the subject and

VOS/VSO languages preferentially interpret Harry as being the subject.

She then goes on to note an important restriction for verb-initial languages:

they do not allow 'non-referential quantified NPs such as 'nothing' or 'anybody' in

the postverbal subject position' (ibid. 254). This is definitely the case in Zoogocho

Zapotec. Consider the following example.

(47) a.nozxono   dx-az-tek   yag   yinha

      nobody   cont-plant-emph   plant chile

      'Nobody plants chiles (anymore).'

      b. * dx-az-tek   nozxono   yag   yinha

          cont-plant-emph   nobody   plant chile

      *'Nobody plants chiles.'

She proceeds to discuss a theory of information structure which is useful to consider. She differentiates between topic and focus and follows Reinhart in defining sentence topics as 'referential entities under which propositions are classified in the context set' (ibid. 255). Thus, topics are presupposed to exist and be semantically specific (ibid. 255). Focus is defined as being what the proposition is asserting, and is more likely to be an adjunct. She also states that this makes focus the licenser of a Wh-phrase, which considering the following examples, seems to make sense. In (48), an example of a topicalized subject is shown, in (49) a focussed subject, and in (50) a Wh-phrase. Note that both (49) and (50) do not have a subject clitic following the verb. I will discuss my reasoning for considering (48) to be topicalization and (49) to be focus later in the current chapter.

(48) na   da   dolor=en   dx-e=e=ne'

      and   deceased   dolores=det   cont-say=3f=3fo

      'And the late Dolores said to him....'

(49) to=be   zegh

one=3f   stat.go

'One of them went.'

(50) no   zegh

who   stat.go

'Who went?'

She then goes on to argue that, because post verbal subjects must be referential in verb initial languages, there is an obligatory mapping between post verbal subject and topic (ibid. 256). This leads her to the first statement of the SO/OS hypothesis.

SO/OS HYPOTHESIS: FIRST APPROXIMATION

(i) VSO and VOS languages share a predominantly head-initial/right-branching structure but differ in the order of those elements that are not in the head-complement relation, namely, the relative ordering of different nominal constituents, adverbials, and sentential complements (arguments and adjuncts).

(ii) The linear order of these constituents reflects more general principles of the ordering of topic and focus constituents. Specifically, VSO languages are predominantly ordered topic-before-focus, while VOS languages are focus-before-topic. (ibid. 257)

However, as Polinsky notes, VSO languages can reflect either an earlier SVO stage or an earlier VOS stage and as such are not as rigid as VOS languages in the application of this rule. While Polinsky gives evidence for the rightness constraint

based on VOS languages, I will contrast the evidence given for the rightness

constraint with data from SBZZ which confirms the leftness constraint.

Polinsky's first point of comparison is that in transfer DO constructions, 'the

recipient in a VOS language follows the patient' (ibid. 261).

(51)	7a	li	Xun-e	ba	y-ak'-be	chitom li
	TOP	ART	Xun-e	go	A3-give-APPL	pig ART

7antz-e

woman

'Xun went to give the pig to the woman.' Tzotzil (Polinsky's example (17)

(ibid. 261) taken from (Aissen 1987:105))

(52)	tya7	rpaq	aa'	xwan
	3:2:give	money	youth	Juan

'Give Juan his money.' Tzutujil (Polinsky's (18) (ibid. 261) taken from

(Dayley 1985: 323))

In SBZZ, the relative order of recipient and patient in ditransitive transfer

constructions can vary, but the basic order is VSRP, with the exception of those

constructions exhibiting indirect object 'lowering', thus, as might be expected, this is

the opposite of a VOS language in this particular way.

Similarly ,'(I)f a VOS language has an applicative or a causative, the applied object

in this construction follows the basic object' (ibid. 261).

(53)   no-aso-api   te   bae   te   iai-no

3-sell-APPL   ART   rice   ART   sibling-3POSS

'He sold his brother some rice.' Tukang Besi (her 19 (ibid. 261) taken from

(Donahue 1995:236))

For the causative construction, in Zoogocho Zapotec, the applied object precedes the

basic object, as in the following.

(54)   b-sede   maestr   to bidao   to kwent

comp-caus.learn   teacher   one child   one story

'The teacher taught the child a story.'

'Similarly, reflexives are controlled "right to left" in VOS languages, for instance, in

Tzotzil (see also Kekchi (28) below):' (262)

(55) 7ep   7i-s-tak-be   s-ba   vun   li   xun-e

lotsASP-AGR-send-APPL   AGR-self   paper ART   Xun-CL

'Xun sent himself lots of letters.' Tzotzil (Her 24 (ibid. 262) taken from

(Aissen 1987:135))

lit: 'Lots sent self papers Xun.'

(56)   x-0r-il   r-ib(i)   li   al(i)   sa'   lem

TNS-AGR-seeAGR-self   ART   boy   in   mirror

'The boy saw himself in the mirror.' (her 28 (ibid. 262) taken from

(Berinstein 1985:184))

Similar constructions in Zoogocho Zapotec have been discussed in 6.4. On some levels, it appears that Zoogocho Zapotec is even more subject to the rightness constraint than most VOS languages in this respect, as both the reflexive marker and the verb are not marked for agreement.

(57) sh-na kwin lalo lho spejw

      cont-see self lalo in mirror

'Lalo saw himself in the mirror.'

She also notes that, '(P)ossessive reference is tracked right-to-left and the following example from Tzutujil shows that such tracking may be rather long'(ibid. 262).

(58) xinwijl jun r-wach r-hajab' r-k'aajool nb'-esi'ino

      found a its-strap his-shoe his -son my-neighbor

'I found a strap of my neighbor's son's shoe.' Tzutujil (Her 25 (ibid. 262) from (Dayley 1985:286))

Possessive reference is also tracked right to left to the same extent in Zoogocho Zapotec, as in the following.

(59) na baca che xna bidao=na

      hand cow of mother child=det

'the child's mother's cow's hoof'

Polinsky predicts that according to the Rightness Constraint, adjuncts should precede their arguments. However, as she notes, this is not always the case as seen in

the difference between (60) and (61) below (ibid. 263). One reason for this is the

semantic dependency between a verb and its arguments.

(60)   x-0x-q'ue   r-e   lix   mar   li   utz'u'uj

       TNS-AGR-give   AGR-DAT   ART   Mary   ART   flower

       'He gave the flowers to Mary.' Kekchi (Her (26) (ibid. 263) taken from

       (Berinstein 1985:191))

(61)   x-0r-il   r-ib(i)   li   al(i)   sa'   lem

       TNS-AGR-see AGR-self   ART   boy   in   mirror

       'The boy saw himself in the mirror.' Kekchi (Her (27) (ibid. 263) taken from

       (Berinstein 1985:184))

Zoogocho Zapotec, as a VSO language consistently places arguments before

adjuncts as seen above in the simple constructions chapter.

A difficulty with Polinsky's account, which she notes, is that, in OS

languages, ' the linear precedence of focus to topic apparently contradicts the left-to-

right parsing strategies.' (264)

She notes that OS languages might opt for strategies which result in a 'shortening

(of) the segments over which the Rightness Constraint operates'(264).

Note that all the generalizations and constraints proposed above have been

arrived at on the basis of segments with overt nominal constituents. This

suggests that if the conflict between the processing needs and the language-

internal information structure requirements cannot be resolved entirely, it can

nevertheless be alleviated by keeping the number of arguments per utterance

to a minimum. (ibid. 265)

Polinsky then goes on to show that, among the null-subject (pro-drop)

languages which she surveyed, those languages which were VOS tended to have

fewer clauses with more than one overt argument than others and conversely more

clauses with one overt argument (ibid. 265). This claim will be discussed briefly

below in reference to the SBZZ data.

8.3   A pragmatic approach to word order variation in Verb initial

languages: Du Bois and 'The Discourse Basis of Ergativity'

In his groundbreaking 1987 paper, 'The Discourse Basis of Ergativity', John

Du Bois showed that, in Sacapultec Maya, the subjects of intransitive clauses (S's)

and the objects of transitive clauses (O's) not only shared the same verbal cross-

referencing techniques in contrast with the subjects of transitive clauses (A's), but

also shared the same patterning of information status, S's and O's were much more

likely to be new information than A's. This then gave a potential discourse/pragmatic

explanation for the ergative/absolutive, nominative/accusative morphological split

which had long been known[6] but for which previously there had been no real

explanations put forth.

In this section, I will not go into great depth about his findings, but will

merely summarize. Du Bois analyzed a relatively large corpus based on the

following criteria, a) morphological type (whether the mention of a referent was

lexical, pronominal, or affixal) (Du Bois 1987:814), b) inherent semantic class

(whether the referent was human, inanimate, or grammatical) (ibid. 814)[7], c) Grammatical role (each mention was classified as A,S,O, oblique, or possessor, but he focussed, as I will on the first three)(ibid. 814), and d) Information Status, (he classified each mention as GIVEN if the mention was a speech act participant or it was mentioned less than 20 previous noun phrases, NEW if it referred to a mention which was not previously referred to, was not a speech act participant, or was not part of 'a previously evoked, entity-based frame', or ACCESSIBLE if it was part of that already mentioned entity-based frame or it was mentioned more than 20 noun phrases previously (ibid. 815-816).

Du Bois findings, some of which I will discuss in greater depth in reference to my own, were remarkable. He found that, to begin with, the majority of transitive clauses either included one lexical argument or none but very rarely included two (ibid. 818-819). Furthermore, he found that the majority of lexical arguments were either S's or O's (ibid. 821-22).These findings were summarized in two principles: 'Avoid more than one lexical argument per clause' (ibid. 819), and 'Avoid lexical A's' (ibid. 823).

In terms of the pragmatics of the clause, he made the following findings: not a single one of the clauses in his corpus contained two new arguments,leading to the statement 'Avoid more than one new argument per clause'(ibid. 826); and, the majority of new arguments are introduced as either the object of a transitive clause, the subject of an intransitive clause, or an oblique, leading to the formulation ,'Avoid new A's' (ibid. 827) (ibid.825-827). I will examine the figures in greater depth in

discussing the SBZZ findings. Du Bois then goes on to show that a wide range of

languages, both nominative/accusative and ergative/absolutive, show these same

patterns of discourse.

8.4   A processing approach to VSO languages

In this section, I will propose a processing theory for VSO ordering based on

the theories of John A. Hawkins (1994). He states the basic intuition behind his

Performance theory of order and constituency as follows:

> (I believe that) words and constituents occur in the orders they do so that
>
> syntactic groupings and their immediate constituents (ICs) can be recognized
>
> (and produced) as rapidly and efficiently as possible in language
>
> performance. (Hawkins 1994: 57)

He gives the following two sentences as illustrative examples of what he means by

this statement.

(64) a. I $_{vp}$[gave $_{np}$[the valuable book that was extremely difficult to find] $_{pp}$[to

Mary.]]

1	2	3	4	5	6	7	8	9	10	11

(Hawkins' example (3.1a))

(65) b. I vp[gave pp[to Mary] np[the valuable book that was extremely difficult to

find.]]

```
    1    2    3    4

    |_____|
```
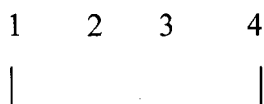
(Hawkins's example 3.1b)

Example (3.1b). provides a more rapid presentation of the three ICs of the VP

(V, NP, and PP) than (3.1a). The verb *gave* is the first IC of the VP in both

examples and signals to the parser that a VP should be constructed. The PP is

a two word IC here. Its positioning to the left of the lengthy NP in (3.1b)

makes it possible for all three daughter ICs to be recognized within a short

viewing window. (ibid. 57)

Hawkins goes on to define the Constituent Recognition domain as follows:

Constituent Recognition Domain (CRD) (ibid. 58-59):

> The CRD for a phrasal mother node M consists of the set of terminal and
>
> non-terminal nodes that must be parsed in order to recognize M and all ICs
>
> of M, proceeding from the terminal node in the parse string that constructs
>
> the first IC on the right, and including all the intervening terminal nodes and
>
> the non-terminal nodes that they construct.

He goes on to state the following assumptions about constituent structure in the

following definition of immediate constituent.

> The ICs of each phrasal node M will be all and only the phonetically realized, lexical, functional, and phrasal categories most immediately dominated by M in surface structure, excluding any phrasal categories that are non-maximal projections of the head. (ibid. 73)

In order to calculate the immediate constituent to non-immediate constituent ratio, one uses the following procedure.

> The IC-to-non-IC ratio for a CRD is calculated by dividing the number of ICs in the domain by the total number of non-ICs (or words alone) in that domain, expressing the result as a percentage. The ratio for a whole sentence is the aggregate of the scores for all CRDs within the sentence. (ibid. 77)

Finally, Hawkins defines Early Immediate Constituents as follows:

> The human parser prefers linear orders that maximize the IC-to-non-IC ratios of constituent recognition domains. Orders with the most optimal ratios will be preferred over their non-optimal counterparts in the unmarked case; orders with non-optimal ratios will be more or equally preferred in direct proportion to the magnitude of their ratios. For finer discriminations, IC-to-non-IC ratios can be measured left to right. (ibid. 78-79)

This leads to the following with respect to verb initial languages.

> I shall therefore assign one more word to O than S in VO languages, e.g. two to S and three to O. With these assignments, EIC's scores for the three VO orders (of (5.70) are given in table 5.12, assuming a VP (and VP discontinuity in VSO languages)...Notice that VSO has a better ratio than

VOS, even though there is discontinuity between the ICs of VP, V, and O. This discontinuity extends the VP domain and results in a low ratio for VP. But the intervening subject produces a perfect ratio for the S (i.e. clause: the V constructs VP, the first IC of S; and the subject can then immediately construct the second IC, i.e. 2/2=100%. By contrast, VOS has a very low ratio for the S domain because of the long initial VP (40%), and although the VP is optimal, the aggregated score is lower than that for VSO. (ibid. 330) Note that if subject and object were taken to be equal in length, the aggregated scores would be equal for VSO and VOS languages. In any event, on the basis of the previous paragraph and on Tomlin's (1986) sample, the following table is obtained.

Table 8.1 EIC and VO languages

(Adapted from Hawkins (1994: 331 Table 5.12))

Assume: mS^8=2words, mO=3, V=1

VP dominates V and mO (even when discontinuous)

V or O constructs VP

Total n in sample=402 languages (217 VO languages), from Tomlin 1986

	Structure	Agg. IC to word ratio	N in sample	% of VO languages
1.	s[mS vp[V mO]]			
	S CRD: 2/3=67%	84%	168	77%
	VP CRD: 2/2=100%			
2.	s[vp[V]mS vp[mO]]			
	S CRD:2/2=100%	75%	37	17%
	VP CRD:2/4=50%			
3.	s[vp[V mO] mS]			
	S CRD:2/5=40%			
	VP CRD: 2/2=100%	70%	12	6%

On the basis of this theory, I have obtained the following hypothesis.

Hypothesis: The length of subjects in VSO structures will be shorter than or equal to the length of objects, in order to facilitate the recognition of the VP.

This hypothesis is as it is because if it were the case that subjects were longer than objects, say if subjects had a mean aggregate length of three and objects had a mean aggregate length of two; then, even though the constituent recognition domain for the subject would remain perfect, the constituent recognition domain for the verb phrase would be 2/5 and the overall aggregate IC to word ratio would be 70%, much poorer than if the subject were equal (75%) or shorter than the object (84% if mS=1 and mO=2). I will now investigate this hypothesis on the basis of a quantitative study of textual data from SBZZ.

8.5 Textual data from SBZZ

8.5.1 Methodology

In this section, I will briefly discuss the methodology I have used in this study. While I feel that this study is adequate for the present purposes, it could, as always, be improved upon.

8.5.1.1 Corpus

The data in the present study were compiled from two texts and three speakers. The first text I coded was from a 68 year old bilingual Zapotec dominant speaker and was a historical narrative monolingual. This text was the shorter of the two texts at 351 clauses. My main consultant, a 38 year old bilingual speaker of Zapotec and Spanish aided in the collection and elicitation of this text and the following one, however in the first text, her contributions were at a minimum.

The second text was basically a conversation between a 77 year old monolingual speaker of Zapotec and my primary consultant and its topics range from historical narrative to gossip. As a result, its style is different from that of the first text. It was the longer of the two texts, comprising 1591 clauses.

Both texts were transcribed and translated by my primary consultant and myself, and any errors are solely my responsibility. I questioned the syntactic and morphological structures and semantics as we were transcribing these texts in order to get an idea of the potential variation and to aid my understanding of the texts.

8.5.1.2 Coding

I coded for the following types of data. I coded Subject, Primary Object, and Secondary Object. Obliques, including prepositional phrases, were not coded unless they were subcategorized for by the verb (in which case they were treated as objects) or they intervened between a verb and its core arguments (which occurred very rarely). Adverbs did not intervene between the verb and core argument in either of these texts, even though that is a grammatical possibility in the language. I assigned a value of one to each element in a particular noun phrase, including pronominal clitics, even though they are phonologically reduced, on the reasoning that they are syntactically very salient, being able to satisfy argument structure requirements by themselves, and excluding determiner and directional clitics based on the reasoning that they do not contribute to the argument structure. I did code for determiners and directional clitics, so this data is recoverable if need be.

I also coded the information status of each noun phrase, based on a given/new distinction. I coded an element as new if it was not mentioned in the previous 20 noun phrases mentioned[9] and as given otherwise. Note that I have not otherwise coded for referential distance at this point. I coded the ordering of these elements and the verb. I did not count auxiliary verbs unless they had a specified subject.[10] I also, for the purpose of the present study, excluded questions as they have a syntacticized, pragmatically marked structure.

Similarly, although I did count the elements in relative clauses to come up with the length of individual noun phrases modified by the relative clause, I did not count relative clauses as clauses in their own rights for similar reasons to the reasons I excluded questions. I also excluded imperatives and did not count objects of infinitives as they did not vary in terms of their ordering. I also excluded the argument sharing constructions discussed in 6.5.6. All of these elements are coded and easily recoverable as well. I excluded incomplete clauses, such as clauses which were started and then abruptly ended because of an interruption of some sort or another, and those clauses which, in some cases because of the brief intermittent periods of heavy rain on the corrugated aluminum roof during the recording were incomprehensible to my primary consultant and myself.

8.5.2   Data

8.5.2.1   Types of data

I will now give brief examples of the types of data which were encountered and counted in the texts. I will start by describing those sentences which were verb initial. As will be seen, by far the two most common types of clauses present in the text were intransitive clauses with a pronominal subject and transitive clauses with pronominal subject and object, as seen in the following two examples:[11]

<u>Vs</u>

(66)   na   b-ese-dxogh=e'

        demdist   comp-pl-leave=3f

        'They left there.'

<u>Vao</u>

(67)   bi=dx   b-le'i=da=n

        neg=emp   comp-see=1sgexp=3inan

        'I really didn't see it.'

The next most common type of clauses in these texts were intransitive clauses with full noun subjects and transitive clauses with pronominal subject and nominal object as seen below.

<u>VaO</u>

(68) dx-ot=e'   kuzh=en'

     cont-sell=3f   pig=det

     'They sold pigs.'

<u>VS</u>

(69) na   gu-s-ak   shone cocineras   ka'

     and   comp-pl-be   three cooks   demadv

     'And three cooks were there...'

Transitive clauses with two non-pronominal arguments were very rare. Ditransitive

clauses with three lexical arguments did not occur.

<u>VAO</u>

(70) kate   b-edey-a   mansia   yish=en'

     when   comp-ven-take   Amansia   grinding_stone=det

     'When Amansia came to take the grinding stone...'

Also rare were ditransitive clauses with pronominal recipient and nominal patient, as

in the following. Note that none of these encoded repeated objects. Note that (71) has

a fast speech form of the pronoun, and (72) has a full pronoun. These two types

should probably be combined.

VaolO2

(71)   na   dxy-izxw=e=le'   tapa   rrel

       and   cont-pay=3f=2sg   4   real

      'And they pay you four reals(50 centavos)'

VaO1O2

(72)   b-enh=e'   neda shi   rrel

       comp-give=3f   1sg   10   reals

      'They gave me 10 reals.'

Slightly more common are those instances of the reflexive-of-possessor

constructions, as seen in the following example.

Reflexive-of-possessor

(73)   na   b-zhelh   gadx x-medxu=e'

       there comp-find   much poss-money=3f

      'He found a great deal of (his) money there...'

Excluding for the moment those verb initial clauses which included repeated

subjects (which will be discussed later in the current section), these were the main

types of verb initial structures which were found in the texts. I will now discuss those

instances of fronted subjects. Note that I will not discuss their pragmatic status at this

juncture, but will wait to do so until later in this chapter. The most common type of

intransitive construction with a fronted subject is one without a coreferential pronoun

following the verb.

<u>SV</u>

(74) da   dolor chiquito   b-en   rezgar

      deceased   doloreschiquito   comp-do   dared (Sp.)

      'It was the deceased Dolores Chiquito who dared...'

A close second were those clauses which have fronted subjects and a coreferential

pronoun following the verb as in the following.

<u>SVs</u>

(75)   per   to-z=e'   dx-egh=e'

        but   one-emph=3f   cont-go=3f

        'But she goes alone...'

Transitive sentences with fronted nominal subjects and verbs followed by

pronominal subjects and objects were also found as seen below.

<u>AVao</u>

(76)   na'   da   dolor=en'   dx-e=e=ne'

        and   deceased   dolores=det   cont-say=3f=3fo

        'And the late Dolores said to him....'

There were also a number of transitive sentences with non-pronominal fronted

subjects and non-pronominal postverbal objects.

AVO

(77) lhe   na   b-et   metal-en'

      focus demdist   comp-grind   metal-det

      'This is what ground the metal.'

Similarly, a number of sentences with non-pronominal preverbal subjects and non-pronominal postverbal objects and postverbal pronominal subjects also occurred in the corpus.

AVaO

(78) benhe   g-onh=e'   yet=en'

      person   comp-give=3f   tortilla=deT

      'People give tortillas.'

A number of copular sentences with pre- and post-verbal nouns as in the following were also found.

Copular sentences (S1VS1)

(79) benhe n-ak   noolh wego

       person stat-cop   woman young

      'The person is a young woman.'

One very unexpected type of sentence which was found was a sentence with fronted subject and object. These are very odd and require further research. Note the preposed headless relative clause in (81). (82) shows a negated subject preceding the clause. The preverbal 'subjects' in both of these clauses could be considered separate constituents.

AOVa

(81) danh de ka ne nilhe ka

geninan cop demadv not cooked_corn demadv

b-et=en

comp-grind=3inan

'The thing like this cannot even grind the nixtamal.'

(82) ne xna=o' ka b-le'i=de'

not poss.mother=2sg demadv comp-see=3fexp

'Not even your mother saw it like that.'

Another unexpected find was the following, a clause which looks like a reflexive of possessor construction, but which has what is translated into Spanish as a preposed non-pronominal subject and object. In all, fairness, this example should be considered to be a construction with the first NP (zxoan) a separate non-argument (a left dislocated topic), the second NP (to gosh) the grammatical subject, and the postverbal NP (yeenbe') a location.

SOVLocs

(83) na zxoan na' kon to gosh zxoa yeen=be'

and juan there like one sack stat.lie neck=3inf

'And Juan there has a sack propped up on his neck.' (He is carrying the bag on the back of his neck.)

By far the most common object initial clause type are those clauses which have a non-pronominal fronted object and a post-verbal pronominal clitic subject, as seen in the following.

OVa

(84)   pur   dizha   zxon=na'   gu-ne=e'

        only   tongue/language   Zapotec=det comp-speak=3f

        'They only spoke Zapotec.'

There are also constructions which include a pronominal copy of the preverbal object, as in (85) and (86).

O1Vao1

(85)   galgh pes   g-onh=e=n

        twenty pesos pot-give=3f=3inan

        'Twenty pesos they give.'

(86)   nisfero=na'   dx-ap=a=ne'

        nisfero=det   cont-say=1sg=3fo

        'Nisfero, I said to him...'

There are also a few cases of a preverbal non-pronominal object and a postverbal non-pronominal subject.

OVA

(87) lelez   gashgho=n   dx-eyalha   sii   maxa

      because   half=3inan   cont-should   pot.grab   maximino

'Because Maximino should take half of it...'

Finally, before turning to those sentences which exemplify repeated subjects, there are a number of ditransitive clauses which have one fronted object. These clauses either have a non-pronominal subject like (88) or a pronominal subject like (89).

O1VAO2

(88) chupe gayoa yoo gasgh   gu-zxi   da   berte blahagen

      lenh

      two hundred fifty   comp-pay   deceased alberto fuentes

      3inan

'Two hundred fifty the late Albert Fuentes paid for this.'

O1VaO2

(89) yez   le   zxis   dx-om=ba'   yel=en'

      mazorca   focus   stick   cont-make=3an   milpa=def

'It made the milpa into little scraps of mazorca.'

There was also one instance where a demonstrative pronoun coreferent with a preverbal object was found following the verb subject complex.

O1VaO1

(90) por menos   yet   dao   le   bi   gud-aw=a'   danh

      at least   tortilla   tassels focus not   comp-eat=1sg geninan

      'At the very least I didn't eat tortillas made from corn tassels.'

Finally, I encountered a fair number of sentences which contained repeated subjects. For the most part these were emphatic pronominals, but there were a few cases of non-pronominal repeated subjects. I will not go into any great detail about these at this point, except to state that the repetition of the subject gives an emphatic reading for the subject, as one might expect.

Repeated subjects

VsS

(91) na   sh-da=a=nda

      demdist   cont-walk=1sg=1sg

      'There I was walking.'

VaoA

(92) b-le'i-dx=da'=n   neda'

      comp-see-emph=1sgexp=3inan   1sg

      'I still saw it.'

VaAO

(93) bi   g-daw=a=nda'   yet   dao

      neg   comp-eat=1sg=1sg   tortilla   corn tassels

'I didn't eat tortillas made from corn tassels.'

OVaA

(94) pur   dizha   zxon   na   ne=dxo

      only   language   zapotec   now   stat.speak=1plincl

      dxop=dxo

      two=1plincl

'Only Zapotec we're going to speak now, the two of us'

Note that the majority of the examples which had non-pronominal repeated subjects

were like (94) and had a quantifier followed by a clitic pronoun. There was one

instance of a proper name as in (95).

(95) nhe   ka   gu-ne-z=be'   da   liaventura

      neg   demadv   comp-speak-emph=3inf   deceased   Buenaventura

'The late Buenaventura didn't say that.'

8.5.2.2   Quantitative data and analysis

Table 8.2 Overall count of clause types

Clause type	Number of clauses of this type	Percentage of total
Vs	805	41.5%
VaO	315	16.2%
VS	308	15.9%

Table 8.2 Overall count of clause types(cont.)

Vao	204	10.5%
OVa	75	3.9%
VsS	40	2.1%
SV	39	2.0%
SVs	25	1.3%
SVS	19	1%
Reflexive-of-possessor	18	.9%
VAO	16	.8%
AVaO	11	.5%
AVao	11	.5%
O1Vao1	10	.5%
AVO	9	.5%
Vao1O2	9	.5%
VaAO	8	.4%
OVaA	4	.2%
OVA	3	.2%
O1VaO2	3	.2%
AOVs	3	.2%
VaoA	2	.1%
VaO1O2	2	.1%
AOVLOCa	1	<.1%
O1VAO2	1	<.1%
O1VaO1	1	<.1%
TOTAL	1942	slightly less than 100%

Before I go on to examine the individual patterns which have been found, allow me to begin with a brief discussion of the data as a whole. The reader can see that five of the first six most frequent clause types are verb initial, and comprise 86.2 percent of the total overall number of clauses. This is not to say that the other orders are not significant, just that verb initial ordering is indeed the norm in Zoogocho Zapotec. Nor does this say anything about the grammaticality of the other clause types. In addition, as I will discuss in greater depth below, within the top 8 most frequent clause types (combined, a whopping 92.1% of the grand total) are no clauses with more than one lexical argument, if the definition of lexical argument excludes clitic pronouns. I will only reiterate what was said above in stating that this says nothing about the grammaticality or significance of the other types. It does say something about the overall discourse patterning of language, which will be returned to later in this chapter.

Having looked at the overall totals, the data will be broken down more specifically, before being compared with data from the studies by Du Bois and Payne. To begin with, examine the following chart.[12]

Table 8.3 Overall transitivity

Transitivity	Number	Percentage
Intransitive	1236	63.6%
Transitive	691(Including reflexive of possessor and AOVLOCa)	35.5%
Ditransitive	15	<1%

As is easily seen, intransitive sentences made up by far the bulk of the corpus which was studied. This correlates with other studies of this sort. For example, in Doris Payne's investigation of word order in Yagua, 69% of the clauses were intransitive, the remainder being transitive (Payne 1990: 222). The only potential surprise is that there were any ditransitives, given their rarity or nonexistence in Du Bois's and Payne's studies.

I then proceeded to analyze the clauses by various factors: first off by transitivity, compiling the average length of the arguments and the number of given and new mentions. I then proceeded to break down each of the three major transitivity classes (Intransitive, Transitive, and Ditransitive) further into subtypes, based on the basic ordering of verb, subject, and object(s) and then compiled individual tables for each of these sub-types. For example, for intransitive clauses, there were three basic possibilities; there were sentences of the type: VS, sentences of the type SV, and sentences of the type SVS. For sentences of the VS type, I could further break them down into sentences with a pronominal argument (Vs), sentences

with lexical arguments (VS) and sentences with a repeated subject (VsS). The fourth

possible permutation (VSs) was ruled out by the grammatical conventions of the

language.

Now I will move on to examine the individual data sets, beginning with

intransitives. It should be mentioned that each of the NPs in the copular sentences

was counted.

Table 8.4 The VS subtype

VS type	#	Average Length of Subject	Given/New Subject
Vs	805	1	805/0
VS	308	1.65	196/112
VsS	40	1.23	33/7
Total:	**1153**	**1.18**	**1034/119**

The **VS** subtype demonstrates a number of things. The first thing is that clauses like

(95) (67 repeated), were by far the most common and pragmatically least marked

clause type in the entire corpus.

<u>Vs</u>

(95)   na   b-ese-dxogh=e'

          dem   comp-pl-leave=3f

          'They left there.'

Next, (68), repeated here as (96), exemplifies the third most common clause

type in the corpus; and one of the types with the highest proportion of new mentions

and consequently one of the largest average subject lengths.

<u>VS</u>

(96) na   gu-s-ak   shone   cocineras   ka'

      and   comp-pl-be   three   cooks   pl

      'And three cooks were there...'

Finally, (91), repeated here as (97), exemplifies the use of the repeated subject in

such constructions.

<u>VsS</u>

(97) na   sh-da=a=nda'

      demdist   cont-walk=1sg=1sgfsf

      'There I was walking.'

<u>Table 8.5 The SV type</u>

SV type	#	Average Length of Subject	Given/New Subject
SV	39	1.23	34/5
SVs	25	1.28	23/2
Totals	64	1.25	57/7

A much less common type than the **VS** type, the **SV** type includes two subtypes, the first type, SV, will be provisionally considered to be a focus construction. Note that this example is made up of a question and an answer.

<u>SV</u>

(98) Panfila   no   dx-i=o'   ka'

who   cont-tell=2sg demadv

'Who were you telling that to?'

Alberta   moises dx-ap=a'   ka'   ke; lee

moises cont-tell=1sg demadv   no, 2sg

'It was Moises I told that to, you know?'

For the time being, the second type being discussed here, with a repeated subject clitic after the verb, will be tentatively called topicalization. Example (75), repeated here as (99) illustrates this. I will come back to the discussion of these terms later in the current chapter.

<u>SVs</u>

(99)   per   to-z=e'   dx-egh=e'

but   one-emph=3f   cont-go=3f

'But she alone goes...'

Now I will turn to copular sentences of the type SVS, as seen in the chart below. I count each S separately, the S in parentheses being the S which was counted.

Table 8.6 The SVS type

SVS type	#	Average Length of Subject	Given/New Subject
(S)VS	19	1.48	11/8
SV(S)	19	1.52	13/6
Totals	38	1.5	24/14

There is not much to say about the SVS type, with the exception that it is quite frequently used to introduce new discourse entities and as such, is quite often longer. The first NP mentioned was often the new NP. It is interesting to note that there were no copular sentences of the sort VSS. Copular sentences of the sort VsS were counted as VsS's.

The table below represents all of the intransitive clauses in the corpus.

Table 8.7 Intransitive clauses

Intransitives	#	Average Length of Subject	Given/New subject
Vs	805	1	805/0
VS	308	1.65	196/112
VsS	40	1.23	33/7
SV	39	1.23	34/5
SVs	25	1.28	23/2
(S)VS	19	1.48	11/8
SV(S)	19	1.52	13/6
Totals	**1255**	**1.19**	**1115/140**

Now moving on to the transitive clause, the VAO type is the first table which I will investigate, as seen below.

Table 8.8 The VAO type.

VAO type	#	Average Length of Subject	Average Length of Object	Given/New Subject	Given/ New Object
VaO	315	1	1.78	315/0	179/136
Vao	204	1	1	204/0	204/0
VAO	16	1.31	1.19	11/5	13/3
VaAO	8	1	1.85	8/0	2/6
VaoA	2	1	1	2/0	2/0
Totals	**545**	**1.01**	**1.47**	**540/5**	**400/145**

By far, as seen in the data, the most common **VAO** type is the VaO subtype as seen in (100) ((69) repeated from earlier). In (100), one can see that objects in such constructions are quite often definite. Furthermore, there is a high proportion of new mentions for objects of this subtype, with corresponding increased length.

VaO

(98)   dx-ot=e'   kuzh=en'

cont-sell=3f   pig=det

'They sold pigs.'

The next type, seen in (68), repeated here as (101), is a non-pragmatically marked pronominalized clause, and is among the most frequent clause types in the entire corpus.

<u>Vao</u>

(101) bi=dx   b-lei=da=n

       neg=emp   comp-see=1sgexp=3inan

       'I really didn't see it.'

The VAO subtype (or VSO as it is often referred to) was really not that common. Note that subjects were quite frequently new information and were longer than the corresponding objects by a small amount. This would appear to contradict the hypothesis, if the fact that the overall length for all of the **VAO** types subjects was far less than that of the objects was ignored.

<u>VAO</u>

(102) kate   b-edey-a   mansia   yish=en'

       when   comp-ven-take   Amansia   grinding_stone=def

       'When Amansia came to take the grinding stone...'

The last two types of the **VAO** type involve repeated emphatic subjects, as in the following examples.

<u>VaoA</u>

(103) b-le'i-dx=da'=n   neda'

       comp-see-emph=1sgexp=3inan   1sg

       'I still saw it.'

The next example came at a point in the text when someone was discussing how land was going to get divided, and stated that she thought that someone else

should get half of the land and that *she* should get the other half. This is typical of

repeated subjects.

<u>VaAO</u>

(104) na sii=a'=nda'   ye   gashgho

  and pot.grab=1sg=1sg   other half

'And I am going to take the other half.'

Table 8.9 The OVA type

OVA type	#	Average Length of subject	Average Length of Object	Given/New Subject	Given/ New Object
OVa	75	1	1.64	75/0	53/22
O1Vao1	10	1	1.9	10/0	4/6
OVaA	4	1.25	2.25	4/0	2/2
OVA	3	1	2	3/0	3/0
O1VaO1	1	1	2,1	1/0	1/1
Totals	93	1.01	1.7	93/0	63/30

The **OVA** type's most numerous subtype was OVa, as seen in (83), repeated

as (105). Note that many tokens of objects in this subtype were new mentions and

that there was a correspondingly high length. This one appears to correspond to the

focussed subject construction above.

OVa

(105) pur   dizha   zxon=na'   gu-ne=e'

      only   tongue/language   Zapotec=det   comp-speak=3(f)

      'They only spoke Zapotec.'

The next most common subtype, O1Vao1, is seen below. The object is definitely

emphatic in these constructions. Note that this type appears to correspond to the

subject topicalization construction discussed above in 5.5.

O1Vao1

(106) galgh pes   g-onh=e=n

      twenty pesos   pot-give=3f=3inan

      'Twenty pesos they give

(107) nisfero=na'   dx-ap=a=ne'

      nisfero=det   cont-say=1sg=3fo

      'Nisfero, I said to him...'

I encountered only three examples of the following type. As will be shown

later, clauses with two or more non-clitic arguments are very rare in SBZZ. In all of

the examples of this type which I have found in the corpus, the subject, even though

a full NP, was given information, as was the object. This appears to be focussing the

object.

<u>OVA</u>

(108) lelez   gashgho=n   dx-eyalha   sii   maxa

      because   half=3inan   cont-should pot.grab   maximino

      'Because Maximino should take half of it...'

The following could actually have potentially been classified with the

O1Vao1 sub-type given the use of the demonstrative as the second occurrence of the

object. The speaker was emphatically stating that they did not eat that particular type

of tortilla, generally eaten in times of great scarcity. Notice that the focus was on the

type of tortilla which was eaten.

<u>O1VaO1</u>

(109) por menos   yet   dao   le   bi   gd-aw=a'   danh

      at least [Sp.] tortilla   tassels focus not   comp-eat=1sg geninan

      'At the very least I didn't eat tortillas made from corn tassels.'

Finally, the repeated subject form of this sub-type is shown below.

<u>OVaA</u>

(110) pur   dizha   zxon   na   ne=dxo

      only[Sp.]   language   Zapotec   now   stat.speak=1plincl

      dxop=dxo

      two=1plincl

      'Only Zapotec we're going to speak now, the two of us'

Table 8.10 the AVO type

AVO type	#	Average Length of Subject	Average Length of Object	Given/New Subject	Given/ New Object
AVaO	11	1.36	1.18	10/1	4/7
AVao	11	1.73	1	7/4	11/0
AVO	9	1.6	1.6	6/3	5/4
Totals	31	1.56	1.24	23/8	20/11

The **AVO** type is of interest for various reasons. There is no particular reason to worry about the order of talking about the various subtypes, as they are all more or less of the same frequency. Note that the fronted subjects are longer than the subjects of the other subtypes discussed so far. This might be because they are new information and are therefore more likely to be longer.

The first sub-type which I will discuss at this point is the **AVaO** subtype. Note that the following example was part of a list of different ways people pay for goods that a speaker was selling. Again, the repetition of the pronoun immediately following the verb appears to be an instance of topicalization or at least topic-stating.

AVaO

(111) benhe   g-onh=e'   yet=en'

       person   comp-give=3f   tortilla=def

       'People give tortillas.'

Identical claims can be made about the next subtype, which exemplifies the

AVao subtype.

AVao

(112) na da dolor=en' dx-e=e=ne'

and deceased dolores=det cont-say=3f=3f(obj)

'And the late Dolores said to him....'

Finally, consider the following, focussed AVO subtype.

AVO

(113) lhe na b-et metal-en'

focus dem comp-grind metal-det

'This is what ground the metal.'

Table 8.11 Miscellaneous transitives

Miscellany	#	Average Length of Subject	Average Length of Object	Given/New Subject	Given/New Object
Reflexive-of-possessor	18	1	1.33	18/0	12/6
AOVLOCa	1	1,1	3,1	1/1	0/2
AOVa	3	2.33	1	2/1	2/1

It is telling that all of the subjects in the reflexive of possessor construction

were given information. I will exclude all three of these constructions from all future

quantification within this chapter, but will come back to discuss them later in the current chapter. I must however briefly discuss the AOVa constructions, as seen below in (114) and (115). These were very unexpected in terms of everything else which was known about the language, never having been accepted when attempted in elicitation. At this point, I feel that, especially given the pronominal subject clitic, it is best to interpret the sentence initial noun phrase as being dislocated from the rest of the sentence. The only examples I have for this sentence type are negative.

AOVa

(114) dan   de   ka   nhe   nilhe   ka

geninan   cop   demadv   not   nixtamal   neg

b-et=en

comp-grind=3inan

'The thing like this cannot even grind the nixtamal.'

(115) nhe   xna=o'   ka'   b-le'i=de'

not   poss.mother=2sg   demadv   comp-see=3fexp

'Not even your mother saw that.'

Table 8.12 Transitive clauses

Transitive Clauses (Excluding reflexive-of-possessor and AOVLOCa)	#	Average Length of Subject	Average Length of Object(s)	Given/ New Subject	Given/New Object
VaO	315	1	1.78	315/0	179/136
Vao	204	1	1	204/0	204/0
OVa	75	1	1.64	75/0	53/22
VAO	16	1.31	1.19	11/5	13/3
AVaO	11	1.36	1.18	10/1	4/7
AVao	11	1.73	1	7/4	11/0
O1Vao1	10	1	1.9	10/0	4/6
AVO	9	1.6	1.6	6/3	5/4
VaAO	8	1	1.85	8/0	2/6
OVaA	4	1.25	2.25	4/0	2/2
OVA	3	1	2	3/0	3/0
AOVa	3	2.33	1	2/1	2/1
VaoA	2	1	1	2/0	2/0

Table 8.12 Transitive clauses (cont.)

O1VaO1 (counted O1 of O1vsO2....)	1	1	O1=2, O2=1	1/0	0/1(O1) 1/0(O2)
Totals	**672**	**1.04**	**1.48**	**658/14**	**483/189**

I will now move on to discuss ditransitive clauses. The first type which will be discussed will be the VAO1O2 type.

Table 8.13 The VAO1O2 type

VAO1O2 type	#	Subj Ave	O1 Ave	O2 Ave	Given/ New Subj	Given/ New O1	Given/ New O2
Vao1O2	9	1	1	2.1	9/0	9/0	3/6
VaO1O2	2	1	1	1	2/0	1/1	0/2
Totals	**11**	**1**	**1**	**1.9**	**11/0**	**10/1**	**3/8**

I will not discuss this type in any great depth. These are garden-variety ditransitive clauses. One thing of interest is that all of the O1's and subjects are given information and are short and the longer, new information comes later.

Vao1O2

(115) na   dxy-izxw=e=lhe'   tapa   rrela

       and   cont-pay=3f=2sg   4   real

'And they pay you four reals (50 cents).'

Table 8.14 The O1VAO2 type

O1VAO2 type	#	Subj Ave	O1 Ave	O2 Ave	Given/ New Subj	Given/New O1	Given/ New O2
O1VaO2	3	1	1.67	1.67	3/0	0/3	2/1
O1VAO2	1	3	4	1	0/1	0/1	1/0
Totals	4	3	2.25	1.5	3/1	0/4	3/1

The other major types of ditransitive clauses are as follows. The first two examples show pronominalized agents. In (116), it might be possible to interpret the two objects as being coreferential (referring to different stages of the same entity), but I have chosen not to.

O1VaO2

(116) yez   le   zxis   dx-om=ba'   yel=en

       mazorca   focus   stick   cont-make=3an   milpa=def

'Unfortunately, it made the milpa into little scraps of corn plants.'

(117) dan   dx-gape=d=a'   yet

geninan   cont-pat_out=instrument   tortilla

'That is what I make tortillas with.'

Of interest in the second example is that the fronted object is far longer than the secondary object.

O1VAO2

(118) chupe gayoa yoo gasgh   gu-zxi   da   berte blahagen lhen

two hundred fifty   comp-pay   deceased alberto fuentes 3inan

'Two hundred fifty Albert Fuentes paid for this.'

Upon examination, the following chart shows that the object occurring first is considerably shorter, on average, than the second. It also is much more likely to be new information.

Table 8.15 Ditransitive clauses

Ditransitives	#	Average Length of Subject	Average Length of Objects	Given/New Subjects	Given/New Objects
Vao1O2	9	1	O1=1, O2=2.1	9/0	9/0(O1) 3/6(O2)
O1VaO2	3	1	O1 &O2=1.67	3/0	0/3(O1) 2/1(O2)
VaO1O2	2	1	O1&O2=1	2/0	1/1(O1) 0/2(O2)
O1VAO2	1	3	O1=4, O2=2	0/1	0/1(O1) 1/0(O2)
Totals	**15**	**1.13**	**O1=1.33 O2=1.86**	**14/1**	**O1=10/5 O2=6/9**

Before proceeding to compare the data obtained from SBZZ with the classic studies of Payne and Du Bois, I will first discuss the following tables. First, table 8.16 shows the average length of post verbal subjects for intransitive and transitive clauses and the number of given versus new mentions.

Table 8.16 Postverbal subjects

Postverbal subjects	Average Length of Subject	Given/New
Intransitive	1.18	1034/119
Transitive	1.01	632/7
Combined	1.12	1666/126

Similarly, table 8.17 shows the length of preverbal transitive and intransitive subjects.

Table 8.17 Preverbal subjects

Preverbal subjects	Average length of subject	Given/new
Intransitive	1.25	57/7
Transitive	1.6	25/9
Combined	1.38	82/16

In the following chart, similar data for pre- and postverbal objects is shown.

Table 8.18 Pre- and postverbal objects

Pre- and postverbal objects	Average Length of Object	Given/New
Postverbal objects	1.47	418/155
Preverbal objects	1.68	64/31

The most important data to note in this instance is that transitive postverbal subjects have an average length of 1.01 words and that postverbal objects have an average length of 1.47, which actually is the same as the average length of subjects and objects in VAO structures. This average length of subjects and objects in VAO structures easily confirms the first hypothesis stated above, that the average length of subjects would be less than the average length of objects in VAO structures. However, there is no significant difference in the position of transitive and intransitive subjects with respect to the verb, which does not confirm the hypothesis forwarded by Dryer which was discussed above that stated that there was likely to be a difference in the placement of transitive and intransitive subjects. It is also important to note that preverbal subjects and objects were much more likely to be given information and to be longer than their postverbal counterparts.

I will end with a brief condensation of the data presented in this section. In his (1994) A performance theory of order and constituency, John A. Hawkins presents various predictions for the weight of sentential elements in Polish[13]. There are two general types of predictions: *within*-structure predictions (predictions which apply to only one structural type) and *across*-structure predictions (predictions which are based on comparison of various structures) (Hawkins 1994: 175). The within structure predictions are the following. The aggregate length of the VP (V+O) will be greater than or equal to the length of the subject in SVO structures (based on the principle of short before long). Similarly the mean length of O will be greater than or equal to the V in SVO structures. Subjects should be longer than verb phrases in VOS structures (short before long). Objects should also be longer than or equal to the verb in VOS structures. The mean length of the VP should be greater than or equal to the length of the S in SOV structures. The mean length of the V should be greater than or equal to the length of the object in SOV structures. The mean length of the O in a VSO structure should be longer than or equal to the mean length of the S which in turn should be greater than or equal to the mean length of the V. In OSV structures, it is expected that the mean length of the V be greater than or equal to the mean length of the S. Finally, the principle of short before long predicts that the mean length of the S be greater than or equal to the mean length of the V.

The *across*-structure principles are the following. The VP in a SVO structure will be greater than or equal to the VP in a VOS structure. This is because the VP in the SVO structure should be equal to or longer than the S and the VP in a VOS

structure will be shorter than or equal to the S; and therefore, assuming that the length of pre and postverbal S's are commiserate, one would expect by transitivity of formulas that the VP would be longer. The S in a SVO structure will similarly be predicted to be longer than a S in a VSO structure. The O in a SVO structure will be predicted to be greater than or equal to the O in a VOS or a SOV structure. The mean length of a S in a VOS structure will be predicted to be longer than the S in a SVO or a SOV structure. Finally, the mean length of an O in a VSO structure will be greater than or equal to the mean length of an O in a VOS or a SOV structure. Thus, I arrived at the final table in this section, which collapses many of the charts above.

Table 8.19   Zoogocho Zapotec   s{ vp[V] S vp[O]}   (adapted from Hawkins (1994:177)) (frequency=proportion of transitive clauses)

Order:	S V O	V O S	S O V
(SOVs)			
Mean lengths:	1.56 1 1.24	n/a	2.33 1 1
Frequency:	5%		<1%
Structure(s):	(a) [S [V O]]	(b) [[V O] S]	(c) [S [O V]]
EIC predicts:	(i) VP ≥ S [2.24>1.56]	(i) S ≥ VP	(i) VP ≥ S [2<2.33]*
	(ii) O ≥ V [1.24>1]	(ii) O ≥ V	(ii) V ≥ O [1=1]
	(iii) VP ≥ VP in (b) n/a	(iii) S ≥ S in (a)	
	(iv) S ≥ S in (d&e) [1.56>1.01]	(iv) S ≥ S in (c)	
	(v) O ≥ O in (b) n/a	(v) S ≥ S in (d&e)	
	(vi) O ≥ O in (c) [1.24>1]	(vi) S ≥ S in (f&g&h)	

Order:	V S O	O S V	O V S
Mean lengths:	1 1.01 1.47	n/a	1.7 1 1.01
Frequency:	80%		14%
Structure(s):	(d) [VSO] or	(f) [OSV]	(i) [vp[O V] S]
	(e) [vp[V]S vp[O]]	(g) [vp[O] S vp[V]] or	(j) [O V S]
		(h) [O [S vp[V]]]	(k) [O [V S]]
EIC predicts:	(i) O ≥ S [1.47>1]	(i) V ≥ S	(i) S ≥ V [1.01>1]
	(ii) S ≥ V [1.01>1]		
	(iii) O ≥O in (b) n/a		
	(iv) O ≥O in (c) [1.47>1]		

Only 10 of the predictions made above apply to SBZZ (the structures VOS and OSV

did not occur). Of these predictions, the Zoogocho Zapotec data confirms nine out of

the possible 10; six out of seven _within_-structure predictions, and three out of three

across-structure predictions. The one *within*-structure prediction which failed (that the VP should be greater or equal to the S in a SOV structure) is based on a very small amount of data (three examples amounting to less than one percent of the total data), and would require a much larger corpus to find resolution.

8.5.2.3   Comparison with similar studies

In this section, I will compare the SBZZ data with data which Doris Payne has presented for Yagua and which John Du Bois has presented for Sacapultec. The biggest difficulty in comparing this data and similar data with the data which Du Bois presents for Sacapultec and Payne presents for Yagua is that in both of those languages agreement is affixal, and so it is easier to classify what counts as a lexical argument. I will treat the cliticized pronominal forms as agreement in most of the following tables, indicating specifically where I do not. This really has little effect on the tables discussed so far. For example, if one treats the clitic pronouns as affixes in table 8.8 above, one would arrive at a mean length for subjects in VAO structures of 1.19 and a mean length for objects of 1.75, which confirms the hypothesis even more strongly. I will, for the purpose of comparison with the other studies, treat the clitic pronouns as affixal, noting where this leads to difficulty. The affix vs. clitic question will be discussed in the conclusion to this chapter.

I will start by comparing the data which Payne (1990) presents with the Zoogocho Zapotec data. The first comparison which will be made will be the syntactic role played by the lexical argument in clauses with one lexical argument.

Table 8.20 Syntactic role in clauses with one lexical argument in SBZZ

Syntactic role in clauses with one lexical argument	#	%
S	412	49.9%
A	13	1.6%
O	401	48.5%
Total:	826	100%

Table 8.21 Syntactic role in clauses with one lexical argument in Yagua

Syntactic role in clauses with one lexical argument in Yagua (adapted from Payne:1990:224)	#	%
S	292	55%
A	39	7%
O	203	38%
Total:	554	100%

While the percentages for S and O are relatively similar, the reader can see that there are far fewer instances of single lexical A's. This is an artifact of the

grammar of SBZZ. In order for the A to be the only lexical item in the clause, the structure of the clause would have to be either AVao, VaoA, or VA. However, the last, unattested case, would either be ungrammatical or interpreted as intransitive. However, the overall tendency towards O's and S's being lexical is by-and-large confirmed.

Similarly, as seen in Table 21, the data for preverbal and postverbal lexical subjects and objects is proportional to the data which Payne presents (ibid. 225). In the following, sentences of the SVS type were taken to include preverbal subjects as per (Payne 1990:224-225). However, in ditransitive clauses with both pre- and postverbal objects disjoint in reference from each other, I consider each object separately; when coreferential, the preverbal object was counted.

Table 8.22 Pre- and postverbal subjects and objects in SBZZ and Yagua

Pre- and postverbal subjects and objects in SBZZ

Preverbal subjects	117	23.5%
Postverbal subjects	382	76.5%

Preverbal objects	100	21%
Postverbal objects	376	79%

Pre-and postverbal subjects and objects in Yagua

Preverbal subjects in Yagua	122	32%
Postverbal subjects(Payne 1990:225)	257	68%

Preverbal objects in Yagua	65	26%
Postverbal objects(Payne 1990:225)	186	74%

I will now proceed to compare the SBZZ data with the data which Du Bois

presents for Sacapultec and which led to his conclusions regarding discourse patterns

which will be discussed below. The first data of interest to compare is the number of

lexical arguments. Not counting the clitic pronouns as lexical arguments, I obtained

the following chart.

Table 8.23 Number of lexical arguments (transitive and intransitive clauses

conflated)

0	1009	52.4%
1	835	44.4%
2 (incl SVS)	78	3.2%
3	1	<.1

These figures compare nicely with Du Bois's figures for Sacapultec (47.6%

for 0 arguments, 51.2% for 1, and 1.1% for 2) (Du Bois 1987:818). This also follows

Polinsky's data stating that VOS languages were more likely to have one or fewer

arguments than VSO languages (Polinsky 265). While there are considerably more

clauses with no arguments, this is an artifact of the methodology of excluding clitic

pronouns, though note that if the clitic pronouns had been included as 'lexical', this

would have been a meaningless exercise, as there would have been no clauses with

no lexical arguments. In any event, there are at least two significant differences, the

presence in the SBZZ texts of almost three times as many clauses with two lexical

arguments, and the presence of one clause with three lexical arguments. This is further emphasized when tables 23 and 24 are compared.

Table 8.24 Number of lexical arguments per clause and transitivity in SBZZ

	0	1	2	3	TOTAL
Intransitive	805 65.1%	412 33.3%	19(including copulas) 1.6%	0	1236
Transitive	204 30.3%	414 61.6%	54 8.1%	0	672
Ditransitive	0	9 60%	5 33.3%	1 6.7 %	15

Table 8.25 Number of lexical arguments per clause and transitivity in

Sacapultec

Sacapultec (Adapted from Du Bois (1987:819)	0	1	2	3	TOTAL
Intransitive	127 48.1%	137 51.9%	0	0	**264**
Transitive	84 46.9%	90 50.3%	5 2.8%		**179**
Ditransitive	**0**	0	0	0	**0**

Table 25 shows that SBZZ is a much more lexical language than Sacapultec: there is a much larger proportion of clauses with two lexical arguments in SBZZ (even excluding the copular clauses). A grammatical reason for this is that if a clause in SBZZ has a lexical A then the O must be lexical as well, given that object clitics only occur if there is a subject clitic already present. There were also a number of ditransitive clauses including one with three lexical arguments. However, on another level, the proportion of intransitive clauses with no lexical arguments to those with lexical arguments was much greater than in Sacapultec. This is a result of there being

no affixal agreement in Zoogocho Zapotec. One would imagine, although the Sacapultec data is not presented, that there are a number of intransitive clauses with overt pronominal subjects. These would be counted as lexical arguments in Sacapultec, but would not in SBZZ, as they would, in speech, be cliticized. However, the overall difference in lexicality is possibly due to the nature of the texts which were studied. I will discuss this issue in more depth below.

In the following, I examined the type of data which led Du Bois to his dictum, 'Avoid Lexical A's' (Du Bois 823). I included both objects in ditransitive clauses and the one double object clause as a case of doubling. The data compares interestingly with that of Du Bois. His data on Sacapultec has 48.1 % for lexical S's, compared with 29.6% for Zoogocho Zapotec. Although the difference is slight, it would appear that the nominal/accusative bias in the SBZZ grammar lead to this difference. However, as a whole, lexical A's were avoided.

Table 8.26 Grammatical role and syntactic type.

Morphological	Lexical and free pronoun	Clitic pronoun	Doubled
S(ubject of intransitive)	366 29.6%	805 65.1%	65 5.3%
A(gent of transitive)	29 4.2%	619 90.1%	39 5.7%
O(bject of transitive)	445 66.2%	216 32.1%	11 1.6%
O(bjects of ditransitives)	20 66.7%	10 33.3%	
Total	**860 54.2%**	**650 41%**	**76 4.8%**

Finally, as one last piece of comparison, examine Table 26. In Table 26, the reader can see very similar data to that which is seen in Du Bois (ibid. 826). Keep in mind that he had a third category, 'accessible', though this was really not significant from this perspective for the core argument roles.[14] Du Bois' data appears in bold following the Zapotec data. One issue which needs to be explained at some future point is the difference between the SBZZ figures and the Sacapultec figures for intransitive subjects. It is possible that the type of text plays a factor in this difference. The longer of the two SBZZ texts was a conversation, and the first was an

informal narrative history with some conversation. The texts which Du Bois

analyzed were all Pear Stories (Chafe et al 1980). The conversational style exhibited

by the SBZZ texts is much more contextual and as such there were many more given

intransitive subjects.

Table 8.27 Given/New Reference (By Syntactic Role)

	Given	New
S(ubject of intransitive)	1115 (89%) (72.5%)	140 (11%) (22.5%)
A(gent of transitive and ditransitive)	659 (95.9) (96.3%)	28 (4.1%) (3.2%)
O(bject of transitive)	483 (71.9%) (65.3%)	189 (28.1%) (24.7%)
O(bjects(primary and secondary) of ditransitive)	O1=10, O2=6 O1=66.7%,O2=40%	O1=5, O2=9 O1=33.3%,O2=60%

8.6 Topic and focus

Before going any further, it is imperative to discuss those structures which I

have been tentatively describing as topic and focus. Before discussing and

classifying the actual examples in SBZZ, I will first present more generally a few

notions of focus and topic as discussed in the literature. First, I will present the

definitions which Thomas Payne has given (1997: 267-272).

First, in defining focus, he describes the following ways in which the term 'focus' is used.

1) 'Focus is a term applied to some morphosyntactic operation or category whose function has not been adequately analyzed.

2) 'Focus' is a term applied to one element of every clause. In this approach, focus can pretty much be equated with 'new information' or 'asserted information.'

3) 'Focus' describes a condition of some pragmatically marked clauses, other clauses can be 'focus-neutral' or 'unfocused.' (ibid. 267)

While at present we are not interested in focus which applies to an entire clause, but are interested in constituent focus, of which there are various types, including assertive focus, conter-presuppositional focus (contrastive focus), and exhaustive listing focus.

Assertive focus. S believes H has no knowledge of the information

'They brought me this bowl of *this thick, green, mushy stuff.*

Counter-presuppositional focus 'contrastive focus'

'Sally and Robert came over last night, but SHE got drunk.'

Exhaustive listing focus. That information which S asserts is unique in that the rest of the clause is true only with respect to it and false with respect to all other possible information

'I drank only Pepsi at the party.' (ibid. 269)

Furthermore, Payne states that:

[A] prototypical contrastive focus presupposes:

(a) a particular event E (taken loosely to mean any state of affairs)

occurred;

(b) there is a group of entities that might have had a role, R in E

(c) the addressee 'incorrectly' (in the eyes of the speaker) believes

that one of the entities did in fact have the role R. (ibid. 269)

The contrastive focus clause then asserts:

(a) the 'correct' identity of the entity involved, according to the

perception of the speaker;

(b) the proposition that the entity thought had the role R in fact *did*

not.(ibid. 269)

Before moving on to the discussion of topicalization, I will first examine the

structures I have so far called 'focus' over the course of the dissertation. Consider the

following example in which my primary consultant and the speaker of the second

text used in the quantitative analysis attempt to specify what type of grasshopper was

involved in a previous agricultural crisis.

(119)

AL   bishe   lagaha?

        grasshopper   leaf

        'The leaf grasshopper?'

(119 cont.)

P   bi   n-ak

        no   stat-be

        'That's not it.'

AL   bishe   xa   gashe na?

        grasshopper   clothes   yellow demdist

        'The yellow grasshopper?'

P   be   yelhen   xo

        clan   big   old

        'the big, old ones'

AL   dx-ago-shka   benh   yelh

        cont-eat-emph   genan   milpa

        'It sure does eat up the milpa.'

P   leka   dx-ago=ba'=x

        much   cont-eat=3an=well

        'It surely does.'

(119 cont.)

AL   leka   dx-om=ba'   che=to   lashe   ni

much cont-do=3an   of=1plexcl   field   demprox

'It does that to our (stuff) in the field here.'

dx-ago=ba   yelh=en'

cont-eat=3an   milpa=det

'It eats the milpa.'

P   **lheba**   **lheba**   **b-e-gan**

3sgan   3sgan   comp-freq-stay

'that's it, that's the one that stayed.'

Examples like (119) are what led me to consider these constructions to be focus constructions. In (119), the speaker is clarifying which entity, out of a set of potentially contrastive entities, was the correct one. Similarly, in (120), the speaker is attempting to clarify a misunderstanding.

(120) bi   zegh   to-z=e'

neg   stat.go   one-emph=3f

'She didn't go by herself.'

chupe   **zghaak**

two   stat.pl.go

'Two went.'

In those cases which have a fronted object with no resumptive pronoun, analogous to the subject focus constructions, similar examples are found.

(121) AL bizx   n-ak=en   go-k   chi=o'   kate

how   stat-be=3inan comp-be   of=2sg   when

zh=o',   'bibi   yeen xogh chi=a'   de'

cont.say=2sg,   'neg   plate sauce of=1sg   cop

'What is it that happened to you when you said "I don't have a plate for salsa."'

'na   b-en=a'   yegh xogh'   yegh bin

'and   comp-make=1sg   stone sauce'   yegh gensm

zh=o'

cont.say=2sg

'"and I made a mortar and pestle" a stone is what you said'

bin   zh=o'   dx-ak=da'

gensm cont.say=2sg   cont-think=1sgexp

'That's what I think you said'

P   uhum   yegh

affirmative   stone

'yes, stone'

(121 cont.)

to	yegh=dao	g-cheen=a'	g-cheen=a'	na'
one	stone=dim	comp-carve=1sg	comp-carve=1sg	and

b-en=a=n	yegh	xogh
comp-make=1sg=3inan	stone	salsa

' A little stone, I carved it and carved it and made it into a mortar and pestle.'

What I have been calling 'topicalization' is much more difficult to define. It is structurally a left-dislocated argument, with a resumptive pronoun following the verb. Often the left-dislocated element is a pronoun as in the following.

(122)	na	neda	zhagalaw=a'	zghe-la=a'	kafe	che	benhe
	and	1sg	hurry=1sg	stat.and-clean=1sg	coffee	of	people

'and I am rushing to clean people's coffee'

Sometimes it is a full NP, as in (123).

(123)	kelio	kabi	dx-e-la=be'	ke?
	Aquelio	neg	cont-freq=arrive=3inf	really

'Aquelio doesn't come, right?'

In general, constructions such as these are used to emphasize that a participant behaved in a certain way. Even in a relatively pragmatically unmarked example such as (124), the preverbal placement of *benhe* with the following resumptive pronoun is used in such a way, indicating what it is that people give for payment for work.

(124) benhe go-nh=e'   no   medxo

person pot-give=3inf indef   money

' People might give some money.'

benhe go-nh=e'   panelh

person pot-give=3inf   sugar_loaf

'People might give sugar loaf.'

A better term for this construction might be to call it a 'highlighting' construction, as used by Ann Cooreman when discussing Chamorro (Cooreman 1992).

8.7   Conclusions

The hypothesis stated above is restated below:

Hypothesis: The length of subjects in VSO structures will be shorter than or equal to the length of objects, in order to facilitate the recognition of the VP.

This has been strongly confirmed. There is an additional wrinkle in the theory however which has been unearthed during the analysis of the data described above. Consider Du Bois' Table 9 'Dimensions and constraints of Preferred Argument Structure' (ibid. 829), repeated here as Table 28.

Table 8.28 Du Bois' Table 9 'Dimensions and constraints of Preferred Argument Structure' (ibid. 829)

	GRAMMAR	PRAGMATICS
QUANTITY	One Lexical Argument Constraint	One New Argument Constraint
ROLE	Non-lexical A Constraint	Given A Constraint

In table 8.28, there are four inter-related constraints. The first constraint, the 'One Lexical Argument Constraint' states that it is preferential to the grammar for there to only be one lexical argument per clause. The 'Non-lexical A Constraint' states that this argument is not likely to be an agent of a transitive clause. The 'Given A Constraint' states that the agent of a transitive clause is likely to be given. Finally, the 'One New Argument Constraint' states that it is likely that there is only one new argument per clause. These constraints have been verified for many languages, SBZZ among them. Consider Tables 22 and 23 which confirm the 'One Lexical Argument Constraint', Table 25 which confirms the 'Non-lexical A Constraint', and Table 26 which confirms the 'Given A Constraint'. The 'Given A Constraint' directly leads to the 'One New Argument Constraint'; as, if the A is given and not new, there can be at most one other new argument per clause. These constraints are

given solely in terms of pragmatics and grammar. There is, however, one other aspect which should be considered: processing.

Accessibility theory, as argued for by Ariel (1990) is basically concerned with the fact that 'the choice of a referring expression is dependent on the Accessibility status the mental representation of the referent is assumed to have for the addressee at the current stage of the discourse' (ibid. 69). She arrives at the following scale.

<u>**Table 8.29 Accessibility Marking Scale (Ariel 1990:73)**</u>

Low Accessibility

Full name=modifier

Full ('namy') name

Long definite description

Short definite description

Last name

First name

Distal demonstrative=modifier

Proximal demonstrative=modifer

Stressed pronoun =gesture

Stressed pronoun

Unstressed pronoun

Cliticized pronoun

Extremely High Accessibility Markers (gaps, including pro, PRO and *wh* traces, reflexives, and Agreement...)

High Accessibility

In general, if one impressionistically considers the scale above in terms of the length of the expression, it is, for the most part, clear that the more accessible an item

is, the shorter it is. Similarly, less accessible markers are, by and large, longer. This can be related to the fact that given references are generally shorter than new references. Du Bois's Preferred Argument Structure Constraints above could potentially be considered the result of processing constraints as well. The 'Avoid Lexical A Constraint' in a verb initial language (like SBZZ, Yagua, and Sacapultec) could easily be viewed as being a processing constraint, as a corollary to the hypothesis stated above in that, if the A is lexical, there is more intervening material between the verb and the object and the constituent recognition domain is not as maximized as it is when the A is non-lexical. The 'Given A Constraint' is even more strongly motivated by such a processing approach, as a New A is more likely to be longer, and if the A is given it is more likely to maximize the constituent recognition domain. The 'Given A Constraint' leads to the 'One New Argument Constraint' and similarly the 'One Lexical Argument Constraint' could potentially be related to the 'Avoid Lexical A Constraint'.[15]

One final issue to contemplate, as promised, is the issue of the status of the clitic pronouns. I feel that there are arguments for considering them to be both affixal agreement and clitic pronouns. Given the hypothesis which was confirmed the current chapter (that Subjects would be shorter than Objects in sentences with VSO ordering) and given the discourse motivations which Du Bois (1987) discovered and which were discussed above and put forth as Table 27, there is a great pressure for the subject to be pronominal, and reduced. In fact, over 73% of all of the clauses

which were counted in the corpus used in the current chapter had a clitic pronoun subject.

The question remains however, at what point do these pronominal clitics become agreement affixes on verbs. I believe that we are seeing a morphological class in transition in SBZZ. In addition to the pragmatically marked structures with repeated clitics such as (125)-(128), there are also cases like (129) and (130).

(125) per   to-z=e'   dx-egh=e'

        but   one-emph=3f   cont-go=3f

        'But she goes alone...'

(126) b-lei=dx=da'=n   neda'

        comp-see=emph=1sgexp=3inan   1sg

        'I still saw it.'

(127) pur   dizha   zxon   na   ne=dxo

        only   language   zapotec   now   stat.speak=1plincl

        dxop=dxo

        two=1plincl

(128) nhe   ka   gu-ne-z=be'   da   liaventura

        neg   demadv   comp-speak-emph=3inf   deceased Buenaventura

        'The late Buenaventura didn't say that.'

(129) n-ak=ba   to   kabayw   shish

       stat-be=3an   one   horse   white

       'There is a white horse.'

(130) tonhe-dxgwa n-ak=e'   jef=en   kleka benhe
       yeto

       tall-int   cont-be= 3f   boss=det   than   person
       other

       'The boss is taller than the other person.'

Examples (129) and (130) indicate the initial stages of the grammaticalization of

agreement markers. Note that both of these examples have copular verbs, which

would be a perfect place for such a change to begin.

In this chapter, I hope to have presented some idea of the typology of verb

initial languages. In addition, I have confirmed a hypothesis concerning the

processing of VSO structures and have also by-and-large confirmed the findings of

other textual studies of verb initial languages. This study is unique in that it is the

only study of word-order variation in a verb initial language that I know of that not

only looks at the information status of the individual noun phrases, but also looks at

their weight, and as such represents a major contribution to both processing theory

(which has not previously had such a textual study conducted on a verb initial

language) and to the theory of word order variation in verb initial languages.

[1] See 5.6 for more information.

[2] I will discuss her important claims in the next section of the current chapter.

[3] Note that all of that which is italicized and follows in the Payne discussion is quoted verbatim from (Payne 1990: pp 11-15), the only changes which have been made are the italicization and quotation marks put around sentences which were italicized in the original.

[4] See 5.4.3 for a discussion of ditransitive constructions in Zoogocho Zapotec.

[5] Taking 'oblique' to mean a non-direct object.

[6] Nominative=A&S marked the same, Accusative=O marking, Absolutive=S&O marked the same, Ergative=A marking.

[7] By grammatical, Du Bois refers to instances, like we have seen in SBZZ, where, for example, a Spanish verb is borrowed as a verbal argument, and shows up as the complement of a transitive verb (such as *do*).

[8] In these cases mS and mO represent that S and O are constructed with their Immediate Constituent constructed with the lexical item on the left periphery.

[9] Note that these twenty mentions included stray NP's and other such things which were not encoded in this version.

[10] While this is potentially a problem for the overall weight of verb phrases, it should be noted that there were a statistically insignificant number for which this would be a problem. There were also fewer than 10 incidents where two verbs (-*ak* 'to become' and -*zoalao*= 'to begin') occurred with no arguments whatsoever, contrary to what one would normally expect. See Huang (2000) for a discussion of the increased likelihood of auxiliary verbs to allow null subjects. See 6.5.4 for more information.

[11] From this point further, I am labeling the subject of an intransitive with an S, the subject of a transitive or ditransitive with an A, and an object with an O. For ditransitive clauses, I assign the labels O1 and O2 based on which one occurred first in the clause. I am using lower-cased letters to represent clitic pronouns and upper case letters to represent lexical and full pronominal arguments.

[12] For the purpose of this individual chart, I included the reflexive of possessor construction and the AOVLOCa construction in the calculation. From this point onwards, I will not include either of those constructions in the generalized charts.

[13] Note that SBZZ, as a VO language would follow the same predictions.

[14] For S(ubject of intransitive) the accessible were 5% of the total and for A(gent of transitive), .5%.

[15] Both of these implications follow from Du Bois's theory and have nothing to say about processing.

Chapter 9: Conclusion

This dissertation, a descriptive grammar of San Bartolomé Zoogocho Zapotec, is now concluded. This typological grammar is the first of its kind for a Zapotecan language. I have striven to include not only grammatical judgements, but also to use textual performance data whenever possible. The initial six chapters describe the major grammatical features of the language, while the final two examine two major current theoretical issues: parts-of-speech and word order.

The first six chapters provide descriptions of the ethnographic and sociolinguistic situations of the Zoogocho Zapotec community, the sounds and orthography of the language, the pronominal system, the morphology, and the syntax of the language. While no particular theoretical framework was used, the inspiration for much of the descriptions comes from the typological universal grammar research program.

San Bartolomé Zoogocho Zapotec is a tonal language which can be quite complex phonologically. It is an agglutinative, slightly fusional language. As a prototypical VSO language, it has prepositions, NAdj, NDem, NGen, and NRel orders. Various means of combining clauses exist; including complementation, coordination, and relativization. While this is the most complete grammatical description of SBZZ to date, there is still much work to be done, especially in the areas of phonology and phonetics.

Chapter Seven examines the lexical classes present in SBZZ. While I try to define necessary and sufficient conditions for each lexical class, it can be difficult to find conditions which are both necessary and sufficient. Therefore, I have to rely on multiple definitions and a multifactorial approach to the idea of lexical class. I try to use definitions which, while being informed by a variety of cross-linguistic data, are based on and presented by the SBZZ grammar. I devote much of the discussion to the grammaticalization of relational nouns, a topic which has received a great deal of discussion in the literature, both specifically for Zapotecan and Otomanguean languages and more generally. I conclude that relational nouns are indeed a separate category from prepositions and regular nouns in SBZZ, sharing characteristics with both. Principled comparative work on the historical development of lexical categories in Zapotecan, while out of the scope of the present work, remains an interesting topic which will shed much light on the processes of grammaticalization both within the Otomanguean family and more generally crosslinguistically.

Chapter Eight is an examination of verb initial word order, and both places SBZZ in two typologies of verb initial languages and compares a study of word order in two SBZZ texts with other textual studies of word order in other verb initial languages. This study is the first of its kind for a verb initial language to take into account phrasal length, and as such is a major contribution not only to textual studies of word order, but also to processing theory, as it confirms a hypothesis about the processing of VSO languages which comes from the processing theory of John A.

Hawkins. This chapter concludes with a discussion of pronominalization in San Bartolomé Zoogocho Zapotec based on the quantitative textual performance data, a central issue not only for SBZZ, but also for Zapotecan languages in general.

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Appendix I: Text

'One of my mother's stories'

by Alberta Marcial Martinez

Transcribed and translated to Spanish by Alberta Marcial Martinez and Aaron Huey Sonnenschein, and translated to English and glossed by Aaron Huey Sonnenschein

1)   Benhe golh   tao=a'   na

      person old   grandmother=1sg   demdist

      gu-yegh=e'   w-e-zoa   yinh=na'

      comp-go=3f   inf-freq-plant   chile=det

      'My grandmother went to plant chile.'

2)   Kate'   b-zhinh=e'   ganh   dee   yoo.

      when   comp-arrive   where exist   land

      ganh   gha-zo=e'   yinh=na',

      where pot.and-plant=3f   chile=det

      na   zoa'   tio   chi=e'.

      demdist   stand   uncle[Sp.]   of=3f

      'When she got to the piece of land where she was going to plant chiles, there was her uncle.'

3)   Naa   sh-cheen=e'   ganh   gu-zo=e'   yinh=na'.

      then   hab-dig=3f   where pot-plant   chile=det

      'She was digging where she was going to plant the chiles.'

4) Na   ghe-dxak=de'   chigo   lhbaha

demdist   comp.and-feel=3fexp bush   vine

go.

sweet_potato

'She found a bush of sweet potato vines'

5) Dx-ak=de'   sh-cheen=e'   go.

hab-feel/think=3fexp cont-dig=3f   sweet_potato

'She thought that she was digging up potatoes. '

6) Lhoo lhbaha go   na   sh-cheen=e',

in   vine   sweet_potato   demdist   cont-dig=3f

dx-ak=de'   sh-cheen=a'   go.

cont-feel/think=3fexp   cont-dig=1sg   sweet_potato

'She dug in the roots of the sweet potatoes, thinking she was digging up

sweet potatoes.'

7) Kate   golhe'   pur   medxo

when   at_the_time   pure   money

b-dxax=en.

comp-come_out=3inan

'When she saw that it was money coming out.'

8) Na'   b-olhwizh=e'   tio   chi=e'

    and   comp-call_to=3f   uncle   of=3f

    dx-e=e'   lhee

    cont-say=3f   3f

    'She called out to here uncle and told him:'

9) Daka   ni   tío   ga   yoo=dxgwa

    imp.come   demprox   uncle   where   stat.be_inserted=emph

    medxo.

    money

    'Come here uncle, where there's a lot of money.'

10) Kate'   b-eyozh   b-een=e'   lhoo   yoo,

    when   comp-finish   comp-check=3f   inside   ground

    bitbi   medxo   yoo.

    neg   money   stat.be_inserted

    'When he looked in the ground, the money wasn't there anymore.'

11) Tío   chi=e'   gage   swert   dx-e-le'i=de'   medxo.

    tio   of=3f   neg   luck   cont-freq-see=3fexp   money

    'It wasn't her uncle's luck that he was going to see the money.'

12) Swert   chi=e'   lhee'.

    luck   of=3f   3f

    'It was her luck.'

13) A   lhe'i=de'   b-le'i=de'   medxo.

     excl   pot.see=3fexp   comp-see=3fexp   money

'She saw, that's why she found the money.'

14) Na   gage'   bi   medxo   chi=e'

     and   neg   neg   money   of=3f

     dele   go-k=e'   benhe   yashe'.

     because   comp-be   person   poor

'She didn't have money because she was poor.'

15) Na   b-zhelh   x-medxo=e',

     demdist   comp-find   poss-money=3f

     sheka   bi   b-olwizh   tio   chi=e'.

     if   not   comp-call_to   uncle   of=3f

'She would have found money there if she hadn't called out to her uncle.'