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SOME ASPECTS OF ZAPOTECAN CLAUSAL SYNTAX

Stephen A. Marlett

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1 Introduction

In this paper I discuss pronouns and various syntactic constructions in Zapotecan (Z) languages. My major goal is to present a broad overview of the similarities and differences which exist among the various members of the Zapotecan group in these syntactic constructions, which I generally discuss in theory-neutral terms.

Zapotecan (see map) is generally considered as involving two branches--Chatino and Zapotecan proper (Suárez 1983:xvi). Of the latter there are numerous distinct variants (Rendón 1967). The actual number has been estimated to be as high as thirty-eight (Egland 1978). While this high figure has been contested--usually for political reasons and without substantial linguistic basis--the fact remains that Egland (1978) represents the only serious attempt to collect and analyze data relating to the mutual intelligibility of the speech of many villages. The Z languages are spoken by some 250,000 people who reside primarily in the state of Oaxaca, Mexico (Horcasitas de Barros and Crespo 1979). (A small percentage live in Veracruz.) The Chatino (Ch) languages, which are spoken by approximately 12,000 people in the state of Oaxaca, include five distinct groups (Egland 1978). I believe that the Zapotec-Chatino division is justified on various grounds, and therefore distinguish between these two major branches of Zapotecan repeatedly. I do not make any attempt here to group the various languages of the Zapotec branch.

The data are drawn primarily from fieldwork done by members of the Summer Institute of Linguistics in twenty-four variants of Zapotec and four variants of Chatino. I make no claim here as to the degree of differences between these variants, some of which are obviously much closer to each other than to others (see Egland 1978). In some cases it is well-known that a certain variant is extremely close to another. I include the data from all of these variants simply because the data are fairly reliable, in some cases published, and I was able to obtain further information from the source persons easily. These variants are referred to by the abbreviations in Appendix A. The published sources from which I obtained some data are listed below, but I cite data without explicit references. I gratefully acknowledge the large amount of information which individual Z linguists provided freely. Throughout this work I use a standardized orthography for the data below, the peculiarities of which are noted in Appendix C. I do not represent tone, which is nevertheless distinctive generally in Zapotecan.

Map showing general location of Zapotecan languages

2 Types of pronouns

I categorize the pronouns of Z languages into the following four types: personal (with both free and bound variants), reflexive (and reciprocal), deictic, and a generic noun type. (I do not discuss interrogative or indefinite pronouns.) In this section I illustrate these types of pronouns. The semantic parameters of these forms are discussed in Sect. 3, and their syntax in Sect. 5. Pluralization is discussed in Sect. 4.

2.1 Overview of personal pronouns

A very common feature of Z languages is the existence of both "free" and "bound" personal pronouns. (See Appendix D.) Bound pronouns are phonologically dependent and must attach to another word, usually a preceding word, but sometimes a following morpheme. (Speck (1984) distinguishes between two phonological boundaries for these bound pronouns.) The bound pronouns are typically, but not always, distinct from the free pronoun. Even when they are the same, however, I write a hyphen before the pronoun when it occurs in a position which would require a bound pronoun. Other differences between free and bound pronouns are noted below. The distribution of free and bound pronouns in clauses is discussed in Sect. 5.2. Compare the following sentences from YTZ. (1a) contains a free pronoun as subject (a possible, but uncommon, construction), and (1b) a bound pronoun as subject.

- (1) a. (YTZ) gw-tas le?
 COMPL-sleep-2s
 'You slept.'
- b. (YTZ) gw-tas-o?
 COMPL-sleep-2s
 'You slept.'

Pronominal forms in Z languages generally do not vary according to grammatical function (in other words, they do not reflect case morphologically), although the distribution of free and bound forms is determined partially in most Z languages by grammatical function. (This important matter is discussed in Sect. 5.2.) One exception to this generalization is the first person free form in GL which is **na?** generally, but **nare** when it is the object of the verb.

Sometimes a preposition may fuse with the bound pronoun, as in MIT, in slightly idiosyncratic ways. In the Ch languages, object pronouns are typically preceded by a

certain particle (?i). This particle takes the bound form of the pronoun after it. Since the corresponding form for first and second person singular sometimes involves a fusion of these elements, there is now a limited type of case marking in pronouns. These forms are labelled "genitive" below.

(2) (NC)	Subject		Genitive
	Free	Bound	
1s	na?	(nasal.)	?ñā
2s	nu?wĩ	(tone)	?ĩ
1p inc	na	-na	?ĩ-na
1p exc	wa	-wa	?ĩ-wa
2p	?ũ	-ũ	?ĩ-ũ

I have not listed all of the allomorphy associated with bound pronouns in Appendix D. For example, in lieu of the third person inanimate form /-n/ in YTZ, the allomorph /-e/ occurs in the reflexive and reciprocal pronouns. Phonologically conditioned allomorphs are common. Also, most of these languages display some degree of dialectal variation within them which is simply ignored here.

I follow other analysts of Z in generally not analyzing the bound pronouns on verbs as agreement affixes for three reasons. First, they are in complementary distribution with the free pronouns and noun phrases in most cases (except under conditions discussed in Sect. 5.4). RIN is exceptional in this regard since the bound pronoun (subject or object) occurs on the verb regardless of the presence of a coreferential noun phrase. If there are two bound pronouns, they both occur on the verb. It is the only Z language known to have developed this "agreement" type of system. The word order in RIN is also different from other Z languages. Whereas the bound pronouns occur in the typical order VSO, the noun phrases occur in the order VOS in RIN. Two examples are given below.

- (3) a. (RIN) guiX-ǂ? bɛni? ni?
 COMPL.go-3resp man that
 'That man went.'

- b. (RIN) gu-gu?-ǂ-ba? bǂa? bǂni? ni?
 COMPL-hit-3m-3anim horse man that
 'That man hit the horse.'

Second, the bound pronouns are generally subject to the same word order constraints as free pronouns and noun phrases (see Sect. 5.1). Third, the bound pronouns may function in the plural marking system as noun phrases (see Sect. 4).

The first and second person free pronouns (both singular and plural) are monomorphemic forms in many Z languages, as shown for YTZ and NC in (4). The TEX and IST forms also given in (4) show that this is not always the case. But in several Z languages the first and second person plural forms are not monomorphemic, but involve a stem followed by a bound personal pronoun. The stem employed in IST is *la?a-* (which has no independent meaning). The plural morpheme *ka-* also optionally occurs in the first person plural inclusive form in IST. The plural TEX pronouns in (4) involve the plural morpheme *de*, and the first person plural inclusive form also involves the stem *ub* 'self'.

(4)	YTZ	NC	TEX	IST
1s	nada?	na?	yǎ	na?a
2s	le?	nu?wĩ	ru	li?i
1p inc	ǂio?o	na:	de-ub-na	la?a(-ka)-nu
1p exc	neto?	wa	dě-yǎ	la?a-du
2p	le?e	?ũ	de-ru	la?a-tu

Third person free pronouns, on the other hand, are generally morphologically complex forms (not in Ch, however). Plurality is indicated by a plural morpheme in some languages. In YTZ and IST, for example, the third person forms are composed of the stem *lle-* and *la?a-*, respectively, followed by a plural morpheme if the referent is plural, followed by a bound pronoun, as shown in (5). (I discuss plural marking in detail in Sect. 4.) The stem *la?a* (or its cognate) is used as a "focus" proclitic of some type with any subject noun phrase in some Z languages (e.g., ATE and MIX), but it does not have this use in many other languages.

(5)	Third singular		Third plural	
	YTZ	IST	YTZ	IST
resp	11-e?	la?a-be	11e-ga?ak-e?	la?a-ka-be
fam	11e-bo?	-----	11e-ga?ak-bo?	-----
anim	11e-b	la?a-me	11e-ga?ak-Eb	la?a-ka-me
inan	11e-n	la?a-ni	11e-ga?ak-En	la?a-ka-ni

TEX has no equivalent stem, employing instead deictic pronouns which are morphologically complex in a similar way (see Sect. 2.3).

In some languages third person pronouns are commonly omitted in a running narrative, as discussed in Sect. 5, but in IST it can also be established that there is a "zero" third person pronoun since the pronominal stem and also the pluralizer can occur before it: **la?a-ka-Ø** (stem-PL-3). I have not listed this pronoun in Appendix D, however, since it does not contrast semantically with other third person pronouns.

The bound pronouns in some Z languages are recognizable as reduced forms of the free pronouns (if the latter are monomorphemic). Compare, for example, the first and second person pronouns of YTZ and GL in (6). (The parenthesized elements in the YTZ forms appear with some verbs and after certain morphemes; the parenthesized elements in the GL data are sometimes present, but are usually omitted.)

(6)	YTZ		GL	
	Free	Bound	Free	Bound
1s	nada?	-(d)a?	na?a	-a?
2s	le?	-(d)o?	liu?	-u? (fam)
1p incl	ʝio?o	-ʝo	dunnɪ	-n(ɪ)
1p excl	neto?	-to?	-----	----
2p	le?e	-le	la?a-t	-t(ɪ) (fam)

When a bound pronoun occurs on the verb in a Z language, it always follows the verb. (A bound pronoun is not necessarily suffixal elsewhere. It may be the first

element of a deictic pronoun, as is shown below.)

In many Z languages (none of the Ch languages, however), more than one bound pronoun may be attached to the verb, under conditions made explicit in Sect. 5.2. In the majority of cases, a non-subject **bound** pronoun must be third person. Some examples are given below.

(7) a. (YTZ) b-ne²Xw-e?e-bo?o-b
COMPL-give-3resp-3fam-3anim
'He gave it to him.'

b. (TEX) b-za?ak-yu-y
COMPL-see-3m,fam-3m,fam
'He saw him.'

Z languages generally have a class of adjectives separate from the class of verbs. Adjectives, while generally not taking aspect marking, may be inflected for person using the bound pronouns, as in (8a). A copular verb may also be used, as in (8b-c).

(8) a. (YTZ) bitek gual-o?
how strong-2s
'How strong you are!'

b. (YTZ) ²o²je n-akE-n
pretty STAT-be-3inan
'It is pretty.'

c. (IST) gu-ka-ni galan yanna ma ko?
COMPL-be-3inan pretty now -- no
'It was pretty, but not anymore.'

The pronoun attaches to the copula in (8b-c), but to the adjective in the following example from IST. I do not have much data on such sentences cross-linguistically and thus merely point out the facts.

(9) (IST) gu-ka nanda?-ya?
COMPL-be hot-1s
'I am hot.'

In equative sentences which do not involve a copula, the free pronoun is used in IST but the bound pronoun in MIT. Again, I do not have much data on such sentences cross-linguistically.

- (10) a. (IST) maystru la?a-be
 teacher 3hum
 'He is a teacher.'
- b. (MIT) ?et stad-ti-tu-ni
 NEG father-NEG-2p-3fam
 'He is not your father.'

All Z languages which have bound pronouns also use them with nouns to indicate possessor with nouns (at least some group).

- (11) a. (YTZ) yiɬX-a? 'my head'
 head-1s
- b. (GL) ʒ-libr-a 'my book'
 POSS-book-1s
- c. (TEX) bay-yu 'his waist'
 waist-3m
- d. (NC) kē 'my head'
 head.1s

Some body parts function as prepositions in Z languages, and bound pronouns are used with these as well as some other prepositions, as in (12a-f). With other prepositions, however, free pronouns are used, as in (12g-j). The latter class of prepositions generally seem to be loanwords. (In TC free pronouns occur after all prepositions, however.)

- (12) a. (YTZ) bi?in zeʒa kwit-o?
 boy STAT. stand side-2s
 'the boy who is standing beside you'
- b. (YTZ) koʒE?E-bo? 'behind him'
 back-3fam
- c. (TEX) ri?iñ nē 'my work'
 work of.1s
- d. (TEX) b-rib-ā nañ-ma
 COMPL-emerge-1s inside-3anim
 'I emerged from it.'
- e. (YTZ) bia ʒe-bo? 'his animal'
 animal of-3fam

- f. (NC) ngusa ?ño 'my table'
 table of.1s
- g. (YTZ) par nada? 'for me'
 for 1s
- h. (YTZ) ka nada? 'than me'
 than 1s
- i. (YTZ) gwnn-e? fabor nada?
 COMPL.speak-3resp favor 1s
 'He spoke in my favor.'

Finally, bound pronouns commonly occur with quantifiers in Z languages.

- (13) a. (GH) to-me 'one of them'
 one-3hum
- b. (YLG) ʘop-ak-be? 'two of them'
 two-PL-3fam
- c. (YLG) ball-en 'some of them'
 some-3inan

2.2 Reflexive and reciprocal pronouns

Reflexive and reciprocal forms in many Z languages involve a special morpheme followed by a bound pronoun. (See Appendix E.) Note the following examples:

- (14) **Reflexive:** YTZ TEX
myself	kwín-a?	ub-a
himself (fam)	kwim-bo?	ub-yu
themselves	kwín-ga?ak-bo?	
ourselves (incl)	kwín-ʘo	ub-na
- Reciprocal:**
each other (3p)	lXweʘX-e?	losa?-y
each other (1p incl)	lXweʘX-ʘo	losa?-n

(Third person reciprocal pronouns in YTZ may optionally have the plural morpheme **ga?ak** preceding the bound pronoun.)

In the reflexive forms of some Z languages it is the free pronouns that are used. In IST, the reflexive stem precedes the free form. In CHI the reflexive stem intervenes between the pronoun stem and the bound pronoun if the free pronouns are morphologically complex.

(15)	IST	CHI	MIX
myself	laka na?a	na?-gaka	leke na?a
himself	laka la?a-be	la?-gaka-ba	leke me
ourselves	laka la?a-nu	la?-gaka-nu?	

Some reciprocal forms have clear etymologies. YTZ **lXwe3X** is a noun meaning something like 'companion' (Butler 1976), and **sa?** in OCO means 'another'.

In some languages there is no reflexive pronoun (strictly speaking) at all. I discuss the syntax of reflexive clauses in 5.3.2 and these languages are discussed there.

The reflexive pronoun may be used as an emphatic pronoun, as in the following examples:

- (16) a. (YTZ) kwin-a? b-et-a? yin? be3-en?
 self-1s COMPL-grind-1s chile tomato-the
 'I myself ground the chili and tomato sauce.'
- b. (YTZ) gw-yeX kwin-a?
 COMPL-go self-1s
 'I myself went.'
- c. (PC) ykwī:? y?ni: tnyā kā?
 self.2s COMPL.do.2s work there
 'You are the one who did that work.'

In some Ch languages, the reflexive pronoun can be used in lieu of a pronoun.

- (17) a. (TC) ?a nu?ū laka Leo // ykwī?
 Q 2s CONT.be self.1s
 'Is that you, Leo? // Yes, it's me.'
 (The answer is literally, 'Myself.')

- b. (TC) ?a nã ndi?ĩ ykwi?
 Q NEG CONT.be.living self.3
 'Isn't the man of the house at home?'
 (The question is literally, 'Isn't himself
 living?')

Some descriptions of Z claim that the reflexive or reciprocal morpheme is not a separate word which is followed by a bound or free pronoun (as in the YTZ examples above), but rather a verbal affix. In most cases it is hard to present strong arguments for one analysis over the other. The IST reciprocal morpheme is one example in which the verbal affix analysis is claimed.

- (18) (IST) ka-giñe-sa?a-ka-be
 CONT-hit-RECIP-PL-3hum
 'They hit each other.'

(rather than * ka-giñe sa?a-ka-be)

I list the reciprocal forms in Appendix E without deciding between these alternative analyses. In all cases the reciprocal morpheme is followed by a bound pronoun or a noun phrase.

2.3 Deictic pronouns

Z languages typically distinguish three or four deictic elements. In some languages the same elements are used as adverbs in a sentence or as adjectives. Examples from TEX are given below.

- (19) a. (TEX) gwa-y ze?
 COMPL.go-3m there
 'He went there.'
- b. (TEX) b-yap-ã yu? i?i
 COMPL-come-1s house here
 'I came to this house.'

In other languages, such as MIX, the form of the deictic is different depending on its use. The forms listed below are those which occur as adjectives.

(20) TEX MIX NC

i?i ri?i re 'here'

re ki kwa 'there' (visible to speaker)

-- rek kã? 'there' (farther away)

ze? ko --- 'there' (not visible to speaker)

In TEX third person bound pronouns occur before these deictic particles to form deictic pronouns.

(21) (TEX)	Bound Pronoun	'this one'	'that one'	'that one'
3 fam m (m.s.)	-yu	yui?i	yure	yuze?
3 fam f/inan (m.s.)	-ñi	nii	nde	nde?
3 resp f/deity (m.s.)	-mi	mii?i	mire	mize?
3 anim	-ma	mai?i	mare	maze?

The deictic pronouns in TEX pattern syntactically like free pronouns, as in (22). As I noted in 2.1, TEX has no other third person free pronouns.

(22) (TEX) ornu bi b-dab-ma tub yu-ze?
 when already COMPL-swallow-3anim one 3m-there
 'Now after it (alligator) had swallowed one of
 them...'

In ATE any bound pronoun can occur before the deictic element to form deictic pronouns, as in (23).

(23) (ATE) tu?-ã? 'that one of ours'
 1p,excl-there

The complementizer used in relative clauses in several languages may also be followed by a deictic to form a deictic pronoun.

(24) (NC) nu-re 'this one'
 COMP-here

Appendix F summarizes information about morphologically-complex deictic pronouns.

2.4 Generic nouns

In this section I discuss a class of nouns which we call generic nouns (following Butler 1980). Generic nouns are a bit hard to define, however. In the clearest cases (as in Y TZ) they are nouns meaning 'animal', 'thing', 'person', etc. In less clear cases (as in NC) we also mean by this term certain shortened forms related historically to such nouns.

The animal pronoun in most, if not all, Z languages is either the same as or very similar to the noun for 'animal'. One might claim that these are all generic nouns in our sense of the term. However, in some cases at least the animal pronoun takes the same pronoun stem in its free form as other third person pronouns. A similar situation is true for the inanimate pronoun in many Z languages.

Generic nouns have completely replaced "true" third person pronouns in some languages, such as MIX. The replacement process can be seen taking place in SI where the word for 'person', *bɪn*, is commonly used as a third person pronoun instead of the third person pronoun.

In some Z languages generic nouns function as pronouns in certain constructions, especially relative clauses (see Sect. 5.3.1).

While the generic nouns in Y TZ are also generally used as simple nouns, in TEX their distribution is much more limited. In TEX they must be the head of a relative clause, or be modified by a deictic element, or occur in a compound word. They are not phonologically independent words, but must cliticize to a following word. The generic nouns which occur in TEX are given in (25).

(25) Generic Noun	Meaning in m.s.	Meaning in f.s.
<i>biñ</i>	3 resp f/deity	3 resp (m/f/deity)
<i>yu</i>	3 m	(not used)
<i>bañ</i>	3 anim	3 anim
<i>fiñ</i>	3 fam f	3 fam (m/f)

Finally, in Ch languages the generic nouns *yu* (3m), related to *ki?yu* 'man', and *ne?* (3f), a word for 'people' in some variants of Ch, appear in front of certain nouns, functioning almost as classifiers, it seems. (In other

variants of Ch, the complementizer *nu* occurs in this position.) The following examples are from NC.

- (26) a. *ne? kuna?ā kā?* 'that woman'
 3f woman there
- b. *yu ki?yu kā?* 'that man'
 3m man there
- c. *ska yu ſtyū* 'a Tiltepecan (man)'
 one 3m Tiltepec

3 Semantic distinctions in pronouns

Z languages all make a morphological distinction for three persons, and in third person most (but not all) distinguish among three "genders": human, animal, and inanimate (see Appendix G). Most Z languages distinguish between inclusive and exclusive in first person plural (the only exception is GL).

Most Z languages have a respect/familiar contrast in the third person. (The Ch languages do not have such an established system.) The respect pronoun may be the same as or different from the pronoun used to refer to deities. Some have respect forms in the second person singular as well (usually through the inclusion of some extra morpheme). The "respect" parameter is fairly complex in some Z languages. The use of respect forms is determined by a number of factors, including primarily the relative age of the speaker and the person referred to, the kinship relationship between them, their sex, and the attitude of the speaker towards the person. Because of the intricacy of these parameters, it may be incorrect to talk of the distinction as being between respect/formal/honorific and familiar/informal/nonhonorific.

Some Z languages display a difference between male speech and female speech for third person respect and familiar pronouns. The Ch group as well as some others have distinct forms depending on the sex of the third person referent.

Finally, in CHO an additional distinction (which is being lost, nevertheless) is made between the normal third person respect pronoun and the third person pronoun used for an elderly person. GL and IST have a pronoun to refer to a child specifically, although in IST it is obsolete. GH and OCO both have a third person pronoun with indefinite (or

vague) reference.

With such a variety of third person pronouns, one might ask what happens when the intended referent is a conjunction of two groups, as "they" referring to a man and an animal. Unfortunately, I do not have the answer to this question on a cross-linguistic basis. In a text of one language (YLG) it was observed that the pronoun used in such a case was the third person respect form, which was used to refer to the man previously.

4 Number marking

All of the Z languages distinguish singular and plural in first and second person pronouns. Some Z languages also have special verb stem morphology which occurs when the verb has a first person plural subject. In other languages, the stem which occurs with a first person plural (inclusive or exclusive) subject is different from that stem which occurs with other subjects in that particular aspect. It is possible that in some cases an isolatable morpheme is involved. (In IST, and perhaps the other languages, only certain verbs have this morphology, and there is variation between speakers with respect to the verbs which use it.)

- (27) a. (CHI) ri-ʒyapa-nu? (other stem: -apa)
 HAB-watch-1p,incl
 'we watch'
- b. (IST) ri-dusi-du (other stem: -asi)
 HAB-sleep-1p,excl
 'we sleep'
- c. (IST) ri-de?-du (other stem: -e?)
 HAB-drink-1p,exc
 'we drink'

The situation regarding the means for indicating plural in third person is more complex. I turn to this now. The following description is adapted from Marlett and Pickett (1985).

There are three "features" in which Z languages differ: they either have a given feature or they do not.

- A. A plural morpheme (proclitic) with nominals (including pronouns).
- B. A prefix on the verb (to pluralize the subject).
- C. Plural clitic floating.

The languages included in the present study display all of the eight possible combinations of these three features. For example, some languages have none of these features. One has all three of them. This is shown below.

(28)	Type	Feature A	Feature B	Feature C
	1	yes	no	no
	2	no	yes	no
	3	no	no	yes
	4	yes	yes	no
	5	yes	yes	yes
	6	no	yes	yes
	7	yes	no	yes
	8	no	no	no

The majority of the languages have feature A. The Chatino languages do not, as do not the languages in the area of Miahuatlán: AMA, COA (as far as I can tell from the sources), MIA, MIX, and QUI. Several of the languages spoken in the ex-district of Villa Alta also do not have this feature, but I discuss these in more detail below.

Feature A is the use of a plural morpheme before the head noun of a noun phrase. In RIN the morpheme which now occurs with noun phrases, as opposed to bound pronouns, is etymologically the word for 'all' and so is not cognate with the plural morpheme in other languages.

- (29) a. (IST) ka yaga 'trees'
 PL tree
- b. (TEX) de moz 'workers'
 PL worker
- c. (RIN) yugu? yaga 'trees'
 PL tree
- d. (CHI) ra? bwi?inn 'people'
 PL person

In the same way, the pluralizer precedes the (bound) pronoun which it pluralizes, wherever this pronoun is found.

- (30) a. (IST) b-yaba-[ka-be]
COMPL-fall-PL-3hum
'they fell'
- b. (IST) b-i-di?-du-[ka-ni] laa-[ka-be]
COMPL-ThV-give-1p,exc-PL-3inan stem-PL-3hum
'we gave them to them'
- c. (RIN) ri-le?e-da? le-[gaka-nu]
CONT-see-1s stem-PL-3f
'I see them (f)'
- d. (RIN) ru-yu-[gaka-nu]
CONT-watch-PL-3f
'they (f) watch'

Feature B is the use of a verbal prefix which indicates that the subject is plural. This prefix occurs only if the subject is third person. In RIN it may occur in lieu of or in addition to the plural proclitic before the subject noun phrase.

- (31) a. (RIN) gu-la?-ginaX yugu? yaga
COMPL-PL-fall PL tree
'the trees fell'
- b. (RIN) gu-la?-gu?-~~u~~-ba? bia?
COMPL-PL-hit-3m-3anim horse
'they (m) hit the horse'
- c. (RIN) tu?-yu-[gaka-nu]
CONT.PL-watch-PL-3f
'they (f) watch'
/ru+la?/ > [tu?]
- d. (TAB) ~~u~~e-le-le?e-n~~u~~?
CONT-PL-see-3resp
'they see'
- e. (YTZ) ~~u~~-se?-ene-bo?
CONT-PL-hear-3fam
'they hear'
- f. (YTZ) ~~u~~-EsE?E-sed geyE? bidao?
CONT-PL-study five child
'five children are studying'

Feature C involves plural clitic floating. Of course, in order to have clitic floating, a language must have a plural clitic. But most of the languages which have clitic

floating have a plural morpheme which occurs only with pronouns. Therefore I classify them as **not** having feature A. In languages with clitic floating, the plural clitic does not always occur contiguous to the nominal which it is pluralizing. Rather, it always occurs in a position following the head of the constituent to which the NP belongs. That is, in a prepositional phrase such as (32), the plural follows the prepositional head. In a possessed noun phrase such as (33) and (34)--recall that free pronouns have the same structure as possessed nouns--the plural follows the nominal head. In a clause, the plural follows the verb. But it is only in the latter in which the plural morpheme does not also actually occur contiguous to the nominal which it pluralizes. A more detailed discussion of such cases follows.

- (32) (YTZ) ʒe-ga?ak-e? 'of them'
 of-PL-3resp
- (33) (YTZ) ʒʒeid-ga?ak-e? 'their hen(s)'
 hen-PL-3resp
- (34) (YTZ) lle-ga?ak-e? 'they/them (resp.)'
 stem-PL-3resp

Example (35) shows a plural subject pronoun. The plural morpheme occur both contiguous to the verb and also to the pronoun.

- (35) (YTZ) polisia ka? b-e?ʒ-ak-e? to be?nne
 police those COMPL-grab-PL-3resp a person
 'The police arrested a person.'

The plural morpheme does not occur contiguous to a bound object pronoun, however, since it must cliticize in the post-head position. This is shown in the examples in (36). There may be multiple sources for the one plural morpheme which may occur, as the ambiguities below indicate.

- (36) a. (RS)
- ri-le?e-gaka-dʒ?-nu
CONT-see-PL-1s-3f
'I see them (f)'

- b. (RS)
- ri-le?e-gaka-dʒ?-nu
CONT-see-PL-3m-3f
'he sees them (f)'

c. (YTZ)

 y-oseZ-ga?ak-bo?o-b
 POT-untie-PL-3fam-3anim
 's/he is going to untie them'

d. (YTZ)

 gw-sa?-aklen-ga?ak-e?e-bo?
 COMPL-PL-help-PL-3resp-3fam
 'they helped them'

e. (YTZ)

 b-neZXw-ga?ak-bo?o-ne?e-b
 COMPL-give-PL-3fam-3resp-3anim
 's/he gave it/them to him/her/them'

f. (YLG)

 b-le?-ak-la-ba?
 COMPL-see-PL-1s-3anim
 'I saw them'

g. (YLG)

 b-go?S-ak-a-be-n
 COMPL-hand-PL-1s-3fam-3inan
 'I handed it/them to him/her/them'

h. (YLG)

 b-go?S-ak-e-be-n
 COMPL-hand-PL-3resp-3fam-3inan
 's/he/they handed it/them to him/her/them'

A comparison of the actual plural morphemes of the various Z languages (see Appendix H) indicates some obvious groupings. The languages which have no plural morpheme which may be used in the free pronouns are all, with the exception of TAB, in the southern part of the state of Oaxaca. The languages which use some cognate of **gaka** are all located in the north and east of the state. The central and western Z languages use a morpheme cognate to **ra**. (A couple use a cognate of **be**, which is probably related.)

The few languages which use a verbal prefix are all in the area of the ex-district of Villa Alta.

There is yet one other manifestation of plural in Z

languages, but for which I have little cross-linguistic data. Some languages have suppletive stem morphology (especially for existential or positional verbs) which is dependent primarily on the number of the subject. In Y TZ, for example, one verb 'be' has the stem *-nitE?E* if the subject is third person plural. This stem also may be used if the subject is second person plural. Elsewhere the stem is *-zo*.

5 Syntax

5.1 Word order

The basic word order in all Z languages is VSO (with the exception of RIN, in which bound pronouns occur in this order, but noun phrases occur in the order VOS, as I noted above). This order generally occurs whether noun phrases or pronouns are involved and whether the latter are free or bound pronouns, as the following examples from Y TZ show.

- (37) a. *ba-z-X-~~xi~~? ʔna?a-bo?o-n yetʔtil-En?*
 already-STAT-go-buy mother-3fam-the bread-the
 kate? be-bam-bo?
 when COMPL-awake-3fam
 'His mother had gone to buy bread when he woke up.'
- b. *gw-~~te~~?e-~~xi~~ polsia-n? lle?*
 COMPL-carry-forcefully police-the 3resp
 'The police carried him away forcefully.'
- c. *gw-dao-b le?*
 COMPL-eat-3anim 2s
 'It bit you.'

The position of what is commonly referred to as an indirect object varies between Z languages and often within a given Z language. A very common position for indirect objects in Z languages is after the direct object, usually following a preposition (often 'of' or a word meaning 'face'). (See Appendix I.) The following examples are from TEX, ATE, and NC, in which marking of indirect objects depends on the verb to a large extent.

- (38) a. (TEX) *te?es na yã rik-ã tub consef ni-r*
 but now 1s POT.give-1s one advice of-2s
 'But now I will give some advice to you.'

- b. (TEX) na nē?ē tub riʒto?o lo-r
 now POT.say.1s one story face-2s
 'Now I will tell a story to you.'
- c. (ATE) benna-bi-ā ki-a?
 COMPL-give-3fam/3anim-inan of-1s
 'He gave it to me.'
- d. (NC) m-da-yu tñi ?ñā
 COMPL-give-3m money of.1s
 'He gave money to me.'

What is semantically a beneficiary in YTZ occurs preceded by the preposition 'of'.

- (39) (YTZ) gw-ʒi?-a? to ke no?l ki-a?
 COMPL-buy-1s one of woman of-1s
 'I bought one for my wife.'

In YTZ and IST, however, the indirect object of 'give' is never preceded by a preposition, and may occur either before or after the direct object. The indirect object in YTZ appears to precede the direct object usually, as in the following examples:

- (40) a. (YTZ) gw-diʒXw-e? nada? ʒi pes
 COMPL-pay-3resp 1s ten pesos
 'He paid me ten pesos.'
- b. (YTZ) b-neʒXw-e? bida?o-nE? to llibr
 COMPL-give-3resp child-the a book
 'He gave the child a book.'
- c. (YTZ) b-neʒXw-e?e-bo?o-b
 COMPL-give-3resp-3fam-3anim
 'He gave it to him.'

But it may occur after it if the indirect object is a free form **and** the direct object is an inanimate bound pronoun, as in (41).

- (41) (YTZ) gw-neʒXw-a?a-n llebo?
 POT-give-1s-3inan 3fam
 'I will give it to him.'

In other Z languages (such as OCO) there is a preference to avoid indirect objects, and periphrastic constructions of the type "I give some corn, you eat it" are used.

The locative in some languages patterns similarly to

the indirect object in that it can occur as a pronoun on the verb.

- (42) a. (YLG) ʔ-gwe-ʔe-n bit
 HAB-put-3resp-3inan epazote
 'He put the **epazote** (herb) in it.'
- b. (YLG) bi ʔ-ak saʔa-ʔo-n
 NEG HAB-can POT.walk-1p,inc-3inan
 'We can't walk on it.'

There is an important constraint such that if a noun phrase or free pronoun is used in a particular position, the succeeding positions generally cannot be filled by bound pronouns. The only exceptions to this which I have seen are in ATE, MIT, and TEX, where a bound pronoun may attach to the subject NP. In ATE the only bound pronoun that can do this is third familiar **-bi**.

- (43) a. (MIT) gu-dihnn Juan-re-ni
 COMPL-hit -PL-3fam
 'John hit them.'
- b. (ATE) ra ka enneʔyu-bi
 PRES.say PL person-3fam
 'The people said to him...'
- c. (TEX) b-di waʔa-y
 COMPL-hit John-3m
 'John hit him.'

If the subject has been relativized and is therefore not present superficially following the verb, the object pronoun still must be free in most Z languages.

- (44) (YTZ) ben? gw-zen lle-b
 person COMP-hunt 3anim
 'the man who hunted it'

* ben? gw-zen-Eb

In IST, however, the inanimate bound pronoun **-ni**, the only bound pronoun which may be used for verbal objects, may cliticize to the verb even if the subject is absent.

- (45) (IST) b-iʔiy-u biʔku (ni) gu-da-ni la
 COMPL-see-2s dog COMP COMPL-eat-3inan Q
 'Did you see the dog that ate it?'

And in the following example from YTZ, which involves an

infinitival form discussed in 5.3.5, the object pronoun is bound to the infinitive.

- (46) (YTZ) ʒaʔa go-ye-b
 POT.go.1s INF-tend-3anim
 'I am going to tend it/them.'

I mentioned in section 1.1 that in Ch direct object pronouns (as well as certain indirect objects) are often preceded by the particle ʔi (NC, 'of'), under certain conditions.

- (47) a. (NC) naʔã-yu ʔi-na
 COMP.see-3m of-3inan
 'He saw it.'
- b. (YC) k-yeʔ ʔi-ʔi
 POT-cook.2s of-3inan
 'You will cook it.'

5.2 Distribution of free and bound pronouns

I consider a verb construction with a bound subject pronoun to be unmarked, and one with a free pronoun as subject to be marked. In postverbal position the free pronoun for subject is possible in some Z languages, but not common. Bound subject pronouns usually cliticize directly to the verb, although in many Z languages a limited number of morphemes (typically adverbial) may intervene.

- (48) (ATE) bi-tsinaʔ-tegaba-ka-bi
 COMPL-arrive-just-PL-3fam
 'They had barely arrived...'

Pronominal objects (direct or indirect) which are **not** third person cannot be represented by bound pronouns following the verb in most Z languages. Thus, schematically, there are not clauses of the following form:

- (49) * V-1s-2s but V-1s 2s
 'I...you'
- * V-3-1s but V-3 1s
 'He...me'

ATE is exceptional in that it allows second person singular objects to be bound.

- (50) (ATE) r-uadi?idzi-nu-a-l
 PRES-talk-with-1s-2s
 'I talk with you.'

Third person direct objects, on the other hand, may be free or bound, with some restrictions. Bound forms as direct object are shown in examples above, such as (41); free forms (from Y TZ) are shown below.

- (51) a. gw-dao-b nada? 'It bit me.'
 COMPL-eat-3anim 1s
 * gw-dao-b-(d)a?
- b. gw-dao-b le? 'It bit you.'
 COMPL-eat-3anim 2s
 * gw-dao-b-o?
- c. b-le?i-da? llebo? 'I saw him.'
 COMPL-see-1s 3fam
- d. b-le?i neto? lleb 'We saw it.'
 COMPL-see 1excl 3anim
- e. b-ne?XbelEn? xwan-nne? llebo? bel-En?
 COMPL-give John-the 3fam snake-the
 'John gave him the snake.'

The restrictions on when a third person object pronoun may be free or bound vary among the Z languages. In IST the only bound object pronoun is the inanimate one. In the Ch languages, the object pronoun is never bound to the verb (since it always has the preposition 'of' before it). Many Z languages appear to have some restrictions on when a third person (object) pronoun can be bound to the verb. In some instances the restriction appears to be purely phonological, and/or morphological, or involving a hierarchy. Three such restrictions are given below.

- (52) a. A free form must be used if the subject pronoun ends in a consonant. (YTZ)
- b. A free form must be used if an identical sequence of bound pronouns would otherwise result. (YTZ)
- c. A free form must be used if the subject pronoun is equal to or below the object on the hierarchy
 1,2-3resp-3fam-3anim-3inan. (YLG)

Free pronouns also occur in preverbal position (see section 5.4.1).

5.3 Coreference situations

In the following sections I discuss various situations in which coreference holds between two nominals, whether in a single clause or in two clauses.

5.3.1 Relative clauses. Relative clauses follow the head noun in all Z languages. There appear to be two major strategies for relative clauses in these languages. (See Appendix J.) The first involves replacement (and fronting) of the coreferent nominal in the relative clauses by a generic noun, although the generic noun may be omitted in some languages under certain conditions.

(53) with generic noun

- a. (YTZ) gwagwE de?e ʔ-yaʔXe
firewood thing CONT-needed
'the firewood that is needed'
- b. (YTZ) to bidao? bi?i b-selE? no?oll-en?
a child child COMPL-sent woman-the
'a child that the woman sent'
- c. (YLG) to bʔe?ye da gw-a-yib-e? trast
a scrubber thing POT-REP-wash-3resp dish
'the scrubber that she will
wash dishes with'

without generic noun

- d. (YTZ) to beko? dao? zo lliʔ bennE?
a dog small STAT.be house person

migw ʔ-e?enE?
friend of-3resp

'a small dog that is in the house of his
friend'

The second strategy simply involves the omission of the coreferent nominal in the relative clause, but in these languages a (generally) invariant form precedes the relative clause. In some languages this form is also the general complementizer, although in others it does not occur elsewhere than in relative clauses. I refer to it as the complementizer. In some languages it is optional, as in

IST.

- (54) a. (IST) bi-ʔoʔoŋe baʔdu (ni) bi-ʔya-lu?
 COMPL-run child COMP COMPL-see-2s
 'The child that you saw ran away.'
- b. (IST) bi-ʔiy-a gunaʔa (ni) na-ʔiʔi Ale
 COMPL-see-1s woman COMP STAT-love
 'I saw the woman that loves Alex.'
 or: 'I saw the woman that Alex loves.'

In MIX the complementizer may be preceded by the generic noun.

Headless relatives can be formed following either strategy.

- (55) a. (YLG) da ʔ-aŋ-baʔ 'what it eats'
 thing HAB-eat-3inan
- b. (NC) nu tiʔi 'those who are poor'
 COMP poor
- c. (ATE) nu ra ʔepa 'what Chepa said'
 COMP COMPL.say

In some languages an infinitive form may follow the head noun to indicate that this modifying clause indicates a typical, even professional, state.

- (56) a. (YTZ) biʔi gwitX 'sportsman'
 child INF.play
- b. (YTZ) bennE? gwet bennE? 'murderer'
 person INF.kill person
- c. (YTZ) bennE? gwetE? belE? 'butcher'
 person INF.sell meat

In many, perhaps all, Zapotec languages, there exist what Joseph (1978) calls "bare" relative clauses in his discussion of Modern Greek. No complementizer or generic noun occurs. These correspond to "infinitival" relatives in English. The potential aspect occurs on the verb.

- (57) a. (TEX) gyit go-y 'food for him to eat'
 tortilla POT.eat-3m
- b. (TEX) riʔiŋ gyiky 'work to do'
 work POT.do

4.3.2 Reflexive clauses. There appear to be two major types of strategies in Z languages for handling reflexivity. The first type involves no special pronouns or morphology at all. Some ambiguity is tolerated in the case of third person pronouns.

- (58) a. (QUI) ʔ-an-a? na?a
 HAB-see-1s 1s
 'I see myself.'
- b. (QUI) ʔ-an-ʔa? ʔa?
 HAB-see-3fam 3fam
 'He sees himself/him.'

In some languages, such as GH, reflexive and nonreflexive readings in third person are distinguished by the omission of the overt pronoun after the pronoun stem which occurs in object position.

- (59) a. (GH) ba b-wie?-me le?e-Ø
 already COMPL-see-3resp stem-3
 'He already saw him.'
- b. (GH) ba b-wie?-me le?e-me
 already COMPL-see-3resp 3-resp
 'He already saw himself.'

Certain words are sometimes added in some Z languages, ostensibly to help disambiguate for clauses with third person referents, but also possible in other reflexive clauses.

- (60) a. (OCO) gu-dini-ʔ (lo mizmi) li?i-ʔ
 COMPL-hit-3fam the same stem-3fam
 'He hit himself.'
- b. (NC) m-hi?i ?nā (ti kwī?)
 COMPL-hit.1s of.1s -- self
 'I hit myself.'

The second type of reflexive construction involves a reflexive pronoun or reflexive verb stem. The reflexive pronoun is syntactically a direct object, and the antecedent is the subject of the clause. (To the best of my knowledge, reflexive pronouns are found only in this situation, unless used emphatically or as described for Ch in section 2.2.) Superficially the reflexive and reciprocal clauses in languages such as YTZ differ from languages such as TEX and IST in that the subject pronoun in YTZ is omitted under conditions which are discussed in more detail in section

5.3.3. Examples from these languages are given below.

- (61) a. (TEX) b-dī ub-ā
 COMPL-hit.1s self-1s
 'I hit myself.'
- b. (IST) kadi gu-ŋi?iba-be laka-la?a-be
 not POT-lift.up-3hum REFL-stem-3hum
 'He will not lift himself up (boast).'
- (62) a. (YTZ) bida?o-nE? b-ŋeŋ kwim-bo?
 child-the COMPL-hit self-3fam
 'The child hit himself.'
- b. (YTZ) b-e-yot kwin be?e-na?
 COMPL-REP-kill self person-that
 'That person killed himself.'
- c. (YTZ) b-ŋog kwin-a?
 COMPL-cut self-1s
 'I cut myself.'
- d. (YTZ) ba-ŋ-EsE?E-le?i lXweŋX buŋ bŋin? ka?
 already-CONT-PL-see RECIPR burro mule those
 'The burros and mules already
 see each other.'

GH can also reflexivize in this way, but the reflexive stem plus bound pronoun apparently cannot be permuted as a unit, as it can in YTZ.

- (63) (GH) b-wie?-gahk-me
 COMPL-see-REFL-3resp
 'He sees himself.'

4.3.3 Subject-possessed objects. It is characteristic of some Z languages that the subject may be omitted (and typically is) if the possessor of the direct object is coreferential with the subject. Some simple examples from YTZ are given in (65).

- (64) a. (YTZ) gw-dinnE yiŋX-a?
 COMPL-comb head-1s
 'I combed my hair.'
- * gw-dinn-a? yiŋX-a?
 * gw-dinn-a? yiŋX

- b. (YTZ) golXE ʒ-llapE?Eda?o-bo?o-nE?
 COMPL.remove POSS-hat-3fam-the
 'He took off his hat.'

The following example is a case of backward pronominalization with the subject pronoun omitted:

- (65) (YTZ) ba-ʒ-lab llibr ʒe bida?o-nE?
 already-CONT-read book POSS child-the
 'The child _i is already reading his _i book.'
 (Lit., '(He) is reading the child's book.'
 * ba-ʒ-lab bida?onE? llibr ʒebo?

The following examples also show that this omission is not obligatory:

- (66) a. (YTZ) bi?i skwel ka? ʒ-EsE?E-sed-bo?
 child school PL COMPL-PL-study-3fam
 tarea ʒe-ga?ak-bo?
 lesson of-PL-3fam
 'The schoolchildren are studying their lessons.'
 b. (YTZ) ʒ-yeb ʒoa? ʒe-b-En?
 CONT-tend corn of-3anim-the
 'He (bird) watched over his corn.'
 c. (YTZ) z-edE-ʒen-a? to ʒin dao? ʒi-a? ngu
 COMPL-come-do-1s a work small of-1s here
 'I have come to do a small work of mine here.'

Languages that omit the subject pronoun in this way also apparently obligatorily omit the subject pronoun in reflexive constructions, as shown by the following examples, whereas languages that do not omit the subject pronoun under the conditions described above do not.

- (67) a. (YTZ) b-ʒeʒ kwin-a?
 COMPL-hit self-1s
 'I hit myself.'
 b. (YTZ) ʒ-EsE?E-baʒE? lXweʒX-ga?ak-e?
 CONT-PL-hit RECIP-PL-3resp
 'They are hitting each other.'

An alternative analysis of the simplest examples of these clauses in YTZ is that the direct object is incorporated into the verb, and the bound pronoun is not functioning as possessor but as subject. Indeed, this is arguably the case for a superficially similar construction in IST, as I discuss in 5.6.8.

4.3.4 Parallel verbs. Butler (1980) describes a "parallel verb construction" in YTZ which consists of "two verbs with a similar or parallel meaning, in the same aspect" (p. 152, translation mine--SM). In addition, the subjects of the two verbs must be coreferent, and the objects, if any, must also be coreferent. The subject and object pronouns are omitted from the first verb. The two verbs cannot be separated by any word. In (68b) a pronoun copy of the subject (see section 5.4.1) is expected for other reasons after the first verb, but it does not appear due to the parallel verb construction.

- (68) a. (YTZ) b-isE? g-ozX-to?
 COMPL-wash:head COMPL-bathe-1excl
 'We washed our heads and bathed.'
- b. (YTZ) ʒ-kabey gamalielEn? b-leX
 POSS-horse Gamaliel COMPL-step:on
- b-lib-Eb llebo?
 COMPL-kick-3anim 3fam
- 'Gamaliel's horse stepped on him and
 kicked him.'

Likewise, the object pronoun is omitted after the first verb in (68b). The following example is from QUI:

- (69) (QUI) ʒ-upɔyɔ ʒ-ne?e-ma
 HAB-cry:out HAB-say-3anim
 'He cried out and said,...'

This construction has not been widely reported among Z languages.

4.3.5 Adverbial clauses. In other Z languages there are various constructions involving two verbs, the first of which is often a verb of position or motion of some type, and in which the subject pronoun is omitted from one verb or the other. It is understood that the subjects of both verbs are coreferential.

- (70) a. (TEX) m-bi³ n-as-yu
 STAT-lie STAT-sleep-3m
 'He is/was lying there sleeping.'
- b. (MIX) r-zob wi-na zya?ad-me
 HAB-sit see-1s COMPL.come-3resp
 'I was sitting watching when he came.'

4.3.6 Purpose clauses. In some Z languages the subject pronoun of the verb of a purpose clause is omitted if the main verb of the clause is the verb 'come' or 'go'. The verb in YTZ is then inflected with the infinitival prefix.

- (71) a. (YTZ) zya?a go-ye ³ile?
 STAT.come.1s INF-tend sheep
 'I came to take care of sheep.'
- b. (YTZ) ³a?a go-ye-b
 POT.go.1s INF-tend-3anim
 'I am going to tend it/them.'
- c. (ATE) ³ia-bi wi-t:ia gu²tiila
 POT.go-3fam INF-play tomorrow
 'He is going to play tomorrow.'

In ATE, and perhaps others as well, the infinitive also occurs after the auxiliary verb 'be'.

- (72) (ATE) ri-yu?u-bi wi-t:ia
 PRES-be-3fam INF-play
 'He is playing.'

In other Z languages the subject pronoun of the motion verb is omitted, rather than the pronoun of the purpose clause. The IST example below is especially important since the verb 'come' has a special stem which occurs with first person singular subject (-enda) which does not occur here. Thus the verb 'come' lacks any indication of a first person singular subject.

- (73) a. (IST) b-e?eda g-ap-a den²ju?
 COMPL-come POT-tend-1s sheep
 'I came to take care of sheep.'
- b. (TEX) gw-a zi?i-y bañkyug
 COMPL-go POT.buy-3m animal
 'He went to buy animals.'

The latter example from TEX can also be said without omitting the pronoun, but the complementizer is then

necessary.

- (74) (TEX) gw-a-y nu zi?i-y baŋkyug
 COMPL-go-3m COMP POT.buy-3m animal
 'He went to buy animals.'

4.3.8 Complement clauses. Subject pronouns in object complement clauses are not deleted under coreference with a nominal in the main clause in any Z language with which I am familiar.

- (75) a. (YTZ) ʔ-ene?e-bo? g-ol-bo?
 CONT-want-3fam POT-sing-3fam
 'He wants to sing.'
 or: 'He wants him to sing.'
- b. (MIX) r-ladz-me tsie-me
 HAB-want-3resp POT.go-3resp
 'He wants to go.'
 or: 'He wants him to go.'
- c. (IST) r-aka-la?ʔi-be ʔe-be
 HAB-be-heart-3hum POT.go-3hum
 'He wants to go.'
 not: * 'He wants him to go.'

In some Z languages, however, the pronoun can be omitted from the main clause, forcing a coreferential reading.

- (76) (MIX) r-laʔ tsie-me
 HAB-want POT.go-3resp
 'He wants to go.'

In IST such a construction has the opposite reading.

- (77) (IST) r-aka-la?ʔi-Ø ʔe-be
 HAB-be-liver-3hum POT.go-3hum
 'He wants him to go.'

5.3.8 Discourse conditions. In some Z languages and also the Ch languages it is common to find situations in which a "zero" third person bound pronoun is used. This "zero" pronoun can be pluralized and can occur with the pronominal stem used with other third person bound pronouns in IST. (Thus it is not a simple case of "gapping" in IST, although it might be in other languages.) A distinction is made between the referent of an overt third person pronoun and the referent of the zero pronoun. The examples in the

previous section from IST illustrate this for a single sentence example. The distinction can be maintained for long sections of a narrative in both Ch and IST, however. Some additional examples from IST are given below.

- (78) a. (IST) na-be z-e?eda-Ø giʒi?
 HAB.say-3hum FUT-come-3hum tomorrow
 'He_i said that he_j will come tomorrow.'
- b. (IST) na-be z-e?eda-be giʒi?
 HAB.say-3hum FUT-come-3hum tomorrow
 'He_i said that he_i will come tomorrow.'
- c. (IST) na-Ø z-e?eda-Ø giʒi?
 HAB.say-3hum FUT-come-3hum tomorrow
 'He_i said that he_i will come tomorrow.'

5.4 Copying.

5.4.1 Fronted noun phrase. A common characteristic of Z languages is the occurrence of a bound pronominal copy of a fronted subject noun phrase (or pronoun). The details vary from language to language. In IST overt copies occur only with fronted pronouns. In other languages the copying is found sporadically in texts and the conditions are not well understood. In some languages (YTZ, for example) a copy may also occur if other types of noun phrases are fronted. I do not have extensive information on the latter cases, however. Note the following examples of subject fronting:

- (79) a. (YTZ) beko?o-nE? zeʒa-b na?
 dog-the stand-3anim there
 'The dog is standing there.'
- b. (YTZ) le-ga?ak-bo? ʒ-EsE?E-sed-bo?
 stem-PL-3fam CONT-PL-study-3fam
 'They are studying.'
- c. (TEX) orze? yu-ze? gwa-y tu?uba gyedz
 - 3m-there COMPL.go-3m other town
 'He went to another town.'
- d. (TEX) i?i r-ni?i-i-ñ nu kamño?oŋ
 here HAB-say-3inan COMP truck

 p-kad gwi?i -ñ ru
 COMPL-CAUS.acquire sickness 3inan 2s

 'Here it says that a truck hurt you.'

- e. (YTZ) yeLE? ʝ-ze-taʝ-e? gao-b lfalf-En?
 NOM CONT-?-like-? POT-eat-3anim alfalfa-the
 betE-n le-b
 COMPL.kill-3inan stem-3anim
 'His liking to eat alfalfa killed him.'
- f. (IST) la?a-be b-i?ni-be-ni
 stem-3hum COMPL-do-3hum-3inan
 'He did it.'
- g. (IST) li?i b-i?ni-lu-ni
 2s COMPL-do-2s-3inan
 'You did it.'
- h. (IST) Betu b-i?ni-Ø-ni (without overt copy)
 COMPL-do-3-3inan
 'Robert did it.'

In all Z languages this copy does not occur if the fronted subject is negative or interrogative.

- (80) a. (YTZ) no bidao? ka? zXE-zeʝa tnez-En?
 who child PL PL-STAT. stand road-the
 'What children are standing in the road?'
- b. (TEX) kyu zu re
 who STAT. stand there
 'Who is there?'
- c. (IST) tu b-i?iya Ale
 who COMPL-see
 'Who saw Alex?'
- d. (IST) una bi?ku gu-doya?a li?i
 which dog COMPL-bite 2s
 'Which dog bit you?'
- e. (YTZ) notono no bi-dE
 no:one anyone COMPL-come
 'Nobody came.'
- f. (TEX) se-kyu-la zu
 NEG-who-EMPH STAT. stand
 'Nobody is there.'

This copy also does not occur in relative clauses.

- (81) a. (YTZ) ben? gw-~~zen~~ le-b
 person COMPL-hunt stem-3anim
 'the person who hunted it'
- b. (TEX) mbeky nu ri nañ ma-ze?
 person COMP STAT.be inside 3anim-there

 m-bañ-yu
 STAT-alive-3m

 'The person who was inside it was alive.'
- c. (YTZ) gwagwE de?e ʔʔazXe
 firewood thing CONT.needed
 'the firewood that is needed'

5.4.2 Emphatic subject. In some languages, although perhaps not generally, a free pronoun and a bound pronoun may cooccur after the verb if the subject is being emphasized in some way. (The following examples are both negative; it is not clear whether this fact is significant or not.)

- (82) a. (YTZ) bito n-ak-a? nada? gual
 not STAT-be-1s 1s strong
 'I am not strong.'
- b. (YTZ) Juan-nE? bito n-ak-e? lle? gual
 John-the not STAT-be-3resp stem.3resp strong
 'John, he isn't strong.'

5.4.3 Modal verbs. In Z languages certain so-called modal verbs often occur without subject person markers. These verbs might be analyzed as taking a sentential subject, in which case a person marker is not expected.

- (83) a. (SDA) rahk ra?a-n len tyant
 HAB.able HAB.go-1s stomach store
 'I can go to the store.'
- b. (YTZ) ʔ-ak ʔ-om-b ʔin gwal
 CONT-able CONT-do-3anim work hard
 'It can do hard work.'
- c. (YTZ) bat selao g-on-o?o-n
 when POT.finish POT-do-2s-3inan
 'When are you going to finish making it?'

- d. (TEX) na ornu b-laʒ b-do-y gyit
 now when COMPL-finish COMPL-eat-3m tortilla
 'Now when he finished eating (tortillas)...'
- e. (IST) za-nda gu-ni-be nga
 FUT-able POT-do-3hum that
 'He will be able to do that.'

For many Z languages, the verb 'begin' (as well as some others in some languages) can optionally be inflected for the same person as the subject of the complement clause. I do not know if there is any language in which the verb 'begin' **must** have a subject following it.

- (84) a. (YTZ) ʒ-zolao(-bo?) g-ol-bo?
 CONT-begin(-3fam) POT-sing-3fam
 'He begins to sing.'
- b. (IST) bi-zulu-(be) ka-yu?unda-be
 COMPL-begin-(3hum) CONT-sing-3hum
 'He began to sing.'
- c. (TEX) b-rugyi?(-y) r-ni?i-y
 COMPL-begin-3m HAB-say-3m
 'He began speaking.'
- d. (TEX) mbeky ze? b-rugyi?(-y) r-iky-yu ri?iñ
 person there COMPL-begin-3m HAB-do-3m work
 'That person began working.'

5.5 Other constructions where a noun phrase is missing

5.5.1 Imperatives. All Z languages have an imperative mood in which the subject pronoun is omitted, as the following examples illustrate:

- (85) a. (YTZ) g-otE?
 COMPL-lie
 'Lie down!'
- b. (YTZ) lle?e-g-atE?
 IMPER-POT-lie
 'Lie down (pl.)!'
- c. (YTZ) lledo-yen ʒin-nnE?
 IMPER-go/do work-the
 'Let's do the work!'

There are also other constructions, typically potential verb forms, which are used as mild imperatives and in which the

pronoun is not absent.

- (86) (YTZ) bito goll-o?
 NEG POT.sing-2s
 'Don't sing.'

5.5.2 Locative subject. In some Z languages a pronominalized location is not marked by an overt pronoun.

- (87) a. (TEX) kyit zu ʒkye?ey
 pretty STAT.stand San:Lorenzo
 'San Lorenzo is pretty.'
- b. (TEX) kyit zu
 pretty STAT.stand
 'It (San Lorenzo) is pretty.'

In IST the inanimate pronoun would be used in these cases.

5.5.3 Unspecified object. Z is similar to English in that clauses with "unspecified" objects simply involve the lack of any object form.

- (88) a. (YTZ) ʒ-a-o-ʒo yogwE? za
 CONT-eat-1excl all zday
 'We eat every day.'
- b. (YTZ) ziʒXo ʒ-lab bida?o-nE?
 fast CONT-read child-the
 'The child reads fast.'
- c. (YTZ) ʒ-az-a?
 CONT-plant-1s
 'I am planting.'

5.5.4 Meteorological verbs. Many meteorological expressions in Z languages involve a noun phrase plus verb expression, such as in (89).

- (89) a. (TEX) b-et gyey 'it rained'
 COMPL-descend rain
- b. (TEX) d-ru?u bi 'it is windy'
 CONT-leave wind
- c. (IST) nu?u bi 'it is windy'
 HAB.be wind

- d. (IST) ka-yaba nisagie 'it is raining'
CONT-fall rain

In some languages, however, there are also some predicates which, when referring to meteorological events, do not take an overt subject pronoun.

- (90) a. (TEX) Ji rag 'it's very cold'
very cold
b. (IST) na-nanda 'it is cold'
STAT-cold
c. (IST) na-nda? 'it is hot'
STAT-hot

There are also some verbs, of roughly this same class, which take an inanimate subject pronoun.

- (91) (TEX) b-iŋe-n
COMPL-be:evening-3inan
'it was evening'

5.6 Special clausal constructions

5.6.1 Passive. Most Z languages have a passive construction in which the "agent" is not specifiable. In several languages the passive is restricted lexically to a few transitive verbs (in OCO, fifteen to twenty verbs). The lack of productivity and problems in morpheme identification in some languages have led some investigators to claim there is no passive in a given language, although the matter is debatable in my opinion. In some Z languages passive is more productive, although the expressed subject of a passive verb (CHO, for example) in some languages must be inanimate.

- (92) a. (YTZ) gw-d-ao-n
COMPL-PASS-eat-3inan
'It was eaten.'
b. (CHO) ba b-d-ao-na
already COMPL-PASS-eat-3inan
'It was already eaten.'
c. (CHO) r-d-a?o bɛ?la?
CONT-PASS-buy meat
'Meat is bought.'

- d. (TEX) b-du-gyi-y
 COMPL-PASS-hit-3m
 'He was appointed.'

The following examples from YTZ illustrate active vs. passive morphology. Although Butler (1980) gives the examples in (94) as an active/passive pair, it is possible that they are actually a causative/simple pair; the fortis/lenis alternation suggests that this may be the case (see Marlett and Pickett, this volume).

- (93) a. (YTZ) ʃ-ot-e?e-n
 CONT-grind-3resp-3inan
 'She grinds it.'
- b. (YTZ) ʃ-yet-En
 CONT-PASS/grind-3inan
 'It is ground.'
- (94) a. (YTZ) ʃ-kodE?E-ga?ak-e?e-b
 CONT-yoke-PL-3resp-3anim
 'He yokes them.'
- b. (YTZ) ʃ-EsE?E-godE?E-b
 CONT-PL-PASS.yoke-3anim
 'They are yoked.'

In the last pair, notice that in the active the plural agreement is a suffix, the agreement used with objects, while in the putative passive example, the plural agreement is a prefix, the agreement used with subjects.

5.6.2 Comitative object. Many Z languages have a construction in which a nominal that is semantically a comitative functions grammatically as an object. (See Appendix K.) In most of our examples there is no semantic "patient" present, but apparently this is not necessary, as the IST examples below show. The verb in these examples carries an additional suffix (which may be homophonous with some other word in the language). Compare (95a) in which the comitative nominal is in a prepositional phrase and (95b) in which it is in object position. Although in some languages it is unclear from the morphology whether it is a direct or an indirect object, there is not any direct evidence that it is anything but a direct object.

- (95) a. (YTZ) ʃ-i?-a len lle-bo?
 CONT-sit-1s with stem-3fam
 'I am sitting with him.'

- b. (YTZ) ʔ-i?i-len-a?a-bo?
 CONT-sit-COM-1s-3fam
 'I am sitting with him.'

The following examples further illustrate this construction:

- (96) a. (YTZ) gw-dao-len-a? bida?o-ne? ʔgwe
 COMPL-eat-COM-1s child-the female
 'I ate with the girl.'
- b. (SDA) bi-nɛ-re-ʔ dunuhun lɛn solohiko
 COMPL.go-with-PL-3 1excl stomach zoo
 'They took us to the zoo.'
 Lit. 'They went with us to the zoo.'
- c. (TEX) na ornu ri-nu-r ɸi?i yu
 now when POT.arrive-with-2s 3inan house
 'Now when you arrive at the house with it...'
- d. (IST) ri-gite-ne-be na?a
 HAB-play-with-3hum 1s
 'He plays with me.'
- e. (IST) ri-gite-ne-be na?a ti pelota
 HAB-play-with-3hum 1s a ball
 'He plays ball with me.'

As evidence of the objecthood of the comitative, consider the following example from YLG. For the subject pronoun to be omitted, the possessed NP must be an object (see section 4.3.3).

- (97) (YLG) Xaʔe?-len ʔeX ʔeo ke-n
 COMPL.go.sit-COM rock river of-3inan
 'He went and sat with his rocks.'

5.6.3 Instrumental object. A noun phrase which is semantically an instrument sometimes occurs superficially as an object. Evidence of objecthood is the lack of a preposition and the fact that the instrumental determines a bound pronoun. In such cases the verb is marked with the suffix *-e* in YTZ, here glossed INSTR. (See Appendix K.) In YLG no verbal morphology is involved.

- (98) a. (YTZ) gw-deib-e-ne? laʔE?E-nE? de?e zan
 COMPL-wash-INSTR-3resp cloth-the thing many

las nis ya?a#til-en?
times water soap-the

'She washed the cloth with soapy water many
times.'

b. (YTZ) ʒ-yib-e-da?a-n la#e? kinga
CONT-wash-INSTR-1s-3inan clothes these
'I wash the clothes with it (soap).'

c. (YLG) gw-din-a-n yid
COMPL-hit-1s-3inan cat
'I hit the cat with it.'

d. (YTZ) lle-n g-ot-e-ʒo-n
stem-3inan POT-die-INSTR-1incl-3inan
'We will die from it.'

5.6.4 Indirect object. In ATE and RIN some verbs have an additional object. The suffix *-ni* (low tone) occurs on the verb in ATE and on the suffix *-i?i* in RIN. The following examples are from RIN.

(99) a. (RIN) rigi#Xw-?a le r-u?una-?
CONT-explain-1s what CONT-do-1s
'I explain what I do.'

b. (RIN) rigi#Xw-i?i-da? li? le r-u?una-?
CONT-explain-IND-1s 2s what CONT-do-1s
'I explain to you what I do.'

(100) a. (RIN) ru-lu-?a le r-u?un-a?
CONT-show-1s what CONT-do-1s
'I show what I do.'

b. (RIN) ru-lu-i?i-da? li? le r-u?un-a?
CONT-show-IND-1s 2s what CONT-do-1s
'I show to you what I do.'

These affixes also appear to occur in some examples in which the analysis is less clear.

(101) (RIN) rinab-e?e-da? le-gaky-#?
CONT-govern-IND-1s stem-PL-3m
'I govern them.'

5.6.5 Oblique object. A few verbs in some Z languages require the "patient" to be preceded by a preposition.

- (102) a. (YTZ) le^hgwale ^h-ake ^hna? bida?o-nE? ^he-bo?
 much CONT-feel mother child-the of-3fam
 'The child's mother loves him a lot.'
- b. (YTZ) b-ezi?i^hen ^hna?a-bo?o-n ^he-bo?
 COMPL-forgive mother-3fam-? of-3fam
 'His mother forgave him.'
- c. (QUI) na?a p-tedy ^hef^h-^ha?a
 1s COMPL-hit of-fam
 'I hit him.'

In OCO and MIT the stimulus which occurs in a clause with the verb 'see' is preceded by the preposition 'to' ('face'). (In OCO, if the same verb 'see' occurs with a superficial direct object (that is, without the preposition 'to'), the meaning is 'take care of'.)

5.6.6 Dative subject. There are verbs in some Z languages that occur (obligatorily or optionally) in what might be analyzed as "dative subject" constructions. The "patient" or "stimulus" is in subject position, and the "agent" or "experiencer" is in indirect object position (preceded by ni 'of' in TEX which marks the indirect object of the verb 'give').

- (103) a. (TEX) b-yad-^hi ^hnē
 COMPL-find-3inan of.1s
 'I found it.'
- * byad-^h ^hni?i
 COMP.find-1s 3inan
- b. (TEX) gu-?ud-^hi ^hnē
 COMPL-acquire-3inan of.1s
 'I acquired it.'
- or
 gu-?ud-^h ^hni?i
 COMPL-acquire-1s 3inan
- c. (YC) wa mso?o ?i ^ha
 COMPL COMPL.knock:out.3 of them
 'They knocked him out.'

The "agent" may be left unmentioned also.

- (104) a. (TEX) b-yad-^hi
 COMPL-find-3inan
 'It was found.'

- b. (TEX) gu-ʔud-ñ
 COMPL-acquire-3inan
 'It was acquired.'

The verbs that do this in ATE have the suffix **-ni** (with low tone--see section 5.6.4) attached to them. Among these verbs in ATE are 'see', 'smell', and 'hear'.

- (105) (ATE) i-laʔ-ni riʔu ka belia
 POT-see- 1incl PL star
 'We will see the stars.'

The possessor of an alienable item in some Zapotec languages occurs in some non-nuclear relationship--very possibly as an indirect object--to a verb of position, as in the following examples:

- (106) a. (YLG) niʔt ʔop beʔX
 STAT. stand/PL two chicken

 ke bizan-aʔ
 of cross/sex/sibling-1s

 'My sister has two chickens.'

- b. (YC) ndiya ska kaha ʔyā nde
 ??? belong one box of 1s here
 'I have a box here.'

5.6.7 Locative as subject. In YLG and IST there are examples in which a locative noun occurs in subject position. The verbs in the following examples are typically intransitive verbs.

- (107) a. (IST) n-anda-be biʔgaʔ
 STAT-hang-3hum necklace
 'She is wearing a necklace.'
- b. (YLG) tnez-en bi ʔ-ak saʔ-ʔo-n
 road-the NEG HAB-can POT walk-1p, inc-3inan

 ʔaʔa-n yeX laʔye
 STAT.be:inside-3inan rock wide

 'We can't walk on the road; there are big rocks in it.'
- c. (YLG) beʔʔ-en ʔ-oʔe-baʔ ʔweʔ bidaʔo
 louse-the HAB-give-3anim sickness child

kate ʝ-bia-be? ba zan
 when HAB-sit-3fam animal many

‘Lice give a child sickness when there are
 many of them in him/her.’

5.6.8 Causative clauses. Most Z languages have a morphological causative construction. Basing our analysis on the languages in which there is a clear morphological difference between direct and indirect objects, we can make the following generalizations:

- (108) The subject and direct object (if any) of the "embedded" verb occur as direct object(s) of the causative verb.

Examples with embedded intransitive verbs are given below:

- (109) a. (YLG) b-a-s-ban-a-be?
 COMPL-REP-CAUS-awaken-1s-3fam
 ‘I woke him.’
- b. (YTZ) ʝ-za-nnE?E-bo?o-b
 CONT-CAUS-be:fat-3fam-3anim
 ‘He fattened it.’

Examples with embedded transitive verbs are given below. While some syntactic theories claim that there may be only one direct object per clause, I cannot provide evidence internal to Z at this time which supports or disconfirms this claim. The ungrammatical example from TEX is included to show that indirect object morphology is not possible.

- (110) a. (IST) ru-g-wa?-be-ni na?a
 HAB-CAUS-carry-3hum-3inan 1s
 ‘He made me carry it.’
- (111) b. (YTZ) ʝ-go-~~ʝ~~E?E-bo?o-n lle-bo?
 CONT-CAUS-carry-3fam-3inan stem-3fam
 ‘He makes him carry it.’
- (112) c. (TEX) go?ow-ã-ma gyit
 COMPL.CAUS.eat-1s-3anim tortilla
 ‘I fed it (animal) tortillas.’
- * go?ow-ã gyit ni-ma
 of-3anim

In MIX the causative construction involving the verb ‘do’ is more commonly found. The pattern is the same with

respect to the arguments of the embedded clause. No indirect object morphology is found with this construction.

- (113) (MIX) b-en k-lo?ob-me na? ley
 COMPL-do POT-sweep-3resp 1s patio
 'He made me sweep the patio.'

5.6.9 Noun incorporation. As I discussed in 5.3.3, in some Z languages the subject pronoun is omitted when it is coreferential with the possessor of the direct object. There are clauses in which this might appear to be the case in IST. These all involve body parts. Nevertheless, I follow Pickett in suggesting that these should be analyzed as instances of noun incorporation.

- (114) (IST) za-gi?ibi-na ka ba?du?
 FUT-wash-hand PL child
 'The children will wash their hands.'
- not: * za-gi?ibi na ka ba?du?
 (with missing subject)

The evidence which supports the incorporation analysis is that there are adverbial affixes which may occur on the verb in IST, and these occur before the subject pronoun. In the putative cases of noun incorporation, they precede the pronoun, suggesting that the string BODY PART + PRONOUN is not a constituent.

- (115) (IST) gu-di?ibi-na-ŋa?awi-be
 COMP-wash-hand-well-3hum
 'He_i washed his_i hands well.'

This incorporation is not obligatory, as the following examples establish.

- (116) a. (IST) gu-di?ibi-ŋa?awi-be na-be
 COMP-wash-well-3hum hand-3hum
 'He_i washed his_i hands well.'
- b. (IST) ri-ni?ib-e nye?e-sy-a?
 HAB-move-1s leg-only-1s
 'I simply moved my leg.'

An example of noun incorporation in Z which does not involve a possessed noun is given below.

- (117) (SI) r-be?e-la-ya? bdo?
 PRES-give-name-1s child
 'I named the child.'

5.6.10 Impersonal intransitive clauses. In ATE there are clauses which, although intransitive semantically, involve two pronouns. One of these pronouns is obligatorily the third person nonhuman pronoun (glossed here as 3anim) and is in subject position. The other pronoun, which varies according to the reference intended, is in direct object position. The second example below has an NP in the object position.

- (118) a. (ATE) gulla-ã ri?u
 POT.angry-3anim 1incl
 'We will be angry.'
- b. (ATE) r-utu?-ã naga?-bi
 PRES-pain-3anim ear-3fam
 'His ear hurts.'

APPENDIXES

Introduction

When a given form does not exist, to my knowledge, I have written dashes in the table. If information is simply lacking, I have left a blank.

APPENDIX A: ABBREVIATIONS FOR LANGUAGES

Zapotecan (proper)

		Full name of a central municipio
AMA	Amatlán Zapotec	S. Cristobal Amatlán
ATE	Atepec Zapotec	S. Juan Atepec
CAJ	Cajonos Zapotec	S. Pedro Cajonos
CHI	Chichicapan Zapotec	S. Baltasar Chichicapan
CHO	Choapan Zapotec	Santiago Choapan
COA	Coatlán Zapotec	S. María Coatlán
GH	Guevea de Humbolt Z.	Guevea de Humboldt
GL	Guelavía Zapotec	S. Juan Guelavía
IST	Isthmus Zapotec	Juchitán de Zaragoza
LAC	Lachixío Zapotec	S. Vicente Lachixío
MIA	Miahuatlán Zapotec	Miahuatlán de Porfirio Díaz
MIT	Mitla Zapotec	S. Pablo Villa de Mitla
MIX	Mixtepec Zapotec	S. Juan Mixtepec
OCO	Central Ocotlán	S. Antonino Castillo Velasco
QUI	Quioquitani Zapotec	Quioquitani
RIN	Rincón Zapotec	Santiago Camotlán
SDA	Albarradas Zapotec	S. Domingo de Albarradas
SI	Santa Inés Zapotec	S. Inés Yatzeche
TAB	Tabaá Zapotec	S. Juan Tabaá
TEX	Texmelucan Zapotec	S. Lorenzo Texmelucan
WI	Western Ixtlán Zapotec	S. Ana Yareni
YLG	Yalalag Zapotec	Hidalgo Yalalag
YTZ	Yatzachi el Bajo Z.	S. Baltazar Yatzachi el Bajo
ZOO	Zoogocho Zapotec	S. Bartolomé Zoogocho

Chatino

NC	Nopala Chatino	Santos Reyes Nopala
PC	Panixtlahuaca Chatino	S. Miguel Panixtlahuaca
TC	Tataltepec Chatino	Tataltepec de Valdez
YC	Yaitepec Chatino	Santiago Yaitepec

APPENDIX B: ABBREVIATIONS FOR GLOSSES

anim	animal	INF	infinitive
CAUS	causative	INSTR	instrumental
COM	comitative	m	masculine
COMP	complementizer	m.s.	male speaker
COMPL	completive aspect	NEG	negative
CONT	continuative aspect	NOM	nominalizer
DIM	diminutive	p, PL	plural
EMPH	emphatic	PASS	passive
excl	exclusive	POSS	possessive
f	feminine	POT	potential
f.s.	female speaker	PRES	present
fam	familiar	Q	question particle
FUT	future	RECIP	reciprocal
HAB	habitual aspect	REFL	reflexive
hum	human	REP	repetitive
IMPER	imperative	resp	respect
inan	inanimate	s, SG	singular
incl	inclusive	STAT	stative aspect
IND	indirect	ThV	theme vowel

1,2,3 first, second, third (person)

APPENDIX C: STANDARDIZED ORTHOGRAPHY

ʈ	=	ts (affricate)
ʃ	=	voiceless palatal fricative
ʂ	=	voiceless retroflex fricative
x	=	voiceless uvular fricative
ll	=	fortis l (usually realized as length)
l	=	lenis l
nn	=	fortis n (usually realized as length)
n	=	lenis n
V?V	=	"broken"vowel (either glottalization or laryngealization)
V?	=	checked vowel
V:	=	long vowel
C:	=	long consonant
ə	=	shwa
ɐ	=	open e
ɶ	=	low front unrounded
b, d, g, ɟ, z	=	lenis obstruents, not necessarily voiced

APPENDIX D: FREE AND BOUND PERSONAL PRONOUNS

First person singular

	FREE	BOUND
AMA	na	-n(a)
ATE	inte?	-a?
CAJ	nede?e	-(n)a?
CHI	na?	-a?n
CHO	nɛ?(ɛdi)	-a?
COA	na, sa	-na
GH	na?a	-a?n
GL	na?a	-a?
	nare (object)	
IST	na?a	-a?
LAC	li?-	-a
MIA	na	-n
MIT	na(ha)re	-a
MIX	na?	-na
OCO	na	-a
QUI	na?a	-n, -a?a
RIN	ne:da?	-(d)a?
SDA	nah	-an
SI	na?a	-a?
TAB	neda?	-(d)a?
TEX	yã	-ã
WI	neeti	-a
YLG	nada?	-(l)a?
YTZ	nada?	-(d)a?
ZOO	neda?	-a?

Chatino group:

NC	na?	(nasalization)
PC	na?	(nasalization & length)
TC	na?	(nasalization & length)
YC	na?	(nasalization)

APPENDIX D, con.

Second person singular*

	FREE	BOUND	
AMA	lu	-l(u)	
ATE	lu?	-lu?	(fam)
	kwiã?-lu?	-kwiã?-lu?	(resp)
CAJ	le?	-o?	
CHI	yi?	-lu?	(fam)
	yu?bi-lu?	-yu?bi-lu?	(resp)
CHO	luɛ?	-(l)o?	
COA	lo:?	-lo:?	(fam)
	ko	-ko	(resp)
GH	li?i	-i?y	
GL	liu?	-u?	(fam)
	la?a-bi-u?	-bi-u?	(resp)
IST	li?i	-(l)u?	
LAC	li?i-lu	-lu	
MIA	lu?	-l(u?)	
MIT	luh	-lu	(fam)
	gehb-lu		(resp)
MIX	lu?	-le	
OCO	lɛ?ɛl	-l	(fam)
	iubi-l	-iubi-l	(resp) (one-2s)
QUI	li?i	-l, -o?o	
RIN	li?	-(n)u?	(fam)
	kwin-u?	-kwin-u?	(resp)
SDA	luh	-l	
SI	lo?o	-u?	
TAB	lue?	-(n)u?	
TEX	ru	-r(u)	
WI	lu	-lu	(fam)
	kwina-lu	-kwina-lu	(resp)
YLG	loe	-(l)o?	
YTZ	le?	-(d)o?	
ZOO	le?	-o?	

Chatino group:

NC, PC, YC	nu?wĩ	(tone) (& length in PC)
TC	nu?ũ	-----

*Some Z languages, especially Ch, use the second person plural form as a second person singular respect form.

APPENDIX D, con.

First person plural inclusive

	FREE	BOUND
AMA	be	-be
ATE	ri?u	-ri?u
CAJ	ʔo?	-ʔo?
CHI	la?-nu?	-nu?
CHO	ra?o	-ro
COA	na	-na
GH	no	-no
GL	dunnɿ	-n(ɿ)
IST	la?a-(ka)-nu	(-ka)-nu
LAC	li-?awa	-?awa
MIA	na?	-na?
MIT	nu?ur-nu	-nu
MIX	ne	-ne
OCO	li?ɿ-ya?a	-a?a
QUI	no	-no
RIN	rɿ?u	-ru?
SDA	dunuh-re	-re
SI	la?a-nɿ?	-nɿ?
TAB	ʔi?u	-ʔu
TEX	de-ub-na	-na
WI	ri?i-tu	-ri?i
YLG	ʔio?o	-ʔo
YTZ	ʔi?o	-ʔo
ZOO		-ʔo

Chatino group:

NC	na:	-na
PC	na	-na
TC	na	-na
YC	na	-ã

APPENDIX D, con.

First person plural exclusive

	FREE	BOUND	
AMA	nu	-nu	
ATE	intu?	-tu?	
CAJ	neto?	-to?	
CHI	la?-nu	-nu	
CHO	nĕto?	-ndo?	
COA	za	-za	
GH	no?	-no?	
GL	(not different from 1p inc)		
IST	la?a-du	-du	
LAC	li?i-ru	-ru	
MIA	nu?	-nu?	
MIT	nu?u-re	-nu?u-re	?
MIX	no	-no	
OCO	li?i-na?a	-na?a	
QUI	no?	-no?	
RIN	netu?	-tu?	
SDA	dunuhu-n	-(a)n	
SI	la?a-du?	-du?	
TAB	netu?	-ntu?	
TEX	dě-yă	-yă	
WI		-tu	
YLG	neto?	-to?	
YTZ	neto?	-to?	
ZOO		-to?	

Chatino group:

NC	wa-re?	-wa
PC	wa	-wa
TC	ya	-ya
YC	wa-re	-wa

APPENDIX D, con.

Second person plural			
	FREE	BOUND	
AMA	gu	-gu	
ATE	lebi?i	-le	(fam)
	kwiã?-le	-kwiã?-le	(resp)
CAJ	le?	-le?e	
CHI	la?-tu	-tu	
CHO	le?e	-le	
COA	ko	-ko	
GH	la?d	-la?d, -d	
GL	la?a-t	-t(±)	(fam)
	la?a-xib-t±	-xib-t±	(resp)
IST	la?a-tu	-tu	
LAC	li?i-wa	-wa	
MIA	gu?	-gu?	
MIT	la?-tu	-tu	(fam)
	gehb-tu	-gehb-tu	(resp)
MIX	to	-to	
OCO	l±?±-t±(1)	-t±(1)	
QUI	do	-do	
RIN	libi?i-li?	-li?	
SDA	lãh-ti	-di	
SI	la?a-tu?	-tu?	
TAB	le?e	-le	
TEX	de-ru	-ru	
WI	lebi?i	-le?	(fam)
		-kwina-le?	(resp)
YLG	le?	-le	
YTZ	le?e	-le	
ZOO			
Chatino group:			
NC	?ũ	-ũ	
PC	(nu)?wã	-wã	
TC	mã	-mã	
YC	?wã	-wã	

APPENDIX D, con.

Third person deity or spirit being*

	FREE	BOUND	
CHI	la?-ñi?	-ñi?	(or to show pity)
CHO	le-dã?	-dã?	(spirit)
GL	la?a-ñ	-ñ	(includes sun, etc.)
SI	la?a-ñan	-ñan	

Chatino group:

NC	ñi	-ñi	(also respectful, nondeity)
PC	---	-ni	
TC	---	-ni	(also ancestral heroes)

* If the form is also commonly used for nondeity, see the next page.

APPENDIX D, con.

Third person singular (respect)

	FREE	BOUND	
AMA	me	-me	(unknown person, woman?)
ATE	le-e	-(n)e	
CAJ	ll-e?	-e?	
CHI	la?-ba	-ba	
CHO	lɛ-nɛ	-nɛ?	
COA	mɛ	-mɛ	
GH	le?e-me	-me	
GL	la?a-ɟ	-ɟ	(m.s., male referent)
	la?a-b	-b	
IST	la?a-be	-be	
LAC	li?i-nu	-nu	(god, certain people)
MIA	-----	---	
MIT	la?a-ba	---	
MIX	me	-me	(god, older adult)
	ʒuz	-ʒuz	(woman)
OCO	li?i-mɛ	-mɛ	(most respectful)
	li?-i?	-i?	
QUI	me	-me	(conditions on usage)
RIN	lɛ?	-(n)ɛ?	(male referent)
	lɛ-nu	-nu	(female referent)
SDA	la?a-man	-(a)man	(m.s., primarily)
SI	la?a-ne?e	-ne?e	(also used for things)
TAB	lɛ?	-(n)ɛ?	
TEX	---	-m(i)	
WI		-bi, -e	
YLG	ll-e?e	-(l)e?	
YTZ	ll-e?	-e?	
ZOO		-e?	

Chatino group:

NC	yu	-yu	(male)
	ne?	-ne?	(female)
	hũ	-hũ	(plural)
PC	yu	-yu	(male)
		-∅	(female)
	ne?	-ne?	(plural; sing. respect)
TC	yu	-yu	(male)
		-∅	(female)
	ngu?	-ngu?	(plural)
YC	yu	-yu	(male)
		-∅	(female)
	ne?	-ne?	(plural; sing. respect)

APPENDIX D, con.

Third person singular familiar

	FREE	BOUND	
AMA	ʒa?a	-ʒa?a	
ATE	la-bi	-bi	
CAJ	lle-be?e	-be?e	
CHI	la?-bi	-bi	
CHO	le-bi?	-bi?	
COA	(same as 3 respect)		
GH	(same as 3 respect)		
GL	(same as 3 respect)		
IST	(same as 3 respect)		
LAC	li?i-ʒa	-ʒa	(moderate respect)
	li?-i	-i	(male referent)
	li?i-nʒu	-nʒu	(female referent)
MIA	ʒa?	-ʒa?	
MIT	la?a-ni	-ni	
	la?a-ʒi	-ʒi	(m.s.)
MIX	ʒo	-ʒo	
OCO	li?i-ʒ	-ʒ	
QUI	ʒa?	-ʒa?	(m.s. only, male referent)
RIN	le-bi?	-bi?	
SDA	la?a-ʒ	-(i)ʒ	(m.s.)
	la?a-m	-(i)m	(f.s.) (In m.s. , it means 3fem)
SI	(same as 3 respect)		
TAB	le-be?	-be?	
TEX	---	-y(u)	(m.s., male referent)
	---	-ñ(i)	(m.s., female, or inanimate referent)
			(f.s., male, female or inanimate referent)
WI	la-na	-na	
YLG	lle-be?	-be?	
YTZ	lle-bo?	-bo?	
ZOO		-pe?	

Chatino group: (generally the same as 3 respect)

TC	to?	-to?	(female)
----	-----	------	----------

APPENDIX D, con.

Third person singular animal

	FREE	BOUND
AMA	ma	-ma
ATE	lã	-ã (people, animals, things)
CAJ	lle-b	-b
CHI	la?-ma	-ma
CHO	lɛ-ba?	-ba?
COA	ma	-ma
GH	le?-ma?	-ma?
GL	la?a-m	-m(ɛ)
IST	la?a-me	-me
LAC	li?i?	-i?
MIA	ma?	-ma?
MIT	(same as 3 familiar)	
MIX		
OCO	lɛ?ɛ-ma	-ma
QUI	ma	-ma
RIN	lɛ-ba?	-ba?
SDA	la?a-b	-b
SI	la?a-ma	-ma
TAB	lɛ-ba?	-ba?
TEX	---	-ma
WI	(same as 3 familiar)	
YLG	lle-ba?	-ba?
YTZ	lle-b	-b
ZOO	lle-ba?	-ba?

Chatino group:

NC	?ɪ	-?ɪ
PC	---	-?ɪ?
TC	ni?	-ni?
YC		-?ɪ?

APPENDIX D, con.

Third person singular inanimate

	FREE	BOUND
AMA	---	-y, -a
ATE	(same as 3 animal)	
CAJ	lle-n	-n
CHI	la?-an	-an (subject) -(i)n (object)
CHO	le-n	-n(a)
COA		
GH	le?e-u	-u
GL	ɲip	-ɲip
IST	la?a-ni	-ni
LAC	li?i	-i, -e
MIA		-i, -a
MIT	(same as 3 familiar)	
MIX		-w, -a
OCO	li?-in	-in
QUI		-o
RIN	le	-Ø
SDA	la?a-n	-n
SI	la?a-ni	-ni
TAB	la-na	-na
TEX	---	-ñi
WI	(same as 3 familiar)	
YLG	lle-n	-n
YTZ	lle-n	-n
ZOO	lle-n	-n

Chatino group:

NC	na	-na
PC		-rã
TC	na	-na
YC	na	-na
		-?ĩ (object)

Appendix D, con.

Miscellaneous			
	FREE	BOUND	
CHO	le-gē?	-ē?	(elderly person)
COA	mān	-mān	(3 plural general) ?
	ša?	-ša?	(3 plural specific) ?
GH	le?e-mu	-mu	'one (indef.)'
GL	la?a-by	-by	(child referent)
IST	la?a-ni?	-ni?	(child referent)
MIX	ne		helpless person
	mgi		m.s., male of same status
	zey		man, not well known
	ni?ib		boy
	ndzo?op		girl
	ngieg		younger people (pl)
	win		child
	yi?i		sibling, contempt

APPENDIX E: REFLEXIVE AND RECIPROCAL PRONOUNS

	Reflexive	Reciprocal
AMA		
ATE	la?a + free + ba	luetsi-
CAJ	kwin + bound	lXweʒ-
CHI	stem + gaka + bound(3) free(1,2) + gaka	lasa:?-
CHO	kwin + bound	(none ?)
COA		
GH	gahk + bound	ɛa?- (1st), sa?- (2nd, 3rd)
GL		
IST	laka + free	sa?a-
LAC	kie + bound	-----
MIA	-----	
MIT	stem + gahk (+ bound)*	
MIX	leke + free	lsa-
OCO	-----	lu-sa?-
QUI	-----	
RIN	kwin + bound	luza?a-
SDA		
SI		
TAB	kwin + bound	
TEX	ub + bound	losa?-
WI		
YLG	kwin + bound	lgweʒX-
YTZ	kwin + bound	lXweʒX-
ZOO		
Chatino group:		
NC	-----	ta?a-
PC	ykwí? + bound	ta?a-
TC	ykwí? + bound	ta?a-
YC		ta?a-

* This reflexive pronoun typically occurs preverbally.

APPENDIX F: DEICTIC ELEMENTS IN COMPLEX PRONOUNS

	this	that	that
AMA			
ATE	COMP + i bound + i	COMP + ã? bound + ã?	COMP + a bound + a
CAJ			
CHI		ni? + ka	ni? + ɛi?
CHO	(not used in complex pronouns)		
COA			
GH	COMP + rie?	COMP + we	COMP + kal
GL			
IST	n + ri?	n + [g]a	n + rika
LAC	ni + ngie?	COMP +	nu + kwa?
MIA			
MIT	(not used in complex pronouns) ?		
MIX			
OCO	(not used in complex pronouns)		
QUI			
RIN	COMP + ni	COMP + na?	COMP + ni?
SDA			
SI			
TAB			
TEX	bound + i?i generic + i?i	bound + re generic + re	bound + ze? generic + ze?
WI			
YLG	(not used in complex pronouns)		
YTZ	(not used in complex pronouns)		
ZOO			
Chatino group:			
NC	COMP + re	COMP + kwa	COMP + kã?
TC	COMP + nde	COMP + kwa	COMP + xwa, COMP + wi?
PC	COMP + nde	COMP + kwa	COMP + kã?
YC	COMP + nde	COMP + kwa	COMP + kã?

APPENDIX G: SEMANTIC DISTINCTIONS

	human/ animal/ thing	first inc/ exc	3rd resp/ fam	2nd resp/ fam	m.s./ f.s.	3m/ 3f
AMA	yes	yes		no	no	no
ATE	partially	yes	yes	nonbasic	no	no
CAJ	yes	yes	yes	no	no	no
CHI	yes	yes	yes	nonbasic	no	no
CHO	yes	yes	yes	no	no	no
COA	yes	yes	no	yes	no	no
GH	yes	yes	no	no	no	no
GL	yes	no	yes	nonbasic	yes	yes
IST	yes	yes	no	no	no	no
LAC	yes	yes	yes	nonbasic	no	no
MIA	yes	yes	no	no	no	
MIT	no	yes	yes	nonbasic	no	
MIX	yes	yes	yes	no	no	yes
OCO	yes	yes	yes	nonbasic	no	no
QUI	yes	yes	yes	no	yes	yes
RIN	yes	yes	yes	nonbasic	no	yes
SDA	yes	yes	yes	no	yes	yes
SI	yes	yes	no	no	no	no
TAB	yes	yes	yes		no	no
TEX	yes	yes	yes	no	yes	yes
WI	no	yes	yes	nonbasic	no	no
YLG	yes	yes	yes	no	no	no
YTZ	yes	yes	yes	no	no	no
ZOO	yes	yes	yes	no	no	no
Chatino group:						
(all)	yes	yes	nonbasic	(only by using plural)	no	no

APPENDIX H: NUMBER MARKING (third person)

	Before NP	In Free Pronoun	Verbal Prefix	Type (see Sect. 4)
AMA	---	---	---	8
ATE	ka	ka	---	1
CAJ	---	gak	sV?V	6
CHI	ra?	ra?	---	7
CHO	yaka	yaka	---	1
COA		---	---	8 (?)
GH	yahk	yahk	---	1
GL	de	de		1
IST	ka	ka	---	1
LAC	be?e	be?e	---	1
MIA	---	---	---	8
MIT	re	re	---	1
MIX	---	---	---	8
OCO	ra*	ra	---	1
QUI	---	---	---	8
RIN**	yugu?	gaka	la?-	4
SDA	re	re	---	1
SI	ra	ra	---	1 (?)
TAB	---	---	le-	2
TEX	de	de	---	1
WI	ka	ka	---	1
YLG	---	ak	---	3
YTZ	---	ga?ak-	sV?V-	6
ZOO	---	ga?ak-	sV?-	6

Chatino group: type 8

* The subdialect of OCO spoken in San Antonio uses **be** instead of **ra** as the plural morpheme.

There is a closely related dialect (Rincón Sur) which uses the same morphemes but which has a type 3 system. Also, in RIN the morpheme **-pu occurs after the relativizer if the referent is plural.

APPENDIX I: MARKING OF INDIRECT OBJECTS*

	'give'	'sell'	'say'	(other)	
AMA	order				
ATE	ki?	ki?	order	ki?	('send')
CAJ	order				
CHI	order		lo	lo	('speak')
CHO	order	kye	order	lao	('send')
COA					
GH	order		order	lo	('send')
GL					
IST	order	lu	order		
LAC	lu		lu		
MIA	lo	lo	lo		
MIT	loh/order		loh	loh/order	('tell')
MIX	lo	lo	lo		
OCO	order		lu		
QUI	lo	lo	lo/order	lo	('ask', 'tell')
RIN	order	ke	order	order	('pay')
SDA	loh				
SI			lo	order	('say')
TAB	order	te	order		
TEX	ni	ni	lo	order	('tell')
WI					
YLG	order		order	ke	('happen', 'send')
YTZ	order		order	ke	('send')
ZOO	order		order		

Chatino: ?i 'of' in all cases except one verb of speaking
whose indirect object occurs with the preposition
lo?o 'with'.

* The l-initial prepositions on this page in the Z proper
languages are all the word 'face'; the k- or t-initial
and n-initial prepositions are all 'of'.

APPENDIX J: RELATIVE CLAUSES (with NP heads)

	W/ Generic Noun	W/ Complementizer
AMA		
ATE	---	nu
CAJ		
CHI	---	nin
CHO	optionally	---
COA		
GH	---	ni
GL		
IST	---	ni
LAC	---	nu
MIA	---	
MIT		ni
MIX	optionally + ne	ne
OCO		na
QUI	---	ni?i
RIN	---	nu (human), bi (nonhuman)
SDA	---	ni
SI	---	na
TAB	optionally	---
TEX	optionally + nu	nu
WI		
YLG	optionally	---
YTZ	optionally	---
ZOO	optionally	---
Chatino group:		
(all)	---	nu

APPENDIX K: VERBAL MORPHOLOGY

	Comitative	Instrumental
AMA		
ATE	-nu	-ni*
CAJ		
CHI	-ne	
CHO	-len	-len
COA		
GH	-no	
GL		
IST	-ne	---
LAC		
MIA	-no	
MIT	-nã	
MIX	-nie	
OCO	-nu	
QUI	-ni	
RIN	-len	
SDA	-nẽ	-Ø
SI	-ni	
TAB		
TEX	-nu	
WI	-len	
YLG	-len	-Ø
YTZ	-len	-e
ZOO		

Chatino group:

(all)	-lyo?	---
-------	-------	-----

* with high tone

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