Pima Bajo is a Uto-Aztecan language from the Tepiman branch spoken by no more than 500 persons. The Pima Bajo country is located in the Southeastern part of Sonora Mexico, and also in the Central Western part of Chihuahua in Mexico. The study is based mainly on the unpublished data collected in Yepáchic Chihuahua which in comparison with the Pima Bajo spoken in Sonora is less innovator. References to Névome, an older Piman variety from a document written between 1621 and 1672 , are made.

The volume contains: A sociolinguistic setting of the ethnic group. A brief description of the phonemic inventory, the phonological processes, the stress and the syllable. An outline of the morphology of the language. The syntax part discusses clause structure and the syntax of arguments for independent and dependent constructions. Emphasis is given to pronouns and the way they are used as arguments of a predicate.

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## Pima Bajo

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## A Grammatical Sketch of Pima Bajo

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## 0. Introduction

Pima Bajo or "Oob No'ok," along with Upper Piman, O'odham, Northern and Southern Tepehuan, has been classified by Miller (1983:121) as part of the Tepiman branch of the Uto-Aztecan family. The language is currently spoken in the Sierra Madre Occidental at Yécora and Maycoba in southeastern Sonora, México, and also at Yepachi, in west-central Chihuahua. According to Garza Cuarón and Lastra (1991), the total number of native speakers does not exceed 550 However, the Coordinadora Estatal de la Tarahumara -- institution created by the government of the State of Chihuahua to attend all indigenous affairs -- reports a number close to 2,000 speakers. Dunnigan (1983:) writes about the difficulties of studying the Pima Bajo; he mentions them as "grouped into many small and widely separated clusters, each consisting typically of a few closely related nuclear families." For this reason, it is not improbable, that at the present time, they sum less than 500 . Less than 20 published works treat the grammar and morphology of this language. None attempts a full coverage.

My first interest to work in Pima Bajo began in 1980, after an invitation addressed by Ken Hale to give special attention to one of the most endangered languages spoken in Sonora, México After two or three short trips to small towns like Onavas, Tónichi and Yécora, all of them in Sonora, looking for some Pima Bajo speakers, I began my own field work in Yécora, Sonora in 1982. The Pima Bajos live in small scattered rancherias (4-10 family members), taking care of their few domestic animals and land; they are likely to simpathize with a seminomadic life. Their population shows low density; they lack crucial food crops; their sociocultural organization is simple; and, exogamy is common between couples of different rancherías. The Pimas only congregate in Maycoba, Yepachi or Yécora during their festivities. They are not recognized as talkative people, and based on the brief periods of time they spend together, I could characterize them as shy, laconic and not companionable. They spend most of their time quiet taking care of their children and smiling at those who pass by. This particular language behavior made me think that perhaps in the Pima culture the language is not as socially marked as in some other cultures.

[^0]During my first three years of work, I only had references about O'odham (Papago), a copy of the Arte de la Lengua Névome que se dice pima, propia de Sonora, con la Doctrina Christiana y Confesionario analizados -- an old manuscript of the oldest version of Pima published by Buckingham Smith in 1862. Also, there was a dictionary from old Névome published by Pennington (1979), and the studies of Tepiman and Southern Tepehuan elaborated by Bascom (1965) and Willett (1978), (1980a) and (1980b). After a period of time, during 1985, two scholars shared their data with me: Ken Hale provided me a copy of his field notes from Yécora and Maycoba, and Escalante his short stories elicited in Pilares, Sonora. With these materials, together with my own data elicited in Yécora from 1982 to 1987 with the support of the native speakers Panchita Lau, Lola Duarte, and Cleotilde Galaviz, I could finnish my dissertation on Arguments and Clausal Relations in Pima Bajo in 1991, and Textos y Gramática Pima by Escalante and Estrada (1993). From 1991 to 1992, while I worked with Pima Bajo in Yepachi, Chihuahua, my best helpers were Teresa Alvarez and Manuel.Coronado. Part of this work has been discussed in Estrada (1994c) and will be included in the volume Pima bajo de Yepachi, Chihuahua (forthcoming).

A brief summary of the content of the most important references on Pima Bajo is as follows: Escalante (1961) and Stover (1984) provide phonological descriptions; Hale (1983) makes reference to the use of the connective ko in the dialect spoken in Onavas -- now extinct -- and Yécora. Névome, the oldest recorded dialect, is described in Smith (1862), a grammar based on a XVII century manuscript, as I previously mentioned. Shaul (1986) is a study of the structure of Névome, and Pennington (1979) published the vocabulary. There are brief studies of the syntax of connectives and pronouns in Estrada (1992a, 1992b), and a study of dialectal variation in Estrada (1994c). Escalante and Estrada (1993) is a collection of texts with an accompanying phonological and morphological sketch. Shaul (1994) also provides a sketch of the language. Finally Estrada (forthcoming) is a phonological description, a text, a dialogue, a collection of sentences, and a basic vocabulary.

Interesting, however, is the anthropological description elaborated by Dunnigan (1970) and (1983). In his 1983 study, Dunnigan provides the kinship terminology of the highland Pima for male and female ego. A list of kinship terms, some of them mentioned in Dunnigan (1983:224) and some others elicited by me, are provided immediately.

(1) | kaak | paternal grandmother |
| :--- | :--- |
| visk | paternal grandfather |
| hu'ul, mi'ili | maternal grandmother |
| baab | maternal grandfather |
| kaak | great grandfather |
| hadin, hahadnim (pl.) | brother/sister |
| siis | older brother/sister |
| sitpidi | younger brother/sister |

> son/daughter
> mother
> father
> cousin
> nephew
> older paternal uncle
> younger paternal uncle
> older paternal aunt
> younger paternal aunt
> older maternal uncle
> younger maternal uncle
> older maternal aunt
> younger maternal aunt

The organization of the present study intends to provide the necessary information for understanding the sounds, morphems, phrases and sentences of Pima Bajo. ${ }^{2}$

## 1. Phonemic Inventory

The phonemes of Pima Bajo include thirteen consonants, two glides, and five vowels. Vowel length is distinctive.
(2)

Consonants

| p | t | $k$ | , |
| :--- | :--- | :--- | :--- |
| b | $d$ | $g$ |  |
| $v$ | $s$ |  | $h$ |
| $m$ | n |  |  |

y

Vowels
$i \pm 0$
a
i: i: $u$ :
. ${ }^{\circ}$

### 1.1. Consonants

Not all consonants occur in initial, medial or final position. ${ }^{3}$ Palatalization of coronals in contact with a high front vowel is common, but sometimes an unpalatalized consonant is also produced. The consonants with examples of their allophones are:

[^1]Table 1.

1.2. Vowels

The five Pima Bajo vowels are classifiable according to position (front, mid, back), tongue height (high, mid, low), and length (short, long). Long vowels tend to be pronounced short when a change of meaning is not threatened. It is also common that short unstressed vowels be neutralized to [ ]. Furthermore, as in Tarahumara -- another Uto-Aztecan language from the Sonoran branch (Lionnet ms.) -- vowels in Pima Bajo tend to vary (Estrada 1994); the underlying form of these vowels is recoverable only by comparisons with other Tepiman languages and historical observations.

Table 2.

| /i/ | /gi'i/ | [gi'i] | 'plow' |
| :---: | :---: | :---: | :---: |
| 1 1 / | /gi'i/ | [gi'i] | 'big (pl.)' |
| /a/ | /ta'i/ | [ta'i] | 'fire' |
| /u/ | /up/ | [up] | 'bottom' |
| 101 | /o'i/ | [ $0^{\prime} \mathrm{i}$ ] | 'sand' |

1.3. Stress

Every word in Pima Bajo has one stress which is predictable according to the following:
i. Stress the long vowel in the word.

| (3) tikpáana | 'work' |
| :--- | :--- |
| mavíis | 'five' |
| konóoli | 'buzzard' |

ii. If there is no long vowel, stress goes on the first syllable in the word.
(4) tákav mósi
yesterday'
'fox'
'bear'
iii. Stress the first vowel of a postposition.
(5) kiitám oidigtám to'opdám
'in town'
'at the top of the church'

## 2. Phonological processes

Phonological processes involve coronals and vowels. The changes which occur are due to historical tendencies that are also observed in other Tepiman languages.

### 2.1. Consonants

2.1.1. Coronal consonants following the high front vowel/i/ have a tendency to be palatalized. However, it is possible -- in only several of these words -- to hear both forms from the same speaker: the palatalized and the non-palatalized one.

Examples:
(6) /timitim/
/tit/
/oidig/
/in daad
/si'/
/laani
timčim
čič
oyig
iñ $_{\text {sí }}$ yaad
sí
aañi
añ̃i
${ }^{\mathrm{y}} \mathrm{i}$
'tortilla'
'our'
town
my mother
' very '
'I'
small'
2.1.2. Syllable final /s/ tends to be aspirated.

Examples:
(7) /hostam/
hohtam
baahar
'to hurry'
'chest (possess),
2.1.3. The aspirate $/ \mathrm{h} /$ tends to alternate with a glottal stop $/ \%$ :
(8) mahta
bahi siklaha
ma'ta
ba'i
sikla'a
'ashes
'steam, ripe'
'pot (Sp. cajete)'
2.2. Vowels.

Vowels are less stable than consonants. The changes which occur involve unstressed vowels.
2.2.1. Word final vowels tend to be devoiced. This process is mainly restricted to the Pima Bajo from Yepachi, Chihuahua.
(9) $\begin{array}{ll}\text { siiki } \\ \text { parisi } \\ & \text { naaka }\end{array}$ naaka

$$
\begin{aligned}
& \text { siikI } \\
& \text { parisI } \\
& \text { naakA }
\end{aligned}
$$

'deer' 'jackrabbit' 'ear
2.2.2. Postonic or word final vowels can be deleted

Examples:
(10) gogosi uupa gogs
uup
'dog' timitim
$\operatorname{uup}_{\text {timč }}$
'skunk
'tortilla'
2.2.3. Non-stressed vowels tend to vary in their articulation point. In dialectological surveys it
has been observed that the Pima from Yepachi tend to have $/ 0 /$, where the Pima from Maycoba or Yécora show either $/ \mathrm{z} /$ or $/ \mathrm{a} /$. This, however, is not a systematic process.

Examples:
(11) mivili siika
timita (m)

$$
\begin{aligned}
& \text { mivali } \\
& \text { siiki } \\
& \text { timiti(m) }
\end{aligned}
$$

'fly',
'deer'
'tortilla
2.2.4. When the syllabic cluster <di> occurs at the end of a word, it tends to change to an [r].
(12) bidi
bir
ilir
'mud'
'like, want, think'

### 2.3. Metathesis

This process is very common in Pima Bajo.
(13) vuih vuhi 'eye'
toah toha 'white'

## 3. Morphology

This section describes inflectional and derivational processes.
3.1. Nouns

There is no case morphology signaling case relations in Pima Bajo nouns, that is, the grammatical relations of subject, direct object, and indirect object. In certain sentence types, word order SOV indicates that the first noun or personal pronoun is the subject and the second one the object, although the word order SOV is fairly free (as will be presented later).

```
(14) a. Huan Marii niid-im
    John Mary see-CONT
```

4 The abbreviations used throughout this paper are the following:

$$
\begin{aligned}
& \text { first person } \\
& \text { second person } \\
& \text { third person }
\end{aligned}
$$

## 'John sees Mary'

b. naksili li oob kii

$$
\begin{aligned}
& \text { nakstli } \\
& \text { scorpion DIM person sting (PERF) }
\end{aligned}
$$

'The scorpion stung the child'

However, if the nominal is accompanied by the article, or a personal pronoun is used, the basic grammatical relations, subject and object, will be signaled.

```
(15) a. ig (SUBJ) kil ik (OBJ) gogosi givim
    ART(SUBJ) man ART(OBJ) dog strike
    'The man strikes the dog'
```

b. aan am-niid-im

1s (SUBJ) 2 s (OBJ)-see-CONT
'I see you'

Needless to say, that Pima Bajo does not have agreement except later for a couple of suppletive verbs. So, grammatical relations are not systematically manifested.

Nouns, however, are marked plural by reduplicating the first syllable, as in (16a-e), or by an epenthetic $/ / /$ or $/ \mathrm{h} /$ between the two halves of a long vowel in the first syllable of a word, as in examples (16f) to ( 16 k ).

| (16) | singular | plural | gloss |
| :---: | :--- | :--- | :--- |
|  |  |  |  |
| a. misi | mimisi | 'cat' |  |
| b. kil | kil | kikil | 'man' |
| c. nov | nonov | 'hand' |  |
| d. hod | hohod | 'stone' |  |
| e. ban | baban | 'coyote' |  |
| f. aagar | a'agar | 'horn' |  |
| g. oob | o'ob | 'people' |  |
| h. iim | i'im | 'squash' |  |
| i. tooko | to'oko | 'spider' |  |
| j. vaagar | vahagar | 'cane' |  |
| k. suudag | suhudag | 'water' |  |

Two other forms of reduplication in nouns are illustrated below. The words in (17) change a stem $/ \mathrm{v} /$ into a $/ \mathrm{p} /$ once reduplication is realized, and the words in (18) reduce the long vowel of the base form

| (17) | vuih ${ }^{5}$ | vupi <br> voposog <br> vipig | 'eye' <br> 'mouse <br> 'red' |
| :---: | :---: | :---: | :---: |
|  | vosog |  |  |
|  | vig |  |  |
| (18) | maar | mamar kokos | 'son/daughter' <br> 'nest' |
|  | koos |  |  |

Possession in Pima Bajo can be expressed by two juxtaposed nouns, the rightmost one showing the possessive suffix $-\mathrm{ga}(\mathrm{r}) /-\mathrm{r}$ as in (19-21).
(19) Huaan kii-ga

John house-POSS
'John's house
(20) toskil naaka-r pig nose-POSS 'the pig's nose'
(21) Marii iip-gar Mary skirt-poss 'Mary's skirt

Possession is also marked by a pronominal prefix, with or without the possessive suffix.
(22) in-kii-ga

1s-house-POSS
'my house'

[^2]```
23) am-vonam
2s-hat
'your hat'
(24) in-kar-gar
1s-car-POSS
'my car'
```

In addition, however, Pima Bajo nouns are classified in three sets according to their occurrence with the alienable suffix -ga- and the possessive suffix $-r$. The three classes are: a) Those which are inherently possessed and marked with the suffix $-r$ in the third person. These include body and plant parts, and some clothes:

```
(25) Huaan mo'o-r ko'ok
    John head-POSS hurt (HAB)
    John head-POSS hur
```

(26) $4 \mathrm{k}-\mathrm{mo}^{\prime}$ ovi-r toah
ak-mo ovi-r toah
$3 \mathrm{~s}-\mathrm{shirt}$-poss white
'His/her shirt is white'
(27) uus tatka-r
tree root-POSS
'The tree's root'
b) Inalienables which are marked by the alienable suffix $-g a-$-:

```
28) mim-kii-ga si' gi'id
    2pl-house-AL INT big
    'Your house is big'
(29) aani in-sapaat-ga-r soma
    is 1s-shoe-AL-POSS sew(PERF)
    'I sewed my shoe'
(30) Hosee kar-ga-r
    John car-AL-POSS
    'John's car'
(31) in-machet-ga-r
    1s-machete-AL-POSS
    1 It is my machete
```

c) Things which cannot be possessed: nature objects like tas 'sun', masad 'moon', divor 'land' and animals. In order to express possession of an animal, the word soigar 'its pet' must be used.
(32) gogosi in-soi-ga-r tuk
dog 1s-pet-AL-POSS black
'My dog is black' (lit. 'My pet is a black dog')
(33) Peier kav soi-ga-r muk

Pete horse pet-AL-POSS died(PERF)
'Pete's horse died'
Some Pima Bajo nouns, and certain other base forms, undergo derivation by the use of the following suffixes: $-p \dot{i}$, $-m a g$, $-k o r /-k a r$, $-k a m$, and $-d a m$.

Base forms are modified by the privative suffix $-(p) \dot{i g}$ to create either a noun or adjective; examples are given in (34).

| (34)naakpig <br> suuhurpig <br> vuilpig | 'deaf' | 'castrated' |
| :--- | :--- | :--- |
| (cf. naak 'ear') |  |  |
| (cf. suuhur 'testicles') |  |  |

The suffix -( $m$ )ag derives adjectives from nouns:

|  | manteekmag <br> huhulmag <br> onmag <br> liimpiag <br> kupadag <br> hoaarag | 'fatty' <br> 'painted' <br> 'salty' <br> 'clean' <br> 'busy' <br> 'pigeonholed' | ```(cf. manteek < Sp. manteca) (cf. huhul < huhuv 'to grease, paint') (cf. on 'salt') (cf. liimpi- < Sp. limpio) (cf. kupad- < Sp. ocupado) (cf. hoaar 'basket')``` |
| :---: | :---: | :---: | :---: |

The suffix -kor/-kar derives instruments; the distinction between -kor and -kar is unpredictable:

| (36) timitkor 'comal' | (cf. timit 'to make tortillas') |
| :--- | :--- |
| mihitkar 'branding iron' | (cf. miihim 'to burn') |
| laaniskar 'lance' | (cf. laanis < Sp. lanza) |
| hiuuhkor 'scissors' | (cf. hiuuhk 'a cut') |
| bihskar 'belt' | (cf. bis 'to wrap') |

The suffix -kam signifies 'that pertaining to...' and the agentive -dam 'one who...'. Both suffixes are illustrated in (37)
(37) biibitkam
'manure' (cf. biibit 'to defecate')
pistool'uupkam 'gunman' (cf. pistool < Sp. pistola)
sonoorabdahkam
titivigdam
kiiknahtadam 'mason, build. titiv 'to play'
puñeetamdam 'puñetero, valiant man'
'mason, builder' (kiik 'houses', naht 'to build')

Stover (1984) calls attention to the Pima suffix -ap which modifies nouns, numerals or verbs. The suffix -ap derives locative nouns.
(38) divir $\quad$ 'soil' $\quad$ divirap $\quad$ 'earth', 'floor'

### 3.2. Adjectives

Plurality is optionally marked in adjetives by the same reduplicaton process described for nouns. Examples of reduplicated adjectives are provided below.

| (39) | singular | plural | gloss |
| :--- | :--- | :--- | :--- |
|  |  |  |  |
| toah | totah | 'white' |  |
| oam | o'am | 'yellow' |  |
| gi' | gigid | 'big' |  |
| tiv | titiv | 'tall' |  |

Numerals may be modified by a reiterative suffix $-a v$ :
(40) gook 'two' gookav 'two times or twice'
vaik 'three' vaikav 'three times'
mu'ik'many' mu'ikav 'many times'

### 3.3. Verbs

The verb or predicate within main clauses expresses tense/aspect or mood by modifiying its base form either by truncation, giving the perfective, or by the use of special suffixes. Imperfective continuous (with the suffix -im) and perfective verb forms are illustrated below.

kuihim
kuuk
to bark

The Pima Bajo tense/aspect/mood suffixes may be organized in three different sets:


Sentences illustrating some of the suffixes in (42) are provided below:
(43) aan noki-hag
is speak-FUT
is speak-FUT
(44) aap sosk-ia

2s cry-PROB
'You will cry'
(45) aapim ga'i gai-va

6 Escalante and Estrada (1993) mentions a prefix 'a-marking completive aspect. The following is an example.
'a hurni
COMPL late
However, further research in this language has been useful to recognize such kind of constructions as an example of the Pima medio-passive or reflexive passive (cf. section 4.5).

2 pl meat roast-COMPI
'You just finished roasting meat'
(46) okis tikpaan-im-tad
woman work-CONT-REM
'The woman was working'
47) aan huun aag-im
is corn want-CONT
' I want corn'
(48) ig kil mir-ti

ART man run-EVID
The man will be running'
49) tikpaan-in
work-IMP
'Work!'
Verbal suppletion in Pima Bajo, as in other Uto-Aztecan languages, is restricted to a small group of verbs and operates on an absolutive basis. That is, with a singular or plural subject, and in transitive verbs like 'kill', suppletion distinguishes between a singular or plural object.
(50) Subject agreement:

| singular | plural | gloss |
| :---: | :--- | :---: |
| $k i \pm k$ | giivk | 'to stand' |
| mir | vopo | 'to run' |
| gii | suuli | 'to fall' |
| dah | dara | 'to sit' |

Object agreement:
mua'a
koi
'to kill'

Examples of some of these verbs are provided below:

```
(51) aan kiik
    is stand(HAB/sg)
    'I am standing'
(52) aat givk aatim
1 pl stand (HAB/pl) 1pl
'We are standing'
(53) aan am Maikis-tam dah
1s LOC Maycoba-POSP sit (HAB/sg)
```

'I am in Maycoba'
(54) aat am Maikis-tam dara 1pl LOC Maycoba-POSP sit (HAB/pl)
'We are in Maycoba'
(55) huan mua'a

John kill(PERF/sg) ART deer 'John killed a deer'
(56) huan koi gook siik
John kill (PERF/pl) two deer
'John killed two deer'
Derivational verbal morphology includes suffixes which modify the valence of a verb (like the applicative or benefactives -lia and -id, and causative $-t a d$ ), or suffixes which derive verbs from nouns (like $-t$ 'build', 'make').
(57) givkam huhu-lia-in ab ta'am am a hikit-kam vigorously spread-APL-IMP DIR LOC LOC DET cut-NMLZ 'Spread (it) vigorously over there on the wound'
(58) ko'okol vig-lia
chili red-APL
'The chili will become all red'
(59) 'am aap voho-va it-gigis-id

LOC 2 s begin-COMPL 1pl-greet-DITR
'You begin greeting us there'
(60) higam vipag vakis vasip-id
$3 p 1$ then liquor serve-DITR
'Then they will serve some liquor (tesgüino)'
(61) sudag in vioh-tad
water 1s vomit-CAUS
'The water forced me to vomit'
(62) in kisam-tad
is tickle-CAUS
'He/she tickled me'
(63) tatbal naa-t-ia bankah-gar wood make-DER-PROB chair-POSS 'Chairs are made from wood'
(64) huaan gi ki-t-i

John big house-DER-PROB
'John is going to build the house bigger'
Compound verbs could be derived by preposing a noun or an adjective to the verb. Some examples are provided:
(65) taval dig-kat
board hole-be (IMPF
'The board is perforated'
(66) ikos soroin-kat
fabric wrinkle-be (IMPF)
'The fabric is wrinkle'
67) huaan lii-nat-ia ki

John small-do-PROB house
John will reduce the house'
Modality is expressed with the auxiliary verb apad 'can'. Such kind of relationship is signaled by a structure involving a single clause. These clauses are not very common.
(68) aan im apad niia hikam-kad
is NEG can see(IMPF) fog-INST

Is NEG can see (IMPF) fog-INST
'I could not see due to the fog'
69) aan apod tikpana hidol maas vi'is is can work(IMPF) only morning early
'I can only work early in the morning'

## 4. Syntax

The sentence consists of at least a predicate, plus one or more nominals, postpositional phrases and particles. The nominals that head noun phrases (4.1) are either a noun or a pronoun. Nouns can be modified by determiners, demonstratives, adjectives, numerals or quantifiers. Postpositional phrases are nominals with a suffixed postposition. The most common postpositions are locatives, but there are also commitatives, benefactives and instrumentals (4.6). Predicates are not always verbal. Other parts of speech, such as adjectives, also function as predicates.

The order of words in Pima Bajo is rather loose. The verb can come in almost any position, but the most commmon position is final. However, the language does shows some verb final properties: it has postpositions, the order of noun and modifier is quite rigid (adjectives, numerals, articles, and demonstratives precede nouns). Relative clauses, however, follow the head
noun. But subordinate clauses (complement and headless relative clauses) precede the verb with a non-finite suffix.

### 4.1. Noun Phrase

Subject and object noun phrases in Pima Bajo may be headed by a noun (common or proper) or a pronoun. Nouns are not obligatorily accompanied by a modifier, so it is very common to have noun phrases formed by a single noun.
(70) huan si' ko'ok

John INT sick (HAB)
'John is sick'
(71) huan li naksili soint

John DIM scorpion squash (PERF)
'John squashed a small scorpion'
(72) aan kav niar 1s horse buy (PERF)
'I bought a horse'
73) huan vonam aada-hag John hat put on-FUT
'John will put on his hat'

### 4.2. Modifiers

Within a noun phrase, a noun can be optionally modified by a demonstrative as in (74), an indefinite article or determiner (75), an adjective (76), a quantifier (77), or a numeral (78). Relative clauses which also participate in the formation of a noun phrase will be shown later.
(74) ig okis nok-im

DEM woman speak-CONT
'That woman is speaking'
(75) aap maat (hi)g dudkam

2 s know (HAB) ART whiteman
'You know the whiteman'
(76) tuk gogosi in-kii
black dog 1s-bit (PERF)
'The black dog bit me'

```
77) aan si'mu'i suspon niar
    lan si'mu'i suspon mick niar (PERF)
    'I bought many chickens'
(78) aan gooka vatap bii
    ls two fish catch(PERF)
    'I caught two fish'
```

There are only six basic numerals in Pima Bajo; all other numerals are obtained by nominal compounding or modification. The complete set of basic numerals is provided in (79).
(79) himako 'one' $\quad$ gooka $\quad$ 'two'

Compound numerals are obtained by the juxtaposition of two basic nominals or by combining a basic numeral with another word. The compound numerals are provided in (80).

```
(80) gook makova
    a'ipis viis
    himk oob
\[
\begin{aligned}
& \text { 'eight' } \\
& \text { 'ten' } \\
& \text { 'twenty' (lit. 'one person') }
\end{aligned}
\]
```

All other numerals are obtained by modifying a basic or a compound numeral by means of an adpositional phrase. The adpositional phrase is introduced by the particle dam.

```
(81) vusani dam himako
    vusani dam vaika
    a'ipis viie dam himak
    himk oob dam gooka
```

```
'seven'
```

'seven'
'nine'
'nine'
'eleven'
'eleven'
'twenty two'

```
    'twenty two'
```

Other kinds of constructions obtained by modification of nominals are comparatives, modified names, and descriptive adjectives. Adjectival comparison is expressed by adposition of a nominal introduced by the particle ko. No comparative or superlative degree inflection is available.
(82) aan si' gi'id ko aapi 1s INT big:RDP ko
(83) aan si' diin ko igi 1s INT smoke ko DEM
I smoke more than he (that one),
(84) $\ddagger \mathrm{g}$ si' gi tibit ko a-maar 3 s INT as tall ko 3 s -child
'He is as tall as his son'
Names with a title, as well as family and given names, are not commonly used in Pima Bajo but only for official purposes. For such reason, the order provided to those nouns is the same as in Spanish: the title or given name in first place, and the name or family name in second position.
(85) san fransisk
ti beniit
pančiit lau
'San Francisco
'Tío Benito'
'Panchita Lau'

Descriptive adjectives are ordered to the right of the head or modified noun.
(86) naas dukom 'Nacho, el blanco'

The last type of nominal modifiers are the demonstratives. There are two demonstratives in Pima Bajo, both indicating a relative distance from the speaker.
(87) idi 'this' (proximal)
ig 'that' (distal)

Those forms are illustrated in (88) and (89).
(88) idi tivad kil

DEM tall man
'This tall man'
89) ig tuk vona

DEM black hat
'That black hat'
The demonstrative ig is homophonous with the article, and according to this, it will also mark case as follows: subject (nominative) $i g$, and non-subject or object (accusative/oblique) $i k$.

DEM (SUBJ) woman DEM (OBJ) plate something-make-PROB
'That woman will make somthing in that plate'
(91) $1 i$ oob $\dot{j} k$ ha'a gitg-ia uss-kad DIM person DEM(OBJ) pot hit-PROB stick-INSTR 'The child will hit that pot with the stick'

The demonstrative is not, however, obligatory.
(92) kova-in giig-ia há'a uus-kad

NEG-IMP hit-PROB pot stick-INSTR
'Don't hit the pot with the stick'
4.3. Order within the noun phrase

As it was previously mentioned, the order in noun phrases is quite rigid, and it is as follows. The adjective precedes the noun.

```
93) aan toaha kav niar
    1s white horse buy(PERF)
    'I bought a white horse'
(94) ig kil tuk gogosi mua
    DEM man black dog kill (PERF)
    'That man killed a black dog'
```

Demonstratives, quantifiers, numerals and the article (a reduced form of the distal determiner) always precede the adjective and the noun, as it has been previously ilustrated in (77), (78), (8892). In (95) the numeral vaik 'three' precedes the adjective toota 'white', and in (96) the quantifier $m u$ ' $i$ precedes the noun tomin 'money'.
(95) aan vaik toota i'ipor niar

1s three white dress buy (PERF)
'I bought three white dresses'
96) $\dot{\text { ig }}$ okis mu'i tomin in-maa

DEM woman QUANT money is-give (PERF)
'That woman gave me a lot of money'
As well as other Tepiman languages, Pima Bajo has also floating quantifiers. According to Munro (1984), the quantifiers in O'odham and Pima Alto (Upper Pima from Arizona, USA) -both Tepiman languages -- are ordered preceding the modified noun. The same order is observed in Pima Bajo.

```
97) aan si'mu'i suspon niar
    1s INT QUANT chicken(pl) buy(PERF)
    'I bought many chickens'
(98) ig kil viis gogosi nuukad
    DEM man QUANT dog(pl) take care (PERF)
    'That man takes care of all dogs'
```

However, unlike Upper Pima, which according to Munro (1984) permits a floating quantifier of
the subject, the direct object, or the indirect object -- examples in $(99,100$ and 101) -- floating quantifiers in Pima Bajo have only been attested for subjects and objects. Examples are provided in (102), (103) and (104).

## Upper Pima

(99) Hegam ceceoj 'o vees ñeid heg Alice $\begin{array}{ll}\text { Hegam ceceoj } O \text { vees neld heg Alice } \\ \text { those men } & \\ \text { 3AUX all see ART Alice }\end{array}$ 'All the men saw Alice'
(100) Hegai 'uuvi 'o vees ha-ñeid hegam ceceoj that woman 3AUX all them-see those men 'The woman saw all the men'
(101) Heather 'at vees ha-maa heg 'o'ohan hegam 'u'uvi Heather 3AUX all them-give ART book those women 'Heather gave the book to all the women'

Pima Bajo
(102) gogosi víis koi-va dog(pl) QUANT die-COMPL 'All the dogs died'
(103) aan si' mu'i niar suspon is INT QUANT buy(PERF) chicken(pl)
'I bought many chickens'
(104) aan vits koi mivil
is QUANT kill (PERF/pl) fly
'I killed all the flies

### 4.4. Personal pronouns

Pima Bajo has three sets of pronominal forms: the independent or complete pronouns, the reduced or cliticized, and the pronominal prefixes:


In the following section the functions of the pronominals are described.
4.5. Grammatical functions

In Section 3.1. Pima Bajo was described as having no case morphology signaling grammatical relations of subject, direct object, and indirect object. Grammatical functions, however, may be marked by means of word order SOV, subject and object forms of the article and the demonstrative or by the use of a particular set of pronominal forms. For example, with any intransitive verb, the subject will be given by a proper noun, a common noun phrase, or an independent or also a reduced/clitic pronoun.

```
106) Peier ab duv
    Pete DIR come(PERF)
    'Pete had come
(107) igg gogosi kuih-im
    ART dog bark-CONT
    'The dog is barking
108) aatim aasi'-im
    lpl laugh-CONT
    'We are laughing'
(109) aap kokos
    2pl sleep(IMPF)
    'You sleep'
\begin{tabular}{ll} 
(110) aani 'am ab-nor & oidig-tam \\
1s LOC DIR-go(PERF) & town-POSP \\
'I went to the town'
\end{tabular}
```

When the independent or complete pronouns stands alone as the subject of a verb, they must be ordered final.
(111) tohi vaki-ag aani
'I will go into the cave

```
(112) viv divid (PERF) 2api
    'You smoked tobacco
```

The reduced form in contrast, is always ordered before the verb, but not necessarily adjacent to it:

```
(113) aan 'am ab-nor oidig-tam
    1s LOC DIR-go(PERF) town-POSP
```

I went to the town'

```
(114) aan vav-vui himi-ag
    is mountain-DIR go-FUT
    'I'm going to the mountain
```

(115) vuitot aan tikpaan-ia
just is work-PROB
I am just beginning to work

Both the reduced and independent pronominal forms may co-occur signaling the subject of an intransitive expression. The independent pronoun will be ordered post-verbal, functioning as an emphatic element.

```
(116) aan tasir-av koos is noon-up sleep (HAB) is
'I sleep until noon'
```

$\begin{array}{ll}\text { 17) aan takiv vaak } & \text { tohiv aani } \\ \text { is yesterday enter(PERF) cave is }\end{array}$
'Yesterday I went into a cave'

In transitive expressions, both arguments may be noun phrases like in (118-119), with SOV word order signaling the subject and the object, but the object may be postposed (120). Both, however, the subject and object (121-122), or at least one of the arguments (123-125), can be substituted with a pronoun.
(118) Hosee hari vakin-a

Joe pot wash-FUT
Joe will wash the pot
119) kav gogosi kiia-tad horse dog kick-REM 'The horse kicked the dog'
(120) Hosee vakin-a g' harri Joe wash-FUT ART pot 'Joe will wash the pot
(121) aan am-niid

1s (SUBJ) 2s (OBJ) - see (PERF)
'I saw you'
(122) ap in n-iir

2 s is see (PERF)
'You saw me'


The SOV order is rigid unless an independent pronominal form occurs final emphasizing the subject.

In ditransitive sentences, the arguments can be all lexical noun phrases.

```
126) Marii timiti maa li oob
    Mary tortilla give(PERF) small person
    'Mary gave a tortilla to the child'
(127) Beniit kafee Hosee ho'ir
    Benito coffee Joe offer(PERF)
    Benito coffee Joe offer(PERF'
```

If one of the non-subject arguments would appear as a pronominal, there is an apparent preference to be the indirect object.

```
128) aan buur am-niaar
    1s burro 2s-buy(PERF
    1s burro 2s-buy(PERF)
    I bought you a burro
(129) Marii timitim in-tana
    Mary tortillas 1s-ask(PERF)
    'María always asked me for tortillas'
(130) Beniit kafee a-ho'ir
    Benito coffee 3s-offer(PERF)
    'Benito offered him coffee'
```

Furthermore, it is also notorious that Pima Bajo shows a preference for the direct object to be non-overt.
(131) Beniit a-ho'ir

Benito 3s-offer(PERF)

Benito offered (it) to him

In Pima, there are no inherently reflexive verbs. A reflexive sentence is obtained, as any other transitive construction, with an expression with a pronominal prefix corresponding to the direct object. It is not rare that the independent emphatic pronoun occurs in reflexive constructions:

```
(132) aan in-hikti
    1s (SUBJ) 1s (REFL)-cut (PERF) 1s
    'I cut myself'
(133) aap am-ni̇ir ispeh-tam
    2s(SUBJ) 2s(REFL)-see (PERF) mirror-POSP
    'You saw yourself in the mirror'
```

Reciprocals are also indicated by the prefixed pronominal forms.

```
(134) ig kikil
a-kok-va
maiks-tam
    mg kikil a-kok-va min (REC)-fight-COMPL Maycoba-POSP
    'The man ended fighting at Maycoba'
```

Pronominal prefixes also represent the possessor in possessive noun phrases.

```
(135) in-mo'ovid tuakap kata 1s.POSS-shirt outside be-IMPRF My shirt is thrown outside
```

(136) gogosi am-soigar toaha dog $2 s . P O S S$-pet white 'Your dog is white'
(lit. The dog your pet is white')
(137) huan in-ki-ga-r him-dad

Juan 1s-home-AL-POSS go-REM
'John went to my home'
As well as other Tepiman languages Pima Bajo has no passive in the traditional sense. According to Ken Hale and Jane Hill (p.c.) Pima uses the non-specific reflexive or third plural prefixed pronominal form to build a kind of medio-passive, similar to the se construction from Spanish

## (138) gi'il okasi dihi-va a-gasi-va <br> young woman sit-COMPL 3pl-comb-COMPL

'The young woman just sat and was combed'
(139) in tia a-muuka

1s(POS) aunt 3pl-die(PERF)
'My aunt was dead'
(140) lii oob kig a-dun-i

DIM person good 3pl-do-EVI
'(The) boy will become good'
(141) a-kuupa pueert

3pl-close door
' (The) door was closed'

### 4.6. Postpositional Phrases

Postpositions are suffixed to nominals. A postposition modifying a noun may indicate direction, location or position, instrument, benefit, or company.

```
(142) in-papaa Yikas-vui him 1s-father Yécora-to go(PERF)
'My father went to Yécora'
```

(143) kafee mees-tam dah
coffee table-on be (IMPF)
'The coffee is on the table'
(144) to'opa tieend-vuihpsis kiik church store-in front of be (IMPF)
'The church is in front of the store'
(145) aan vainim-kad a-hikti-a

1s knife-with 3 s-cut-FUT
(146) aan kafee niar Panchiit-vuika
is coffee buy(PERF) Panchita-on behalf of
'I bought some coffee on behalf of Panchita'
(147) aan kii-vui okis-viin himi-a
is house-POSP woman-with go-FUT
'I will go home with the woman'
Sometimes, but not very often, a postposition is added directly to a pronoun.

```
(148) in kin in-viina-ga
    1s husband 1s-POSP-POSS
    'My husband is my companion'
```

(149) li oob in-vuihpsis dah
small person 1s-POSP be (sg)
'The child is seated in front of me'

### 4.7. Sentence Formation

Pima Bajo sentences are of two types: verbal and non-verbal. The following are examples of verbal predicates.
(150) himiva
'(He/she) just left'
(151) vadia
'(He) will wash (it)'
(152) tukihag
(It) will go out
In addition to their predicates, of course, verbal sentences may contain adverbs, particles and nominal or pronominal arguments.
(153) aan am tikpaan-im-tad

1s LOC work-CONT-REM
'I used to be working there'
(154) ig okis tikpaan-im-tad kii-tam

ART woman work-CONT-IMPF house-POSP
'The woman was working in the house'
(155) as am $1 g$ okis tikpaan-im-tad QUOT LOC ART woman work-CONT-IMPF
'It's said that the woman was working there'
(156) $\mathbf{4 g}$ okis si' tikpaan-im-tad

ART woman INT work-CONT-REM
'The woman was working very much'
The basic word order is SOV, though this order is not rigid.

Non-verbal predicates are obtained with a noun or an adjective used as predicates and are not inflected with tense/aspect. However, a suffixed $d$ occurs in non-verbal attributive predications.
(157) aan si' gi'i-d
1s INT big-d
'I am big'
(158) $\dot{\text { g }}$ g kili si' gí' tiví-d ART man INT INT tall-d 'That man is very tall'
(159) aan si' lii-d
is INT small-d
'I am small'
In other attributive predications, the suffix $-d$ doesn't show up, but here it is possible to identify a stative suffix $-k$ which otherwise marks perfective:
(160) kavlik tithivik
sierra high-k
'The sierra is high'
(161) si' gaakmik aani INT skinny-k is 'I am skinny'

The forms igi and ete [eté] (without no difference documented between them) occur in equational predications like those in (162) to (167). The form igi, documented as igui in the Arte de la Lengua Névome (1862:66) has been documented to be a "partícula que no significa, y que se añade sólo elegantis causa y para la buena pronunciación". ${ }^{7}$

## (162) plataan $i g i$ banana $\pm g i$

7 Some examples showing the use of igui are the following:

## Névome <br> hunug' an' igui <br> 'I have corn'

Pim' an' igui cavaio soiga
'I don't have a horse'
Pim' an' igui dah
' I don't have a mother'
hunu an' igui mu thanu
'I ask you for some corn'
Pare humu mumu ni thanitut' igui...'
'Father made me ask you for some corn...'
'It is a banana'
(163) Huaan paail $\dot{\text { tgi }}$ John priest 4 gi 'John is a priest
(164) in kompaal $\dot{4} i$ 1s compadre igi
'It's my compadre'
(165) si' loohtam ete, baluup INT crazy ete Guadalupe 'Guadalupe is crazy'
(166) aan igi / aan oob ete aan igi/ aan oob ete
ls igi/ is pima ete 'I am/ I am pima'
(167) oks ete woman ete
'It's a woman
Aside from these constructions, it is possible to have non-verbal predications expressing identity or membership without a copula or any other equivalent particle.
(168) Huaan meester

John professor
'John is a professor'
(169) aan Lool

1s Lola
(170) Marii ooba

Mary pima
'Mary is a pima'
(171) okos $\mathrm{g}^{\prime}$ kavar
woman ART fat
'The woman is fat'
(172) kii si' vitot 'The house is new'
(173) aan di'ir

1s mother(POSS)
'I am a mother'

### 4.8. Adverbial particles

Pima Bajo has a number of single morpheme adverbs such as iva 'also', si' 'much', $\dot{\text { ip }}$ 'also, once again', sil 'by there', am 'there', hudil 'alone', ap 'really'.
(174) aan gook iva maamar
is two ADV kids(pl)
'Is two ADV kids(pl
(175) taval si' kig daapak board ADV good smooth
'The board is smooth'
(176) aan $i p$ kig vapkih $\ddagger 1$ is ADV good cowboy
'I am also a good cowboy'
177) am vopohag $\begin{array}{ll}\text { sil hihim-va gam } \\ \text { ADV rest (IMPF/pl) ADV go(pl)-COMPL the }\end{array}$
here side
(178) li oob kaam am vo'o

DIM person bed ADV rest (IMPF/sg)
'The boy is resting on the bed'
179) aan hudil mir

1s alone run (IMPF/sg)
'I run alone
180) am mar si' ap maas

2s child INT really pretty
'Your child is really pretty'

### 4.9. Sentence types

4.9.1. Negatives

Negation of a predicate is effected by means of the negative particles: im (in old Névome pim), or the emphatic negative kova. While the negative im is either first in the sentence or preverbal, the emphatic negative is always first.

$$
\begin{array}{lll}
\text { (181) } & \text { im mix } & \text { duv } \\
\text { NEG running } & \text { come (PERF) }
\end{array}
$$

'She/he didn't come running'
(182) aan im tikpan
1s NEG work(PERF)
'I didn't work'
(183) im am-kanaast-gar
'It isn't your basket'
(184) aan gogos im nuukad is $\operatorname{dog}(\mathrm{pl})$ NEG have (HAB) 'I don't have dogs'
(185) kova uus-kar gigi hari NEG stick-INSTR hit (HAB) pitcher 'Don't hit the pitcher with the stick'

### 4.9.2. Interrogatives

In interrogative sentences, an interrogative or indefinite pronoun is used. In general, those indefinite pronouns are placed initially or after the subject pronoun.

$$
\begin{aligned}
& \text { (186) iktu' aap vui-him } \\
& \text { Q-word 2s do-CONT }
\end{aligned}
$$

The complete set of indefinite pronouns is provided in (188):
(188)

| iktu' | 'what' |
| :--- | :--- |
| iri | 'who' |
| t'ikig | 'how' |
| ibigi | 'where' |
| iktu'ig | 'why' |
| ikidig | 'when' |

Examples of other interrogative sentences are provided below.
(189) iktu aap vuih-im? Q-word 2s do-CONT
'What are you doing?'
(190) iri ga'i ga'ih-im? $Q$-word meat roast-CONT
'Who's roasting meat?'
(191) t'ikig aap duukig nuukad? $^{\prime}$ Q-word 2 s year have (IMPF) 'How old are you?'
(192) i'ikig aap maamar? Q-word 2s RDP-son 'How many kids do you have?'

```
(193) tubigi aap gi̇i
    Q-word 2s fell(PERF) aapi?
    'Where were you (PERF) 2
```

194) iktu'ig aap soak-im? Q-word 2s cry-CONT 'Why are you crying?'
(195) ikidig aap divi-hag? Q-word 2 s come-FUT
'When will you come?
In Yes-no questions the intonational contour changes, but sometimes the ending particle ahig 'too' is added.
(196) aap aag-im viv ahig? you like-CONT tobacco too 'Did you want tobacco, too?'
(197) aap a mo'o ko'ok ahig? you 3 s head hurt (IMPF) too 'Does your head hurt, too?

### 4.9.3. Imperatives

Imperative sentences have the second position suffix -in.
(198) biih-in g vatap catch-IMP ART fish 'Catch the fish!'
(199) am vuupih kup-in 2 s eyes close-IMF 'Close your eyes!'
(200) suudag-in ii'i
water-IMP drink
The second person subject is normally omitted, but for emphasis it could be retained:
(201) hias-an $g^{\prime}$ gogis, aapi
bury-IRR ART dog you
'Bury the dog, you!'
(202) aap-in ki $i k$

2 s-IMP stand up
'You, stand up!'
Negation in imperatives shows the emphatic negative particle kova 'don't' co-occuring with the suffix -in:
203) kova kuup-in am vuupih
don't close-IMP 2s eyes
'Don't close your eyes!'
(204) kov-in kis-ia gi naksili
don't-IMP step-PROB ART scorpion
'Don't step on the scorpion!'

## 5. Complex constructions

According to Estrada (1991), Mountain Pima has three different particles which function as connectives in complex clauses: the conjunction $k \dot{t} t$, the relativizer $k i k$ and the subordinator particle ko. In Estrada (1996) a fourth connective aitiktga is discussed. However, the language also uses several connectives taken from Spanish

### 5.1. Coordination

Two or more noun phrases, or two or more predicates, can be conjoined by the Pima Bajo particle kiti.
(205) Huan kiti Beniit si' titivad John and Benito INT tall (pl 'John and Benito are tall'
(206) Marii kiti Roos oidig-tam nonos

Mary and Rose town-LOC walk (PERF/pl) 'Mary and Rose walked to town

```
(207) in daada
ko'a is grandmother eat (IMPF) ga'i kiti naba 'My grandmother eats meat and and nopales
```

(208) Huan kav soi-gar muuk

John horse pet-POSS die(PERF) kiti g' Marii kav soi-gar 'John's horse died and Mary's horse ART Mary horse pet-POSS John's horse died and Mary's horse (also)
(209) aan in vakin-im kiti níi-im
1s is bath-CONT and sing-CONT

1s 1s bath-CONT and sing-CONT
'I am taking a bath and singing'
Pima Bajo also conjoins sentences and noun phrases by simply chaining (cf. Longacre, 1985).

```
(210) aan oob-kad no'ok duuk-ad no'ok
    1s Pima-with speak(IMPF) Spanish-with speak(IMPF)
    'I speak Pima and Spanish'
211) aan si' siahulin siv aan kosi
    1s INT tired now is lie(IMPF)
212) okis tieend-vui him-ia ga'i nial-ia
    woman store-DIR go-PROB meat buy-PROB
    'The woman will go to the store and will buy meat'
```

It is to be noticed that more complex coordinated constructions introduce Spanish conjunctions This is the case of adversative coordination.

```
(213) Hosee him-ia pero an im
    Joe go-PROB but is NEG
    Joe is leaving, but not me'
```

(214) aani ip apod pero an im hihig
is also can but is NEG want (IMPF)
' I could, but I don't want to'
(215) uus am tiihida-tad pero an im hig-an tree LOC climb-REM but 1 s NEG want-IRR 'I could have climbed the tree, but I didn't want to'
(216) huan im ko'okol is pero aani ahig
John NEG chile plant (PERF) but is John NEG chile plant (PERF) but is 'John didn't plant chile, but I did'
(217) aan nukat-kad himak kava per aan gagar
is have-REM one horse but is sell (PERF)
'I used to have a horse, but I sold it'
Disjunctive coordination pairs constructions introducing the Spanish conjunctions o 'or' if both conjuncts are possitives, and $n i$ 'neither' if are negatives.
(218) am kavalio tuko o toah?
2s(POS) horse black or white
'Is your horse black or white?'
(219) aan im mata ni asom gii Peiro Is NEG know (IMPF) nor how fell (PERF) Pete

However, there is a subordinating particle -- ko -- which behaves as a conjunction of contrast in same (220) and different (221) subject coordination.

```
(220) aan tikpaan-an ko-n im mait-ia
tikpaan-an is work-IRR ko-1s NEG saber-PROB trabajar-IRR
'I could work, but I don't know how'
```

(221) aap tikpaan-im ko-n aan titv-im

2 s work-CONT ko-1s is play-CONT
'You are working, but I am playing'

### 5.2. Relative Clause

Pima Bajo relative clauses are accomplished by suffixation. The verbal suffix $-k i k$ takes the place of other tense suffixes. Aspectual affixes, however, may be present (see (227)). In general, the relative clause is ordered after the head noun. In identical reference clauses the nominal could be freely omitted, but in switch reference or objective clauses a prefixed object pronominal occurs as subject.
(222) $\dot{\ddagger} \mathrm{g}$ kil giis-kik baamak DEM man fell-REL mad(PERF) 'The man that fell got mad'
(223) okosi in-niid-kik níki-im woman is (SUBJ)-see-REL sing-CONT 'The woman I saw was singing'

Relative clauses, however, do not need to be immediately adjacent to the head noun; in any case, the relativized verb will obey verb-final order.
(225) aan niir kil suspon gaagar-kik
Is see (PERF) man RDP-chicken look-REL
1s see (PERF) man RDP-chicken look-REL

```
```

```
(224) aat hug-ia supon kii-daam kia-kik
```

```
(224) aat hug-ia supon kii-daam kia-kik
    lpl eat-PROB chicken house-POSP be-REL
    lpl eat-PROB chicken house-POSP be-REL
    'We will eat the chicken that is in the house'
```

    'We will eat the chicken that is in the house'
    ```

Relative clauses may also be placed at the beginning of the main sentence
(226) \(\dot{\text { g }}\) kili am dah-kik Hosee higai DEM man LOC sit-REL José 3 s 'The man sits there; he is José'
(227) kav sa'i ko'i-im-kik ko'ok horse grass eat-CONT-REL sick(IMPF) 'The horse that is eating grass is sick'
228) higai am dah-kik higai Hose 3s LOC sit-REL 3 s José 'That one seated there is José'
or postposed; when this happens, the suffix \(-k \dot{k}\) is not used, and by the occurrence of the subordinator particle \(k(o)\), the relative clause looks more like an adjunct-like clause
(229) aan mua gogosi si'a \(k\) in-kii is kill(PERF) dog INT ko is (OBJ)-bit (PERF)
' I killed the dog that bit me'
(230) aan kii
\(\begin{array}{lll}\text { aan kii } & \text { gogosi si'a ko tuko } \\ \text { 1s kick(PERF) dog INT ko black }\end{array}\)
'I kicked the dog, the black one'
(231) nui aan niid ko daa
buzzard is see (PERF) ko fly (PERF)
'I saw the buzzard that flew'
As well as any other Uto-Aztecan language, Pima also distinguishes among subject and object relative clauses. In subject relative clauses, the subject of the relative clause co-referential with the head noun, may be omitted as in examples (222) and (224-227). In object relative clauses, the subject is marked as dependent by using a prefixed pronominal form (cf. (105) above) as in in-nïid-kik in example (223) and (232-234).
26) \(\dot{4}\) kili am dah-kik Hosee higai
    DEM man LOC sit-REL Jose 3s
'The man sits there; he is Jose'
horse grass eat-CONT-REL sick (IMPF)

\section*{sick'}
(233) \(1 i\) oob am-giv-kik in marad
    DIM person 2 s hit-REL is son
(234) gi'id g' siik in-mi'a-kik
    big DET deer 1 s kill-REL
    'The deer I killed is big'

Relative clauses may be also obtained by using the interrogative particle or pronoun aitiktga. In these type of clauses, switch reference use of pronominals does not show up.
```

(235) aan nukad vainom aita-kik ap in-hivig-id
1s have(IMPF) knife that-REL 2s is(OBJ)-lend-DTRVZ
'I have the knife you lent me'
(236) aan ki-tam nukad vainom aita-kik im ningar
ls house-POSP have(IMPF) knife that-REL NEG mine
'I have at home a knife which is not mine'
(237) ik kili mua gogosi aita-kiga in-kiik-im-tad
DET man kill(PERF) dog that-REL 1s(OBJ)-bit-CONT-REM
'The man killed the dog that was biting me'

```

\subsection*{5.3. Complement Clauses}

Clauses functioning as complements are obtained by using one of three different desiderative verbs: aagim, hihik and ilid. The object clause will be introduced by the subordinator ko. By means of those three lexical elements, Pima, as many other Uto-Aztecan languages, chooses between identical and different reference clauses. Clauses with different subjects are obtained by using the verbs aagim or hihikk.
```

(238) aan aag-im ko aap i'a kit-an
1s want(CONT) ko 2s there be-IRR
'I want you to stand up there'
(239) ig hihik ko-n huun hug-an
3s want (PERF) ko-1s corn eat-IRR
' 'He wanted me to eat corn'

```

Since the subject is not co-referential, it must be expressed in the subordinate clause. The subject could be either a reduced pronominal form as in (238), or a cliticized affix, like in (239). Such affix is characteristic of subordinated clauses in Pima, and it only cliticizes to the particle \(k o\).

In identical reference clauses, the inherently reflexive desiderative verb ilid 'to want' must
be used. In those clauses, the subject of the main clause -- an independent or reduced pronominal form is co-referential with the subject of the subordinate clause -- a prefixed pronominal form.
```

(240) aan supnaakar niali-hag in-ilid
1s egg
buy-FUT 1s want
'I want to buy eggs'

```
(241) aan im tikpaana-hag in-ilid 1 s NEG work-FUT is want
'I don't want to work'
(242) aap gook kav niali-hag am-ilid 2 s two horse buy-FUT 2 s want 'You want to buy two horses'
(243) aap si'ik gaag-an am-ilid 2s RDP:deer look for-IRR 2 s want 'You want to look for deer'

\subsection*{5.4. Adverbial Sentences}

In Pima, there are a number of different sentences introduced by the particle ko; complement clauses were illustrated in Section 5.3. In general, the particle ko can be combined with a subject marker giving as a result a switch reference particle. The use of the subject marker, however, is not obligatory and may be accompanied by another subject marker. The complete set of this type of subject markers combined with the particle ko are provided immediately.
(244) ko-n 1st person singular
ko-p 2nd person singular
ko-t 1st person plural
ko-pim 2nd person plural
ko 3rd person singular or plural
Any two clauses related by the particle ko will be considered subordinate clauses. If an event cause another, the causative relation is signaled by the order of clauses. The effect clause will be introduced by ko or by the Spanish loan word porque [porke] sometimes reduced to [pork].
(245) aan hiim-ia ko aan im tikpaan-im

1 s go-PROB ko 1 s NEG work-CONT
'I am leaving because I am not working'
246) aan tikpaan-im-tak si'a porke in-tomin viis huhog-va 1s work-CONT-REM INT SUBOR is-money all finish-COMPL 'I worked hard because all my money finished'
(247) ilgi'il si'a hulniok pork vakat boy INT tire(PERF) SUBOR stand-up-outside (PERF)
'The boy is tired because (he) was standing up outside'
A conditional or concessive relationship between two clauses is typically expresssed by subordination with ko or by using the particle timosa 'although'.
```

248) Peier im ab duv-an ko aan vuus ha'at aan a-vuah
Pete NEG DIR come-IRR SUBOR is all work is 3s-do(PRES
'When Pete doesn't come, I do all the work'
(249) aan tan an macheet ko aan niid-im
1s ask-IRR machete ko 1s see-CONT m
(250) aap ab duvi-an ko aan viinka
2s ADV come-IRR ko is to be with
'If you come, I will be your companion'
(251) aan am him-ia timosa dud-an
1s LOC go-PROB although rain-IRR
'I will go although it is raining'
(252) aan im nohod-ia timosa aap in-namki-an
1s NEG help-PROB although is 1s-pay-IRR
'I cannot help you although you will pay me'
```

It is however possible to obtain this kind of construction expressed without any explicit particles. In such expressions, the verbal suffix -ia will be obligatory within the if-clause, the subjunctive or irrealis suffix -an is optional in the second clause.
```

(253) aap am him-ia-di, am hoota-in
2s LOC go-PROB-POT LOC hurry-up-IMP
'If you are leaving, hurry up!'
(254) aap him-ia-di, tus-an tai
2s go-PROB-POT extinghish-IRR fire
'If you are leaving, turn off the fire
(255) him-ia iliad him-ia him-an
go-PROB want (IRR) go-PROB go-IRR
'If they want to leave, they could leave'

```

Final clauses are obtained either, by subordination with ko or the Spanish nexus para 'for' [pak] or para que [paké], or juxtaposition. The verbal suffixes -ia 'probability' and/or -an 'irrealis or
subjunctive' will occur in any case.
(256) aan am-aagd-ia ko aap maat-an
is 2 s -tell-PROB \(\operatorname{SUBOR}\) as mat-an
'I am telling you (it) for you to know it'
(257) Huan \(a b\) him
\(\begin{array}{llll}\text { Huan ab him pake ab kova niddia } \\ \text { John DIR go(PERF) } & \text { so-that DIR NEG(EMPH) }\end{array}\)
'John left, so you won't see (him)'
(258) Marii him

Mary go(PERF) am-kii-vui, kova am-niid-ia
'Mary went to your home, so (she) win' 2 s -see-PROB
(260) aan-in tisk-an, tuapad-ia dursin

1s-IMP clim-IRR lower-PROB peaches
'I will climb to lower some peaches'
Spanish colloquial expressions are as well employed to form subordinate clauses. An example is the sentence illustrated in (261), where the Spanish expression falta que [falta ke] -- closely equivalent in English to 'be probably' -- is used to subordinate clauses.
(261) vaapt-in am iikos falta ke dud-an
bring-in-IMP LOC clothes because rain-IRR
'Bring in those clothes because it will probably rain'
Temporal clauses expressing simultaneous or consecutive events are also obtained by using either, the particle ko or by juxtaposition. Examples of consecutive events are provided in (262) and (263), and simultaneous events in a (264).
(262) hose him-a kos-ia vitot apim ab dub-an ko
Joe go-FUT sleep-PROB just 2 s DIR come-IRR SUBOR
'John will sleep just till you come'
(263) aan ko'ok-d-an taata ko am vo'i

1s sick-POT-IRR feel (IMPF) SUBOR LOC lie down (PERF)
'I feel like sick, thus I lied down'
(264) kova in-oama
kuanda in-ko'i-m-d-an NEG (EMPH) is-bother(IMPF) while is-eat-CONT-POT-IRR 'Don't bother me while I am eating'
6. Text \({ }^{8}\)

The following text was elicited from Manuel Coronado in Yepachi, Chihuahua in 1991,

Igai vohi kiti movili
Idi himak kueent, vaigva akumirdad mo'or, ig ha'ata iahtaga. am tai vits ibig darat. tgai vohi kiti movili humai anaama'a am voi. tgai vohi 4 k ti' \(\mathrm{t}^{\prime} \mathrm{gh} \dot{\mathrm{g}} \mathrm{g}\) ik movili: masi tasi kig, movili, aapi am ho'oga hima? movili namo. aapi ai duniati matia. ha'i o'oga ani hima. igai vohi \(\ddagger k\) kaid. aiti'iko aapi si'i bamok di'ivait sivi? igai movili namo. an im maata si' an bamok di'tvait, pero aapi kova in tu'itki as an ho'oga himia, aani 'uban an nanta hima, hi'ikid an nuukad a'a, pake in buahkam viis ani avagmidkam, si' an bagartak kukuh as viis ha'ato doadkam, an im doadik ko im asu'o. kuandam ki'id dodaim asoskia mulia. ani ab i'i aha'ato komaram, tgaim, igaim in im maata, kak an am gahkam, ani si'i li'it. tgai vohia ab am kis huma'as 'o... 'ai ho'oga. aapi si li'it, aituuni duumagid gi'gid ha'at doakam? aapi mukon, paltia'am kiisin 'ooba huma huhut dah. igai movali namo: tumos ani si li'itu, pero aan si' bagardai, kova as doadka 'am gi'gíd ha'ato, gi'gíd ha'ato, \(\ddagger g a i\) vohi, ikai aita kova, duma kova at natia dumat geer. vui haskat gigid ha'at totpka. aapi va'iga 'am koknirai. ani ... va... am va'iga visidi movili dahipis kova si gid. at natia kova vusi oidiga matia. huma hihim. va'igiti igai. aigo va'ipid vohi gi'gid ha'at. igai movali va'ipid visida movili. am lailak tasa aiduusi geera sonta. visa vohi kokniahiva 'ob va'idia kuihim. tidada gigid ha'ato doakam komaram kikasa. 'a gigid 'ai duunia higam sa'a ki'iga-vina. komaram igai kiktiakik ... movali komaram. ga'a totkam im maata, aitiakubiin 'akopta. ̇gai aiho'og avopoti hukaitia. aati pima agimva geera. hukai movali dagitkat. si' gi'id siahuli gid si' gi'id suromdakat. ha'at doakam sulig vopok. si gi'id suromdakat.

\section*{Translation}

The Bear and the Flesh Fly
This is a story from long ago that runs in my mind, and it used to be narrated when everybody was around the fire.

A bear and a flesh fly met each other on the way. The bear told the fly:
"It looks like a good day, fly, where are you going? Do you know about something?"
"I am going by there" (answered the flesh fly).
The bear questioned him:
"Why are you so angry today?" He asked the fly.
"I really don't know if I am angry, and please don't ask me where I am going. I am going where I want to, because. I have wings, and I am going. I am going where I want to, because. I have wings, and
they can take me any place where I like. I am very brave, and I
\({ }^{8}\) This text will be published in Spanish in the Pima Bajo volume for the collection Archivo de Lenguas Indigenas de México.
shout at every animal. I don't fear anybody, and if I bite them, they will cry and run away. Then I can remain on their backs, and they won't even notice that I am there, because I am very small."
"If you are so small, how do you dominate big animals? other side. f a person hits you with dis you un can die if a person hits you with his nail.

The fly answered him:
afraid of any big creature or big, but I am also brave and I am not afraid of any big creature or big animal."
Then the bear asked him again: "Why don't we declare a war?
Let's make a war; all big animals would be willing to hit each other. Tomorrow you will fight here."
"I ... for sure ... will be with all other flies..."
t." It will be a big fight, we will do it and all the town will know

Then they both left, and went to bring other animals. The bear brought all big animals, and the fly brought all the flesh flies.
Early that day the war began. All the bears wanted to fight. people heard them roaring. And all the big animals were bitten on They were there with a lot
They were there with a lot of bites on their backs. They were bit... by the flies on their backs... They looked for them all scared, without even knowing where those who atacked them were. They ran everywhere.

We don't want the war now."
The flies left them alone.
It was a great shame, a very big sadness. All the big animals were Gloss
idi himak kueent vaigva akumirdad mo'or, ig ha'ata iahtaga DEM a story TEMP runs (REM) head DEM thing true
am tai vits tbig darat
LOC fire all LOC be(IMPF/pl)
tgai vohi kiti movili humai a
naama'a am voi DEM bear CONJ flesh fly then REFLX found (PERF) LOC camino
 DEM bear DEM direct-FUT DEM fly seems day good fly
aapi am ho'oga hima,
2 s LOC DIR go(FUT)
movili namo: aapi ai dun-ia-ti mat-ia
fly say(PERF) 2 s some do-PROB-EVI know-PROB
ha'i ho'oga ani hima
some DIR is go (FUT)

̇gai movili namo
3s fly ask (PERF)
an im mata si' an bamok di'tvait
1s NEG know(IMPF) INT is angry wake up (EVI)
\(\begin{array}{lllll}\text { pero aapi kova in tu'itki as an ho'oga him-ia } \\ \text { but } 2 \mathrm{~s} & \text { NEG is ask(IMPF) QUOT is DIR GO-PROB }\end{array}\)
aani 'uban an nanta hima
1s place 1s want (IMPF) go(FUT)
n'ikid an nuukad
\(a^{\prime} a\),
pake in buahkam
viis ani a
because is have(IMPF) wing(pl) so 1 s take (CONT) all 1 s 3 pl
like:DER
si' an bagartak kukuh as viis ha'ato doadkam
INT is brave (DER) shout (IMPF) QUOT all living things/animals
an im doadik ko im asu'o
is NEG fear (PERF) SUBOR NEG thing
kuandam ki'id dodaim a sosk-ia mulia when
bit (IMPF) living things 3 pl cry-PROB run(PROB/pl)
ani ab i'i a ha'ato komaram, igaim, igaim in im maata-kik 1s DIR LOC 3pl animals back(POSP) DEM DEM 1s NEG know-REL
an am gahkam, ani si'i li'it
1s LOC side(POSP) is INT small
łgai vohia ab am kís huma'as 'o... 'ai ho'oga DEM bear DIR LOC kick (PERF) then 'O... other side aapi si li'it aituuni duumagid \(\quad\) gi'gid ha'at doakam? INT small ooba humak huhut dah 2 s die-IRR few \(\quad\) step (IMP) person one nail be(HAB)
tgai movali namo:
DEM fly answer (PERF)
tumos ani si li'itu, pero aan si' bagard-ia
of course is INT small but is INT brave-PROB
kova as doadka 'am gígid ha'ato, gígid ha'ato NEG(ENF) QUOT fear(IMPF) LOC big(pl) things big(pl) creatures
igai vohi, \(4 k a i\) aita kova, duma
DEM bear DEM Wh-word NEG (ENF) do (FUT)
kova at nat-ia dumat geer-vui

NEG(ENF) 1 pl make-PROB do(IMPF) war-DIR
haskat
gigid ha'at
- totpka
hit (IMPF) big(pl) creatures fight (FUT)
aapi va'iga 'am koknirai
2 p tomorrow LOC fight (PROB)
ani ... va ... am va'iga visidi movili dahiti
1s/... COMPL LOC bring (FUT) all flesh flies be(EVI)
kova si gid at nat-ia kova vusi oidiga mat-ia
huma hihim va'igiti ikai
together go (CONT) bring(evi) DEM
aigo va'ipid vohi gi'gid ha'at
then bring (PERF) bear big(pl) creatures
\(\begin{array}{lll}\text { ̇gai movali va'ipid } & \text { visida movili } \\ \text { DEM fly bring(PERF) all flies }\end{array}\)
am lailak
am lailak tasa, aiduusi geera sonta
visa vohi kokn-ia-hi-va 'ob va'id-ia kuihim all bear fight-PROB-go-COMPL person call-PROB roar(CONT)
tidada gigid ha'ato doakam komar-am kikasa then big(ol) living things back-POSP bit (IMPF)
'a gígid 'ai duun-ia higam sa'a ki'igavina
3 s big 'ai do-PROB 3pl everywhere bits-with
komaram łgai kiktiakik ... movali komaram back-POSP DEM bit(APL/REL) fly back-POSP
ga'a totkam im maat-an
look(IMPF) scare NEG know-IRR
aitiak ubin 'a kopta
where place-IMP REFLX fight (IMPF)
Igai aiho'og 'a vopoti hukaitia
DEM all/places REFLX run(pl/EVI) everywhere
aati pima agim-va geera
1pl NEG want-COMPL war
hukai movali dagitkat
DEM flies leave (REM)
si' gi'id siahuli, gid si' gi'id suromdakat
\(\begin{array}{ll}\text { ha'at doakam suligg } & \text { vopok } \\ \text { living things fall (pl/PERF) } & \text { run( } \mathrm{pl} / \mathrm{PERF} \text { ) }\end{array}\)
si gi'id suromdakat
INT big sadness (REM)
Much remains to be said about the grammar of Pima Bajo, of course. This is a report of work in progress, offered at this point simply because little has yet been published of this important member of the Tepiman sub-family. The hope is ultimately to develop an adequate reference grammar for the language.

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\section*{Index}

0 . Introduction.
1. Phonemic Inventory. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3

1.2 Vowels . 4
1.3 Stress
2. Phonological processes
2.1 Consonants
2.2 Vowels . 6
2.3 Metathesis. . 7
3. Morphology.
3.1 Nouns12
3.2 Adjective ..... 12
4. Syntaxs17
.1 Noun Phrases ..... 17
4.2 Modifiers ..... 20
4.4 Personal pronouns ..... 21
4.5 Grammatical functions ..... 22
4.6 Postpositional Phrases ..... 26
Sentence Formation ..... 27
30
4.8 Particles: question particles, only, but, just, then, not again, more, very ..... 30
4.9.1 Negative Sentences ..... 30
4.9.2 Interrogative Sentence ..... 31 ..... 31
4.9.3 Imperative Sentences ..... 33
5. Complex constructions
33
33
5.1 Coordination ..... 35
5.2 Relative Clauses ..... 37
5.4 Adverbial Sentences ..... 38
41
6. Text ..... 46
Index ..... 48


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[^1]:    2 Most of the examples illustrated in this article are from my own, some others are taken from Hales's field notes and Escalante and Estrada (1993).
    ${ }^{3}$ In Spanish loanwords Pima shows four extrasystemic phonemes: the vowel e, and the consonants ch, f and $\tilde{\mathrm{n}}$.

[^2]:    5 The underlying form for 'eye' is vuih. After reduplication, the $/ \mathrm{u} /$ is deleted, as well as the $/ \mathrm{h} /$.

