Transformational Paradigms of Some Cocopa Sentence Types

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A. Introduction. This paper presents four of the basic clause-combining type sentences of Cocopa, a Yumán language of the Colorado River delta area of North America. The method of approach is that presented by David Thomas in his article entitled Transformational Paradigms From Clause Roots, Anthropological Linguistics, Jan. 1964. This method builds on clause roots, and states relationships in terms of tangible arrangements rather than ordered rules.

The paradigms following are incomplete and probably overlapping in some spots, but even in their rough forms they have already proved useful in generating correct Cocopa sentences. The formulas are correct for the example sentences given, but no claim is made beyond this point as there has not been sufficient time to check them with many other Cocopa roots.

1. General Characteristics. Affixation constants carry the major load of differentiating between Cocopa batteries. Word constants play a more minor role in this level of Cocopa grammar. Many of the constants are optional across paradigms and will be fully treated in a different set of batteries on the paragraph level.

Peripheral elements such as location, manner, and time (where not a distinctive feature of a sentence type) are not treated in this paper. Such peripheral elements could be added to any of these sentence types.

All phonologically bound morphemes are written with a hyphen.

2. Constants. The following constants occur in the batteries:

k-....-k 'Discontinuous imperative (reduced form).'
l-....-m 'Discontinuous negative (reduced form).'
l-....-m laax 'Discontinuous negative (full form).'
ñam 'and then'
laax 'to be not'
ñlaax 'if not'
laaxia 'then not'
xan 'very'
mich 'a particle we have not yet been able to determine the meaning of'
ñakur 'a long time'
tumink-wamak 'week-next'
mapill 'now'  There are may other time words which may occur in the slots filled by ŭakur or mapill:

- matkaam-wamak 'year-next'
- cheeňam 'night'
- cheeňar 'yesterday'
- asuu 'later'

are only a few examples.

- ŭ- 'too, also'. This constant may be inserted into any sentence in these batteries. It occurs immediately prior to the tense suffix of the verb.
- m 'dependent clause: tense past' indicator suffix. It is attached to a verb preceding the verb with -ch suffix.
- ch 'independent clause: tense past' indicator suffix. This suffix is also commonly used as a co-ordinate connection marker between clauses or between verbs within a clause. Verb 1 -ch, Verb 2 -ch, Verb 3 -ch(a)
- k 'dependent clause: intentive or tense future' indicator suffix; attached to verb or verbs preceding a verb attaching sentence final intentive -x. This suffix is also used as a co-ordinate connection marker between verbs within a clause where the final verb is suffixed by -x.
- x 'independent clause:intentive or tense future' indicator suffix.

-nil- 'if, then, after'. If the negative discontinuous morpheme l...m occurs, this prefix will precede the l- which in turn precedes the verb root.

-s 'but', or interruptive suffix occurring either on a main or aspectual helping verb.

-s-a These suffixes are all represented in the conditional battery as belonging to the ich class -s. Their function is to provide stress finish to a sentence. Informants differ as to which are the stronger stress indicators and which are weaker. # indicates zero morpheme. Vh indicates helping verb (aspectual).

-i 'question' This suffix may follow the imperative -k, (sentence finally), or the intentive -x, or the dependent -m. *See Dependent-Independent battery.

The following constants are combinations of morphemes belonging to a lower level analysis. By combining them they take on function-semantic roles applicable to this grammatical level.

- km 'intentive dependent'
- xm 'might'
- xms 'a very strong intention'
- chs This suffix indicates a finish to a sentence combined with a personal witness of involvement.
- ees 'it is so, but'
3. Conditional Battery. This battery is characterized by the presence of either:
   a. n- \( Vc \) -km, (or else \( Vc \) -km,)
   b. \( Vc \) -ks

There are five different formulas in this battery, each with several minor variations, each containing the verb p'aa 'rain' and the verb spa 'I go out'. \( Vc \) in the formulas will represent conditional verb. \( Vr \) will represent result verb. \( Vh \) will represent helping verb (aspectual). \# will represent a zero morpheme, and so throughout the paper. \{ \} will represent the class of which the enclosed is the arbitrarily chosen representative. \{s\} class consists of:

- \# 2nd weak
- a weakest
- s 2nd strong
- chs strong
- ich 3rd weakest
- \#, Vh -chs strongest

\( Vh \) class consists of:

- p'aa be standing
- yawya right there (limited distribution)
- illlee think
- payaa be there close ('"'
- puyaa be there more distant ('"')

3.1 Sentences of the General Type:

\( SC_1 \) \((\tilde{\alpha}- Vc \) -km, \( Vr \) \( x \) \)

3.1.a Simple Expectation I

\( \tilde{\alpha}p'aakm \) spax \((\tilde{\alpha}- Vc \) -km, \( Vr \) -x\{s\},\)

If it rains-future dependant I go out-future-stress
If it rains, I'll go out.

other examples:

\( \tilde{\alpha}p'aakm \) spax
If it rains, I'll go out.

\( \tilde{\alpha}p'aakm \) spaxa
If it rains, I'll go out.

\( \tilde{\alpha}p'aakm \) spax ich
If it rains, I'll go out.

\( \tilde{\alpha}p'aakm \) spaxich
If it rains, I'll go out.

\( \tilde{\alpha}p'aakm \) spaxich
If it rains, I'll go out.

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3.1.b Simple Expectation II

\[ \text{唇} \text{- 河} \text{p'acha} \text{h} \text{(a)} \] 
if-rains-future dependant I go out- future I stand- stress  
If it rains, I'll go out.

3.1.c Possible expectation (might)

\[ \text{唇} \text{- 河} \text{p'axm puya} \text{h} \text{s} \] 
if-rains-future dependant I go out-might there- its sitting-strong  
If it rains, I might (want to) go out.

3.1.d Past possible-negative result

\[ \text{唇} \text{- 河} \text{p'axm puya} \text{h} \text{laax} \] 
if-rains-future dependant I go out-might there-it's sitting-but not stress  
If it had rained, I could have gone out, but I didn't.

3.1.e Strong intention

\[ \text{唇} \text{- 河} \text{p'axm} \text{h} \text{- 河} \text{- p'axm puya} \text{h} \text{laax} \text{laax} \] 
If-rains-future dependant I go out-am going to when it rains, I'm going to go out.

3.2 Conditional Commands. Sentences of the general type:

\[ \text{Sc}_2 \] 

3.2.a Conditional Command I

\[ \text{唇} \text{- 河} \text{p'axm kspak} \text{h} \text{- 河} \text{- k} \] 
if-rains-future dependant go out  
If it rains, go out!

3.2.b Conditional Command Suggestion

\[ \text{唇} \text{- 河} \text{p'axm kspaki} \text{h} \text{- 河} \text{- k-i} \] 
if-rains-future dependant go out!-question  
If it rains, why don't you go out.

3.2.c Conditional Command II

\[ \text{唇} \text{- 河} \text{p'axm kspak f'laax laaxia} \] 
if-rains-future dependant go out if-not don't  
If it rains, go out! If not, don't.

3.3 Sentences without "唇" - if

\[ \text{Sc}_3 \] 

*\{s\} in this type consists only of:

- #
- a
- s
3.3.a Simple Expectation 3
\[ p'aakm \ spax \langle Vc \ -k, Vr \ -n \ -x \ -a, \rangle \]
rains-when-dependant I go out too will
If/When it rains, I'll go out, too.

3.3.b Continuative Condition, simple expectation
\[ p'aak \ ñwayaakm \ spax \ p'aachs \langle Vc \ -k, n- \ Vh \ -km, Vr \ -x, \ Vh \ -chs(a) \rangle \]
rains-future if-it's around-future dependant I go out-
future I stand-stress
If it keeps on raining, I'm going to go out.

3.4 Non-future
\[ Sc_4 \ \ h-(1-)* \ Vc \ -m, \]
\[ rl- \ laax \ -km, Vr \ -x \]
\[ #, Vh (-chs), ich, Vh --chs \]
*(1-) optionally allowed only when 'ñlaaxkm' occurs.
*(s) optionally allowed only when nothing follows.

3.4.a Condition past fact
\[ ñp'aam \ spachs \langle h- \ Vc \ -m, Vr \ -chs \rangle \]
when-rain-dependant past I went out-stress
When it rained, I went out.

3.4.b Conditional continual fact
\[ ñp'aam \ spach \ chwayaach \langle h- \ Vc \ -m, Vr \ -ch, ch- \ Vh \ -ch \rangle \]
if-rain-dependant past I go out? always-past
I always go out if it rains.

3.4.c Alternative conditions
\[ ñp'aam \ spach \ ñlaax \ laax \langle h- \ Vc \ -m, Vr-ch, ñlaax \ laax \rangle \]
if-rain-dependant i-go out? if-not be not be
I go out if it rains, if it doesn't, I don't.

3.4.d Negative condition- positive result I
\[ ñp'aam \ ñlaaxkm \ spax \langle h- \ Vc \ -m, ñ-laax-km, Vr \ -x \rangle \]
if-rain-dependant if-not-future dependant I-go out-future
If it doesn't rain I'll go out.

3.4.e Negative condition - positive result II
\[ ñp'aam \ ñlaaxkm \ spax \ p'aachs \langle h- \ Vc \ -m, ñ-laax-km, \ Vr \ -x, \ Vh-chs \rangle \]
if-rain-dependant if-not-future-dependant I- go out-future
I stand-stress
If it doesn't rain, I'll go out.

3.4.f Negative condition- positive result III
\[ ñlp'aam \ ñlaaxkm \ spax \ ich \ p'aachs \langle ñ-l- \ Vc \ -m, ñ-laax-km, \ Vr-x, ich, Vh -chs \rangle \]
if-not-rain-dependant if-not-future dependant I-go out-future
I say I stand
If it doesn't rain, I'll go out.
3.5 Contrary to Fact Conditions

\( Sc_5 \quad Vc \text{-}k-s, \quad Vr \text{-}x-a, \quad \frac{x(a)}{x_m, \quad Vh \text{-}s, \quad laax(chs)} \)

-ax,mich,laaxchs
-ax,mich,laaxms
laax, mich, laax, Vh -chs(a)
laax, xan, mich, laax-chs

3.5.a Contrary to fact condition-result

\( p'aak\, spaxa \quad \langle Vc \text{-}k-s, \quad Vr \text{-}x-a \rangle \)

\( \text{rain-but I-go out- future-stress} \)

If it had rained, I would have gone out.

3.5.b Contrary to fact condition- negative result I

\( p'aak\, spaxm \quad puyaas \quad laax \quad \langle Vc \text{-}k-s, \quad Vr \text{-}x-m, \quad Vh \text{-}s, \quad laax \rangle \)

\( \text{rain-but I go out-might it's there-but not} \)

I would go if it rained but it didn't.

3.5.c Continual contrary to fact condition- negative result I

\( p'aak\, spaxm \quad puyaas \quad laax \quad xan \quad mich \quad laaxchs \)

\( \langle Vc \text{-}k-s, \quad Vr \text{-}x-m, \quad Vh \text{-}s, \quad laax, xan, mich, laax-chs \rangle \)

\( \text{rain-but I-go-out-might it's here-but not very?} \)

\( \text{not-witness-stress} \)

I would go out if it rained, but it never does, so I don't.

3.5.d Contrary to fact condition- negative result II

\( p'aak\, spaxm \quad puyaas \quad laax \quad xan \quad mich \quad laaxchs \)

\( \langle Vc \text{-}k-s, \quad Vr \text{-}x-m, \quad Vh \text{-}s, \quad laax, xan, mich, laax, Vh-chs \rangle \)

\( \text{rain-but I-go-might it's there-but not?} \)

\( \text{not-it's here-witness-stress} \)

If it were raining I would have gone out, but it isn't so I'm not.

3.5.e Contrary to fact condition- negative-result III

\( p'aak\, spaxm \quad puyaas \quad laax \quad mich \quad laaxchs \)

\( \langle Vc \text{-}k-s, \quad Vr \text{-}x-m, \quad Vh \text{-}s, \quad laax, mich, laax-chs \rangle \)

\( \text{rain-but I-go out-might it's here-but not?} \)

\( \text{not-witness-stress} \)

If it had rained I would go out, but it didn't.

3.5.f Contrary to fact condition- negative result IV

\( p'aak\, spaxm \quad puyaas \quad laax \quad mich \quad laaxms \)

\( \langle Vc \text{-}k-s, \quad Vr \text{-}x-m, \quad Vh \text{-}s, \quad laax, mich, laaxms \rangle \)

\( \text{rain-but I-go out-might it's here-but not?} \)

\( \text{not-witness-stress} \)

If it had rained I would go out, but it didn't.

4. Co-ordinate Battery. This battery is characterized by no special morphemes and shows how two independant sentences may be conjoined in Cocopa. pees shuchuch/ 'He got the money, skwin

\( \text{shusach/ 'he put it in the cup. N stands for noun, V for verb.} \)

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Independent clause, Independent clause

a. peesspin shuchuch, skwin ±±usach.
   money-demonstrative-object he-gets-past-tense cup in-he-
   puts-past-tense
   He got the money and put it in the cup
   〈N -piñ, V-ch, N, (locative) V-ch〉

b. peesspin shuchuch, skwinpi±± ±±usach wayaa
   money-demonstrative-object he-gets-past tense cup-demonstrative
   locative 'in' locative 'kn' he puts-past-tense he's-around
   He's getting the money and putting it in the cup
   〈N -piñ, V-ch, N -(piñh), (locative-)V -ch, Vh〉

Caution: When expressing a future intention the first independent
clause takes on a final -k (dependent) suffix, showing it may well
belong in another sentence type of the battery.

pees shuchuk, skwiñ ±±usax
money he get-future dependent cup in-he put-future
He'll get the money and put it in another cup.
  〈N, V-k, N, locative- V -x〉

5. Dependent-Independent

The Dependent-Independent Battery is characterized by the
presence of either -m or -k attached finally to the verb of the
dependent clause. -m indicates past tense of the dependent verb.
-k indicates future tense or intention of the dependent verb.
Where -k* is the dependent suffix, the main verb of the Independent
clause will end in -x. Where -m is the dependent suffix, the main
verb(s) of the Independent clause will end in -ch+

* several verbs in a series may end in -k until the
   final main verb will end in -x.
+ several verbs in a series may end in -ch, but not
   in -m.

5.1 Dependent Clause -m/-k, Independent clause

5.1.a lmintaan sawam, awkupcha
   window there-sitting-dependent past she-open-past tense-
   stress she opened the window that was there
   〈N, V -m, V-cha〉 or 〈Dep.Cl, -m, 2nd Cl, -cha〉

5.1.b aruveel sumaapk, wak taawl shuchux
   car he-borrow-future-dependent he go-future board he-get-
   future
   He'll borrow a car to go get some boards.
   〈N, V -k, V-k, N, V-x〉

This sentence type may be reversed, though some informants say it
doesn't always sound as good.

5.2 Independent Clause, Dependent Clause -m/-k

5.2.a wa±, (±±)uxapm paweechs
   yes, (in-) he go-dependent past him-I see-past-stress-
   witness
   Yes, I saw him go (in).
   〈(Vocative), locative-V -m, Object -V -chs〉
5.2.b wa±, paweechs uxapm
yes him-I see, -past stress he go-past dependent
Yes, I saw him go.
⟨(Vocative), Object-V -ch§, V -m⟩

5.3 This sentence type can be extended into a series of Dependent Clause, Independent Clause forms. Compare a. and b. below.

5.3.a cha'uur sawam uyaach sxwing u'ach
chair there-sitting-dependent he-gets-past tense it-moves
he does-past tense
He got the chair there and moved it.
⟨N, V -m, V -ch, V, Vh -ch⟩

5.3.b cha'uur sawam uyaach sxwing u'am peesch kway±±
±±uwach puwan uyaach u'as
chair there-sitting-dependent past-he get-past independent move he-do-dependent money-subject locative-locative sitting-past independent locative sitting-dependent past he-gets-past independent he-does-stress
He got the chair there and moved it and under it sitting just there was the money which he got.
⟨N, V -m, V -ch, V, Vh -m, N, locative -±±, ±±-V -ch, locative-V -m, V -ch, Vh -s⟩

6. Contrastive Battery. This battery is characterized by one of the following:
   a. s suffix attached to main verb
   b. class ees consisting of ees
   yus
   c. two time words, each of which initiates its clause, and each of which presupposes the other time word.

6.1 (time), Dependent Clause -s, (time), Independent Clause
   a. ŋakur xañ rars mapill laax (xañ) p'aachs
long time very I work-but now not (very) I-stand-witness-stress
I used to work, but now I'm not.
⟨time, xañ, V -s, time, laax, xañ, Vh -chs⟩

   b. ŋakur xañ rars mapill laaxm p'aachs
long time very I work-but now not I stand- witness stress
I used to work but now I'm not going to.
⟨time, xañ, V -s, time, laaxm, Vh -chs⟩

   c. ŋakur xañ rars mapill lrarmx p'aachs
long time very I work-but now negative-I work-negative-future I stand- witness stress
I used to work, but now I don't work.
⟨time, xañ, V -s, time, negative-V-negative-x, Vh -chs⟩

6.2 Independent Clause, Vh-s Independent Clause
   a. ŋawee rarx ich ees mapill laaxm p'aachs
something I work-intend I say it's so-but now not-? I stand
I want to work, but I can't now.
⟨N, V -x, Vh, Vh -s time, laaxm, Vh -chs⟩
b. ŋawee rarx ich eeg mapill laax xañ mich p'aachs
something I work-intend I say it's so—but not very? I stand
I want to work but there's nothing to work.
<N, V -x, Vh, Vh -e, time, laax, xañ, mich, Vh -chs>

c. ŋawee rarx ich eeg mapill laax mich laaxm p'aachs
something I work-intend I say it's so—but not? not—?
I stand
I want to work but there's nothing to work.
<N, V -x, Vh, Vh -e, time, laax, mich, laaxm, Vh -chs>

6.3 time, Independent Clause, time, Independent Clause

a. tumink-wamak rarx, mapill l'uyx
week next I work-intend now I play-intend
next week I'll work, but now I'll play.
<Time, V -x, Time, V -x>

b. tumink-wamak rarx, mapill laax
week next I work-intend now not
Next week, I'll work but I'm not going to now.
<Time, V -x, Time, laax.>

6.4 Comparative type contrastive battery

Independent Clause, yuuch ixañ, Independent linked Clause
(short)

a. ayaa (u)peech kush yuut ixañ, suuch laax
tree this tall more very that not be
This tree is taller than that one.

2nd Clause, 2nd short linked Clause, yuuch ixañ

b. ayaa usuuch lñchash, upeech kush yuuch ixañ.
tree that little this tall more very
This tree is taller than that one.