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Some Cocopa clause batteries

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A. Introduction. This paper presents several of the basic clause types of the Cocopa language. The same method of analysis is used as in the previous paper entitled 'Transformational Paradigms of some Cocopa Sentence Types'.

The batteries in this paper are most likely incomplete. Field work in the year ahead should fill in many of the blank spots; and perhaps produce new battery types as well.

The next step beyond this point would be a careful examining of the constants which occur in more than one battery to see if their use and form is predictable. This would set up a class of battery multipliers, reducing considerably the number of formulas in the larger batteries. In particular I'm thinking of:

weeyawp... 'it shows' (includes yuuyawp)
-ńchaam... 'this time'
innaam xañ... 'much, very'
mmaamxg... 'always'
mulay... 'he doesn't know how'
mupar... 'he knows how'

But at present I do not feel there is sufficient data to predict when these can occur and when they cannot, and with which affixes, without several more days of field work.

As in the previous paper too, the formulas are correct for the sample clause given, but no claims are made beyond this point. Other verb-like words, some listed at the conclusion of the formulas of a battery, others still secluded in my notebook, have certain restrictions (probably semantic ones). They will take most of the formulas, but not all, and there has been time to spot check only a few of them thus far.
Once again, peripheral elements are omitted from the formulas. All phonologically bound morpheme constants are written with a hyphen.

My thanks go to Lorna Thomas Wilson, who has faithfully taught me her language for the past nine weeks. And also to David Thomas for providing both the method of study and constant encouragement through the summer.

B. Abbreviations. Abbreviations used in this paper are:

Csd ... caused
Csr ... causer
*d.n.... discontinuous negative
f.d.... future tense dependent sequential
f.sq.... future tense sequential; indefinite 'be so'
i.f.... indefinite reference
o.f.... object focus
p.d.... past tense dependent
p.sq.... past tense sequential
s.f.... subject focus
t.v.... transitive verb

Note: Items in parenthesis are optional. Items marked {} indicate a class of constants.

1. Identification Battery

1.1 The Identification Battery type 'A' consists of:

1. ⟨Item, -cha⟩ Simple Assertion
   stuuvcha.
   stove,-assertion.
   It is a stove.

2. ⟨Item, -ch, yum, -pa⟩ Strong Assertion
   stuuvch yumpa
   stove,-it is, it's so,-emphatic
   It is a stove.

3. ⟨Item, luvum, -ch⟩ Simple Negation
   stuuv luvumch.
   stove, not be so, -assertion.
   It is not a stove.

*The discontinuous negative occurs preceding and following the verb root plus personal pronoun prefixes. In this paper though it has been indicated as a.n. prior to the main verb only in the example sentence divided up for morphemes. But it has been indicated as 1...m following the main verb in the formulas.
4. <Item, luyum, -ch, in, -pa> Strong Negation
   stuuv luyumch inpa.
   stove, not be so, -assertion, I say too, -emphatic.
   It is not a stove I say.

5. <Item, -ch, yum, -question intonation> Yes/no Question
   stuuvch yum?
   stove, -assertion, be so, -question.
   Is it a stove?

6. <Item, pronoun of possession, -ch> Simple Possession
   stuuv na'isch
   stove, me belongs, -assertion.
   The stove belongs to me.

7. <Item, pronoun of possession, -ch, yum, -pa> Strong Possession
   stuuv na'isch yumpa
   stove, me belongs, -assertion, it's so, -emphatic
   The stove is mine.

8. <Item, pronoun of possession, luyum> Negative Possession
   stuuv a'is luyum
   stove, me belongs, not be so
   The stove isn't mine.

9. <Item, pronoun of possession, luyum, -pa> Negative Strong Possession
   stuuv a'is luyumpa.
   stove, me belongs, not be so, -emphatic
   It isn't my stove.

10. <Item, pronoun of possession, -ch, yum, question intonation>
    stuuv na'isch yum?
    Possession Question
    stove, me belongs, -assertion, it's so, -question?
    Is it my stove?

11. <Indefinite Pronoun, Item, 3rd pronoun of possession, -ch, yum, question intonation>
    maken stuuv na'isch yum?
    whose, stove, him belongs, -assertion, it's so, whose stove is it?
    -question?

12. <Item, pronoun of possession, -ch, yug, -pa> Contrastive
    stuuv na'isch yug maam laax.
    stove, me belong, -assertion, it's so -but now not be.
    That was my stove but now it isn't.

13. <Item, pronoun of possession, -ch, yuka, -pa> Contrastive
    stuuv na'isch yuka neeraarx.
    stove, me belongs, -assertion, be so future -but I work it -intend.
    If it were my stove I'd work on it.

1.2 The Identification Battery type 'B' consists of:

1. <Title, -ch, uyum, -pa>
   kwapach uyumpa.
   Cocopa, -assertion, he be so, -emphatic.
   He is a Cocopa.
2. \( \langle \text{Title, -ch, uyum, question intonation} \rangle \) Question
   kwapach uyum?
   Cocopa, -assertion, he be so, -question?
   Is he a Cocopa?

3. \( \langle \text{Title, -ch, uyum, -ch, uyun, -pa} \rangle \) Negation
   kwapach uyumch uyunpa.
   Cocopa, -assertion, not he be so, -assertion, he be so,
   he isn't a Cocopa. -emphatic.

At present it seems only names of inanimate articles may
occur in the Item slot of Battery 'A'. Only terms for animate
beings may occur in the Title slot of Battery 'B'. Further field
work may result in grouping Batteries 'A' and 'B' together.

Note: luyum... 'not be so' has been left undissected in the
formulas (and so throughout the paper) though it consists of:

1...m 'discontinuous negative'
    u - yu 'he/it be so.'

mainly because the problem of morphophonemic alternation has not
yet been thoroughly studied, to know when the u- preceding the yu
may be omitted.

2. Descriptive Battery.

A1. \( \langle \text{Item, (-pich), Description} \rangle \) Simple
    mat (-pich) xay.
    ground, -(s.f.), wet
    The ground is wet.

A2. \( \langle \text{Item, Description, -chs} \rangle \) Assertion Stress
    mat xaychs.
    ground, wet, -assertion stress
    The ground is wet.

A3. \( \langle \text{Item, Description, lu...m, -chs} \rangle \) Negation_1
    mat luxaymchs.
    ground, d.n. wet, -assertion stress
    The ground isn't wet.

A4. \( \langle \text{Item, Description, lu...m, laax} \rangle \) Negation_2
    mat luxaymlaax.
    ground, d.n. wet, not be so
    The ground isn't wet.

A5. \( \langle \text{Item, Description, lu...m, laax, -chs} \rangle \) Negation_3
    mat luxaymlaaxchs.
    ground, d.n. wet, not be so, -assertion stress
    The ground isn't wet.
A6. $\langle$Item, Description, -m, laax, -ch$\rangle$ Zeroed 'l'
mat xaym laaxch$\alpha$.
Negation
ground, wet d.n., not be so, -assertion stress
The ground isn't wet.

A7. $\langle$Item, Description, Question force, -a$\rangle$ Question
mat xay-a$\gamma$
ground, wet, -question?
Is the ground wet?

A8. $\langle$Item, Description, -ch, yum, -question intonation$\rangle$
mat xaych yum?
Question
ground, wet, -assertion, be so, -question?
Is the ground wet?

A9. $\langle$Item, Description, kayu, -question intonation$\rangle$
mat xay kayu?
Question
ground, wet, indefinite be so?
Is the ground wet (do you know)?

A10. $\langle$Item, -pich, Description, -nchaam, -ch$\rangle$ 'this time'
matpich xaynchaamch$\alpha$.
ground, -subject focus, wet, -this time, -assertion
stress.
The ground is wet this time (finally!).

A11. $\langle$Item, -pich, Description, lu...m, -chaam, -ch$\rangle$
matpich luxaymchaamch$\alpha$.
ground, -s.f., d.n., -wet, -this time, -assertion
stress
The ground is not wet this time (finally!).

A12. $\langle$Item, -pich, Description, -nchaam, question force, -a$\rangle$ 'this time?'
matpich xaynchaam-a?
'question'
ground, -subject focus, wet, -this time, -question?
Is the ground wet this time (finally)?

A13. $\langle$Item, -pich, Description, -nchaam, kayu, question intonation$\rangle$ 'this time?'
matpich xaynchaam kayu?
'question'
ground, -subject focus, wet, -this time, indefinite
be so?
Is the ground wet this time (do you know)?

A14. $\langle$Item, Description, -ch...$\rangle$ Sequential
mat xaych... eerux-a?
ground, wet, -p.sq...
when the ground is wet is it slippery?

A15. $\langle$Item, Description, -m...$\rangle$ Dependent Change of Subject
mat xaym... matli mpam-a?
ground, wet, -p.d...
when the ground was wet... did you fall?

A16. $\langle$Item, Description, -s...$\rangle$ Contrastive
mat xays mapill s'aar-a?
ground, wet, -but, now dry-question?
Was the ground wet, but dry now?
mat xays sayuks spaxs.
ground, wet, -but, the way it is, -but, I go out,
-intend stress.
The ground is wet but I'm going out anyway.
A17. (Item, Description, -ch, weeyawp) Visible Statement mat xay ch weeyawp.
ground, wet, -assertion, 'it shows'
The ground is wet (it shows).

A18. (Item, Description, weeyawp, -ch, yum, question Intonation) mat xay weeyawp ch yum?
ground, wet, it shows, -assertion, be so, -question?
Does it show that the ground is wet?

A19. (Item, Description, weeyawp, question force, -a) mat xay weeyawp a?
ground, wet, it shows, -question?
Does it show that the ground is wet?

A20. (Item, description, weeyawp, kayu, question intonation) mat xay weeyawp kayu?
ground, wet, it shows, indefinite be so?
Does it show that the ground is wet?

A21. (Item, (-pich), Description, -k, luyum, xan) 'Never'
mat pich xayk luyum xan.
ground, (s.f.), wet, -f.sq., not be so, very
The ground is never wet.

A22. (Item, (-pich), Description, chuyak, xan) 'Always'
mat pich xay chuyak xan.
ground, (-subject focus), wet, stay-lying, very
The ground is always wet.

A23. (Item, (-pich), nach, iyyaam, Description) 'Sometimes'
mat pich nach iyyaam xay.
ground, (-subject focus), day, -sometimes, wet.
The ground is sometimes wet.

A24. (Item, (-pich), Description, -ch, yum, -pa) Emphasis1 mat pich xay ch yum pa.
ground, (-subject focus), wet, -assertion, be so,
The ground is w-e-t. (disgust?) -emphatic

A25. (Item, (-pich), Description, xan) Emphasis2 mat pich xay xan.
ground, (-subject focus), wet, very.
The ground is real wet.

A26. (Item, (-pich), Description, iñaam, xan) Intensive Emphasis mat pich xay iñaam xan.
ground, (-subject focus), wet, much, very.
The ground is really really wet. (too wet)

Examples of other verbs occurring in this battery are:

\[\text{ seemirq ... 'slippery' }\]
\[\text{xwat ... 'red' }\]
\[\text{ā'aar ... 'dry' }\]
\[\text{shax ... 'stink' }\]
2.2 Descriptive Battery Type 'B' consists of:

B1. \langle \text{Actor}, \{-pich\}, \text{Action} \rangle

Simple

Spri mat kuman.
Spri, ground he gets up (runs).
Spri runs.

B2. \langle \text{Actor}, \{-pich\}, \text{Action}, -x \rangle

Simple Expectation

Spri mat kumanx
Spri, ground he run, -intend
Spri will run.

B3. \langle \text{Actor}, \{-pich\}, \text{Action}, -ch, uyus \rangle

Assertive

Spri mat kumanch uyus.
Spri, subject, he run, -completive or assertive, he
Spri ran.

B4. \langle \text{Actor}, \{-pich\}, \text{Action}, l\ldots m, -chs \rangle

Negation\textsubscript{1}

Spri mat l\ldots mchx.

B5. \langle \text{Actor}, \{-pich\}, \text{Action}, l\ldots m, laax \rangle

Negation\textsubscript{2}

Spri mat l\ldots mmchx.
Spri, d.n. he run, not be so
Spri didn't run.

B6. \langle \text{Actor}, \{-pich\}, \text{Action}, l\ldots m, laax, -chs \rangle

Negation\textsubscript{3}

Spri mat l\ldots mmchx.
Spri, d.n. he run, not be so, -assertion stress
Spri didn't run.

B7. \langle \text{Actor}, \{-pich\}, \text{Action}, l\ldots m, laax, -ch, uyus \rangle

Negation\textsubscript{4}

Spri mat l\ldots mmchx uyus.
Spri, d.n. he run, not be so, -assertion, he-be so-
Spri didn't run.

B8. \langle \text{Actor}, \{-pich\}, \text{Action}, \text{question force}, -a \rangle

Question\textsubscript{1}

Spri mat kuman-a?
Spri, he run, -question
Did Spri run?

B9. \langle \text{Actor}, \{-pich\}, \text{Action}, -ch, uyum, \text{question intonation} \rangle

Question\textsubscript{2}

Spri mat kumanch uyum?
Spri, he run, he be so, -question
Did Spri run?

B10. \langle \text{Actor}, \{-pich\}, \text{Action}, -chaam, -ch, uyus \rangle

'this time'

Spri mat kumanchaamch uyus.
Spri, he run, -this time, -assertion, he be so-stress
Spri ran this time.

B11. \langle \text{Actor}, \{-pich\}, \text{Action}, l\ldots m, -chaam, -ch, uyus \rangle

'not this time'

Spri mat l\ldots mmchaamch uyus.
Spri, d.n. he run, -this time, -assertion, he be so-
Spri didn't run this time.

B12. \langle \text{Actor}, \{-pich\}, \text{Action}, ŋchaam, \text{question force}, -a \rangle

'this time?'

Spri mat kumanŋchaam-a?
Spri, he run, -this time, -question
Did Spri run this time?
B13. ⟨Actor {-pich}, Action, -ch...⟩ Sequential
Sprich mat kuman...uraw-a?
Spri, he run, -assertion...he fast, -question
Does Spri run fast enough?

B14. ⟨Actor, {-pich}, ñ-, action, -m...ichs⟩ Dependent Change of Subject Past
Sprich mat ñkumanm...mat kman ichs
Spri, when, -he run, -p.d.,...I run...,I say-assertion stress.
When Spri ran, I ran (too).

B15. ⟨Actor, {-pich}, Action, -a...⟩ Contrastive
Sprich mat kuman...Ipaweemschs.
Spri, he ran, -but...d.n. him I say-assertion stress.
Spri ran but I didn't see him.

B16. ⟨Actor, {-pich}, Action, -km...⟩ Dependent Change of Subject Future
Sprich mat kumankm...Tom mak weex.
Spri, he run, -when...Tom, behind next, I see-intentive.
When Spri runs, Tom will be next, behind.

B17. ⟨Actor, {-pich}, Action, -xm, pu'aa⟩ 'Might'
Sprich mat kumanxm pu'aa.
Spri, run, he might, he stand.
Spri is about to run.

B18. ⟨Actor, {-pich}, Action, -xm, pu'aa, question force, -a⟩ 'Might' Question
Sprich mat kumanxm pu'aa-a?
Spri, he run, -might, he stand, -question?
Is Spri going to run?

B19. ⟨Actor, {-pich}, Action, -xí-ki, question intonation⟩ 'huh' Question
Sprich mat kumanxíkí.
Spri, he run, -future question, -huh?
Will Spri run? (Might he?) huh?

B20. ⟨Actor, {-pich}, Action, -x, ìleechs⟩ 'I think'
Sprich mat kumanx ìleechs.
Spri, he run, -intend, I think.
Spri might run I think (not sure).

B21. ⟨Actor, {-pich}, Action, mupar⟩ 'Knows how'
Sprich mat kuman mupar.
Spri, he run, he knows how.
Spri knows how to run.

B22. ⟨Actor {-pich}, Action, mupar, xañ⟩ 'Knows how well'
Sprich mat kuman mupar xañ.
Spri, he run, he knows how, very.
Spri really knows how to run.

B23. ⟨Actor, {-pich}, Action, mupar, ináam, xañ⟩ 'Knows how extremely well'
Sprich mat kuman mupar ináam xañ.
Spri, he run, he knows how, much, very.
Spri really really knows how to run.

B24. ⟨Actor, {-pich}, Action, mupar, question force, -a⟩ 'Knows how'
Sprich mat kuman mupar-a?
Spri, he run, he know how, -question?
Does Spri know how to run?
B25. \langle \text{Actor}, \{-\text{pich}\}, \text{Action, iñaam xaño} \rangle \quad \text{Extremely}
\begin{align*}
\text{Spri, he run, much, very} \\
\text{Spri can really run.}
\end{align*}

B26. \langle \text{Actor, \{-pich\}, Action, mulay} \rangle \quad \text{'Doesn't know how'}
\begin{align*}
\text{Spri, he run, not know how.} \\
\text{Spri doesn't know how to run.}
\end{align*}

B27. \langle \text{Actor, \{-pich\}, Action, mulay, -ch, uyum} \rangle \quad \text{'Doesn't know how'}
\begin{align*}
\text{Spri, he run, not know how, -assertion, he be so.} \\
\text{Spri doesn't know how to run.}
\end{align*}

B28. \langle \text{Actor, \{-pich\}, Action, mulay, -ch, uyum, -pa} \rangle \quad \text{'Doesn't know how' emphatic}
\begin{align*}
\text{Spri, he run, not know how, -assertion, he be so,} \\
\text{Spri sure doesn't know how to run. -emphatic}
\end{align*}

B29. \langle \text{Actor, \{-pich\}, Action, waayaa} \rangle \quad \text{Contemporary}
\begin{align*}
\text{Spri, he run, he around.} \\
\text{Spri is running around (Locally & present continuative)}
\end{align*}

B30. \langle \text{Actor \{-pich\}, Action, waayaa, l...m, laax} \rangle \quad \text{Negative}
\begin{align*}
\text{Spri, he run, d.n. he around, not be so.} \\
\text{Spri is not running. (around) (now)}
\end{align*}

B31. \langle \text{Actor, \{-pich\}, Action, waayaa, question force, -a} \rangle \quad \text{Interrogative}
\begin{align*}
\text{Spri, he run, around, -question?} \\
\text{Is Spri running around?}
\end{align*}

B32. \langle \text{Actor, \{-pich\}, Action, luixaño} \rangle \quad \text{'Doesn't hardly'}
\begin{align*}
\text{Spri, he run, not very.} \\
\text{Spri doesn't hardly run. (Lorna's free translation)}
\end{align*}

B33. \langle \text{Actor, \{-pich\}, Action, myum, xaño} \rangle \quad \text{'you form' (adds myum and drops lu...)}
\begin{align*}
\text{Mapuch mat kman myum xaño.} \\
\text{you, subject, run, you be so, very} \\
\text{You don't hardly run.}
\end{align*}

B34. \langle \text{Actor, \{-pich\}, Action, ñmaam, xaño} \rangle \quad \text{'Always'}
\begin{align*}
\text{Spri, he run, done (now?), very.} \\
\text{(possibilities of this morpheme not understood yet)}
\end{align*}
\quad \text{Spri always runs.}

B35. \langle \text{Actor, \{-pich\}, Action, ñmaam, -xs} \rangle \quad \text{'Always'}
\begin{align*}
\text{Spri, he run, done, -intend-stress} \\
\text{Spri always runs.}
\end{align*}

B36. \langle \text{Actor, \{-pich\}, Action, -m, laax, xaño} \rangle \quad \text{'Never'} \quad (\text{zeroed 'l'}
\begin{align*}
\text{Spri, he run, -d.n. not be so, very.} \\
\text{Spri never runs.}
\end{align*}
B 37. <Actor, {-pich}, Action, -ni-question force, -a> 'Ever?'

Sprich mät kumañi-a?
Spri, he run, -(unknown), -question?
Does Spri ever run?

Examples of other verbs occurring in this battery are:

usañ ....'he gets down'
xuseel.....'he blows his nose'
xuchaał.....'he crawls'
umi,.........'he cries'
ukuk.........'she cooks'

To date, this appears to be the second largest class of verbs in the language. However, the transitive battery absorbs the most verbs so far: for each verb in this battery there are three in the transitive battery.

{-pich} is a class of phonologically bound morphemes consisting of:

- ch ....subject indicator
- pich.....subject focus indicator
- $\varnothing$........zero subject indicator

Note: mat kuman...'he runs' is a two-word idiom (it could also be interpreted as a compound word) meaning literally 'ground-he flies'. The first word (ground) remains unchanged. The second word (fly) is inflected for person, and takes the usual suffixes and prefixes of tense and condition.

3. Intransitive Battery.

The Intransitive Battery consists of:

1. <Actor, -pich, Action, {a}> Simple Statement
   xañapich chaqs chaqs a.
   frog, -s.f., jump jump, he does.
   The frog jumped.

2. <Actor, -pich, Action {a}, -ch> Statement2
   xañapich chaqs chaqs ach.
   frog, -s.f., jump-jump-, he does, -assertion or past
   The frog jumped. tense

3. <Actor, -pich, Action, {a}, -ch, uyus> Statement3
   xañapich chaqs-chaqs ach uyus.
   frog, -s.f., jump-jump, he does, -assertion, be so-stress
   The frog jumped.

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4. ⟨Actor, -pich, Action, \{a\}, l...m, laax⟩ Negative
   xañałpich chaq§-chaq§ lu'am laax.
   frog, -s.f., jump-jump, d.n.-he do, not be so.
   The frog didn’t jump.

5. ⟨Actor, -pich, Action, \{a\}, l...m, xañ⟩ Negative
   xañałpich chaq§-chaq§ lu'am xañ.
   frog, -s.f., jump-jump, d.n.-he do, very.
   The frog didn’t (doesn’t) jump.

6. ⟨Actor, -pich, Action, \{a\}, l...m, -cha⟩ Negative
   xañałpich chaq§-chaq§ lu'amchañ.
   frog, -s.f., jumps, d.n.-he do, assertion stress.
   The frog doesn’t jump.

7. ⟨Actor, -pich, Action, \{a\}, l...m, xañ, -ch, uyus⟩ Negative 'hardly'
   xañałpich chaq§-chaq§ lu'am xañch uyus.
   frog, -s.f., jump-jump, d.n.-he do, very, assertion, he do/be so-stress.
   The frog doesn’t hardly jump.

8. ⟨Actor, -pich, Action, \{a\}, question force, -a⟩ Question
   xañałpich chaq§-chaq§ a-a?
   frog, -s.f., jump-jump, he do, question?
   Did the frog jump?

9. ⟨Actor, -pich, Action, \{a\}, -xi, -ki question intonation⟩ Future Question
   xañałpich chaq§-chaq§ axiki
   frog, -s.f., jump-jump, he do, -future question, Will the frog jump? huh?
   Question 'Where'

10. ⟨Actor, -pich, Action, \{a\}, -ch, kayu, question force, -a⟩ Question 'Where'
    xañałpich chaq§-chaq§ ach kaayu-a?
    frog, -s.f., jump-jump, he do, -past or assertion, i.r
    Where did the frog jump to?

11. ⟨Actor, -pich, Action, \{a\}, question force, -a⟩ 'Question 'Why'
    xañałpich chaq§-chaq§ ay-a?
    frog, -s.f., jump-jump, he did, -question
    Why did the frog jump?

12. ⟨Actor, -pich, Action, \{a\}, -ñačham, -cha⟩ 'this time'
    xañałpich chaq§-chaq§ ančhaamchañ.
    frog, -s.f., jump-jump, he did, -this time, -assertion stress.
    The frog jumped this time.

13. ⟨Actor, -pich, Action, \{a\}, l...m, -čham, -cha⟩ 'this time'
    negative
    xañałpich chaq§-chaq§ lu'am chaamchañ.
    frog, -s.f., jump-jump, d.n.-he do, -this time, -assertion stress
    The frog didn’t jump this time.

14. ⟨Actor, -pich, Action, \{a\}, -ñačham, question force, -a⟩ 'this time' question
    xañałpich chaq§-chaq§ ančhaam-a?
    frog, -s.f., jump-jump, he did, -this time, -question?
    Did the frog finally jump?
15. ⟨Actor, -pich, Action, {a}, -m...⟩ Conditional
xanapich caqg-caqg am...pmwee-a?
frog, -s.f., jump-jump, he did, p.d...him-you see,
Did you see the frog jump?  -question?
16. ⟨Actor, -pich, Action, {a}, -s...⟩ Contrastive1
xanapich caqg-caqg aas lmsukanmch.
frog, -s.f., jump-jump, he did, -but...d.n.-he run away-
assertion stress.
The frog jumped but he didn't run away.
17. ⟨Actor, -pich, Action, n-, {a}, -km, ...⟩ Conditional2
xanapich caqg-caqg naa'akm...knaka!
frog, -s.f., jump-jump, when-, he did-f.d.,...kill!
When the frog jumps kill it!
18. ⟨Actor, -pich, Action, {a}, -xm, payaa...⟩ Contrastive2
xanapich caqg-caqg axm payaa nimee rap mich laækch.
frog, -s.f., jump-jump, he do, -might, it's there,
-but...his leg, hurt, (unknown), not be so-assertion
stress
The frog would jump but he hurt his leg.
19. ⟨Actor, -pich, Action, n-, {a}, -m...⟩ Conditional3
xanapich caqg-caqg ina'akm caqg inch.
frog, -s.f., jump-jump, when-, he do,-p.d...jump, I
I do-too-assertion stress.
When the frog jumped, I jumped, too.
20. ⟨Actor, -pich, Action, {a}, -ch...⟩ Sequential
xanapich caqg caqg ach...pum uxp.
frog, -s.f., jump jump, he do, / that way, he go.
assertion...
The frog jumped and went that way.
21. ⟨Actor, -pich, Action, {a}, -ch, mulay⟩ Inability1
xanapich caqg caqg ach mulay. ('doesn't know how')
frog, -s.f., jump jump, he do, -assertion, he unable.
The frog can't (doesn't know how to) jump.
22. ⟨Actor, -pich, Action, {a}, -ch, mulay, uyum⟩ Inability2
(xanapich caqg caqg ach mulay uyum.
frog, -s.f., jump jump, he do, -assertion, he unable,
The frog can't jump. he be so.
23. ⟨Actor, -pich, Action, {a}, -oh, yuuyawp⟩ 'You Can Tell'
xanapich caqg caqg ach yuuyawp.
frog, -s.f., jump jump, he do, -assertion, seeable.
You can tell the frog is jumping up and down.
24. ⟨Actor, -pich, Action, {a}, -xm, puwach⟩ Possible('might')
xanapich caqg caqg axm puwach.
frog, -s.f., jump jump, he do, -might, he sit.
The frog might jump.
25. ⟨Actor, -pich, Action, {a}, -x, puwach, uyum, question marker⟩ Future Question
xanapich caqg caqg ax puwach uyum?
frog, -s.f., jump jump, he do, -intend, he sit, he be
so, -question?
Will the frog jump?
26. \( \text{Actor, } -\text{pich, Action, } \{a\}, \text{xan} \rangle \)  
\( \text{xanapich chaqs chaqs a xan.} \)  
frog, -s.f., jump jump, he do, very.  
The frog really jumps.

27. \( \text{Actor, } -\text{pich, Action, } \{a\}, -\text{ch, waayaa} \rangle \) 'Around'  
\( \text{xanapich chaqs chaqs ach waayaa.} \)  
frog, -s.f., jump jump, he do, -assertion, he around.  
The frog is jumping around.

28. \( \text{Actor, } -\text{pich, Action, } \{a\}, -\text{ch, lu'am, xan} \rangle \) 'Never'  
\( \text{xanapich chaqs chaqs ach lu'am xan.} \)  
frog, -s.f., jump jump, he do, -assertion, d.n.he do,very  
The frog never jumps.

29. \( \text{Actor, } -\text{pich, Action, } \{a\}, -\text{nmaamxs} \rangle \) 'Always'  
\( \text{xanapich chaqs chaqs anmaamxs.} \)  
frog, -s.f., jump jump, he do, this time future inten- 
tion stress.

The frog always jumps.

30. \( \text{Actor, } -\text{pich, Action, } \{a\}, -\text{m, i\text{ñaa}m, xan} \rangle \) Intensive_2  
\( \text{xanapich chaqs chaqs a\text{ñaa}m xan.} \)  
frog, -s.f., jump jump, he do, -p.d., much, very.  
The frog jumps a lot.

31. \( \text{Actor, } -\text{pich, Action, } \{a\}, -\text{x, lleechs} \rangle \) 'I Think'  
\( \text{xanapich chaqs chaqs ax lleechs} \)  
frog, -s.f., jump jump, he do, -intend, I think.  
The frog will jump I think.

32. \( \text{Actor, } -\text{pich, Action, } \{a\}, -\text{m, i\text{ñaa}m, xan, } -\text{a} \rangle \) Intensive  
\text{Question}  
\( \text{xa\text{n}apich chaqs chaqs am i\text{ñaa}m xa\text{n}-a?} \)  
frog, -s.f., jump jump, he do, -p.d., much, very,  
Does the frog jump a lot? -question?

Class -ch includes:
- ch....past time assertion
- x.....future intention

Class a includes (so far):
- i.....I do
- m'i.....you do
- a.....he does
- aa'a..?
- ay....?
- aa.....he did

semantic distinctions unknown yet

(the last three are sub-types of a...he does)

Other verbs fitting this battery are:
- saq saq i.....I itch
- kwar_kwar a.....he talks
- xweep a.......he moves
- yaws a..........he grabs it

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4. Directional Battery.

The Directional Battery consists of:

1. <Actor, -pich, Direction, -{m}, Action> Simple
   apapich chakweem wa.
   man, -s.f., store, -to, he went (goes).
   The man went to the store.

2. <Actor, -pich, Direction, -{m}, Action, -ch> Statement 1
   apapich chakweem wach.
   man, -s.f., store, -to, he go, -assertion (or completive)
   The man went to the store.

3. <Actor, -pich, Direction, -{m}, Action, -chs> Statement 2
   apapich chakweem wachs.
   man, -s.f., store, -to, he went, -assertion stress.
   The man went to the store.

4. <Actor, -pich, Direction, -{m}, Action, -ch, uyus> Statement 3
   (Auxiliary Verb)
   man, -s.f., store, -to, he went, -assertion, he did-stress.
   The man went to the store.

5. <Actor, -pich, Direction, -{m}, Action, iiieechs> 'I think'
   apapich chakweem wa iiieechs
   man, -s.f., store, -to, he went, I think.
   The man went to the store I think.

6. <Actor, -pich, Direction, -{m}, Action -ch, paa> 'already'
   apapich chakweem wach paa.
   man, -s.f., store, -to, he went, -assertion, (unknown)
   The man went to the store already.

7. <Actor, -pich, Direction, -{m}, Action, -chs paachs> 'already'
   apapich chakweem wach paachs.
   man, -s.f., store, -to, he went, -assertion, (unknown).
   The man did (already) go to the store.

8. <Actor, -pich, Direction, -{m}, Action, -m, payaachs> 'already'
   apapich chakweem wam payaachs.
   man, -s.f., store, -to, he went, -(unknown), he left a
   long time ago.
   The man already went to the store.

9. <Actor, -pich, Direction, -{m}, Action, -ch, paaypa> 'already'
   apapich chakweem wach paaypa.
   man, -s.f., store, -to, he went, -assertion, he already
   The man went to the store already.

10. <Actor, -pich, Direction, -{m}, Action, -n, -chs> 'Also'
   apapich chakweem waachs.
   man, -s.f., store, -to, he went, -too, -assertion stress
   The man went to the store, too.

11. <Actor, -pich, Direction, -{m}, Action aa, 1...m, -chs>
   apapich chakweem laamachs.
   Negation 1
   man, -s.f., store, -to, d.n. he go, -assertion stress
   The man didn't go to the store.

12. <Actor, -pich, Direction, -{m}, Action [aa], 1...m, laax>
   apapich chakweem laam laax.
   Negation 2
   man, -s.f., store, -to, d.n.-he go, not be so.
   The man didn't go to the store.
13. \(<\text{Actor}, \text{-pich}, \text{Direction}, \{-\text{m}\}, \text{Action}, \text{l...m}, \text{laax}, \text{-chs}\>\>

apapich chakweem luwam laaxchs.

man, -s.f., store, -to, d.n. -he go, not be so, -assertion stress.

The man didn't go to the store.

14. \(<\text{Actor}, \text{-pich}, \text{Direction}, \{-\text{m}\}, \text{Action} \text{wa}, \text{l...m}, \text{laax}, \text{-ch, uyus}\>\>

Negation 4 (Aux. verb)

apapich chakweem luwam laaxch uyus.

man, -s.f., store, -to, d.n. -he go, not be so, -assertion, he do-stress.

The man didn't go to the store.

15. \(<\text{Actor}, \text{-pich}, \text{Direction}, \{-\text{m}\}, \text{Action} \text{[aa]}, \text{l...m}, \text{laax, aya}\>\>

Quotative 1

apapich chakweem laam laax aya.

man, -s.f., store, -to, d.n. -he go, not be so, he said.

The man said he didn't want to go to the store.

16. \(<\text{Actor}, \text{-pich}, \text{Direction}, \{-\text{m}\}, \text{Action} \text{[aa]}, \text{l...m}, \text{laax, aypa}\>\>

Quotative 2

apapich chakweem laam laax aypa.

man, -s.f., store, -to, d.n. -he go, not be so, he said.

The man said he wasn't going to the store. -stress.

17. \(<\text{Actor}, \text{-pich}, \text{Direction}, \{-\text{m}\}, \text{Action} \text{[aa]}, \text{l...m}, \text{laax, iilieechs}\>\>

Negative 'I think'

apapich chakweem laam laax iilieechs.

man, -s.f., store, -to, d.n. -he go, not be so, I think I don't think the man went to the store.

18. \(<\text{Actor}, \text{-pich}, \text{Direction}, \{-\text{m}\}, \text{Action} \text{[aa]}, \text{l...m laax, xskay, -chs}\>\>

'Yet'

apapich chakweem laam laax xskaychs.

man, -s.f., store, -to, d.n. -he go, not be so, still -assertion stress.

The man hasn't gone to the store yet.

19. \(<\text{Actor}, \text{-pich}, \text{Direction} \{-\text{m}\}, \text{Action} \text{, -m, laaxchs}\>\>

Negation 5

apapich chakweem wam laaxchs.

man, -s.f., store, -to, he go, -past tense?, not be so, -assertion stress.

The man didn't go to the store.

20. \(<\text{Actor}, \text{-pich}, \text{Direction} \{-\text{m}\}, \text{Action} \text{, -m, laaxs}\>\>

Negation 6

apapich chakweem wam laaxs.

man, -s.f., store, -to, he go, -past tense?, not be so -stress.

The man didn't go to the store.

21. \(<\text{Actor}, \text{-pich}, \text{Direction} \{-\text{m}\}, \text{Action}, \text{Question force}, \text{-a}\>\>

Question 1

apapich chakweem wa-\text{a}?

man, -s.f., store, -to, he go, -question?

Did the man go to the store?

22. \(<\text{Direction}, \{-\text{m}\}, \text{Action}, \text{question force}, \text{-a}\>\>

Zeroed Actor

chakweem wa-\text{a}?

store, -to, he go, -question?

Did he go to the store?
23. (Actor, -pich, Direction, -{m}, Action, kaayu, question intonation)  Question1
   apapich chakweem wa kaayu?
   man, -s.f., store, -to, he go, i.r.? Did the man go to the store?

24. (Actor, -pich, Direction, -{m}, Action, -ch, paa, -a) Question2
   apapich chakweem wach paa-a?
   man, -s.f., store, -to, he go, -assertion, (unknown), Did the man go to the store? -question?

25. (Actor, -pich, Direction, -{m}, Action, question force, -a) Negative 'yet' Question
   apapich chakweem wam laax xskay-a?
   man, -s.f., store, -to, be go, -past tense?, not be so, yet, -question?
   The man didn't go to the store did he?

26. (Actor, -pich, Direction, -{m}, Action, question force, -a) Negative Question
   apapich chakweem laam laax-a?
   man, -s.f., store, -to, d.n.-he go, not be so, -question?
   The man didn't go to the store did he?

27. (Actor, -pich, Direction, -{m}, Action, -nchaam, -ohs)  'this time' 1
   apapich chakweem wanchaamch. 1
   man, -s.f., store, -to, he go, -this time, -assertion stress.
   This time the man went to the store.

28. (Actor, -pich, Direction, -{m}, Action, -nchaam, -ch, uyus)  'this time' 2 (Auxiliary verb)
   apapich chakweem wanchaamch uyus.
   man, -s.f., store, -to, he go, -this time, -assertion, he do-stress.
   This time the man went to the store.

29. (Actor, -pich, Direction, -{m}, Action [aa], laamchaamch. 1
   apapich chakweem laamchaamch. 1
   man, -s.f., store, -to, d.n.-he go, -this time, -assertion stress.
   This time the man didn't go to the store.

30. (Actor, -pich, Direction, -{m}, Action [aa], laamchaamch, uyus) 'this time' Negation 2 (Auxiliary verb)
   apapich chakweem laamchaamch uyus.
   man, -s.f., store, -to, d.n.-he go, -this time, assertion, he do-stress.
   This time the man didn't go to the store.

31. (Actor, -pich, Direction, -{m}, Action [aa], laamchaam, illeech. 1
   apapich chakweem laamchaam illeech. 1
   man, -s.f., store, -to, d.n.-he go, -this time, I think.
   I don't think the man went to the store this time.

32. (Actor, -pich, Direction, -{m}, Action, -nchaam, question force, -a) 'this time' Question 1
   apapich chakweem wanchaamch-a?
   man, -s.f., store, -to, he go, -this time, -question?
   Did the man go to the store this time?
33. (Actor, -pich, Direction, -{m}, Action, -ńchaam, kaayu, question intonation) 'this time' Question
apapich chakveem wanńchaam kaayu?
man, -s.f., store, -to, he go, -this time, i.r.?
Did the man go to the store this time?

34. (Actor, -pich, Direction, -{m}, Action, -ńchaam, paa, question force, -a) 'this time' Question
apapich chakveem wańchaam paa-a?
man, -s.f., store, -to, he go, -this time, (unknown), -question?
Did the man go to the store this time?

35. (Actor, -pich, Direction, -{m}, Action, -m,...> Dependent
apapich chakveem wam...paweechə.
past
man, -s.f., store, -to, he go, -p.d...him-I saw-
assertion stress
I saw the man go to the store.

36. (Actor, -pich, Direction, -{m}, u-, Action, -yimi, ňpuch,..) Identification
apapich chakveem uwayimi ňpuch...kuwaak paačhs.
man, -s.f., store, -to,?, he went, -remember?, that
one...home he went
Remember the man that went to the store? - he went home.

37. (Actor, -pich, maam, Direction, -{m}, Action, -x, ach) Quotative present intention
apapich maam chakveem wax ach.
man, -s.f., now, store, -to, he go, -intend, he said.
The man said he's going to the store now.

38. (Actor, -pich, Direction, -{m}, Action, -x) Simple Intention
apapich chakveem wax.
man, -s.f., store, -to, he go, -intend.
The man will go to the store.

39. (Actor, -pich, Direction, -{m}, Action, -x, ach) Quotative
apapich chakveem wax ach.
man, -s.f., store, -to, he go, -intend, he said.
The man said he's going to the store.

40. (Actor, -pich, Direction, -{m}, Action, -x, acha) Quotative
apapich chakveem wax acha.
man, -s.f., store, -to, he go, -intend, he said-stress.
The man said he was going to the store.

41. (Actor, -pich, Direction, -{m}, Action, -ńchaam, -x) 'this
apapich chakveem wanńchaamx. time' Intention
man, -s.f., store, -to, he go, -this time, -intend.
The man is going to the store this time.

42. (Actor, -pich, Direction, -{m}, Action, -ńchaam, -x, pu'aach, ňyus) 'this time' Intention (Auxiliary verb)
apapich chakveem wanńchaamx pu'aach ňyus.
man, s.f., store, -to, he go, -this time, -intention,
he stand, he do so stress.
This time the man is going to the store.

43. (Actor, -pich, Direction, -{m}, Action, -x, aya) Quotative
apapich chakveem wax aya.
man, -s.f., store, -to, he go, -intend, he said-emphasis
The man is going to the store he said.
44. ⟨Actor, -pich, Direction, -{m}, Action-ń, -x, ach⟩ Quotative 4

apapich chakweem wañx ach.

(wants to)

man, -s.f., store, -to, he go, -too, -intend, he said

The man wants to go to the store also.

45. ⟨Actor, -pich, Direction, -{m}, Action, -x, aa, ach⟩ Quotative 5

apapich chakweem wax aa ach.

He said the man wanted to go to the store he said.

46. ⟨Actor, -pich, Direction, -{m}, Action, -x aileeem⟩ 'doesn't

apapich chakweem wax aileeem.

feel like'

man, -s.f., store, -to, he go, -intend, he doesn't feel

The man doesn't feel like going to the store.

47. ⟨Actor, -pich, Direction, -{m}, Action -x, aileeem, ach⟩

Quotative 6 (doesn't feel like)

apapich chakweem wax aileeem ach.

The man doesn't feel like going to the store, he said.

48. ⟨Actor, -pich, Direction, -{m}, Action, -x, aya⟩ Quotative 7

apapich chakweem wax aya.

The man wants to go to the store he said.

49. ⟨Actor, -pich, Direction, -{m}, Action, -x, question force, apapich chakweem wax-a? -a⟩ Future Question 1

man, -s.f., store, -to, he go, -intend, -question?

Is the man going to the store?

50. ⟨Actor, -pich, Direction, -{m}, Action, -x, -i, -ki, question intonation⟩ Future Question 2

apapich chakweem waxiki?

man, -s.f., store, -to, he go, -intend, -question,

Is the man going to the store? -question?

51. ⟨Actor, -pich, Direction, -{m}, Action, -x, -ch, uyum, question intonation⟩ Future Question 3

apapich chakweem waxch uyum?

man, -s.f., store, -to, he go, -intend, -assertion, he

Is the man going to the store? do-question?

52. ⟨Actor, -pich, Direction, -{m}, Action, -x, aa, question force, apapich chakweem wax aa-a? -a⟩ Quotative Question

man, -s.f., store, -to, he go, -intend, he say, -question?

Did the man say he was going to the store?

53. ⟨Actor, -pich, Direction, -{m}, Action, -ñochaam, -x, aa, question force, -a⟩ 'this time' Quotative Question

apapich chakweem wanchaamx aa-a?

man, -s.f., store, -to, he go, -this time, -intend, he say, -question?

Did the man say he was going to the store this time?

Class {m} consists of:

m ... to, forward
li... in, into
[aa] seems to be an alternate form of wa... 'he go' if combined with the discontinuous negative to produce laam... 'he didn't go'.

The discontinuous negative l...m here takes the form lu...m for some reason(?).

The -ch affix used in this battery and others has been called assertion, but it may be a past tense indicator (?)..

Other verbs belonging in this battery found to date are:

uxap...'he went (in)'

saa...'he went along'

5. Transitive Battery.

The transitive battery consists of:

1. <Subject, {-pich}, object, (-piñ), T.V.> Simple
   xat xtpapiñ paasaa.
   dog, coyote-o.f., him-he-bite.
   The dog bit the coyote.

2. <T.V., -chs> Zeroed Subject and Object
   paasachs
   him, he-bite-assertion stress.
   He bit him.

3. <Subject, {-pich}, object, (-piñ), T.V., l...m, laax, -chs> Negation
   xatpich xtpapiñ lpaasaam laaxchs.
   dog, -s.f., coyote, -o.f., d.n.-him-he-bite, not be so,
   -assertion stress.
   The dog didn't bite the coyote.

4. <Subject, {-pich}, object, (-piñ), T.V., l...m, laax, -s> Negation
   xat xtpa lpaasaam laaxs.
   dog, coyote, d.n. him-he-bite, not be so, -stress.
   The dog didn't bite the coyote.

5. <Subject, {-pich}, object (-piñ), T.V., l...m, laax, -ch, u'as> Negation
   xatpich xtpapiñ lpaasaam laaxch u'as.
   dog, -s.f., coyote, -o.f., d.n.-him-he-bite, not be so,-
   assertion, he did, -stress
   The dog didn't bite the coyote.

6. <Subject, {-pich}, object, (-piñ), T.V., l...m, laax, -ch, uyus> Negation
   Spri Lornapiñ lpgukanm laaxch uyus.
   Spri, Lorna-o.f., d.n.-her he ran from, not be so,
   -assertion, he do-stress.
   Spri didn't run away from Lorna.
This formula can't be used with paasaa and a few other transitive verbs.

7. \(<\text{Subject}, [-\text{pich}], \text{object}, (-\text{pin}), \text{T.V.}, \text{question force}, -\text{a}>\>
   \text{xatpich xtpapin paasaa-}\text{a}?
   \text{Question}_{1}
   \text{dog, -s.f., coyote, -o.f., him-he-bite, -question?}
   \text{Did the dog bite the coyote?}

8. \(<\text{Subject}, [-\text{pich}], \text{object}, (-\text{pin}), \text{T.V.}, -m, \text{uyum, question intonation}>\text{Question}_{2}
   \text{xat xtpapin paasaaam uyum?}
   \text{dog, coyote-o.f., him-he-bite, -?, he do-question?}
   \text{Did the dog bite the coyote?}

9. \(<\text{Subject}, [-\text{pich}], \text{object}, (-\text{pin}), \text{T.V.}, \{\text{kaayu}, \text{question intonation}>\text{Question}_{3}
   \text{xatpich xtpapin paasaa kaayu?}
   \text{dog, -s.f., coyote, (-o.f.), him-he-bite, i.r.-question?}
   \text{Did the dog bite the coyote?}

10. \(<\text{Subject}, [-\text{pich}], \text{object}, (-\text{pin}), \text{T.V.}, l...m, \text{laax, question force, -a}>\text{Negative Question}
   \text{xat xtpapin paaasaam laax-a?}
   \text{dog, coyote, d.n.-him-he-bite, not be so, -question?}
   \text{Didn't the dog bite the coyote?}

11. \(<\text{Subject}, [-\text{pich}], \text{object}, (-\text{pin}), \text{T.V., -m}...\text{Dependent}_{1}
   \text{xatpich xtpapin paaasaam...umich uyus.}
   \text{dog, -s.f., coyote, -o.f., him-he-bite, -p.d...he cry-p.sq. he do-stress}
   \text{When the dog bit the coyote he cried.}

12. \(<\text{Subject}, [-\text{pich}], \text{object}, (-\text{pin}), \text{n-}, \text{T.V.}, -m}...\text{Dependent}_{2}
   \text{xatpich xtpapin npaaasaam...umich uyus.}
   \text{dog, -s.f., coyote, -o.f., when, -him-he-bit, -p.d...he cry-p.sq. he do-stress.}
   \text{When the dog bit the coyote he cried.}

13. \(<\text{Subject}, [-\text{pich}], \text{object}, (-\text{pin}), \text{T.V.}, \text{u'ach}...\text{Dependent}_{3}
   \text{xatpich xtpapin paaasaam u'ach...umich uyus.}
   \text{dog, -s.f., coyote, -o.f., him-he-bite, -p.d...he do-sq. he cry-p.sq. he do-stress.}
   \text{When the dog bit the coyote he cried.}

14. \(<\text{Subject}, [-\text{pich}], \text{object}, (-\text{pin}), \text{T.V.}, \text{uyum}...\text{Dependent}_{4}
   \text{xatpich xtpapin paasaam uyum...paweechs.}
   \text{dog, -s.f., coyote, -o.f., him-he-bite, -p.d., he do-p.d.}
   \text{(?)...him-I see-assertion stress}
   \text{When the dog bit the coyote I saw him. (sequential?)}

15. \(<\text{Subject}, [-\text{pich}], \text{object}, (-\text{pin}), \text{T.V.}, \text{-s}...\text{Contrastive}
   \text{xatpich xtpapin paasaa...xtpapich lumim laaaxch uyus.}
   \text{dog, -s.f., coyote, -o.f., him-he-bite, -but...coyote-s.f. d.n.-he cry not be so-assertion he do-stress}
   \text{The dog bit the coyote but the coyote didn't cry.}

16. \(<\text{Subject}, [-\text{pich}], \text{object}, (-\text{pin}), \text{n-}, \text{T.V.}, -km}...\text{Dependent}_{5}
   \text{xatpich xtpapin npaaasaakm...xtpapichumix.}
   \text{dog, -s.f., coyote, -o.f., if, -him-he bites, -f.d...coyote -s.f. he cry-intend (future probable)}
   \text{When (if) the dog bites the coyote, the coyote will cry.}
17. <Subject, {-pich}, object, -pi.describe, T.V., -ch, mulay> Inability
xatpich xtpapin paagaach mulay
dog, -s.f., coyote, -o.f., him-he-bite, -? , he unable
The dog didn't know how to bite the coyote.

18. <Subject, {-pich}, object, (-pi.describe), T.V., -ch, mupar> Ability
xatpich xtpapin paagaach mupar.
dog, -s.f., coyote, -o.f., him-he-bite, (p.sq.), he able.
The dog knows how to bite the coyote.

19. <Subject, {-pich}, object, (-pi.describe), T.V., -nchaam, -ch, mu.> xatpich xtpapin paagaan-nchaam
This time the dog bit the coyote (finally!).

20. <Subject, {-pich}, object, (-pi.describe), T.V., -nchaam, -ch, u'as> xatpich xtpapin paagaan-nchaam
This time the dog bit the coyote (finally!).

21. <Subject, {-pich}, object, (-pi.describe), T.V., -nchaam, -ch, u'as> xatpich xtpapin paagaan-nchaam
This time the dog didn't bite the coyote (finally!).

22. <Subject, {-pich}, object, (-pi.describe), T.V., -nchaam, -ch, u'as> xatpich xtpapin paagaan-nchaam
Did the dog bite the coyote this time?

23. <Subject, {-pich}, object, (-pi.describe), T.V., -k, luyum> 'never'
xatpich xtpapin paagaak luyum.
dog, -s.f., coyote, -o.f., him-he-bite, -f.sq., not be
The dog never bites the coyote.

24. <Subject, {-pich}, object, (-pi.describe), T.V., -nmaam> 'always'
xatpich xtpapin paagaan nmaam.
dog, -s.f., coyote, -o.f., him-he-bite, 'always'
The dog always bites the coyote.

25. <Iiyaam, subject, {-pich}, object, (-pi.describe), T.V., -ch, u'as> xatpich xtpapin paagaach u'as.
sometimes, dog, -s.f., coyote, -o.f., him-he-bite, -p.sq., he do-stress.
The dog sometimes bites the coyote.

Class {-pich} is optional in this battery, and consists of:
-pich ... subject focus suffix
-ch...... subject suffix

Three of the formulas in this battery have an alternative
word constant, making in reality six formulas rather than
three.

-65-
a. u'as (see formula no. 5) alternates with uyus (see formula no. 6)
We are not yet sure what factor(s) condition the choice of the one versus the other. Some verbs, in fact, may take both forms, we feel they are alloconstants which are predictable if we know the rules (but we don't yet). Hence we have made two formulas, nos. 5 and 6, out of them, rather than a class.

b. u'ach (see formula no. 13)
uyum (see formula no. 14)
For some reason, u'ach was not allowable preceding paweechs, and uyum was. Once again the conditioning factor is undetermined and for the present we will have the two formulas rather than a constant class. The third case involved is different, however.

c. kaayu ... animate indefinite reference
kayu ... inanimate indefinite reference
Since we can predict that kaayu will be used only when the object is animate, we have made this into a constant word class:

\{kaayu\} consisting of:

kaayu ...(inanimate indefinite reference to manner, time, quantity, object, purpose) 'it is somehow so'
kaayu... 'he/they is/are somehow so'

Thus using only the one formula (no. 9).

Note: At present several apparently homophonous morphemes are giving us some trouble. Whether they are really different morphemes with different functions or whether they are the same morpheme with several functions we don't know. The extent of their functions haven't been thoroughly studied, either. Admittedly there is some ambiguity and overlapping in this paper regarding two of the most troublesome of these:

-ch...subject suffix, past tense sequential verb suffix; past tense indicator; assertion (of truthfulness?) (especially in narrations); sentence conclusion indicator (may be followed only by -a ... indicating stress(?)). Neither the aspective nor the syntactic function of this morpheme is thoroughly understood yet.

-m...final half of the discontinuous negative morpheme; past tense dependent change of subject indicator; question indicator, 'direction toward' suffix on nouns, 'direction away from' prefix on verbs, (and others yet unanalyzed).

Other examples of verbs fitting in the transitive battery are:

1. Animate object verbs:
pchaachuup ... he made her pregnant
paayaa ........ he got him
pshmukwir ... he gets jealous of him
pshuusheel ... he doesn't know him

(Verbs of this type will take kaayu instead of kayu.)

2. Inanimate object verbs:
shukux ... he knocks at
suuqwaq ... he tears
uma ....... he eats

6. Caused Motion Battery.

The Caused Motion Battery consists of:

1. \(<Csd, Csr, Motion, acha>\) Simple Statement
   Frank pa'im xween acha.
   I made Frank move.

2. \(<Csd, Csr, Motion, lu'amchs>\) Negative
   Frank pa'im xween lu'amchs.
   I didn't make Frank move.

3. \(<Csd, Csr, Motion, a, question force, -a>\) Yes/No Question
   Frank pa'im xween a-a?
   Frank, him-I do-p.d., move, he do/say-question?
   Did I make Frank move over?

4. \(<Csd, Csr, Motion, a, -ñchaamch, uyus>\) 'This time'
   Frank pa'im xween anchaamch uyus.
   I made Frank move over this time.

5. \(<Csd, Csr, Motion, lu'am, -chaamch, uyus>\) 'this time' negative
   Frank pa'im xween lu'amchaamch uyus.
   I didn't make Frank move over this time.

6. \(<Csd, Csr, Motion, a, -ñchaam, question force, -a>\) 'this time' Yes/No Question
   Frank pa'im xween añchaam-a?
   Frank, him-I do-p.d., move, he do/say-this time, Did I make Frank move this time? -question
   I did make Frank move this time?

7. \(<Csd, Csr, Motion, ñ-, aa'ach,...ichs>\) Dependent Temporal
   Frank pa'im xween ñaa'ach...mshuuray ichs.
   Frank, him-I do-p.d., move, when, -he-do, -tense past, he mad, I do/say.
   When I made Frank move over he got mad.

8. \(<Csd, Csr, Motion, aa, -s..>\) Contrastive
   Frank pa'im xween aas ... lnuuxaymchs.
   Frank, him-I do-p.d., move, he do, -but...d.n.-he like -assertion stress.
   I make Frank move over, but he didn't like it.
9. \(<\text{Csd}, \text{Csr}, \text{Motion}, \text{a}, -\text{km} \ldots\)> Dependent
Frank pa'im xween akm...naweew uweem meexannx.
Frank, him-I do-p.d., move, he do/ say, -f.d...something
he see-p.d. good-future probable
I made Frank move so he could see better.
Note: no. 7 formula above may actually be
\(<\text{Csd}, \text{Csr}, \text{Motion}, \ddash, \text{Csd}, \text{Dsr}, \text{tense} \{\text{ch}\} \text{icha}\rangle

but we haven't had time to check for
\(\ddash\)-aa'a \{\text{ch}\}.
Class \{-ch\} would probably consist of:
- \text{ch} ... past time, completed
- \text{x} ... future intention
To date no other root fits this battery.

7. Yatam Battery.

The Yatam Battery consists of:

1. \(<\text{Actor}, (-\text{pich}), \text{Goal, (-pin)}, \text{yatam, paa'a}, -\text{ch}\)> Simple Statement
Rose Bruce yatam paa'ach.
Rose loves Bruce.
2. \(<\text{Actor}, (-\text{pich}), \text{Goal, (-pin)}, \text{yatam, paa'a}, 1...m, \text{laax}\) Negative
Rose Bruce yatam laax.
Rose doesn't love Bruce.
3. \(<\text{Actor, (-pich), Goal, (-pin)}, \text{yatam, paa'a, 1...m, -chs}\)
Rose Bruce yatam ipaa'am laaxch. Negative
Rose doesn't love Bruce.
4. \(<\text{Actor}, (-\text{pich}), \text{Goal, (-pin)}, \text{yatam, paa'a}, 1...m, \text{laax, -chs}\) Negative
Rose Bruce yatam 1paa'am laaxch. Negative
Rose doesn't love Bruce.
5. \(<\text{Actor, (-pich), Goal, (-pin)}, \text{yatam, paa'a}\?) Yes/No Question
Rose Bruce yatam paa'a-a?
Rose, Bruce, love, him-she say, -question?
Does Rose love Bruce?
6. \(<\text{Actor, (-pich), Goal, (-pin)}, \text{yatam, paa'aa, -g} \ldots\)> Contrastive
Rose Bruce yatam paa'as...naweew lu'am laax xanxa
Rose, Bruce, love, him-she say, -but...something not do
not be so very-future-stress.
Rose loves Bruce but she never says so.

To date, no other root fits this battery.
COCOPA CLAUSE TREES

- Double Transitive
- Caused Motion
- Directional
- Transitive
- Intransitive
- Descriptive "A"
- Descriptive "B"
- Identification "A"
- Identification "B"

Tree No. 1 Tree No. 2
Statements:

1. An n-tuple acceptable in a terminal battery is acceptable in all the batteries that lie in its path down the tree. Short forms are ellipses of forms from higher batteries.

   Individual n-tuples may have some restrictions (semantic usually) of forms they can take, but in general the above holds true.

2. Verbs (as well as nouns) fit Identification battery "B" (except for possessives).

3. Verbs (as well as nouns) fit Identification battery "A" (possessives excepted again).

4. Main verbs fitting Tree # 2 are inflected for person. Main verbs fitting Tree # 1 are not. (That is the reason why two trees are needed for the language instead of only one.)

N-tuples moving down path of Tree # 1

Descriptive "A"
mat xay 'The ground is wet.'
ground wet etc.

Identification "A"
mat-cha 'It's ground.'
(noun) etc.

   or
xay -cha 'It's wet.' (except possessives)
(verb) etc.

N-tuples moving down path of Tree # 1

1. Double Transitive Branch
Tompich Spripin xma su'ap x-wak peech (u'as).
   Tom-subject Spri-object eggs 2 him he gave he did etc.

Transitive
Tompich Spripiñ peech (u'as). etc.

Descriptive "B"
Tompich pcoch etc.
Identification "B"
peech uyuñpa.
or
Tompich uyuñpa.

2. Caused Motion Branch
Frank pa'im xween ach. 'I made Frank move.'
Frank him I made move he did etc.

Intransitive
Frank xween ach. 'Frank moved.' etc.

Descriptive "B"
Frank ach. etc.

Identification "B"
Frank ch uyuñpa.
or
Ach uyuñpa (except possessives) etc.

3. Directional Battery Branch
apapich chakweem wa(ch) 'The man went to the store.'
man-subject store-to he went etc.

Descriptive "B"
apapich wa(ch) etc.

Identification "B"
1.wach uyuñpa (except possessives) etc.
or
2.apach uyum
or
apapich uyum
or
3.apacha

etc.