Irrealis to infinitive in Popti': Paradigmatic motivations for functional change

James Tandy

11/11/2023

CILLA X

Summary

- Proto-Central Mayan had *-ooj/-uuj* infinitive of transitive verbs
  - Deverbal nominalization
  - Incorporates object
  - Productive in most Q'anjob'alan and K'iche'an languages
- Popti' recruited potential suffix as new infinitive, *-o'/-u'*
- Distribution of *-o'/-u'* infinitive is identical to old infinitive
  - Formal replacement without paradigmatic change
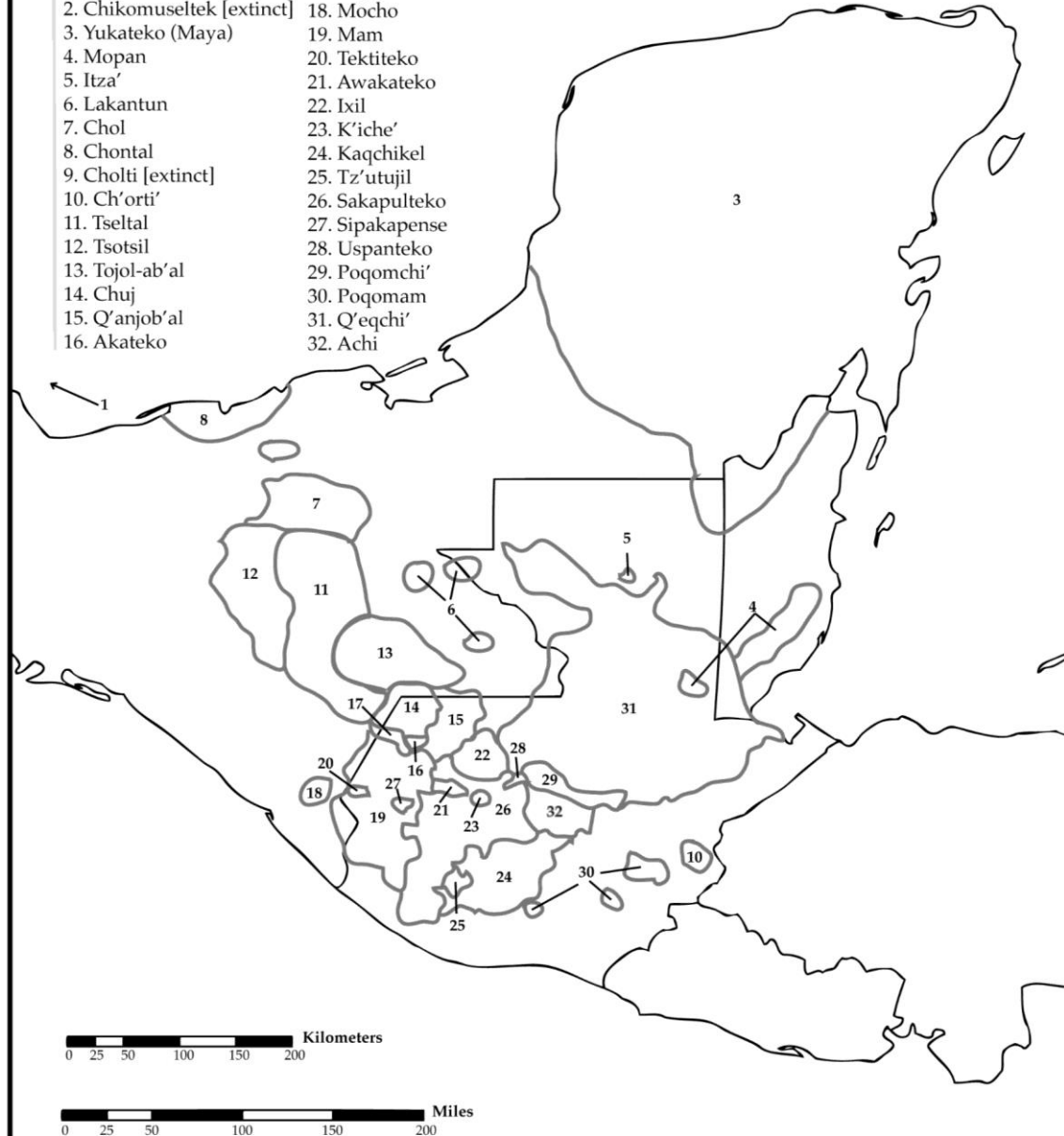
Summary (2)

- Three reasons for formal replacement
    1. Analogical leveling with intransitive potential/infinitive
    2. Identity avoidance - reaction to phonological changes
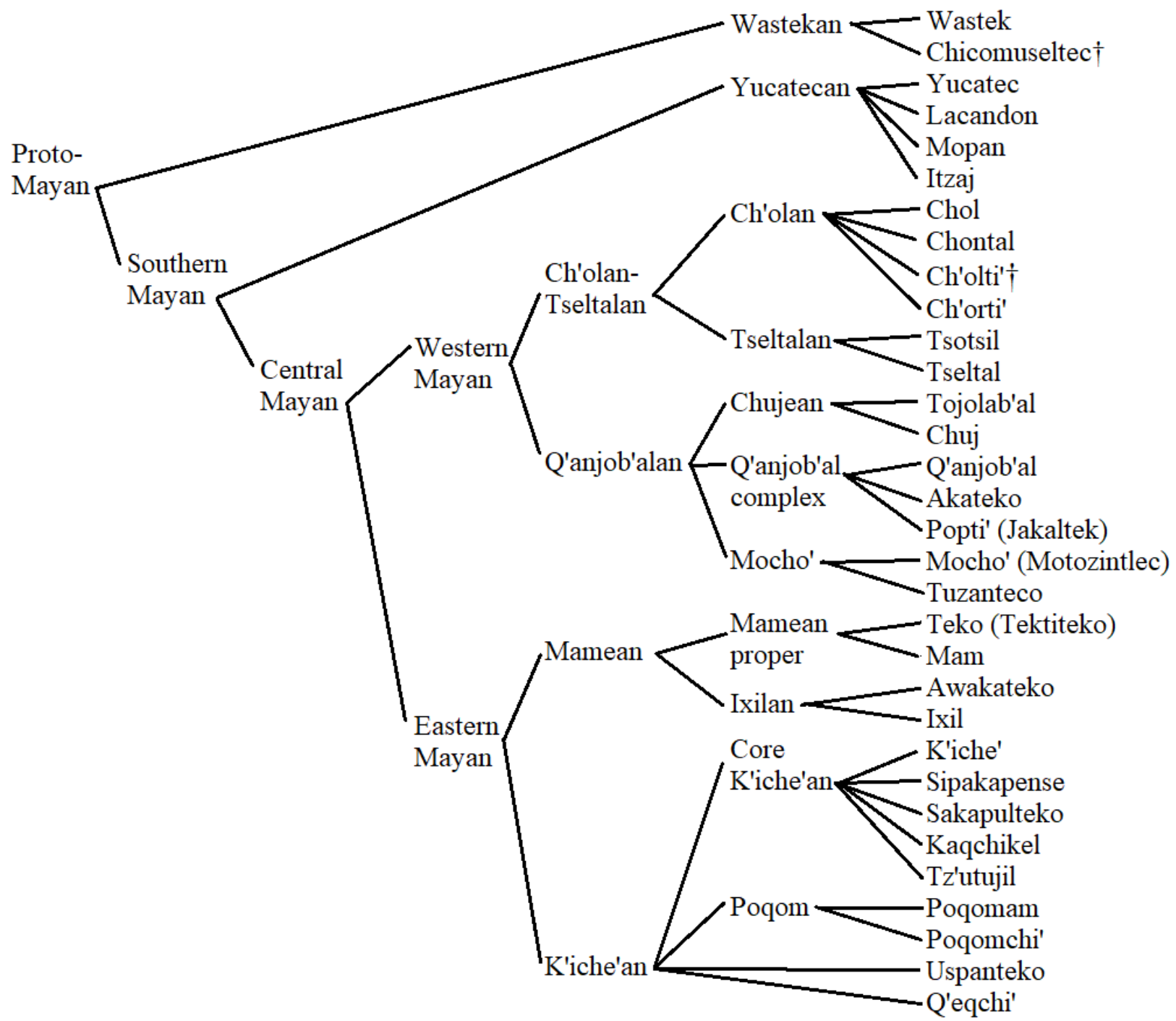   3. Semantic similarity between potential and infinitive

Background

- Surveying derivational morphology in Mayan languages
  - Tandy (2023) diachrony of Mayan perfect marking
- Finding reflexes of the *-ooj/-uuj* infinitive
- Question: What is the etymology of the Popti' infinitive?

The Mayan Languages at The Present Day

1. Wastek
2. Chikomuseltek [extinct]
3. Yukateko (Maya)
4. Mopan
5. Itza'
6. Lakantun
7. Chol
8. Chontal
9. Cholti [extinct]
10. Ch'orti'
11. Tseltal
12. Tsotsil
13. Tojol-ab'al
14. Chuj
15. Q'anjob'al
16. Akateko
17. Popti'
18. Mocho
19. Mam
20. Tektiteko
21. Awakateko
22. Ixil
23. K'iche'
24. Kaqchikel
25. Tz'utujil
26. Sakapulteko
27. Sipakapense
28. Uspanteko
29. Poqomchi'
30. Poqomam
31. Q'eqchi'
32. Achi

Map: Law (2014)

Key features of Mayan languages

- Sharp transitivity distinction
  - Transitive and intransitive verbs are separate categories
  - Within transitive verbs, distinguish roots from derived stems
- Transitive verbs may be derived as intransitive stems
  - Passive or antipassive
- (Generally) ergative-absolutive agreement

Reconstructing *-ooj/-uuj*: Function

- Full discussion: Tandy (2023)
- Occurs (almost) exclusively with transitive roots
- Functions:
  - Infinitive/Action nominalization in Q'anjob'alan and (most) K'iche'an
  - Unproductive nominalizations in K'iche'an, Ch'olan, and Tseltal
  - Perfect aspect in Poqom, Tseltalan, and Tojol-ab'al
- Reconstruct as infinitive/action nominalization
  - Separate pathways to perfect aspect in Poqom and Tseltalan/Tojol-ab'al

Reconstructing *-ooj/-uuj*: Syntax

- External syntax / Contexts of use
    1. Object of verb 'do' or 'begin' in K'iche'an languages and Q'anjob'al
    2. Subordinated to intransitive verb of motion in Q'anjob'alan languages
    3. Can appear in other nominal contexts in both K'iche'an and Q'anjob'alan
- Reconstructed contexts:
    1. Reconstructs to proto-Central Mayan
    2. Reconstructs to proto-Q'anjob'alan
    3. Probably reconstructs to proto-Central Mayan
- *-ooj/-uuj* was essentially a nominalizing suffix

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Q'anjob'alan uses of infinitive

- Primary context of use: Subordinated to intransitive motion verb
- Incorporates bare noun as object

Q'anjob'al (Mateo Toledo 2008: 263)

(1)   Max-in   toj   **tzok'-oj**   **si'**

        COM-1S.ABS   go   cut-INF   firewood

        'I went to cut firewood.'

Q'anjob'alan uses of infinitive

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Chuj (Maxwell 1982: 168)

(2)   Ø-honh-'el   **poj-(o)j**   **k'atzitz**

REC-1.ERG-go.out cut-INF   firewood

'We went out to split firewood.'

Popti' infinitive

- Same usage as Q'anjob'al and Chuj
  - Intransitive matrix verb
  - Incorporated object

Popti' (Craig 1979: 145)

(3)   Xk-ach   to   **il-o'**   **q'inh**

      ASP-2.ABS   go   see-INF   feast

      'You went to watch the *fiesta.*'

Popti' infinitive

- *j>'* (*χ>?*) is not a regular change in Popti'
- *-o'/-u'* related to potential/irrealis suffix *(-a/-o/-u)-'*

Popti' (Craig 1977: 320)

(4)   ch-in   to   **hach   hin-kol-o-'**

        ASP-B1   go   B2   A1-help-TV.SUF-POT

        'I go to help you.'

Popti' infinitive vs. potential: Similarities

- Both may be subordinated to intransitive verbs of motion
- Both end in glottal stop
- Both show vowel harmony

Popti' infinitive vs. potential: Differences

- Potential has different allomorphy
  - Potential *(-a/-o/-u)-'* vs. infinitive *-o'/-u'*
  - Potential surfaces as *-b'* on transitive roots ending in /h/ or a vowel
- Potential may appear in matrix clause
- Potential takes full object; infinitive incorporates object
- Potential takes person agreement; infinitive does not

Popti' infinitive vs. potential: Differences

Popti' (Delgado Rojas et al. 2007: 115)

(5)   Ch-s-xi-**b'**   hin-mi'   sxil   hin-wi'   han

          ASP-3S.ERG-comb-POT   my-mother RN   my-hair   1S.CL

          'My mother will comb my hair.'

          (root: *xih* 'to comb')

Popti' infinitive vs. potential: Differences

Popti' (Delgado Rojas et al. 2007: 135; Craig 1979: 145)

(6) hach   w-il-**a-'**   han
     2S.ABS   1SG.ERG-see-TV.SUF-POT   1S.CL
     'I want to see you.'

(cf. 3) Xk-ach   to   il-**o'**   q'inh
     ASP-2.ABS   go   see-INF   feast
     'You went to watch the *fiesta.*'

Formal replacement

- **Form** of *-o'/-u'* infinitive comes from potential *-(a/o/u)-'*
- **Distribution** of *-o'/-u'* infinitive reflects older **-oj/-uj* infinitive
  - *o/u* vowel harmony pattern (not *a/o/u*)
  - Does not take person marking
  - Cannot appear in matrix clause
  - Object incorporation, not full object

Reasons for replacement

1. Analogical leveling

2. Response to phonological change

3. Semantic connection

Reason 1: Analogical leveling

- Q'anjob'alan *-oq* is both potential and infinitive of **intransitive** verbs
    - Persists in Popti' (where *-oq > -oj/-uj*)

- In Popti', *-'* came to mark potential and infinitive of **transitive** verbs

-oq: Uses in Q'anjob'al

1. Potential aspect (as irrealis marker)

   (7) *Hoq-on*   *way-**oq***

     POT-B1P   sleep-IRR

     'We will sleep.' (Mateo Toledo 2008: 56)

2. Intransitive infinitive

   (8) *Max-in*   *b'et*   [*saqch-**oq*** *hey-etoq*]

     COM-B1s go.return play-INF A2P-with

     'I went to play with you.' (Mateo Toledo 2008: 56)

-oq: Uses in Q'anjob'al

3. Intransitive verbs in secondary predicates

    (9)   *Max-Ø*   *hin-tzok'*   *koj-**oq***

                  COM-B3S   A1S-cut   grind-INF

                  'We will sleep.' (Mateo Toledo 2008: 57)

4. Positionals in non-main predicates

    (10)   *Max-Ø*   *ko-q'aq-el*   *tel-an-**oq***

                  COM-B3S   A1P-cut-DIR   lay-POS-INF

                  'We cut it down and it resulted lying down.' (Mateo Toledo 2008: 57)

-oq: Uses in Popti'

1. Potential aspect

   (11)   *ch-in*   *uk-**uj***

            INC-1P.ABS   drink-IRR

            'I will drink (liquor).' (Delgado Rojas et al. 2007: 115)

2. Intransitive infinitive

   (12)   *xk-ach*   *to*   *sajch-**oj***

            ASP-2.ABS   go   play-INF

            'You went to play.' (Craig 1977: 311)

*–': Uses in Popti'

1. Potential aspect
   (6) hach   w-il-**a-'**   han

   2S.ABS 1SG.ERG-see-TV.SUF-POT   1S.CL

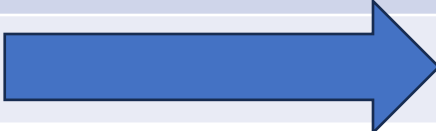   'I want to see you.' (Delgado Rojas et al. 2007: 135)

2. Infinitive
   (3) Xk-ach to   il-**o'**   q'inh

   ASP-2.ABS   go   see-INF   feast

   'You went to watch the *fiesta.*' (Craig 1979: 145)

Reason 1: Analogical leveling

Proto-Q'anjob'alan	Irrealis	Infinitive
Intransitive	*-oq*	*-oq*
Transitive	*-'*	*-ooj/-uuj*

Popti'	Irrealis	Infinitive
Intransitive	-oq	-oq
Transitive	-'	**-'**

Reason 2: Phonological change

- In Popti', ***q>j*** (*q>χ) word-finally
  - pM *winaq* 'man' > Popti' *winaj* (Kaufman and Justeson 2003: 86; CLJP n.d. 498)
- ***-oq*** intransitive irrealis/infinitive > ***-oj/-uj***
- Conflicted with ***-oj/-uj*** transitive infinitive
  - **Identity avoidance**
  - Pressure to maintain transitive/intransitive distinction
  - Innovated new transitive infinitive

Reason 2: Phonological change

- Heath (1998) on "hermit crabs"
  - Morpheme recruited to strengthen existing category
  - Replaces older morpheme that has become less salient
- Note: Competing pressures
  - Transitive/intransitive distinction strengthened
  - Irrealis/infinitive distinction (partially) leveled

Reason 3: Semantic connection

- Potential is natural source for infinitive

- Q'anjob'alan infinitive primarily used for purpose clauses
  - Purpose may or may not be accomplished → Potential/Irrealis
  - Popti' potential can appear subordinated to verbs of motion

Conclusion

- Popti' potential *(-a/-o/-u)-'* replaced older infinitive **-ooj/-uuj*

- Formal replacement
  - Influenced form but kept old distribution

- Multiple motivations for change
  - Analogy, identity avoidance, semantic connection

- Side note: Akateko also has an *-o(')* transitive infinitive
  - Zavala (1992: 85-86) suggests this is cognate with Popti' *-o'/-u'*

What is a cognate?

- Popti' *-o'/-u'* infinitive has multiple sources
  - Form comes from potential
  - Distribution matches **-ooj/-uuj* infinitive
- How to handle in a morphological cognate set?
  - Default: Treat as unrelated to **-ooj/-uuj*
  - But still part of its history
  - Exemplifies the behavior of **-ooj/-uuj*, but is not evidence for it

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Thank you!