Clause chaining and nominalization in Tarahumara:
Towards a diachronic source of clausal nominalizing suffixes

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> Clause-chaining is a universal
> functional category with structural-
> typological diversity (T. Givón p.c.)

1. Introduction

In many languages of the world nominalizing suffixes have been a diachronic source of tense-aspect-mood suffixes (Bybee et al. 1994; Gildea 2008); this is also observed in Tarahumara. Nominalizing suffixes that occur in verbal complement clauses derived from main lexical verbs, e.g. verbs of 'want', 'wish', or 'desire' may evolve into future markers according to Heine & Kuteva (2002: 310). The exact nature of how this kind of change proceeds in different languages, and which are the different sources of the tense-aspect-mood suffixes remains almost unexplored in languages of northwest Mexico, most of all because these languages have no written tradition, and the lack of that kind of material sometimes obscures the source of such suffixes. However the study of spontaneous discourse material can provide good evidences for a diachronic account.

Long sequences of foreground clauses or sequential event clauses are characteristic of clause chaining (Dooley 2010:90) where the most important property of such sequences is the presence of switch-reference markers. Moreover, Overall (2014: 314) defines clause chaining as a "multi-clausal construction consisting of one or more dependent clauses associated with a single finite clause." This paper considers the diachronic source of some aspect suffixes in Tarahumara, a Uto-Aztecan language from northwest Mexico as the result of nominalizing suffixes that are observed in complement clauses as well as in clause chaining. The analysis argues that clause chaining in Tarahumara makes use of other operators —nominalizing suffixes— rather than switch-reference markers, which seem to be lost in this language and that the Tarahumara syntactic nominalizing suffixes are: *-ame, -ya ~ -a, -ka, -i -cho*; we attempt to identify the diachronic source of such suffixes.

2. Discourse strategies and their social basis

Clause chaining is a common mechanism for the organization of clause sequences at the discourse level in Tarahumara. Long sequences of clauses are the result of rhetorical strategies, which are characteristic of the *nawesari*, the sermons of the *siriame*, the authorities.

> ➤ The *siriame* 'the one who is the chief' is a central figure within the Tarahumaras' social order. They are the traditional authorities for every important event in the

Tarahumara lives. One of their main duties is to gather people from different communities and to talk to them about the current problems they are dealing with.

➢ The *siriames*, who are from different communities, express their thoughts in a ritual act where each *siriame* take a turn and elaborate a sermon organized in multiple series of clauses.

➢ The *nawesari* 'the act of explaining', 'the act of advising' is the traditional name given to the sermons that the *siriame* addresses to the Tarahumaras.

➢ The rhetorical style of the *nawesari* is traditionally considered exclusive of the *siriame*. It is constructed by following the next pattern: (i) it is divided in well-recognizable temporal prosodic units, (ii) it is organized based on rhythmic contours which are accomplished by the combination of different elements: prosodic delimitative particles, connectives, hesitative/evidential particles and most of all, rhythmic changes of word order, and (iii) it is supported by different mechanisms of clause chaining (e.g., juxtaposition, coordination, and subordination) where the limits between clauses are blurred and clauses easily overlap.

3. Aims of this talk

i. To show that clause chaining makes use of different mechanisms available for clause linking: juxtaposition, coordination, subordination, verbal serializations, morphologically complex verbs and nominalizations.

ii. To show that nominalizing suffixes that occur in dependent clauses are now used as aspect markers in main clauses.

iii. To corroborate that such suffixes are still productive in other Taracahitan languages: Guarijio or Yaqui.

4. Speakers and their language

4.1 *The Tarahumara (Rarámuri)*

● Tarahumara, also known as Rarámuri Ra'ícha, is a Uto-Aztecan language belonging to the Tara-Cahitan branch. It is spoken in Northwest Mexico by around 85,300 people (INEGI 2010).

● The Tarahumara together with other native groups inhabit the Sierra Madre.

● Five distinct varieties of Tarahumara have been traditionally recognized: southwest, north, central, southeast and lowland. Central and lowland varieties include the majority of speakers (Burgess and Merrill 1995, Gordon 2005, Paciotto 1996, and Valiñas 1992).

4.2 *Relevant morphosyntactic properties*

● Agglutinating morphology is quite productive although the inventory is not extensive. According to Caballero (2008:129), the Tarahumara spoken in Choguita (north-central) has a complex verbal template with up to 12 verbal slots.

● Head-Marking tendency in most phrase levels (e.g., possessive noun phrase)

- Unmarked nouns, adjectives and determiners regarding grammatical relations or agreement.
- Verbs remain the same for all persons, except for a reduced set of verbs sensitive to number (i.e., number-based suppletive forms).
- Nominative-Accusative alignment in transitive clauses; primary-secondary object in ditransitive (Caballero 2002). Such alignments are encoded primarily by sets of pronouns distinguishing subject and non-subject forms.
- Tarahumara is predominantly an SOV/APV language for which a free word order tendency has been claimed (Copeland 1988). On the other hand, the most frequent orders are: APV, AVP, PVA and with less occurrences: VPA, VAP and PAV (Cohen 1998).
- Verbal morphology distinguishing aspect and modality: perfective -ri ~ -li, prospective/irrealis -ma ~ -mea, exhortative -bo, continuous -ka and conditional -sa.

4.2.1 *System of personal pronouns[1]*

➢ Tarahumara is a two-forms language (1st and 2nd person pronouns[2])

	Independent subject pronouns	**Reduced subject pronouns**	**Object pronouns (non-subject)**	**Possessive pronouns**
1SG	nejé	ne ~ na	tami, =ni	kiné
2SG	mujé	mu ~ mi	=mi ~ =mu	kimú
1PL	tamujé ~ tamué	ta ~ ti	tamó ~ ta	kita
2PL	yemi ~ tumujé	tumu	tamú ~ mu tumujé mi	kitumu

➢ The only instance of a third person encoded by a pronoun is 3SG.POSS, which uses the pronoun *kipu*. However, possessive pronouns are being displaced by subject pronouns.
➢ Third person is encoded by the invariable demonstrative *échi*, which functions as a third person subject pronoun in (1a), or as a determiner in (1b).

(1) *échi* bilá ko échi riká wilí-li
     DEM   CERT TOP DEM EVI   be_vertical-PFV

    échi choki-chí   je'ná   kíne   kompañero kó
    DEM   beginning-LOC DEM:PROX 1SG.POSS partner   TOP
    'So this is how he was / at the beginning… my partner.' [tra24]

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[1] The corpus of this paper has been documented by Estrada's fieldwork sessions during 2011-2014 on Central Tarahumara from Pahuirachi and Norogachi.
[2] Typology provided by Bhat (2004).

➢ *Échi* remains the same in a non-subject (object) function, as shown in (2):

(2)   tamujé   échi   rewá-li   rapakó   ralinéilia-chi
       1PL.S   3P   see-PFV   yesterday   market-LOC
       'We saw him/them at the market yesterday.'

➢ *Échi* can be omitted when the referent is easily recoverable:

(3)   nejé   rewá-ki   rapakó   ralinéilia-chi
       1SG.S   see-PFV   yesterday   market-LOC
       'I saw (him/her/them) at the market yesterday.'

5. Clause types and morphosyntactic strategies for clause-linking in Tarahumara

5.1 *Preferred clause order*

Word order between main clause and dependent clause varies, but the preferred order is dependent clause final:

➢ Main clause + dependent clause

(4)   échi   ki   belá   járo   ba   napa-wí-ka…   mápu...
       DEM   TOP   CERT   other   PDP   gather-IMPR-CONT   SUB

       mapu-a'rí   oma-wá-lia   ko
       SUB-SIM   celebrate-IMPR-APPL   TOP
       'Well, all of them get together when… when the celebrations take place.' [tra106]

(5)   échi   Clarisa   retéma-ra   a'   níwi biré karí   a mi   sierra-chi
       DEM   Clarisa   family-POSS   AFF   have one house   DEM   highland-LOC

       mapu-a'rí   simí-a   ichá-ya.
       SUB-SIM   go-HAB   sow-CONT
       'Clarisa's family has a house at the highlands to go when sowing.'

➢ Dependent clause + main clause

(6)   nari,   mapu-a'rí nari   biléana   eperé-lu-wa   ko
       UNC   SUB-SIM   UNC   INDEF   dwell.PL-PFV-IMPR   TOP

       biléana   komunidad-chi   ane-lí-wa
       INDEF   village-LOC   say-PFV-IMPR
       'Well… when someone lives in a place it is called *comunidad*.' [tra2]

(7)　　mapu-a'rí　　oma-wá-li-achi,
　　　　SUB-SIM　　celebrate-IMPR-PFV-EVI

　　　　nari　nikú'ura　chukú-li　la　usáni　bamíbali
　　　　UNC　help　　　AUX-PFV　good　six　　year
　　　　'When the traditional festivities were celebrated/ (my husband) was helping for six years.' [tra21]

5.2 *Juxtaposition*

(8)　　rutubúli　ko　a'　bilá　ko　awí-wa　ba
　　　　rutubuli　TOP　AFF　CERT　TOP　dance-IMPR　PDP

　　　　biti-chí　　ayé　　　　　　ki…
　　　　dwell-LOC　walk_around　TOP
　　　　'The rutubuli is then danced (when we) are at (our) home…' [yum4]

5.3 *Syndetic and asyndetic coordination (conjunction a'ri 'and')*

(9)　　**a'rí**　ko　échi　kochí　wirísi-ri,
　　　　CONJ　TOP　DEM　dog　　stand_up-PFV

　　　　a'rí　chóta-ri　échi　músa　neká-mia.
　　　　CONJ　start-PFV　DEM　cat　　bark-PURP
　　　　'And then the dog stood up and started to bark to the cat.'

(10)　　**a'rí**　mapu-a'rí　ta　　　na'í　nawá-re　jena'í　rikáa-chi　sierra-chi,
　　　　CONJ　SUB-SIM　1PL.S　here　arrive-PFV　here　　side-LOC　　mountains-LOC

　　　　'a　　ta　　simí-ri-re　　　　**a'rí**　ta　　**a'rí**　buyé
　　　　AFF　1PL.S　walk-CAUS-PFV　　CONJ　1PL.S　CONJ　wait_for

　　　　a'rí　ta　　ripí-ri　mapu-'oná　ta　　ba'óri-ri.
　　　　CONJ　1PL.S　stay-PFV　SUB-LOC　　1PL.S　like-PFV
　　　　'Thus when we reached here, at this part of the mountains, we walked, and we waited (a while), and (then) we stayed where (at the place) we liked.'

(11)　　mapu-a'rí　chóta-ri　bacháwa-ra　ukí　wichí-ya
　　　　SUB-SIM　　start-PFV　first-POSS　　rains　fall-NMLZ

　　　　Pedro　　simí-re　iwé-chi
　　　　Pedro　　go-PFV　field-LOC

　　　　a'rí　karéwi-ri　　échi　iwé　kíti　ichi-méa　sunú.
　　　　CONJ　weed_out-PFV　DEM　field　PURP　sow-IRR　corn

'When the first rains started to fall down, Pedro went to the field and weed it out in order to sow corn.'

(12)   mapu-a'rí bile rarámuri   **o** mukí
          SUB-SIM   one Tarahumara or woman

          échi bilé   chibíto kasí-la   naré-sa
          DEM one   goat   leg-POSS   receive-COND
          'When a Tarahumara (man) or a woman receives the leg of a kid goat…' [yum34]

5.3 *Adverbial clauses: temporal, cause/reason, conditionals and purpose and final clauses*

According to Dooley (2010) temporal relations are commonly inferred rather than encoded in clause chaining. In Tarahumara the use of a compound subordinator (e.g., *mapua'rí*) or conjunction conveys temporal relations (e.g., sequential or causal).

(13)   **mapu-a'rí** suini-ri   ko'á   Juán ku-simí-ri échi   kuárto-chi
          SUB-SIM   finish-PFV eat.NMLZ John REV-go-PFV DET   room-LOC
          'When (he_i) finished eating, John_j went to the bedroom.'   (temporal)

(14)   **kíti** a'   machi-ká siro-li   jépu pagótu-ame   ko
          SUB AFF know-ST AUX:MOV-PFV DEM baptize-NMLZ TOP
          'That's why the baptized people know this well…' [tra113]   (reason)

(15)   **mápu** ya ni... ju   na jurá-ma échi   ukí ki…
          SUB [false_start] LOC send-IRR DET   rain TOP
          'In order to se… to send the rain.' [yum28]   (purpose)

(16)   ayéna-cho   newá   ko'-w-ámi   be'á…
          AFF-still   make.IMPF   eat-IMPR-NMLZ   early
          'Early also (the woman) makes food… [rwd11]

          mapu kite   ko'á-ma kipi   kúchu-wa
          SUB   SUB   eat-IRR   3SG.POSS children-POSS
          '… so that her children eat.' [rwd12]   (purpose)

(17)   **kíti** alá   já-ma   échi   namúti ichi-rú-ame…
          SUB fine be_standing-IRR   DET   thing   sew-PASS-NMLZ
          'So (they) are all right, the things that have been sown.' [yum29]   (finality)

      ➢ Adverbial conditional clauses can have only the suffix -*sa* on the verb, or both the suffix and the conjunction *mapu-arí*.

(18)   ayéna   wakiche-a   wilí-**sa**…
          also   dry_up-NMLZ   be-vertical-COND
          'Also, if it (the corn plant) is growing weak…' [yum26]   (conditional)

(19) mapu-a'rí   tenánchi   rika'áchi   já'-**sa**
     SUB-SIM   tenánchi   once   put-COND

     échina   biléana   comunidad-chi
     DEM   INDEF   comunidad-LOC
     'When (someone) is chosen as a tenanchi in a village.' [yum32]   (conditional)

5.4 *Verbal complement clauses*

➢ Embedded (20) and adjunct verbal complements (21) are nominalized clauses:

(20) a. nejé   [kríl-chi   **simé-ya**]   natá'-ri.
     1SG.S   Creel-LOC   go-NMLZ   think-PFV
     'I thought going/traveling to Creel.'

   b. ayéna   siné ka'áchi   'a   [**wikaná**]
     also   some_times   AFF   bring.NMLZ

     bilá   nula-lí-wa   échi   remé   ke…
     CERT   make-PFV-IMPR   DET   tortilla   TOP
     'Also sometimes somebody is made to bring tortillas…' [yum133]

(21) a. kin   marí   tamí   bené-ri-ri   [ku   **rapaná**]
     1SG.POSS   father   1SG.NS   learn-CAUS-PFV   firewood   cut.NMLZ
     'My father taught me to cut firewood.'

   b. nejé   bené-ri   [kina   kuch-wa   **wéria**]
     1SG.S   learn-PFV   1SG.POSS   children-POSS   raise_children.NMLZ
     'I learned to take care of my children.

➢ Verbal complements introduced by the subordinator *mápu* or other subordinator are marked for either aspect or mood, which does not necessarily match the main verb tense:

(22) a. ne   mayé-(r)i   [**mápu**   towí   rajá-ri]
     1SG.S   believe-PFV   SUB   child   burn-PFV
     'I thought that the boy burnt.'

   b. nejé   mayé   [**mápu**   na   ku-sim-méa]
     1SG.S   believe.IMPF   SUB   LOC   REV-go-IRR
     'I think that I will go back there.'

5.5 *Morphologically complex verbs*

(23) kuri   ne   **néwa-niri**   mápu   mu   simí-re
     recently   1SG.S   do-DES   SUB   2SG.S   go-PFV
     'I just wanted to do it and you probably had left.'

(24)   ne   mayé   mápu towí   **kóchi-nari**
        1SG.S believe.IMPF SUB   child   sleep-DES
        'I believe that the boy wants to sleep.'

(25)   ayéna bela échi riká **kuwa-níwa** bilé   rutubúli ba   nibí
        AFF   CERT this_way finish-make one   rutubuli PDP EXCL
        'Thus, in this way, (the organizer) makes finish the rutubuli.' [yum212]

6. Clause chaining in Tarahumara

According to Overall (2014: 314) clause chaining is a "multi-clausal construction consisting of one or more dependent clauses associated with a single finite clause."

In a similar line of thought, Dooley (2010: 3) point out what he considers a main characteristic of clause chaining: "the possibility of long sequences of foreground clauses with operator dependence". Such operator is a switch-reference marker.

- Carlson (1994: 597-598) considers clause chaining to be a "distinctive system" where the first clause within the narrative text encodes or "sets the tense-aspect stage". The following clauses make use of a "narrative tense" and include a "narrative conjunction."

- Givón (2001: 355): "the term *clause chaining* itself, due to Longacre (1983, 1985), was taken initially as a suggestion that a radically different system of clause-combining existed, one in which the traditional distinction between subordinate and coordinate was either irrelevant or superseded."

Prototypical properties of clause chaining languages

- ➢ Examples in parentheses illustrate what has been attested in Tarahumara:

a. Sequences of dependent clauses (3 ~ 5 clauses), most of them temporal.
b. Clausal connectives –simple and complex– at initial position, e.g., *mapu-a'rí, mapu-riká*, etc. (cf. section 5.2 and 5.3) (e.g., 9-19).
c. Cataphoric reference, (e.g., 26 and 27)
d. Medial clauses: unmarked or neutral bare verbal stems + *ba* 'DPD' or *ki ~ ko* 'TOP', (e.g., 28 and 34).
e. Nominalizing suffixes: *-a, -chi ~ -cho, -na, -ka,* (e.g., 29-45).
f. Tarahumara from Norogachi and Pahuirachi lacks switch-referent markers.[3]

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[3] Villalpando (2010) documents two switch-reference markers in Southeastern Tarahumara: *-ra* for different subject and *-riá* for same subject.

6.1 *Clause chaining particles*

Clause-chaining is accomplished by a set of discursive particles conveying: location *na*, hesitation *nari*, certainty *bila*, evidentiality *rika ~ reke*, assertion *a'*, emphasis or topic marker *ko*, and focus *iyera*. Prosodic units are delimited by *ba ~ pa* or by clausal connectives; in particular: *mapu, mapua'rí, a'rí, échi reké*.

6.2 *Rhythm supporting particles (prosodic delimitative particle)*

ba ~ pa
ko ~ ku

6.3 *Cataphoric reference*

According to Haspelmath (1995: 12-17) cataphoric reference is a situation where a pronoun can appear within the first clause and "whose 'antecedent' is in the second clause (as in): After **he**ᵢ stumbled, **John**ᵢ fell." Cataphoric reference is according to Dooley (2010) a characteristic property of clause chaining. As for clause chaining in Tarahumara, the first clause may show no overt pronoun, as an instance of zero anaphora. The first example in (26) illustrates a case of cataphoric reference: within the first clause no grammatical element makes reference to *échi wikará-ame* 'the singer', which occurs until the second clause.

(26)   kilíi   ko   tamí   nul-é   ba
        calm   TOP   1PL.OBJ   order-IPFV   PDP

        échi   wikará-ame belá   a'   nawésa ba
        DEM   sing-NMLZ CERT   AFF   preach PDP
        '(**He**ᵢ) demand us to keep calm…the singerᵢ who is delivering a sermon.'[yum222]

➢ The following chain is another example of cataphoric reference. The first clause encodes a demonstrative *échi* whose antecedent occurs in the second clause:

(27)   ayéna-cho   nawésa **échi**
        AFF-still   preach   DEM

        mápu   chóta-li-cho   la   échi rutubúli ba   nibí
        SUB   start-PFV-NMLZ   EVI   DET Rutubuli PDP   EXCL
        'Thus delivers a sermon that one, the only (one who) started the Rutubuli, huh…' [yum225]

6.4 *Clause chaining, medial verb in neutral basic form*

(28) ayéna-cho   sine ka'áchi   a'   **awi=bá**   biré   rutubúli[4]
       AFF-still   sometimes   AFF   dance=PDP one   rutubuli
        'So sometimes the rutubuli is danced as well.' [yum31]

cf. Underlined verbs in (34).

7. Nominalization strategies in Tarahumara and their diachronic source

7.1 *The nominalizing suffixes*

Tarahumara makes use of several nominalizing suffixes -*ame*, -*ya* ~ -*a*, -*ka*, -*cho*. Each one of them has grammaticalized different functional domains.

A. -*ame* is a fairly productive derivative nominalizing suffix. Clausal nominalization by using the suffix -*ame* is not attested in Tarahumara, while it is observed in Guarijio and Yaqui. Its diachronic source is unknown. This is the oldest nominalizing suffix, and for that reason its function is **restricted, in general, to derive nouns** (agentive and patientive nominalizations) out of verbs (i.e., deverbal nouns).

(29) iyé   bené-ri-ri   [ko'wá-**ame** newa-yá]
       mother   learn-CAUS-PFV   eat-NMLZ   prepare-NMLZ

       kipu   rará.
       3.SG.POSS   daughter
       'The mother taught her daughter to prepare *meals*.'

(30) tani-wa   la   [panína   beté-**ami**] bá…
       ask-IMPR   REP   up_there   dwell-NMLZ   PDP
       'It is said that they ask to *the one who lives up there* (on the top)…' [yum27]

However, it is still possible to find a headless relative construction modifying a locative NP, although it is rare:

(31) échi   namúti   kawi-chí   jáw-**ami**
       DEM   thing   land-LOC   be_standing-NMLZ
       '(All) the things that are on (our) land.' [tf15]

B. -*ya* ~ -*a* suffixes: they nominalize verbal complements. A verb bearing one of these suffixes can be considered the nominal form of the verb. The suffix -*ya* and its shorter allomorph have been grammaticalized from the verb *ayeto* 'to be in a place'

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[4] *Rutubuli* is the name of the dance that the Tarahumara perform to celebrate the *Yumari* 'the celebration of the crop.'

(Sp. *estar*).[5] During the grammaticalization process, the verb erodes its form and occurs attached to a verb that functions as a noun. *-ya* is used after a verb ending in a vowel /a/ or /e/, and its allomorph after any other vowel.

(32) échi   muní   iyéri   napó-**a**
      DET   beans FOC   weed-NMLZ
      'Weeding the bean-plants'   [rwd19]

(33) échi   riká   birá   ko   biléana   rutubúri-chi
      DET   EVI   CERT   TOP   INDEF   rutuburi-LOC

      ku   **machi'ina**   la   ba   échi   rejói…
      again   appear.NMLZ   REP   PDP   DEM   man
      'So this is exactly the way they say the man comes back in a rutubuli …'[6][yum35]

(34) kilípi   **nirá**   béla   machi-rú-ame   **níli**   jépuna   José Antonio ko
      slowly   exist   CERT   know-PASS-NMLZ   feel   DEM:DIST   José Antonio TOP

      mápu   chú-riká   **kúira**   chukú-li a'   kípi   retéma-la
      SUB   what- EVI   help.NMLZ   AUX-PFV   AFF   3SG.POSS   people-POSS
      'A feeling for the known person appeared, for that Jose Antonio…how he was helping his people…' [tra115]

The following examples illustrate the context where *-ya* , in (35-36), or *-a* , in (37-39), occur; that is, *-ya* after vowel /a/, and *-a* after any other sound.

(35) rapakó=ne   suiní-li   ichá-**ya**
      yesterday=1SG.S   finish-PFV   sow-NMLZ
      'I finished sowing yesterday.'   [arch296]

(36) biré   mukí   'a   chukú   sakí   newa-**yá,**
      one   woman   AFF   AUX   pinole make-NMLZ
      'A woman is (standing) making pinole.' (rwd7)

(37) bilé   mukí   ko   biré   rawé   nári   wiká   nátame   nóts**a**
      one   woman TOP   uno   día   UNC   many   way   work.NMLZ
      'A woman comes to work on many different things… in a single day.'

(38) 'a   chukú   remé-**a**   be'á   asísi-ka,
      AFF   AUX   tortilla-NMLZ   early   get_up-CONT
      '(She) is making tortillas early (in the morning).'

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[5] Several of the lexical elements considered in this section were taken from Thord-Gray (1955).

[6] By 'the man' the narrator makes reference to the *tenanchi*, the responsible for the ceremony.

(39)　　napíwili　　　batú'-**a**
　　　　corn_grain　　grind- NMLZ
　　　　'(she is) grinding processed corn.' (rwd8)

A cognate form of the nominalizing suffix -*a*, has also been attested in Guarijio:

(40) a. Hustína　　　nawése-re　　owítiame　　cuhcúri　　ki'ki-ri-**a**.
　　　　Agustina　　　talk-PFV　　woman　　　dog　　　bite-PFV-NMLZ
　　　　'Agustina talked to the woman whom the dog bit.'　　　(Félix 2007: 83)

　　b. ki=kawé　　intá-ni-ni-a　　　　tapaná　　amó　　yowá-ri-**a.**
　　　　neg=weak　agree-PRS-1SG-S=EMPH　yesterday　2SG.NS　make-PFV-NMLZ
　　　　'I frown upon what you did yesterday.'　　　(Félix 2007: 161)

　　C. -*ka* stative (continuous), also nominalizes verbs in complements of manner. Unlike other Uto-Aztecan languages from the area, there is no verb *kaat* 'stay', 'be placed' in Tarahumara, as in Pima Bajo. However, the nominalizing (participle) suffix has been attested in Opata, Yaqui, Guarijio, Pima Bajo as well as in Tarahumara. The suffix is used in complements of verbs of movement, or in resultative constructions. Its function is clear: it nominalizes verbs to mark a stative, either durative or continuous event or situation, including a property. The suffix qualifies to be called a converb also, as it occurs in Yaqui with the suffix -*kai* (-*ka* + -*i*, the last one another nominalizing suffix):

(41) a. ayéna　　béla a...　　awi-**ká**　　ta　　　ono-**ká** ba　　　　(manner)
　　　　also　　　CERT danc… dance-ST　1PL.S　make-ST PDP

　　　　échina　　　biti-chí　　ayé　　　　ke
　　　　there　　　dwell-LOC　walk_around　TOP
　　　　'So this is the way it is danced, we do it, (when) (we) are at home…' [yum4]

　　b. échi bilá　　biré échi silí-ame　　iséli-**ka**　mi　　　bikía ju
　　　　DET CERT　　one DET be_chief-NMLZ　divide-ST　LOC　　three COP
　　　　'So this (system) is divided into three governors…' [tra9]

　　D. -*i*, according to Thorn-Gray (1955: 191) this suffix means 'here', 'in this place'. Its origin was probably a verb. Hilton (1993:39) registers the verb *iyéna* 'to walk around' which first syllable could be another source for this nominalizing suffix. In data from Tarahumara, this suffix nominalizes verbs when they occur in adverbial clauses:

(42) a. naparí ke　　cho　　narú-**i**　　ko　　sekundária　　　ba
　　　　when NEG　still　exist-NMLZ　TOP　secondary_school　PDP
　　　　'When there was not a secondary yet…' (Caballero 2008:430)

b. échi   ke   uméro-ri   ra'ícha   échi   yúa
   DEM   NEG   be_able-PFV   speak.NMLZ   DEM   COM

   mapu-a'rí   échi   nará-**i**
   SUB-SIM   DEM   cry-NMLZ
   'They could not talk to her while she (was) crying.' [adv1as24]

c. Fransíska   isábu-i   mapu-a'rí   mujé   nótsa-**i**[7]
   F.   rest-IPFV   SUB-SIM   2SG.S   work-NMLZ
   'Francisca (was) resting while you (were) working.' [adv1as27]

E. *-cho*, probably grammaticalized from the verb *chogi* 'to be very near a thing' (Sp. *por poco*), or 'to shoot at a target (Sp. *tirar al blanco-flechar* [*atinar*] Thord-Gray (1955:133). This verb grammaticalized into the adverb *cho(pi)* 'only, solely, alone', which consequently became the nominalizing suffix *-cho*. When it is used as a nominalizing suffix, it functions as an Aktionsart accomplishment suffix, where the event is perceived as unique.

(43)   mápu-riká nócha-**cho**   échi   muní   iyéri.
        SUB- EVI   work-NMLZ   DET   bean   FOC
        'So this way, (we are) only working on the beans.'

(44)   reyáwi   bone-yá   nócha-**cho.**
        herbs   weed-NMLZ   work-NMLZ
        'Working only weeding out the herbs.'

(45)   ayéna-cho   nawésa   échi
        AFF-still   preach   DEM

        mápu   chóta-li-**cho**   la   échi rutubúli ba   nibí
        SUB   start-PFV-NMLZ   EVI   DET   Rutubuli PDP   EXCL
        'Thus delivers a sermon that one, the only one (who can start the Rutubuli), huh…' [yum225]

8. Final remarks

> Clause chaining in Tarahumara makes use of different mechanisms: juxtaposition, coordination, subordination, verbal serializations, morphologically complex verbs and nominalizations. All such resources not only build a coherent discourse but also control the information flow.
> Simple and complex connectives as well as verbal nominalizations are the most relevant properties of clause chaining in Tarahumara.
> Cataphoric reference is also an important property of clause chaining regarding this head-final language.

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[7] Observe that the nominalizing suffix is also coding imperfective aspect on the main verb.

➢ Subject continuity or discontinuity is not overtly marked in Tarahumara (anaphora zero).
➢ Nominalizations in Tarahumara use the suffixes: *-ame*, *-ya~-a*, *-ka*, *-i* and *-cho*.
➢ As expected, nominalizing suffixes have positional verbs as their diachronic source: *-ya* < ('to be in a place'), *-ka* < ('to stay' / 'to keep/save'); *-i* < ('here') < ('to walk around'/), *-cho* < ('to be close to s.t.')
➢ The suffix *-ame* remains unclear regarding its diachronic source, although its use is restricted to derive agentive nouns.

Abbreviations

1, 2, 3, first, second, third person, AFF affirmative, APPL applicative, AUX auxiliary, CAUS causative, CAUSE cause, CERT certainty, COP copula, COND conditional, CONJ conjunction, CONT continuous, DEM demonstrative, DET determiner, EVI evidential, EXCL exclamative interjection, HAB habitual, INDEF indefinite, IPFV imperfective, IMPR impersonal, INT intensive, IRR irrealis, LOC locative, MANN manner, NS non subject (object), NMLZ nominalizer, PASS passive, PDP prosodic delimitative particle, PFV perfective, POSS possessive, PROX proximate, PURP purposive REP reportative, S subject, SIM simultaneous, ST stative, SUB subordinator, TOP topic, UNC uncertainty.

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