A Kwadi perspective on Khoe verb-junature constructions

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1 Early research on the Khoe 'juncture'

1.1 Köhler (1981)

+ coins the concept and term "joncture" (Köhler 1981: 495) in describing a suffix in West Caprivi Khwe (Kalahari Khoe) which joins a lexical verb root to another grammatical suffix

+ two morphemes identified due to different allomorphy: "joncture I" and "joncture II"

(1) a. *kyámà-à-tè*
    follow.spoor-JUNCT I-PRS
   b. *kyámà-nà-hǎ*
    follow.spoor-JUNCT II-PST
(2) a. *kwê-έ-tè*
    not.want-JUNCT I-PRS
   b. *kwê-rέ-hǎ*
    not.want-JUNCT II-PST   (Köhler 1981: 497-9)

1.2 Elderkin (1986)

+ historical reconstruction of the juncture as deriving from a conjunction *à*:

I would like to suggest that the *joncture* is a conjunction, used between verbs, of probable form à, entering into the phonological structure of the previous item and forming one word with it. It was this joining of two verbs which led to the grammaticalisation of the second in what were presumably stereotyped and frequent combinations. In the *prétérit,* the grammaticalisation was earlier than in the present/future where the form of the *joncture* à is better preserved. (Elderkin 1986: 234)

+ synchronic evidence for particle *ʔà* in complex predications, e.g. Ts'ixa, Shua (Fehn f.n.):

(3) a. *tí   tè   ǀ'eé   ǁóé*   Ts'ixa
     1S   NEAR.PST   fall:JUNCT   lie.down
     I fell into a lying position.
   b. *tí   tè   ǀ'eé   ʔà   ǁóé*
     1S   NEAR.PST   fall   CONJ   lie.down
     I fell and lay down. (Fehn f.n.)

1.3 Heine (1986)

+ historical reconstruction of the juncture as deriving from the identificational "copula" *ʔa* attested in several Khoe languages > complex network of grammaticalization whereby *ʔa* comes to mark different types of nominal constituents - cf. Figure 1
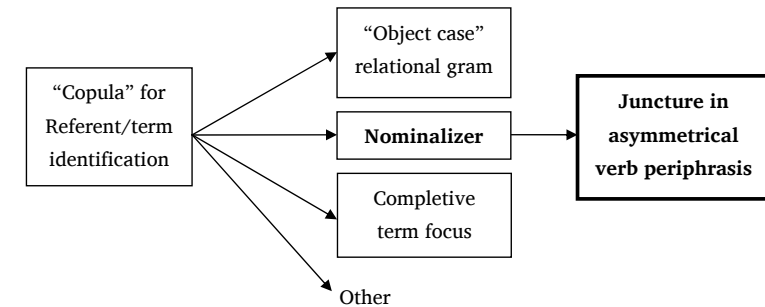

Figure 1: Assumed semantic map of Khoe copula *ʔa* (after Heine 1986)

+ crucial role of a periphrastic verb structure presumably attested in !Ora, in which the copula contributes to nominalizing the verb complement of an auxiliary

(4)   [[VERB *'a*-PGN]   -AUXILIARY]
    ham ǀxaba-a tje ta !ū   'a-b   ka?
    which side-?   1P   FUT go   "COP"-M.S   want
    Nach welcher Seite wollen wir gehen? [Which side do we want to go to?] (Meinhof 1930: 13)

+ subsequent grammaticalization of both "copula"~juncture and following auxiliary
> development of two junctures in West Caprivi Khwe as last innovative stage

(5)   [[VERB-*'a*-PGN]-AUXILIARY]   >   [[VERB-*'a*-Ø-GRAM]
                                      =   [[VERB-*'a*-TAM~DERIVATION]

1.4 Vossen (1997)

+ extensive survey of junctures across Kalahari Khoe:
- reconstruction of juncture II including some constructional contexts as a Kalahari Khoe innovation, albeit without clear proto-form ("base form" /a/)
- juncture I only in West Caprivi Khwe and incipiently in ǁAni
- no obvious meaning or function, only in active voice without being an "active" marker
- N/R-insertion motivated etymologically by earlier presence of these consonants in C2 of lexical CVCV roots (apocope: CVRV/CVNV > CVR/CVN > CṼṼ)

1.5 Some problems with available reconstructions

+ several reasons that conjunction *ʔa* and identification particle *ʔa* are problematic as sources for the Khoe juncture *-a:

(I)   conjunction/identification particle *ʔa* and juncture *-a* still co-occur as different grams in relevant languages

(II) /ʔa/ and /a/ involve a synchronically non-trivial phonetic difference to be explained (see §2.2.1 for more discussion on doubtful/spurious association)

(III) conjunction/identification particle *ʔa* and juncture *-a* have different prosodic effects within their attested construction (see §2.2.2-3)

(IV) morpho-syntactic changes may in principle be possible but detailed scenarios not outlined and in fact partly problematic

+ cf., e.g., Visser's (2010: 180) discussion of conjunction *ʔa* in relation to juncture in Naro:
> different form:

> The particle *-a* [= juncture suffix] must be distinguished from some apparently similar words and particles. First, the word *a* occurs between clauses. In those cases, it may express content, sequence, purpose, consequence, reason, etc. This word *a* has a preceding glottal stop, therefore it is written without hyphen. It is not connected to the previous word. (Visser 2010: 180)

(6)a. *!xóó-(a)*   *gùi*
        hold-JUNCT   lift
        pick up, lift up

   b. *!xóó **a**   gùi*
        hold CONJ lift
        hold/touch and (then) lift (Visser 2010: 179-80)

> different morphosyntactic behavior: *ʔa* coordinates verb phrases, as in (7) and (8), rather than just verbs like the juncture *-a*

(7)   *tàà-è-r   ko   a   !õò tama*
      [defeat-PASS-1S   CONT] CONJ [go not]
      I am defeated and don't go. > I can't go. (Visser 2010: 180)

(8)   *hàà   si ga l'uuka   **a**   !xaáía te ‖x'aà*
      [come 2S FUT tomorrow] CONJ [clothes 1S wash]
      You will come tomorrow to wash my clothes. (Visser 2010: 180)

Is there a yet another third hypothesis for the origin of the juncture?

2 An updated cross-family survey of the Khoe juncture

2.1 Function

+ 3 major contexts historically related via grammaticalization of final component - Figure 2
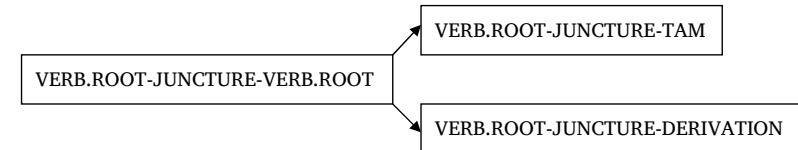

Figure 2: Historical relation between functions of verb-juncture constructions

2.1.1 Verb compounding [VERB.ROOT-JUNCTURE-VERB.ROOT]

+ wide-spread and productive multi-verb constructions, aka verb compounding, involving the juncture; little described by Vossen (1997, 2010) but more detailed later description by Nakagawa (2006), Kilian-Hatz (2006) etc.

(9)   *à-bè   kúnī ʔòà   n‖àì-**ā**   ǂ**ã̄ã̄***   Kua
      PRO-3S cart LOC   jump-JUNCT enter
      "He just jumped into the cart." (Chebanne and Collins, forthcoming)

+ wide variety of functions, sometimes with clear signs of grammaticalization:

(10)   Some semantic types of multi-verb constructions in Ts'ixa

a.   Sequential cause-effect
        noxá=m̄   ín=mà   tí kò   muùn-à   'aàn
        snake=M.S   DEM.REF=M.S 1S IPFV see-JUNCT know
        I recognize this snake

b.   Accompanying posture ('sit', 'stand', 'lie' etc. + V2)
        tí kò   nyúun-a   ‖'àm̀ katsí=sà 'à
        1S IPFV sit-JUNCT beat cat=F.S OBJ
        I beat the cat sitting

c.   Dative/Benefactive (V1 + 'give')
        'ém̀ tí 'à   k'oxú ká   ǂuùn-à-mà   (*mà* < 'give')
        3M.S 1S OBJ meat MPO buy-JUNCT-BEN
        (I asked him) to buy meat for me

d.   Perfect/Current relevance (V1 + 'exist')
        tí tsxaan-hàn   (*hàn* < 'exist')
        1S become.tired:JUNCT-STAT
        I am tired   (Fehn f.n.)

2.1.2 Verbal derivation [VERB.ROOT-JUNCTURE-DERIVATION]

+ survey of juncture with verbal extensions by Vossen (2010)

+ extensive updated survey by Vossen (2010): close to 20 different verbal derivations, six of them regularly with juncture: reflexive, directive-locative, dative ("benefactive"), repetitive ("iterative/frequentative"), causative III, terminative-itive

- two forms are clearly grammaticalized from V2 as part of earlier verb compounds

> attested with juncture in all Kalahari Khoe languages (although not in all dialects)

> other suffixes sporadically appear with juncture; dialectal variation > possible analogy?

Derivation	Reconstruction (verb source)	Example	
Reflexive	PK *-sani	*kúm̄-á-hì*	'hear oneself' (Kua)
Directive-locative	PKalK *-!'o	*péé-á-'ò*	'jump ahead' (Cara)
Dative	PK *-ma (<PWK *mã 'give')	*gòm̄-á-mà*	'smoke for' (Tsua)
Repetitive	-	*n‖gáí-a-kásì*	'sing' (Danisi)
Terminative-itive	PKalK *-xu (<PK *xu 'leave')	*giám̄-a-xú*	'get rid of' (Buga)
Causative III	PK *-si	*hĩ́-hĩ̄-à-sí*	'use, seduce' (‖Ani)

Table 1: Derivation suffixes with juncture in Kalahari Khoe (Vossen 1997, 2010)

2.1.3 Verbal TAM marking [VERB.ROOT-JUNCTURE-TAM]

+ some inflectional TAM-suffixes reconstructed for Kalahari Khoe require the juncture

> West Caprivi Khwe with most elaborate paradigm of 9 TAM-suffixes with one or the other juncture (cf. Kilian-Hatz 2008: 98-105)

> at least one suffix derived from V2 of verb compound (Vossen 1997: 365) cf. (10)e.

TAM	Form	Source	Attested in
Perfect/current relevance	-hã	hã 'exist, be there'	entire Kalahari Khoe
Near past	-ta	?tàn 'stand up'	Shua, Ts'ixa, Khwe
Preterite	-hĩ	hĩ́ 'do, make'	Khwe, Tshwa
Recent past	-'o	?	Ts'ixa

Table 2: TAM suffixes requiring the juncture (Vossen 1997, Fehn f.n.)

2.2 Phonological form

2.2.1 The juncture vs. other similar linguistic elements

The particle ʔa

+ persistent identification of a marker *ʔa* (with glottal stop!) with the Khoe juncture, similar to (or even inspired) by Elderkin (1986) and Heine (1986)

> notably Haacke (2014) for Naro

(11)

a.   [*ga-sa   ko   ‖õa*]   *'a   kx'aa*
      PRO-3F.S IPFV descend ?JUNCT drink
      She is coming down to drink.

b.   [*‖õa=s   ko*]   *'a   kx'aa*
      descend=3F.S IPFV ?JUNCT drink
      She is coming down to drink. (Haacke 2014: 131)

+ inappropriate analysis: Naro *'a* combines verb stems or even fuller clauses rather than verb roots in multi-verb constructions:

    - derived stem, cf. passive in (5) (which excludes the juncture!, cf. Vossen 1997)

    - clause operators not shared, cf. negation in (5)

    - verbs with their own arguments, cf. (6)

> *'a* is a conjunction rather than related to a grammaticalized morpheme in verb compounds

Other a-suffixes

+ a suffix -*a* in another grammatical context need not be cognate with juncture -*a*, as in (12) and (13); not even within a compound verb construction, as in (14)

(12) *ǂúú-a   te*   Naro
      head-LINK 1S
      my head (Visser 2010: 181)

(13) *thuu-r   bóà-a*   Naro
      PST-1S   see-PFV
      I have seen (Visser 2010: 181)

(14) *ǂgàn̄-ǎ-dòm̀   < ǂgàn̄-xǎ-dòm̀*   Standard Khoekhoe
      close-ADJR-throat
      to become hoarse (Haacke 2014: 139)

2.2.2 Segmental juncture allomorphy in Kalahari Khoe

+ five allomorph patterns, including tone change, identified in G|ui by Nakagawa (2006):

(1)   flip-flop only

(2)   flip-flop and /*a*/-suffixation

(3)   /*a*/-suffixation only

(4)   /*ná*/-suffixation only

(5)   /*r*/-insertion only

> attested similarly in other languages, e.g. Ts'ixa (Fehn f.n.), tone change is universal:

(I)   flip-flop only

(II)   flip-flop and /a/-suffixation

(III)   flip-flop and /r/-insertion

(IV)   flip-flop and /n/-insertion

(V)   flip-flop and /nà/-suffixation

Allomorph	Preceding context	Examples			
(I)	/a/	*k'aa-tà*	'drink'	(<*k'áà*)
	/ã/	*ts'ãã-tà*	'steal'	(<*ts'áã̀*)
	/e/	*ǀ'eé-tá*	'fall down'	(<*ǀ'eé*)
	/o/	*ts'óro-tà*	'be rotten'	(<*ts'óró*)
(II)	/i/	*gǁai-a-tà*	'run'	(<*gǁáì*)
	/ĩ/	*hĩ̀ĩ̀-à-tà*	'do'	(<*hĩ̀ĩ̀*)
	/u/	*káu-a-tà*	'stay'	(<*káú*)
	/ũ/	*kyũ̀ũ̀-à-tà*	'buy'	(<*kyũ̀ũ̀*)
	CVN	*ǁam̀-à-tà*	'feel'	(<*ǁam̀*)
(III)	/a/	*kharà-tà*	'give'	(<*khaà*)
	/e/	*pere-tà*	'flee'	(<*péè̀*)
	/o/	*garò-tà*	'look'	(<*gaò*)
(IV)	/ã/	*ʔaná-tá*	'get to know'	(<*ʔãã́*)
(V)	CVCV	*gunì-nà-tà*	'hunt'	(<*gunì*)
	derived verbs	*ǀ'urí-nà-tà*	'be dirty'	(<*ǀ'urî*)

Table 3: Juncture allomorphs in Ts'ixa (before hodiernal past suffix)

HH > HM	*xóro-tà*	'hold' (<*xóó*)
MH > MH (+H-tone spread to suffix)	*ǀ'ũ̀ṹ-á-tá*	'kill' (<*ǀ'ũ̀ṹ*)
MM>MM	*dao-tà*	'burn' (<*dao*)
ML > ML	*kyũ̀ũ̀-à-tà*	'buy' (<*kyũ̀ũ̀*)
HL > MM	*gǁai-a-tà*	'run' (<*gǁáì*)

Table 4: Tonal flip-flop on the verb stem caused by juncture in Ts'ixa (unilateral)

+ general observations for Kalahari Khoe:

- /a/-suffixation after oral and nasal high vowels, rarely after CVCV (cf. Vossen 1997)

- full assimilation~Ø (flip-flop?) and /r/-insertion after mid-vowels and /a/

- /n/-insertion after /ã/ and, in some languages, after /ĩ/

- /na/-suffixation often after CVCV and derived verbs (?nasal gesture in some derivations)

- /r/ and /n/-insertion much less frequent than /a/-suffixation and Ø, trend of generalizing
     /na/-suffixation in Naro, Gǀui, Khwe and Ts'ixa

2.2.3 From segmental juncture to purely tonal flip-flop in Khoekhoe

+ juncture in Kalahari Khoe observed to involve tonal flip-flop

> weak flip-flop in compound verbs of Namibian Khoekhoe (cf. Haacke 1999) shown by
     Rapold (2014) to largely correspond to juncture contexts in Kalahari Khoe - Table 5

> tonal changes as a historical reflex of earlier inherited juncture

Grammatical context	Juncture in Kalahari Khoe	Relevant marker in Namibian Khoekhoe	Weak flip-flop in Khoekhoe
Perfect	✓	*hãã̀*	✓
Dative	✓	*-pã̀*	✓
Reflexive	✓*	*-sèn*	(✓)
Causative	✓*	*-sì̃*	(✓)
Terminative-itive	✓	*-xùí̃*	✓
Directive-locative	✓*	*!'őá* (? = verb 'meet')	✓

Notes: * not attested throughout subgroup, (✓) only in some contexts

Table 5: Kalahari Khoe juncture vs. Khoekhoe weak flip-flop (after Rapold 2014)

2.3 Internal constituency of verb-juncture construction

+ terms like "juncture" or "linker" (as per Vossen 2010) associated with a notion of a
symmetrical conjoining of a verb root and a second root (or grammatical element)

> recent analysis in terms of verb serialization (cf. Kilian-Hatz 2006, Haacke 2014)

(15)   [VERB.ROOT - JUNCTURE - VERB.ROOT/GRAM]

> several facts speak against this analysis - cf. the representative case of Gǀui:

(I) segmental and prosodic interaction of juncture exclusively with preceding verb root

   Unlike in other Kalahari Khoe languages, in Gǀui, it [the juncture morpheme] does not denote
   non-passive action, but has developed the function of marking VR1' [= altered verb root 1] of
   CMPV [= compound verbs]. (Nakagawa 2006: 79)

   INPUT   OUTPUT

   VR1   +   VR2   >   VR1' VR2

   ⇑   ⇑

   Alternation   No alternation

   Flip-flop

   a-suffixation

   na-suffixation

   r-insertion

Figure 3: Formation of compound verbs in Gǀui (after Nakagawa 2006: 66)

(II) juncture not only morpho-phonologically close to verb root 1, but also forms syntactic constituent with it with a considerable independence from verb root 2 in compound verbs

(16) *ts'ãĩ̃-a*   *ŋ!abo-sera*   *ca*   *mãã*   G|ui
     make-JUNCT sandal-3F.D   1S   give
     Make a pair of sandals for me. (Nakagawa 2006: 76)

> verb-juncture construction has a morphosyntactically structured configuration whereby verb root 1 and the juncture form a constituent as opposed to final root~gram

(17)   [[VERB.ROOT-JUNCTURE] - VERB.ROOT/GRAM]

(III) in line with head-final syntax of Khoe, final constituent is the head of the complex constituent (sometimes grammaticalizing to a functional element)
> verb-juncture construction not canonical serial verb construction (or symmetrical compounding) according to typological approach (pace Kilian-Hatz 2006, Haacke 2014)

  Serial verb constructions are a grammatical technique whereby two or more verbs form one
  predicate. A sequence of verbs qualifies as an SVC if there is **no marker of syntactic
  dependency** between the components (and, in addition, for languages which distinguish
  between finite and nonfinite verbs, **neither component can take a separate nonfinite
  marking** ... (Aikhenvald 2006: 1, bold TG~AF)

2.4 A new possible look at the Khoe juncture

(I)   There was a single proto-juncture to be reconstructed to Proto-Khoe (as per Rapold
     2014, and pace Heine 1986 and Vossen 1997, 2010).

(II) The etymologically motivated /r/- and /n/-insertion (as per Heine 1986 and Vossen
    1997, 2010) does not explain all contexts of these allomorphs, so that the proto-
    juncture may have been alternatively a complex suffix *-Ra with an initial resonant.

(III) The modern allomorphy is the reflex of a historical cline of segmental erosion (cf.
    Kilian-Hatz 2008: 113-4), whereby all allomorphs could be placed on a scale of lenition:

(18)   **Proto-Khoe** ⟶ Flip-flop root-Ra/V ⟶ Flip-flop root-Na
        *Flip-flop root-Ra ⟶ Flip-flop root-a ⟶ Flip-flop root-Ø

(IV) As per Heine (1986), the verb-juncture construction was not symmetrical but rather
    hierarchical whereby the final element is the head and the juncture a kind of construct
    state/dependency marker causing tonal perturbations on the preceding verb root.

3 Possible Kwadi cognates of the Khoe juncture

3.1 Kwadi as Khoe's closest relative

+ isolated non-Bantu group with earlier pastoral subsistence and a click language in south-western Angola, described largely by Westphal (1964/5, n.d.a-c)
> Güldemann (2004, 2010) and Güldemann and Elderkin (2010) propose Kwadi to be related genealogically to Khoe, forming the Khoe-Kwadi family on the basis of typological similarity (Table 3), shared grammatical features (Table 4), and lexical isoglosses (Table 5)

Feature	Khoe	Kwadi	Non-Khoe
Dominant alignment	Accusative	?	Neutral
Word order	SOV		SVO
Head position in noun phrase	Final		Initial
Preposition	No		Yes
Default relational marker	No*	?	Yes
Verb serialization	No	?	Yes
Verb compounding	No*	?	Yes
Verb derivation morphology	Yes	?	No
First-person inclusive	No*	(Yes)	Yes
Gender assignment M vs. F	Yes		No
Gender-agreement class ratio	<1		≥1
Number marking on noun	Regular		Irregular
Number category dual	Yes		No
Number-sensitive stem suppletion	No		Yes

Note: * exceptions due to language contact with Non-Khoe
Table 3: Typological similarity of Khoe and Kwadi vs. Non-Khoe (Güldemann 2013)

Person/ gender/ clusivity		- Augmented or Minimal	+ Augmented
+Speaker/+Hearer	= 1st+2nd incl.	*mu	[?]
+Speaker/-Hearer	= 1st excl.	*ti, *ta	[?]
-Speaker/+Hearer	= 2nd	*sa	*o or u
-Speaker/-Hearer	= 3rd masc.	$stem^1 + (?)\text{-}*V^{[front]\,2}$	$stem^1 + (?)\text{-}*u^2$
-Speaker/-Hearer	= 3rd fem.	$stem^1 + *(s)V^{[front]\,2}$	$stem^1 + (?)\text{-}*V^{[front]\,2}$

Notes: [?] no plausible reflex in both Khoe and Kwadi,
        1 deictic like *xa or generic noun like *kho,
        2 also used as gender-number index on nouns
Table 4: The reconstructed pronoun system of Proto-Khoe-Kwadi (Güldemann 2004)

	Meaning	Proto-Khoe (unless stated otherwise)	Kwadi
1	big	*kai	*kye, tya* [? < /ke/]
2	bite	*pa	*pa-*
3	blood	*ǀ'ao	*ǀ'o-* (ǀo- {W n.d.b: 6})
4	come	*ha	*ha* {W n.d.b: 5}
5	cow, cattle	*goe (WKa)	*goe-* {W 1965: 141}
6	drink	*kx'a	*kx'a* (*ka* {W n.d.b: 5})
7	go	*ǃũ, *kũ (EKa)	*kõ* (*ko* {W n.d.b: 5})
8	grasp, take	*se	*se*
9	hear	*kum (Ka)	*kum* (*kũŋ*; *ku* {W n.d.b: 6})
10	male	*kx'ao	*k''o-* [= /kx'o/] {W 1965: 139}
11	meat	*kx'o 'eat (meat)'	*k''o-* [= /kx'o/] {W 1965: 141}
12	medicine	*tso, *so (Kk)	*so-* {W n.d.b: 4}
13	milk, breast	*pi	*pi-/bi-* {W 1965: 141}
14	mouth	*kx'am	*kx'ami-* (*kame* {W n.d.b: 5})
15	night	*thu	*thwii* [< /thu-/] {W 1965: 143}
16	one	*ǀui	*ǀui* {W n.d.b: 7}
17	pain	*thũ	*thõ, thũ* 'illness'
18	person	*khoe	*kho-* {W 1965: 139}
19	sheep	*gu	*guu-* {W 1965: 141}
20	skin, fur	*kho, also kxo	*kxo-* {W 1965: 143, n.d.c: 1}
21	smell	*mm (Ka),*ham (Kk)	*mh(u)*
22	throat	*dom	*tumu-*, also 'swallow' {W 1965: 141, n.d.c: 1}
23	tongue	*dam	*tame-* {W 1965: 141, n.d.c: 1}
24	year	*kudi, also kuri	*kuli-* {W 1965: 143}

Table 5: Selection of lexical matches between Proto-Khoe and Kwadi (Güldemann and Elderkin 2010)

> Güldemann (2010): other areas of grammatical comparison should be expected, notably:

Kwadi *-la* (and its allomorphs) seems to be a marker of non-finiteness - this element and other verb morphemes potentially inform the historical analysis of the juncture in Khoe

(19)   *tá   kṹ-álà-xè*
    1S   go-?-want
    I want to go away. (Westphal f.n.: 53)

3.2 Kwadi's volition complement construction in *-(a)la*

+ less than a dozen volition constructions in the data:

(20)   *tá   k'óì   nyṹ-ala-xè*
    1S   meat   eat-? -want
    I want to eat meat. (Westphal f.n.: 53)

(21)   *tá   k'óì(-a??)   k'a-lá-xè*
    1S   water-?   drink-?-want
    I want to drink water. (Westphal f.n.: 53)

(22)   *tá   ǀʔáné   ʔóa-la-xè*
    1S   knife   buy-?-want
    I want to buy the knife. (Westphal f.n.: 53)

> suggestive analysis in terms of an auxiliary-complement construction VERB-*(a)la-xe*

3.3 Kwadi's intransitive reduplication stem in *-la*

+ most prominent conjugational verb pattern in Westphal's data has a stem form involving some kind of reduplicating (part of) the verb root and inserting a suffix *-la~-da*

3.3.1 Syntactic context

+ robust syntactic correlation: all occurrences of stem pattern lack objects/adjuncts while virtually all structures with objects/adjuncts (except 1 doubtful case) lack the stem pattern - cf. a few minimal in (23)-(26)
> "intransitive restriction" comparable to cognate-object construction in West African languages triggered in clauses without object/adjuncts (cf. Essegbey 1999 for Ewe)

(23)a.   *ala   ˈnyũ-la-ˈɲu*
    1P   DUP-LA-eat
    we are eating (Westphal f.n.: 36)
  b.   *ta   kɔ́   la   ˈɲu*
    1S   meat ?   eat
    I eat meat.   (Westphal f.n.: 71)

(24)a.   *ta   pέ-la-pέ*
    1S   DUP-LA-put
    I put (Westphal f.n.: 51)
  b.   *tshṍ khàßà pέ*
    in front   put
    put in front (Westphal f.n.: 51)

(25)a. *ta*   *kɔ́-lá-kɔ̀*
     1S   DUP-LA-go
     I am going. (Westphal f.n.: 53)

   b. *ta*   *thú*   *la:*   *kõ*
     1S   night ?   ?go
     I come [possibly: go] at night. (Westphal f.n.: 63)

(26)a. *tá*   *lá-lábɔ̀là*
     1S   DUP-speak
     I speak (Westphal f.n.: 71)

   b. *ta*   *kwadetʃi'*   *lapala*   *na*
     1S   Kwadi   speak   TA
     I speak Kwadi (Westphal f.n.: 71)

3.3.2 Morphological context

+ three TAM contexts in which the reduplication pattern occurs:

(a)   simplex stem with present or progressive meaning: (23)a.-(25)a.

(b)   stem with suffix/particle *(-)na* with present or progressive meaning: (26)a., (27)-(29)

(c)   stem with preposed particle *ka* with future meaning: (30)/(31), cf. Kuvale ((32)

(27)   *ta*   *wólá-wolá*   *na*
     1S   DUP-work   TA
     I work (Westphal f.n.: 52)

(28)   *tá*   *lá-lábɔ̀là*   *nà*
     1S   DUP-speak   TA
     I speak (Westphal f.n.: 58, 71)

(29)   *ta*   *kx'a-lə-kx'a:*   *na*
     1S   DUP-LA-drink   TA
     I am getting drunk. (Fehn f.n., Clementine 02/2014)

(30)   *ta*   *ka*   *la-labɔla*
     1S   FUT   DUP-speak
     I will speak (Westphal f.n.: 58)

(31)   *ta*   *ka*   *ká-lá-ka*
     1S   FUT   DUP-LA-drink
     I will drink (Westphal f.n.: 52)

(32)   *mi-**ka**-popya*   Kuvale
     1S-FUT-talk
     I will speak (Westphal f.n.: 58)

3.3.3 Morphological form

+ different patterns of reduplication in a basic structure [DUP = verb root]:

(I)   CV-*la* = CV   cf. Table 6
(II)   CV-*la* = CVN   cf. Table 7
(III)   CV-*la* = CVCV(CV)   cf. Table 8
(IV)   Full reduplication   cf. Table 9
(V)   *la* = CVCVCV   only with *la* = *labɔla* 'speak'

> appear to target a morphological templates:
     (I)/(II)   CV-CV-CV
     (III)/(IV)/(V)   CV-CV-CV-CV

> occasional cases of lenition of *-la* to *-ya* or *-na*

Meaning	Kwadi (Westphal pages, Fehn 2014)		Ts'ixa junc-
	la-Form	Simplex	ture form
'be sick'	*thū-la:-thū* (Fehn)	*thū*	*thūū-a*
'beg, ask' (vt)	*ǀhā-la-ǀhē* (75, 81)	*ǀhā, ǀhē*	
'buy'	*'ũa-la-'ũa* (69, 79)	*'ũa*	*ǂũ̀ǐ-à*
'catch, pick up'	*se-la:-se* (69, 79); *ʂ(?)i-laa-tʂi* (80)	*se*	*see*
'cook'	*Θē-la-Θē* (52); *Θe:-la-Θe* (Fehn)	*Θē*	
'cough'	*kx'ɔi-daa-kx'ɔi* (76, 82)	*kx'ɔi*	*ǁʔui-a*
'cry'	*tye-ƚʰa-tyee* (81); *tye-la-tye* (69, 79); *tye-ƚa-tye(e)* (75); *tye-da-tye* (75)	*tye*	
'dance'	*xwā-la-xwā* (69, 79)	*xwā*	
'dance, sing'	*'e-la-'e* (80); *ɛ-la-ɛ* (69, 79); *ʔɛ-la:-ʔɛ* (Fehn)	*'e/'ɛ*	
'dress'	*xɛ-la-xɛ* (60)	*xɛ*	
'drink'	*ka-la-ka* (52, 71, 80); *ka-laa-ka* (75, 82); *k'a-la-k'a* (69); *kx'a-lə-kx'a:* (Fehn)	*kx'a*	*k'aa*
'eat'	*ɲa-lat-'ŋɔ* (80); *ū-na-'ɲū* (50); *nyū-la'-ɲu* (36); *nyū-'ān'-ɲu* (36, 49); *ʔɲu-la:-ʔɲu* (Fehn)	*'ɲū*	*ʔyũú-á*
'fear'	*kx'u-la-kx'u* (62)	*ʔkx'u*	
'go, walk'	*kō-lā-kō* (80); *kɔ-laa-kɔ* (75, 81); *ku-la:-kū* (Fehn)	*kō*	*kūū-a*
'laugh'	*tyē-la-tyē* (69, 79); *kye-ƚa-kye(e)* (75); *kye-da-kyee* (75); *kye-ƚʰa-kyee* (81)	*kye*	
'lie down, sleep'	*mɔ-la-'m* (80); *'mu-là'-'mu* (69, 79); *ʔu-la:-ʔu, ʔũū-la-ʔũū* (Fehn)	*'mu*	*ǁʔòm-a*
'lift'	*ƚā-lē-ƚē* (69, 79); *hlā-la-hlā (na)* (65); *ƚa-də-ƚle* ('stand', Fehn)	*ƚā*	*ǁàǎ*
'look, see'	*tsʰē-la:-tsʰē (ne)* (69, 79, 80); *tshe-lā-tshēⁿ* (80); *tshɛ-la:-tshɛ (nɛ)* (Fehn); *tye-la-tye (ne)* (Fehn)	*tshē*	*tsɨ́ɨ-a* 'observe'
'pull'	*tçē-laāŋ-tçe* (80); *kye-la-kye* (75, 81); *ʔkē-lāā-tyē* (69, 79)	*tçē*	*ǂée-e* (Khwe)
'put'	*pɛ-la-pɛ* (51)	*pɛ*	
'smell, stink'	*mɦu-da-mɦu* (69); *mɦ-da-mɦ* (79)	*mɦ(u)*	*huɱ́-á*
'stretch legs'	*kxha-la-kxha* (81)	*kxha*	
'urinate'	*ǀɦā-lā-ǀɦā* (80); *ǀhā-lā-ǀhā* (69)	*ǀhā*	*ǀxàɱ̀-á* (Khwe)
'wash'	*ƚa-da-ƚʰa* (79); *ƚ'a-la-ƚ'a* (Fehn)	*ƚ'a*	*ǁ'aa*
'yawn'	*k'a-la-k'a* (82)	*k'a*	

Table 6: Verbs with CV-la-CV pattern (I) (with some (possible) Khoe cognates)

Meaning	Kwadi (Westphal pages, Fehn 2014)		Comparative
	la-Form	simplex	comment
'hear'	*ku-la-kūŋ* (80)	*ʔkūŋ/ kumu*	*kúm-a* (Ts'ixa)
'sleep'	*se-la-seŋ* (80)	*seŋ*	*sāā* (Ts'ixa)
'smell'	*ǀfiū-dà-ǀfiūŋ* (80)	*ǀfiūŋ*	

Table 7: Verbs with CV-la-CVN pattern (II) (with some (possible) Khoe cognates)

Meaning	Kwadi (Westphal pages, Fehn 2014)		Comparative
	la-Form	simplex	comment
'bite'	*pa-la-pau* (82)	*pau*	
'clap'	*kxa-la-kam ma* (81)	*ʔkxʼa/ kxʼama*	*ǁʔám-a* (Ts'ixa)
'close'	*tçe-la-tçeka* (80)	*tçeka*	
'hear'	*ku-laa-kumu* (69); *ku-lā-kumu* (79)	*kumu*	*kúm-a* (Ts'ixa), cf. Table 7
'like, lick, taste'	*fa-lə-faladu* (80)	*faladu*	
'open'	*tçwe-la-tçwepa* (80)	*tçwepa*	
'plant, sow'	*ko-laa-kunu* (75); *ko-laa-ku.nu* (81)	*kunu/ ko*	
'swallow'	*tu-la-tumu* (68)	*tumu*	*tum-a* (Ts'ixa)
'write'	*han-da-hanyiki* (81)	*hányìkì*	cf. Kuvale *-hɔnika* 'write'

Table 8: Verbs with CV-la-CVCV(CV) pattern (III)

Meaning	Kwadi (Westphal pages, Fehn 2014)		Comparative
	la-Form	simplex	comment
'come'	*hada-haalɔ* (75, 81); *hala-hala* (Fehn)	*ʔhala*	*àa* (Ts'ixa), *yà-à* (Khwe)
'get up, lift up'	*sala-sala(-nʃi)* (80)	*sala*	
'plait'	*vida-vida* (75, 81)	*vida*	
'read'	*taŋga-taŋga* (81)	*taŋga*	
'sing'	*'ela-'ela* (65)	*'ela*	cf. 'dance' in Table 6
'think'	*vela-vela* (75, 81); *ʔdʒela-dʒela* (79)	*vela/dʒela*	
'work'	*wola-wola* (71)	*wola*	

Table 9: Verbs with full reduplication pattern (IV)

+ structure [[DUP-la]-CV(N).ROOT] in patterns (I)/(II) possibly original, which gave rise to other patterns involving more complex root types, e.g., for pattern (IV):

$$*[CV\text{-}\mathbf{LA}]=CV = *[CV\mathbf{la}\text{-}\mathbf{LA}]=CVla > *CVla\text{-}CVla > \text{CVCV-CVCV}$$

3.4 Kwadi *-la*: summary and hypothesis

+ two complex morphological constituents involving verbs arguably analyzed as:
a) [[VERB.ROOT-*(a)la*]='want']   verb complement and volition verb
b) [[VERB.ROOT-*la*]=VERB.ROOT]   reduplication stem < cognate object structure
> initial string [ROOT-(A)LA] in both cases implied to be a non-finite verb form (cf. Westphal (1963: 247) "formation of verbo-nominals (infinitive) with an infix *-la-*") which depends syntactically on the final verb/auxiliary root
> exact relation between *-la* and *-(a)la* unclear: cognate, partly cognate, not cognate

4 Another historical hypothesis for the Khoe juncture

+ Khoe verb-juncture construction (according to updated reconstruction) and two complex Kwadi verb forms are similar in several respects - Table 10

	Proto-Khoe	Kwadi
Suffix form	*-Ra	*-la/-(a)la*
Syntax	$*[[\text{ROOT-Ra}]_{\text{DEPENDENT}} = \text{ROOT}_{\text{HEAD}}]$	$[[\text{ROOT-}(a)la]_{\text{DEPENDENT}} = \text{ROOT}_{\text{HEAD}}]$
Functional contexts	NO	$\text{ROOT}_X\text{-}la = \text{Root}_X$
	$*\text{ROOT-Ra} = \text{AUXILIARY}$	$\text{ROOT-}(a)la = \text{AUXILIARY}$
	$*\text{ROOT}_X\text{-Ra} = \text{ROOT}_Y$	NO

Table 10: Comparison of Khoe verb-juncture and Kwadi *(a)la*-constructions

> suggestive Proto-Khoe-Kwadi reconstruction: non-symmetrical multi-verb construction in line with typologically recurrent periphrastic structures, in which the first verb is a syntactically dependent gerund/infinitive-like form

(33) $*[[\text{ROOT-(a)Ra}]_{\text{DEPENDENT}} = \text{ROOT}_{\text{HEAD}}]$

+ certain developments of this construction in Khoe may have been independent from processes in Kwadi and influenced partly by areal contact deeper in the Kalahari Basin:
a) functional compound type $[\text{ROOT}_X\text{-JUNCTURE} = \text{ROOT}_Y]$ as possible Khoe innovation
> has salient precedents in the Kalahari Basin (cf., e.g., Güldemann and Fehn forthcoming)
b) decline of segmental form (complete in most of Khoekhoe): CV > V > Ø
> makes the structure overall more similar to linkless verb serialization/compounding in
     Non-Khoe languages of the Kxʼa and Tuu families (cf. Güldemann 2006)

+ the insolvable questions relating to the restricted Kwadi data aside, many questions can still be addressed in order to substantiate or falsify the above hypothesis, e.g.:
     Is there evidence for tonal perturbations in the Kwadi constructions with *-(a)la*?
     Can the juncture allomorphy in Khoe be explained phonologically out of *-Ra?
     etc

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