

## Linear order as a basic morphosyntactic factor in Non-Khoe Khoisan

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### 1. Introduction

- Non-Khoe - subgroup of Southern African Khoisan, three lineages: **Figure 1, Map**

**Figure 1: Constituency of Non-Khoe (<sup>†</sup> = extinct, DC = dialect cluster)**

1. **Ju** (= Northern Khoisan, DC)

*Northwest* !'O!Xuu, !Xuu

*Southeast* Ju|hōan, †Kx'ao||'āe

2. **†Hōa** (undetermined isolate, promising evidence for genealogical link to Ju)

3. **Tuu** (= Southern Khoisan)

*Taa* West !Xōo, East !Xōo, Kakia<sup>†</sup>, ... (DC); |'Auni<sup>†</sup>, |Haasi<sup>†</sup> (DC)

*Ui* |Xam<sup>†</sup> (DC); N||ng (DC); †Ungkue<sup>†</sup>; ||Xegwi<sup>†</sup>

- homogeneity of basic morphosyntactic structure, inter alia:

- a) SVO clause order, head-initial noun phrase except head-final nominal attribution
  - b) little morphology; importance of constituent order, particles, analytical constructions
  - c) verb serialization
  - d) special type of relational gram as a default marker of valence-external participants
  - e) complex + irregular number marking in nominals and predicates, i.a. stem suppletion
  - f) uncommon type of gender system
  - g) inclusive/exclusive distinction in pronominal system
- > Non-Khoe is a distinctive "typological entity", historical significance unclear

### 2. Clause structure and grammatical relations

- basic clause syntax (n = possible multiple occurrence) > 3 grammatical relations:

**[SUBJECT - PREDICATION.OPERATOR<sub>n</sub> - VERB<sub>n</sub> - OBJECT - PREPOSITION+ADJUNCT<sub>n</sub>]**

- virtually all verbs with maximal valence of one non-subject participant
- default preposition = "multipurpose oblique marker (MPO)" for all or most postverbal participants outside the valence of the verb
- > semantically very broad: most semantic roles except those typically expressed by subjects (agent, experiencer, force) and animate objects (patient, recipient); hence patients, all kinds of obliques and adverbials

## 2.1. Comparative data

### 2.1.a. !Ui branch of Tuu

- (1) #Khomani ~ N||ng
- a. /oe-ke ke n//aa **ng** n//ng //a'i  
children-P DECL stay MPO hut inside  
the children are in the house
- b. n-a //au !o **ng** !khaa  
1S-SC dig hole MPO water  
I dig a hole for water (Westphal f.n.)
- (2) Strandberg |Xam
- a. /k'waa n/a-ng /am u'i !hāu **au** !k'waa ts'axau  
hartebeest head-DECL take.up rise thong MPO hartebeest eye  
The hartebeest's head removed the thong from its eye. (Bleek & Lloyd 1911: 6-7)
- b. hi-**ng** /üeng-ki /ee //xauken **au** /q'a **au** hī /k'aa  
2-DECL be.thus?- enter blood MPO stomach MPO 2 hand  
They put the blood in the stomach by their hands like this. (Bleek & Lloyd 1911: 278-9)

> more than two postverbal participants imply multiple MPO adjuncts

### 2.1.b. Taa branch of Tuu (East !Xõo)

- cross-referencing of object on transitive verb (involves complex gender system)

- (3) i qúba sâa //gâa /'ngh'-**na** sâa  
CONN HS go spend.day chop.out-2 seed.2  
and are said to have chopped out (tsamma) seeds all day long (Traill ms.)

- cross-referencing of object on MPO kV, tV

- (4) !qhôo **kē** #abe **kē** tâa #âa  
teach **MPO:3** black.person.3 **MPO:3** person.3 language.2  
teach the black man person's language i.e. !Xõõ (Traill 1994: 88)

- additional oblique markers: /naV dative, #V comitative

- (5) !qhâa **kū** #nûm //Gûli-tê /è dtxó'lû /nà-e #á sâa  
give **MPO:4** two.4 genital.2-P ASS:3 stench.3 **DAT-3ANA** **COM:2** fat.2  
give him their stinking genitals [lit.: stench of their (D) genitals] with the fat (Traill ms.)

- lexicalized collocations between verb stem + oblique marker

- (6) n- à //qhúu **kâ'a** tân  
1S PST snatch **MPO:2S** 5.DEI  
I snatched it from you (Traill 1994: 118)

> new meanings

- (7) n- bâ àhn tâna #é'e  
1S FUT speak **COM:1ANA**  
I will scold him (Traill 1994: 19)

### 2.1.c. #Hõa

- (8) Titi 'a **ki** !oa na  
PROP exist MPO house in  
Titi is in the house. (Collins 2003)

- (9) *gya'm-/a'a a-tsaxo-cu 'am gye ki //a'e*  
 child-DIM.P PROG-cook-give my mother MPO meat  
 The children are cooking meat for my mother. (Collins 2003)

### 2.1.d. Ju (Ju|'hoan)

- interaction of MPO and valence-sensitive verb suffix

- suffix *-a* indexes presence of at least one nominal outside the valence of the predicate

- (10) *aiá tsí* vs. *aiá tsí-á mí*  
 my.mother come my.mother come-VE 1S  
 My mother came. My mother came to me. (Dickens n.d.: 19, 20)

- suffix final to verb-chain > predicate marker

- (11) *ha tani u-a e-tsa ko skore*  
 1 fetch go-VE 1P.E-D MPO school  
 he took us (back) to school (Dickens ms.)

- suffix not necessarily referring to adjacent nominal

- (12) *ka mi ho si /ho-si mi sin ho-a si ko /xoma*  
 when 1S see 2 face-P 1S only see-VE 2 MPO sorrow  
 As I saw their faces, I felt sorry for them. [lit.: looked at them with sorrow] (Dickens ms.)

- suffix also relevant for all kinds of semantic roles

- (13) *mí !ú.n!a'àn !ái-á goàq#àn*  
 1S grandfather die-VE yesterday  
 My grandfather died yesterday. (Dickens n.d.: 20)

- multiple MPO adjuncts

- (14) */am n/ui e koh kxae-a //kae//kae ko Landbou kàm khoe-a*  
 day.1 certain 1P.E PST have-VE assembly MPO agriculture farm place-?  
*ko San\_Belange //an ha //kae//kae-a*  
 MPO PROP GEN 1 assembly-?  
 One day we had a meeting at the Agriculture Farm for the San Belange Committee. (Dickens ms.)

> MPO for all but first postverbal nominal > \*[VERB *ko*+ADJUNCT]

### 2.2. Verb transitivity and postverbal nominal slots in Non-Khoe

- elements recurrently called "transitive" markers, but transitivity not the central issue

(a) multiple MPO occurrence makes transitivity account unlikely

(b) two transitive verbs in series do not alter [VERB<sub>n</sub> - OBJECT - MPO+ADJUNCT<sub>n</sub>]

- (15) Strandberg |Xam

*au si-ken sing /'āa /ii ha au //uten-/ uten*  
 and 1P.E-DECL HAB carve.up have 1 MPO P-stone.knife  
 and we used to cut him up with stone knives. (Bleek & Lloyd 1911: 14)

- (16) Ju|'hoan

*dshàu n/óá /àn ha dà'ámá kò 'm-sì*  
 woman.1 cook give 1 child MPO food-P  
 The woman cooked food for her child. (Dickens n.d.: 23)

(c) all kinds of postverbal nominals affected, irrespective of semantic role

- (17) Ekoka !Xūu

*hā //xāi-ā khōmē*  
 1 come-VE tomorrow  
 he would come tomorrow (König & Heine 2001: 77)

(d) inversion of postverbal participants without any change of marking and of meaning

(18) Ju'|hoan

a. *ha !ái-á /Aotcha kò /ám-à hè*  
1 die-VE PROP MPO day-REL be.this

or *ha !áiá /ámà hè kò /Aotcha*  
He died in |Aotcha today.

b. *ha gú-á tjù kò //'àìsi*  
1 build-VE house MPO grass

or *ha gúá //'àìsi kò tjù*  
He built the house with grass.

c. *ha kú //ohm-a !aihn kò g/úí*  
1 IPFV chop-VE tree MPO forest

or *ha kú //ohma g/úí kò !aihn*  
He was chopping the tree in the forest. (Dickens n.d.: 22)

> relative order + marking of postverbal participants can be insensitive to semantic roles

### 2.3. What determines the order of postverbal nominal terms? (Ju'|hoan)

#### (1) Semantically inherent verb role

- semantic role associated with verb transitivity should be closer to verb

(19) *ha g/ae ho-a zo ko !aihn*  
1 arrive find-VE honey MPO tree  
he came upon a beehive in a tree (Dickens ms.)

#### (2) Information structure?

- similar pragmatically triggered inversion attested

(20) Aghem (Benue-Congo, Niger-Congo)<sup>1</sup>

a. *ò mɔ́ fúo kífú á bíghá-kó*  
3S TA give CL-rat OBL leopard-CL  
he gave the rat to the leopard [as meat]

b. *ò mɔ́ fúo kí-bíghá á fú-kó*  
3S TA give CL-leopard OBL rat-CL  
he gave the RAT to the leopard (Watters 1979: 156)

- ?more general correlation between obliques and new asserted information

"The highly grammaticalized character of core arguments and verbs derives from their typical occurrence in highly presuppositional, low-information environments in conversation. The extra-sentential, non-core grammar of adverbials (obliques) reflects their higher informational role, position at the margins of an intonation unit, and reduced degree of integration with the nuclear clause." (Hopper 1999)

> assumed hierarchy of increasing thematicity: **Adjunct > Object > Subject**

(21) *te !ha-si-a #hai e //ae te tsi-a /Aotcha*  
CONN meat-P-REL be.many 1P.E have CONN come-VE PROP  
*te tsi ge-a /Aotcha ko beke n/è'é*  
CONN come stay-VE PROP MPO week one  
We had a lot of meat when coming to |Aotcha and we stayed in |Aotcha for a week.

> presumably reflected in (18) > higher ranking of thematicity over semantics

<sup>1</sup> Form and position of noun class markers change with different information status. The inversion of participants which are equal on the animacy hierarchy changes meaning.

### (3) Animacy

- animate closer to verb

- (22) *te /am n#hao-a e ko n!ama n!áng*  
 CONN sun set-VE 1P.E MPO road inside  
 The sun set when we were still on the road [lit.: the sun set on us on the road]. (Dickens ms.)

- animacy wins out over thematicity

- (23) te /'an Tsamkxao ... ko !ha te ce te /'an !'Uu N!a'an ko ka  
 CONN give PROP MPO meat.4 CONN do.also CONN give PROP MPO 4  
 and gave meat to Tsamkxao ... and also gave some to Old !'Uu (Dickens ms.)  
 also acceptable ... ce te /'an ka ko !'Uu N!a'an (Güldemann f.n.)

- animacy wins out over semantics (animacy applies to possessed body part)

- (24) *ká jù ku sìn //ae-a jù g'áú ko tci*  
      when person IPFV just hold-VE person hand MPO thing  
      when a person just picks up something with his hand ... (Biesele & Güldemann f.n.)

> probable ranking hierarchy of different order parameters:

## **Animacy > Thematicity > Semantics**

## 2.4. Summary

- verb transitivity relevant:

- lexicalized presence vs. absence of participant markers
  - lexicalized transitivity affects syntax > marking unaffected by zero anaphor (25) and left-dislocation in focalization (26), relativization (27), and topicalization (28)

- (25) Ju'hoan

//'akaa	aia	n/oa	<b>koce</b>	te	'u-a	gui		
then	my.mother.1	cook	coffee	CONN	insert-VE	salt		
<i>khamā</i>	ha	n/a	koh	'u-a	gui	ko	n//oq'obe	náng
because	1	you.see	PST	insert-VE	salt	MPO	bottle	inside

my mother made coffee and added salt to it [= coffee], because, you see, she had put the salt into a bottle (Dickens ms.)

- (26) *kò ré ha ú-á* = *ha úá kò ré*  
 LOC GQ 1 go-VE  
 Where will he go? (Dickens n.d.: 26)

- (27) *n!homa m-!a u-a ko-a goaq#an ke he e-tsa Dabe u-a*  
 tomorrow 1P.I-P go-VE LOC.4-REL yesterday be.this.4 REL 1P.E-D PROP go-VE  
 Tomorrow we should go to this place of the last day where Dabe and I went. (Dickens ms.)

- (28) #H̠a

- a. *koloi g//on-a #amkoe ki gyeo na*  
     car hit-PERF person MPO road in  
     A car hit a person in the road. (Collins 2003)

b. *#amkoe koloi g//on-a ki gyeo na*  
     person car hit-PERF MPO road in  
     The person, the truck hit [it] in the road. (Collins 2003)

c. *gyeo na koloi g//on-a ki #amkoe*  
     road in car hit-PERF MPO person  
     In the road, a truck hit a person. (Collins 2003)

- valence does not determine very strongly the position of a lexical argument
- > weak syntactic tie between transitive verb and argument (?syntactic VP-constituent)
- > ?"flat" syntactic template of sequentially ordered slots with minimal morphology
- > poor correlation between syntax and semantic roles
- > participant marking varies in unexpected ways, depends on presence/position of other participants

(29) Ju'hoan

- a. *dà'ámá jàn /'àn ha bá kò mārì*  
child.1 good give 1 father MPO money  
The good child gave his father money.
- b. *Kaùh //xòàsì kú nà 'msì*  
PROP always IPFV give.me food  
Kaùh always gives me food. (Dickens n.d.: 23)

(30) Strandberg |Xam

- a. *ha se !ann ha*  
1 IRR hold 1  
he will hold it (Bleek 1956: 406)
- b. *!ann //wē'i u au !ð'ing*  
hold strongly 2P MPO old.man  
Grasp ye the old man firmly! (Bleek & Lloyd 1911: 48)

### 3. Linear position and verb serialization

- some languages with following verb serial structure:

[VERB<sub>n</sub> OBJECT ADJUNCT<sub>n</sub>] = "nuclear~root ser."

- > not [[VERB OBJECT]<sub>n</sub> ADJUNCT<sub>n</sub>] = "core ser." (Olson 1981, Foley & Van Valin 1984)

(31) Mandarin (Sinitic, Sino-Tibetan)

- a. *wǒ qǐng nǐ chī wǔfàn* = "serial verb construction" alias core ser.  
I treat you eat lunch  
I'll treat you to lunch. (Hansell 1993: 214)
- b. *nóngmín dǎ sǐ láng* = "complement construction" alias root ser.  
peasant hit die wolf  
The peasant beats the wolf to death. (Hansell 1993: 228)

- root serialization inhibits most iconic placement of participant as a pivot

(32) Ekoka !Xuu

- c᷑ má g!hō ḥlācící !ún mí*  
3P TOP sit.P tickle stand.S 1S
- \**c᷑ má g!hō ḥlācící mí !ún*  
They sit and tickle me up. (König 2003)

- also for perception verbs as "matrix" > kind of non-causative subject raising

(33) Strandberg |Xam

- si tang //a-ng dq'a n/ñ tēe !k'waa aa /uuk-a*  
1P.E ?PF go-? ? see lie hartebeest.1 1REL die-STAT  
We did see a dead hartebeest lying there! (Bleek & Lloyd 1911: 10)

- event-iconicity + animacy overrides semantics

(34) Ju|hoan

*ha //'ámá /'àn ha jú-sì kò zó*  
1 barter give 1 people-P MPO sugar  
He bought sugar for his people. (Dickens n.d.: 23)

> confirms the generally low ranking of semantic ordering parameter

#### 4. Linear proximity and pronominal suffixation (Taa only)

- pronominal suffixes attach obligatorily to certain hosts
- anaphoric agreement only for adjectives and clause-final relative marker *kV*
- mostly anticipatory/ cataphoric marking/agreement with following nominal
- > three syntactic types of nominal triggers:

**Table 1: Triggers and targets of cataphoric pronominal suffixes**

Triggers ~ controllers	Clitic hosts as targets
(a) subjects after grams of sentence type and subordination	question /V; term focus <i>kV</i> , <i>tV</i> ; manner-reason-purpose <i>bV</i> ; initial relative <i>tV</i> ; intention <i>tV</i>
(b) complements after relational grams and transitive predicates	copulative <i>kV</i> , <i>tV</i> ; similitive <i>bV</i> ; MPO <i>kV</i> , <i>tV</i> ; dative / <i>naV</i> ; comitative # <i>V</i> ; associative /V; verb
(c) possessors	all grams under (a) and (b)

- anticipatory suffixation targets the first possible nominal
- bare vs. complex class-2 nominalization

(35) East !Xõo

a. *ùh ní bà káne kà !qāhe-sà*  
4ANA ? ?IPFV want MPO:2 hunt-NOM.2  
they want to hunt/ hunting (Traill 1994: 17)

b. *ùh ní bà //ìñ /à /ùā /àñ//nàa /nēe-sà*  
4ANA ? ?IPFV refuse:1S ASS:2 give:2 tobacco.2 DAT:3ANA-NOM.2  
they refuse (disapprove of) my giving him tobacco (Traill 1994: 30)

(36) *ní bá #án sān /nā-e !nūle té*  
1S ? ?IPFV wish:[1S see-3 country.3] COMP  
I want to see the country (Traill 1994: 17)

- initial modifier in nominal attribution

(37) East !Xõo

a. *sí bá 'ná-li !nù.ü 'í Òàa*  
CONN ?IPFV remove-1 hare.1 1ANA child.3  
and was taking out Hare's child (from the skin she was carrying it in) (Traill ms.)

b. *sí /ùa 'ná-le Òàa ké !ù.m 'ée #úm tshō.e*  
CONN take remove-3 child.3 MPO:3 eland.3 3ANA palm.2  
and took out the child from Eland's (actually: Drongo's) palm (Traill ms.)

(38) *ké 'Ònà.je /nà.n ká 'Ònà.ü /nà.ü*  
MPO:3 tree.3 head.2 MPO:2 trees.2 heads.2  
on top of the tree on top of the trees (Dickens & Traill 1977: 136)

## (39) West !Xõo

- a. *n si n/a-e n//ahe #’o-e*  
 1S IPFV see-3 **house** one-3  
 I see one house.

*n si n/a-i n//aen ti //ari ki*  
 1S IPFV see-1 **houses** REL:1 many REL:1  
 I see many houses.

**GENDER 3/1**

- b. *//kx’oe n//ahe #’o-an*  
**rain** **house** one-2  
 one cloud

*//kx’oe n//aen ka //ari ka*  
**rain** **houses** REL:2 many REL:2  
 many clouds

**GENDER 2/2**

- c. *n si n/a-e //kx’oe*  
 1S IPFV see-3 **rain**  
 I see rain.

*n si n/a-e //kx’oe te //ari ke*  
 1S IPFV see-3 **rain** REL:3 much REL:3  
 I see much rain.

**GENDER 3/-**

- d. *n si n/a-e //kx’oe n//ahe #’o-an*  
 1S IPFV see-3 **rain** house one-2  
 I see one cloud.

*n si n/a-e //kx’oe n//aen ka //ari ka*  
 1S IPFV see-3 **rain** houses REL:2 many REL:2  
 I see many clouds.

(Güldemann f.n.)

> cataphoric agreement ≠ gender, agreement dissociation within one constituent  
 - virtually no exceptions

## (40) East !Xõo

- a. *!ù.m à //’à-be !nù.ü òaa*  
 eland.3 PST take.S-3 hare.1 child.3  
 Eland took the child of Hare. (Traill ms.)

- b. */ii !ù.m é si g//kx’ó-e !nù.ü í òaa /ii*  
 so eland.3 3ANA CONN carry-3 hare.1 1ANA child.3 STAT  
 So Eland, she is carrying Hare's child (Traill ms.)

- linear order determines proximity~distance between constituents

> proximity overrides semantic and syntactic configuration (attested elsewhere)

**Linear syntax overrides semantics as well as hierarchic syntax**

## Glosses

ANA anaphoric pronoun, ASS associative (= genitive), CL noun class, CONN clause connective, COM comitative, COMP complementizer, D dual, DAT dative, DECL declarative, DEI deictic, DIM diminutive, E exclusive, FUT future, HS hearsay, IPFV imperfective, LOC locative pronoun, MPO multipurpose oblique, NOM nominalization, P plural, PERF perfect, PF predication focus, PROG progressive, PROP proper name, PST past, REL relative, S singular, STAT stative, TOP topic, VE valency-external participant

Arabic number followed by S/D/P:	person category
Arabic number without S/D/P:	agreement class

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