DEMONSTRATIVE AND RELATIVE CONSTRUCTIONS IN JUU: A DIACHRONIC PERSPECTIVE

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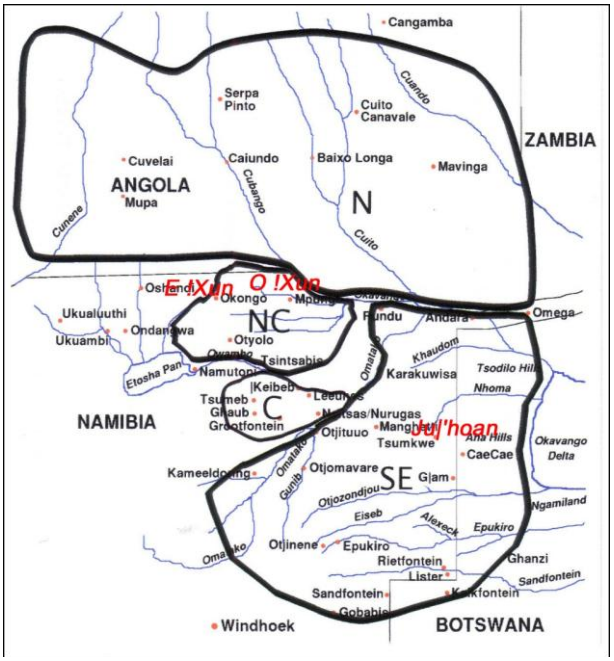
0. INTRODUCTION

(1) Juu = dialect cluster (formerly known as Northern Khoisan[1]), recently shown to form a genetic unit (Kx'a) with the ǂHoan language of Botswana (cf. Heine & Honken 2010)

(2) Classification of Juu lects (Snyman 1997, refined by Sands & Miller-Ockhuizen 2000 and Sands forth.), based on regular sound correspondences:

Dialectal groups	Well-documented lects
Northern (N)	--
North-Central (NC)	- Ekoka !Xun (E !Xun)[2] - Ovamboland/West-Kavango !Xun (O !Xun)[3] - Lloyd's !Xun (L !Xun)[4]
Central (C)	--
South-Eastern (SE)	Juǀ'hoan[5]

(3) Map of Juu dialectal groups (from Sands (forth.)):



(4) Three markers described as deictic demonstratives:

	NC !Xun			Juǀ'hoan (SE)
	E !Xun[6]	O !Xun	L !Xun	
PROX1	*é*	*è*	*e*	*hè/kè*
PROX2	*áàng*	*àng*	*?*	--
DIST	*tò'à~ndò'à*	*tò'à~ndò'à*	*to'a~(n)do'a*	*tõ'à*

(5) Relative constructions in Juu:

a. NC !Xun dialects: REL = PROX *e*
b. Ju|'hoan (SE): REL suffix *–à* on the head noun

(6) Goal of the present paper:

a. part 1: unified pan-dialectal DESCRIPTION of the various uses of those three markers in the modern Juu dialects for which there is enough documentation;
b. part 2: tentative RECONSTRUCTION of the proto-Juu system and a diachronic account of the present situation.

1. MODERN DIALECTS

1.1. North-Central !Xun dialects

1.1.1. Noun-modifying Demonstrative ('this/that NP')

(7) $\underline{NP_i + Cl._i + e/ang/to'a}$ (Cl. agrees with head Noun)

a. ***n‖òhḿ*** ***yíí́*** ***tò'à*** *mấ* *òhá* *yíí́* *n|á'ấng*
message Cl.3 DIST TOP COP Cl.3 (be)good
'That story is a good one.' (H 1987:37(18); O !Xun)

b. ***g|àhxú*** ***hà*** ***é***
chair.1 Cl.1 PROX
'This (particular) chair' (KH 2001:65; E !Xun)

c. ***ts'oo*** ***ka*** ***e*** *na* *ti* *n!u'a*
sinew.4 Cl.4 PROX 1.SG IPFV throw
'This thread I throw far away.' (119:9899; T; L !Xun)

(8) $\underline{NP + e/ang/to'a}$ (attested in L !Xun only so far)

a. *!Xuun* *ti* *'m* ***tci*** ***e***
!Xun IPFV eat thing.4PROX
'The !Xun people eat this thing' (122:10215, |'U; L Xun)

1.1.2. Deictic predicates (be here/there ~ be this/that)

(9) $\underline{NP_i\ (+TAM) + Cl._i + e/ang/to'a}$ (with agreeing class pronoun)

a. *dàbà* *dì* *mấ* ***hà*** ***tò'à***
child.1 (be)naughty TOP 1 DIST
'That is a naughty child' (H 1987:74(31); O !Xun)

b. *hà* *khó* *mấ* ***yíí́*** ***áàng***
Cl.1 place.3TOP Cl.3 PROX
'His place is this one / here' (KH 2001:65; E !Xun)

c. *‖haa* *!huu* *ti* ***ka*** ***e***
meat thorn.4 IPFV Cl.4 PROX
'this is an animal thorn (i.e. horn).' (119:9899; T; L !Xun)

(10) NP (+TAM)+ *e/aŋ/to'a*, without agreeing class pronoun:

a. *mí́* *zùhú|xòà* *m-í́* ***àŋ***[7]
1.SG people.3 TOP-HAB PROX
'Those are my people' (H 1987:74(30); O !Xun)

b. *cằng* *!!úíí* *(hằng)* *m-í́* ***ndò'à***
3.PL place:4 PL TOP-HAB DIST
'Their places are those.' (K&H2001:66; E !Xun)

c. *me* *n|ee* *ti* ***e***
1.SG head IPFV PROX
'This is my head.' (10207; |'U; L !Xun)

d. *!uru* ***to'a,*** *ta* *‖au* ***to'a***
quiver DIST and arrow DIST
'(T)here is a quiver, and (t)here are arrows' (119:9938; T; L !Xun)

(11) Note that in examples (9) and (10), the predicative DEM is used as a presentative (this/it is NP) marker.

1.1.3. Identificational copula (L !Xun only)

(12) $NP_1 + e + NP_2$ = NP_1 is NP_2

a. *m* *ba* *!uu* *ti* ***e*** *‖Oo-|ue*
1.SG father name IPFV COP ‖O-|ue
'My father's name is ‖O-|ue' (122:10211; |'U; L !Xun)

b. *ma* ***e*** *!!hii* *ta* *na* ***e*** *|Xue*
2.SG COP hare and 1.SG COP |Xue
'You are a hare, and I am |Xue' (119:9900; T; L !Xun)

c. *na* *|ua* ***e*** *!!hii* *|ʰua*
1.SG NEG COP hare real
'I am not a mere hare' (120:9932; T; L !Xun)

1.1.4. Relative Clause

(13) $NP_i + [Cl._i + e + RC]$, with agreeing class pronoun:

a. *kùhú* *‖áḿ-á* *!àé-hằng* *wèésè* ***yíí́*** ***è*** *!xúúń* *òhá*
road pass-VE villages.3-PL all Cl.3 REL !Xun COP
'The road went through all the villages where !Xun people live.'(H 1987:35; O !Xun)

b. *gùmì* ***hằ*** ***è*** *g|è* *mấ* *n‖á'à*
cow.1 **Cl.1** **REL** come TOP be.big
'The cow that is coming is big.' (KH 2001:119; E !Xun)

c. *‖'ee* ***hi*** ***e*** *e* *ti* *taba* *ts'oo* *a*
grass.3 **Cl.3** **REL** 1.PL.E IPFV make sinew/thread ?
'grass out of which we make thread' (119:9896; T; L !Xun

(14) NP + [*e* + RC], without agreeing class pronoun (unattested in Heikkinen's O !Xun data):

a. *gùmì* ***è*** *g|è* *mấ* *n‖á'à*
cow.1 **REL** come TOP be.big
'The cow that is coming is big.' (cf. (13)b) (KH 2001:119; E !Xun)

b. *‖au* *ǂhii* ***e*** *gǂa'ang* *!uru*
arrow many REL be.full.with quiver
'many arrows, which filled the quiver' (119:9938-l; T; L !Xun)

(15) NP_i + [$Cl._i$ + RC], with agreeing class pronoun as only REL marker:

a. *hầ* *n‖àhng-á* *ts'ù* ***ká*** *òhá* *hầ* *gá*
Cl.1 come.home-VE house.4 **Cl.4** COP Cl.1 POS.4
'He came to his home.' (Lit. the house which is his) (H 1987:36(6); O !Xun)

b. *‖há* *ká* *ndò'à* ***ká*** *m-é* *ghángó* *mấ* *ndò'à* *cứ*
meat.4 Cl.4 DIST **Cl.4** 1.SG-PST tell TOP DIST lie.down
'That meat that I mentioned before is the one lying there.' (KH 2001; E !Xun)

c. *ta* *!Xuun* *ti* *‖'ama* *hi* *kue* *tci* ***ka*** *g!uu* *ti* *e* *saan*
and !Xun IPFV buy:VE Cl.3MPO thing.4 **Cl.4** name IPFV COP *san*
'And the !Xun buy from them a thing, the name of which is *san*.'
(113:9377-l; T, N!; L !Xun)

1.2. Ju|'hoan

(16) Deictic predicates: PROX1 *hè/kè* and DIST *tỗ'à*. NP + *hè/kè/tỗ'à* = NP is this/that ~ this/that is NP (cf. Dickens 2001b, 2005):

a. *jù* ***hè***
person.1 PROX.1/3
'This is a person' (D 2005:49; Ju|'hoan)

b. *tjù* ***kè***
house.4 PROX.4
'This is a house.' (D 2005:49; Ju|'hoan)

c. *n!ỗh* ***tỗ'à***
orange DIST
'That is an orange.' (D 2005:49; Ju|'hoan)

(17) Relative clause: NP-à + RC = NP which/who RC.

a. *mí* *!'hàn* *jù-**à*** *kíí* *dcàá* *mí* *tcí-sì*
1.SG know person-**REL** IPFV steal 1.SG thing-PL
'I know the person who is stealing my things.' (D 2005:47; Ju|'hoan)

b. *jù* *n|úí-**à*** *mí* *!'hàn…*
person a.certain-**REL** 1.SG know
'A certain person who I know…' (D 2005:47; Ju|'hoan)

(18) Predicative DEM used in RC ≈ Noun-qualifying demonstrative. NP-à + *hè/kè/tǒ'à* = NP which is this/that = this/that NP (compare the examples below with (16) above)

a. *jù-**à*** ***hè***
person.1-**REL** PROX.1/3
'This person' (D 2005:49; Ju|'hoan)

b. *tjù-**à*** ***kè***
house.4-**REL** PROX.4
'This house.' (D 2005:49; Ju|'hoan)

c. *n!ǒh-**à*** ***tǒ'à***
orange-**REL** DIST
'That orange.' (D 2005:49; Ju|'hoan)

1.3. Summary

	Ju|'hoan	NC !Xun			
			E !Xun	O !Xun	L !Xun
Deictic predicate	NP + *hè/kè/tǒ'à*	$NP_i + Cl._i + e/ang/to'a$	***yes***	***yes***	***yes***
		NP + *e/ang/to'a*	***yes***	***yes***	***yes***
PROX as copula	--	$NP_1 + e + NP_2$	*no*	*no*	***yes***
Modifying demonstrative	NP-*à* + *hè/kè/tǒ'à*	NP + Cl. + *e/ang/to'a*	***yes***	***yes***	***yes***
		NP + *e/ang/to'a*	*?*	*?*	***yes***
Relative marker	NP-*à* + [RC]	$NP_i + Cl._i + e$ + RC	***yes***	***yes***	***yes***
		NP + *e* + RC	***yes***	*?*	***yes***
		$NP_i + Cl._i$ + RC	***yes***	***yes***	***yes***

2. DIACHRONIC HYPOTHESIS

2.1. Proto-Juu system

(19) Tentative reconstructions of Proto-Juu forms: (tones are not reconstructed[8]):

a. **e = PROX*
b. **to'a = DIST*

NB: it is not yet established whether the proximal demonstrative *àng* is to be reconstructed in Proto-Juu or not. I will thus henceforth leave it aside.

(20) **HYPOTHESIS**: **e* and **to'a* were deictic predicates in proto-Juu, most probably locative in nature (be here/there)[9].

(21) Deictic Predicate Structure (DPS) in Proto-Juu:

NP + *e/*to'a = NP is here/there > This/that is NP

(22) I propose to consider that class pronouns were the only relative markers (i.e. relative pronouns) in proto-Juu:

Relative Clause Structure (RCS):		
$\mathbf{NP_i + [Cl._i + RC]}$	=	NP who/which RC

(23) In order to modify a NP, the two deictics **e* and *to'a*, being predicates, need to be used in a RCS (RCS-DEM):

RCS-DEM (RCS with deictic predicate **e/*to'a*, ≈modifying demonstrative):		
$\mathbf{NP_i + [Cl._i + *e/*to'a]_{RC}}$	=	NP which is here/there > This/that NP

2.2. From Proto-Juu to NC !Xun

2.2.1. DPS: NP + **e/*to'a*

(24) Marginally preserved in NC !Xun dialects, very often with a presentative/identificational use (cf. ex.(10) above).

(25) From Deictic Predicate **è* to identificational copula in L !Xun, cf.(12) above:

	NP+**e*	=	NP is here (Deictic Predicate Structure)
	↓		
	NP+**e*	=	NP is this / this is NP
	↓		
	NP+**e*	=	it is NP (**e* = Presentative)
OPTION 1	↓		
	$[NP1]_{TOP}$ [NP2+**e*]	=	It is NP1, NP2
	↓		
	NP1+*e*+NP2	=	NP1 is NP2 (*e* moves ??)
OPTION 2	↓		
	[NP1+**e*] $[NP2]_{TOP}$	=	It is NP1, NP2
	↓		
	NP1+*e*+NP2	=	NP1 is NP2 (identified NP is not NP2 anymore)

2.2.2. RCS: NP + [Cl. + RC]

(26) This structure is marginally preserved in NC !Xun dialects (cf. (15) above). It has been replaced by an innovating structure derived from RCS-DEM (cf. (29) below).

2.2.1. RCS-DEM: NP + $\mathbf{[Cl. + *e/*to'a]_{RC}}$

(27) RCS-DEM > Modifying Demonstrative Structure, with or without agreeing pronoun (not attested in the O !Xun and E !Xun data published so far, but very common in L !Xun.)

$NP_i + [Cl._i + *e/*to'a]_{RC}$ = NP which is this/that
↓
$NP + Cl._{agreement} + e/to'a_{non\text{-}pred}$ = this/that NP (cf. (7) above)
↓
$NP + e/to'a_{non\text{-}pred}$ = this/that NP (ex. (8) above, L !Xun only)

a. *e/to'a* are reanalyzed as non-predicative demonstratives
b. The class pronoun, reanalyzed as an agreement marker, is dropped when agreement between the head noun and the modifying demonstrative becomes unnecessary/optional.

(28) Hence the coexistence of two superficially identical (NP + **è/*tò'à*) but fundamentally different structures in L !Xun:

a. Deictic Predicate Structure $[NP]_{SBJ} + [e/ang/to'a]_{PRED}$ = here/this/it is NP, cf. (10) above.
b. Modifying Demonstrative Structure $[NP + e/ang/to'a]_{NP}$ = This/that NP, cf. (8) above.

(29) <u>Modifying Demonstrative Structure > Relative Clause</u>: the non-predicative PROX **e* was reanalyzed as a relative marker (cf. ex.(13)-(15) above)[10]:

NP (+Cl.) + *e* = This NP
↓
$[NP\ (+Cl.) + e]_{TOP}$ + Clause = $[This\ NP]_{TOP}$ + Clause (*e.g.* This book, I bought in London)
↓
$[NP]_{head} + [(Cl.+)\ e + Clause]_{RC}$ = $[NP]_{head}$ [who/which + Clause]$_{RC}$

(30) Last NC !Xun structure to account for: <u>NP(+TAM) + Cl. + *e/to'a*</u> (DPS with agreeing class pronoun, cf. (9) above).

a. Variant with no TAM marker could be interpreted as a case of topicalization or focalization by extraposition and mere parataxis (e.g. a very good surprise, this phone call),
b. It is not the case of the versions with a TAM marker, which clearly indicates that the sequence [Cl. + *e/to'a*] is a predicate.
c. The tentative hypothesis I cautiously propose here is that both structures (with and without a TAM marker) derive from a headless relative clause [Cl + **è/tò'à*] = 'this/that (one)') used in a topical structure, as detailed in (31) below:

(31) From a headless RC to a Deictic Predicate Structure in NC !Xun:

$\varnothing_{head\text{-}NP}$ + [Cl. + **e/*to'a*]$_{RC}$ = this (one)
↓
$[NP]_{TOP}$, $[\varnothing_{head\text{-}NP}$ + [Cl. + **e/*to'a*]$_{RC}]$ = $[NP]_{TOP}$, this (pne) (e.g."a good surprise, this (is)")
↓
$[NP]_{SBJ}$ + [Cl. + *e/to'a*]$_{PRED}$ = NP is this (one)

→ the sequence Cl. + *e/to'a* is reanalyzed as a deictic predicate by analogy with the very similar structure $[NP]_{SBJ}$ + $[e/to'a]_{PRED}$, the pronoun being analyzed as a mere (optional) agreement marker, exactly as in other structures involving **è/*tò'à* that we have already seen.

(32) the DPS of the form <u>NP + *e/to'a*</u> in modern NC !Xun dialects could thus have two origins:
   a. Proto-Juu DPS NP + **e/*to'a* (no change, cf. (24) above)
   b. NP + Cl. + e/*to'a*$_{\text{non-pred}}$ (cf. (27) above), with optional agreement class pronoun.

2.3. From proto-Juu to Ju|'hoan

2.3.1. Deictic Predicate Structure

(33) The Deictic Predicate Structure is preserved in Ju|'hoan (cf. ex.(16)), *modulo* the lexicalized contraction of the relative class pronoun into proximal *è* (> *h/k-è*, cf. 2.3.3 below).

2.3.2. Relative Clause Structure

(34) RCS: from Proto-Juu to Ju|'hoan:

NP_{head} + [Cl. (= *hà̀/*yi/*ká)[11] + RC]	
↓	
NP_{head} + [*hà̀* + RC]	Generalization of the pronoun of class 1 *hà̀* (human + many inanimate entities) to all classes
↓	
NP_{head}-à + [RC]	(cf. ex.(17)) Reduction of Cl. to suffix *–à*, which attaches to the last element of the head NP[12]

   a. Generalization to *hà̀*: "human gender – as a salient and central category – is not an implausible target for generalization." (Güldemann 2004:93, 97)

   b. super-L tone > L tone: the fact that the extra-L tone of the pronoun *hà̀* became a simple L tone on the suffix is not necessarily a problem, given the fact that extra-L tones in Juu languages are very often related to breathy voice, which acts as a tone depressor[13]. The consonant *h* is used to transcribe breathy voice (V̤ and ɦV) in Juu languages. It is therefore not surprising that the extra-L tone should be replaced by a L tone after the depressor context has disappeared (deletion of initial /ɦ/).

2.3.3. Modifying demonstratives

In Ju|'hoan, like in Proto-Juu, the deictics *hè/kè* and *tò̀'à* being predicates, they may only modify a NP if they are used in a relative clause. The Modifying demonstrative constructions thus underwent the same changes as the Relative Clause Structure (cf. above), with a few more steps for proximal **è*:

(35) From Proto-Juu modifying proximal **è* to Ju|'hoan *hè/kè*:

NP_{head} + [hà̀/hì/ká[14] + [*è]$_{PRED}$]$_{RC}$	
↓	
NP_{head} + [h-/h-/k- + [*è]$_{PRED}$]$_{RC}$	The relative class pronouns are elided and contracted into **è*, but are still interpreted as REL markers.
↓	
NP_{head} + [hà̀ + [hè/kè]$_{PRED}$]$_{RC}$	(the alternation between h- and k- being analyzed as a mere agreement phenomenon), and the generalized relative pronoun *hà̀* is inserted to replace the relative pronouns that have disappeared
↓	
NP_{head}-à [hè/kè]$_{RC}$	general erosion of *hà̀* in all relative constructions.

From Proto-Juu to Ju|'hoan, summary:

	Proto-Juu	>Fusion Cl+è	>Generalization of Cl.1 *hä* + reinterpr. of hè/kè + analogy with RC	> Fusion –à
Relative structure	NP {hä̀ / hì / ká} RC		NP hä̀ RC	NP-à RC
Modifying demonstrative (PROX)	NP {hä̀ / hì / ká} è	NP {h- / h- / k-} è	NP hä̀ hè/kè	NP-à hè/kè
Modifying demonstrative (DIST)	NP {hä̀ / hì / ká} tö'à		NP hä̀ tö'à	NP-à tö'à

3. SUMMARY AND CONCLUSION

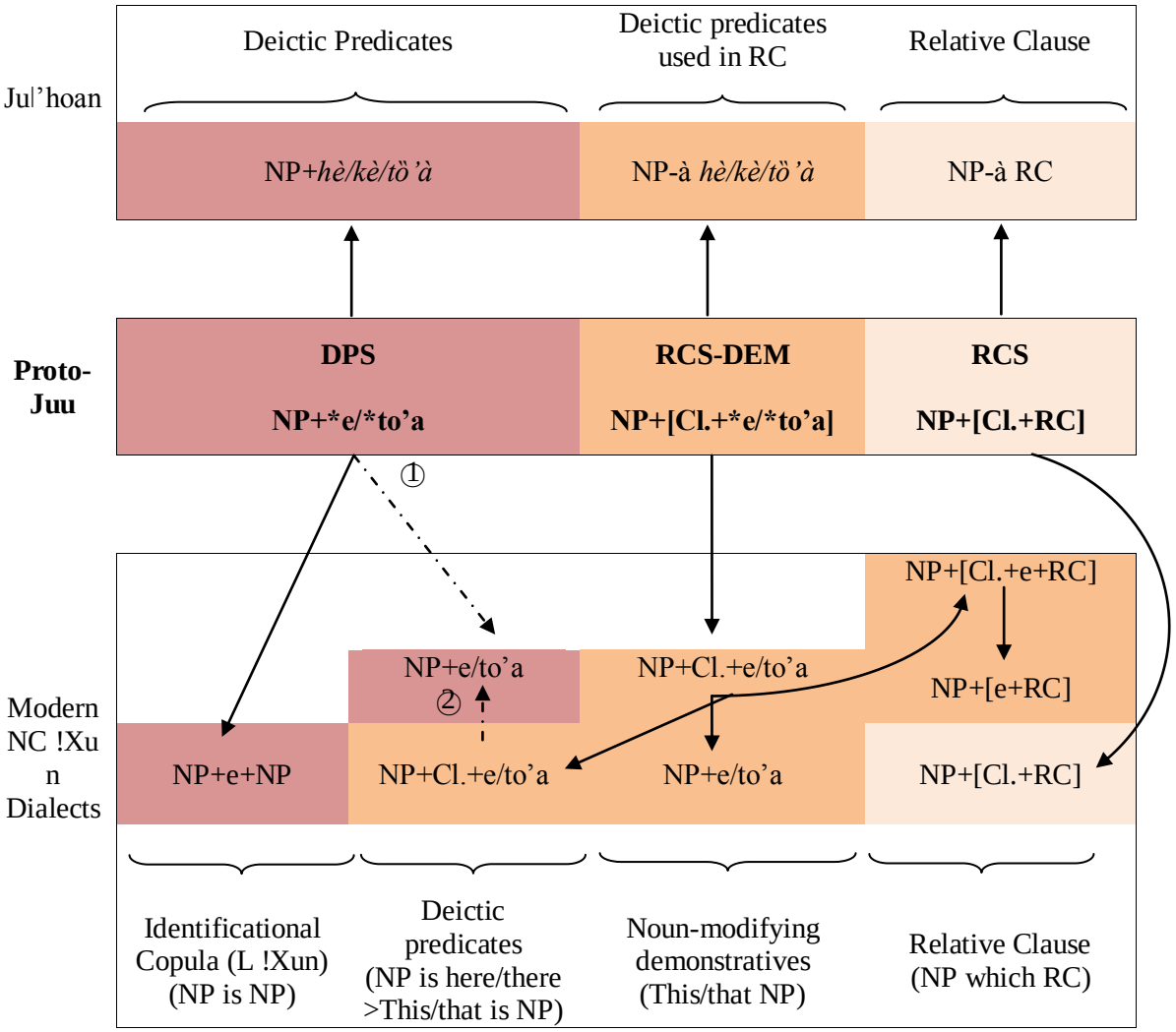
(36) Analyzing Proto-Juu proximal **è* and distal **tò'à* (as well as proximal **ang* if it is to be reconstructed in Proto-Juu) as deictic predicates allows a diachronic account of demonstrative and relative structures in all documented modern Juu varieties.

(37) The proposed changes from Proto-Juu to Ju|'hoan are relatively simple and straightforward.

(38) From Proto-Juu to modern NC !Xun dialects, the picture is less clear:
   a. several layers of history are still attested,
   b. some structures are superficially identical (in terms of word order) but their actual properties are radically different, because they originate in radically different Proto-Juu structures (predicate vs. modifier).

(39) The hypothesis that I have proposed in the present paper is but a tentative hypothesis. Juu languages are still poorly documented (with the exception of Ju|'hoan), and much work still needs to be done in order to have a better understanding of this language cluster and its recent history.

(40) From Proto-Juu to modern Juu dialects, general summary:



ABBREVIATIONS, GLOSSES AND PRESENTATION OF EXAMPLES

The abbreviations used in examples and tables follow the Leipzig Glossing Rules, except the following:

E = Exclusive	I = Inclusive	MPO = Multipurpose oblique marker
Cl = Noun Class pronoun	HAB = Habitual	VE = Valence external participant indexing suffix

Bare Arabic numbers indicate person categories when immediately followed by number indication (SG, PL); otherwise they refer to nominal agreement classes (1 through 4). The transcription of L !Xun used in the present paper is based on an analysis of Lucy Lloyd's own transliteration (cf. Lionnet, ms.), and follows the orthography proposed by Güldemann (1998) for Southern African Khoisan as a whole, which is itself greatly inspired by the Ju|'hoan orthography (Dickens 1991a).

All examples are accompanied by a reference to the publication in which they were found, which consists in the initial(s) of the author(s), followed by the date of publication and page number (and example number in brackets if available), followed by the name of the dialect: *e.g.* (H 1987:37(18); O !Xun).

The reference accompanying examples taken from Lloyd's notebooks indicate the notebook number followed by the page number, the initial of the informant who contributed the example sentence (N! = N!ani, T = Tame, |'U = |'Uma, D = Daqa), and finally the indication of the dialect: *e.g.* (122:10276; D; L !Xun).

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NOTES

[1] Since Khoisan is not thought to be a single genetic unit anymore by most specialists, I will not use the terms "Khoisan" and "Northern Khoisan".

[2] König & Heine (2001, 2008)

[3] Heikkinen (1986, 1987)

[4] L !Xun is a NC !Xun dialect documented by Lucy Lloyd in the 1880's. A linguistic edition of Lucy Lloyd's notebooks is underway (cf. Lionnet 2009 & in prep.), and has yielded enough solid data so far to include this dialect in the present paper.

[5] Snyman (1970, 1975), Köhler (1981) and Dickens (1991, 1994, 2005).

[6] I have taken the liberty to adapt the orthographies chosen by Heikkinen (1986, 1987) for O !Xun and König & Heine (2001, 2008) for E !Xun to the standard orthography proposed by Güldemann

(1998) for South-African Khoisan languages, inspired by that proposed by Dickens (1991) for Ju|'hoan.

[7] Heikkinen analyzes *m-ǐ* as being the contraction of the topic marker *mǎ* and the pronoun of class 3 *yǐǐ*. KH (2001) propose a different analysis of a similar sentence (ex. (10)b, *m-ǐ* = the topic *mǎ* + imperfective marker *kǐ*) which I have chosen to apply to the O !Xun sentence as well.

[8] If the reconstruction of PROX as L-toned **è* is more than probable (despite the E !Xun form *é*), the tonal reconstruction of DIST **to'a* is slightly less straightforward.

[9] Verbals (*i.e.* predicative elements) are indeed a vast class in Juu dialects, and very often encode concepts that are encoded in other categories in European languages, typically deictics, demonstratives (as is still the case in Ju|'hoan, but also less often in NC !Xun), interrogatives (be which) and adjectives (be black, be long etc.).

[10] The reanalysis of a demonstrative into a relative marker is a well documented syntactic change (cf. relative pronouns derived from demonstratives in many Bantu languages, among other examples)

[11] Reconstructed Proto-Juu forms of the pronouns of classes 1 (**hà*), 2 (**si*), 3(**yi*) and 4 (**ká*) proposed by König & Heine (2008:7). Whether the pronoun of class 2 (human plural) was used as a Relative marker in Proto-Juu is still not certain (its uses are very restricted in all modern dialects, in particular it is never used as a relative marker or as an agreement marker with demonstratives)

[12] This hypothesis is one of the two tentative hypotheses proposed by Dickens (1991b).

[13] The exact nature and origin of the extra-L tone in Juu languages, and the relation between the extra-L tone and depressor consonants or vowel colorings (breathy voice and pharyngealization in particular) is not well documented yet, but there seems to be a relation (if not systematic, at least very frequently attested) between extra-L tones and depressors in Juu.

[14] *hà*, *hì* and *ká* are the Ju|'hoan forms of the pronouns of classes 1, 3 and 4 respectively.