

# Unusual Grammar Leads to Unusual Grammaticalization: Verbal Demonstratives in the Juu Languages

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## 1. INTRODUCTION

The present paper focuses on the rare grammatical category of verbal demonstratives (translated as ‘be this’ rather than ‘this’), whose existence is rarely if at all acknowledged in studies on demonstratives. On the basis of a case study of demonstratives in the Juu (aka Northern Khoisan<sup>1</sup>) languages of Southern Africa, the present paper makes two main claims:

- (1) Verbal demonstratives exist and may be the only (exophoric) deictics in a language.
- (2) Because of their verbal nature, verbal demonstratives may grammaticalize into verbal elements, a grammaticalization pathway that has not been taken into account in any study of the grammaticalization of demonstratives:
  - a. verbal identificational and presentative markers
  - b. verbal non-locative copulas

Section 2 gives a brief presentation of different typologies of demonstratives that have been proposed recently. Section 3 offers a description of the Juu data supporting the present papers’ claims. Section 4 shows that analyzing demonstratives as well as other elements such as relative markers and copulas in modern Juu dialects as deriving from Proto-Juu verbal demonstratives has great synchronic explanatory strength. Finally section 5 shows that the verbal analysis proposed here, despite being unusual, is compatible with typological expectations about intransitive predicates, in particular with the predictions made by Stassen’s (1997) second verbalization scale.

## 2. VERBAL DEMONSTRATIVES IN RECENT TYPOLOGICAL LITERATURE

In his typological overview of the form, function and grammaticalization of demonstratives in the world’s languages, Diessel (1999) distinguishes four syntactic categories of demonstratives, presented in (3)(3) below:

- (3) Diessel’s (1999) typology of demonstratives:
  - a. Pronominal demonstratives: arguments in a clause
  - b. Adnominal demonstratives: noun-modifiers in a NP
  - c. Adverbial demonstratives: verb-modifiers in a clause (= locative adverbs)
  - d. Identificational demonstratives: predicates in a copular or non-verbal clause

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<sup>1</sup> 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”.



(6) ‘Be this/here’, ‘be, there/that’ (Ju|’hoan):

a.    *jù*            *hè*  
       person    be.this  
       ‘This is a person’ (Dickens 2005:49)

b.    *n!òh*        *tò’á*  
       orange    be.there  
       ‘That is an orange.’ (Dickens 2005:49)

Dixon (2003:69) further notes that Ju|’hoan is the only language (that he knows of) with only verbal demonstratives (contrary to Boumaa Fijian and Dyirbal, which have an independent set of nominal and adverbial demonstratives used for exophoric deixis).

### 2.1. The grammaticalization of demonstratives

The grammaticalization of demonstratives is well covered in the literature about grammaticalization. Most studies (summarized in Diessel 1999, see also Heine & Kuteva 2002) concentrate on (pro-/ad-)nominal demonstratives. In the conclusion of his chapter on grammaticalization, Diessel (1999:155) summarizes the possible grammaticalization paths of demonstratives according to their grammatical status in a table that is repeated in Table 1.

| Source                                 | Target                                                                                                                                                                                                                                             |
|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Pronominal demonstratives:</b>      | third person pronouns<br>relative pronouns<br>complementizers<br>sentence connectives<br>possessives<br>adnominal determinatives<br>verbal number markers<br>expletives<br>linkers ( <i>more often from Adnominal demonstratives</i> )             |
| <b>Adnominal Demonstratives:</b>       | nominal number markers<br>definite articles/noun class markers<br>linkers<br>boundary markers of attributes<br>pronominal determinatives<br>specific indefinite articles<br>relative pronouns ( <i>more often from Pronominal demonstratives</i> ) |
| <b>Adverbial demonstratives:</b>       | directional preverbs<br>temporal adverbs<br>expletives                                                                                                                                                                                             |
| <b>Identificational demonstratives</b> | non-verbal copulas<br>focus markers<br>expletives                                                                                                                                                                                                  |

Table 1. The grammaticalization of demonstratives (from Diessel 1999:155, table 72)

Identificational demonstratives, the closest category to verbal demonstratives, are said to grammaticalize into non-verbal copulas, focus markers and expletives.

### 3. DEMONSTRATIVES IN THE JUU LANGUAGES

#### 3.1. Brief presentation of the Juu languages

The Juu languages (formerly known as Northern Khoisan) form a dialect cluster spoken by small groups of San in a vast area covering northeastern Botswana, northwestern Namibia and southeastern Angola. Heine & Honken (2010) recently showed that the Juu languages form a single genetic unit (which they call *Kx'aa*<sup>4</sup>) with the †Hoan language of Botswana. The internal classification of the *Kx'aa* language family is given in Fig. 1 below:

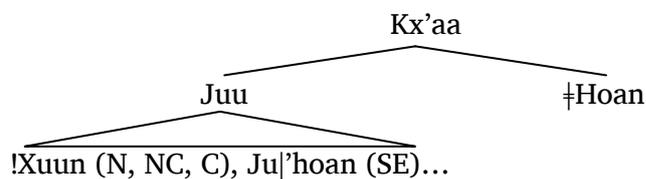


Fig. 1 Internal classification of the *Kx'aa* language family

A classification of Juu lects based on regular sound correspondences (Snyman 1997, refined by Sands & Miller-Ockhuizen 2000 and Sands 2010) and a map showing their distribution are shown in Table 2 and Map 1.

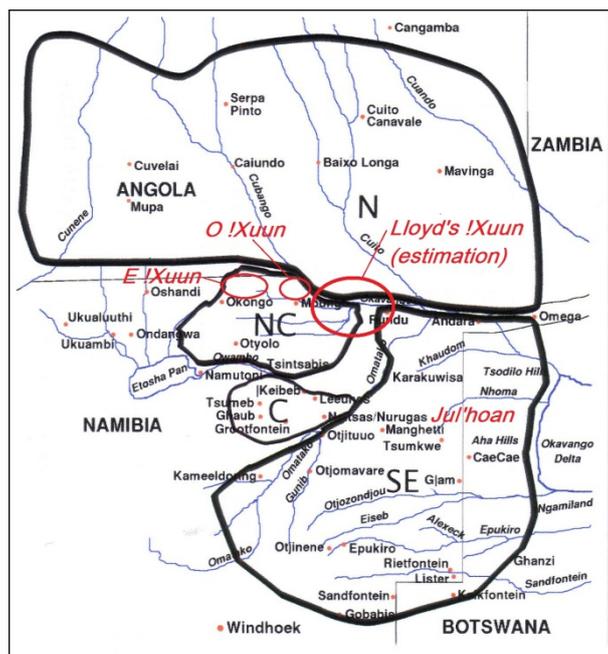
| Dialectal groups   | Well-documented lects                                                                                          | Sources                                                                              |
|--------------------|----------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| Northern (N)       | --                                                                                                             |                                                                                      |
| North-Central (NC) | - Ekoka !Xuun (E !Xuun)<br>- Ovamboland/West-Kavango !Xuun (O !Xuun)<br>- Lloyd's !Xuun (L !Xuun) <sup>5</sup> | König & Heine (2001, 2008)<br>Heikkinen (1986, 1987)<br>Bleek & Lloyd (ms.)          |
| Central (C)        | --                                                                                                             |                                                                                      |
| South-Eastern (SE) | Ju 'hoan                                                                                                       | Snyman (1970, 1975)<br>Köhler (1981)<br>Dickens (1991, 1994, 2005)<br>Biesele (2009) |

Table 2. Classification of Juu lects

Lloyd's !Xuun is a 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.

<sup>4</sup> *Kx'a* in their orthography. All language names are adapted in the present paper to the standard orthography proposed by Güldemann (1998) for Southern African Khoisan languages: *Kx'a* and *!Xun* thus become *Kx'aa* and *!Xuun* respectively, to comply with the requirement that lexical items be minimally bimoraic in South-African Khoisan languages.

<sup>5</sup> The transcription of Lloyd's !Xuun used in the present paper is based on an interpretation of Lucy Lloyd's own transliteration presented in Lionnet (in prep.), and follows the orthography proposed by Güldemann (1998).



Map 1. Juu dialectal subgroups (adapted from Sands 2010)

All the data used in this paper are taken from the sources listed in Table 2. 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 (as well as the example number in brackets, if available), followed by the name of the dialect: *e.g.* (H 1987:37(18); O !Xuun).

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 !Xuun).

Juu languages are mostly isolating and strictly SVOX languages. Tense, aspect and mood are (optionally) marked with preverbal particles. Nouns are grouped into four noun classes. Class membership is morphologically covert on nouns: only pronouns vary in class, and agree with their head noun. The Juu class pronouns (abbreviated as Cl.) are used as independent, subject, object, oblique and possessive pronouns, as well as agreement markers in some cases of noun modification (which will be described further in this section); they are given in Table 3 below (the proto-Juu forms are those proposed by König & Heine (2008:7)).

| Cl. | Proto-Juu | E !Xuun          | O !Xuun | Lloyd's !Xuun | Ju 'hoan |
|-----|-----------|------------------|---------|---------------|----------|
| 1   | *hà       | hà               | hà      | ha            | hà       |
| 2   | *si       | cj̃ <sup>6</sup> | sè/sàng | sing          | sì       |
| 3   | *yi       | yĩ               | yĩ      | hi            | hì       |
| 4   | *ká       | ká               | ká      | ka            | ká       |

Table 3. Juu class pronouns

<sup>6</sup> I consider Ekoka !Xuun cj̃ [[ʃ̃]] to be the reflex of Proto-Juu class 2 \*si (cf. Ovamboland !Xuun sàng [s̃]), which König & Heine (2001) do not say explicitly.

Three exophoric deictic demonstratives (*i.e.* demonstratives with discourse-external reference) are attested in Juu: two proximal and one distal, as illustrated in Table 4.

|              | Ekoka !Xuun | NC !Xuun <sup>7</sup> | Lloyd's !Xuun | Ju 'hoan (SE) |
|--------------|-------------|-----------------------|---------------|---------------|
| <b>PROX1</b> | é           | è                     | e             | hè/kè         |
| <b>PROX2</b> | ǀǀǀ         | àng                   | ?             | --            |
| <b>DIST</b>  | tò'ǀ~ndò'ǀ  | tò'ǀ~ndò'ǀ            | to'a~(n)do'a  | tò'ǀ          |

Table 4 Juu exophoric demonstratives

The proximal demonstrative PROX2, being attested in only two dialects so far is ignored in the present paper, which will essentially concentrate on the two demonstratives PROX1 and DIST, attested in all dialects.

Juu languages also have an endophoric anaphoric demonstrative (ǀ'ǀ, used for text-internal anaphora), which will be ignored here, since its syntactic properties set it apart from the exophoric demonstratives which are the object of the present paper.<sup>8</sup>

### 3.2. Demonstratives are verbs in Ju|'hoan

Ju|'hoan has two exophoric demonstratives: *hè/kè* (PROX) and *tò'ǀ* (DIST). PROX agrees in class with its head noun, hence the two forms it may take: *hè* with nouns of classes 1 and 3 (*hǎ* and *hì*), *kè* with nouns of class 4 (*ká*), as illustrated in (7) below. Note that the class 2 pronoun *sì* (human plural) may only be used as a subject, object or possessive pronoun. In all other functions, it is replaced by the class 3 pronoun *hì*, which explains the form *hè* (vs. expected *sè*) in (7)d.

(7) Ju|'hoan PROX *hè/kè*:

- a. *jù*            **hè**  
 person.1 PROX.1/3  
 'This is a person' (D 2005:49; Ju|'hoan)
- b. *tǀù*           **kè**  
 house.4 PROX.4  
 'This is a house.' (id.)
- c. *hǎ-ǀ*          **hè**  
 Cl.1-REL PROX.1/3  
 'This one (class 1).' (D 2005:95; Ju|'hoan)

<sup>7</sup> I have taken the liberty to adapt Heikkinen's (1986, 1987) transcription of Ovamboland !Xuun to the standard orthography proposed by Güldemann (1998) for South-African Khoisan languages, inspired by that proposed by Dickens (1991) for Ju|'hoan. I have also changed the tone marks used by König & Heine for Ekoka !Xuun (á, ā, à, ǎ from highest to lowest) to those used in Ju|'hoan (ǎ, á, à, ǎ from highest to lowest) to facilitate readability and dialectal comparisons.

<sup>8</sup> It qualifies as an adnominal demonstrative: it is used only as a noun modifier, does not have verbal properties or predicative uses. Juu languages do not seem to have any endophoric cataphoric demonstrative.

- d. *sì-sà*<sup>9</sup>                    ***hè***  
 Cl.2-REL.PL                PROX.1/3  
 ‘These ones (class 2).’ (id.)
- e. *hì-à*                    ***hè***  
 Cl.3-REL    PROX.1/3  
 ‘This one (class 3).’ (id.)
- f. *ká-à*                    ***kè***  
 Cl.4-REL    PROX.4  
 ‘This one (class 4).’ (id.)

(2) Distal *tò’à* (no agreement):

- a. *n!òh*                    ***tò’à***  
 orange                DIST  
 ‘That is an orange.’ (D 2005:49; Ju|’hoan)
- b. *hã-à*                    ***tò’à***  
 Cl.1-REL    DIST  
 ‘That one (class 1).’ (D 2005:95; Ju|’hoan)
- c. *sì-sà*                    ***tò’à***  
 Cl.2-REL.PL                DIST  
 ‘These ones (class 2).’ (id.)
- d. *hì-à*                    ***tò’à***  
 Cl.3-REL    DIST  
 ‘That one (class 3).’ (id.)
- e. *ká-à*                    ***tò’à***  
 Cl.4-REL    DIST  
 ‘That one (class 4).’ (id.)

Dickens (1991b, 2005) rightly describes these two demonstratives as verbs. Their verbal nature is indeed revealed by a set of verb- and noun-identification tests related to the two syntactic contexts of predication and noun-modification, which are defined in Table 5 below (tests similar to NEG and RC can be found in Dickens (1991b)).

| Syntactic context | Test | If yes:                                                                                   |         |
|-------------------|------|-------------------------------------------------------------------------------------------|---------|
| Predication       | PRED | Can the lexical item be a predicate on its own? (or does it need copular/verbal support?) | Verbal  |
|                   | TAM  | Is the lexical item compatible with TAM markers?                                          | Verbal  |
|                   | NEG  | Can the lexical item be directly negated by the negation /óá ?                            | Verbal  |
|                   | ARG  | Can the lexical item be an argument of a verb?                                            | Nominal |

<sup>9</sup> -sà (< plural suffix -sì + REL -à) is the plural form of the relative suffix -à in Ju|’hoan.



## (10) Noun

- a. *n!hai*    **ó**    *jòmmà*                      b. *n!hai*            *!xúí*  
 person    COP    predator                      lion            tail  
 ‘The lion is a predator.’                      ‘the lion’s tail’                      (D 2005:35; Ju|’hoan)  
 (Snyman 1970:136; Ju|’hoan)

The nominal adjectives (last line in the table) are best viewed as defective modifying nouns. Their noun-hood is revealed by the tests presented in Table 6 and by their compatibility with the nominal plural suffixes *-sín* and *-sì*. However, unlike nouns, they may only be used as noun-modifiers, following the head noun<sup>10</sup>, never as arguments (with some variation among speakers, cf. (13)b), as shown in (12) and (13) below.

(11) Nominal plural suffixes *-sín* (kinship nouns) and *-sì*:

- a. *bá-sín* /            *tjù-sì*  
 father-PL            house-PL  
 ‘fathers/ houses’                      (D 2005:27; Ju|’hoan)
- b. *jù dóré-sín* /    *tjù*    *zé-sì*  
 person    strange-PL    house    new-PL  
 ‘strange people / new houses’                      (D 1991b:112, 2005:30; Ju|’hoan)

## (12) Noun-qualification:

- a. *jù*            *dóré*  
 person    strange  
 ‘a different person’                      (D 2005:30; Ju|’hoan)
- b. *\*tcí-à*        *dóré*  
 thing-REL    strange  
 intended: a thing which is strange                      (D 1991b:112; Ju|’hoan)

## (13) Predication:

- a. *\*[tcí]<sub>SBJ</sub>*    *[/óá dóré]<sub>PRED</sub>*  
 thing    NEG    strange  
 intended: the thing is not strange                      (D 1991b:112; Ju|’hoan)
- b. *?[tjù-à*            *kè]<sub>SBJ</sub>*            *[zé]<sub>PRED</sub>*  
 house.4-REL        PROX.4            new  
 ‘This house is new.’ Accepted by some speakers only (D 1991b:112, fn.2; Ju|’hoan)
- c. *[tjù-à*            *kè]<sub>SBJ</sub>*            *[ò ká zé]<sub>PRED</sub>*  
 house.4-REL        PROX.4            COP    Cl.4    new  
 ‘This house is new.’ (lit. this house is a new one)                      (id.)

Because of the rarity of verbal demonstratives (as we have seen above, they are acknowledged in only three languages, by only two authors), analyzing demonstratives as verbs may seem like an extreme and potentially unreasonable analytical choice: why not analyze them (together with verbal adjectives and the interrogative *nè* ‘be which’) simply as

<sup>10</sup> Hence the label “second-element nouns” chosen by Dickens (1991b), replaced by the term “adjective” in his grammar (2005).

adnouns (i.e. nominal NP-modifiers) accompanied by a zero copula when used as predicates? This would be more in keeping with both typological and analytical expectations. Example (8)a above would thus be analyzed as follows:

- (14) [jù]<sub>SBJ</sub> [∅ hè]<sub>PRED</sub>  
 person COP PROX.1/3  
 ‘This is a person.’

However, this adnominal analysis poses several problems. The first problem is that there are already two overt copulas in Ju|’hoan: non-locative copula ò (illustrated in (10)a above) and locative gè ‘be (somewhere)’, obligatorily used when the predicate is a noun or a pronoun. Why aren’t these copulas used with predicative demonstratives etc. as well? This problem is not fatal to the adnominal analysis, since one could say that the overt copulas and the zero copula are in complementary distribution. The former are used only with predicative (pro)nouns, while the latter is used only with adnouns.

The second, much more serious problem posed by the adnominal analysis is that it posits adnouns that are never used as adnouns. While it makes sense for adnouns to be accompanied by a copula when used as predicates (cf. adjectives in English, among many other languages), one would expect them to have adnominal syntax at least when they are used to modify a NP. They should thus behave like nominal adjectives in Ju|’hoan (cf. examples (12) and (13) above). We have seen that it is not the case: demonstratives, verbal adjectives and the interrogative nè ‘(be) which’ must be used in a relative clause in such a context (compare (8) and (12)). This goes against the adnominal analysis: why should an adnoun need to be used predicatively (more precisely as a non-verbal predicate with a zero copula inside a relative clause, cf. (15) below) when used in the very syntactic context which should define it as an adnoun, i.e. noun-modification?

- (15) Demonstrative as noun-modifier according to the adnominal analysis:

jù-à [∅ hè]<sub>RC</sub>  
 person-REL COP PROX.1/3  
 ‘This person.’

There is thus strong evidence against the adnominal/zero copula analysis and in support of the verbal analysis of Ju|’hoan demonstratives, verbal adjectives and interrogative nè ‘be which’.

### 3.3. Demonstratives in North-Central !Xuun: verbal or adnominal?

Exophoric demonstratives in North-Central !Xuun offer a more complex picture, because they are ambicategorial: adnominal when modifying a NP, verbal when used as predicates.

#### 3.3.1. Adnominal use (‘this/that NP’)

In NC-!Xuun, demonstratives behave as adnouns when modifying a NP, with (ex. (16)) or without (ex. (17)) an intervening class pronoun agreeing with the head noun.

(16) [NP<sub>i</sub> + Cl.<sub>i</sub> + DEM]<sub>NP</sub> (all dialects)

- a. *n//ðhmí yíí tò'à má ðhá yíí n/á'áng*  
 message Cl.3 DIST TOP COP Cl.3 (be)good  
 'That story is a good one.' (H 1987:37(18); O !Xuun)
- b. *g/ãhxú hã é*  
 chair.1 Cl.1 PROX  
 'This (particular) chair' (KH 2001:65; E !Xuun)
- c. *ts'oo ka e na tí n!u'a*  
 sinew.4 Cl.4 PROX 1.SG IPFV throw  
 'This thread I throw far away.' (119:9899; T; L !Xuun)

(17) [NP + DEM]<sub>NP</sub> (attested only in Lloyd's !Xuun so far)

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

### 3.3.2. Verbal use (be here/there ~ be this/that)

NC-!Xuun demonstratives are have verbal properties when used predicatively, as shown by their compatibility with TAM markers in (18)a-b (note that TAM markers are always optional in Juu).

(18) [NP]<sub>SBJ</sub> [(+ TAM) + DEM]<sub>PRED(ICATE)</sub>

- a. [*càng !!úú (hãng) m-*]<sub>TOP/SBJ</sub> [*-í ndò'à*]<sub>PRED</sub>  
 3.PL place:4 PL TOP- -HAB DIST  
 'Their places are those.' (K&H2001:66; E !Xuun)
- b. [*me n/ee*]<sub>SBJ</sub> [*tí e*]<sub>PRED</sub>  
 1.SG head IPFV PROX  
 'This is my head.' (10207; !'U; L !Xuun)
- c. [*!uru*]<sub>SBJ</sub> [*to'a*]<sub>PRED</sub> *ta* [*//au*]<sub>SBJ</sub> [*to'a*]<sub>PRED</sub>  
 quiver DIST and arrow DIST  
 'That is a quiver, and those are arrows' (119:9938; T; L !Xuun)

Note that in examples (18)b-c, the predicative demonstrative is used as an identificational marker (translated as 'this/that is NP').

### 3.3.3. Adjectives in NC !Xuun

This dual behavior is not characteristic of demonstratives only: most adjectives are also ambicategorical (adnominal and verbal) in NC !Xuun dialects. Interestingly, only the adjectives that etymologically correspond to purely verbal adjectives in Ju!'hoan show this ambicategorical behavior (NC !Xuun dialects also have, like Ju!'hoan, a handful of purely adnominal adjectives, which are not illustrated here). These NC !Xuun adjectives, like



### 3.3.4. Relative Clause

The NC !Xuun relative marker is homophonous with the proximal demonstrative *è*, except in Ekoka !Xuun, where they are phonetically tonally different: relative marker [è] vs. proximal demonstrative [ʔèè] (Heine & König ms.). König & Heine (2001, 2008) analyze these two markers as different: low-toned relative suffix *-è* vs. high-toned proximal demonstrative *ʔé*. However, given the similarity of their phonetic form, and the comparative data from other dialects, these two elements could well turn out to be closely related, if not the same. I choose to consider in the present paper that both are derived from proto-Juu low-toned PROX \*è (cf. section 4.3), which has a low tone in all other dialects.

The relative marker *è*, like demonstratives, may be used with an intervening class pronoun agreeing with the head noun (ex. (21) below) or without (ex. (22) below).

(21) NP<sub>i</sub> + [Cl.<sub>i</sub> + è...]<sub>RC</sub>

- a. *kùhú* //áǎ-á !àé-hàng wèésè **yíí** è !xúún òhá  
 road pass-VE villages.3-PL all Cl.3 REL !Xuun COP  
 ‘The road went through all the villages where !Xuun people live.’ (H 1987:35; O !Xuun)
- b. *gùmì* **hà** è g/è *mǎ* n/á’à  
 cow.1 Cl.1 REL come TOP be.big  
 ‘The cow that is coming is big.’ (KH 2001:119; E !Xuun)
- 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 !Xuun)

(22) NP + [è...]<sub>RC</sub> (unattested in Heikkinen’s Ovamboland !Xuun data)

- a. *gùmì* è g/è *mǎ* n/á’à  
 cow.1 REL come TOP be.big  
 ‘The cow that is coming is big.’ (cf. (21)b) (KH 2001:119; E !Xuun)
- b. //au #hiì e g#a’ang !uru  
 arrow many REL be.full.with quiver  
 ‘many arrows, which filled the quiver’ (119:9938-l; T; L !Xuun)

Another, less frequent, relative construction is attested in NC !Xuun dialects: it makes use of a class pronoun as the only relative marker, as shown in (23) below:

(23) NP<sub>i</sub> + [Cl.<sub>i</sub>...]<sub>RC</sub>, with agreeing class pronoun as only REL marker:

- a. *hà* n//ǎhng-á ts’ù **ká** òhá *hà* 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 !Xuun)
- b. //há *ká* ndò’à **ká** m-é ghángó *mǎ* ndò’à *cú*  
 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 !Xuun)

- c. *ta !Xuun ti //’ama hi kue tcii ka g!uu ti e*  
*saan*<sup>11</sup>  
 and !Xuun IPFV buy:VE Cl.3 MPO thing.4 Cl.4 name IPFV COP *saan*  
 ‘And the !Xuun buy from them a thing, the name of which is *saan*.’  
 (113:9377-l; T, N!; L !Xuun)

### 3.3.5. Non-locative copula (L !Xuun only)

Lloyd’s !Xuun possesses a third marker which is homophonous with PROX *e* (and argued in section 4.3 to be derived from it): the non-locative copula *e*, illustrated in (24) below:

(24)  $NP_1 + e + NP_2 = NP_1 \text{ is } NP_2$

- a. *m ba !uu ti e //Oo-|ue*  
 1.SG father name IPFV COP //Oo-|ue  
 ‘My father’s name is //Oo-|ue’ (122:10211; |’U; L !Xuun)
- b. *ma e !(h)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 !Xuun)
- c. *na /ua e !(h)hii /hhua(n)*  
 1.SG NEG COP hare real  
 ‘I am not a mere hare’ (120:9932; T; L !Xuun)

### 3.4. Summary

The data presented above is summarized in Table 7. It appears that the NC-!Xuun system is more complex than the Ju|’hoan system, due partly to the ambicategoriality of demonstratives, partly to the optional presence of the agreeing class pronoun with both adnominal demonstratives and the relative marker.

|                     | Ju ’hoan                 | NC !Xuun                                           |         |        |         |
|---------------------|--------------------------|----------------------------------------------------|---------|--------|---------|
|                     |                          |                                                    | E !Xuun | O!Xuun | L !Xuun |
| DEM = predicate     | NP + <i>hè/kè/tò’â</i>   | NP( + TAM) + <i>e/ang/to’a</i>                     | ✓       | ✓      | ✓       |
| DEM = Noun modifier | NP-â + <i>hè/kè/tò’â</i> | NP + Cl. + <i>e/ang/to’a</i>                       | ✓       | ✓      | ✓       |
|                     |                          | NP + <i>e/ang/to’a</i>                             | ?       | ?      | ✓       |
| Relative marker     | NP-â + [RC]              | NP <sub>i</sub> + Cl. <sub>i</sub> + <i>e</i> + RC | ✓       | ✓      | ✓       |
|                     |                          | NP + <i>e</i> + RC                                 | ✓       | ?      | ✓       |
|                     |                          | NP <sub>i</sub> + Cl. <sub>i</sub> + RC            | ✓       | ✓      | ✓       |
| PROX as copula      | --                       | NP <sub>1</sub> + <i>e</i> + NP <sub>2</sub>       | --      | --     | ✓       |

Table 7. Demonstratives and related markers in Juu dialects

<sup>11</sup> The class pronoun *ka* could also be analyzed here as a possessive pronoun (a very common use of class pronouns in Juu) used anaphorically. (23)c would then translate as ‘And the !Xuun buy from them a thing, its name is ‘saan’. One could even surmise that this anaphoric use of class pronouns is what may have led to their grammaticalization into relative pronouns.

Note the coexistence of two superficially identical (NP + \*è/\*tò'à) but fundamentally different structures in NC !Xuun:

(25) Verbal demonstrative: [NP]<sub>SBJ</sub> + [e/ang/to'a]<sub>PRED</sub> = NP is here/this, here/this is NP. Cf. (18)c above, repeated below:

|                                          |                        |     |                       |                        |                        |
|------------------------------------------|------------------------|-----|-----------------------|------------------------|------------------------|
| [!uru] <sub>SBJ</sub>                    | [to'a] <sub>PRED</sub> | ta  | [//au] <sub>SBJ</sub> | [to'a] <sub>PRED</sub> |                        |
| quiver                                   | DIST                   | and | arrow                 | DIST                   |                        |
| 'That is a quiver, and those are arrows' |                        |     |                       |                        | (119:9938; T; L !Xuun) |

(26) Adnominal demonstrative [NP + e/ang/to'a]<sub>NP</sub> = This/that NP, widely attested in L !Xuun, but not in any other dialect. Cf. (17) repeated below:

|                                   |      |     |                       |                           |
|-----------------------------------|------|-----|-----------------------|---------------------------|
| !Xuun                             | ti   | 'm  | [tci e] <sub>NP</sub> |                           |
| !Xuun                             | IPFV | eat | thing.4 PROX          |                           |
| 'The !Xuun people eat this thing' |      |     |                       | (122:10215,  'U; L !Xuun) |

The wide-scope presentation of syntactic categories and structures related to Juu demonstratives and the issue of their verbal nature, has allowed us to expose all the data that are necessary to show what grammaticalization pathways these verbal demonstratives may give way to. The next section draws on those data to give a tentative account of the dialectal differences noted in this section, in particular the complexity of the NC !Xuun system, by showing that the NC !Xuun demonstratives, relative marker è and copula e all derive from the grammaticalization of Proto-Juu verbal demonstratives.

## 4. GRAMMATICALIZATION OF VERBAL DEMONSTRATIVES

### 4.1. Proto-Juu

In order to account for the fact that demonstratives are verbs in Ju|'hoan and ambicategorical in NC !Xuun, I propose to reconstruct them as verbs in Proto-Juu.

(27) Proto-Juu verbal demonstratives:

- a. \*è = 'be this/here'
- b. \*to'a = 'be that/there'
- c. NP + \*è/\*to'a = 'NP is here/there' > 'This/that is NP'

While the reconstruction of PROX as L-toned \*è is more than probable (despite the Ekoka !Xuun form [ʔēè], cf. 3.3.4 above), the tonal reconstruction of DIST \*to'a is slightly less straightforward, given the correspondence tð'à (Ju|'hoan) vs. tò'à~ndò'à (NC dialects). The tentative reconstruction \*to'a proposed here thus omits both the NC initial consonant alternation and the tones.

I also hypothesize that class pronouns were the only relative markers (i.e. relative pronouns) in proto-Juu:

(28) Proto-Juu relative clause:  $NP_i + [Cl_i \dots]_{RC} = \text{'NP who/which RC'}$

In order to modify a NP, the two verbal demonstratives *\*è* and *\*to'a*, thus need to be used in a relative clause, like in Ju|'hoan.

(29) Proto-Juu demonstrative in relative clause:

$NP_i + [Cl_i + *è/*to'a]_{RC} = \text{'NP which is here/there' } > \text{ This/that NP}$

The Proto-Juu system is thus hypothesized to have been structurally very close to the Ju|'hoan system. NC !Xuun, on the other hand, is argued to present many recent innovations, which is reflected in the proliferation of available structures.

## 4.2. From Proto-Juu to Ju|'hoan

The reconstructed Proto-Juu system being very close to that Ju|'hoan, the changes from the former to the latter are only minimal.

### 4.2.1. Demonstrative as predicate

The Proto-Juu predicate structure  $NP + *è/*to'a$  is preserved in Ju|'hoan (ex.(30)), *modulo* the lexicalized fusion of the relative class pronoun into proximal *è* ( $> h/k-è$ , cf. section 4.2.3).

|                    |           |   |                   |           |   |                      |             |
|--------------------|-----------|---|-------------------|-----------|---|----------------------|-------------|
| (30) <i>jù</i>     | <i>hè</i> | / | <i>tjù</i>        | <i>kè</i> | / | <i>n!òh</i>          | <i>tò'à</i> |
| person.1           | PROX.1/3  |   | house.4           | PROX.4    |   | orange               | DIST        |
| 'This is a person' |           |   | 'This is a house' |           |   | 'That is an orange.' |             |

(D 2005:49; Ju|'hoan)

### 4.2.2. Relative Clause

(31) Relative clause in Ju|'hoan:  $NP-\grave{a}_{REL} [RC]$

a. *!xó-à* [ *ú* ]<sub>RC</sub>  
 elephant-REL go  
 'the elephant that goes' (D 2001:111; Ju|'hoan)

b. *jù-à* [ *kú dcàá mí tcí-sì* ]<sub>RC</sub>  
 person-REL IPFV steal 1SG thing-PL  
 'the person who is stealing my things' (D 2005:47; Ju|'hoan)

The grammaticalization of the relative class pronoun in the Proto-Juu relative clause structure  $*NP_i + [Cl_i \dots]_{RC}$  into the relative suffix *-à* in Ju|'hoan is presented in (32) below:<sup>12</sup>

<sup>12</sup> This hypothesis is one of the two tentative hypotheses proposed by Dickens (1991b). Note that 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 most of the time replaced by Cl. 3 pronoun *hì* when modified, or when used as an agreement marker (with demonstratives or the relative marker *è* for example)

(32) Relative clause: from Proto-Juu to Ju|’hoan

|                                 |                                                                                                             |
|---------------------------------|-------------------------------------------------------------------------------------------------------------|
| NP <sub>head</sub> + [Cl. + RC] | Cl.1 = *hà, Cl.3 = *yi, Cl.4 = *ká                                                                          |
| ↓                               |                                                                                                             |
| NP <sub>head</sub> + [hà + RC]  | Generalization of the pronoun of class 1 <i>hà</i> (human + many inanimate entities) to all classes         |
| ↓                               |                                                                                                             |
| NP <sub>head</sub> + -à + [RC]  | Reduction of Cl.1 <i>hà</i> to suffix -à, which attaches to the last element of the head NP (cf (31) above) |

The generalization of the class 1 pronoun *hà* is not unheard of, in particular in South-African Khoisan languages: “human gender – as a salient and central category – is not an implausible target for generalization” (Güldemann 2004:93, about typologically similar !Xoon and related †Hoan).

The fact that the extra-L tone of the pronoun *hà* 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<sup>13</sup>. The consonant *h* is used to transcribe breathy voice (/ʋ/ and /fʋ/) 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 /f/).

The analysis of -à as a suffix rather than, say, a clitic rests on the phonological evidence that there is no word boundary between -à and the preceding word: there is no glottal stop, which would mark the beginning of a new word (all words start with a consonant in Juu, default /ʔ/ in the case of V-initial words) and nasalization spreads from the preceding word onto -à (a process which is not attested across word-boundaries): *tzún* [ts’ú] ‘nose’, *tzún-à* [ts’úâ] ‘nose which...’, written in one word (*tzúàn*) by Dickens (2005:47).

Note that the historical scenario proposed in (32) above predicts that the relative suffix -à should be phrase-final, *i.e.* that it should be suffixed to the last element of the head NP of the relative clause, rather than to its head. This prediction is borne out, since this is systematically the case in Ju|’hoan, as shown by ex. (33) below.

- (33) [jù      n/úú]<sub>headNP</sub>      -à      [mí      !’hàn]<sub>RC</sub>  
 person    a.certain            -REL    1.SG    know  
 ‘A certain person whom I know’ (D 2005:47; Ju|’hoan)

#### 4.2.3. Demonstratives used in a relative clause

This structure underwent the same changes as the relative clause described above, with a few more steps for proximal \*è:

<sup>13</sup> 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 at least extra-L tones and breathy voice in Juu.

(34) From Proto-Juu NP + [Cl. + \*è]<sub>RC</sub> to Ju|’hoan NP-à + hè/kè:

|                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| $\text{NP}_{\text{head}} + [\text{h}\grave{\text{a}}/\text{h}\grave{\text{i}}/\text{k}\acute{\text{a}} + [*\grave{\text{e}}]_{\text{PRED}}]_{\text{RC}}$ |                                                                                                                                                                                                                                                                                                                                 |
| $\downarrow$ $\text{NP}_{\text{head}} + [\text{h-}/\text{h-}/\text{k-} + [*\grave{\text{e}}]_{\text{PRED}}]_{\text{RC}}$                                 | <p>The relative class pronouns are elided and contracted into *è, but are still interpreted as REL markers.</p>                                                                                                                                                                                                                 |
| $\downarrow$ $\text{NP}_{\text{head}} + [\text{h}\grave{\text{a}} + [\text{h}\grave{\text{e}}/\text{k}\grave{\text{e}}]_{\text{PRED}}]_{\text{RC}}$      | <p>h- and k- are not analyzed as pronouns anymore, the alternation between h- and k- is reanalyzed as a mere agreement phenomenon. The demonstrative is still a verb, a relative clause is thus still needed, hence the introduction of the generalized relative pronoun hǎ, by analogy with the relative clause structure.</p> |
| $\downarrow$ $\text{NP}_{\text{head}} -\grave{\text{a}} [\text{h}\grave{\text{e}}/\text{k}\grave{\text{e}}]_{\text{RC}}$                                 | <p>general erosion of hǎ in all relative constructions, cf. (32) above</p>                                                                                                                                                                                                                                                      |

A summary of the changes from Proto-Juu to Ju|’hoan is presented in Table 8 below (in boldface type: the Ju|’hoan structures).

|                 | Proto-Juu                                                                                                                                | > Fusion<br>Cl + è                                                                       | > Generalization of<br>Cl.1 hǎ<br>+ reinterpr. of hè/kè<br>(+ analogy with RC) | > Fusion -à<br>in RC |
|-----------------|------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|----------------------|
| Predication     | NP            *è/*to’a                                                                                                                   |                                                                                          | <b>NP            hè/kè/tò’à</b>                                                |                      |
| Relative clause | NP $\left\{ \begin{array}{l} \text{h}\grave{\text{a}} \\ \text{h}\grave{\text{i}} \\ \text{k}\acute{\text{a}} \end{array} \right\}$ RC   |                                                                                          | NP    hǎ    RC                                                                 | <b>NP-à    RC</b>    |
| RC with DIST    | NP $\left\{ \begin{array}{l} \text{h}\grave{\text{a}} \\ \text{h}\grave{\text{i}} \\ \text{k}\acute{\text{a}} \end{array} \right\}$ tò’à |                                                                                          | NP    hǎ    tò’à                                                               | <b>NP-à    tò’à</b>  |
| RC with PROX    | NP $\left\{ \begin{array}{l} \text{h}\grave{\text{a}} \\ \text{h}\grave{\text{i}} \\ \text{k}\acute{\text{a}} \end{array} \right\}$ è    | NP $\left\{ \begin{array}{l} \text{h-} \\ \text{h-} \\ \text{k-} \end{array} \right\}$ è | NP    hǎ    hè/kè                                                              | <b>NP-à    hè/kè</b> |

Table 8. From Proto-Juu to Ju|’hoan

### 4.3. From Proto-Juu to NC !Xuun

#### 4.3.1. Demonstrative as predicate

The Proto-Juu predicate structure NP + \*è/\*to’a is only marginally preserved in NC !Xuun dialects, very often with an identificational use (cf. ex.(18) above, repeated as (35) below).

(35) [NP]<sub>SBJ</sub> [(+ TAM) + DEM]<sub>PRED</sub>

- a. [càng      !!úú                      (hàng)                      m-]<sub>TOP/SBJ</sub>                      [-í      ndò'à]<sub>PRED</sub>  
 3.PL                      place:4                      PL                      TOP-                      -HAB      DIST  
 ‘Their places are those.’                      (K&H2001:66; E !Xuun)
- b. [me                      n/ee]<sub>SBJ</sub>                      [ti                      e]<sub>PRED</sub>  
 1.SG                      head                      IPFV      PROX  
 ‘This is my head.’                      (10207; |’U; L !Xuun)
- c. [!uru]<sub>SBJ</sub>      [to’a]<sub>PRED</sub>      ta                      [//au]<sub>SBJ</sub>                      [to’a]<sub>PRED</sub>  
 quiver                      DIST                      and                      arrow                      DIST  
 ‘That is a quiver, and those are arrows’                      (119:9938; T; L !Xuun)

The proximal demonstrative \*è used in this predicate structure also grammaticalized into a copula in Lloyd’s !Xuun. The verbal PROX \*è first grammaticalized into a presentative predicate (translated as “it is”). This presentative structure used with a following NP added “for the sake of specifying additional detail to an already essentially complete utterance” (Downing & Noonan 1995:173) in an afterthought construction<sup>14</sup> was then reanalyzed as a non-locative copula:

(36) From verbal PROX \*è to non-locative copula

| Structures               | Ex. NC !Xuun                                                                                                                                                                                                                                                         |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a. NP + *è<br>↓          | ‘NP is here/this’<br><i>m      taqi                      ti                      e</i><br>1S      mother                      IPFV      PROX<br>‘my mother was here’                      (111:9217; T; L !Xuun)                                                     |
| b. NP + *è<br>↓          | ‘This is NP’ (identificational use)<br><i>!uru      to’a,      ta                      //au      to’a</i><br>quiver      DIST      and                      arrow      DIST<br>‘That is a quiver, and those are arrows’                      (119:9938; T; L !Xuun)  |
| c. NP + *è<br>↓          | ‘It is NP’ (*è = presentative predicate)<br><i>me      n/ee      ti                      e</i><br>1S      head      IPFV      PROX<br>‘This/it is my head.’                      (10207;  ’U; L !Xuun)                                                               |
| d. [NP1 + *è] [NP2]<br>↓ | ‘It is NP1, NP2’ (afterthought structure)                                                                                                                                                                                                                            |
| e. NP1 + e + NP2         | ‘NP1 is NP2’<br><i>m      ba      luu      ti                      e                      //Oo- ue</i><br>1A      father      name      IPFV      COP                      //Oo- ue<br>‘My father’s name is //Oo- ue’                      (122:10211;  ’U; L !Xuun) |
|                          | <i>na      /ua      e                      !!hiü                      /’hua</i><br>1S      NEG      COP      hare      real<br>‘I am not a simple hare.’                      (120:9932; T; L !Xuun)                                                                 |

<sup>14</sup> See Derbyshire (1981, 1985), Downing & Noonan (1995), Heath (1978), Simon (1989) among other references on afterthought constructions.

The last change may have occurred by analogy with the non-locative copula *oha* (cognate with the Ju|’hoan copula *ò*, illustrated in (10)a above), which might explain the change from (36)d (where the predicate NP is NP1) to (36)e (where it is NP2). Compare the first example in (36)e with the following, found on the same notebook page:

(37) *m ta(q)i !uu ti o(h)a //Abe-n//a’a*  
 1.SG mother name IPFV COP //Abe-big.SG  
 ‘My mother’s name is Big //Abe.’ (122:10211; |’U; L !Xuun)

Heine & Honken (2010) have proposed that the proto-Juu proximal demonstrative (which they reconstruct as \**ē* with a mid tone) is cognate with the †Hoan predicative presentative ‘it is’, transcribed as *’ēn* in their adaptation of Gruber’s original transcription, *’ee* in Collins’ (2001) transcription). According to their hypothesis, they both derive from the same proto-Kx’aa “deictic particle”, reconstructed as \**ē(n)* ‘here’. The †Hoan presentative is illustrated in (38) below:

(38) †*amkoe kí ’omun-qa ’ee*  
 person kí head-PL PRES  
 ‘Here are the person’s heads.’ (Collins 2001:459; †Hoan)

While it is indeed very likely that proto-Juu PROX and the †Hoan predicative presentative are cognates, the reconstructions proposed by Heine & Honken are not entirely satisfying. We have seen in 3.3.4 and 4.1 above that there are good reasons to reconstruct proto-Juu PROX as low-toned \**è*. Moreover, the †Hoan presentative predicate is actually low-toned, transcribed as [’èè] in Gruber’s original field notes (Gruber, p.c.), and [ʔèè] (orthographically *è̃n*) by the team currently working on the documentation of this language (Gerlach and Berthold, p.c.). The most likely proto-Kx’aa reconstruction is thus \**èn*, with a low tone, the nasalization being kept only in †Hoan.

If this reconstruction is borne out, then the syntax of the †Hoan presentative *è̃n* illustrated in (38) above might be a good indication that demonstratives may also have been verbal in proto-Kx’aa: if proto-Kx’aa \**èn* were to be reconstructed as a verbal deictic (either locative ‘be here’ or exophoric proximal demonstrative ‘be this’), †Hoan *’èn* could be said to have followed the grammaticalization pathway described in (36) above, up to step *c* (predicative presentative).

#### 4.4. Relative clause

We have seen that the Proto-Juu relative construction  $NP_1 + [Cl_1\dots]_{RC}$  is marginally preserved in NC !Xuun dialects (cf. (23) above, repeated as (39) below). It has been replaced by an innovative structure derived from the grammaticalization of verbal demonstratives used in a relative clause, as shown in the next section.

(39)  $NP_i + [Cl_{i\dots}]_{RC}$ :

a. *hà n//àhng-á ts’ù ká òhá hà 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 !Xuun)

- b. *//há ká ndò'à ká m-é ghángó má ndò'à cǔ*  
 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 !Xuun)
- c. *ta !Xuun ti //ama hi kue tci ka g!uu ti e saan*  
 and !Xuun IPFV buy:VE Cl.3 MPO thing.4 Cl.4 name IPFV COP san  
 'And the !Xuun buy from them a thing, the name of which is *san*.'  
 (113:9377-l; T, N!; L !Xuun)

#### 4.5. Verbal demonstrative used in a relative clause

Proto-Juu demonstratives used in a relative clause (in order to modify a noun) are the source of most of the structures involving (former) demonstratives in NC !Xuun.

The hypothesis proposed here is that the relative clause in the structure NP + [Cl. + \*è/\*to'a]<sub>RC</sub> was first reanalyzed as an adnominal demonstrative structure, the class pronoun being reinterpreted as a simple class agreement marker (optional in Lloyd's !Xuun). This reinterpretation is related to the reduction of the extension of the verbal category in NC !Xuun: non-canonical verbs such as verbal adjectives and demonstratives are in a process of depredicativization, as evidenced by their hybrid status, and the rarity of the predicative structure NP *e/to'a* ('NP is here', 'this is NP').

The depredicativization of demonstratives and the optionality of class agreement is thus responsible for the coexistence, in Lloyd's !Xuun, of the two superficially similar but fundamentally different structures exemplified in (25) and (26) above, repeated below:

(40) Verbal demonstrative: [NP]<sub>SBJ</sub> + [e/ang/to'a]<sub>PRED</sub> = NP is here/this, here/this is NP:

|                             |                              |           |                             |                              |
|-----------------------------|------------------------------|-----------|-----------------------------|------------------------------|
| <i>[!uru]<sub>SBJ</sub></i> | <i>[to'a]<sub>PRED</sub></i> | <i>ta</i> | <i>[//au]<sub>SBJ</sub></i> | <i>[to'a]<sub>PRED</sub></i> |
| quiver                      | DIST                         | and       | arrow                       | DIST                         |

'That is a quiver, and those are arrows' (119:9938; T; L !Xuun)

(41) Adnominal demonstrative [NP + e/ang/to'a]<sub>NP</sub> = This/that NP:

|              |           |           |                             |
|--------------|-----------|-----------|-----------------------------|
| <i>!Xuun</i> | <i>ti</i> | <i>'m</i> | <i>[tci e]<sub>NP</sub></i> |
| !Xuun        | IPFV      | eat       | thing.4 PROX                |

'The !Xuun people eat this thing' (122:10215, !'U; L !Xuun)

Once the verbal demonstratives are not analyzed as verbs anymore but as adnominal demonstratives, the proximal demonstrative *è* may (with or without the agreement class pronoun) be reinterpreted as a relative marker. Interestingly, only after being reanalyzed as adnominal may a verbal demonstrative grammaticalize into a relative marker, which is a confirmation that only (ad-/pro-)nominal demonstratives may grammaticalize into relative markers (cf. Diessel 1999, summarized in Table 1 above, and Heine & Kuteva 2002).

(42) From verbal DEM to adnominal DEM to Relative marker

| Structures                                                                                                   | Ex. NC !Xuun                                                                                                                                                                                                                                                                                                   |
|--------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a. *NP <sub>i</sub> + [Cl. <sub>i</sub> + DEM <sub>v</sub> ] <sub>RC</sub><br>'NP which is this' = 'this NP' | --                                                                                                                                                                                                                                                                                                             |
| ↓                                                                                                            |                                                                                                                                                                                                                                                                                                                |
| b. NP <sub>i</sub> + (Cl. <sub>i,AGR</sub> ) + DEM <sub>Adn</sub> 'This NP'                                  | <p><i>ts'oo ka e</i><br/>sinew.4 Cl.4 PROX<br/>'This thread.'<br/>(119:9899; T; L !Xuun)</p> <p><i>!Xuun ti 'm tci e</i><br/>!Xuun IPFV eat thing PROX<br/>'The !Xuun people eat this thing'<br/>(122:10215, !U; L !Xuun)</p>                                                                                  |
| ↓                                                                                                            |                                                                                                                                                                                                                                                                                                                |
| c. [NP( + Cl.) + e] <sub>TOP</sub> + Clause<br>[This NP] <sub>TOP</sub> + Clause                             | <p><i>ts'oo ka e, na ti n!u'a</i><br/>sinew.4 Cl.4 PROX 1.SG IPFV throw<br/>'This thread, I throw far away.'<br/>(119:9899; T; L !Xuun)</p>                                                                                                                                                                    |
| ↓                                                                                                            |                                                                                                                                                                                                                                                                                                                |
| d. NP <sub>i</sub> + [(Cl. <sub>i,AGR</sub> ) + DEM <sub>REL</sub> + RC] <sub>RC</sub><br>'NP which...'      | <p><i>//ee hi e e ti taba ts'oo a</i><br/>grass.3 Cl.3 REL 1PE IPFV make thread ?<br/>'grass out of which we make thread'<br/>(119:9896; T; L !Xuun)</p> <p><i>//au #hii e g#a'ang !uru</i><br/>arrow many REL be.full.with quiver<br/>'many arrows, which filled the quiver'<br/>(119:9938-1; T; L !Xuun)</p> |

It was noted in section 3.3.3 that NC !Xuun adnominal adjectives are not, in the available data, used with an agreement class pronoun placed between the head noun and the adjective. This is a major difference with adnominal demonstratives, where the agreement class pronoun seems to be obligatory in Ekoka !Xuun and Ovamboland !Xuun, and optional in Lloyd's !Xuun, as shown in (16) and (17) above. This could constitute a problem for the present analysis, which, if extended to NC !Xuun ambicategorical adjectives, would derive them from proto-Juu verbal adjectives exactly along the same pathway as NC !Xuun ambicategorical demonstratives derive from proto-Juu verbal demonstratives.

The available NC !Xuun data are relatively limited, and more fieldwork needs to be done on these lects in order to test whether [NP<sub>i</sub> + Cl.<sub>i</sub> + adnominal Adj]<sub>NP</sub> is a possible structure, and whether the class pronoun is obligatory or may be elided with adnominal demonstratives in Ekoka and Ovamboland !Xuun. In the meantime, this slightly problematic difference between adjectives and demonstratives may either indicate that the present analysis needs to be revised, or that NC !Xuun adjectives are further down the grammaticalization pathway than demonstratives. This scenario is illustrated in Table 9 below, where the starred structures represent different reconstructed steps, and the shaded cells the synchronically attested patterns:

|           |                                        | Demonstratives                                                  | Adjectives                                                       |
|-----------|----------------------------------------|-----------------------------------------------------------------|------------------------------------------------------------------|
| Proto-Juu | 1. Cl. = REL marker                    | *NP <sub>i</sub> + [Cl. <sub>i</sub> + Vb.DEM] <sub>RC</sub>    | *NP <sub>i</sub> + [Cl. <sub>i</sub> + Vb.Adj] <sub>RC</sub>     |
|           | 2. Deverbalization,<br>Cl. = agreement | *[NP <sub>i</sub> + Cl. <sub>i</sub> + Adn.DEM] <sub>NP</sub>   | *[NP <sub>i</sub> + Cl. <sub>i</sub> + Adn.Adj] <sub>NP</sub>    |
| NC !Xuun  | 3. Cl. becomes optional                | [NP <sub>i</sub> + (Cl. <sub>i</sub> ) + Adn.DEM] <sub>NP</sub> | *[NP <sub>i</sub> + (Cl. <sub>i</sub> ) + Adn.Adj] <sub>NP</sub> |
|           | 4. Cl. is totally dropped              | n/a                                                             | [NP <sub>i</sub> + Adn.Adj] <sub>NP</sub>                        |

Table 9 The loss of the agreement class pronoun eith Adj and DEM: a hypothesis

#### 4.6. Potential problem for the present analysis

Two NC !Xuun structures, which have not been presented yet, seem to pose a serious problem to the present analysis:

(43) NP<sub>i</sub> + Cl.<sub>i</sub> + *e/ang/to'a*, usually translated as ‘NP is this/that’ or ‘this/that is NP’:

a. *dàbà*    *dì*                    *mǎ*    *hà*    *tò'à*  
 child.1    naughty                    TOP    Cl.1    DIST  
 ‘That is a naughty child’ (H 1987:74(31); O !Xuun)

b. *hà*            *khó*                    *mǎ*    *yǐ*    *ààng*  
 Cl.1            place.3                    TOP    Cl.3    PROX2  
 ‘His place is this one / here’ (KH 2001:65; E !Xuun)

(44) NP<sub>i</sub> + TAM + Cl.<sub>i</sub> + *e/ang/to'a*, (same as above, with TAM marker, attested only once in Lloyd’s notebooks):

a. *//haa*    *!huu*                    *tì*    *ka*    *e*  
 meat            thorn.4 IPFV                    Cl.4    PROX  
 Lloyd’s original translation: ‘A meat thorn (i.e. horn) this is.’  
 (122:10286; D; L !Xuun)

Both structures appear to be cases of predication in which the predicate (headed by a verbal demonstrative) contains an agreement class marker: in particular, the presence of the TAM marker *tì* in (44) clearly shows that *ka e* is a predicate. This is problematic for the present analysis, since it is impossible to derive such a structure from the proto-Juu reconstructions and grammaticalization pathways proposed above: the presence of an agreement class pronoun is only possible with adnominal demonstratives derived from a proto-Juu relative construction of the form [NP<sub>i</sub>] [Cl.<sub>i,REL</sub> DEM]. In order to derive the structures in (43) and (44), one would have to assume a subsequent reverse grammaticalization process reanalyzing the adnominal demonstrative as predicative, which is very unlikely and has very little motivation.

I propose to consider the two constructions in (43) and (44) to be completely different: (43) is reminiscent of a paratactic topical construction very commonly found in NC !Xuun, and should be analyzed as such: compare (43) (repeated as (45)a-b below) with (45)c below:

(45) NP<sub>i</sub> + Cl.<sub>i</sub> + *e/ang/to'a*: paratactic topicalization

- a. [dàbà dī mǎ]<sub>TOP</sub> [hà tò'ǎ]<sub>NP</sub>  
 child.1 naughty TOP Cl.1 DIST  
 'That is a naughty child' (H 1987:74(31); O !Xuun)
- b. [hà khó mǎ]<sub>TOP</sub> [yú' áàng]<sub>NP</sub>  
 Cl.1 place.3 TOP Cl.3 PROX  
 'His place is this one / here' (KH 2001:65; E !Xuun)
- f. [hà mǎ]<sub>TOP</sub> [!xúún]<sub>NP</sub>  
 Cl.1 TOP !Xuun  
 'He is a !Xuun.'<sup>15</sup> (KH 2001:106; E !Xuun)

Note that *mǎ* is usually described as a topic marker, unattested in many dialects (including Ju|'hoan and Lloyd's !Xuun), optional in Ovamboland !Xuun (Heikkinen 1987), grammaticalized into an obligatory subject marker in Ekoka !Xuun according to König & Heine (2001) and König (2008).

This analysis does not account for (44), since the presence of the TAM marker *tí* is incompatible with an analysis in terms of parataxis. This example, however, should be taken with caution. Only one such example has been found so far - in Lloyd's !Xuun notebooks, and it was contributed by Daqa, a seven-year-old boy (the youngest of Lloyd's four consultants). The chances that it be a faulty *hapax* or a mistranscription are too important for this example to constitute a serious threat to the present analysis. Other instances of this structure would have to be found in NC !Xuun dialects, which the present analysis predicts to be impossible.

#### 4.7. From Proto-Juu to modern Juu dialects, general summary

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

The proposed changes from Proto-Juu to Ju|'hoan are relatively limited and straightforward. From Proto-Juu to modern NC !Xuun dialects, on the other hand, the picture is less clear: several layers of history are still attested, 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 (predication vs. modification), which is related to the depredicativization of non-prototypical verbs (verbal adjectives, demonstratives) at work in NC !Xuun, but not in Ju|'hoan, as summarized in Table 11 below.

<sup>15</sup> The copula *ðhà* may be used in the same context: *hà mǎ ðhà !xúún*.

|                                                               |                                                                                                                       |
|---------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| Proto-Juu and Ju 'hoan (SE)                                   | NC !Xuun                                                                                                              |
| Verbal adjectives<br>(e.g. be black, NP which is black)       | > ambicategorical adjective:<br>- adnominal adjective (black NP)<br>- verbal (be black)                               |
| Verbal demonstrative<br>(be this/that, NP which is this/that) | > ambicategorical demonstrative:<br>- adnominal demonstrative (this/that NP)<br>- verbal demonstrative (be this/that) |

Table 10 Depredicativization in NC !Xuun

Ju|'hoan is also shown to be morphologically more innovative and syntactically more conservative than NC !Xuun, as illustrated in Table 12 below:

|                      | Syntax                                                                      | Morphology                                                                               |
|----------------------|-----------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
| <b>Ju 'hoan (SE)</b> | Conservative<br>(demonstratives are still verbs)                            | Some innovations<br>(*è > hè/kè)                                                         |
| <b>NC !Xuun</b>      | Innovative<br>(depredicativization, various grammaticalization pathways...) | Conservative<br>(demonstratives and elements derived from them still have the same form) |

Table 11 Conservative vs. innovative features in modern Juu lects

Table 10 below summarizes the grammaticalization pathways proposed in this section.

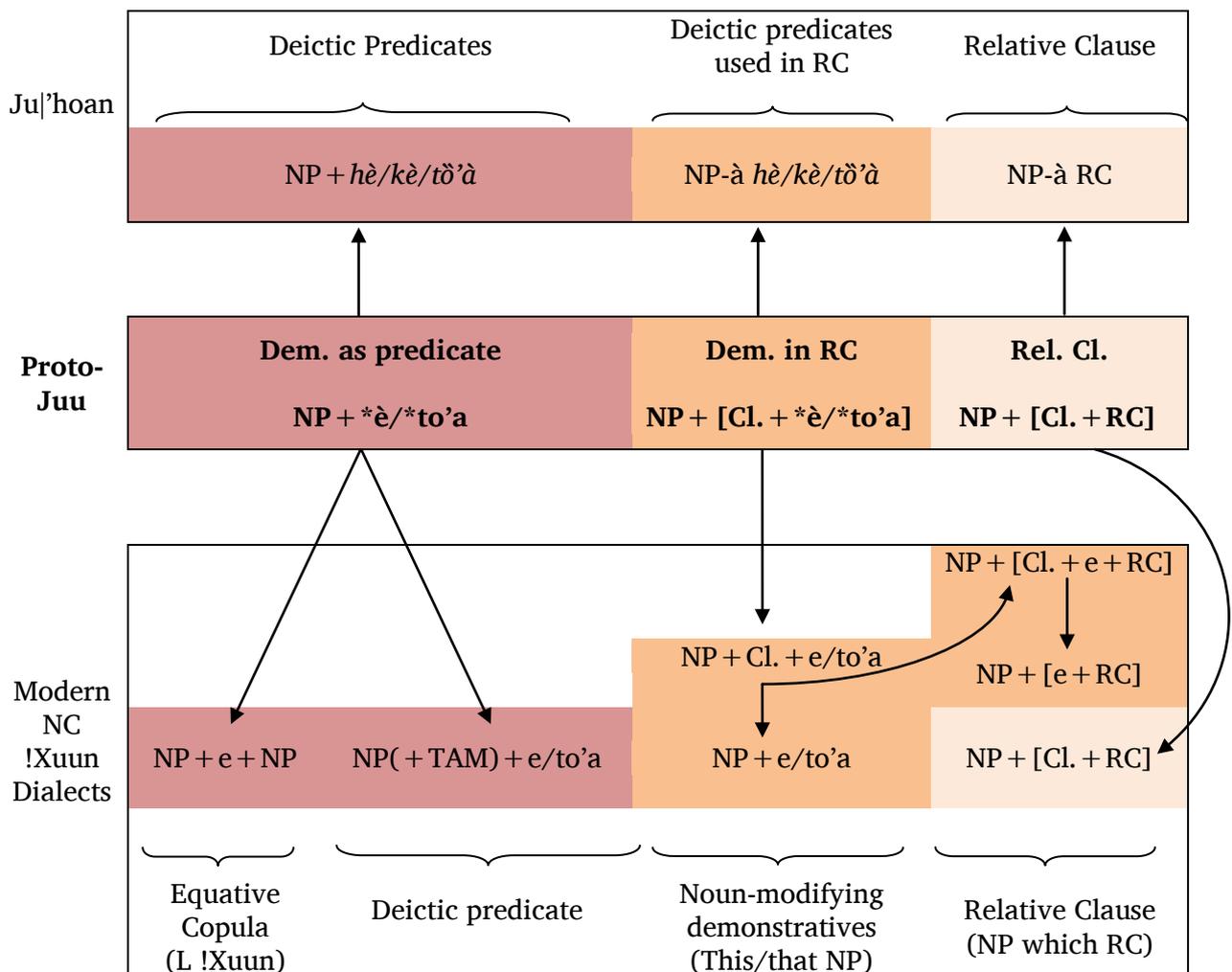


Table 12. The grammaticalization of demonstratives from proto-Juu to modern Juu dialects, a summary

## 5. WHAT'S SO UNUSUAL?

To evaluate how unusual verbal demonstratives are, let us go back to Dixon's (2003) typology, where the verbal demonstrative category is not very well defined, as the following quotes show:

I know of only two languages with verbal demonstratives — Boumaa Fijian and Dyirbal — and in each instance there is just **one verb “do it like this”** ... I suspect that most languages which show this category will have a single item.' (Dixon 2003:88, emphasis mine)

With a single exception (Ju|'hoan...), every language that I know of has **at least one nominal demonstrative**. (Dixon 2003:65, emphasis mine)

...I know of one language which appears **not to have nominal (or adverbial) demonstratives**. According to Dickens... the Khoisan language Ju|'hoan simply has **two verbs** *hè* “be here, be this one” and *to'à* “be there, be that one”. (Dixon 2003:69, emphasis mine)

The so-called verbal demonstratives in the three languages mentioned in the above quotes belong to two different types (as mentioned at the beginning of section 2), which Dixon does not say explicitly. The “verbal demonstratives” of Boumaa Fijian and Dyirbal are actually action verbs expressing manner deixis (‘do like this’, with its interrogative correspondent ‘do how’ in Dyirbal) which do not qualify as demonstratives, since they cannot be used as ‘canonical’ demonstratives to simply point at an object, be it extra- (exophoric) or intra-textually (endophoric), *i.e.* they do not translate English ‘this/that’.

The Ju|'hoan “verbal demonstratives”, on the other hand, as has been shown earlier following Dickens (1991b, 2005), are exophoric demonstratives. Note that Ju|'hoan also has action verbs expressing manner deixis that are very similar to their Boumaa Fijian and Dyirbal counterparts, as shown in (46) and (47) below:

(46) *jù kǐ òò kúru-á tchì*  
 person IPFV **do.this** make-VE arrow  
 ‘This is how a person makes an arrow.’ (Dickens 2005:86; Ju|'hoan)

(47) *dshàú-sì ré nàùn n!àròh-à n||àq'arà*  
 woman-PL Q **do.how** teach-VE reading  
 ‘How did the women teach reading?’ (id.)

Table 13 below summarizes the distribution of the different types of exophoric demonstratives and ‘do like this’-type verbs in the three languages mentioned by Dixon as well as NC !Xuun dialects, whose exophoric demonstratives are ambicategorical adnominal when modifying a NP, verbal when predicates (The Boumaa Fijian and Dyirbal data are borrowed from Dixon (2003)).

|               | Exophoric demonstratives                                                                 |                                                                       |                                              | Action verbs expressing manner deixis                                                                              |
|---------------|------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|----------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
|               | Adverbial                                                                                | (Pro/ad-)Nominal                                                      | Verbal                                       |                                                                                                                    |
| Boumaa Fijian | <i>yai</i> (PROX)<br><i>yaa</i> (MID)<br><i>mayaa</i> (DIST)                             |                                                                       | n/a                                          | <i>'eneii</i> 'do like this'                                                                                       |
| Dyirbal       | <i>yalay</i> (PROX) <sup>16</sup><br><i>balay</i> (DIST)<br><i>ḡalay</i><br>(remembered) | <i>giyi</i> <sup>17</sup>                                             | n/a                                          | <i>yalama-l/yalama-y</i><br>'do like this (tr./intr.)'<br><i>wiyama-l/wiyama-y</i><br>'do what,<br>how(tr./intr.)' |
| Ju 'hoan      | n/a                                                                                      | n/a                                                                   | <i>hè/kè</i><br>(PROX)<br><i>tò'á</i> (DIST) | <i>òò</i> 'do thus, do like this'<br><i>nàùn~nìn</i> 'do/be how'                                                   |
| NC !Xuun      | n/a                                                                                      | <i>è</i> (PROX1)<br><i>àng/ǰǰ</i> (PROX2)<br><i>tò'á~ndò'á</i> (DIST) |                                              |                                                                                                                    |

Table 13 Exophoric demonstratives and 'do like this'-verbs in Boumaa Fijian, Dyirbal and Ju|'hoan

As this table clearly shows, Ju|'hoan is the only language mentioned in Dixon's typology (and the only language that I know of so far) with verbal demonstratives, which makes it a very unusual category from a typological point of view.

While verbal demonstratives are an unusual category, their grammaticalization into verbal elements (verbal presentative marker and verbal non-locative copula) is not: it is expected that a verbal category may grammaticalize into verbal elements. In particular, if non-verbal (ad-/pro-)nominal demonstratives are expected to grammaticalize into non-verbal copulas, as noted by Diessel (1999) and Heine & Kuteva (2002) among other authors, it comes as no surprise that verbal demonstratives may grammaticalize into verbal copulas.

Acknowledging the existence of verbal demonstratives is not at odds with our knowledge of the grammaticalization of demonstratives, it just adds a new category, and new grammaticalization pathways associated to it. The fact, noted earlier, that verbal demonstratives may not directly grammaticalize into relative markers, but may do so only if first reanalyzed as adnominal, even confirms established knowledge, as we have seen.

### 5.1. An unusual but typologically expected category

Despite being an unusual category, verbal demonstratives are by no means typologically odd or unexpected: the second verbalization scale proposed by Stassen (1997) on the basis of his typology of intransitive predicates, without predicting the existence of languages with verbal demonstratives *per se*, predicts some of the typological characteristics of languages that would have such a category, characteristics which match those of the Juu languages, as we will see.

<sup>16</sup> Locative form only. See Dixon (2003:99) for full paradigm.

<sup>17</sup> Masculine absolutive form. See Dixon (2003:96) for full paradigm.

Stassen distinguishes four intransitive predicate types –event, property, class and locational predicates–, typically encoded, through three different “strategies”, by four lexical categories: verbs, predicate adjectives, predicate nominals and predicatively used adverbials respectively, as shown in.

| <i>Predicate type (semantics)</i> | <i>Typical Strategy (syntactic encoding)</i> | <i>Typical lexical category</i> | <i>English ex.</i>                                                                                    |
|-----------------------------------|----------------------------------------------|---------------------------------|-------------------------------------------------------------------------------------------------------|
| Event pred.                       | verbal strategy                              | Verb                            | <i>John walks</i>                                                                                     |
| Property pred.                    | (strategy takeover: verbal or nominal)       | predicate Adjective             | <i>John is tall</i> (nominal strategy in Eng.)                                                        |
| Class pred.                       | nominal strategy                             | predicate Nominal               | <i>John is a carpenter</i>                                                                            |
| Locational pred.                  | locational strategy                          | predicatively used Adverbial    | <i>John is in the kitchen/here</i> (where the predication is operated by the copular verb <i>be</i> ) |

Table 14 Stassen's (1997) typology of intransitive predicates

As can be seen from their absence from the table, demonstratives are not considered by Stassen to be potential predicates, which is most certainly due to the fact that they were not recognized as possible demonstratives in any typology at the time. However, it is easy to include them together with Stassen’s locational predicates into a general category of deictic predicates, as shown in the revised version of the typology proposed below:

(48) A revised version of Stassen’s (1997) typology of intransitive predicates:

- a. Event predicates, typically encoded as verbs
- b. Property predicates, typically encoded as adjectives
- c. Class predicates, typically encoded as nouns
- d. Deictic predicates (= Stassen’s locational predicates + exophoric demonstratives), typically encoded as adverbials (locational predicates, cf. Table 14) or pronominals (demonstratives, e.g. ‘what surprises me is **this**’, ‘mine is **this one**’)

Languages do not necessarily encode the four semantic predicate types through the strategy typically associated to those predicate types (e.g. event predicates - verbs, or class predicates - nouns): “strategy takeover” may, and indeed often does take place, whereby a given semantic predicate type is encoded in another category than that typically (i.e. most frequently from a typological point of view) associated to it. It is always the case for adjectives, which do not have any associated typical lexical category, and are always taken over either by the verbal strategy (being encoded as verbal adjectives) or by the nominal strategy (being encoded as (ad)nominal adjectives, as in English).

However, strategy takeover is constrained by principles (embodying empirically attested facts) that Stassen presents in scalar form: nominalization scale, verbalization scale, locational scale etc., whereby the different predicate types are ranked according to the likelihood of their being taken over by a particular strategy. These scales are meant to

formulate the claim that if in a given language, a strategy applies to a position on the scale (i.e. to a particular predicate type), then it applies to all higher positions on the scale (Stassen 1997:127-128). The scale which is of most interest for the present analysis is the Second Verbalization Scale, presented in (49) below in (a) its original version and (b) its revised version, based on the revised typology proposed in (48) above:

- (49) Stassen's (1997) Second verbalization scale:
- a. Original scale: Verbs > Adjectives > Locationals
  - b. Revised version: Verbs > Adjectives > Deictics

The important prediction that this scale makes is that “with very few exceptions, the verbal strategy cannot take over [deictic predicates] unless it also takes over the encoding of adjectives (Stassen 1997:128). We have seen that adjectives are indeed verbs (or ambicategorical) in the Juu languages.

Not only is the fact that these languages should have verbal demonstratives not typologically unexpected, but the unusual character (i.e. the typological rarity) of such a category is even explained by the position of deictics at the lower end of the second verbalization scale: the verbalization strategy only rarely extends all the way down the scale (whereas it fairly often extends to adjectives, verbal adjectives being quite frequent in the world's languages).

## 6. CONCLUSION

In conclusion, the present paper has shown, elaborating on Dickens' (2001b, 2005) analyses of Ju|'hoan, that unusual category of verbal demonstratives exists in at least one (very small) language family. Their existence is not at odds with typological expectations concerning intransitive predicates since deictics do lend themselves to verbalization according to Stassen's (2007) typologically based predictions. Their rarity is due to the fact that they do not do so easily.

Verbal demonstratives have properties that they do not share with their non-verbal counterparts, properties which lead to new grammaticalization pathways (from demonstratives to verbal presentative markers and verbal copulas) that cease to seem unusual once one accepts the verbal nature of those demonstratives.

Diessel (1999) and Dixon's (2003) typologies of demonstratives thus need to be revised, Diessel's “identificational demonstratives” needs to be substituted for a category of verbal demonstratives, and ‘do like this’-type verbs need to be removed from Dixon's verbal demonstratives:

- (50) Proposed typology of demonstratives (revised version of Diessel and Dixon's typologies):
- a. Nominal demonstratives (adnominal + pronominal)
  - b. Adverbial demonstratives
  - c. Verbal demonstratives: ‘be this/that’, attested only in Juu languages so far

Only Juu languages have been so far shown to have verbal demonstratives. It is more than likely that other languages have a similar category, which might have been misidentified or overlooked. A thorough survey of descriptive grammars, in particular of languages where adjectives are encoded as verbs, as predicted by Stassen's second verbalization scale in its revised form, may reveal more languages with verbal demonstratives, and shed more light on their properties.

## REFERENCES

- Bieseke, M. (ed.), 2009. *Ju|'hoan Folktales: Transcriptions and English Translations - A Literacy Primer by and for Youth and Adults of the Ju|'hoan Community*. Vancouver: Trafford First Voices.
- Bleek, Wilhelm H. I. & Lucy C. Lloyd. Digitized collection of unpublished notes: <http://lloydbleekcollection.cs.uct.ac.za/>
- Collins, Chris. 2001. Aspects of Plurality in †Hoan. *Language*, Vol. 77, No. 3. (Sep., 2001), pp. 456-476.
- Derbyshire, Desmond. 1985. *Hixkaryana and linguistic typology*. Summer Institute of Linguistics.
- Heath, Jeffrey. 1978. *Ngandi grammar, texts and dictionary*. Canberra: Pacific Linguistics.
- Dickens, Patrick J. 1991a. Ju|'hoan Orthography in Practice, *South African Journal of African Languages*, vol.11, n°3, pp : 99-104.
- Dickens, Patrick J. 1991b. Relative Clauses in Ju|'hoan, in W.H.G.Haacke & E.D.Elderkin (eds.) *Namibian Languages : Reports and Papers*, Namibian African Studies vol.4, Cologne, Rüdiger Köppe, pp:107-116.
- Dickens, Patrick J. 2005. *A Concise Grammar of Ju|'hoan*, Quellen zur Khoisan-Forschung vol.17, Cologne, Rüdiger Köppe
- Diessel, Holger. 1999. *Demonstratives: form, function and grammaticalization*. Amsterdam, Philadelphia: John Benjamins
- Dixon, Robert. 2003. Demonstratives: a cross-linguistic typology. *Studies in Language* 27(1).61-112.
- Downing, Pamela, and Michael Noonan. 1995. *Word Order in Discourse*. Amsterdam: John Benjamins.
- Güldemann, Tom. 1998. The Kalahari Basin as an object of areal typology - a first approach. In Schladt, Mathias (ed.), *Language, identity, and conceptualization among the Khoisan*. Quellen zur Khoisan Forschung 15. Köln: Rüdiger Köppe, 137-169.

- Güldemann, Tom. 2004. Complex pronominals in Tuu and Ju, with special reference to their historical significance. *Afrika und Übersee* 87.
- Heikkinen, Terttu. 1986. Phonology of the !Xū Dialect spoken in Ovamboland and western Kavango, *South African Journal of African Languages* (Pretoria) 6 (1): 18-28.
- Heikkinen, Terttu. 1987. *An Outline of the Grammar of the !Xū Language spoken in Ovamboland and West Kavango*, *South African Journal of African Languages* (Pretoria) 7, supplement 1 (African Languages).
- Heine, Bernd & Henry Honken. 2010. The Kx'a family, a new Khoisan genealogy. *Journal of Asian and African Studies*, No 79, 2010.
- Heine, Bernd & Christa König. In prep. *The !Xun Language: a dialect grammar of Northern Khoisan*. ms.
- Heine, Bernd & Tania Kuteva. 2002. *World lexicon of grammaticalization*. Cambridge: Cambridge University Press.
- König, Christa. 2000. Topic in !Xun. In Ermisch, Sonja (ed.). *Khoisan Languages and Linguistics: Proceedings of the 2<sup>nd</sup> International Symposium. January 8-12, 2006, Riezlern/Kleinwalsertal* (Quellen zur Khoisan Forschung, 22). Cologne: Rüdiger Köppe. pp. 249-263.
- König, Christa & Bernd Heine. 2001. *The !Xun of Ekoka: A demographic and linguistic Report*. Khoisan Forum 17. University of Cologne.
- König, Christa & Bernd Heine. 2008. *A Concise Dictionary of Northwestern !Xun*. Quellen zur Khoisan-Forschung vol.21, Cologne, Rüdiger Köppe.
- Lionnet, Florian. 2009. Lucy Lloyd's !Xuun and the Juu dialects (ms.). Paper presented at the Linguistisches Kolloquium at the Humboldt University, Berlin.
- Lionnet, Florian. In preparation. Lucy Lloyd's !Xuun: towards a descriptive grammar.
- Sands, Bonny. 2003. Northern Khoisan reconstruction and subgrouping. Paper presented to the International Symposium on Khoisan Languages and Linguistics in Memory of Jan W. Snyman, 4-6 January, 2003, Riezlern, Germany.
- Sands, Bonny. 2010. Juu Subgroups Based on Phonological Patterns. in Matthias Brenzinger & Christa König (ed.) *Khoisan languages and linguistics: the Riezlern symposium 2003*. Cologne: Rüdiger Köppe.
- Sands, Bonny & Amanda Miller-Ockhuizen 2000. "Comparative evidence for "new" click types in Northern Khoisan". Paper presented at the 74th Annual Meeting of the Linguistic Society of America, Chicago, January 6-9, 2000.
- Simon, Mutsuko Endo. 1989. *An Analysis of the Postposing Construction in Japanese*. Doctoral dissertation, University of Michigan.

Snyman, Jan W. 1997. A preliminary classification of the !Xūū and ǀu|'hōasi dialects, in W.H.G. Haacke & E.E. Elderkin (eds), *Namibian Languages: Reports and Papers* (Namibian African Studies N°4), Cologne: Rüdiger Köppe.

Stassen, Leon. 1997. *Intransitive Predication*. Oxford: Calendron Press