THE DOCUMENTATION OF THE KRU LANGUAGE OUBI

A LANGUAGE OF CÔTE D'IVOIRE

Intro

Jenny Jaffe
- Dutch-American wildlife veterinarian,
- Worked in Ecuador, Sierra Leone, Indonesia
- Currently in a project with MPI-EVA and Robert-Koch-Institut on chimpanzee pathologies

Sebastian Nordhoff
- worked on languages of Paraguay and Sri Lanka
- developped glottolog.org
- now in charge of Language Science Press

Max Planck Institute for Evolutionary Anthropology

- Linguistics department headed by Bernard Comrie until 2015

- Primatology department headed by Christophe Boesch until 2019

- Boesch set up the Tai Chimpanzee Project in 1979 with his wife Hedwige.

- Research on issues related to the evolution of social systems and social behavior

  - role of ecology in the evolution of differences ("culture") between chimpanzee groups.

The Tai Forest Reserve

- created in 1926, and promoted to national park status in 1972
- 3,300 km2
- UNESCO biosphere reserve since 1978
- Natural World Heritage Sites since 1982
- largest island of forest remaining in West Africa remaining relatively intact.

Parc National de Taï:
Habitat rural de l'espace TAÏ
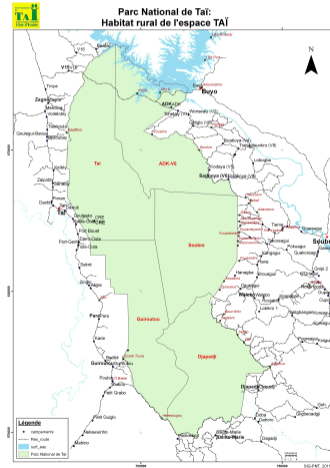
The Tai Chimpanzee Project

- Taï chimpanzees (*Pan troglodytes verus*) have been the subjects of behavioral research for over forty years

- Four habituated neighbouring communities totaling some 150 individuals

- Studies of the Taï chimpanzee population have led to insights into the construction and use of tools, cooperative hunting behavior, and many aspects of chimpanzee social life

- More recently, comparisons of behavior patterns seen at Taï with those exhibited in other chimpanzee populations all over Africa have led to the recognition of chimpanzee culture, an attribute previously restricted to humans.

The MPI-RKI Project

- MPI-EVA and Robert-Koch-Institut currently have a joint project on chimp health

- not a linguistics project!

- necropsies of all mammals found dead (with a priority given to chimps and monkeys)

- Focus: kidney disease and healing after severe injuries due to leopard attacks

And now to something completely different: Oubi linguistics

- Oubi (also called Glio) is a Western Kru language
- spoken in the area of the Tai national park
- Speakers in Côte d'Ivoire are bilingual in French (English in Liberia)
- 2,500 speakers in Côte d'Ivoire and 3,500 in Liberia.
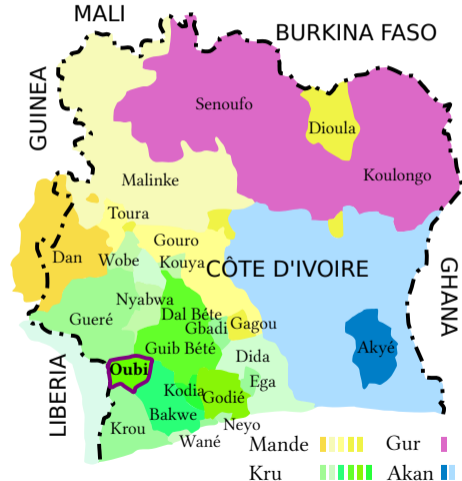
Oubi linguistics (cont.)
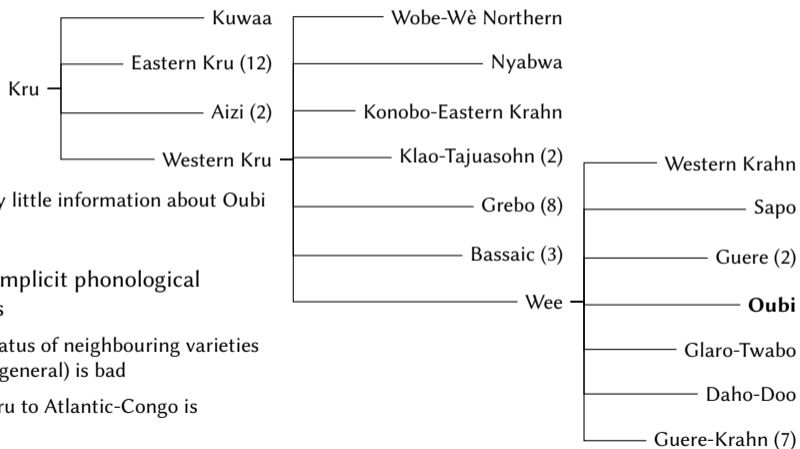
- generally very little information about Oubi
- word lists
    - some implicit phonological analysis
- descriptive status of neighbouring varieties (and of Kru in general) is bad
- Relation of Kru to Atlantic-Congo is uncertain

Kru
— Kuwaa
— Eastern Kru (12)
— Aizi (2)
— Western Kru
    — Wobe-Wè Northern
    — Nyabwa
    — Konobo-Eastern Krahn
    — Klao-Tajuasohn (2)
    — Grebo (8)
    — Bassaic (3)
    — Wee
        — Western Krahn
        — Sapo
        — Guere (2)
        — **Oubi**
        — Glaro-Twabo
        — Daho-Doo
        — Guere-Krahn (7)

Phonology: consonants

	Labial	Alveolar	Palatal	Velar	Uvular
stops	p b	t d		k g	
fricatives	f	s (ʃ)			h
affricates			dʒ tʃ		
nasals	m	n	ɲ	ŋ	
laterals		l			
rhotics		r			
approximants	w		j		
complex	ᵐb	ⁿd	(ⁿdʒ)	gb (ᵑg)	

Phonology: vowels

i   u

  e   o

     ɛ   ɔ

        a

- Notable consonants include prenasalized ᵐb, ⁿd, and coarticulated gb.

- There might be labialized pʷ, gʷ, hʷ, but further phonological analysis is necessary to ascertain whether we are dealing with a simple segment or with a complex onset here (Marchese 1983).

- ᵐb and ⁿd might also be implosives ɓ, ɗ.

- Additional vowels ɪ or ʊ could be expected, but could not be ascertained in minimal pairs.

- The difference between [e]/[ɛ] and [o]/[ɔ] cannot be assumed to be rendered faithfully in the words given here.

Tones

- There are at least three tones, possibly more
- Analysis of the tonal system is beyond our capacities
- No attempt is made to indicate tones on the examples given here
- below: 'my father' and 'your father', both segmentally *nambi*, but with different tones.
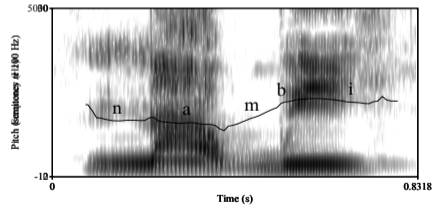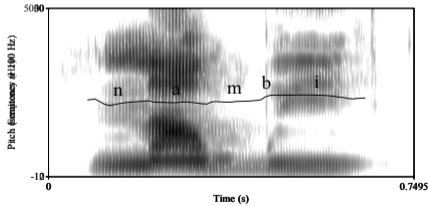
Vowel harmony

(1) a. nowa : nuwi
        'ear'   'ears'

    b. kora : kuri
        'hand' 'hands'

We see that upon the addition of a [+high] suffix *-i*, the vowel of the stem becomes [+high] as well.
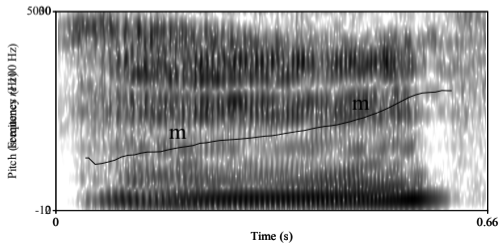
Syllable structure

(2) (C)(L)V(:)(N)

L stands for /l/, /r/, or /w/ (if /w/ is to be analyzed as a separate segment here). N stands for a nasal.

(3) a. *mi* 'go'
     b. *koolɛng* 'forest'

The nucleus may equally consist of a nasal.

(4) *m* 'five'

Syllable structure (cont)

Most words have an onset. Attested words without an onset are

(5) a. *arapo* 'tobacco (powder)'

b. *oloa* 'rubber'

- The onset normally consists of one consonant.
- All nasals can occur in the onset (*nga* 'tomorrow', *nyoswa* 'God').
- Complex onsets do exist. The second consonant is /l/ or /r/ in these cases.
- Depending on analysis, *pw*, *gw*, and *hw* could be seen as a simple onset consisting of one complex segments or as a complex onset consisting of two segments (Marchese 1983).

Attested words with complex onsets are

(6) a. *kli* 'strength'

b. *kra* 'now', *hrɛŋ* 'hurt', *chrɔ* 'butterfly', *srɛ* 'braids'

c. *pwɛ* 'legs', *djwɛ* 'singulative', *gwɛ* 'chimp', *kwe* 'banana', *kwɛŋ* 'dead', *hwong* 'here'

Coda

The nucleus can optionally be followed by a nasal or a glottal. The nature of the glottal needs further investigation. It is provisionally rendered as h.

(7) a. *hwong* 'here'
     b. *poh* 'leg'

Morphology/noun classes

- plural formation historically with *-i* (Marchese 1988).
- classes
    - X-i, a→i, e→i, ɛ→i, o→i, ɔ→i, u→i
    - o→e, ɔ→ɛ, o→ɛ, o...a→u...i
- other patterns:
    - e→a, ɛ→a, X-a

Plural with -i

(8) *dada* : *dada-i* ('duck' : 'ducks') *fa* : *fa-i* ('goat' : 'goats') *ku* : *ku-i* ('carp' : 'carps') *sowo* : *sowo-i* ('horse' : 'horses') *segu* : *segu-i* ('chameleon' : 'chameleons') *wu* : *wu-i* ('mouth' : 'mouths') *djɛ* : *djɛ-i* ('finger' : 'fingers')

(9) *kla* : *kli* ('bone' : 'bones'), *nyawa* : *nyawi* ('cat' : 'cats'), *ka* : *ki* ('crab' : 'crabs'), *nya* : *nyi* ('pangolin' : 'pangolins')

(10) *gbe* : *gbi* ('dog' : 'dogs')

(11) *dowɛ* : *dowi* ('animal' : 'animals'), *tonɛ* : *toni* ('fly' : 'flies'), *blalɛ* : *blali* ('sheep' : 'sheep plural'), *nawɛ* : *nawi* ('firewood 1 stick' : 'firewood plural'), *nyirɛ* : *nyiri* ('breast' : 'breasts')

Plural with -i

(12) *sowo* : *sowi* ('donkey' : 'donkeys'),
dolo : *doli* ('bird' : 'birds')

(13) *umɔ* : *umi* ('butt cheek' : 'butt (both sides)')

(14) *fu-u* : *fu-i* ('sponge' : 'sponges'),
nalu : *nali* ('feather' : 'feathers'),
tramanu : *tramani* ('wasp' : 'wasps'), *gɔru* : *gɔri* ('lizard' : 'lizards'), *tu* : *ti* ('tree' : 'trees'), *wlu* : *wli* ('cord' : 'cords'), *pu* : *pi* ('gun' : 'guns')
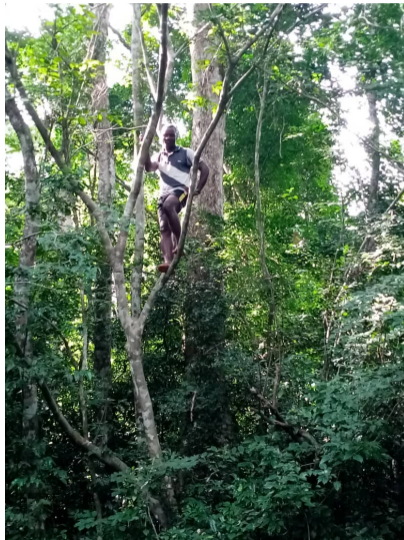
Plural with -e

Historical -i fronts and unrounds the final vowel of the stem

(15) *gbo* : *gbe* ('foot' : 'feet'), *taro* : *tare* ('bat' : 'bats'), *wogbo* : *wogbe* ('mushroom' : 'mushrooms'), *paro* : *pare* ('comb' : 'combs')

(16) *hwɔŋ* : *hwɛŋ* ('arm' : 'arms'), *pɔ* : *pwɛ* ('leg' : 'legs'), *plɔ* : *plɛ* ('liver' : 'livers'), *chrɔ* : *chrɛ* ('butterfly' : 'butterflies')

(17) *mo* : *mɛ* ('horn' : 'horns')

(18) *nowa* : *nuwi* ('ear' : 'ears'), *kora* : *kuri* ('hand' : 'hands')

Other number marking

The plural with -a is mainly used for large animals.

(19) *tuwe* : *tuwa* ('buffalo' : 'buffaloes'), *gbuwe* : *gbuwa* ('crocodile' : 'crocodiles')

(20) *nugbɛ* : *nugba* ('hippo' : 'hippos'), *howɛ* : *howa* ('giant pangolin' : 'giant pangolins')

Small animals use the bare form for the plural and add a singulative morpheme for singular reference.

(21) *toni **djwɛ*** : *toni* ('one fly' : 'flies'), *bɛya **djwɛ*** : *bɛya* ('one termite' : 'termites')

Syntax

Word order is S V O. To wit:

(22) a. Dji   di djre
     leopard eat monkey
     'The leopard eats the monkey'

 b. Djre   di dji
    monkey eat leopard
    'The monkey eats the leopard'

Some verbs trigger special suffixation on the undergoer:

(23) Dji   weɲiɛ djre-wɔŋ
     leopard bite monkey-suf
     'The leopard bites the monkey.'

Syntax: TAM

Past/perfective is not segmentally marked. A marking via tones is probable.

(24) Dji   di djre   toro
     leopard eat monkey yesterday

     'The leopard ate the monkey yesterday.'

Overt segmental marking of TAM or negation changes the word order from SVO to SAuxOV. This can trigger suffixation on the undergoer according to unknown criteria.

(25) Dji   **ni** djre   di-**o**   nga
     leopard FUT monkey eat-SUF tomorrow

     'The leopard will eat the monkey tomorrow.'

Syntax: Negation

Negation is complex. It has double exponency and is sensitive to TAM. The preverbal negation markers are *ne* and *e* for present and past respectively, while the postverbal marker is *wɛ*

(26) Dji **ne** djre di **wɛ**
leopard NEG.PRS eat monkey NEG

'The leopard does not eat the monkey.'

(27) Dji **e** djre di toro **wɛ**
leopard NEG.PAST eat monkey yesterday NEG

'The leopard did not eat the monkey yesterday.'
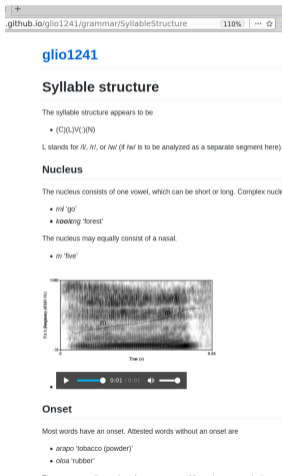
In the future/irrealis, we find preverbal *nɛ mou* and no postverbal marker. The first one is the same as the one used for the present.

(28) Dji **nɛ** **mou** djre di nga.
leopard NEG.PRES FUT monkey eat tomorrow

'The leopard won't eat the monkey tomorrow.'

Outlook: Kru

- The descriptive status of Kru is generally very poor (Harald Hammarström p.c.).

- It is as of yet unclear whether the Kru languages are genealogically related to the surrounding languages from the Atlantic-Congo family.

- The Kru languages seem to form some dialect continuum (Marchese 1989; Allou 2017), where the mutual genealogical and contact relations are difficult to disentangle.

- The chimp station is a very good environment to record natural data since

  1. there is a good pool of speakers
  2. speakers are generally not busy with other things like farming
  3. technological infrastructure is good
  4. transport of data to Leipzig and from there to a suitable archive should be easy to set up as there is regular circulation of the scientists.

- Possibly, no in-depth linguistic training is required to oversee the recording workflow. This is true for documentation only, of course. Linguistic analysis will require more training than vets or similar will have at their disposal.

Outlook: repositories and sharing

- We have set up a repository to gather and collection linguistics insights about the Oubi language.

- This repository is uses the GitHub Pages setup to disseminate the findings. It is possible to work a) collaboratively b) distributed, and c) offline and include audio without too much technical knowledge.

- Tracking of open problems and issues is built-in, so that the task "Write-up of tone analysis" could be assigned to the user "Jane Smith" for instance, and be ticked off when it is done.

- The theoretical underpinnings for this are explicated in Weber (2006); Nordhoff (2008; 2012).

- The current version can be found here: https://lgdesc.github.io/glio1241. A similar project is Lau (2021+), describing the Abesabesi language from Nigeria. With a data repository like ELAR https://www.elararchive.org/dk0653 and an analysis repository like the one presented here, there can be a division of labor between data collectors and data analyzers.

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