Detecting grammatical change in a previously undescribed endangered language

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Overview

- Ulwa: The language and its speakers
    - Documentation
    - Endangerment
    - Typological overview
- Detecting grammatical change
    - Obvious borrowings?
    - "Natural" innovations?
    - "Unnatural" calques?

Ulwa

- Papua New Guinea
  - Four villages
  - East Sepik Province
- Ulmapo family
  - Ulwa
  - Mwakai
  - Pondi
- Severely endangered
  - < 700 speakers
  - Shifting to Tok Pisin

East Sepik Province, Papua New Guinea

Ulwa
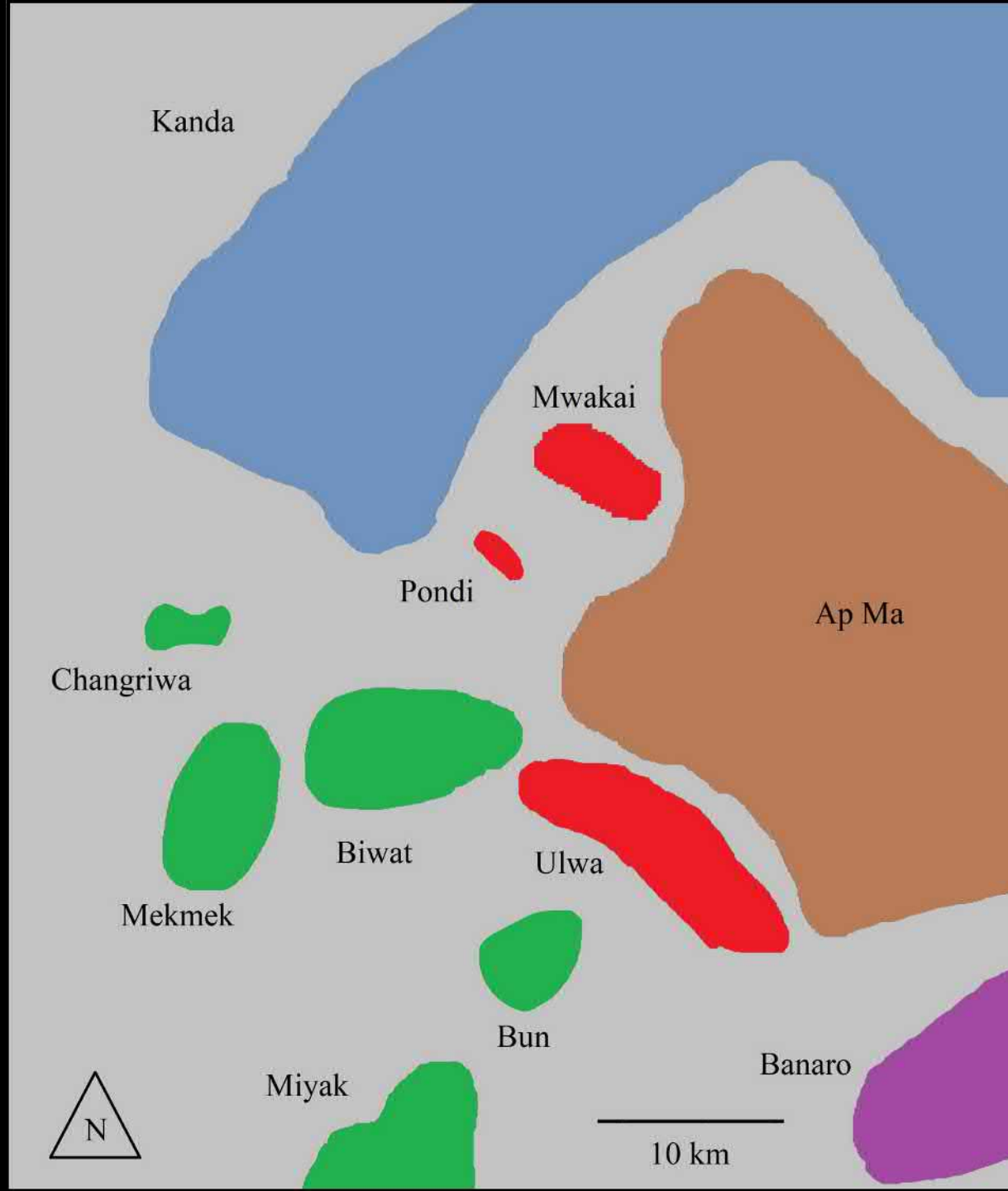
Documentation

- Donald Laycock
  - Survey trip to Sepik (1970–71)
  - 24 pages of unpublished handwritten field notes
  - Half a page published on the entire family (1973)
- James McElvenny
  - Undergraduate student at the University of Sydney
  - Four recordings on PARADESIC (2005)

Comments: Test DCL70 (Ignatius Sugu/Forok, Graniaga, Karaminge/Wawat).
The village of Terebu (Turupu) originally spoke the Austronesian
language of Kaiep, but is now predominantly Bungain-speaking; this
has led to some confusion in the literature (e.g., in Capell (1959,
1962). See also Gehberger (1939, 1950) and comments to Elepi, above.

Ramu Sub-Phylum

The Ramu Sub-Phylum, as has been mentioned above, extends well into
the Madang District, and most of the languages in the western end of
its area have been treated by Z'graggen (1971). This paper deals only
with those languages which are additional to those treated by Z'graggen
those which are found in the East Sepik District, or those in which
Laycock also has data. The remainder are simply listed, for
completeness.

Mongol-Langam Stock/Mongol-Langam Family

The three languages of this stock/family show close lexical
similarities, including the pronouns, with the languages of the Grass
Stock, but have in addition some pluralisation in nouns (like the
Nor-Pondo and Yuat languages) and a great deal of lexical resemblance
to Yuat languages. They clearly form a separate stock within the
Ramu Sub-Phylum, though it is possible they belong rather inside the
Ramu Super-stock than outside it.

124. MONGOL   - 338

Villages: Kaimba, Mongol [CD 30E].

Comments: Test DCL71 (Wasemi, Wule/Mongol).

125. LANGAM   - 254

Village: Langam [CD 30E].

Comments: Test DCL71 (Jaka, Kaman, Andan, Agambar, Jambi/Langam).

126. YAUL   - 814

Villages: Dimiri, Manu, Marawat, Yaul [CD 30E].

Comments: Test DCL71 (Silami, Ansamari/Yaul).

Yuat Stock/Yuat Family

The Yuat stock/family consists of five closely interrelated
languages spoken in the vicinity of the Yuat River. Typologically and
lexically, the languages show elements from both Grass Stock languages

181   yakɔrába bánɔ

        Kɔka   3236

        ŋgaŋgun

        m+ŋ

        ⸺

        ⸺

        apa

        wua   (wɔa)

        apatam

        ⸺

        ⸺

        mara

        waŋgata

        rapɔ,   wiʧam — sↄpsↄp

        ⸺

        ⸺

        masa²

        ⸺   ambiŋgata

        arï

        nandu.

Documentation, 2015–2018

- About 12 months total in the field
- Audio recordings archived with Kaipuleohone
- Audio, video, photos & ELAN transcriptions archived with ELAR
- Barlow (2018), *A Grammar of Ulwa*, PhD dissertation

Endangerment

Population estimates (2019)

- Ethnic Ulwas: ~ 4,000

- Fluent speakers: < 650

- Semi-speakers: 1,200 – 1,300

- 15% fluent speakers

- 30% semi-speakers

- 55% non-speakers

	LEI factor	Ulwa's status	Description in LEI	Notes on Ulwa
1	Intergenerational transmission	3: endangered	"Some adults in the community are speakers, but the language is not spoken by children."	Less than half of the adult population are fluent speakers and there are no children speakers.
2	Absolute number of speakers	3: endangered	"100–999 speakers"	There are about 650 fluent speakers.
3	Speaker number trends	4: severely endangered	"Less than half of the community speaks the language, and speaker numbers are decreasing at an accelerated pace."	About 15% of the community are fluent speakers. No children are acquiring the language.
4	Domains of use	4: severely endangered	"Used mainly just in the home and/or with family, and may not be the primary language even in these domains for many community members."	It is not used for any wider communication, nor is it the primary language in any domain for any community member.
calculation of factors: $[(f_1 x2) + f_2 + f_3 + f_4] \div 25$	$[(3x2) + 3 + 4 + 4] \div 25 = 68\%$	"80–61% = Severely Endangered"	**Ulwa is severely endangered.**

Endangerment

- No intergenerational transmission
- Tok Pisin used in all domains
- Only the elderly are fluent
- Even they rarely use Ulwa

Typological overview

- 13 consonants and 6 vowels
- Analytic, but with some suffixation
- TAM suffixes on verbs
- Subject markers and object markers
- Oblique-marker enclitic
- Dependent-marking
- Nominative-accusative alignment
- SOV

Phoneme inventory: consonants

	Labial	Alveolar	Palatal	Velar
Voiceless stops	p	t		k
Prenasalized voiced stops	^{m}b	^{n}d		^{ŋ}g
Prenasalized voiced affricate			^{n}dʒ	
Nasals	m	n		
Liquid		l, [r]		
Fricative		s		
Glides	w		j	

Phoneme inventory: vowels

	Front	Central	Back
High	i	ɨ	u
Mid	e		o
Low		a	

Nominal morphology

- No nominal inflection (for gender, number, case, etc.)
- Nominalization of verbs via suffixation
- Some compounding
- Oblique-marking clitic
- Number distinctions (singular, dual, plural) *only* made in pronouns and determiners

Verbal morphology

- Basic three-way TAM distinction
  - Imperfective
  - Perfective
  - Irrealis
- Other categories
  - Imperative
  - Double perfective
  - Irrealis perfective
  - Speculative suffix
  - Conditional suffix
- Object-marker proclitics

Typical verb-final morphosyntax

- Postpositions
- Possessor-possessum order
- Relative clause-head noun order
- Mostly suffixes

Syntax

- Rudimentary serial verb constructions
- Discontinuous verbs
- In-situ content questions
- Pro-drop
- Only subjects accessible to relativization
- Syntactic passives
- Detransitivizing prefix
- Word-order dependent antipassives

Detecting grammatical change

The problem

- Ulwa's grammar really *seems* to be obsolescing, undergoing rapid, "unnatural" structural changes due to attrition and shifting to Tok Pisin.

- But languages *always* change, whether due to contact (which does not necessarily imply endangerment) or due to language-internal developments.

Questions

- Since Ulwa has not been previously documented, how do we know whether *any* of its grammatical features are recent developments?

- And even if we do have good reason for suspecting that they are recent developments, how do we determine whether they are caused by:

  - "healthy" contact?
  - "unhealthy" shift?
  - internal factors?

Some observations of likely structural changes in Ulwa

I. Obvious borrowings

II. "Natural" innovations

III. "Unnatural" calques

I. An obvious borrowing?: the disjunctive coordinator *o* 'or'

- Ulwa *o* 'or' must come from Tok Pisin *o* 'or'
- Or … must it?

Some grammars of Papuan languages remain somewhat agnostic

- "Given the fluency of all Yeri speakers in Tok Pisin, **it is possible** that the conjunction *o* may be the same *o* 'or' that occurs in Tok Pisin." (Wilson 2017)

- "*o* 'or' loan word (**maybe**)" (Årsjö 2016)

- "Disjunctive ('or') coordination is expressed with the particle *o*, which is **presumably** borrowed from Tok Pisin." (Daniels 2015)

But consider Ulwa phonotactics …

Permissible word-initial vowels:

i	ɨ	**u**
e		o
	a	

And crosslinguistic tendencies …

- "In some languages, there does not seem to be any grammaticalized way of expressing disjunction at all." (Haspelmath 2004:27)

- Coordinator borrowing hierarchy: 'but' > 'or' > 'and' (Matras 1998)
  - Ulwa has also borrowed Tok Pisin *tasol* 'but' and *na* 'and'

II. A natural innovation?: 'go' > future

- Future tense can be expressed morphologically
  - With the irrealis suffix *-n(d)a*

  unan   ma=ati-**na**

  1PL.INCL   3SG=hit-**IRR**

  'We will kill him.' (T01)

'go' > future marker

- OR: Future tense can be expressed periphrastically
  - With the verb *ma-* 'go'

un   ma=ita-na   **ma-n**

2PL   3SG=build-IRR   **go-IPFV**

'You are going to build it.' (T11)

Quite natural!

- An attested syntactic change in many languages
  - Including languages that already have morphological futures (e.g. Spanish)

- Serves a pragmatic function
  - IRR alone can encode future, optative, abilitative, deontic …
  - Periphrastic 'go' future allows for combined TAM, e.g.:
  - 'You will be able to build it.'

- Not symptomatic of obsolescence
  - No apparent competition with simple IRR future

But is it borrowed?

- Such a borrowing is possible
  - Pipil borrowed 'go' future from Spanish (Campbell 1987)
- But Tok Pisin does not have a 'go' future
  - Either IRR-marker *bai*
  - Or innovative 'want' future with *laik*
- *Could* be from a neighboring language
  - But I know of no such template
  - And it is a crosslinguistically common reanalysis

III. An unnatural calque?: copular suffix > progressive aspect

- The copula in Ulwa: a bound suffix
  - *-p* 'be'
  - *-wap* 'be.PST'
  - *-pïna* 'be.IRR'

itom	mï	ambi-**wap**
father	3SG	big-**be.PST**

'Father was big.'

Traditional means of encoding progressive

- Imperfective suffix
  - Contrasts with perfective suffix
  - Encodes: progressive, habitual, iterative, inchoative

    ala   ma=ul   ma-**n**

    that.PL   3SG=with   go-**IPFV**

    'They are/were going with her.'

A calque from Tok Pisin

Tok Pisin

ol	i	go	wantaim	em	i	**stap**
3PL	PRED	go	with	3SG	PRED	**be**

'They were going with her.'

Ulwa

ala	ma=ul	i	**wap**
that.PL	3SG=with	go.PRF	**be.PST**

'They were going with her.' (T11)

Syntactically, semantically, *and* phonetically similar to Tok Pisin *stap*

But can't it be a language-internal change?

- Verb chaining is common in Papuan languages
- TAM suffixes often arise from fossilized auxiliaries in SVCs

What seems strange

- Ulwa does *not* make robust use of SVCs

- Ulwa already has progressive-aspect bound morphology

- Goes against unidirectionality of grammaticalization changes
  - i.e., full verb > auxiliary > clitic > affix (Hopper & Traugott 1993:108)
  - But here: past copular affix/clitic > progressive auxiliary

- Auxiliary *wap* is used inconsistently
  - Suggests an incomplete process of (de)grammaticalization?

Inconsistencies/ambiguities

- In syntax
  - The preceding verb may be either perfective-marked or imperfective-marked, without any apparent difference in meaning

- In morphology
  - Although the form is generally *wap* 'be.PST', it may sometimes be *map* '3SG=be' (i.e., 'be there')

- In semantics
  - The auxiliary often encodes habitual aspect (like the Ulwa imperfective, but unlike Tok Pisin *stap*) or past tense with any aspect (unlike in both languages)

Theoretical issues

- Is there any (formal) difference between "natural" and "unnatural" (contact-induced) syntactic change?

- Can contact-induced vs. language-internal syntactic change be detected from structure alone?

- To what degree can grammatical obsolescence create typologically unusual diachronic changes?

Lessons from Ulwa

- Language-specific phonotactics and crosslinguistic tendencies can help identify borrowings

- Structural change is more likely to have been language-internal, if:
  - it involves well-attested types of grammaticalization or reanalysis
  - the new structure serves a novel function
  - the structure is not in competition with (is not replacing) an older structure

- Structural change is more likely to be due to language shift, if:
  - it contradicts the expected directionality of grammaticalization changes
  - the new structure is replacing older forms, without adding new meanings
  - the forms are inconsistent in terms of syntax, morphology, or semantics

Continuing problems, new directions

- For Ulwa, these answers remain merely my best guesses
- More clues could be gathered by studying Mwakai and Pondi
  - But Ulwa's sisters share its sociolinguistic situation/shift to Tok Pisin
  - High chance of independent borrowing *and* independent innovation
- We need more grammatical descriptions of language shift
  - Latitudinal (multi-generation) descriptions of underdescribed languages
  - Longitudinal descriptions of previously described languages

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Thank You!

Questions?

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