Wordhood in Ghana-Togo Mountain languages, with a focus on Akebu and Adele
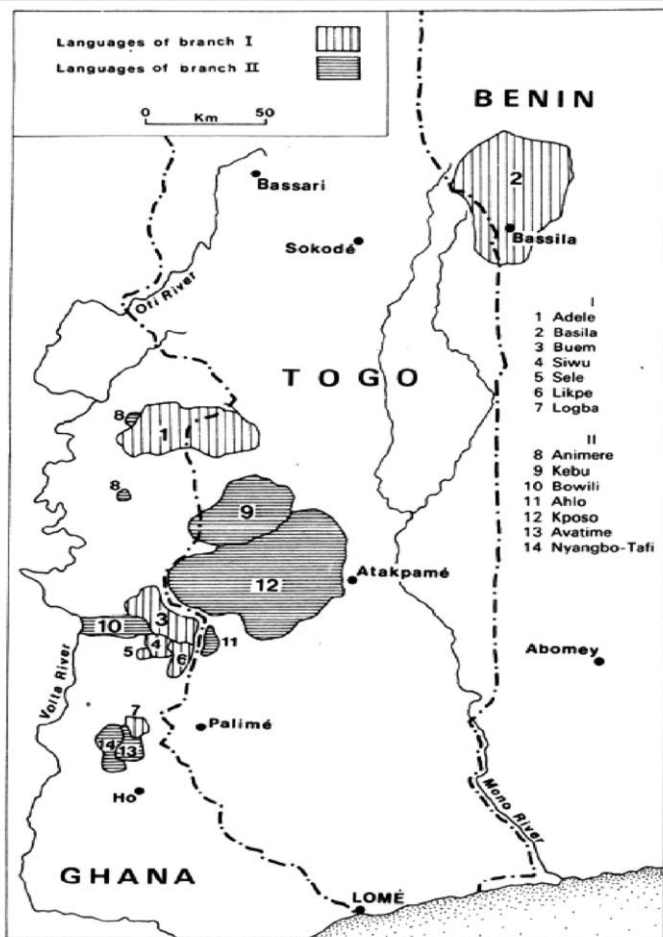
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Ghana-Togo Mountain languages
(aka Togorestsprachen / Togo-remnant languages)

(Heine 1968: 275, as reproduced in Ameka 2017: 240)

Distribution of the Central Togo Languages
(Source: Bernd Heine, *Verbreitung und Gliederung der Togorestsprachen*
Dietrich Reimer Verlag, Berlin, 1968)

Ghana-Togo Mountain languages

- Part of the ("New") Kwa language family
- Ka-Togo vs. Na-Togo (Heine 1968)
  - Clear isoglosses
  - *ka* vs. *na* roots for 'meat'
  - Presumed by Westermann (1927) and later Heine (1968) as a genealogical unity
  - Later presented as two branches of unrelated (maybe even distant) branches of Kwa (Bennett & Sterk 1977; Stewart 1989; Williamson & Blench 2000; Blench 2009)
  - Clear areal unity of genealogically related languages (both Kwa)
  - New arguments for genealogical unity (Kropp Dakubu 2017)

Ghana-Togo Mountain languages: **Ka**-Togo

- Avatime-Nyangbo
  - Avatime   ca. 27,000   ~ gram. (van Putten 2014)
  - Nyangbo-Tafi
    - Nyangbo (Tutrugbu)   ca. 11,000   gram. (Essegbey 2019)
    - Tafi   ca. 4,500   gram. (Bobuafor 2013)
- Kebu-Animere
  - **Akebu**   ca. 70,000   **own earlier work**
  - Animere   ?30   ELDP project started
- Kposo-Ahlo-Bowili
  - Igo (Ahlo)   ca.7,500   gram. (Gblem-Poidi 2021)
  - Ikposo   ca. 233,500   gram. (Eklo 1988; Soubrier 2013)
  - Tuwuli (Bowili)   ca.11,500   gram. (Harley 2005)

Ghana-Togo Mountain languages: **Na**-Togo

- Basila-Adele
  - **Adele (Gidire)** ca. 37500 **own preliminary work**
  - Anii (Basila) ca. 59000 ~gram. (Morton 2014)
- Ikpana (Logba) ca. 7500 gram. (Dorvlo 2008)
- Lelemi-Akpafu
  - Lelemi (Buem) ca. 72,000 gram. (Allan 1973)
  - Siwu (Akpafu-Lolobi) ca. 72,000 gram. ms. (Ford & Iddah 1973)
- Likpe-Santrokofi
  - Sekpele (Likpe) ca. 23,000 gram. (Delalorm 2016)
  - Selee (Santrokofi) ca. 11,000 ~gram. (Agbetsoamedo 2014a)

- ? Boro [extinct in 19th c.]

Akebu (< Ka-Togo)

- Several fieldtrips
  (2012, 2013, 2016, 2019)

- Joint work with Nadezhda Makeeva

  - Also, Dasha Shavarina, Pasha Koval,
    Nikita Muraviev

- The village of Djon
  (Akébou prefecture of Togo)

  - Also texts recorded in neighbouring
   villages of Kotora and Djitrame
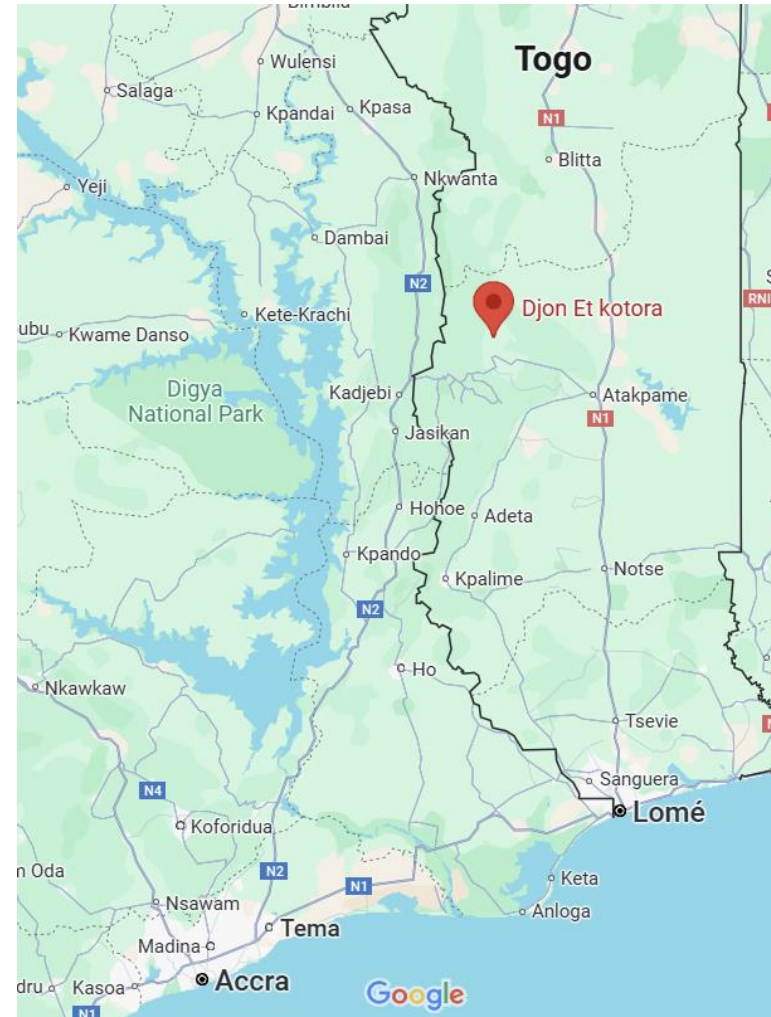
Akebu

- Extensive elicited data on phonology, grammar and lexicon

- About 4.5 hrs of transcribed texts

- Conducted (and published) research on a number of topics

Adele (< Na-Togo)

- Pilot fieldtrip (2022)
  - Joint with Natalia Stoynova and Margarita Ivanova
- The village of Krontang (Nkwanta district of Ghana)
  - Also texts recorded in the neighbouring village Kechebi
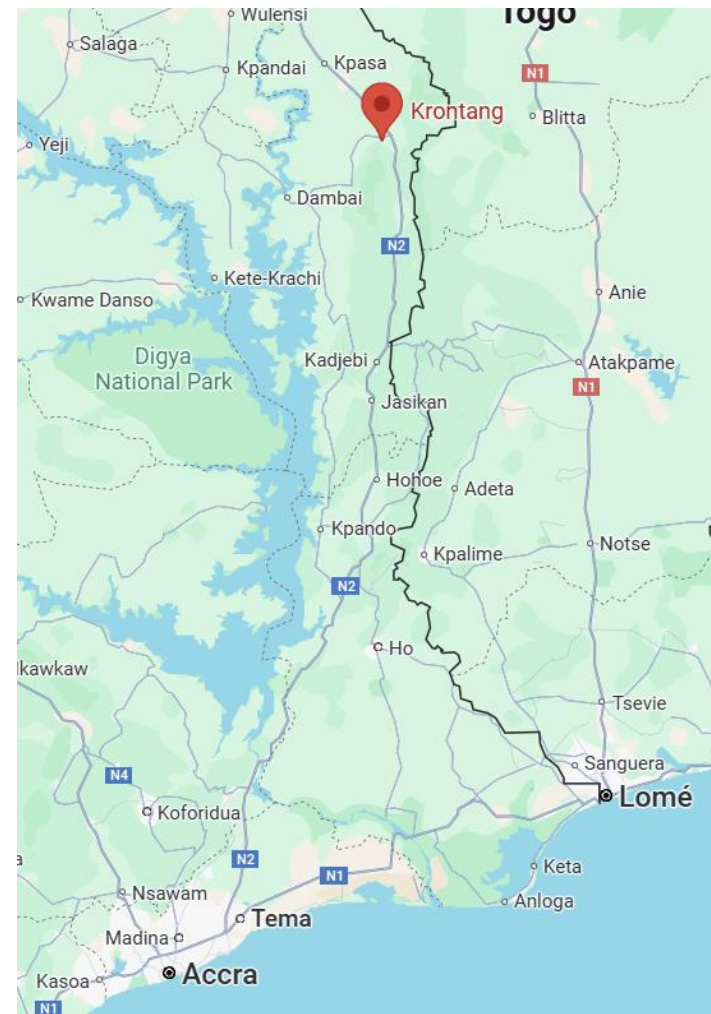
Adele

- Elicited data on phonology, grammar and lexicon

- About 1 hr of transcribed texts

- Preliminary research on phonology and noun class system

Ghana-Togo Mountain languages and wordhood

➡ Almost all GTM languages are described to some extent

  ➡ Mostly during recent 15-20 year

➡ No strong established descriptive tradition

  ➡ In particular, no tradition of wordhood

Ghana-Togo Mountain languages and wordhood

➡ E.g. pre-root verbal morphology

➡ Even for the same language

    ➡ Ikposo: Eklo (1987: 88-104) vs. Soubrier (2013: 165-214)

Nyangbo (Essegbey 2019: 157)

a-nyɛ́=ɛ́	*a-tɛ́-á-shɛ̃*
CM1-man=DEF	AM-NEG-PROG-leave

'The man is not leaving.'

Anii (Morton 2014: 88)

ǹ	tí	kìdé	ì-bɵ̀rɵ̀
1.SG.SUBJ.GRP1	IMPF	watch	CL.W-elephant

'I watch elephants.'

Ghana-Togo Mountain languages and wordhood

- No practical intuition in the process of transcription
  - Strikingly contrasts with fieldwork experience with completely different languages
- Nothing to answer when asked after talks
  "Why do you use a hyphen, not a space here?" (or vice-versa)
- Addressing other GTM languages is not helpful
  - Allan (1973: 37) for Lelemi (< Na-Togo): word is defined by utterance in isolation, but no further implementation
  - Harley (2005: 58-59) for Tuwuli (< Ka-Togo): a number of criteria of phonological wordhood, but noting that more complex items are phonological words, as well
  - As mentioned, completely different implicit analyses
- Critically influences the analysis of a languages system
  - E.g. does not allow to publish a description of Akebu verbal morphology

(Informal) goals of the project

- Advancing in description of Akebu and Adele
  - Providing an explicit and consistent account for wordhood throughout language systems; first time for any GTM languages

- Comparing results for GTM
  - Akebu and Adele
  - Tentatively, both to other GTM

- Contributing to cross-linguistic studies in wordhood

Wordhood

- Traditional account (in particular in Leipzig Glossing Rules)
  - Morphosyntactic words
  - Phonological words
  - Clitics = morphosyntactic, but not phonological words
- Traditional descriptive approach
  - Linguists' and speakers' intuition
  - Himmelmann (2006) defends it explicitly

Wordhood

- Actively discussed during the last decades and upto recently
  - Selkirk 1996; Haspelmath 2011, 2023; van Gijn & Zúñiga 2014; Dixon & Aikhenvald 2003; Aikhenvald et al. 2020; Good 2016; Zingler 2020, 2022; Tallman 2020, 2024…

- New concepts
  - For mismaches between phonological and morphosyntactic wordhood, such as *weak words* and *anti-clitics* (Zingler 2022)
  - In the domain of morphosyntactic wordhood, such as *bound* and *free constructs* (Haspelmath 2011)
  - In the domain of phonological wordhood, such as *prosodic clitics* (Selkirk 1996), *featural foot* (Green 2013; Vydrin 2020)

Wordhood

- Compound words are discussed separately

  - Widely for compounds of the same part of speech (cf. summary in Lieber & Štekauer 2009)

  - Less actively for X-to-verb incorporation (cf. summary in Olthof 2020)

  - Rather marginally for attribute-to-noun incorporation (cf. Dahl 2004; Rießler 2016)

- Analysis in the same framework as continuum between grammatical markers that are independent words and affixes?

Wordhood

- Theoretical concepts and findings are far ahead from analysis of data of underdescribed languages

- But "positive" studies defining a word in a given language exist (cf. Terraza & Baito 2014 on Wichi < Matacoan, South America)

- Methodologically, bottom-up approach

  - Wordhood in Akebu & wordhood in Adele

  - Wordhood in GTM

  - Wordhood in Kwa / West African language area

  - Wordhood cross-linguistically

Wordhood

➡ Distinguishing between different types of units

➡ But also distinguishing between different types of morpheme boundaries

➡ Maybe even more important (at least practically)

➡ To some extent I follow the logic of Tallman's (2019; 2024) approach

  ➡ But I focus less on constituent templates (cf. also Good 2016)

  ➡ And I try less to make my approach universalist

Hypothesis of the project

- (i) In a given language, there exist phonological and morphosyntactic features that correlate with each other and allow to distinguish both between a limited number of possible morphological units and a limited number of possible morpheme boundaries

- In other words, I hypothesize of some correlation between phonological and morphosyntactic constitutent

- Although I say "wordhood", I realize that there can be several levels of such morphosyntactic / phonological units

  - It is not so important which level exactly should be called a word

  - But still this choice is necessary for practical purposes

Hypothesis of the project

➡ If (i) is correct for Akebu and Adele (and thus tentatively for GTM), it will make it possible to provide an innovative approach to their grammar

➡ If (i) is not correct for Akebu and/or Adele, this will be a relevant negative result

➡ If (i) is correct for given specific languages, this makes it productive to test it for further languages and linguistic families

➡ If (i) is not correct for given specific languages, it is automatically not correct universally

Structures to be tested

➡ Grammatical markers

➡ Compounds of all types

➡ Phonologically complex structures with no morpheme boundaries

(1) Adele

kūlɔ́kūlɔ̄kɔ̀kɔ̀

'turkey'

Research questions of the project

- RQ1: Is there consistent evidence of phonological wordhood in GTM? Is there a correlation or an implicational hierarchy between features evidencing phonological wordhood in GTM?

- RQ2: Is there consistent evidence of morphosyntactic wordhood in GTM? Is there an implicational hierarchy between features evidencing morphosyntactic wordhood in GTM?

- RQ3: Is there a correlation between phonological and morphosyntactic units in GTM? Are there criteria for distinguishing between morphological units simultaneously in phonology and in grammar?

Research questions of the project

- In other words,
  - Looking for phonological constituents
  - Looking for morphosyntactic constituents
  - Looking if they correlate
- Rather traditional

Criteria for phonological wordhood

➡ Vowel harmony

  ➡ Obligatory

(2) Adele

a.   *dì-kwo*   **dì-bɔ́nʊ̀**   b.   *dì-kwo*   **dì-túnú**

        CL3-house   CL3.POSS-front   CL3-house   CL3.POSS-door

        'the front of the house'   'the door of the house'

  ➡ Optional

(3) Akebu

tìè-yɘ̄`*          *lɘ́*    *ò-tù-yɘ̄`   ~   *tìè-yɘ̄`*         *lɘ́*   *ò-tù-yɘ̄`*

woman-CL1   POSS   CL5-thing-CL5   woman-CL1   POSS CL5-thing-CL5

'the woman's things'

Criteria for phonological wordhood

➡ Vowel harmony

  ➡ Usually absent in compounds

(4) Akebu

`-zɔ̄ɔ̄-tú-ʈə́`

CL3-axe-handle-CL3

'axe-handle'

  ➡ But there are exceptions

(5) Akebu

a.	*tìyí*	(<	**tə̀*	*yî*)	b.	*tə̀*	*tūʋ̀*
	twenry		ten	two		ten	five
	'twenty'						'fifty'

Criteria for phonological wordhood

➡ Tonal processes

   ➡ Tonal alternations (tonal sandhi, absence of own lexical tone)

(6) Akebu

a.	`-gú-ʈə́`	b.	`-gù-ʈə̄`
	CL3-bierd-CL3		CL3-nest-CL3

   ➡ External tonal processes (downdrifts, downsteps)

(7) Adele

a.	ná-wí	'díígú	b.	ná-wí=wó
	1SG.PFV-see	mirror		1SG.PFV-see=CL5.O
	'I saw the mirror.'			'I saw it.'

Criteria for phonological wordhood

▶ Stress
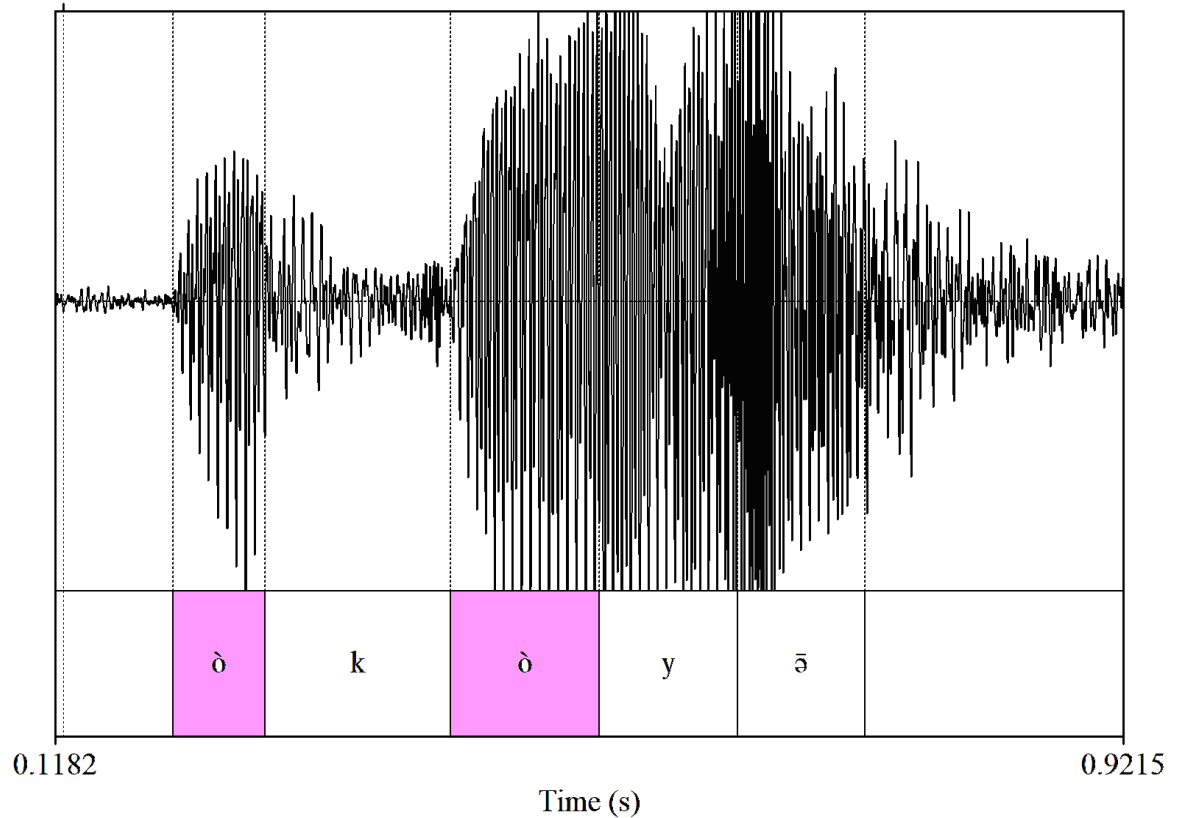
(8) Akebu

ò-kò-yə̄`

CL5-liver-CL5

'livers'

Criteria for phonological wordhood

➡ Fusion and phonological reduction

(9) Akebu

`-zə̀lɨ̄-ʈə̄` [zə̀lə̄]

CL3-egg-CL3

(10) Akebu

nìmì-**wə́** [nìmíɏ̃́]

needle-CL4

Criteria for phonological wordhood

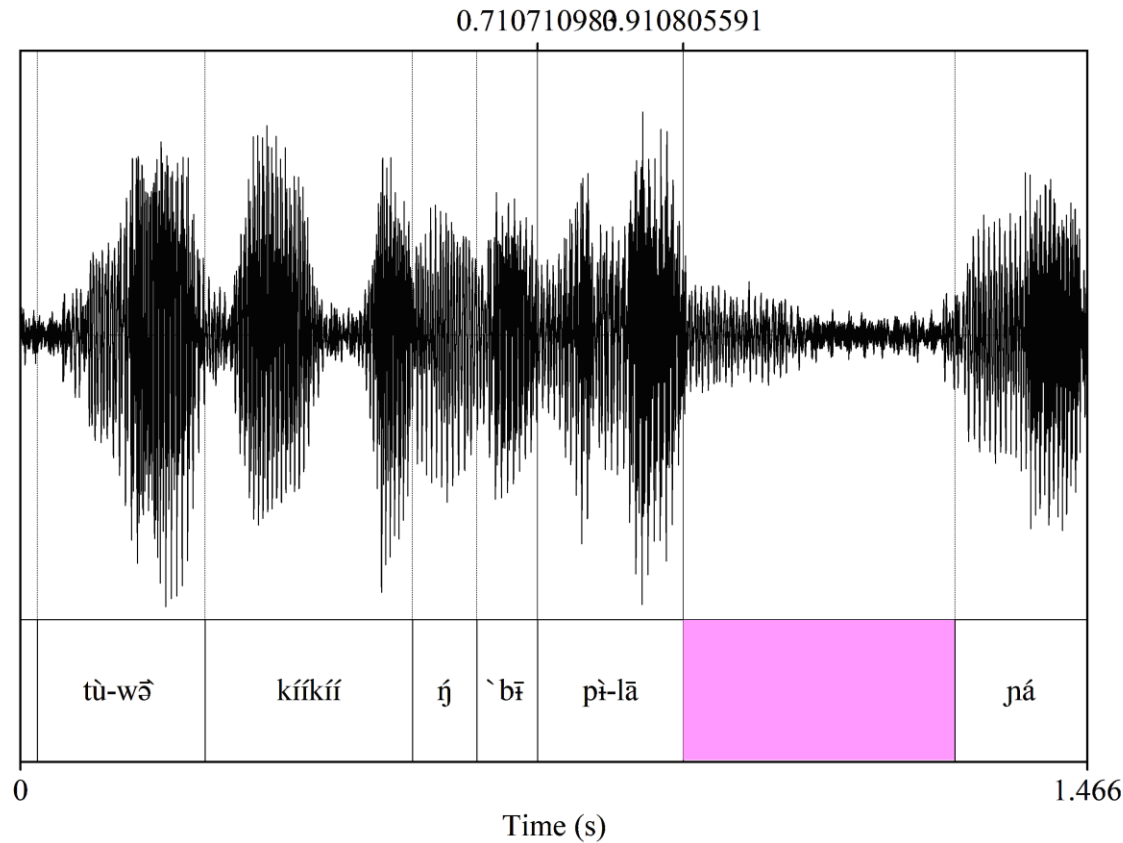➡ Pauses

(11) Akebu

tù-wə̄`   *kííkíí*   *ŋ́*

thing-CL4   every   CONJ

`bɨ̄   *pɨ̀-lā=ɲa*

3PL   3PL-PFV=find

'everything they found'

Criteria for phonological wordhood

- Clearly no strong correlation of all listed

  - Especially clear for vowel harmony

- Still, possibly at least some correlate

  - Maybe domains of stress and tonal alternations

- Maybe other make a hierarchy

  - Maybe fusion/reduction implies no possible pauses

Criteria for morphosyntactic wordhood

➡ Functional grammaticalization

(12) Akebu

a. **ŋ́-yā** **[ŋ́yā]**

　　1SG-stand

　　'I am standing (here).'

b. **ŋ́-yā** **[ŋ́yā ~ né]**　　*néé-ʈī*　　　　*fūé-yə́*

　　1SG-PROG < stand　　1SG.PRS-eat　　fufu-CL1

　　'I am eating fufu (lit. I stand I eat).'

Criteria for morphosyntactic wordhood

➡ Inflectional marking

(13) Akebu

a. ´nē-**ké**-ʈī   ʈūŋʈūŋ

    1SG.PFV-< go-eat   today

    'I have gone to eat today.'

b. **ŋ́-kólú**   ŋ́-ʈīlí   àsə̄ə̄kə̄

    1SG-go$_{FCT}$ 1SG-eat$_{FCT}$ yesterday

    'I went to eat today.'

Criteria for morphosyntactic wordhood

➡ Own full phrase structure

(14) Akebu

a. *ŋ́-cīī*   *ɲì-yə̄`*   *sā*   ***sísìɛ̀ɛ̀ʈí***

    1SG-know   person-CL1   DEM   well

    'I know this person well.'

b. *mɪ́*   *ɲì-**cì**-yə̄`*

    1SG.POSS   person-know-CL1

    'my known person'

c. **mɪ́*   *ɲì-**cì-sísìɛ̀ɛ̀ʈí**-yə̄`*

    1SG.POSS   person-know-well-CL1

    exp. 'my well-known person'

Criteria for morphosyntactic wordhood

➡ Non-specificity and anaphoric islandhood

(15) = (4) Akebu

a. *kɪ̀-sɔ̄ɔ̄-kə́`*         b. *`-dú-ʈə́`*

     CL6-axe-CL6   CL3-handle-CL3

     'axe'   'handle'

c. *`-ʐɔ̄ɔ̄-tú-ʈə́`*

     CL3-axe-handle-CL3

     'axe-handle'

Criteria for morphosyntactic wordhood

➡ Restricted use

(16) Akebu

a. *tù-ʈɔ̀ɔ̀ʈɔ̀ɔ̀-wə̄`*     b. *tù-wə̄`*   *sā* *wɪ̀-là* *ʈɔ̀ɔ̀ʈɔ̀ɔ̀*

   thing-bad-CL4   thing-CL4 DEM CL4-COP bad

   'bad thing'   'This thing is bad.'

c. *tù-ŋéŋ-wə̄`*      d. *\*tù-wə̄`* *sā* *wɪ̀-là* *ŋéŋ*

   thing-new-CL4   thing-CL4 DEM CL4-COP new

   'new thing'   exp. 'This thing is new.'

Criteria for morphosyntactic wordhood

➡ Restricted use

(17) Adele

a.   *gè-kù-**kʊ̀ŋ***

         CL6-wash-place

         'bathroom'

b.   *gɛ̀-drɔ́-**kʊ̀ŋ***

         CL6-sleep-place

         'sleeping place'

c.   *gè-dì-**kʊ̀ŋ***

         CL6-eat-place

         'eating place'

Criteria for morphosyntactic wordhood

➡ Linear insertion of syntactically independent material

   ➡ Hesitation; vocatives; expletives?

(18) Akebu

a.   *cíkèɛ́-yə́`*      *lə́*        *kì-fʊ̄ɛ̄ɛ̄-kə̄`*

     dog-CL1   POSS   CL6-paper-CL6

     'the dog's document'

b.   *cíkèɛ́-yə́`*      *lə́*       **ə̀mə̀mə̀** ... *kì-fʊ̄ɛ̄ɛ̄-kə̄`*

     dog-CL1   POSS   HES   CL6-paper-CL6

     'the dog's hmm document'

Criteria for morphosyntactic wordhood

- Mostly less universal than those for phonological wordhood

  - Applicable only to a limited number of constructions

- Still, possibly at least some correlate

  - Maybe own phrase structure and anaphoric islandhood

- Maybe other make a hierarchy

Phonological and morphosyntactic wordhood

- Clearly, there is some correlation

  - Certain constructions tend to feature evidence either for or against **both** phonological and morphosyntactic wordhood

- Some criteria are in fact somewhat in between

  - Pauses and hesitation look similar

  - Phonological reduction is well-known to accompany functional grammaticalization

Phonological and morphosyntactic wordhood

➡ If enough phonological and morphosyntactic criteria correlate for Akebu / Adele, these is language-specific wordhood criteria

➡ If yes and language-specific wordhood criteria of Akebu and Adele are rather similar, these are tentative wordhood criteria of GTM in general

➡ If yes, but language-specific criteria are completely different, then language-specific evidence for wordhood is a very instable parameter

What is clear from the very beginning

➡ There is no correlation between all mentioned criteria

➡ Especially, vowel harmony

    ➡ Only leftward in Adele, marginally rightward in Akebu

    ➡ But some items on the right of the stem have evidence against wordhood

    ➡ In Akebu, there are harmonizing morphemes left from the stem

    ➡ Which happen to be separated by pauses and/or hesitations

    ➡ Not relevant for complex words

    ➡ Still, the domain of vowel harmony cannot be just ignored

What is clear from the very beginning

➡ Some criteria predictably tend to correlate

➡ Noun class suffixes

  ➡ Exhibit tonal alternation, fusion and phonological reduction

  ➡ Follow incorporated atteributes limited in morphosyntactic wordhood

➡ Progressive constructions

  ➡ Functional grammaticalization and optional fusion

➡ Associated motion markers

  ➡ Own inflection and vowel harmony

What I have already done

➡ Compiled a list of Akebu constructions to be tested

  ➡ Almost all grammatical and derivational markers

  ➡ All complex constructions

  ➡ More than 20

➡ Also compiled a list of Akebu constructions I assume to be clear enough

  ➡ Some clear markers (such noun class prefixes)

  ➡ Some main syntactic constructions with full phrases (such as V O)

  ➡ Less than 10

What I have already done

➡ Started checking some details in Akebu

    ➡ In particular checked once more that tonal behavior of noun class suffixes is the same with complex structures as with simple nouns

(19) Akebu

a.	`-dú-ʈə́`	b.	`-zɔ̄ɔ̄-tú-ʈə́`	c.	`-dú-tí-ʈə́`
	CL3-handle-CL3		CL3-axe-handle-CL3		CL3-handle-black-CL3
	'a handle'		'an axe-handle'		'a black handle'

What I have already done

➠ Analyzing data on some markers in Akebu

➠ In particular, preliminary generalization on pauses and hesitation with prepositions

➠ A constituent with some verbs, not with their own complements

(20)   Akebu

'nə̄ə̀-tə̀   mɨ́ɨ́j-síέέnɨ́   mɨ̄   ə̀mə̀mə̀ …   tʋ̀-púɲpʋ̀à-wə̄ˋ

1SG.PROSP-do_once_more   1SG.ADHAB-turn   with   hmm   thing-other-CL4

'I am going to address you again with hmm something else.'

(21)   Akebu

lā-fàɨ̀   mɨ̄   …   à-cúmá-yə́

3.PFV-get_tired   with   CL6-work-CL6

'He got tired of work.'

(22)   Akebu

tʋ̀-wə̄ˋ   wə̀-lā-tɔ̀   …   mɨ̄   nūʈú-wə́ˋ

thing-other-CL4   CL4-3.PFV-fall   with   weight-CL4

'The thing fell with all its weight.'

What my immediate plans are

- Starting with Akebu

- Analysis of available elicited data on constructions to be tested

- Going through available texts checking pauses, hesitation marker, vocative and possibly expletive insertions, at the same time checking looking for relevant morphosyntactic examples

- Designing a study of stress; checking if data are enough

- Designing (quasi-)experiments on acceptability of inserting pauses, hesitation markers and vocatives between items of different types

THANK YOU!

- Comments and suggestions very welcome!