

An Update on Beja:

From Phonology to Text Studies

Paper presented at the 7th Internat. Semito-Hamitic Congress, 2004

with sound files (mp3)

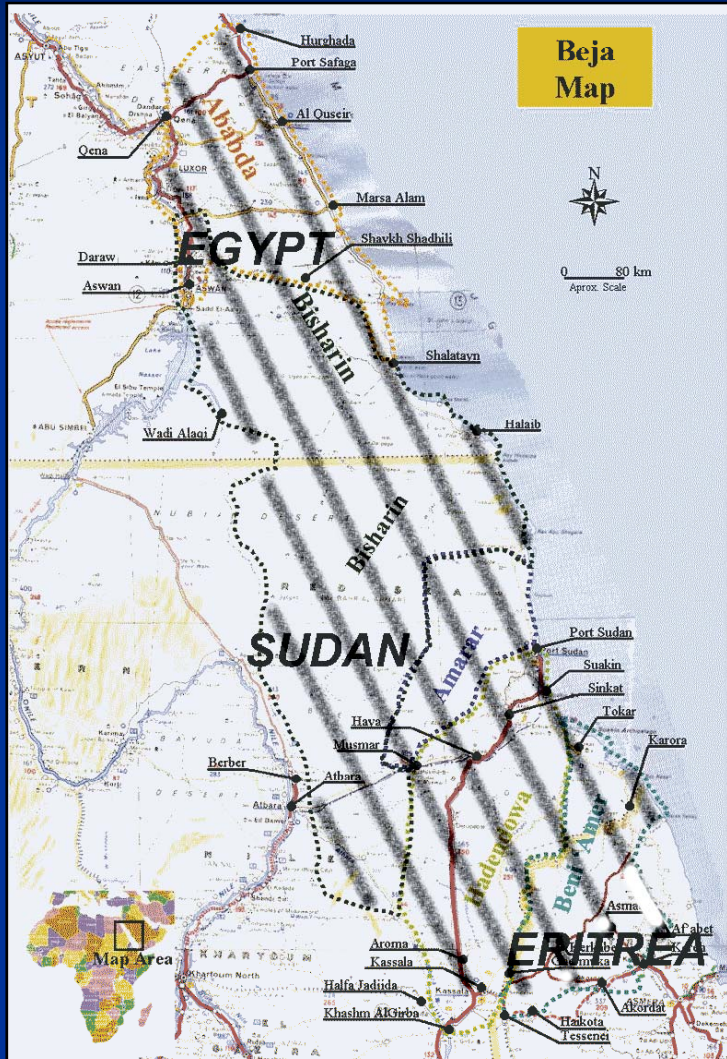
Paper version in: Rainer Voigt (ed.)

Akten des 7. internationalen Semitohamitistenkongresses Berlin 2004, Aachen: Shaker, pp. 165-184

Overview

- 1 Phonology and phonological dialect differences
- 2 Orthography issues
- 3 Meter in relation to musical beat and poetic genre
- 4 Issues in morphological parsing
- 5 Syntax and case marking
- 6 Statistics of narrative discourse
- 7 Grammaticalization in relation to text studies.

Overview: the Language



- The same language across three countries, *but*
- In the South (Eritrea), Hadendowa and Beni Amir *lost vowel distinctions* (e.g. *u / i DEF articles*)
- In southern Egypt, some Bishari *lost the accent shift* (e.g. *plural NPs*)
- In northern Egypt, most Ababda *lost the language*

1. Phonology and dialect differences

- **(1) Phonology and phonological dialect differences**
 - **1.1 Volatility of "h"**
 - **1.2 Genesis of ejectives**
- (2) Orthography issues
- (3) Meter in relation to musical beat and poetic genre
- (4) Issues in morphological parsing
- (5) Syntax and case marking
- (6) Statistics of narrative discourse
- (7) Grammaticalization in relation text studies.

1.1 Volatility of "h"

- 1.1.1 Roper's "difficulty" with the aspirate"
- 1.1.2 effects of "h" in the coda
- 1.1.3 dialect alternation "h/s"
- 1.1.4 "h" as feature of the word

1.1.1 Roper's "difficulty with the aspirate"

- Roper in (1928: 6-7) on Beja "h":
 - "All speakers have **difficulty** with the aspirate,
 - they commonly **omit** it
 - and **misplace** it
 - and **produce it superfluously** as do illiterate speakers of English."

1.1.2 Effects of "h" in the coda

ee -> i /_#

<i>Sg. 1</i>	<i>acc.</i>	āneeb	"me"
	<i>nom.</i>	āni	"I"

oo -> u /_#

<i>Sg. 3 M</i>	barōo(h)	"him"
<i>Sg. 3 F</i>	batōo(h)	"her"
<i>Pl. 3 M</i>	baréeh	"them M"
<i>Pl. 3 F</i>	batéeh	"them F"

Note:

The (h) closes the syllable, and oo is not reduced to u.

1.1.3 Dialect alternation h/s

Note:

Reinisch's data (W. Hadendowa and Beni Amir dialects)
have "s" where other dialects have "h".

	<i>Assuan</i> <i>Almkvist</i> 1881	<i>Gash-Barka</i> <i>Reinisch</i> 1893	<i>Port Sudan</i> <i>Roper</i> 1928	<i>N.Port Sudan</i> <i>Wed.&Abuz.</i> 2001
<i>is his.</i>	bari ^o o <u>h</u> u	bary ^o o <u>s</u> u	bāri <u>h</u> iyi	barīiyoo <u>h</u> u
<i>is hers</i>	bati ^o o <u>h</u> u	baty ^o o <u>s</u> u	bāti <u>h</u> iyi	batīiyoo <u>h</u> u

1.1.4 "h" as feature of the word

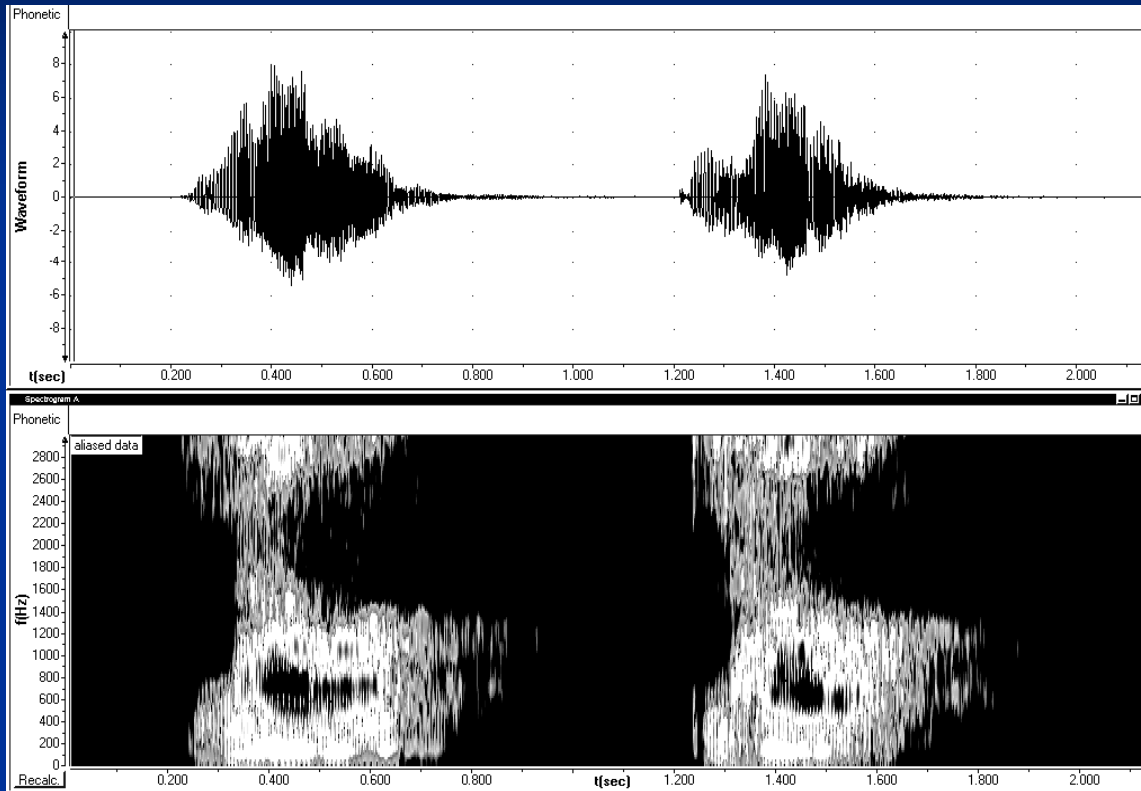
Note:

The "h" could be viewed as a **feature of the word:**

sometimes it is the coda of the **2nd syllable**, sometimes the onset of the **3rd** or **4th syllable**.

	<i>Independ. Pronoun</i>	<i>Gash-Barka Reinisch 1893</i>	<i>Port Sudan Roper 1928</i>	<i>N.Port Sudan Wed.&Abuz. 2001</i>
<i>he, his</i>	barōoh	baryōosu	bārihiyi	barīiyoo <u>h</u> u
<i>she, hers</i>	batōoh	batyōosu	bātihiyi	batīiyoo <u>h</u> u
	CV.CVVC		CV.CV.CV.CV	CV.CVW.CVW.CV
	1 2		1 2 3 4	1 2 3 4

1.1.6 Onset cluster with "h"



[náwa] "fail!" vs. [nháwa] "be thin!"

<http://www.kwedekind/Eingang1/Update/9a.mp3>

also [g^wáma] vs. [g^wháma] "sip!"

<http://www.kwedekind/Eingang1/Update/9b.mp3>

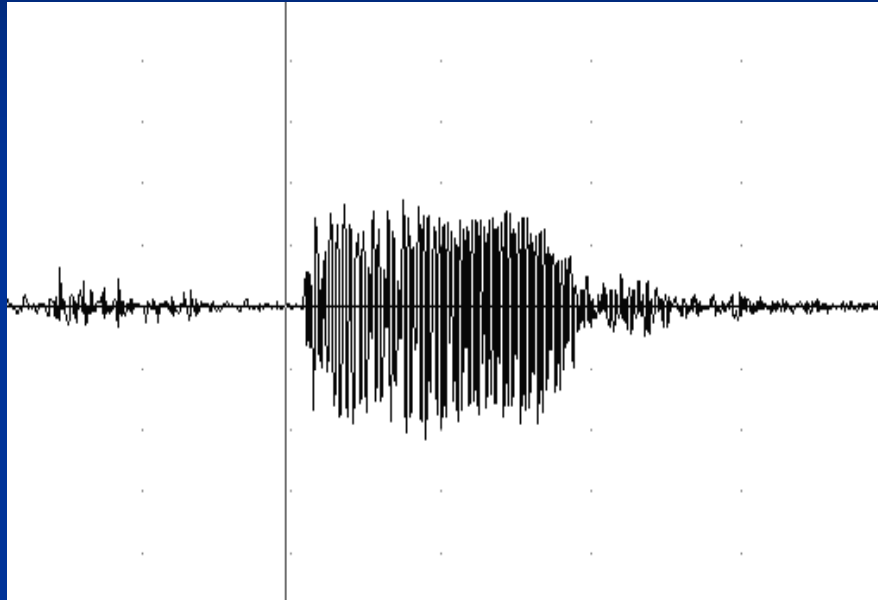
1.2 Genesis of an ejective

- Retroflex voiceless plosive followed by hamzah gives a **retroflex ejective**.

$[t] + [ʔ] \rightarrow [t']$

- e.g. $[niʈ'á]$
 - <http://www.kwedekind/Eingang1/Update/10a.mp3>
- e.g. $[nimo:t'áʈ'ina]$ $[nimo:t'áʈ'a]$
 - <http://www.kwedekind/Eingang1/Update/10b.mp3>

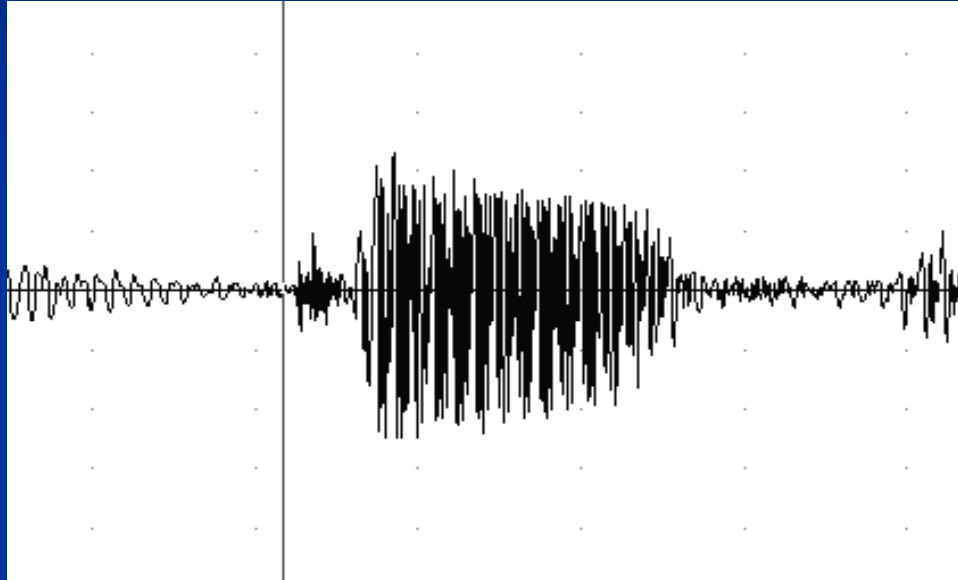
1.2.1 Retroflex ejective ...



ni [tʰa] with line before glottal release and vowel

<http://www.kwedekind/Eingang1/Update/11.mp3>

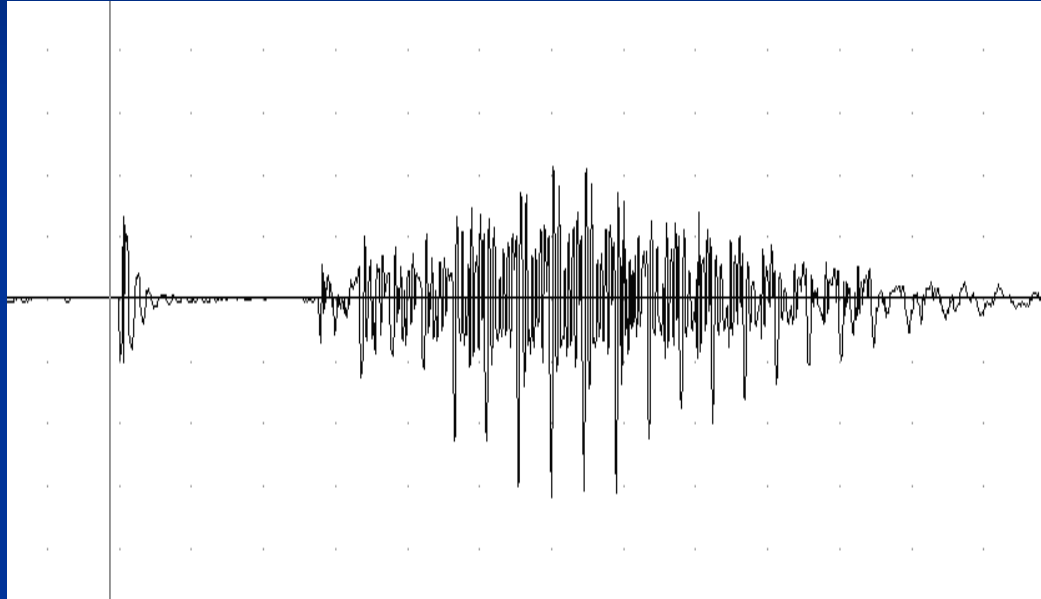
1.2.2 ... compared with simple plosive



[ta] (as in kitaba) with line before release and vowel

<http://www.kwedekind/Eingang1/Update/12.mp3>

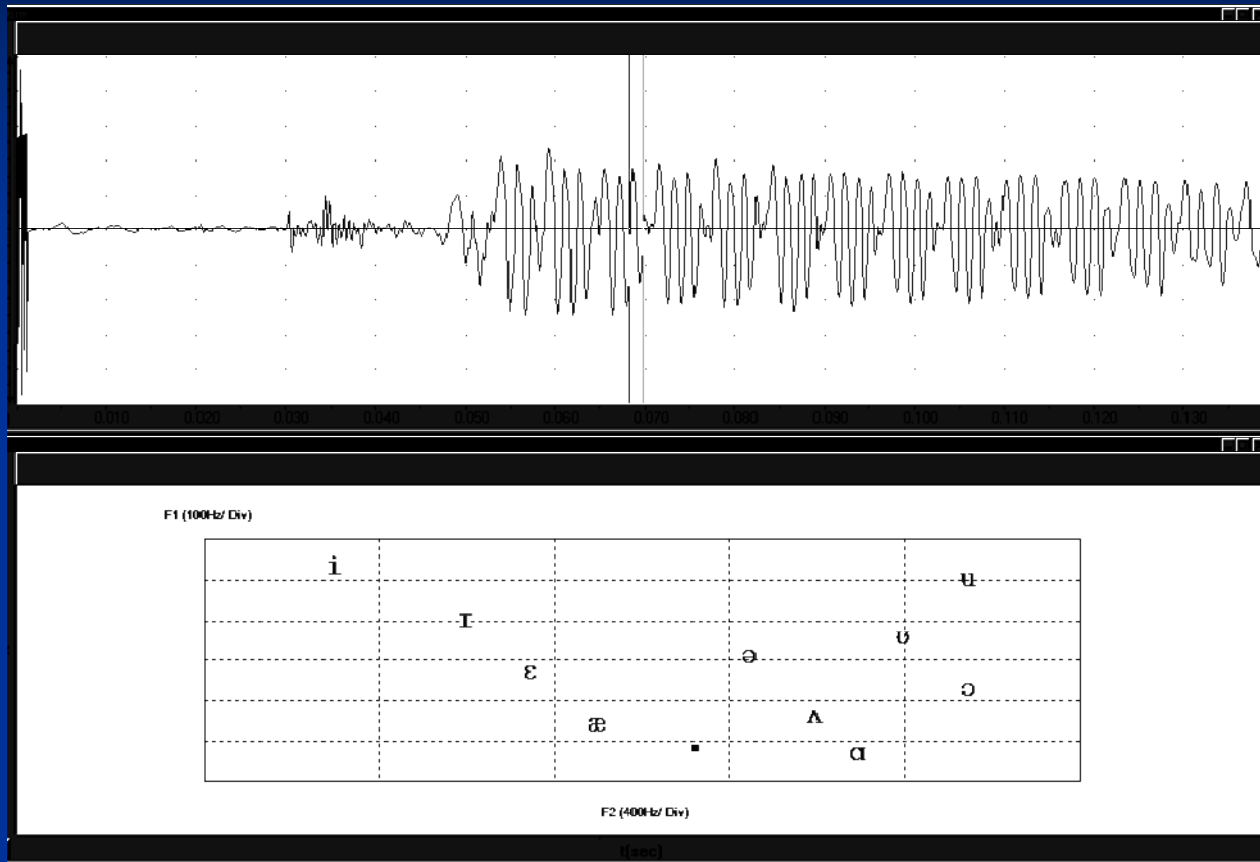
1.2.3 ... compared with dental ejective



[t' a] with line before release and vowel

<http://www.kwedekind/Eingang1/Update/11.mp3>

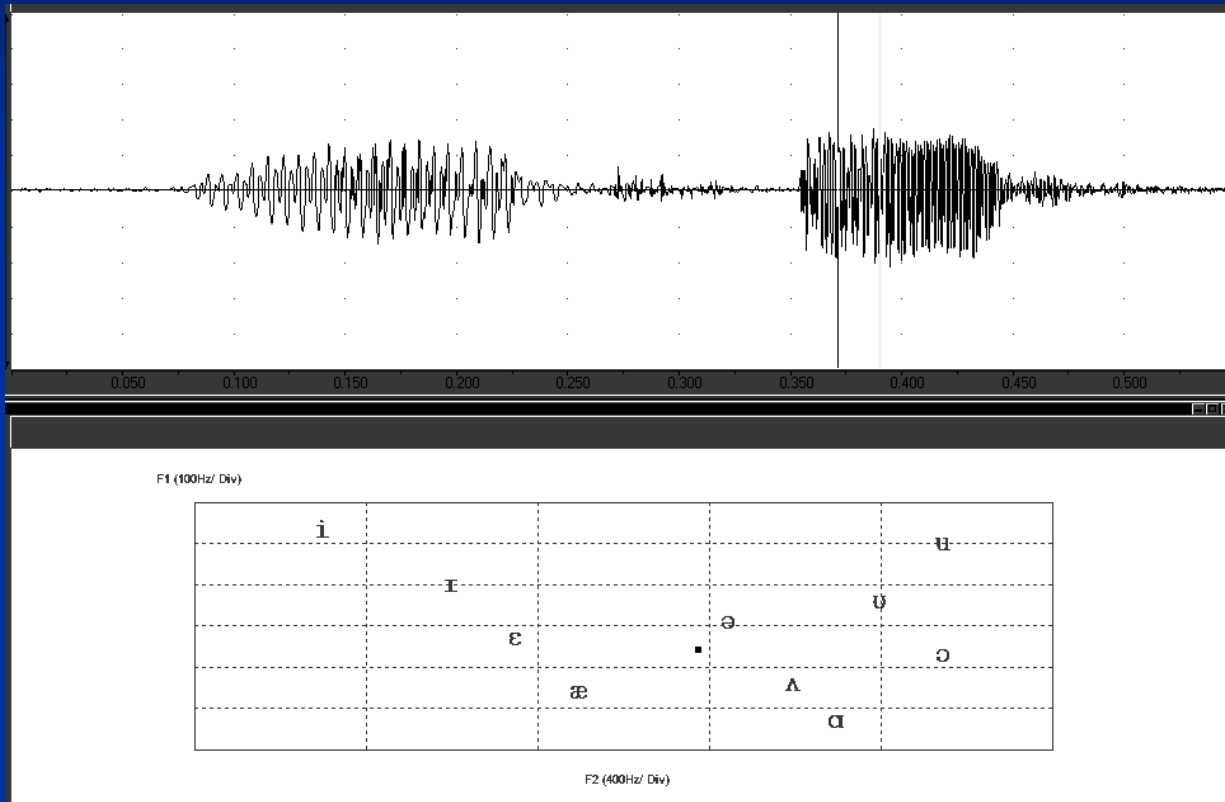
1.2.4 Vowel "a" after non-retroflex



Place of **normal "a"** in the vowel chart: [ta] of [kitaba]

<http://www.kwedekind/Eingang1/Update/14.mp3>

1.2.5 Vowel "a" after retroflex ejective



Place of **muffled "a"** in the vowel chart as in [niɽ'ɑ]

<http://www.kwedekind/Eingang1/Update/13.mp3>

2. Orthography issues

- 1 Phonology and phonological dialect differences
- **2 Orthography issues**
 - **2.1 The two orthographies**
 - **2.2 The Latin writing system**
- 3 Meter in relation to musical beat and poetic genre
- 4 Issues in morphological parsing
- 5 Syntax and case marking
- 6 Statistics of narrative discourse
- 7 Grammaticalization in relation text studies.

2.1 The two orthographies

- The Beja writing system was discussed by Beja leaders and linguists in Cairo, 1999: **Arabic and Latin** script were adopted.
 - In the **Arabic** script, the most controversial issue is the writing of [oo/uu] and [ee/ii]. (Fortunately, [o] or [e] don't exist)
 - Several Arabic orthographies are still in use: For <oo> some use و, others use و with Urdu diacritics.
- For Eritrea, the orthography was first discussed in the 1980s.
 - Tests of and revisions of the **Latin** writing system were carried out at the Ministry of Education, Asmara, 2000.
 - Textbooks of Eritrean schools are printed in this orthography.

2.2 *The Latin orthography*

Pitch accent (or "tonal stress")

Tests have shown that "stress" creates no ambiguities in everyday texts.

One test text used forms of **hadhaab** / **hadhaab** "*lion SG/PL*)

Vowels and Length

<a i u > for short vowels (**o e** don't exist)

<aa ee ii oo uu> for long vowels

Consonants

<' > for [ʔ]

<gw kw> for [g^w k^w] (no clusters)

<**sh dh th**> for [ʃ d t] (no clusters)

<seh deh teh> for [sh dh th] (clusters)

3. Meter in relation to musical beat

- 1 Phonology and phonological dialect differences
- 2 Orthography issues
- 3 Meter in relation to poetic genre and musical beat
 - 3.1 Poetic genres
 - 3.2 Meter and poetic genre
 - 3.3 Syllables, stress and musical beat
- 4 Issues in morphological parsing
- 5 Syntax and case marking
- 6 Statistics of narrative discourse
- 7 Grammaticalization in relation text studies.

3.1 Poetic genres

- akikt "*epic song*"
- ardaat "*dance*"
- biiboob "*dancing and jumping*"
- birirt "*war song*"
- habayt "*poem to be sung*"
- habuul "*funeral song*" (*from habil- "mourning"*)
- halil "*chanting at a burial*"
- hamaad "*praise song*"
- kafti "*dancing and clapping hands*"
- khani, khanoob "*love song*"
- kwaayraab "*dancing*"
- kwaliit "*song, folklore*"
- malag "*dancing*"
- milig "*dirge dance*"
- nawi "*song in praise of a deceased*"
- niin "*humming*"
- samooyt "*naming ceremony song*"
- tookway "*dance imitating the slow movements of the camel's neck*"

3.1 Poem - song - dance

Terms	Beja	Tigre	Arabic	Amharic
<i>song, to sing</i>	oo-kwal, kwal gid-a (<u>kafa</u> at, kaf-a)	ሐልዖት	شَدَا نَشِيد	መዝሙር፣ ገጠመ (<u>ዘፈን</u>)
<i>dance, to dance</i>	u-malag, lag-a (<u>kafa</u> at, kaf-a)	ሰሰዒት	زَفَنَ	<u>ዘፈን፣ ዘፈነ</u>
<i>poem, to recite</i> ...	t-habay, habayt gid-a	<u>ሸዕር</u>	<u>شَعَرَ</u> شَاعِرِيَّة	ጥም፣ ገጠመ

3.2 Meter and poetic genre

- Genre “Love song” (kehanoob, u-kehani)
 - regular meter e.g. **10 syllables/line, 5 stress/line**
 - regular musical rhythm
 - rhythm can be non-symmetrical (5/4 or **2+3+3/8**)
 - musical periods of e.g. **5 bars** each

3.3 Syllables, stress and musical beat

Periods of 5 bars, with bars of 2+3+3 beats each. *ostinato*

<http://www.kwedekind/Eingang1/Update/23a.mp3>

									Syll	Stress
<i>phon.</i>	Yaa ,	oomha	oomhook	kaneeh	masnay.		(Eeyaa eeyaa.)		9	
<i>us.</i>	Yaa ,	oomha	oomhook	kaneeh	mas(i)nay.		(Eeyaa eeyaa.)		10	5
	1	2	3	4	5	6	7	8	(9)	10
									http://www.kwedekind/Eingang1/Update/23b.mp3	
<i>ph.</i>	Yaa ,	oo-mha	oo-mhook	kan-eeh	mas-nay.	-	-			
<i>loss</i>	- ,	DEF-morning	WH-dawn	know-PTCP	spendMorning-wePRES	-	-			
<i>ee tr.</i>	Knowing that the day dawns, we await the morning (eeyaa ...)									

4. Issues in Morphology

- 1 Phonology and phonological dialect differences
- 2 Orthography issues
- 3 Meter in relation to musical beat and poetic genre
- 4 Issues in morphology
 - 4.1 Morphological parsing
 - 4.2 Derivational morphology
- 5 Syntax and case marking
- 6 Statistics of narrative discourse
- 7 Grammaticalization in relation text studies.

4.1 Morphological parsing

- For the morphology, a parser has been designed
- The input texts presently are analyzed assuming that there are
 - Twelve positions of **affix** morphemes
 - Eleven classes of **root** morphemes

4.1.1 Classes of root morphemes

Morpheme Class	e.g.	takes affixes for			
Verbs (Weak/Str.)	yak- "start" wk. dilib- "trade" str.	Person & T.A.M.	Gender	Number	-
Nouns (F/M)	tak "man" takat "woman"	-	-	Number	Case
Pronouns (F/M)	batooh "she"	-	-	Number	Case
Names (F/M)	Adaroor "A."	-	-	Number*	Case
Adjectives	adaru "red"	-	Gender	Number	Case
Demonstratives	been "that"	-	Gender	Number	Case
Numbers	mhay "three"	-	Gender	Number	Case
Adverbs	amsi "today"	-	-	-	Case
Postpositions	har ' i "after"	-	-	-	Case
Conjunctions	hana "or"	-	-	-	-
Interjections	wooh "hello"				

4.1.2 Positions of affix morphemes

NOUN pattern of affixes

PREF ² -	PREF ¹ -	STEM	-SUFF ¹	-SUFF ²	-SUFF ³	-SUFF ⁴	-SUFF ⁵	-SUFF ⁶ *
Demonstrative-	Article-	NOUN	-Plural	-Case	-Possessive	-Adverbial	-Connector	-Identification

VERB pattern of affixes

PREF ² -	PREF ¹ -	STEM	-SUFF ¹	-SUFF ²	-SUFF ³	-SUFF ⁴	-SUFF ⁵
Relative-WH-	Person-Tense-Aspect-	VERB	-Person -Tense --Aspect	-Object	-Relative -WH	-Adverbial	-Connector

4.1.3 Statistics of affixes and roots

- The present text collection parses with
 - 96 prefixes
 - 2 prefix positions for Verbs
 - 2 prefix positions for Nouns
 - 130 suffixes
 - 6 suffix positions for Verbs
 - 5 suffix positions for Nouns
 - 6350 roots
 - 1150 weak Verbs, 1011 strong Verbs
 - 1399 fem. Nouns, 2135 masc. Nouns
 - 650 roots of 9 other classes

4.1.4 Use of the parser

- It is planned to make the parser available on the internet when the text collection analyzes without residue.
- A demo can be performed upon request.
- The root data base serves as input for a school dictionary.

4.2 Derivational morphology: $V > N$

Note:

certain de-verbal nouns derived from activity verbs are used **only in the plural**.

Singular	Plural	Gender	Gloss
(doesn't exist)	ee-fyad	m	<i>the "laughings"</i>
(doesn't exist)	ee-foor	m	<i>the "fleeings"</i>

Note:

certain verbs derive into **singular and plural** nouns.

the **singular** tends to be *semelfactive*, the **plural** *iterative*:

Singular	Plural	Gender	Gloss
-aridti	y-aridti	m	<i>the slaughtering(s)</i>
o-raab	i-marab	m	<i>the refusal(s)</i>
u-naakbooy	i-meenkib	f / m	<i>the pursuit(s)</i>

4.2.2 Derivation > PL nouns



- Compare semelfactive/iterative:
 - 'alima "to draw a line (semelf.)"
 - 'aalima "to draw lines (iterat.)"

- Derivation of iterative Verbs:
 - faayida "laugh (iterat. V)"
 - ee-fyad "the laughs" (N)
(*plurale tantum*)

5. Syntax and Case Marking

- 1 Phonology and phonological dialect differences
- 2 Orthography issues
- 3 Meter in relation to musical beat and poetic genre
- 4 Issues in morphological parsing
- **5 Syntax and case marking**
 - **5.1 "Careless" case marking**
 - **5.2 Neutralization of suffixes**
 - **5.3 Case of extra-clausal NPs**
- 6 Statistics of narrative discourse
- 7 Grammaticalization in relation text studies.

5.1 "Careless" case marking

- Linguists complained that Beja speakers do not use their case suffixes "correctly".
 - Thus Almkvist 1881, Roper 1928.
 - This refers to case suffixes like -oo "*Obj.*" / -uu "*Subj.*"
- Two reasons for this complaint:
 - Phonological neutralization of final vowels.
 - This looks like a disregard for "correct" suffixes.
 - Left detached NPs (topics with **accusative** citation suffixes).
 - These look like "Subjects" which don't have the "correct" suffix.

5.2 Neutralization of case suffixes

- 1) baab-**u** rh-**i**ya-0 *"He saw my father [Object]"*
father-my see-hePAST-him **OR** *"My father [Subject] saw him"*
- 2) baab-**oo****h** rh-**i**ya-0 *"He saw his father"*
father-his see-hePAST-him
- 3) baab-**uu****h** rh-**i**ya-0 *"His father saw him"*
father-his see-hePAST-him

In (1), the distinction -**oo** "my (Obj.)" / -**uu** "my (Subj)" is lost because -**oo** regularly shortens to -**u** in word final position.

In (2) and (3), the distinction -**oo****h** / -**uu****h** is preserved, because **oo** / -**uu** are not in word final position.

5.3 Case of initial NPs

Normal clause structure:

- Left-detached: (**NP^{topic}** / Adv^{setting})

accusative

- **Clause proper:** (**NP^{subject}**) (**NP^{object}**) (Adv) Verb (Aux)

nominative

- **Right-detached:** (NP / Adv^{afterthought})

5.4 Head marking and case

- However, Beja can "afford" to be careless about case:
- (1) Beja is **head marking**
 - verb suffixes carry all participants
- (2) Beja in general preserves the **SOV** sequence
 - in spite of Pre- / Post-clausal NPs

6. Characteristics of narrative discourse

- 1 Phonology and phonological dialect differences
- 2 Orthography issues
- 3 Meter in relation to musical beat and poetic genre
- 4 Issues in morphological parsing
- 5 Syntax and case marking
- 6 *Characteristics of narrative discourse*
 - 6.1 Statistics of extra-clausal NPs
 - 6.2 Switch reference and "time-line" aspect
 - 6.3 Switch reference: ample text
 - 6.4 "Time line" aspect
- 7 Grammaticalization in relation text studies.

6.1 Statistics of extra-clausal NPs

- Clause structure in normal discourse:
 - **Left-detached:** (NP^{topic} or Adv^{setting})
30%
 - **Clause proper:** (NP^{subject}) (NP^{object}) (NP^{adverb}) **Verb** (Aux)
33% 30% 12% **100%*** 10%
 - **Right-detached:** (NP^{afterthought} or Adv)
8%

(*90% of clauses have verbs, other clauses were not included here.)

6.2 *Switch reference and time-line aspect*

- In the time-line, usually subjects don't change.
 - The final verb suffix is *-it* "*Same Subject*".
- In the time-line, usually progression of time is expressed by sequences of verbs in the *Past / Perfect*.
 - The forms are those of the Semitic *Present / Imperfect*.
- In the time-line, usually objects are inanimate.
 - The 3rd ps. object suffix is *-zero* "*Him / Her / Them*".

6.3 Switch reference: sample text

Loss	Subj.	Obj.	Adverb	Verb
There was a man, they say.	Tak man ¹			ii-fi een. he-was they-said
TIME LINE He came to the leader and	- he ¹		Suurkinaa-yi-hoo-da leader ² -GEN-his-to	ee-yaa-yit, he ¹ -came-SS
TIME LINE He started out the leader and	- he ¹		suurkinaa-yi-hoo-da leader ² -GEN-his-to	yak-iyaa-yit, started-he ¹ -SS
QUOTE I will puzzle him with something	" -	Oon-barooch naa-t that-him ² thing-OBJ		i-suugim a-ndi" FUT-puzzle I-mean
TIME LINE He said and	- he ¹			di-yi-it, said-he ¹ -SS
He is going to him, they say.	- he ¹		daay toHim ²	yak-iini een. starts-he ¹ PRES they-said

6.4 "Time-line" aspect

Note:

In "Non-Quotes" (time line), the Perfect-Past (Semitic Imperfect) is 3 times more frequent.

Non-Quotes (narrative time-line)	Ratio	Examples	Gloss
Perfect-Past	* 3 / 1	idi	<i>He said</i>
Perfect/Past Verb Pair	3 / 1	yakiyaay iyihaayit	<i>He started and</i>
Past Ptcp. as Attribute	1.3 / 1	ayaat	<i>(She) who had died</i>

In "Quotes", the Imperfect-Present is 3 times more frequent, and there is more TAM diversity.

Quotes (direct speech)	Ratio	Example	Gloss
Imperfect-Present	* 3 / 1	adalliib	<i>I sell / am selling</i>
Noun + Copula	2 / 1	kwootanaabu	<i>He is / was a smith</i>
Imperfect Neg.	2 / 1	kit'ush	<i>She doesn't leave (it)</i>
Imperative	20 / 1	m'aana!	<i>Come! PL</i>
Past Ptcp. + Copula	2 / 1	y'aabu	<i>I am who has come</i>
Future + Aux. say	3 / 1	iist'a kaadi	<i>I won't sit down</i>
Future + Aux. say Neg.	13 / 1	isuugim andi	<i>I will mislead (him)</i>
Pres. Ptcp. as Attribute	4 / 1	t'iitee (na)	<i>Being such (a thing)</i>

7. Grammaticalization in relation to text studies

- 1 Phonology and phonological dialect differences
- 2 Orthography issues
- 3 Meter in relation to musical beat and poetic genre
- 4 Issues in morphological parsing
- 5 Syntax and case marking
- 6 Statistics of narrative discourse
- 7 Grammaticalization in relation to text studies.
 - 7.1 Auxiliaries as Negation operators
 - 7.2 Auxiliaries as TAM and Adverbial operators
 - 7.3 Evidential operators in narratives

7.1 Auxiliaries as negation operators

Gloss:	Gloss:	Form	Frequency
auxiliary meaning	full verb meaning		
Negation	<i>to refuse</i>	rib-a	43
eg. Result	<i>to miss</i>	naw-a	5
eg. Result	<i>to fail</i>	gooy-a	1
eg. Desire	<i>to dislike (weak vb.)</i>	kareey-aa	1

Note:

These verbs function both **as auxiliaries** and as **full verbs**.

The auxiliary is always the **last** of a verb pair (except for the "inchoative" verb yak-aa "to start to" which is always the first).

7.2 Auxiliaries as adverbial and aspectual operators

Gloss: auxiliary meaning	Gloss: full verb meaning	Form	Frequency
future / Intent	<i>to say/mean*</i>	diy-a	112
result / State	<i>to become</i>	kay-a	85
inchoative*	<i>to arise / start (weak vb.)</i>	yak-aa	68
result	<i>to take</i>	ah-a	42
adverbial: "totally"	<i>to put down</i>	d'iy-a	17
adverbial: "after"	<i>to lie down</i>	b'an-a	4
immediacy	<i>to stand</i>	gad-a	1
state	<i>to wait/stay</i>	siniy-a	1
state	<i>to sit</i>	s'-a	1

7.3 Auxiliary as evidential

- *Note:*
- The verb "*to say*" also functions as "evidential" operator, as in ... een "*they said*", by which a narrator disclaims authorship (see sample text).
- The frozen form een "*they said*" appears to have lost some of its original meaning.
- Where the original meaning "*they said*" is intended, now idiin "*they said*" is used.

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An Update on Beja: From Phonology to Text Studies

Links to sound files
can be accessed as follows:

www.kwedekind.de/Eingang1/update/*.mp3

where * is the current frame number

*a or *b in case of two files, e.g. www.kwedekind.de/Eingang1/update/9a.mp3
for “nhawa” of frame 9