Studying information structure in Ama (Nilo-Saharan, Sudan) – experience with natural discourse data[*]

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1. Introduction

1.1 Research questions

+ presenting results of my research on IS in Ama, a Nilo-Saharan language spoken in the Nuba mountains

- starting from the observation on information-structural encoding devices attested in elicited data, I will look at the distribution of some of these devices in more naturalistic discourse (hypothesis-driven approach)

+ my corpus consists of different types of spoken materials, (mostly) all transcribed and glossed using simply Toolbox, but not annotated for IS

Type of material	Number of clauses[1]	Degree of control	Degree of 'orality'
Elicitations	673		
1 free narrative (+ 1 from SIL)	94 (+ 70)		
free narratives and discussions, triggered by pictures or movies	273		
free discussions	138		

- elicited sentences were uttered in a very controlled context as translation of English sentences → thus, they don't represent real naturalistic discourse (even though that what tried to manipulate by always representing question/answer or statement/action pairs); they might be triggered by the working language; there was time to build the

[1] The number of clauses here refers mainly to the number of Toolbox entries, which sometimes contains more than one clause, due to the unclear clause boundaries. Counting of words for a better estimation was not possible.

sentence, to think about the best ways of expressing something, i.e. introspection of the language assistant

- the narrative represents a folk tale of Ama – partly conventionalized, the storyteller was prepared to give the story for an audience which interact with him, there is normally much planning in it

- the narratives triggered by movies or pictures are much less controlled, as there was in most instances no time to plan the discourse, but the language assistant triggered a discussion by inserting some prepared questions (i.e. guided conversation)

- the free discussions are most spontaneous, even though the researcher was present, and the speakers were asked to do such a performance, but then in the course of discussion, there was much less planning, they were produced in real time with no opportunity for editing (cf. Miller & Weinert 1998, Miller & Fernandez-Vest 2006)

→ hypothesis: the degree of control and orality has an influence on the structuring of information in discourse

- assumption: information is carefully staged in spontaneous discourse, thereby a small quantity of information being assigned to each clause; it is expected that marked constructions occur more often as the hearer has to make sure that the addressee understands his intentions, both wrt. the topic of the sentence and the discourse as to the element in focus

- in German informal conversation, for instance, this is done by the use of particles such as 'doch' and 'ja' to express contrast, but it-clefts nearly do not exist in spontaneous speech (Miller 2006)

+ structure of paper:

1. Introduction into the research question and the language

2. Presentation of encoding strategies found in elicitation

3. Analysis of the distribution of these encoding strategies in spontaneous speech

4. Description of further properties of spontaneous speech

5. Comparison of the findings in final conclusion

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1.2 Typological properties of Ama

+ genetic affiliation: Nilo-Saharan, Eastern Sudanic, Nyimang (together with Affiti)

+ geographic distribution: spoken in Sudan, Kordofan province, in the Mandal hills west of Dilling

- number of speakers: language seems to be viable, given with 70.000 in 1982, many speakers settle outside the core area (greater Khartoum, Cairo)

- understudied language: first description dates back to 1938 by Stevenson, two articles by the same author; recently, some materials for alphabetization developed by SIL

+ typological properties:

   o agglutinating

   o tone language (with 3 level tones)

   o verb-final word order

   o head-modifier order in the noun phrase

   o dependent marking

   o no number marking on the noun, but on the verb, no grammatical gender

   o case marking by means of suffixes which follow the last modifier in a noun phrase

   o aspectual differentiation of verbs

+ characteristics of clause structure of main declaratives (1):

- in second position (whatever comes before): declarative particle *a* or *ba* (the second one with more emphatic value)

- there might be some other verbal particles, indicating TAM or information-structure

(1)   out-of-the blue:

Ábdù	á	ānúŋ	àrbíyā	nyíg
PN	DECL	3S.POSS	car	fix.PFV
[SBJ]		[OBJ	]	[V]
[TOP]		[FOC		]

Abdu repaired his car.

2. Information structure encoding in elicitation

+ the findings presented here are elicited using different questionnaires developed by the SFB 632 on information structure (cf. Skopeteas et. al. 2006), mainly translation tasks on the basis of question/answer or statement/action pairs, thus trying to simulate a natural discourse situation, and some experiments with visual stimuli

2.1 Term focus

+ besides the unmarked canonical structure (affirmative main clause) used in case of non-subject focus, there are two marked focus strategies

(2)   unmarked: affirmative main clause

      kɛ́r   **á**   àlfúl-ō   t̙àl

      woman DECL bean-ACC   eat.PFV

      {What did the woman eat? What did the woman do?}

      The woman ate (THE) BEANS. ~ The woman ATE (THE) BEANS.

+ cleft-like strategy: fronting of focused constituent, focus marker *nɛ* (developed out of the 3S imperfective form of the copula verb 'to be') – the only strategy to express focus on the subject

(3)   àlfúl bá   nê   ín   t̙àl

      bean   DECL FOC   3S   eat.PFV

      {What did the woman eat?}

      It was THE BEANS that she ate.

+ elliptical structure: dropping of subject, so that the non-subject is in clause-initial position, declarative particle *ba* seems to function as focus marker

(4)   àlfúl-o   **bá**   t̙àl

      bean-ACC   DECL   eat.PFV

      {What did the woman eat?} The woman ate (THE) BEANS.

      {What did the woman do?} The woman ATE (THE) BEANS.

→ all instances shown here represent cases of information focus, i.e. no contrast is involved – but as claimed by the speakers, all these structures are also used for contrastive focus

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2.2 Topic

+ the situation with topic marking is more difficult, as the language has a complex system of deictic elements which also serve the goal to mark topics – at first, the situation seems to look like in the following two examples

- subject in canonical categorical sentence can be interpreted as default topic

+ topic shift marked by *ḍʊ*

(5) kwáì gúrē á àʃì-ɔ̀ ṭwíl
man old DECL local.beer-ACC drink.PFV

ɛ́ **wìdéŋ kádíŋ ḍʊ** bóŋ ṭwíl
CNJ boy little ?DS water drink.PFV

{What did these men drink?} The old man drank local beer, and the young man drank water.

+ fronted external topic marked by background marker *ḍá*

(6) [aboutness (and frame setting) topic] - without context

kɛ́r nɔ́ **ḍá**, ɛ́ fúl-ò ṭàl
woman DEM TOP CNJ bean-ACC eat.PFV

This woman ate the beans.

3. Occurrences of some IS devices in spoken discourse

3.1 The cleft focus construction

+ when looking at using clefts for focus in the less controlled text types, the following can be stated:

Text type	Occurrences	Contrastive	Non-contrastive
Narrative	12 out of 70	4	8 (questions, confirmation /repetition, reason)
Discussion of young men	6 out of 89	1	5 (questions, confirmation, reason)
Discussion of old men	1 out of 49	-	1
Picture description: Tomato story	1 out of 10	1	-
Discussion on movie: Stolen	19 out of 29	19	-

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watch: Who is the thief?			
Finite story	2 out of 50	-	2
Narrative problem solving task	7 out of 47	-	7
further experiments	27 out of 113	?	?

+ altogether, cleft constructions are well attested in the more spontaneous discourse types, but occur rather seldom, with the exception of the movie-discussion whose setting was meant to trigger contrastive utterances

- in the narrative, the cleft construction appears at some peak in the storyline (1. statement that the bull gave birth, 2. the court situation, 3. solution of the case)

+ the data of these different text types reveal that the cleft construction can express contrastive and non-contrastive focus

- in spontaneous speech, this construction often occurs in environments, where the speaker felt the necessity to emphasize on something, even though there was no (overt) contrast involved - it was most often used to confirm or reinforce a statement, or even to express a cause-reason relation

contrastive focus

(7) ɛ́   kí   hán   ḍá   dɔ̀l   ēnyí   sùdán   kúḍī
     CNJ   thing   ?EMPH   TOP   there   2P   Sudan   call.IPFV
     ɛ́   nyákō   nɛ̄   àʃín   ā   há   kúḍū   ḍā   ḍíl
     CNJ   only   FOC   again   1S   NEG   come.IPFV   TOP   over_there
     The thing that you call Sudan is the only one I will not come to. (Ama text 270)

(8) {It is a story, the rabbit had a cow, and the lion had a bull. They became friends. One day they decided to take the cattle to the bush by turn. … So the rabbit's cow became pregnant and was about to give birth. And the lion realized that the cow will give birth without any doubt, yeah. Today was the turn for the rabbit to take the cattle to the bush. But then the lion realized that this cow is about to give birth and said: no, my friend, hmm, I will take the cattle to the bush, hmm. The cow then ... fortunately gave birth, hmm. … The lion took the calf. … And the rabbit realized that the cow gave birth and said: my friend, the cow has given birth, where is the calf? And he (the lion) said: What are you talking about? It is my (baby).}

a.   ɛ́   wúŋ   gwósóŋ   nɛ̀   súŋō
     CNJ   1S.POSS   bull   FOC   give_birth.PFV
     It is my bull who gave birth to a child. (twice) (Ama texts 151, 152)

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b. ɛ́   bár   ḓɛ́n   nɛ̄   túɽú

    CNJ   cow   ?DEM   FOC   cry.PFV

    and the cow cried {coming to you}. (Ama texts 153)

question

(9) wá   tāgí   nὲ   wáḓà   nyàlá   wánì-àgāg.

     people   which   FOC   speech one   speak.IPFV-DIR

     Which people speak the same language to each other? (Ama texts 121)

general statements (?)

(10) héh,   àḓū   àtáŋ   ānɔ́   á   kwā

      éh,   1S.?DS now   here   AUX   go.IPFV

      ká   tá   kɛ́r   nyākó   nɛ̄   à   ká   tóūŋ.

      FUT   PURP   woman   only   FOC   1S   FUT   marry.PFV

      I am now going just only to marry a woman. (Ama texts 275)

      (structure unclear: in-situ focus?)

(11) ɛ́   wá   tèbíó-ū   wáḓā   nɛ̄   dòrá   ḓūū

      CNJ   people   black-GEN   speech FOC   dislike.IPFV all

      ɛ́   ɛ́   sùdán   nìɛ̄   ḓ-úŋ   ḓɔ̄l

      CNJ   CNJ   Sudan   like   ?DS-GEN   here

      It is the black people they don't like at all there in Sudan. (Ama texts 292)

reason

(12) {From where we gonna have money? We are poor.}

      ɛ́   kīnɔ̄   nɛ́   ḓ-āu   áŋíḓū   kā   tōág   ḓāu   ānɔ̀.

      CNJ   thing   FOC   ?-LOC   1P.?DS   PC.FOC   sit.IPFV   ?-LOC   here

      Because of that, we are staying here. (Ama texts 312)

(13) {and the people said (to him, the fox): Come here! Where were you? We were waiting for you
      long time. He said...}

ā	ḍέ	kà	wár	ɛ̄	ká	ṭáīī,	ābá,	ābá
1S	RP	PC.FOC	want.PFV	CNJ	PC.FOC	come.PFV,	my_father,	my_father

ḍìà-yúŋ	gúsō,	gúsō	nɛ̄	súŋɔ̄	á	ká	tá	tílm-āg
big-GEN	bull,	bull	FOC	give_birth.PFV	1S	FUT	PURP	milk.PFV-DIR

I want to go, because the bull of my grandfather has given birth and I want to
milk it. (Ama Texts 0186)

→ occurrence of cleft-like focus construction in spontaneous speech shows

1. its importance within the IS system of the language, as could be found in all text
types

2. its function for expressing contrastive focus, but more often for highlighting simple
confirmation of general statements and for giving explanations of some general facts

3.2   Construction with *ba*

+ another focus strategy seemed to be the 'elliptical' one (example (4)), where the
subject was dropped, thus forcing the object into clause-initial position which then
was followed by the declarative particle *ba* (here particle *a* would not be felicitous) in
clause-second position

- this strategy is not attested in spoken discourse

- it was only found in the experiments carried out to elicit predicate-centered focus –
thus, with complex verbs, the non-verbal part of the predicate took sentence-initial
position in order to express focus on the state of affairs expressed by the predicate

(14) A: What is she doing again?

      B: How, what is she doing here?

      A:

έ	wìdέŋ	á	tὲtέŋ	múì.	
CNJ	child	?	up.RED	rise.IPFV	Oh, the child is getting up,

fífìr	**bá**	múì	
jump.RED	Ba	rise.IPFV	JUMPing up!

      B:

sùlέì	**bá**	mùʃɛ̀g,	
running	BA	run.IPFV	He is RUNNing,

fífìr	**há**	múì.	
jumping	NEG	rise.IPFV	he is not jumping up.

→ Is this particle really a focus marking device?

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+ occurs very often in question/answer pairs during elicitation (see examples (2) and (3)), often also as part of the cleft construction, but seldom in spontaneous discourse

- in general, it is restricted to main declarative clauses, i.e. it never occurs in dependent clauses and questions, but also not every main clause has such a particle

+ **ba** in the narratives (191 clauses): occurs exactly four times (once in direct speech (where it shouldn't be allowed), in a left-dislocated topic construction, twice in focus constructions (15)):

(15) wɔ̀dáŋ nɔ́ ... sálāb bá nɛ̄ há ṭōr.
      person DEM ... fox BA FOC NEG come.PFV
      The fox is the one who didn't come. (Ama texts 170)

- in three free discussions (now analyzed 170 clauses), *ba* occurs more often (8 times), e.g. in fronted topic constructions (16), for confirmation (17) and as answer to questions (18):

(16) {from that time they (names) are changed here and became Arab names. ...}
      à bá ḍá àḍú ée wórūŋ-ù áŋèr ḍá ee
      1S BA TOP 1S.?DS eh forest-GEN name TOP eh
      àḍù árgānú kíràŋ
      1S.?DS PN be_called.IPFV
      and me, by the name of the forest, I am called Arganu.

→ its cooccurrence with focus and topic marking devices somehow excludes an analysis as focus marker

(17) έ àbá ḍì-ún àŋèr bá kā wɔ̀sōḍ-ái nɔ́nnō.
      CNJ my_father grand-GEN name BA PC.FOC change.PFV-PASS here
      and my grandfathers name has been changed here. (Ama texts 245)

(18) {Are you born Ama, my friend?}
      à **bá** àmá-ḍ-áū kú súŋ-éì
      1S BA Ama-?DS-LOC EMPH be_born.IPFV-PASS
      I am born as Ama.

+ *ba* has scope over the whole clause in which it occurs, seems to convey / emphasize the declarative force of it

- its 'function' as focus marker relates to the fact that the 3S pronominal subject in these utterances was dropped because it was already known, therefore the particle came right after the now clause-initial element

- in case of focus on the object (example 4), the object was the only new constituent in the clause

- in case of state-of-affairs focus with complex predicates, the only elements in the clause were both parts of the predicate

→ thus, *ba* when emphasizing the declarative force of the proposition emphasizes the only possible focus exponents of the clause, viz. the object or the predicate – indirect focus interpretation

4.   Other features of spoken discourse

4.1   Word order changes

+ in elicitation, the word order seemed to be very strict SOV, the object by default being in focus – not a focus position as in other languages, as the subject is not allowed in direct preverbal position

- furthermore, the language tends to drop unnecessary, already known information by maintaining the verb in final position

- but in more spontaneous speech, this seemingly strict finality condition for the verb can be canceled by discourse considerations

→ Which elements can occur in postverbal position and under which condition?

locative phrase: new information, all new – adjuncts occur relatively often in that position

(19)   {Next year, my friend, I want to go back to Sudan. That's good, what is going on?}

ɛ́,	kā	wár	ɛ̄	ká	tá	kɛ́r	ṭōùŋ
eh,	PC.FOC	want	CNJ	FUT	PURP	woman	marry.PFV

ḍ-áū	dɔ́l	ḍá	wɔ́ŋ	àníŋ-ún	fáŋārá.
?-LOC	there	TOP	1S.POSS	mother-GEN	besides

I want to marry besides my mum. (Ama texts 264)

object: old information, but nevertheless important or added to avoid
misunderstandings, otherwise it would have been dropped

(20) {discussion about life as refugee in Cairo: we do such a bad job and we cannot
      learn here. Even someone goes to know something, they need money.}

àɲíd̪ū	wōnō	wɛ́-d̪ī	**gírʃ-ɔ́**?	àŋáā	tàbán	nɛ́-d̪ī.
1P.?DS	where	have.IPFV-P	money-ACC	1P	poor	be.IPFV-P

From where we gonna have money? We are poor. (Ama texts 311)

subject: here as after-thought, with another instance of the subject in canonical
position (must not be) – in postverbal position, the subject has to be marked by **d̪ʋ**

(21) | hm, | ts, | áaŋā | wɔ́ūn | ànúf-ō | ísm-ū |
|---|---|---|---|---|---|
| | hm, | ts, | 1P | 1P.POSS | father-GEN | name-ACC |

rà'ìr-ɛ́n	há	ʃíɛ̃	**àŋíd̪ò**.
change-?	NEG	do.PFV	1P.?DS

Hm, we didn't change our father's name. (Ama texts 249)

deictic elements: **d̪ʋ** at the end described as some kind of confirmation, without
preceding subject NP

(22) | woúŋ | wád̪ā | nɔ̀ | díīl | à | wén |
|---|---|---|---|---|---|
| 1P.POSS | speech | DEM | there | 1S | see.IPFV |

índ̪ò	ŋā	há	nyīg-ág	**d̪ō**.
3S.?DS	?	NEG	repair.PFV-DIR	?DS

The situation that I see there, it can't change. (Ama texts 287)

(23) | tɔ́àná | ā | nɛ́ | **d̪áū**. |
|---|---|---|---|
| PN | DECL | be.IPFV | ?-LOC |

{Eh, your wife from which place is she?} She is from Tunde. (Ama texts 294)

→ it seems that every sentence part can follow the verb, from the main participants of
the verb like subject and object to locative phrases; furthermore, deictic forms of
unclear meaning and function as well as some particles can be found there
- subject and object represent old information when occurring postverbally– as such,
they are normally dropped, the reason for their appearance here not clear
- adjuncts (temporal or locational) often occur in this position to take them out of the
preverbal focus domain (maybe to avoid 'crowding' (cf. talk by Skopeteas))

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- the informational status of the other elements is still unclear and needs further investigation
- especially the status of the deictic forms is unclear – the occurrence of *ḍa* and *ḍʋ* in postverbal position at least challenges their interpretation as topic marker

4.2   Clause-final particle gai

 + another particle that occurs postverbally and is only attested in spontaneous discourse, never in elicitation or in the experiments, is the particle *gai*

(24)   {interruption during story telling: Which people speak the same language to
        each other? Toana, Sàlárā, Kelara.}

        bèʃí   ásà   nɔ̀   wáḍá   nyálà   wɛ́n   **gáì**,   éé.
        house   three   DEM   speech   one   speak.IPFV   GAI   eh
        These three places speak the same language. (Cairo, Ama texts 0124)

- at a first look, this particle seems to be related to IS categories, even though it is not clear which one exactly
- informants claim it to be emphatic
→ = IS marker? What function does it have?

- Stevenson (1938: 176) described *gai* as follows: "Gai (or KAI) gives the idea of completion, going on until an act is finished."

(25)   aneḍu   ka   ṭal-ḍi   gai.
        3P.?DS   PC.FOC   eat.PFV-P   GAI
        They eat it up. (Stevenson 1938: 176)

→ *gai* as perfect marker? - would implicate:
- co-occurrence with perfective verbs
- past interpretation
- completedness of action
- deferred importance

- as such it would have been expected also in elicitation

with perfective verbs: completed action in past, with importance to speaking time

(26)   {you see, and I, I am so famous by my big name in Ama, our fathers call me
        Buror. The name Buror denotes basically someone who is strong.}

íṇḍū	á	āŋéŋēr	bóù	gáī
3S.?DS	DECL	?1S.POSS.name	put_on_top.PFV	GAI

Because of that they gave me this name {... and said: let him become strong.}
(Ama texts 207)

(27)   {and Arabs, my friend, (treat) us much, I think we are strong, our Ama people,
        ...}

ŋíl	ḍū	jò	háwēz-én	jǒ	ḍìán	ʃié	gáī.
tongue	?DS	few	keep-?	few	at_least	do.PFV	GAI

a few we have kept our language. (Ama texts 235)

with imperfective verbs: no completed action, no past time reference; in (24) one had
the impression of additional confirmation or emphasizing the fact expressed

(28)   {It has happened that a rabbit and a vulture were friends. And they were going to a party in the
        sky. ... The vulture carried it (the rabbit) on its wing and they both went to the sky.}

àní	nɔ́n	ṭā-ín	έ	wà	ḍū	fáɽāŋ	fil	gàì.
3P	here	go.PFV-DUAL	CNJ	people	?DS	drum	play.IPFV	GAI

When they went there, people were dancing with drums.
{And the rabbit said to the people "Wait and let me sing a sweet song to you."}
(The rabbit, the vulture and the bigmouth, Ama texts 0005)

in future context: expression of definite future, certainty

(29)   {All animals have gathered, the rabbit has presented his case.}

έ	ká	gàdíὲ	ʃiē	gáī, ...
CNJ	FUT	lawsuit	do.PFV	GAI

They (said they) will make a lawsuit, {and the fox was the only one who was
absent.} (Ama texts 0168)

(30) {Right now, you are not going to Sudan to see your parents there?}

bóbwē̄r   à   ká   ŋàḏā   ṭáī
no,   1S   FUT   how   go.PFV,

έ   sùlú   ŋá   ká   án   tí   gáī   ḍà   dɔ́l,   hm.
CNJ   Arab   ?   FUT   1S.DAT   catch.PFV   GAI   ?TOP   there,   hm.

No, how can I go? The Arabs will catch me over there.

(Cairo, young men, Ama texts 296)

→ *gai* does not only occur with perfective verbs, but also with imperfective verbs – interpretation of completed action in past difficult to achieve for all instances

- *gai* rather seems to emphasize the importance of the proposition with the meaning 'so it is' – related to expression of truth value

- in case of future events the certainty that the event will happen is expressed – truth value?

→ *gai* can be analyzed as IS marker, probably with the function of expressing truth value in these contexts, maybe with some relations to perfect reading

5. Conclusion

+ differences in use of IS devices across the text types

+ least differences observed in case of the cleft focus construction:

- occurred relatively seldom in free discussions, whenever the speaker felt the need to unambiguously express his meaning, or to point the hearer directly to the most important information

+ distribution of *ba* in naturalistic contexts has shown that it is not a focus marker per se, but rather a declarative marker

+ the postverbal domain can be filled by different elements – especially challenging here are the deictic forms for our understanding of marking of topics and/or subjects

+ in spontaneous speech, speaker make use of a richer inventory of IS devices, cf. *gai*

→ spoken discourse gave some clarifications as to how the observed structures are used in the language – on the other hand, the analysis presents problems of different kinds, mainly related to the interpretation of the IS configuration of a sentence in a given context

→ both elicitation and spontaneous discourse are necessary to understand the information structure of a language

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Abbreviations

Glosses:

Arabic numerals indicate a noun class or, when immediately followed by a gloss for gender and/or number, a person category.

ACC	Accusative	NEG	Negative
AUX	Auxiliary	OBJ	(Direct) object
CNJ	Conjunction	P	Plural
DAT	Dative	PASS	Passive
DECL	Declarative	PC.FOC	Predicate-centered focus
DEM	Demonstrative	PFV	Perfective
DIR	Directive	PN	Proper name
DS	Different subject	POSS	Possessive
EMPH	Emphatic	PURP	Purpose
FOC	Focus	RED	Reduplication
GEN	Genitive	RP	Reported speech
ID	Ideophone	S	Singular
INF	Infinitive	SBJ	Subject
IPFV	Imperfective	TOP	Topic
LOC	Locative	V	Verb

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