

Notional Units in H. E. Cushitic Narratives, and Kleist's "Gradual Completion of Thoughts while Speaking"

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1. Building Thoughts and Sentences

In his essay "*Ueber die allmaehliche Verfertigung der Gedanken beim Reden*" [On the gradual completion of thoughts while speaking], Heinrich von Kleist has analysed processes which he observed introspectively when thinking and speaking "on his feet".

That was nearly 200 years ago - but the same issue has received increasing attention recently: the process of planning a discourse while delivering it.

In his essay of 1806, Kleist not only sketches the whole process of text generation, but he also includes a functional analysis of discourse "fillers". He ascribes an important positive function to the "*ers*" and "*ums*" - the very items banned in the books on rhetorics then and now. But like Kleist in his time, some linguists who today work in the field of "artificial intelligence" also find that they cannot afford to disregard the "*ers*" and "*ums*": As they attempt to model dialogues or generate discourses, they are forced to define the exact functions of "discourse particles" like "*er*" and "*um*" in exact terms - as we shall see below.

The following passage from Kleist reads like a modern sketch of discourse generation - and it exemplifies the resulting discourse at the same time: "... *Aber weil ich doch irgendeine dunkle Vorstellung habe, die mit dem, was ich suche, von fernher in einiger Verbindung steht, so praegt, wenn ich nur dreist damit den Anfang mache, das Gemuet, waehrend die Rede fortschreitet, in der Notwendigkeit, dem Anfang nun auch ein Ende zu finden, jene verworrene Vorstellung zur voelligen Deutlichkeit aus, dergestalt, dass die Erkenntnis zu meinem Erstaunen mit der Periode fertig ist.*" [... Since, however, I have a dim idea which is distantly related to what I really want to say, my mind, after I have boldly started to speak, is forced to find a goal for the discourse I have started off, and my mind actually forms and moulds that nebulous idea into complete clarity, even while the discourse is progressing, and does so in such a way that, to my surprise, the full insight is gained when the full stop is there.]

After this fascinating breathless description of process and product, Kleist proceeds - quite surprisingly - to describe the function of the "*ers*" and "*ums*": "*Ich mische unartikulierte Toene ein, ziehe die Verbindungswoerter in die Laenge, gebrauche auch wohl eine Apposition, wo sie nicht noetig waere, und bediene mich anderer, die Rede ausdehnender Kunstgriffe, zur Fabrikation meiner Idee auf der Werkstaette der Vernunft die gehoerige Zeit zu gewinnen.*" [I inject some inarticulate noises, I stretch the timing of connectives - I may even use an apposition where it is not really needed - and likewise I employ various tricks which serve to expand the discourse, just in order that I find the time I need, in this workshop of reason, for the fabrication of my idea.]

2. To "er" or not to "er"

Like Kleist in 1806, some discourse researchers today would claim that from the very "*ers*" and "*ums*" and hesitations we receive clear signals about what is going on between the private world of a story teller and the public world of his audience. Maclay and Osgood were the first to introduce the concept of "filled pauses" into linguistic research (1959). And this is how Kowal (1983) summarizes her findings about "fillers":

- Fillers only occur in spontaneous speech.
- Fillers are not used by all speakers (some use pauses instead).
- Fillers prefer certain syntactic positions.
- Fillers can have important functions in discourse strategy.
- Fillers are no indicators of rhetorical deficiencies.

According to Kowal's statistics (1983), inexperienced speakers and experienced speakers - such as politicians well-versed in rhetorics - do not really differ in this regard:

Table 1: Statistics of "Ers"

Non-trained speakers	Politicians (Carter, Reagan, Schmidt, Strauss)
about 1.5 "ers" per 100 syllables	about 1.4 "ers" per 100 syllables

Such discourse "fillers" indicate difficult spots in the process of speech planning - especially difficulties with the selection of lexemes - and Kowal concludes that in the speeches she observed, the "ums" and "ers" and pauses serve to produce well-formed texts (1983:70). In the next sections, the functions of such discourse fillers will be investigated in a narrative from the Gedeo language.

3. Analysis of the Gedeo Narrative and its "Motifs"

For a linguist interested in text generation it is a privilege to work with speakers of Ethiopian languages: their oratory skills are proverbial. We will exemplify the analysis of a narrative by presenting a text in the Gedeo language (one of the five Highland East Cushitic languages of Ethiopia). The analysis of this particular Gedeo text (cf. the appendix of this article) is backed up by syntactic analyses of a few dozens of texts from Gedeo as well as texts from Burji and Sidamo. The narrative about "One Lion and Nine Hyenas" was told by Ato Worku Goollee who was about 28 years old when the recording was made. It is a fable; humorous on the surface - but on a deeper level, a complaint about hunger and suppression. The narrator is known to be a good speaker; he travels a lot, and he is used to speaking to large audiences.

In the appendix, the transcription and the translation of his story will be given in portions of "paragraph units" (separated by lines). Some of the finer points of the performance cannot be transcribed with traditional phonetic tools: For instance, the old hyena's fear and servility is depicted with stylistic finesse where anakoluthon, extra long consonants, extra benefactive suffixes, special speech style, and voice setting are employed. But the transcription captures "FILLER" morphemes, "SLOW" passages, and "REPETITIONS" which are also used for various rhetorical purposes (see lines 5b, 13e, 14b, 18s, and 19b of the text.)

The contents of the Gedeo narrative can be presented as follows: The story has two sections, each one with its own "peak". Both sections are built parallel to each other: The actors of the first section are nine young hyenas and a lion, while those of the second section are Father Hyena and the lion again. The first peak talks about the lion's deceit of the young hyenas. (In Longacre's terms this is a "pre-peak" with the notional function of an inciting moment, Longacre 1983:21f.). The second peak talks about the lion's deceit of Father hyena himself.

The plot of the story is built around an artful and amusing twist: For quite some time the story follows the pattern of a hero's adventure, and it is Father Hyena who assumes the role of the hero. So this narrative closely resembles a hero's adventure - as long as the build-up goes. This becomes clearer by a comparison with the first dozen of Propp's "hero" motifs, i.e, the first half of his motif list of "Zaubermaerchen":

Table 2: "Motifs" according to Propp and Dundes

Gedeo Line no.	Propp's no.	Propp's "Motif"	Dundes' "Motif"
1-4	Propp 1-4:	...	
5	Propp 5:	Villain receives information about the victim	
6-9	Propp 6:	Villain attempts to deceive victim	(Dundes: deceit)
10	Propp 7:	Victim submits to deception	(Dundes: deception)
11-12	Propp 8:	Villain causes harm and lack to the family	(Dundes: consequence, lack)
13-16	Propp 9:	Victim's misfortune or shortage is made known	
17-18e	Propp 10:	Agreement and decision to counteract	
18f	Propp 11:	Leaving home	
18g ...	Propp 12:	Being tested	

And at this point (i.e. in line 18g of the Gedeo text), the heroic adventure turns into another story about a hyena being made a fool. The listener, of course, has had some doubts about the identity of this hero, and indeed: The

hyena's great words about restoring justice turn out to be the overture to another great defeat. The folklore "motifs" relate to linguistic "paragraph" units:

"*Dramatic Scenes*" define the "paragraphs" of this text. Thus, wherever there is a change of (a) location, (b) number of [+animate] participants, or a change of (c) time, there also is a paragraph boundary. The same is true for (d) "action chains": A coherent "chain of actions" also delimits a paragraph unit.

Syntactically, the beginning of a paragraph is always marked either by a new adjunct as SETTING, or by a new subject as AGENT or TOPIC. The end of a paragraph is always marked by a finite verb. These finite verbs have certain suffixes (for PERSON, TENSE and CONCLUSIVE aspect) which always indicate a syntactic closure. Special CONCLUSIVE aspect suffixes (-ni and -'a) function as paragraph closures. Paragraph structures in the Burji language are quite similar, where paragraph closures are also signalled by FOCUS suffixes (-naa / -k'aa) and by a PAUSE particle ('ora).

Phonologically, there are the usual intonation clues which indicate that a scene is over. HEC languages are accent languages (i.e., tone does not interfere with intonation), and these languages employ a wide intonational range to express pragmatic functions.

Pragmatically and psycholinguistically, "hesitations" are of interest because they relate to the mental work of discourse planning. If - like Heinrich von Kleist - we are looking for cues which permit us to observe the orator's mind at work, then "hesitations" provide good evidence.

4. Hesitation Signals in the Transcription

Three distinct forms of "hesitation" have been transcribed. They are: [SLOW] "slowing down, [REPET] "repetition" for repair, and [FILL] "filler morphemes". In addition, [PAUSES] have been transcribed as "#".

"*SLOW*" stands for hesitation in the form of noticeably slower speech. "Noticeable" here means: about half as many words per time, and long pauses. Gedeo is not a slow language; and the speaker of this text speaks particularly fast. In his normal speech, there is an average of six to seven syllables per second. In the passages counted as "SLOW", this goes down to three.

"*REPET*" stands for speech "errors" which are followed by a repetition. It is always complete constituents which are repeated, and the repair is always successful. This form of hesitation seems to be used intentionally to characterize the hyena (cf. paragraph no. 18).

"*FILL*" stands for "filler morphemes" such as long shewas written as ['aaa], ['ee] - i.e., hesitation sounds which correspond to English "er" and "um". According to Hobbs (o. c. Aug. 1986), the "core meaning" of each filler gives distinct information about the mental processes in which the speaker is involved:

"*PAUSES*" # show that the speaker is silent - and most probably needs this time to prepare the next paragraph.

In the table here below, the various signals found in the Gedeo are compared with Hobbs' findings in English discourses and conversations (Hobbs 1986).

Table 3: Core Meanings of "ers" and "ums"

Gedeo	English	Core Meaning according to Hobbs
ee	um (er)	"the contents of the speaker's mental world momentarily is zero"
yoona	now	"subtopic switches, but main topic is maintained"
isshi	ok	"good match between what speaker and hearer intend"
aa	oh	"what follows has just occurred to the speaker"

The incidence of "PAUSES" can be predicted to a large extent. They clearly are discourse signals, and the following regularities can be established for the Gedeo language:

- Paragraph breaks are followed by a phonological pause (transcribed as #).
- There is no pause between a direct speech passage and the Verb of Quotation "to say" (Except in Questions).
- Head lines, Questions, and Vocatives are separated by pauses.
- In Tail-Head-Link passages, pauses separate sections with "old information" from those with "new".
- Phrases which constitute a SETTING or a THEME (in Dik's sense) are separated by pauses.

There is a number of morphemes which either separate speech passages from each other, or bind them together. The statistics for the incidence of these morphemes is given in Table 4.

Table 4: Paragraph Closures and Links

Percent	Morphemes which close a paragraph
100%	<i>-ni</i> "CONCLUSIVE Statement"; <i>-ʼa</i> "CONCLUSIVE Statement"
	Morphemes which serve as links inside a paragraph
75%	<i>-i</i> "SUBJECT"; <i>-ʼnaaʼa</i> "SAME TIME"; <i>-ttʼi</i> "SAME SUBJECT"; <i>-nna</i> "and"; <i>-kinni</i> "but"; <i>-wodda</i> "when"; <i>ʼudumiʼa</i> "after"; <i>kayyiʼa</i> "after"; <i>maleeʼe</i> "except"; <i>-le</i> "if"
25%	<i>-Zero</i> ; other morphemes

5. Syntactic and Pragmatic Functions in the Text Chart

The text (see the Appendix) has been broken up into predications, where every predication takes one line of the text chart. The charts represent the actual surface form of the story, and despite the arrangement in columns (representing syntactic and pragmatic functions), the actual wording of the story can be read from left to right in the correct order of constituents.

All predications follow each other in the same way as the events follow each other in time (cf. the column "PREDICATE"). These predications form the narrative TIME-LINE: "The foregrounded events succeed one another in the narrative in the same order as their succession in the real world. It is in other words an iconic order. The backgrounded events are concurrent [...] usually amplify or comment on the events of the main narrative." (Hopper 1979:214). Quotes (direct speech passages) and stative predicates (descriptions) are, of course, outside this time sequence. For this reason, all direct speech passages are marked as <<QUOTES>>, set off from the rest of the text.

The 4th and 5th columns (see the columns "Predicate" and "Time" in the table) constitute the time axis of the entire story: The chain of activities - i.e. whatever happens in a time sequence - is presented here by VERBS and their suffixes. Together with the verb suffixes which indicate temporal relations, these are the last columns of the chart, since Cushitic languages are SOV languages.

The 1st column contains the SUBJECT (see the column "Subject" in the table) which usually stays on as a TOPIC. Thus, in the beginning of a new paragraph, in this column there will be a subject NP or a subject pronoun - but the subsequent lines will be empty. The reason is, of course, that Gedeo is a pro-drop language and does not have NPs or pronouns in non-initial clauses; once the identity of the SUBJECT or TOPIC is established, no nominal forms are needed. The verb carries all information about the subject. Not only HEC languages, but most of the other Afro-Asiatic Ethiopian languages do the same.

The 2nd column contains the OBJECT (see the column "Object" in the table), and the 3rd column may have information about space.

The syntactic functions (SUBJECT, OBJECT, LOCAL ADVERB) are closely related to their semantic roles. Thus, in the 1st column it is obvious that it is animate "AGENTS" which function as SUBJECTS; in the 2nd column, PATIENTS function as OBJECTS, and in the third column, other roles are expressed as ADVERBIALS.

However, the Cushitic SOV order as reflected in the columns "Subject, Object, Predicate" does not bind the narrator to this order. Even inside the NP, the order of elements is not fixed but sensitive to focusing. There are

instances where the narrator chooses a "marked" order. Wherever the narrative does not conform to this order, this is conspicuous in the chart: Such "out-of-place" constituents are conspicuous because they stand isolated from the rest of the clause. (Cf. lines 5f-g, 18g-18h, 19a, 20a, 22b.) Such "out-of-place" phrases either provide the SETTING, the THEME or the CODA, i.e. they serve pragmatic discourse function as defined by Dik 1978 and forth.

6. Discourse Planning and Motif Units

As far as the speaker's planning process is concerned - the very process Kleist describes - from Gedeo narratives, and from the way noun phrases and verbs are developed into paragraphs, it would appear that a narrator goes through the following phases:

In paragraphs with a SETTING, this is the first constituent to be established. This constituent which can be planned without any consideration for the syntactic continuation of the sentence that lies ahead. After the setting follows a pause: This gives the speaker time to decide which participant to call on to the stage, and most probably it is the TOPIC or the AGENT - not the verb - which is called up. In syntactic terms, the topic or agent will become the SUBJECT of the clause - not just one clause, but several. Again, once the subject has been named, there will be a brief pause which of course gives the speaker some time to rehearse all actions to be performed by this agent, so that the next item to be selected is the first VERB.

It is unlikely that this verb demands an object or an adverb: Whenever the subject already presents NEW information, the verb will not be burdened with introducing even more new information. Clauses tend to introduce just one new item at a time. If as a NEW item, this will attract the FOCUS, and syntactically this may be an OBJECT or an ADVERB.

In terms of discourse planning, it is therefore very unlikely - or even impossible - that the lexical choice of the verb precedes the lexical choice of the subject. The choice of a subject can hardly be determined by the whole set of different verbs which follow it. Thus, in actual narratives, it is not the VERBS which determine the selection of the SUBJECTS (as some syntax theories might claim), but it is the TOPICS / SUBJECTS which determine the selection of the verbs - usually an entire series of verbs. Zubin (1979:476 fn.) says, "the speaker plans the subject noun, but only part of the lexical specification of the verb, before starting to speak. [...] findings do nonetheless cast doubt on the assumption that a speaker's choice of subject noun is inevitably determined by his choice of verb. It is plausible that the speaker frequently picks his subject FIRST and then decides on an appropriate lexical verb and grammatical voice, rather than the other way around."

When enough has been said about one TOPIC (in Dik's sense), the paragraph will be closed. This usually is the case after about 5 predicates. Then, in a new cycle, the next paragraph develops. This is an idealized presentation of the process which Kleist would call "developing the period". Actually, it can be considered the most likely course a narrator will take as he develops his narrative.

There are other factors which determine the narrator's choice of words: Some choices no longer are "free". A comparison of Gedeo narratives, for instance, has shown that not every period is developed afresh. Traditional narratives contain a large amount of pre-formulated material. For the Gedeo language this has become obvious when the "same" narrative was told on several occasions, or by different narrators. Many passages had the same wordings across different recordings.

7. Comparison of Cognitive Units and "Motifs"

In terms of discourse syntax, an interesting observation of "motif units" is that they follow each other in a pace of "extended sentences". So the syntactic units of "extended sentences" are the units which Chafe would call "Centres of Interest". They happen to be stretches of speech in which there is no "hesitation". Thus, a unit defined in this way relates well with the notional and experiential coherence provided by a "motif".

Concerning these cognitive units, Chafe (1980:26) says, "both a single focus of consciousness and a total memory have the status of cognitive 'units'. We are in some sense able to remember stories as wholes, and we are able to

focus our consciousness on small pieces of information." "But are there other kinds of cognitive units, intermediate between single focuses [i.e. centre of interest] and entire memories [i.e. narratives], to which closure can also be given?" Chafe's conclusion on this is (1980:29): "Spontaneous spoken language, then, suggests the existence of some sort of cognitive entity which I am calling a center of interest, and which corresponds roughly to what is expressed in a linguistic sentence. It bears a resemblance to a mental image, but often includes a set of events leading to a goal."

8. Comparison of Cognitive Units and "Hesitation" Patterns

Speech errors are not just everywhere. "Hesitations" marked as "SLOW, REPET", and "FILL" in the appendix come in regular patterns: Performance problems arise where there are inherent textual difficulties. For the speaker of this Gedeo text, for instance, it is true that every hesitation is related to a major "shift" in the discourse perspective. (But not necessarily vice versa). By "Shift" we mean both a change where the narrator chooses a new "topographical" viewpoint (after having walked to a different place in the narrative's world) - and a change where the speaker chooses a new mental attitude to articulate a new participant's thoughts (after having slipped into a different participant's identity). So the "hesitations" obey the following pattern:

[**SLOW**] passages usually accompany the beginning of a direct speech - i.e., a new constellation of participants as "speaker" and "addressee" (cf. lines 1a, 4d, 4k, 13d, 19e, 23b).

[**FILL**] passages are found in this function too, but they also indicate a change of location (cf. lines 5b, 12c, 18f, 18l).

[**PAUSE**] and [**REPET**] are less frequent, but they tend to indicate a change of perspective (cf. especially line 23b).

Quite often a speaker talks himself into a new discourse constellation - and then finds that he has no plans for presenting things from that perspective. The result is slow-downs and hesitations. This embarrassing situation can be averted for a moment by stuffing the "gaps" of discourse pre-planning with routine formulae. The most frequent of these formulae is the tail-head-link. Cf. the repetition of verbs after a paragraph boundary has been crossed in paragraphs 2-3, 3-4. When the time for new discourse material comes, the words which should carry NEW information have not been processed yet - and the resulting gap is filled with "filler morphemes", as in 3d. In the Gedeo Text there are several points where processing is difficult and - like Kleist has described it - where processing lags behind. This is the case with several transitions. (cf. esp. the transitions from 3c to 3d; 12c to 12d and 13c to 13d, 18). The gaps are bridged by means of tail-head linkage, by vocatives, or by other "pre-formulated" passages (Kirshenblatt-Gimblett 1975:196).

The analysis of Gedeo "hesitation" patterns can be compared with experiments made in entirely different languages. Butterworth (reported by Clark and Clark 1977) as well as Chafe have recorded narrative texts under similar conditions as was done for the Gedeo text. In these experiments, the recorded monologues were later scanned (a) for SLOW (hesitation) passages and PAUSES of a certain length, and (b) for the "beginning of a new idea" (Butterworth) - the unit called "centre of interest" by Chafe. Butterworth found that in his English sample of monologue speech, the beginning of "new ideas" and the incidence of "hesitations" go together. Clark and Clark mention one instance of a 200 word monologue where such passages of hesitation come in cycles and cut the text into 12 sections. This is a ratio of about 17 words per "hesitation section".

Chafe says (in "The Flow of Thought and the Flow of Language", 1979:163): "Whereas one cannot predict a sentence boundary from the presence of a hesitation, the presence of a sentence boundary makes a hesitation highly likely. And 88% of the occurrences of sentence-final intonation are followed by hesitations of some kind." Cf. also p.176: "where the transition is particularly difficult [... there#is] an unusual amount of hesitating and stumbling." These units are identified "episode boundaries or, in written language, as the boundaries of paragraphs [...] where the speaker hesitated for at least 2 sec."

The "New Ideas" or "Centres of Interest" are the larger units which human "Consciousness" (so Chafe) handles. For the English texts investigated, the size of this unit corresponds to what Chafe calls an "extended sentence". This is a unit of 22 words in Gedeo (e.g. in the text of the appendix), and it is a unit of 17 to 25 words in English.

The "Focus of Consciousness" (Chafe) or "Idea Unit" corresponds to what we put in one clause - a unit which averages to 5.5 or 6 words both in Gedeo and English. The sources for the figures of Table 5 are Butterworth 1977, Chafe 1980, Clark and Clark 1977 for English. For Gedeo, it is the present study. Both for Gedeo and English, the sizes of notional units ("Centres of interest" on the one hand, and "Focus on Consciousness" on the other hand) compare as shown in Table 5. The different units are measured by the average number of words in a unit. In spite of the affiliation to entirely different language families, the statistics for these patterns are very close to each other.

Table 5: Units and Their Sizes in Gedeo and English

Gedeo	English
22 words / 1 extended sentence constitute 1 "centre of interest"	17-25 words / 1 extended sentence constitute 1 "centre of interest"
5.5 words / 1 clause constitute 1 "idea unit"	6 words / 1 clause constitute 1 "idea unit"
Whereas 175 words / sample text	Whereas 200 words / sample text
Whereas 7.5 letters / average word	Whereas 4.5 letters / average word

10. Universals of "Hesitation Patterns" in Relation to Paragraph Sizes

As far as the universal validity of such analyses is concerned, it is assuring to compare these generalizations with the results of discourse studies by Grimes and Longacre: They have worked with a very broad empirical basis of data, and they were able to adduce discourse samples from a wide spectrum of the world's languages. Grimes finds units which he calls "information blocks", and these are defined by their "relative predictability" (1975:251f.). Longacre (in "The Paragraph as a Grammatical Unit"), when speaking about the surface structure of paragraphs in various languages, quotes examples of such blocks with up to 70 words (p.199), but most of the block sizes do number about 20 words (p.122 ff.).

What Chafe calls an "idea unit" (p.13) is in accordance with analyses by Kroll (idea unit), Crystal (tone-unit), Halliday (information unit) and Grimes (information block) as well as Clark and Clark's "idea unit". In all of these analyses, the orator co-operates with his hearers by using the same kinds of notional units.

The similarities which have been described here hold true across various differences such as language type, context of narration, or source of the information narrated. E.g., in Chafe's narratives, the information comes through the visual channel, while Gedeo narratives are oral traditions which were stored in the speaker's memory long before the performance.

Hesitation patterns correlate with motifs and discourse units - however different their syntactic and pragmatic expressions may be. Units of narrative texts which have been identified as "focuses of consciousness" or "idea units" probably are processed in similar ways independent of the way in which the information was stored or perceived.

And there is evidence that these units are also independent of language characteristics such as those which divide Gedeo from Burji, Sidamo or English.

References

- Ben-Amos, D., and K.S. Goldstein, eds., 1975, "Folklore: Performance and Communication", The Hague.
- Chafe, W.L., 1979, "The Flow of Thought and the Flow of Language", pp.159-182 in Talmy Givon, ed., 1979.
- Chafe, W.L., 1980, "The Deployment of Consciousness in the Production of a Narrative", pp.9-50 in W.L. Chafe, ed., 1980.
- Chafe, W.L., 1980, ed., "The Pear Stories: Cognitive, Cultural, and Linguistic Aspects of a Narrative Production", Norwood: Ablex.
- Dik, S., 1987, "Functional Grammar", Amsterdam: Dordrecht.
- Dik, S., forthc. "The Theory of Functional Grammar".
- Dundes, A., 1964, "The Morphology of North American Folktale", Helsinki.
- Givon, T., ed., 1979, ed., "Discourse and Syntax", N.Y.: Academic Press.
- Grimes, J.E., 1975, "The Thread of Discourse", The Hague: Mouton.
- Hobbs, J., o.c., Bonn, Coling 1986.
- Hopper, P.J, 1979, "Aspect and Foregrounding in Discourse", pp.213-241 in T.Givon, ed., 1979.
- Kirshenblatt-Gimblett, B., 1975, "A Parable in Context", pp. 105-130 in D. Ben-Amos and K.S. Goldstein, eds, 1975.
- Kleist, Heinrich von, 1806, "Von der allmählichen Verfertigung der Gedanken beim Reden", Werke, ed. H. Sembdner, 1952, vol.3, Knaur.
- Kowal, Sabine, 1983, "Zur Funktion von Fülllauten in spontaner Textproduktion: Zum Beispiel Helmut Schmidt", pp. 63-72 in "Textproduktion und Textrezeption", Forum Angewandte Linguistik, vol. 3, Tübingen: Narr
- Longacre, R.E., 1979, "The Paragraph as a Grammatical Unit", pp.115-134 in T. Givon, ed., 1979.
- Maclay, H., and C. Osgood, 1959, "Hesitation Phenomena in Spontaneous English Speech", Word 15, pp. 19-44.
- McKeown, K.R., 1985, "Text Generation: Using discourse strategies and focus constraints to generate natural language text", Cambridge: Cambridge University Press.
- Propp, V., 1958 (engl. transl.), "Morphology of the Folktale", The Hague: Mouton.
- Todt, D. 1981, "Zum Auftreten von Fülllauten in spontan gesprochenen Berichten", in Nova Acta Leopoldina 54, pp. 597-612.
- Wedekind, K., 1977, "Gedeo Work Songs and their Musicological, Linguistic, and Sociological Context", Paper prepared for the Conference "Political Institutions of Ethiopia", AAU / IES 1977; manuscr. 39 pp.
- Zubin, D.A., 1979, Discourse Function of Morphology: The Focus System in German, pp.469-504 in T.Givon, ed., 1979.

Appendix: The Gedeo Text

Transcription

<c> palatal affricate
<c' p' t' k'> glottalized consonants
<d'> implosive d
<sh> palatal grooved fricative (as in English)
<e o> mid open vowels (more open than IPA [e o])
<aa ee ii oo uu> long vowels
<bb cc' dd' ff ...> long or geminated consonants

Abbreviations

ACTU 'actual, mood/aspect'; ADV 'adverb'; AUTOBEN '(auto)benefactive'; BEN 'benefactive'; CAUS 'causative'; COLL 'collective/femin.'; CONCL 'conclusive mood/aspect'; CONTR.FOC 'contrastive focus'; DET 'determiner'; DS 'different subject'; EMPH 'emphatic'; F 'feminine'; FOC 'focus'; FILL 'filler morpheme; hesitation'; FORCE 'force, non-anim. agent'; GRND 'grounds, clause'; HYPT 'hypothetical mood/aspect'; IDT 'identification particle (it is)'; IMPF 'imperfect aspect'; INF 'infinitive'; INST 'instrument role'; INTT 'intent mood/aspect'; LOC 'location,3locative case'; M 'masculine'; NEUT 'neutral, non-tensed'; OBJ 'object'; PAST 'past tense'; PAUSE 'pause, hesitation'; PERF 'perfect aspect'; PL 'plural'; PURP 'purpose clause'; Q 'quotation, direct speech'; REC 'recipient, role'; REPET 'repetition, hesitation' S- 'sentence with a suffix'; SC 'same chain of events'; SET 'setting'; SG 'singulative'; SLOW 'slow speech, hesitation' SNG 'singulative derivation'; SOURCE 'source, role'; SS 'same subject'; ST 'same time'; SU 'same unit of action'; SUBJ 'subject'; THM 'theme, frontshifted'; V 'vowel indicating case'; fa. 'father hyena, reference nr.x3'; hy. 'hyena, reference nr.x1'; li. 'lion, reference nr.x2'; ox. 'oxen, reference nr.x4'; 0 'zero form'; 3PS '3rd ps.sg.'; QUOTE 'quotation, direct speech'.

Free Translation

1 *Nine Hyenas and One Lion Go Hunting.*

2 *There were nine hyenas and one lion, and they agreed to go hunting. 3 As they had agreed and had started to go, they came to a field and found ten oxen. 4 When they had found them and as they were returning, 'What is this?' they said. 'We will return and go back home.' And they went back to go home; so when they had come, (one) among the hyenas asked the lion: 'Father, divide these (ten) among us (nine)!' 5 'Aha!' This is just what I have been waiting for!' he had said, some time earlier, to himself, 6 the lion.*

'You are nine, therefore one ox will be for you.' 7 I, since I am one person, nine oxen will be for me. 8 So we will be ten each, and go home. 9 You just go home now!'

10 And saying this he went off, driving the nine oxen in front of himself. 11 They [the nine hyenas] were sad - they had sought food and failed to get any. So they took that one (ox) and went. 12 They took it and went home and when they arrived, at home there was however old Father Hyena. 13 When they told him the thing which had happened, he said:

'Oh no! People! Is this what happened? 14 That those (nine) should be for the one lion is something unheard of and a thing totally unknown!' he said. 15 'To you nine, nine (oxen) should belong; and for him who is one, one is enough, rather. What has happened to you that you bring (home) this one (ox) for yourselves?' 16 'Right now I will go to his place. 17 And this one we will not eat!' 18 'I will go to his place and bring those nine here.'

So he said, and as he was going, still far away, he saw the eyes of the lion, he became afraid and said:

'Friend!' and said 'How are you!' and 'What I brought for you - t...t...take it!' 19 'For my children - bones and hides is just what they want; therefore, you Sir, this is for you, the ox you need! 20 Originally my children ..., well, 21 take it for yourself!'

22 So that one ox which originally should have been the children's food - that ox he [Father Hyena] took away from them and went and served them - hunger.

23 Who can snatch food from a lion's mouth?

The Narrative, Full Text

No.	Subject	Object	Place	Predicate	Time
1a	x ¹ ;x ² [SLOW]	sallaane woraabeeyye ¹ -tt'a- nna mitte neenk'i ² - tt'a <i>nine hyenas - DET:OBJ-CON one lion-DET:OBJ</i>	adamo hunting	me"- [iyyo] depart [ure]	
	[hyenas ¹ +lion ²]				
1d		S-iyyo -NEUT/INF:OBJ			

Nine Hyenas and a Lion Go Hunting.

No.	Subject	Object	Place	Predicate	Time
2a		sallaane woraabeessa ¹ -nna mitte neenk'a ² <i>nine hyenas-CON</i> <i>one lion</i>		kand-e-e <i>become-PERF-ACTU</i>	-t'(V) <i>-SS</i>
2b	-ix ¹ ;x ² <i>[hyenas+lion]SUBJ</i>	'adamo <i>hunting</i>		me"-iyyo-te <i>depart-NEUT-DET</i>	-e'e <i>-PURP</i>
2c	x ¹ ;x ²			mari'ant-e-0-0 <i>consult:PL-PERF-3PS- ACTU</i>	

There were nine hyenas and one lion, and they agreed to go hunting.

3a	x ¹ ;x ²			mari'ant-e-0-0 <i>consult:PL-PERF-3PS</i>	-'e <i>-SU</i>
3b	x ¹ ;x ²			ke'-n-e-0-0 <i>arise-PL-PERF-3PS- ACTU</i>	-'e <i>-SU</i>
3c	x ¹ ;x ²			me"-a-te- <i>depart-IMPf-DET</i>	-'nV <i>-ST/LOC</i>
3d	-ix ¹ ;x ² [FILL] <i>[hy. +li]SUBJ</i>		badda'a mitte-'ni <i>field one-LOC</i>	gen-n-a-0-a <i>reach-PL-IMPf-3PS-INTT</i>	-wodda <i>-DS</i>
3e	x ¹ ;x ²	tomme lali-n-t'a kormoole ⁴ <i>ten cattle-GEN- DET ox:COLL.OBJ</i>	<i>find:BEN-PL- PERF-3PS-ACTU</i>	'alf-in-e-0-0	

As they had agreed and had started to go, they came to a field and found ten oxen.

No.	Subject	Object	Place	Predicate	Time
4a	x ¹ ;x ²	x ⁴ [ox]		'alf-in-e find:AUTOB-PL-PERF	-e -SU
4b	x ¹ ;x ²			hing-a-0-a return:PL-IMPF-3PS- INTT	-wodda -DS
4c	<< QUOTE 4c				
4d	'itti this:F SUBJ	maa...? [SLOW][FILL] what ... -?			
4e	x ¹ ;x ² [hy,+li]		hadi-'a home-DIR	wurri-hi-n-e turn-INTR-PL-PERF	-e -SU
4f	x ¹ ;x ²			hing-a-nn-o return:PL-IMPF-1PS- INTT	-ni -CONCL
4g	x ¹ ;x ²			h-iiyo- say-NEUT	-ti -ST/INST
4h	x ¹ ;x ²		hadi-'a home-DIR	wurri-hi-n-e turn-INTR-PL-PERF	-e -SU
4i	x ¹ ;x ²			hing-e return:PL-PERF	-e -SU
4j	x ¹ ;x ²			dang-e-0-e come:PL-PERF-3PS- ACTU	-tt'(V) -SS
4k	-i ¹ [hy.]SUBJ		woraabeeyye ¹ -te giddii-'ni ... [SLOW] hyena:COLL-IDT inside-LOC ...		

No.	Subject	Object	Place	Predicate	Time
4l	<< QUOTE 4 l				
4m	x ² [lion]	no'o ¹ -ke 'anna ² our[hy]-IDT father	! !		
4o	x ² [lion]	x ⁴ [oxen]	no'o ¹ -a us[hy.]-REC	k'ood-i divide-SG:IMPV	-ta'a! -now >>

4p x¹
[hy.] hi-n-e-0-e- -tt'(V)
say-PL-PERF-3PS-ACTU -SS

4q -ix¹ neenk'a² k'or-r-e-0-0
[hy]SUBJ lion:OBJ ask-PL-PERF-3PS-ACTU

When they had found them and as they were returning (what's this?) they said: 'We will return and go back home' and they went back to go home; so when they had come, (one) among the hyenas asked the lion: 'Father, divide these (ten) among us (nine)!'

5a	<< QUOTE 5a				
5b	-	'aa [FILL] aha	! !		
5c	x ⁴ [oxen]			tenne-n-de this:F-EMPH-IDT-THM	
5d	x ² [lion]			hekk'-a'e-nn-a wait:SG-IMPV-1PS-INTT	-! >>

5e x² hiyy-e-0-e- -tt'(V)
say:SG-PERF-3PS-ACTU -SS

5f -i² woldo;
[lion]SUBJ earlier -SET

5g x² godobi giddo
belly inside THM

6a neenk'i²
lion

No.	Subject	Object	Place	Predicate	Time
6b	<< QUOTE 6b				
6c	ha'no ¹ [hy.]you:PL		sallane-ke nine-IDT	kad-d-in-e-mma become-2PS-PL-PERF- PAST	-t'tee'e -GRND
6d	mitti kormi ⁴ one ox:SUBJ		ha'no ¹ -a you[hy]PL-REC	kad-a-0-a happenSG-IMPF-3PS- INTT	-ni -CONCL
7a	'ani ² I[lion]SUBJ		mitte(-ke) one(IDT)	kad-e-nn-e happen:SG-PERF-1PS- ACTU	-t'tee'e -GRND
7b	sallane kormi ⁴ nine ox:SUBJ		'ani ² -a me-REC	kad-a-0-a- happen:SG-IMPF-3PS- INTT	-ni -CONCL
8a	x ¹ ;x ² [hy+li]		tomme-ke tomme- ke ten-IDT ten-IDT	kand-e-0-e- happen:PL-PERF-3PS- ACTU	-naa'a -ST
8b	x ¹ ;x ²		mine home	'aang-a-nn-o enter:PL-IMPF-1PS-INTT	-ni -CONCL
9a	x ¹ [hy.]			'aag-g-e -! enter-PL-IMPV -!	-ta'a-nna now-CON >>
10a	x ² [lion]			h-iiyo- say-NEUT	-ti -COM/INST
10b	x ²	sallaane kormoole ⁴ nine oxen:OBJ	'isi 'edi-'a him in:front-DIR	ga'n-e beat:AUTOBEN:SG-PERF	-e -SU
10c	x ²			me"-e-0-e depart:SG-PERF-3PS- ACTU	-ni -CONCL

'Aha!' This is just what I have been waiting for!' he had said, some time earlier, to himself, the lion. 'You are nine, therefore one ox will be for you.' I, since I am one person, nine oxen will be for me. So we will be ten each, and go home. You just go home now!' And saying this he went off, driving the nine oxen in front of himself.

No.	Subject	Object	Place	Predicate	Time
11a	'insa'ne ¹ <i>they [hy.]</i>			yaand-e-0-e- <i>be:sad:PL-PERF-3PS- ACTU</i>	-tt'(V) -SS
11b	-ix ¹ <i>[hy.]SUBJ</i>	x ⁴ <i>[ox]</i>		hans-e <i>seek:PL-PERF</i>	-e -SU
11c	x ¹	x ⁴		gonp'-e-0-e <i>miss:PL-PERF-3PS-ACTU</i>	-tt'(V) -SS
11d	-ix ¹ <i>[hy.]SUBJ</i>		'okkone mitte ⁴ -ni <i>that one-LOC</i>	'aa'-n-e <i>take-PL-PERF</i>	-e -SU
11e	x ¹			me''-in-e-0-0 <i>depart-PL-PERF-3PS- ACTU</i>	
<i>They (the hyenas) were sad - they had sought food and failed to get any. So they took that one (ox) and went.</i>					
12a	x ¹		hadi-'a <i>home-DIR</i>	'aa'-n-e <i>take-PL-PERF</i>	-e -SU
12b	x ¹			mar-r-e <i>go-PL-PERF</i>	-e -SU
12c	x ¹			gen-n-a-0-a <i>reach-PL-IMPF-3PS-INTT</i>	-wodda -ST/while
[FILL] [REPET]					
12d	woraabeeyye ¹ -ti-ki ³ 'anni ³ kinni <i>hyena:COLL-F-DET FATHER:SUBJ CONTR.FOC</i>			c'im-e <i>age:SG:M-PERF</i>	-e -SU
12f	x ³ <i>[fath.]</i>		mine <i>home</i>	hed'-e-mma- <i>be:there:SG-PERF- 3PS:PAST</i>	-(n)ni -CONCL

They took it and went home and when they arrived, at home there was however old Father Hyena.

No.	Subject	Object	Place	Predicate	Time
13a	x ¹ [hy.]	tenne-e'e that-OBJ			
13b	[yaa.] [affair]			kad-d-e-e(ttV) happen-SG:F-PERF- ACTU(DET)	
13c	x ¹ [hy.]	S-tt'a yaane duucca (x ³) DET affair all:OBJ		kul-l-a-0-a tell-PL-IMPF-3PS-INTT	-wodda -DS
13d	<< QUOTE 13 d				
13e	[SLOW] 'aaa kekekeke [FILL] 'adana! aha, oh people!				
13f		[yaa.] [affair]		tenne-te this-IDT	-?
14a	x ⁴ [ox]		neenk'i ² mitti-'a lion one-REC	kad-d-a-a-tt'(e) happen-F:SG-IMPF- INTT-DET	
14b	x ⁰ [yaane] [SLOW] [affair]		boga-ke-'ni country-DET- LOC	lak'-k'-e hear:F:SG-PERF	-'e -SU
14c	x ⁰ [yaane] [affair]			'egend-e-ba-a(ttV) knowPASS:SG:F-PF- NEG-PAST(DET)	
14d	[yaa.] [affair]			S-tt'e yaane DET:IDT matter	-ni -CONCL
14e	x ³ [fath.]			hiyy-e-0-e say:SG-PERF-3PS-ACTU	>>

When they told him the thing which had happened, he said: 'Oh no! People! Is this what happened? That those (nine) should be for the one lion is something unheard of and a thing totally unknown!' he said.

No.	Subject	Object	Place	Predicate	Time
15a	<< QUOTE 15				
15b			ha'no ¹ sallaane-ba <i>you:PLACE-THM</i>		
15c	x ⁴ <i>[ox]</i>	sallaane ⁴ <i>nine</i>	ha'no ¹ -a <i>you:PL-REC</i>	gey-a <i>reach:SG-IMPF</i>	malee'e <i>POSIT</i>
15d	x ⁴		'isi mitte-ba <i>his PLACE-THM</i>		
15e	x ⁴ <i>one</i>	mitte ⁴		gey-a <i>reach:SG-IMPF</i>	malee'e <i>-POSIT</i>
15f	x ¹ <i>[hy.]</i>		hitta <i>how</i>	kad-d-in-e-e(kV) <i>happen-2PS-PL-PERF- ACTU</i>	
15g	x ¹			S-ke <i>IDT</i>	
15h	x ¹	konne ⁴ -e'e <i>this-OBJ</i>	ha'no ¹ -ni <i>you:PL-LOC</i>	'idag-g-in-a-a(kV) <i>bring-2PS-PL-IMPF- INTT(DET)</i>	
15i	S-ki <i>[ox]-DET:SUBJ:TAIL</i>	?			>>

'To you nine, nine (oxen) should belong; and for him who is one, one is enough, rather. What has happened to you that you bring (home) this one (ox) for yourselves?'

No.	Subject	Object	Place	Predicate	Time
16a	<< QUOTE 15 ctd.		ta'a-nna <i>now-CON-THM</i>		
16b	'isi ² <i>he [lion]SUBJ</i>		[boo.] <i>[place]</i>	hed'-e-0-e <i>be:there:SG-PERF-3PS- ACTU</i>	
16c	x ³ <i>[fath.]</i>	x ⁴ <i>[ox]</i>	S-boonco <i>PLACE-SNG</i>	'aad'-a'e-nn-e <i>take:SG-IMPFF-1PS-ACTU</i>	
17a	x ¹ ;x ³ <i>[hy+fa]</i>	konne ⁴ -e'e <i>this-OBJ</i>		'ind-a-bo-'n-o <i>eat:PL-IMPFF-NET-1PS- INTT</i>	-ni <i>-CONCL</i> >>

'Right now I will go to his place. And this one we will not eat!'

No.	Subject	Object	Place	Predicate	Time
18a	<< QUOTE 15 ctd. x ³ [SLOW] [REPET] [fath.]		'isi ² (ke)-boonco his(DET)-place	mar-e-nn-e go:SG-PERF-1PS-ACTU	-tt'(V) -SS
18c	-i ³ SUBJ[fath.]	'okkone ⁴ sallaane that nine:OBJ	mini-'a home-DIR	'aad'-e take:SG-PERF	-e -SU
18d	x ³			dag-a-nn-o come:SG-IMPV-1PS-INTT	-ni -CONCL >>
18e	x ³		h-iyyo -ti say-NEUT- INST/COM		
18f	x ³ [FILL] [REPET]			mar-a-0-a go:SG-IMPV-3PS-INTT	-wodda -DS
18g	x ³		bayyii-'ni far-LOC-SET		
18h	x ³ lion-DET	neenk'i ² -tt'a 'ille eyes:OBJ		'uud-e-e see:SG-PERF-3PS-ACTU	-tt'(V) -SS
18j	-i ³ [fath]SUBJ			sodaat-e-e- fear:SG-PERF-3PS-ACTU	-tt'(V) -SS
18k	<< QUOTE 18 k -i ³ [fath]SUBJ				
18l		'abbo! [FILL] Friend!			>>
18m	x ³ [fath.]			hiyy-e-0-e say:SG-PERF-3PS-ACTU	-ccinni 'ud. -SC
18n	<< QUOTE 18n				
18o	x ² [lion]		nage'i-n-gi-nni peace-EMPH- DET-PROX	het'-t'-e-tt-e -? exist-2PS-PERF-2PS- ACTU	>>
18p	x ³ [fath.]			hiyy-e-0-e say:SG-PERF-3PS-ACTU	-ccinni 'ud. -SC
18q	<< QUOTE 18 q				
18r	x ³		'ate ² -e'e you:SG[lion]OBJ	'idag-e-nn-e(cco) bring:SG-PERF-1PS- ACTU(SNG)	
18s	x ² [lion]	S-cco ⁴ SNG:OBJ [ox]		'addd'-i [SLOW] ! take:AUTOB:SNG:EMPH- IMPV	>>

'I will go to his place and bring those nine here.' So he said, and as he was going, still far away, he saw the eyes of the lion, he became afraid and said 'Friend!' and said 'How are you!' and 'What I brought for you - t...ake it!'

No.	Subject	Object	Place	Predicate	Time
19a	<< QUOTE 18 ctd.		'an ³ -t'e 'oose ¹ -a my-DET children- REC:THM		
19c	mik'u-wwa-ti-nna bogu-wwi bone-s-DET-CON hide-s:SUBJ		'insa'ne ¹ -a them-REC	hank'at-amma- lack:SG-IMPF-3PS:PAST	-le -CONDIT
19d		tee ² you:SG:F:VOCAT			
19e	'ati ² ... [FILL] [SLOW] you:[lion]SG:SUBJ-THM				
19f	x ⁴ [ox]			'ati ² -a-ke you:SG-REC-IDT	-ni -CONCL
19g	x ⁴ [REPET]			has-is-a-0-a(kV) need-CAUS-IMPF-3PS- INTT(DET)	
19i	x ⁴			S-ke korma ⁴ -	-ni.
20a	x ¹ [fath.]		'an ³ -t'e 'oose ¹ -a ... my-DET children- REC-THM ...	earlier-SET/THM	woldo
21a	x ² [lion]	x ⁴ [ox]		'ad'-d'-i take-AUTOBEN:SG-IMPV	-! >>

'For my children - bones and hides is just what they want; therefore, you Sir, this is for you, the ox you need! Originally my children ... Take it for yourself!'

No.	Subject	Object	Place	Predicate	Time
22a	x ³ [fath.]	konne-nni this-EMPH		hiyy-e-0-e say:SG-PERF-3PS-ACTU	-tt'V -SS
22b	'oose ¹ children:SUBJ:THM				woldo earlier-SET
22c	x ¹ [hy.]	korma ⁴ ox:OBJ		'it-t-e- eat-F-PERF	-'e -SU
22d	x ¹			gal-d-u-mma(kV) spend:time-F-HYPT-3PS- PAST(DET)	
22e	x ³ [fath.]	S-ka ⁴ DET[ox]	'oose ¹ -naa-'ni children-SOURCE	'ad'-d'-e take-AUTOBEN:SG-PERF	-'e -SU
22f	x ³			mar-e-0-e go:SG-PERF-3PS-ACTU	-tt'V -SS
22g	-i ³ [fath.]SUBJ:CAUS hungerFORCE:OBJ	'agabo		gal-c-e-0-e live-CAUS:SG-PRF-3PS- ACT	-niii -CONCL
So that one ox which originally should have been the children's food - that ox he took away from them and went and served them - hunger.					
23b	[SLOW] [PAUSE]		neenki ² -n-ke 'afo'o-naa'ni lion-M-DET mouth-SOURCE- THM		
23c		maala ⁴ meat:OBJ-THM			
23d	x ⁰			'ayye0-te who?-IDT	? ?
23e	x ⁰ [who]SUBJ	x ⁴ [meat]OBJ	x ² [mouth]	ful-c-a move:out-CAUS:SG-IMPF	
Who will snatch his meat from a lion's mouth?					