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dramatic and imaginative stories of life and death, the times' binding of man, or fateful events in the family and in the country as a whole. The preoccupation with the story is a characteristic trait of the literature of the 90ies. In a time, when the old values are falling apart, and everything is purely ornamental, surface without depth on the threshold to the new millennium, the author seems to say that the story remains a communicator of common human experiences and basic moral attitudes.

(translated by Jon Bojsen Kvaerndrup)

RIASSUNTO

Il tema principale della produzione letteraria di Peter Høeg è la civiltà occidentale. Nei suoi romanzi e racconti egli scrive in maniera critica delle idee e delle forme di consapevolezza che hanno caratterizzato la cultura occidentale, idee che egli fa risalire al Rinascimento, all'Età dell'Illuminismo ed alla Rivoluzione Industriale, quando la mentalità scientifica si afferma in modo definitivo. Peter Høeg si pone in un rapporto critico nei confronti di tutto questo concetto di civiltà e di evoluzione. La civiltà nelle sue opere diventa sinonimo di coercizione, oppressione, controllo. L'uomo sfrutta la propria posizione di supremazia per strenuare la natura; dunque la catastrofe ecologica è in agguato. Tuttavia le radici del Rinascimento e dell'Illuminismo non vengono rigettate in modo assoluto: ne La donna e la scimmia l'eroe prende il nome dal più grande pensatore ed umanista del Rinascimento, Erasmo da Rotterdam; inoltre la produzione letteraria di Peter Høeg ha un carattere intellettuale e scientifico e si nota il profondo fascino esercitato dall'accumulare conoscenza e dall'indagare il mondo.

Oltre a comporre una sorta di storia della civiltà, Peter Høeg circoscrive in forma di racconto che cosa voglia dire essere uomo. Fondamentalmente come autore egli ha una profonda fede nel potere dei racconti di riuscire sia ad ammaliare il lettore sia a creare senso, ordine e coerenza. Questa passione per il racconto è un tratto caratteristico della letteratura degli anni '90. In un'epoca dove i vecchi valori si stanno dissolvendo non tutto è puro ornamento, superficie senza profondità, sembrano dire gli scrittori alle soglie del nuovo millennio; il racconto resta come mediatore di esperienze umane comuni e di principi morali fondamentali.

Peter Høeg si ispira sia ad una tradizione realistica che fantastica, magica. Inoltre in ciascuna delle sue cinque opere egli muta consapevolmente stile.

Peter Høeg nel suo uso umoristico, giocoso e sperimentale di generi e tecniche narrative è un tipico scrittore postmoderno; ma nella sua opera letteraria si verifica una chiara evoluzione da una sperimentazione postmoderna di forma e contenuto ad una forma narrativa più classica.

FUNCTIONAL GRAMMAR
«ON IT SITS A DOG»

In our century linguistics has been dominated by three scholarly schools: Structuralism, Transformational Grammar and Functionalism. Structuralism is primarily an older European school with names such as Ferdinand de Saussure (Saussure 1916), Louis Hjelmslev (Hjelmslev 1943, 1970), Jean Piaget (Piaget 1968), and A. J. Greimas (Greimas 1966); Transformational Grammar is primarily an American school founded by Noam Chomsky (Chomsky 1957, 1965), and Functional Grammar is a new and growing school inspired by philosophers such as J.L. Austin (Austin 1962), H.P. Grice (Grice 1967) and J.R. Searle (Searle 1983, 1995), and developed by W. Chafe (Chafe 1994), T. Givon (Givon 1984), M.A.K. Halliday (Halliday 1994), Simon S. Dik (Dik 1989), Sperber and Wilson (Speber & Wilson 1986), and Danish scholars too: Peter Harder (Harder 1996), Michael Hershund (Hershund & Sørensen 1993, 1994). In this article I will criticise the foundation of Structuralism and Transformational Grammar, and introduce the principles of Functional Grammar, in my own variant (Togeby 1993).

Structuralist Grammar

Structuralist Grammar is founded on a set of dichotomies: langue and parole, signifiant and signifié, synchronic linguistics and diachronic linguistics, form and substance.

La langue is the structure of the language, the set of rules shared by all people speaking the language, and *la parole* is language use, the speech of the individual in specific historical situations. The object of structuralist linguistic is primarily la langue, and not la parole.

Structuralist grammar is a semiotics that deals with the life of signs in the society. The concept of a sign is defined as the smallest unit with an arbitrary but stable relation between *signifiant*, expression, form, and *signifié*, content, meaning. The lexical Danish word *hest*, is a sign with a fixed order of letters as the signifiant, and with a stable association to the idea of a 'horse' as the signifié.

The linguistic sign is often represented by an illustration such as the following, and it is explained that the relation between signifiant, e.g. Danish h-e-s-t (*horse*) and signifié, e.g. 'a large animal

which people ride' is like the relation between two sides of a coin, or two sides of a sheet of paper; it is stable and every time you have one side, the signifiant, you also have the other side, the signifié, and vice versa; a change in one side will necessarily cause a change on the other side.

The concept of sign in Structuralism
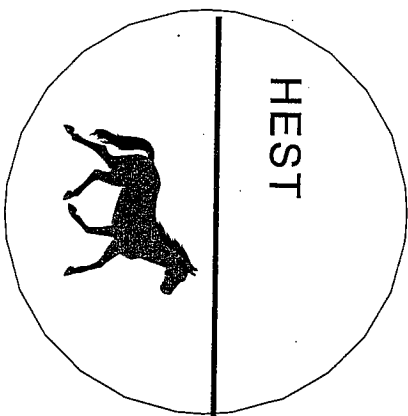
A 'sign' is defined as the unity of signifiant and signifié; They are mutually depending on each other.

Saussure also distinguished synchronic linguistics (studying language at a given moment) from diachronic linguistics (studying the changes of a language over time).

Structuralist grammar describes the immanent structural forms of the language, and not the physical or psychological substances. Linguistic units (phonemes, signs) are defined, not by positive substantial realizations, but negatively by their opposition to other units inside the system of differences and oppositions which constitutes la langue.

In syntax one important feature of form (as opposed to substance) is word order and the possibility of permutation, the fact that units can be moved about in the sentence according to certain rules. One example of that is the so called sentence scheme, constructed by Danish grammarian Paul Diderichsen (Diderichsen 1946). All Danish main clauses will have the following word order:

Front Position	finite verb	subject	adverbial
Helksen (The witch)	havde (had)	–	straks (immediately)
–	havde	helksen	straks
Soldaten	havde	helksen	straks
Sit forklæde	havde	helksen	straks
Oppe på landevejen	havde	heksen	straks

Verbal	Objects		Adverbial
givet (given)	soldaten (the soldier)	sit forklæde (her apron)	oppe på landevejen (on the highway)
givet	–	sit forklæde	oppe på landevejen?
givet	soldaten	sit forklæde	oppe på landevejen
givet	soldaten	–	oppe på landevejen
givet	soldaten sit forklæde		–

The Front Position is a position to which all constituents can be moved, leaving their original position empty, thus maintaining the mutual order of the remaining parts of speech.

Another important axiom of structuralist grammar is the principle of compositionality:

The principle of compositionality
The meaning of a linguistic unit is dependent on the meaning of it's parts and the meaning of the way they are composed.

So if we know the meaning of each morpheme in a sentence, and we know the meaning of the word order and dependency structure of the sentence, we know the meaning of the sentence. If we know the meaning of the words *can, you, pass, the* and *salt,* and we know that the word order is interrogative, we know that the sentence *Can you pass the salt* means 'Is the person I'm speaking to able to hand over the salt caster?'

Structuralist grammar can be criticised along the following lines: 'la langue' does not exist in reality, it is a hypostasis of the rules reconstructed by the grammarians. In the real world linguistic rules only exist as human cognitive abilities, capabilities and faculties that are revealed in communication through time. Grammatical rules are *knowing how* of the language users, i.e. procedural knowledge, and not *knowing that*, i.e. declarative knowledge.

Consequently la langue can not be the object of investigation; only uttered texts, la parole, will give evidence to the reconstruction of grammar in declarative form. The grammar can not consist of rules such as permutation rules, for the brain is not capable of both constructing and subsequently permute the order of the constituents in real time. Permutation can not be part of normal speech activity, and consequently not part of the grammar.

When communication, language use, is taken as the object of linguistics, the linguistic description always involves the mutual awareness of the language of the interlocutors (they always have to consider if the other person knows the word), and for that reason it is not possible to separate synchronic and diachronic linguistics. All linguistic investigation is both diachronic and synchronic.

It is an illusion to think that the relation between signifiant and signifié is stable, that one unit of expression, a spelling of a word, always corresponds to one sense or one unit of meaning. All minimal units of signifiant, i.e. morphemes, have multiple meanings: the English morpheme -s, has the meaning 'plural' in *girl-s*, and the meaning '3. person singular present tense' in *sleep-s*, 'genitive' in *Peter's*. The Danish word *høj* (high) has many senses: 'tall', i.e. 'of great upward extend', 'loud', i.e. 'of great acoustic volume', 'high-pitched', i.e. 'towards the top of the scale of tones', and so on.

All morphemes (minimal units of expression) have many senses or meanings; if the different senses are totally unrelated, like the meaning of English -s, it is called *homonymy*, and if the senses are related historically or metaphorically, like the senses of Danish *høj*, it is called *polysemy*.

The fact of the overwhelming polysemy of language means that the principle of compositionality will not work. We don't know exactly the meanings of the single morphemes in a sentence, and consequently we cannot know the meaning of the whole sentence. The meaning of a sentence depends not only on the meaning of its parts, but also of the role the sentence plays in the text or speech of which it is itself a part. When you utter *Can you pass the salt!* at the dinner table it is evident than it could not count as a question (as the compositional meaning would indi-

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cate), because all participants in the conversation know that the speaker already knows the answer: the interlocutor is able to hand over the caster. Of this reason the utterance of the sentence will be understood as a request for salt, and not as a question. The interlocutors will ascribe the meaning to the sentence in accordance with the principle of contextual functionality:

The principle of functionality
The meaning of a linguistic unit depends on its relevant function in relation to its context.

It is not relevant to the listener to ask about something that the speaker already knows, but highly relevant to ask for something that is not at his or hers disposal.

Tranformational-Grammar

Transformational Grammar, or Generative Grammar, is like Structuralist Grammar characterised by oppositions between the consistent system of competence in a homogeneous speech society and the individual and accidental performance, subject to fatigue and distraction.

In the study of competence a distinction is made between a base component that generate deep structure, and transformational rules that produce surface structures, between lexical rules that derive interpretations from deep structures and phonetic rules that derive articulation from surface structures. The motor in generative grammar is syntax; phonetic and lexical interpretations are derived from the syntactic skeleton, and the syntactic rules work autonomously, without phonetic or lexical rules.

This distinction between syntax and application of syntactic structures on sound and meaning is based on the observation that language users unanimously will call the sentence *colourless green ideas sleep furiously* grammatical acceptable, though it is semantically weird. Thus acceptability tests are the empirical basis for grammar.

Generative Grammar is based on a mathematical theory of how it is possible to generate an infinite number of well-formed sentences out of a finite number of lexical items and a finite number of rules in an algorithm. It is a claim that the rules have psychological reality, that the rules describe how the brain works. The layout of the linguistic theory in transformational grammar is illustrated in the following figure:

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▲TRANSFORMATIONAL RULES▲	▶PHONETIC RULES▶	phonetic interpretation
▲GENERATIVE RULES▲	▶LEXICAL RULES▶	semantic interpretation
START		

The white boxes (italics) are empirical phenomena, grey boxes (capitals) indicate rules in the theory, darker boxes indicate theoretical constructs, and the START-box is the axiom of the theory: the start signal in the autonomous syntactic generative system of rules.

Transformational generative grammar is sensible the same type of critique as structuralist grammar. The idealised perfect competence is a fiction, and it is very improbable that people when speaking produce the syntactic skeleton before they know what to talk about. (Chomsky's theory has been refined as a psychological theory (Fodor 1982) according to which syntactic rules are performed in the brain as encapsulated processes inaccessible for intentional acts of the speaker, but it just postpones the problem of the connection between semantics and syntax). Of course we first have something to say, and then we find the suitable syntax to express our thoughts. And when listening, we can grasp the meaning though the syntax is defective, and we are also able and willing to find meaning in semantic weird sentences, even in *colourless green ideas sleep furiously*. Our constant endeavour towards meaning, is the real motor of grammar, and it uses syntax as a means to the end of making meaning.

Transformations are, like permutations, psychological impossible; we do not construct a sentence in active, and then subsequently transform it into passive. We produce the passive sentence at once because that is what we mean.

It is clear to all non-linguists that a sentence is not produced like an output of a machine using a start signal and an algorithm. The motor of all utterances is the intentions of the speaker, and intentions only fit in certain situations and not in others, words only have meanings relevant to the situation of speech. If I stand in Esfahan in Iran and I am asked by a man in an old and ramshackle jeep to go with him across the great Dasht-e-Kavir desert with the terrible salt desert in the middle, I could ask: *Can you pass the salt?* because I want to be sure that it is possible to go through the great salt desert in an old tumble-down car. The meaning of the sentence de-

pends on what is relevant as an intention in the context of the whole situation.

Functional Grammar

Functional Grammar has taken the consequences of the critique of the distinction between language and speech, langue and parole, competence and performance, the idealised structure common to all members of the speech community, and the defective individual speech, and takes as the object of description the speech acts, the social fact that humans do things with words, make promises, make statements about states of affairs, or issue orders. Linguistics is not a theory of an immanent structure of language, nor of human psychology, but of historical, sociological and cognitive facts of communication.

The fundamental fact about language is that it is a means by which people share their thoughts with each other. (The word *transfer* is not the proper word in this connection; when I transfer money to you, I'll not have the money any more, but when I *share* my thoughts with you, I'll still have my thoughts, even after you have understood them.) To learn language is to learn how to mean. So language is also a means to mean, a medium for thoughts. As an example of how people share thoughts with each other by means of language I will use the fairy tale by Hans Christian Andersen: *The Tinder Box*. Below is the first part of the story.

THE TINDER BOX

There came a soldier marching down the high road - one, two! one, two! He had his knapsack on his back and his sword at his side as he came home from the wars. On the road he met a witch, an ugly old witch, a witch whose lower lip dangled right down on her chest.

«Good evening, soldier», she said. «What a fine sword you've got there, and what a big knapsack. Aren't you every inch a soldier! And now you shall have money, as much as you please».

«That's very kind, you old witch», said the soldier.

«See that big tree». The witch pointed to one near by them. «It's hollow to the roots. Climb to the top of the trunk and you'll find a hole through which you can let yourself down deep under the tree. I'll tie a rope around your middle, so that when you call me I can pull you up again».

«What would I do deep down under that tree?» the soldier wanted to know.

«Fetch money», the witch said. «Listen. When you touch bottom you'll find yourself in a great hall. It is very bright there, because more than a hundred lamps are burning. By their light you will see three doors. Each door has a key in it, so you can open them all.

«If you walk into the first room, you'll see a large chest in the middle of the floor. On it sits a dog, and his eyes are as big as saucers. But don't worry about

that, I'll give you my blue checked apron to spread out on the floor. Snatch up that dog and set him on my apron. Then you can open the chest and take out as many pieces of money as you please. They are all copper.

«But if silver suits you better, then go into the next room. There sits a dog and his eyes are as big as mill wheels. But don't you care about that. Set the dog on my apron while you line your pockets with silver.

«Maybe you'd rather have gold. You can, you know. You can have all the gold you can carry if you go into the third room. The only hitch is that there on the money-chest sits a dog, and each of his eyes is as big as the Round Tower of Copenhagen. That's the sort of dog he is. But never you mind how fierce he looks. Just set him on my apron and he'll do you no harm as you help yourself from the chest to all the gold you want».

«That suits me», said the soldier. «But what do you get out of all this, you old witch? In suppose that you want your share».

«No indeed», said the witch. «I don't want a penny of it. All I ask is for you to fetch me an old tinder box that my grandmother forgot the last time she was down there».

In this story the witch share her thoughts with the soldier. From this speech I will take the sentence *On it sits a dog* as the example by which I will illustrate the different levels of description. In functional grammar this sentence is analysed as part of an utterance act made by the witch on the high road in order to instruct the soldier in finding the money and bringing the tinder box to her. She can do so because they both belong to the same speech community, and the high road is a public place in which they have a social relation of equality; that means she can't command the soldier to do anything, so she has to make a deal. She makes the soldier understand how to find and get the money, by means of making her utterance count as an instruction; the soldier believes that he is able to snatch the dog and set it on the apron because the witch tells him so. That is the end to which the whole grammatical arrangement is the means.

In this perspective, the sentence functions in many levels simultaneously, a theory originally formulated by Austin, in his book *How To Do Things With Words*. The fact that the witch convinces the soldier that he can get rid of the dog by setting it on her apron although it is big, is called the *perlocutionary act*. The fact that her utterance counts as a prediction about the future as part of an interaction, and not as a fairy tale about monsters in the underground, is called the *illocutionary act*. The fact that she is able to get him understand and imagine the prepositional content of the sentence, viz. that down in the possible future he will see that big dog sitting on the chest in the first room, is called the *rhetic act*, and her referring to 'the chest' and 'the dog' and her predicating that the latter sits on the former, is called the *phatic act*. The rhetic and phatic acts are possible only because she performs the *phonetic acts* of pronouncing sounds that are identified as linguistic phonemes.

Across the five levels a linguistic event is both an utterance act, i.e. a unique historical communicative event, and (part of) a shared timeless representation of (another) situation. The distinction between signifiant and signifié is replaced by a stepwise transition from an individual act to a generic representation in the sentence, from token to type. The utterance of a sentence can be described by the following formula:

$$[u => [T \leftarrow S]]c$$

On the background of the institutions of the speech community ([...]c) the individual's utterance of a sentence (u) counts as (=>) shared knowledge under an illocutionary force [...], of a prepositional thought (T) that to all communication partners represents (←) a situation talked about (S). On all five levels we see this mechanism that a physical token counts as a timeless type: a phone counts as a phoneme, a morph counts as a morpheme, a sentence counts as a proposition, a set of connected sentences counts as a text or a speech act, and speech acts count as moves in a social interaction.

Normally phonology is not part of sentence grammar. In functional grammar the sentence is thus described as having four different functions or types of meaning: the conceptual meaning on the phatic level, the prepositional meaning on the rhetic level, the textual function on the illocutionary level, and the interactional function on the perlocutionary level.

Type of the act	Type of representation
perlocutionary act	interactional function
illocutionary act	textual function
rhetic act	prepositional meaning
phatic act	conceptional meaning

In this article I will make an exposition of the textual function of the sentence, after a brief exemplification of the three other functions, using the sentence *On it sits a dog* as an example.

The functions of the sentence

The conceptual function of the sentence *On it sits a dog* is normally called the semantics. In functional grammar it is defined as the men-

tal image or configuration of categories and predicates that the speaker communicates to the audience by means of uttering the semantic morphemes of the sentence, in this case *on, sit, dog*.

The situation talked about is by the witch conceived as consisting of two entities, a relation between them, and an activity of one of them. By choosing the lexical words *chest, dog, on* and *sit* she signals how to categorise the entities and typify the process. She is able to communicate (i.e. make common) the categorisations and typifyings of the elements in specific situation talked about because she knows that the meaning of the words are shared and common to all members of the speech communities, including the soldier.

She categorises the two entities as a 'chest' and a 'dog'. As a category the concept 'chest' is opposed to the neighbouring categories: 'closet', 'cabinet', 'case', 'box', 'shrine', and when she chooses the word *chest*, she thereby indicates that the entity she talks about, is larger than 'a box' or 'a shrine', but smaller than 'a closet' and 'a cabinet'. Furthermore the entity belongs to the supercategory 'container' and besides the distinctive features 'a chest' has all the features of 'container', which again is subordinated the abstract category of 'manufacture', which again is 'movable physical entity'. All this meaning is implied by her choice of word.

The same type of description can be made about the word *dog*. By making this choice, she has indicated that the entity she is referring to is neither 'a hound', 'a bulldog', 'a monster', 'a beast', 'a brute', or 'a bitch'. It belongs to the supercategory of 'animal' which is an instance of the category 'animate'. What she talks about is 'a dog', and she knows that the soldier will understand that.

The witch and the soldier have in common the whole vocabulary of the language and all the systems of oppositions of concepts denoting entities encoded in language. This is a system of Aristotelian categories with more abstract supercategories that have few features in common (little intention) and large extension, e.g. 'animate', and subcategories with more features in common (large intention), but smaller extension, e.g. 'bulldog'.

	ENTITIES		
PHYSICAL		MENTAL	
ANIMATE	INANIMATE	SITUATION	PROPERTY
ANIMAL HUMAN	COUNTABLE MASS	TEMPORAL PROP.	SCALE TIME QUAL.
CATS DOGS HORSES other mammals... FLIES BEATLES other insects.....birds, fish...			

Predicates that denote processes (actions, activities, states, properties relations) are not ordered in a hierarchy like concepts denoting

entities; predicates are typified according to how many semantic roles they connect in a situation type. The predicate 'sit' is a two place (divalent) predicate which connect an 'animal' to a 'place', and it denotes in opposition to *lie, stand*, a situation type in which the animal rests with the torso vertical and supported on the buttocks.

The predicate *on*, is a two place predicate which connect a 'physical entity' to another 'physical entity', and it denotes in opposition to *in, next to, besides, under*, that one of the entities is above and in contact with the surface of the other.

By uttering the semantic morphemes in the sentence *On it sits a dog* the witch communicates to the soldier a generic mental image which is equal to the following drawing:
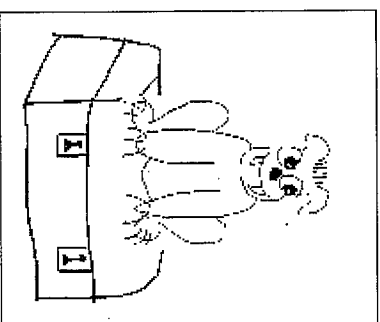
The conceptual meaning of *On it sits a dog*

Prepositional meaning is what is often called the syntactic and logical structure of the sentence. In functional grammar prepositional meaning is defined as the reality status of the conceptual meaning. Reality status involves both the truth value and the anchoring of the event to the time and space of the communicative situation. Reality status of the image of the situation talked about, is communicated to the audience by the syntactic structure of the sentence, constituted by the grammatical morphemes, viz. inflexions and function words.

The pronoun *it* makes an anaphoric reference to the same 'large chest' that was mentioned in the previous sentence, and therefore known to the audience. The present tense inflexion -s communicates to the audience that 'the sitting of the dog' takes place simultaneously to the time when the chest is standing on the floor, and that it is future time in relation to the communicative situation in which the witch talks to the soldier. In this way the time of the situation talked about is anchored to the time of the communicative situation.

The indefinite article *a* indicates that the sentence is a statement about the existence of a specific dog in the situation talked about which is anchored to the future in relation to the communicative situation.

The word order indicates that the dog is the entity that is *on the chest* (and not vice versa), and that the 'chest' is changed into the category 'place', and that this place is where the dog is sitting. If you wish, you can now write the prepositional content of the sentence as a formula of logic such as this:

$$\exists x\, \exists y|\ DOG(x)\ \&\ SIT(x)\ \&\ CHEST(y)\ \&\ ON(x,y)$$

In the fairy tale, we hear that this statement or prediction is true; when the soldier comes down in the tree there will in fact be a dog sitting on the chest.

The illocutionary function is normally the speech act type of the sentence, or of the text it is part of, and it is often called conversational analysis when it is described. The interactional function of the sentence is signalled by word order and functional words. The word order shows that the sentence is a statement (it is declarative, and not interrogative or imperative), and the connections to sentences before and after indicate that this statement is part of a instruction, which again is part of a sort of deal: the soldier may have the money, if the witch gets the tinder box.

Textual function

The textual function of the sentence is normally dealt with as part of textlinguistics, and when it is described in grammar it is often called information structure. When the witch makes a whole speech (a text) consisting of 14 lines in order to instruct the soldier how to get the money, she has to arrange the sentences in such a way that each sentence has a relevant function in relation to the whole text; for each sentence in a text it must be the case that the information in it is necessary for the later understanding of the conclusion of the text, that the information in it is accessible to the audience at the time when it is uttered, and that the information is arranged within the sentence (by syntax and word order) in such a way that the relevance of it is signalled clearly to the audience.

In the description of information structure it is necessary to use some technical terms not familiar in traditional grammar, so I will briefly define them here: *a piece of information* is a piece of conceptual meaning, i.e. any concept which is communicated by semantic morphemes, e.g. 'dog', 'chest', 'on', but not the prepositional mean-

ing which is communicated by function words and grammatical inflexions such as 'present tense' or 'indefinite'. *The topic* of the sentence is the element of the situation talked about which the audience must identify and recall from their current field of attention, and so to speak install as the background of a new piece of information. *Given information* is information that the audience already knows, and *new information* is the information they don't know. *The message* is the piece of information that is most relevant to the audience in the current situation, and *the aim* of a message is the conclusive and relevant information later in the text which the speaker aims at when uttering the current sentence, the understanding of which is made possible and facilitated by the current message.

Normally the topic is chosen among the given information, and the message among the new information, but in case of contrastive messages it need not be so. The principle of relevance of the sentence can be formulated as five rules about the identifiability of the situation talked about, the weakness in the formulation of the given information, the strength in the formulation of the new information, the relevance of the message, and the completeness of the truth.

The principles of relevance
1. In the front position of the sentence the speaker defines the situation talked about by referring to an entity in it which is identifiable by the audience: *On it sits a dog.*

2. The speaker refers to already known entities of the situation talked about with the weakest formulation strong enough for identification in the current field of attention of the audience: *On it sits a dog*; the phrase is not: *On the large chest* ... although the reference would be the same.

3. The speaker makes predications about new information (entities, processes, relations or properties) in the strongest formulation that is relevant for the audience: *On it sits a dog*; the wordings are not: *on the middle of it, sits and snarls or a bulldog*, because they are not relevant to the audience.

4. Among the pieces of new information in a sentence, the one most relevant to the audience counts as the message: *On it sits a dog*, the message is not *sits* or *a dog*. In a sentence uttered as part of a longer text the message in it self is not necessarily immediately relevant to the listener, but aims at a later relevant message (the conclusion) of the text; the information that the message aims at is illustrated by the question to which one of the subsequent sentences is the answer: *On*

it sits a dog AIM: and what is the consequence of that? (...) *Snatch up that dog and set him on my apron.*¹

5. When the message (because it is new information) is formulated as strongly as possible, it is an implicative of the utterance that a stronger formulation would not be true: *On it sits a dog* IMPLICATURE: it is just on it, not necessarily on the middle of the cover.

The message of the sentence is taken to be *on* and not *sits* or *a dog*, although all three pieces of information are new. The reason for that is that *on* is more relevant to the listener than *sits* and *a dog*. If *sits* (as opposed to *is*, *stands* or *lies*) had been the message, the aim of the utterance to be answered in a later sentence, would have been: AIM: and what's the consequences of this sitting? It is evident that the witch has no answer to this question; that is not what she wants to tell the soldier.

If *a dog* (as opposed to *a cat* or *a heavy weight*) had been the message the aim would have been: *On it sits a dog* AIM: and what about the dog?. This question is in fact answered in the subsequent sentence: *and his eyes are as big as saucers*, with the message *big* and the aim: *are as big as saucers* AIM: and what is the consequence of their size?. And that implicit question is not answered by the witch in her speech or in any other sentence of the fairy tale. To believe that *a dog* should be the message of the utterance would lead to a dead end.

If we take *on* to be the message with the aim: AIM: and what are the consequences of the fact that there is something on it?, the implicit question is answered by the sentence: *Snatch up that dog and set him on my apron*, with the message *Snatch up and set* AIM: and what then? And that implicit question is answered in the subsequent sentence: *Then you can open the chest and take out as many pieces of money as you please.*

This last sentence is the conclusion of the whole speech by the witch. The communication of *take out as many pieces of money as you please* is the common goal for the communicative collaboration of the witch and the soldier. It is relevant in relation to the interests of the soldier to know how to get money.

In other words, if we take *a dog* to be the message, it leads to a dead end, if we take *on* to be the message of the utterance, it is a proper part of a whole speech; it serves as a means to reach the goal of the whole collaboration, which is to inform the soldier how to get money. And this is the reason for analysing *on* and not *sits* or *a dog* as the message of the sentence. The interpretation of the whole

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1. For every type of predicate there will be one type of question to be answered: state predicates elicit the question: AIM: *What's the consequence of that?* accomplishment predicates elicit the question: AIM: *and what them?*, and new topic predicates elicit the question: AIM: *and what about that topic?* There are more types of predicates and more types of implicit questions, but I will not go into details about that here.

speech affects the interpretation of the current sentence; it is an example where the principle of compositionality is not enough for interpretation of the sentence, and the principle of functionality is necessary for understanding.
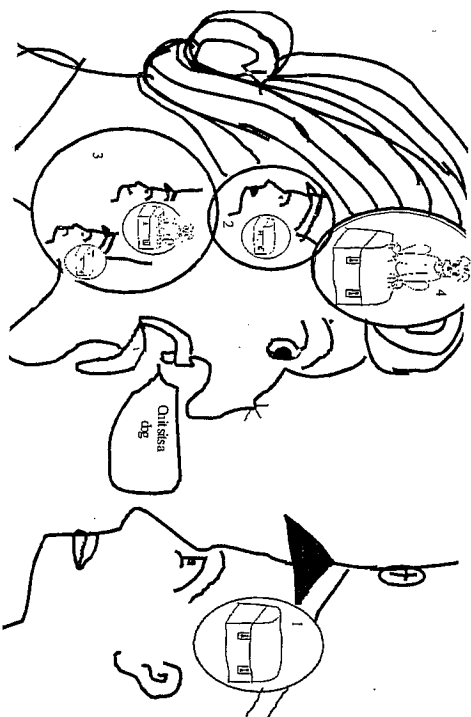
But in this case the soldier has to choose an interpretation of the sentence *On it sits a dog* without any access to the subsequent context from which it should have its interpretation. The decisive clue to how the sentence should be considered is uttered by the witch several sentences after the sentence in question.

The soldier probably makes the right interpretation (with *on* as the message) because he knows that they have a joint goal for their interaction, namely that she should inform him of how to get the money. And he has probably guessed that the money is in the chest – that is what chests are for. In this case it is obvious that if there is a dog sitting on the chest, it is relevant for the soldier to know, because it is a obstacle to his getting his money and he has to remove it.

The witch has facilitated this interpretation of the sentence by choosing the word order *On it sits a dog* and not *A dog sits on it* or *There is a dog sitting on it*. By fronting *On it* she indicates that the topic of the sentence is not only the given piece information 'the chest', but also the new piece of information 'on'. That means that the message is a double piece of information, both 'a dog' (which is relevant for the next sentence) and 'on' (which is relevant for the whole text). Like all other contrastive messages, this one implicates the truth of the of combination of the contrasts of both messages: *On it sits a dog* IMPLICATED: in it is the money.
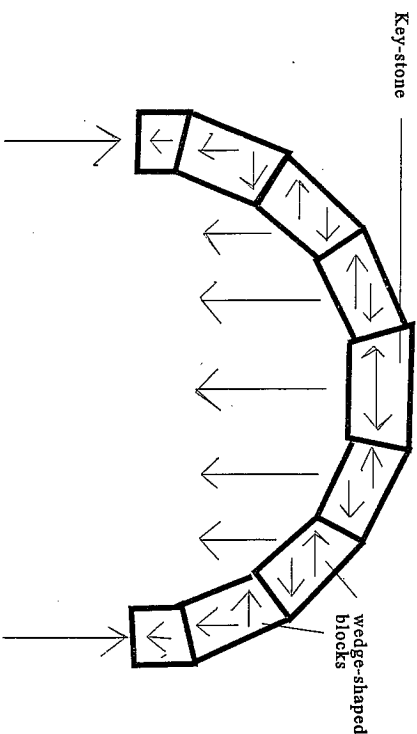
The soldier has anticipated the conclusion only because he trusts the witch; he believes that the message of the current sentence aims at a later conclusion, and has confidence in the relevance of the later conclusion of her speech in relation to his interests, which are to get the money. We can call this determination from a later speech event (the conclusion) to an earlier speech event (the utterance and interpretation of *on it sits a dog*) the principle of mutual confidence of communication. The whole theory is illustrated by the following picture:

The vertical pressure from the weight of the load is converted into horizontal pressure by the wedge-shaped blocks. Stability is maintained through the mutual pressure of the load of the separate pieces.

Key-stone

wedge-shaped blocks

The five conditions for the functionality of the utterance are illustrated by four balloons of thought: 1: the identifiability of the situation talked about, 1-2: the weakness of the given information, 2 and 4: the strength of the new information, 3: the relevance of the message (if he gets the information, he will be smiling, if not, he will be sad), and 4: the completeness of the truth.

A text can be compared to an arch, which although constructed of many blocks allows some of them to hang in the air with no support underneath.

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An arch spans a wall opening by means of separate units (e.g. bricks or blocks) assembled into an upward curve that maintains stability through the mutual pressure of the load of the separate pieces. The vertical pressure from the weight of the load is converted into horizontal pressures by the wedge-shaped blocks and received by the piers flanking the opening.

While an arch is being built, the wedge-shaped blocks will fall down until the keystone (the block at the top) is placed; consequently the blocks have to be supported by a scaffold, and when the keystone is placed, the scaffold can be removed. So the blocks support the keystone, and the keystone stabilises the blocks.
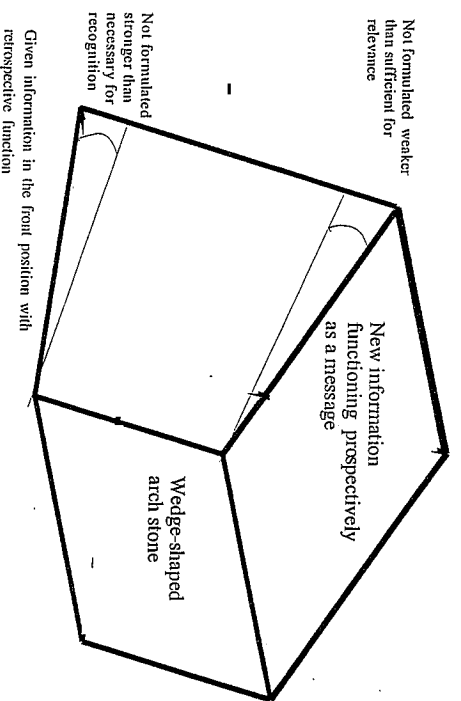
The same is true every time a person communicates his or her thoughts by means of many sentences linked together in a text. A sentence in the middle of a text is a precondition for the understanding of the subsequent conclusion, but on the other hand the middle sentence cannot be properly understood when its function in relation to the conclusion is not properly understood. The interpretation of the middle sentence 'hangs in the air' until the conclusion is uttered.

What resembles the scaffold in real time communication is the fact that the listener trusts the relevance of a middle sentence, although this relevance is not apparent when it is heard. When hearing a middle sentence the listeners look forward to hearing the conclusion, at which time they will look back to the actual sentence and find the full interpretation.

In this way we can say that language users have 'a memory of the future'. Because communication is social co-operation with a joint goal, they can anticipate the meaning of the whole before it is uttered or understood and let it determine the interpretation of the earlier sentences.

This means that every sentence is governed by two principles of collaboration: The weakness of the given information and the strength of the new information.

The two principles regulating the strength of formulation of given information and new information in relation to recognition and relevance, govern the production and interpretation of every sentence in a text. The principles are like the angles on the wedge-shaped arch stones, which in a way enables all the stones in an arch to aim at the keystone. If the angles are not right, the arch will collapse, and if the weakness of the given information and the strength of the message is not right, the text will collapse as a functional unit of the text. All the sentences of a text aim at the same conclusion, the communication of which is the common goal of the joint action of the speaker and the listener.

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Not formulated weaker than sufficient for relevance

New information functioning prospectively as a message

Not formulated stronger than necessary for recognition

Wedge-shaped arch stone

Given information in the front position with retrospective function

The right angle between the two edges of the arch stone resembles the rules that the given information must not be formulated stronger than necessary for recognition, and the message not weaker than sufficient for relevance.

Functional Grammar is a theory about language by which it is explained how language users can share their thoughts about their common outside world by means of individual utterance acts. It explains on the five levels of the communicative event (perlocutionary, illocutionary, rhetic, phatic and phonetic level) the transition from a token to a type as a result of collaboration and mutual confidence.

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RIASSUNTO

Ci sono tre scuole linguistiche nel nostro secolo: la grammatica strutturalistica, la grammatica trasformazionale e la grammatica funzionale. La grammatica strutturalistica (con F. de Saussure come figura principale) è caratterizzata dalle dicotomie tra lingue e parole, tra espressione (signifiant) e contenuto (signifié), tra scienza linguistica sincronica e diacronica e tra forma e sostanza. Il segno linguistico (morfema) viene definito come la più piccola entità con relazione stabile tra espressione e contenuto. La relazione tra insieme e parte è descritta come composizionalità: il senso di un insieme linguistico dipende dal significato delle sue parti e con il modo in cui esse sono combinate.

Tuttavia è chiaro che un termine lessicale non ha un significato preciso, bensì un'intera serie di possibilità/opzioni di significato più o meno affini che compe-

tono tra di loro ed il senso di una unità può anche essere stabilito in modo funzio-nale, ossia in base alla funzione rilevante che esso assume nel più grande insieme di cui essa entra a far parte.

La grammatica funzionale (con N. Chomsky come nome più importante) è ca-ratterizzata dalla sintassi autonoma, dalla struttura del profondo e dalla struttura di superficie, dalle regole generative, di trasformazione, lessicali e fonetiche, le quali attraverso un numero finito di regole ed un lessico finito possono generare al-l'infinito molte frasi che hanno senso e pronuncia. Anche la grammatica funzionale può essere criticata per il fatto di ipotizzare un uso linguistico inesistente e regole impossibili dal punto di vista psicologico.

Nella grammatica funzionale, che non costituisce una scuola e dove molti sono i nomi, si distingue tra struttura linguistica ed uso linguistico: la lingua è un mezzo con il quale noi spartiamo i nostri pensieri con gli altri e la grammatica è una parte di questo strumento. Un'espressione linguistica può essere classificata come l'a-zione linguistica osservabile del singolo, la quale per effetto dell'esistenza di una comunità linguistica conta come una per tutte le rappresentazioni comuni di una situazione specificatamente citata che può essere identificata da tutti gli apparte-nenti. Secondo il livello dell'azione è possibile distinguere tra funzione interattiva della frase, funzione testuale, senso proposizionale e significato concettuale.

Il significato concettuale della frase è la configurazione di categorie e relazioni che sono rappresentate nella frase, il senso proposizionale consiste nei presupposti di verità di cui la frase è l'affermazione e la funzione interattiva della frase è lo sta-bilire relazioni sociali tra i partecipanti alla conversazione. La funzione testuale della frase consiste in come il singolo con l'arrangiamento grammaticale della frase ordina le informazioni in modo che l'informazione data possa essere riconosciuta come tale per il fatto di giungere per prima, mentre la nuova informazione giunge per ultima ed in modo tale che il comunicato della frase diventi rilevante per il fatto di focalizzarsi sull'informazione successiva nel testo e che rappresenta l'intero messaggio del testo. L'informazione data non deve essere formulata in maniera più forte del necessario per essere riconosciuta e la comunicazione non deve essere troppo debole per la rilevanza.

EN DATORSTÖDD LINGVISTISK-LEXIKOGRAFISK
TEXTANALYSMETOD TILLÄMPAD PÅ
HJALMAR SÖDERBERGS ROMAN *DOKTOR GLAS*

Textanalysen har revolutionerats i och med datorernas ankomst. Nu kan vi hämta texter från Internet, lägga in den i vårt ordbehand-lingsprogram, skärskåda och genomlysa den med diverse hjälp-program m.m., m.m. När det gäller den skönlitterära texten har språkvetaren av hävd hållit sig till att fixera stilen på basis av de språkliga strukturerna, litteraturvetaren till den mer eller mindre löst textförankrade utydningen och tolkningen. Min tes i den här artikeln är att med datorstött lingvistiskt grundarbete kan tolknin-gen förankras bättre i texten och en hel del nya perspektiv utvinnas. Utgångspunkten, här är Hjalmar Söderbergs roman *Doktor Glas*[1]. Låt mig dock understryka att jag inte presenterar någon tolkning av romanen utan använder den enbart till att illustrera mina metodiska resonemang.

Tillvägagångssättet är det enklast tänkbara och kan beskrivas i två steg:

1. Lingvistisk-lexikografisk bearbetning av texten.
2. Realtidsläsning av texten.

1. *Lingvistisk-lexikografisk bearbetning av texten*

Texten som är så gammal att den numera är «fri» hämtar jag från In-ternet, närmare bestämt från Project Runeberg (www.lysator.liu.se/runeberg/katalog.html), som har en alfabetiskt uppställd katalog med mer än 200 titlar, bl.a. *Doktor Glas*.

Väl inne i mitt ordbehandlingsprogram (Microsoft Word) kan texten bearbetas med hjälp av programmet TSSA[2] (Text Segmenta-tion and Sorting), som gör följande:

en .log-fil med en del statistik rörande texten.
en .ini-fil, d.v.s. en initialalfabetisk ordlista.
en .occ-fil, d.v.s. en kronologiskt numrerad ordlista.
en .fre-fil, d.v.s. en numrerad lista av orden.
en .con-fil, d.v.s. en frekvensordlista.
en .con-fil, d.v.s. en konkordans.

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