

S U M M A R Y  
I N E N G L I S H



## I. The pentagrammatical theory. A. The model

§ 1-2. *Praxt, pragmatic text theory*, is a book about texts and text interpretation. Essential to the description of texts is the assumption that a text is not an object which can be recognized in physical or mental space, but a historical event in time in which the communication partners, **the sender** and **the receiver**, communicate about **a state of affairs**, through **a channel**, using **a sign system** (a language). The communicative event involves five and only five **FACTORS**: sender, receiver, state of affairs, channel and sign system.

The text event has one **FUNCTION** corresponding to each of the factors: The text is an **expression** of the intentions and attitudes of the sender, a **proposition** concerning the state of affairs, **information** for the receiver, **contact** through the channel, and **use** of the language. Every text has all five functions at the same time. Because a text is not only a perceivable object, but a social event, it is constituted by rules, shared by the communication partners, for the way in which behaviour counts as a social act in the community. It is possible to identify one type of **CONSTITUTIVE RULE** for each function: as an expression of the sender's intentions and attitudes the text must be **sincere**; as a proposition concerning the state of affairs it must be **true**; as information for the receiver it has to be **relevant**; as contact through the channel it must be **regular** and **fair**, and as use of the sign system it must be **correct** and **comprehensible**. (Notice: the lexical rules stating that linguistic forms have certain meanings are not constitutive; the comprehensibility rule is a constitutive superrule.) The text only counts as a text if it is in accordance with all five types of rules simultaneously. If the sender breaks just one of the five types of constitutive rules the whole text counts as a failure.

§ 3. The pragmatic text theory describes how five types of **COMPONENTS** in the communicative event are organized according to **PRINCIPLES**: The **sentence**, the unit of language use, is constituted by the principles of **dependency** and **isotopy** to establish associations regarding form and meaning. The **style** of the text is organized by the principles of **concord** and **contiguity** to reflect the sender's attitude towards the receiver. The **motif** is the state of affairs as seen from the perspective of the sender in accord with the principles of **isomorphy** and **consistency**; the **composition** of the text in a **hierarchy** of **connections** of text elements is informative for the receiver; and by **consensus** and **constituency** the text counts as a social **act** inside the framework of the institutions of society. In all texts all five types of components can be found, and all texts will be organized in accordance with all ten organizational principles.

A text is a **REPRESENTATION** of something else, viz. of the five factors of which it is a product; in the text there is a representation of each of the factors in the communication situation: the **narrator** is the representation of the sender, the **mental model** of the state of affairs, the **addressee** of the receiver, and the **text type** of the channel. I will call the representation of the sign system the **theme**, because the word forms in the text only acquire their meanings from the thematic context, the so-called isotopy of the text.

## I. The pentagrammatical theory. B. Other models

§ 4. A text is defined as an actualized communication act which simultaneously involves correct and comprehensible use of one sign system (i.e. concatenation of signs from a

system of signs, each of which has form and meaning), sincere expression of one intention on the part of the sender, a true and coherent statement of one state of affairs, relevant information with respect to one interest of the receiver, and regular and fair contact through one channel.

§ 5. Other text models are compared with this five-dimensional text model. The linguistic theory of meaning is viewed as a two-dimensional text model with a **form** (expression) and **meaning** (content). The glossematic twofold distinction between expression and content and between **form** and **substance** makes up a four-part model which is not directly comparable with the factors in the pragmatic model, but which correspond to 'state of affairs', 'mental model', 'sentence', and 'sign system'.

§ 6. **The concept of sign** is defined as a relational product of the relations between the sign token, the sign type, the concept and the referent. The relation between sign type and concept is established by a common 'tone of feeling' in the minds of the communicators, corresponding to the isotopy in the text.

§ 7-8. Halliday's **theory** is viewed as a three-dimensional text model with a description of 'the language user', 'the state of affairs' and 'the language', and Bühler's **theory** is viewed as another three-dimensional model with a description of 'the sender', 'the receiver' and 'the state of affairs'. Compared to the pragmatic model, they both lack a description of two factors involved in the communication situation.

§ 9. **Habermas'** theory of universal pragmatics has greatly influenced my pragmatic text model; my description of speech acts and rules derives from Habermas; but his four-dimensional model is criticized for not distinguishing between 'the generalized other', as a role in any communication situation and **the actual receiver** who is a person with well-defined interests and desires, and for whom the text is or is not **relevant**. (Habermas calls the generalized other *the receiver* and the principle *the relevance rule*, but I have described it as **the channel** and the rule of **fairness**, defined as a technical and social arrangement which makes a fair communication event possible)

§ 10. **Grice's maxims** are compared with the rules in the pragmatic model; the influence is obvious but, contrary to Habermas, Grice lacks the rule of fairness and regularity, and two of his maxims (quantity and relation) are considered as part of the rule of relevance in the pragmatic model.

§ 11. **Shannon's original mathematical theory of communication** is viewed as a five-dimensional text theory; information used by humans is in a way the opposite of the mathematical definition of information as entropy, viz. negentropy, systems, rules.

More interesting is **Bateson's biological systems theory** in which a text is viewed as an exchange between an **open system**, the text, an organism and its ecological supersystem, the context, the environment. Information or communication is not defined in terms of energy, but as an evolution or process involving the differences that make the difference - those which imply a **hierarchy of logical types**. The open system, the text, is described as a goal-seeking adaptive system, with still more complex levels of organization coded both digitally and analogically. In this study I will try to show how a text can be described in detail as an open system exchanging **negentropic information** with its environmental supersystem.

§ 12. Dines Johansen's five-dimensional text model, inspired by **Peirce**, should in principle be similar to my pragmatic model, but in fact it is far too complicated, and the dimensions or functions are not exemplified enough to be compared in detail with my text theory.

§ 13. **Roman Jakobson's** theory of the six functions of language is very much like my theory, although the terminology is very different; the idea of factors and functions derives from Jakobson. He deals with a sixth function, **the poetic function**, in which the text is focused on itself. I argue that this poetic function is not a function on the same level as the other functions, but rather a sort of meta-function having impact on the quality of the other functions, primarily by projecting the principle of equivalence from the axis of selection to the axis of combination, selection and combination being the two fundamental processes involved in the use of a sign system in communication.

§ 14. **Dell Hymes** and **Beaugrande and Dressler** have proposed seven-dimensional models. The second theory describes seven standards for textuality: cohesion, coherence, intentionality, acceptability, informativity, situationality and intertextuality. I argue that 'acceptability' and 'informativity' are two aspects of 'relevance', since both 'acceptability' and 'informativity' are defined by their relation to the 'receiver', and that 'situationality' and 'intertextuality' are two types of 'regularity' (fairness) since both 'situationality' and 'intertextuality' are defined by their relation to the 'channel'.

## II. The function of use. A. Grammar

§ 15. The function of the text in relation to the system of signs (the language) is a **function of use**; the system of signs is used by communicators to establish a connection between form and meaning. This process of interpretation of form as meaning is divided into two different types of processes: **sequential, digital (discrete) processes** which give meaning to the signs in closed paradigms, grammatical morphemes; and **holistic, analogical processes** which give meaning to the signs in open paradigms, semantic morphemes. Grammar only deals with the grammatical morphemes.

§ 16. The rules for the interpretation of grammatical morphemes stipulate how to interpret words belonging to different word classes when they are combined, i.e. the meaning of their mutual relations of dependency and order (precedence). While the semantical morphemes describe 'objects' and 'relations' in the situation to which reference is made, **grammatical morphemes make the reference**, i.e. make it possible for the language user to identify the situation referred to in time and space, the objects and the relations which are described by the text.

The following **word classes** are defined by their type of endings, their syntactic possibilities and their function in the interpretation process: nouns, verbs, adjectives, pronouns, prepositions, manner adverbials, relational adverbials, attitude adverbials, operators, particles, numerals, and conjunctions.

§ 17. **The sentence** is defined as a structure of dependent words and phrases: it is constituted by the relation of nexus (mutual dependency) between subject and verb phrase, and in some cases an attitude adverb. The noun phrase consists of a noun as the head and adjectives, determiners, genitives and adverbials as dependent entities. And the verb phrase consists of a finite (auxiliary) verb as the head and infinite verbs (main verbs), operators, relational adverbs, manner adverbs and objects as the dependent constituents.

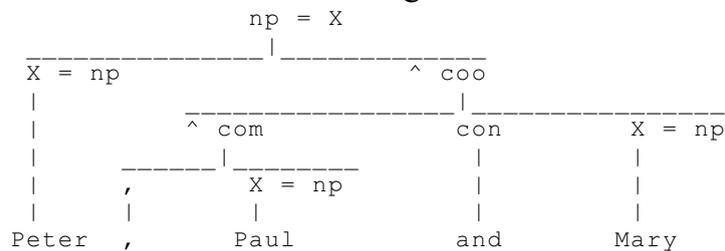
§ 18. The syntax of a Danish sentence is described by a set of procedural rules, stipulating how it is possible, reading the (surface) sentence from left to right, to construct the hierarchical dependency structure of the sentence and in this way interpret the information coded in the order of the grammatical morphemes.

The procedural rules are a set of **rewriting rules** with a left hand side consisting of only one non-terminal symbol, an arrow indicating 'consists of' or 'is constituted by',

and a right hand side consisting of a list of at least one non-optional symbol and other non-terminal or terminal symbols, marked for optionality by '^', for iterativity by '"', and with the sign ';' indicating 'either...or'. The terminal symbols in the 'generation' of analysis trees are word classes or word forms. Thus  $A \rightarrow ^B;C D ^E$  means that the constituent A consists of an optional constituent: either B or C, dependent on D, of the obligatory D, and of a number of optional E's dependent on D, in this order. A coordinated construction with an indefinite number of constituents of identical type can be analyzed and described by the following set of **recursive rules**:

- i)  $X \rightarrow X ^{coo}$  *coo* = coordination construction
- ii)  $coo \rightarrow ^{com} con X$  *com* = comma construction
- iii)  $com \rightarrow ^{com} , X$  *con* = conjunction
- iv)  $con \rightarrow and;or;but$  *X* = variable

The analysis can be shown in a tree diagram:



Note that this type of rule can be constructed such that it only permits the correct trees of a given sentence, in an analysis, even though it can generate unacceptable examples in a synthesis of sentences. I think it is fair to assume that the human brain does the same: it assigns the best meaning to a sentence even though it is not in accordance with the norms.

§ 19. **The topic** is the piece of information which the sentence is about, and it is marked as the first constituent of the sentence. **The focus** is the most salient piece of information i.e. the constituent which falls inside the scope of the negation; the focus falls on the last argument of the sentence or on the verb; circumstantials are not focused.

- i)  $sentence \rightarrow ^{circ;n;ma;iv(=topic)} s ^{circ}$  *ra* = relational adverb
- ii)  $circ \rightarrow ^{ra;aa;s;vai;hv} ^{circ}$  *aa* = attitude adverb
- iii)  $s \rightarrow cont1 ^{ma(=focus1)}$  *s* = sentential clause
- iv)  $cont1 \rightarrow cont2 ^{obj(=focus2)}$  *n* = noun phrase
- v)  $cont2 \rightarrow nex ^{sa} ^{iv}(=focus3)$  *ma* = manner adverb
- vi)  $nex \rightarrow ^{vf} ^k ^{at} subj ^{fv}$  *iv* = construction with infinite verbs
- vii)  $obj \rightarrow ^n n;s;vai$

*vai* = infinitive with *at*, *hv* = *wh*-word, *vf* = finite verb, *k* = conjunction, *nex* = the nucleus of the clause with subject and verb, *obj* = objects, *a* = adverb, *subj* = subject, *fv* = construction with an adverb and a finite verb, *sa* = sentence adverb, *circ* = circumstantial constituent, *cont* = content part of the clause.

§ 20. **The reality value** of the sentence can be interpreted from the following features of order and dependency: *yes-no* questions from structures with the finite verb as the first constituent, **vf1**, *wh*-questions from topicalized *wh*-word, imperatives from the finite verb in imperative (in the subject slot if there is no other subject in the sentence). Subordinate clauses, with undecided reality value, are marked by subordinating

conjunctions, the particle *at*, by a *wh*-word, or by the words *som* and *der*, and no topic, and adverbs on **a1**-position.

§ 21-22. Auxiliaries and modal verbs followed by infinitives (without *at*), or present or past participles, which only indicate a time value or modal value with reference to the main verb in the clause, are described by the rewriting rule for 'rows of verbs', rule ix:

- viii) **fv --> ^a vf** *a* = adverbs, *if* = infinite function verbs  
 ix) **iv --> ^if" ^obj(=vob) ^ma v;ptl;p"(=vp)** *iv* = infinite verb, *ptl* = (verbal) particle  
 x) **vai --> ^a at vi ^obj ^ma ^sit** *p* = preposition, *vp* = verbal particles or main verb, *v* = mainverb, infinite form.

Mediated objects are described by rule ix which stipulates that a main verb + object + particles or prepositions can take objects, e.g.: *han havde tillid til hende* ('he had confidence in her').

Rule x for 'chains of verbs' describes main verbs followed by objects or other main verbs in the infinitive (with *at*) as stating the relation in time between two predicates.

Infinitives (with *at*) and subordinate clauses are described in the rules as generated by **t, subj, a, obj** or **circ**, but at the same time internally ordered in a new scheme like the scheme of the constituent **s**.

§ 23. The grammar is completed by the following rules for noun phrases:

- xi) **subj --> ^at n;hvem;som;der;bv;vai;s**  
 xii) **n --> ^kv ^det ^b subst ^s;exp ^n;b(=app)**  
 xiii) **exp --> ptl ^n ^sit**  
 xiv) **b --> ^n ^ra ^exp ^gr adj ^s;exp"**

*bv* = verb in imperative, *kv* = quantifier, *det* = determinator, *b* = adjectival phrase, *gr* = degree adverbial, *adj* = adjective, *exp* = constituents which anaphorically explicate something, *app* = apposition.

The whole grammar can be illustrated by a tree diagram:



The fact that the part can not be processed before the whole, and the whole not before its parts is a hermeneutic problem, but in actual communication this problem is solved by **isotopy** on the level of word sense, by the fact that senses of different words in the same text belong to the same domain of meaning; on the level of propositions it is solved by **relevance structure**, by the fact that the sentence structure reflects the background assumptions and presuppositions of the communicators; and on the level of the utterance it is solved by **isomorphy**, by the fact that the mental model of a fragment of the world constructed on the basis of the text, and the picture of the same fragment constructed by other means (memory, perception, reasoning) have the same structure.

§ 28. Because semantics describes mental processes, its empirical basis is tests, viz. to ask language users to make the adequate **intuitive metastatements** concerning the **semantic relations between two propositions**, viz. relations of autonomy, exclusion, equivalence, implication or paradox, and combinations thereof.

§ 29. From these metastatements about relations between propositions I define the following types of **sense relations** between word meanings: synonyms, hyponyms, supernyms, antonyms, cohyponyms (taxonomical oppositions), polar oppositions, relative oppositions, and hierarchical oppositions. Word senses are described by **meaning components**, or **semes** in the word, which are classified as antonymic semes, polar semes, relational semes, and taxonomical semes.

The only consistent method of description for semantic relations is the theory of semantic relations described in terms of **mathematical group theory**. Semantic relations are seen as elements in a group, with a neutral element (the identity relation), an associative 'adding' operation and inverse elements. The semantic relations are described as **operators** which change the meaning of one word into the meaning of another word within a closed set of words, e.g. the meaning of **man** is described as an  $O1 \& 2GIRL$ ,  $O1$  being the MALE-FEMALE opposition, and  $O2$  being the ADULT-CHILD opposition; a 'man' is a 'male adult girl', and a 'girl' a 'female child man'. In group theory the concept of symmetry can be defined precisely, and symmetry is found in many semantic fields, but only as a consequence of the delimitation of the field. If the set of words chosen for group theoretical semantic description is determined by their occurrence in a given text, the **symmetry** found in the set is a property of the **text**, not of the vocabulary of the language. Only in this formulation will the theory of semantic symmetry be in accordance with the idea that words only acquire meaning as a product of their isotopic relations to the communication context, and with the theory that the theme is the representation of language in the text (§ 3).

§ 30. A distinction is made between **the meaning of a lexical word**, which is a list of the meaning potentials of the word form, and **the meaning of the word uttered**, which is the sense among the possible senses of the lexical word which is actualized in a specific context and situation. Verification of the fact that the same word form actually has different meanings in different contexts can be found in the **zeugma-test** which says: If you coordinate two contexts of a word, and you get an absurdity, as in a zeugma, the word is polysemous and has two senses; e.g. *What is the highest, the Tower of London or the high C?* The word *high* has (at least) two senses.

§ 31. As regards semes as parts of lexical words, a distinction is made between **parallel semes**, components of the sense of the word in any context, and **divergent semes**, which are semes in the same polysemous (ambiguous) lexical word, but which are alternatives to each other when communicated, i.e. they are never actualized in the same context; divergent semes compete with each other in the process of **monosemiation**

(disambiguation), which takes place during the production or interpretation of a text. The relation between two divergent semes of the same lexical word can be compared to the relation between figure and ground in the famous picture of either two faces, or a vase: they exclude each other even before the words are interpreted. The choice of which of two divergent semes will **dominate** in a given context depends on which one belongs to the same **isotopy** (semantic domain) as the (dominating) semes of the other words in the sentence, e.g. in the lexical word *high* the divergent seme DIMENSIONAL dominates over the other divergent seme FREQUENCY in the context a *high tower*, while FREQUENCY dominates over DIMENSIONAL in the context a *high tone*.

§ 32. The syntagmatic relations between semes are described as a network, called a **configuration of semes**, consisting of **terms** (binders, nominal operators and operands) of degree 0°, 1° or 2°, connected by **semes** (predicates) of arity 0, 1 or 2: Convergent semes have no argument and are redundant; semes not connected to any binder correspond to a feature of a word, property semes have one argument of 1° or 2°, relational semes have two arguments of 1°, and functional semes and cognitive semes have 2 arguments of 2°. Configurational networks of binders and semes take the shape of i, Y, I, L or T.

§ 33. On the level of surface **semantics** the structure of propositions is described in a categorial grammar; a **proposition** is constituted by **names**, nominal constituents, which refer to **entities** in (mental or physical) space, and **predicates**, which say (state) something about **properties** and **relations** between the entities referred to. The propositions are structured by operators of different kinds: **subordinators** and **logical operators**, which define subordinated propositions, **qualifiers** and **modifiers**, which define downgraded propositions like adjectivals and adverbials respectively.

§ 34. Five transformation rules describe one-to-many relations between deep semantics and surface semantics: Rule I states that in names only the topmost of features, i.e. of the qualifying predicates generated from i-configurations, is focused. Rule II defines how I-configurations are transformed either into propositions with one or two arguments, or into names with qualifying relative clauses. Rule III says that L-configurations become either two coordinated propositions or one proposition downgraded as a qualifier or modifier in another. Rule IV says that convergent semes in Y-configurations can not be transformed to predicates but only to a feature in a word, and rule V defines how T-configurations are transformed either into a proposition with the first seme as the predicate and the other seme as the predicate in a proposition subordinated as a term (viz. as subject or object), or, synonymous with the first construction, into a proposition with the second seme as the predicate, and the first seme as predicate in a modifying downgraded proposition (i.e. as a semantic feature or an adverb).

§ 35. By the process of **lexical petrification** some semes, viz. those that refer to more lasting things, have, during the history of the language, become terms (nouns defined by grammatical morphemes of definiteness); and other semes, viz. those referring to more transient things, have become predicates (verbs, adjectives and adverbs with grammatical morphemes of tense). We have the petrified words *the boy ran*, but not *\*the run boyed*.

In every lexical word there will be an endless number of semes that are **latent** because they are convergent semes from a Y-configuration or downgraded semes from a T-configuration. In actualized texts some of the latent semes will be made manifest by isotopy with context words and create the coherence of the text. The utterance *He couldn't see without his glasses* makes the latent semes WITH THE EYES manifest as a coherence isotopy. But semes made manifest by coherence isotopy are cancelled by contrasting explicit semes in metaphors: *It is forbidden to see with the fingers (but permitted to touch*

*with the eyes).*

§ 36. In nouns the parallel semes differentiate the word from its cohyponyms, the redundant semes characterize its supernyms, and the latent semes describe the **encyclopedic properties** of the thing referred to. The number of latent semes made manifest by coherence isotopy depends on the **depth of intention** of the interlocutors. The process of making latent semes manifest is a holistic process which works along the lines of pars-pro-toto: if one seme is made manifest a whole bundle is made manifest too with their default value. If *But he has nothing on, the child said* is made manifest and explicit, this 'child' will have the default values for many dimensions: normal age, normal sex and so on. In other words, many people believe that it was a boy who said the words in *The Emperor's New Clothes*. The coherence isotopy in a text involves prototypes and natural categories. The prototypical 'bird' is a 'sparrow' because it is the species with most default values, not an 'ostrich'; and the natural category is 'bird' not 'animal' or 'sparrow', i.e. the concept in the middle of the hierarchy of abstraction, because it is the category having most distinctive parallel semes and most convergent semes.

§ 37. Convergent semes are organized either in **frames** for names or in frames for predicates. **Names**, lexical units referring to entities, have frame slots for parts, perceptual features, purpose, function and perspective of the entity; they are typically noun phrases. Any (petrified) lexical word has a slot for **value connotations**: positive, negative or neutral. In **predicates**, lexical words referring to states and processes, the semes are organized in frames with slots for roles, phases, motor skills, perceptual features, causes, presuppositions, purposes and perspectives. Predicates occurring in propositions can be divided into STATES, PROCESSES and EVENTS, and their arguments can be divided into the following types: AGENT, OBJECT, EXPERIENCER, yielding a classificatory scheme for the proposition with 14 classes.

§ 38. Predicates are divided into descriptive adjectives, relative adjectives, predicates of change, of iteration, of causation, predicates with indirect objects, predicates of utterance, perception, psychological properties, evaluation, inverses, implicatives, transverses, factives and modals.

§ 39. When word senses are put together along the lines described in surface semantics, the **relevance structure**, i.e. the information value of each of the words, is expressed by syntactic linearization and thematization, the main rule being that presupposed information and information already mentioned precedes stated and focused information. Any parallel seme can be stated information while convergent semes are always presupposed information. Any choice made among the alternative possible and synonymous surface semantic transforms of the same deep semantic configuration implies information structure: the choice of lexicalization, the choice between the active and passive form of the verb, the choice between subordination and downgrading, the choice between a feature in a word and a qualifying downgraded proposition, all these choices imply different patterns of focus and presupposition.

§ 40. Interpretation of the utterance as a whole depends on the **isomorphy** between the structure of the mental model constructed from the propositions of the text and the structure of the world view arrived at by the communicators in ways other than by text interpretation. Consequently, the relation between **form and meaning** is neither arbitrary on the level of the sentence nor on the level of the text; form and meaning have to be isomorphic.

§ 41. In this chapter on semantics I propose a theory of **non-compositional meaning** of the utterance. The meaning of the whole utterance is not only a function of the meanings

of its parts and the way they are syntactically combined, but also of the verbal context of the utterance, the situation in which the utterance is uttered, the intentions of the interlocutors, and of the the structure of the situation referred to by the utterance. This theory is called **the hypothesis of ecological-hermeneutic interpretation**. This theory of context sensitive meaning is described on four levels: the meaning components of lexical words depend on the **default** values of the slots in the frame of the concept, the sense of the actualized words depends on their **isotopy** with the sense of other words, the meaning of the sentence depends on the **relevance** of the utterance, viz. presuppositions and implicatures made by the interlocutors, and the interpretation of the whole text depends on the **isomorphy** between the mental model made on the basis of the text and the world view held by the language user.

## II. The function of use. C. Theme

§ 42-45. The theme of a text is defined by the monosemiation **process** of interpretation, determined by the **isotopy** of the text, and not - as the motif - dependent upon the entities referred to and the relations described in the text.

Theme interpretation is a process of **reduction** of the semantic variation of the text to a small number of basic dominating semantic oppositions; this reduction consists of the exclusion of irrelevant information (presupposing and implying propositions), selection of the basic information (the implied and presupposed propositions), generalization of features, and condensing of episodes. The theme is not a more abstract representation of the interpretation of the text than the motif; it is a representation of the interpretation of the text of another logical type, a metarepresentation in relation to the motif. If the state of affairs is compared to a landscape, the text can be viewed as the map, i.e. a representation, the motif as an alternative map, a map in another scale, and the theme as an index to the book of maps, i.e. a metarepresentation.

§ 44. Because of the general one-to-many relation between form and meaning on many levels, it is possible to find texts with **double isotopy**, two themes in competition and alternation with each other: jokes and short stories. By means of such double isotopy word senses and sentence meanings can be interpreted in two coherent ways, one of which is natural and easy to process, while the other reveals itself as the only possible one in the punch line of the text. Thus, jokes illustrate that the theme is not a representation of the state of affairs, but a representation of the role of language (the sign system) in the process of human orientation in reality by means of texts.

§ 45-47. **Metaphors** are not ornaments of style, but propositions in which the theme belongs to another domain in semantic space than the **motif**. In cases where no other forms fit, themes of orientation and ontology are communicated by motifs from another sphere, e.g. concepts of thought processes are communicated by words from the sphere of visual perception, concepts of psychological feelings from the sphere of tactile perception. Themes of ideology and values are communicated to receivers by motifs of analogical events as a kind of seduction; the words can only be understood if the values are accepted, e.g. 'war' described as either *a chess game* or as *a slaughter house*. Themes of theory and world view are communicated by motifs from other homological semantic domains, e.g. 'the new physical world view' is communicated by the motif of *holography*.

In all cases metaphors emphasize certain semantic features of the motif (the meaning of the words and sentences in the text), hide or reduce others, and restructure the

connection network between semes, creating a representation counter to the representation of the motif. Thus, text interpretation in general can be compared with walking into a river; you can walk into the same river, and you can not walk into the same river. So at the same time it is true that the same text form is never interpreted in exactly the same way, and that the entire language is a grave yard full of dead metaphors.

### III. The propositional function A. Motif

§ 48. The **mental model** of the text is a representation of the **entities** to which reference is made by the names in the text, of the **relations** between the entities described by the predicates in the text, and of the **events** and **processes** in time and space, communicated by the cohesion established in the text by means of coreference. The analytical process of determining the motif consists of the construction of a mental model representing the state of affairs that is the topic of the text. The basis for construction of the mental model consists of the 16 intuitive metastatements about meaning relations between propositions.

§ 49. The **names** (and the predicates) in the text make it possible for the language user to identify things and objects in the state of affairs, to construct them as entities in the model, and also to construct as entities that which has metonymic relations to the things referred to: i.e. parts of wholes, wholes of parts, means of ends and ends of means, causes of effects and effects of causes etc., and to construct states and events made possible by the state of affairs referred to, and information made comprehensible by other previous pieces of information presupposed by it.

§ 50-51. The relations between the entities in the mental model are constructed from the **predicates** of the text (verbs, adjectives and adverbs). The mental model is thus a semantic network with entities representing objects directly or indirectly referred to by the text, and predicative connectors, semes representing relations described by or inferred from the text.

§ 52-53. The 16 intuitive metastatements of meaning relations between propositions presuppose that all concepts, when used for classification of the state of affairs, are organized according to a taxonomy, a classification system, and have **definitions**, i.e. are defined not only by prototypes and family resemblance, but also by **genus proximum et differentia specifica**. Concepts have both extension and intension and are ordered in hierarchies of sets of extension.

§ 54. Mental models are logically **consistent**: they do not comprise any representation of negated propositions or of logical connectors as alternation (*or*) or implication ( $-->$ ); they consist of representations of all the propositions stated, presupposed, implied or inferred by the sentences in the text. Inference is possible **inductively**, moving from many cases of cause and effect to the existence of a **general principle** of implication, example: 'when Mary is hit, she often feels pain; consequently: if people are hit, they feel pain'; **deductively** from causes (minor premise) and principles (major premise) to **necessary effects** (modus ponens), example: 'Mary was hit; if people are hit, they feel pain; consequently: Mary felt pain'; or from principles and no effects to no possible causes (modus tollens), example: 'If people are hit, they feel pain, Mary did not feel pain; consequently: she was not hit'; and **abductively** from effects and principles to possible **causes**, example: 'Mary feels pain, when people are hit they feel pain, consequently: Mary has possibly been hit'.

§ 55-56. **Topos** is defined as the type of mental model chosen as a representation of

a given state of affairs, a pattern of mental model entities and relations, a scheme for the interpretation of whole situations or a state of affairs. In classical rhetoric topoi are defined as the 'places' in the mental landscape, where you can find topics relevant in relation to a certain problem. Typical topoi are slots in a frame for situations like: WHO, WHAT, WHERE, WHEN, HOW, WHY, MEANS AND ENDS, CAUSE AND EFFECT, SUBCATEGORIES, SIDECATEGORIES and SUPERCATEGORIES, PROPERTIES, EXAMPLES, PARTS AND WHOLE, ANALOGIES, CONTRASTS, OPPOSITIONS, FACTORS, FUNCTIONS, SORTS, ASPECTS, COMPONENTS, SOCIAL PROPERTIES, PHYSICAL PROPERTIES and PSYCHOLOGICAL CHARACTERISTICS, STRENGTH, VELOCITY, ACTIVITY, LIFE AND DEATH, NATURE and CULTURE, CREATION AND DESTRUCTION.

§ 57. The concept of topos is not only used in text production as a means of obtaining ideas, but also in text analysis as a means of interpreting whole paragraphs; the topos is equivalent to the motif of the paragraph, and the order of the topoi chosen in the text indicates the line of argumentation running through the text. Different text types can be seen as having different patterns of topoi characterizing the paragraphs.

§ 58. The interpretation of meaning from form on the levels of the sentence and the text is governed by two different principles: **the motif principle of compositionality and (metonymic) combination** of referential identities and consistent propositions (subordinated or downgraded), and **the thematic principle of holism and (metaphoric) selection** of mutually exclusive interpretations based on default values, isotopy and relevance structure. Motif interpretation can be seen as a continuous sequential both-and process of making the mental model more and more detailed, while theme interpretation is a discontinuous holistic either-or activity involving choice between gestalts, that which is called a singularity in catastrophe theory, a sudden restructuring of the mental representation of the interpretation of the whole utterance.

**The poetic function** in Roman Jakobson's model is viewed as a typical thematic interpretation process, and it is shown how the motif interpretation and the theme interpretation are complementary and mutually presuppose each other.

### III. The propositional function B. Truth

§ 59-60. The most well-known rule of language is the rule that the text has to be a true statement about the state of affairs; however, it is only one among five rules for sincerity, truth, relevance, fairness and comprehensibility. Five positions can be distinguished in the history of philosophy as regards the **definition of truth**: the theory of correspondence between the proposition and reality, the theory of truth as that which has survival value for the subject, the theory of truth as a set of coherent statements, the pragmatic truth theory, which defines truth as consensus, and the **ecological truth theory** defining truth as the balance between the organism's information to the environment and the information from the environment as interpreted by the organism.

§ 61. The question of truth can only be answered under the following presumptions: Everything is flux. Some parts of the flux have the capacity for perception and action, they are **organisms**. Humans have spatiotemporal perception. Organisms acquire experiences by extracting information about invariance and uniformity from heterogeneous spatiotemporal situations. Different organisms inhabit the same reality, but they extract different information about uniformities, in relation to which they act.

Humans construct, by the synthesis of abstract concepts, concrete representations of

situations, representations in which the **concrete** information **contains (implies)** the **abstract** information, and the **abstract** information **involves** the **concrete** information. Although humans act in relations to their representations of situations, they change reality according to their desires if the representation of the situation is **isomorphic** with fragments of reality. In the real world **energy** is exchanged and **causes** have **effects**.

Humans synthesize their representations of situations to a world view, which is knowledge of 3°. All information is partial, flat and abstract. Representations are constructed from perception, memory, inference, imagination and desires (called a **representation of the situation**) or from texts (the representation is then called a **mental model**). Reality is a human product, the real world is an objective reality. Humans (and their world view) are a product of reality.

§ 62. By means of texts, humans sharing approximately the same language can communicate instructions for the construction of representations of situations, viz. **mental models**. By motif interpretation communicators synthesize relatively concrete mental models consisting of networks with names representing things and objects located in space, and predicates representing relations and processes located in time. Construction of a mental model presupposes that the **theme** has already been chosen by the language user from among the possibilities of interpretation given by the linguistic forms in the text. The theme is a metarepresentation of fragments of reality.

Communication is a relation between two situations: from **the communication situation** with the sender and the receiver, reference is made to things and objects in space and events and processes in time in **the described situation**. Different formal parts of the sentence are used for **reference** and **description**: grammatical morphemes, inflectional endings (definiteness, tense) deictic words, conjunctions and pronouns make the reference from the communication situation to the described situation, and the semantic morphemes, names and predicates constitute the description.

Only descriptions have **truth value**, the reference is either efficient or not. Descriptions presuppose reference. Truth is thus a relation of correspondence and balance between two representations: between the mental model, constructed from linguistic input, and the representation of situations constructed from input from perception, memory, imagination and inference. The truth relation is a **one-way relation**. The isomorphy or correspondence is created by the change of the representation of situations in accordance with the mental model, never by the change of the mental model. Absolute truth does not exist because representations are always partial, flat and abstract, and consequently texts can only be relatively true. In practice **relative truth** is dependent on the degree to which the mental model is consistent, exhaustive, simple, corresponding to the world view, and in agreement with the common consensus of society.

§ 63-64. **Truth** is then defined as a relative **isomorphy** (correspondence) between an **efficiently referring, simple, exhaustive** and **consistent** mental model constructed from textual input according to the rules of language (about which there is consensus in society), and an appropriate representation of situations made from input from perception, memory, inference and imagination in accordance with the world view of the communicator. Texts are judged **untrue** by the receiver if they are inconsistent, redundant (not simple), not exhaustive, insincere, not corresponding to the receiver's world view, not corresponding to the receiver's representation of the situation referred to by the mental model, or not following the rules of language (about which there is consensus).

#### IV. The informative function A. Relevance

§§ 65-70. The concept of 'meaning' can not be defined independently of the concepts of '**relevance**' and '**information**' (i.e. propositional content relatable to both the mental model and the representation of situations). It is a constitutive rule for a text that it, as information for the receivers, has to be relevant, i.e. not too informative, not too redundant and in accordance with the interests of the **receiver**. For meaning, interpretation and communication to take place the sender and receiver not only have to have knowledge of a common language and to be able to code and decode messages, the sender must also make **manifest** to the receiver something not previously accessible to perception and inference, and the receiver must then **infer** the message (i.e. the information relevant for her or him) from the information made manifest by the sender, the background knowledge and a trust in the sender's guarantee of optimal relevance. The **inference** is made by non-trivial deductive elimination rules (modus ponens, modus tollens) or by abductive (metonymic) rules, never by trivial deductive rules introducing new concepts.

**Optimal relevance** is defined as an ideal situation where the information made manifest by the sender is 1) sufficient for the receiver's correct inferential interpretation of the sender's intention, 2) relevant enough to be worth the receiver's interpretation efforts and 3) the most economical way to communicate the information. This means that it is a condition for successful communication 1) that the meaning of the (grammatical) topic of the sentence is accessible to both sender (S) and receiver (R) (S is aware of it, R becomes aware of it), 2) that S knows the information put in the focus of the sentence, 3) That S is aware of the fact that R does not know the message, and 4) that S assumes that R prefers knowledge of the message to ignorance of it.

By means of 15 principles of relevance structure many of the word order rules in Danish syntax can be explained: **1.** All definite nouns are **given information**; by definite nouns the sender simply mentions what she presupposes to be known by the receiver. By means of all indefinite nouns, and nouns in bare form, all verbs, adverbs and most adjectives the sender communicates **new information** to the receiver.

**2.** The pieces of information which are fronted form the **topic** of the message. Here the sender refers to the time, place, persons or circumstances of the situation, providing the background which makes it possible to understand what is being communicated. Normally the topic of the message (marked with [brackets]) is a) the grammatical subject of the sentence, b) dummy subjects as *det* or *der*, c) fronted constituents on the **t**-position, viz. circumstantial relational adverbials or contrastive arguments; d) topics are placed in **n3**-position (late in the sentence) in constructions with *det*, and e) in cleft sentences, in which the topic makes up most of the information (and the focus may be definite).

**3.** The utmost (i.e. normally the last) piece of communicated information is the **news focus** of the message (marked with double underscore); it can be: a) indefinite arguments as objects (not subjects), indirect objects, complements, manner adverbials, adjectives (also in definite noun phrases), or the main verb (if no arguments are present in the sentence), b) the deep subject in the **n3**-position inthetic constructions with *der*, cleft sentences with *der*, or passive sentences (deep subject marked by *of*), or e) indefinite arguments of a subordinate clause which is an argument of the main verb.

**4.** By means of focusing the sender guarantees the relevance of the focus in relation to the following sentence. In this way the sender implicates the **argumentative direction** of the whole text, in the notation marked by the **implicated question** ('in petit') to which the next sentence will be the answer: a) if predicates of the type PROCESS or EVENT

are focused, the question is: 'and what happened then?', b) if an argument is focused, the question is: 'and what about that?', c) if predicates of the type STATE, modal verbs + infinitive, adjectives, manner adverbials, or nouns as complements are focused, the question is: 'why?', 'how?', or 'and consequently?'. [*The snake*] gave *Eve the apple* 'and what happened then?' - [*The snake*] gave *Eve* an apple 'and what about that apple?' - [*The witch*] gave *Snowwhite* the red apple 'and consequently?' - [*Der*] kom en betjent (there came a policeman) 'and what about him?'

5. Information which is neither topic nor focus is **neutral information**: a) arguments in definite form, and b) circumstantials which are not in the latest position. The neutral information is necessary for the interpretation of the focus, but it has no impact on the relevance of the sentence in relation to the next sentence. The question would be 'and what happened then?' even if the sentence was: [*The snake*] gave *Eve the orange*, because *the apple* and *the orange* is neutral information.

6. The **principle of relevance** means a) that the reference to the topic is made as economically as possible (by the weakest expression which is sufficient), b) that communication of the relevant focus is done as efficiently as possible (by the strongest expression which is true), which means that the receiver always can add as **implicated meaning**: 'the focus and only the focus'. c) The sender implies that the less informative alternatives to the focus are true, and d) implicates that the more informative alternatives to the focus are not true or relevant for the receiver.

[*She*] has three children implies 'she has two children' and implicates 'she has three children and only three' = 'she has not four children'. Four is more informative than three, and *and* is more informative than *or*. *Anarchy or chaos* implicates 'not anarchy and chaos'.

In the interpretation of the implicatures the receiver uses **abductive reasoning** of the type: Major premise: If S means that something is relevant, she puts it in focus position; minor premise: S puts *three* in focus position; conclusion: S means that *three* is relevant. If S finds that something is not relevant, she does not put it in focus position; there is nothing but *three* in focus position; nothing but *three* is relevant. The abductive reasoning does not lead to a necessary conclusion, and that is why implicatures can be cancelled while implications can not.

§ 67. 7. The sender chooses the level of abstraction in accordance with the principle of relevance; this means a) that the most abstract expression which refers unambiguously is selected as topic, and b) that the most concrete expression is selected as focus. [*Peter*] is going to town today. [*He*] is going to meet a woman. *He* is the most abstract expression which refer to 'Peter', and because *woman* is the most concrete expression of the person he is going to meet, it can not be his wife, sister, or platonic friend. Because if it had been, one of these expressions would have been selected.

8. When the sender does not tell something new to the receiver, but identifies one entity known by the receiver with another entity also known to the receiver, the sender uses **identity focus**. Identity focus does not indicate the argumentative direction, so 'no question' is implicated. a) in cleft sentences the sender presupposes the right located topic and implicates that all alternatives to the focus are excluded, viz. 'the focus and only the focus'; b) in *wh*-cleft sentences the sender presupposes the information in the *wh*-clause and implicates that the expected negation of the focus is cancelled: 'the focus and actually the focus'; c) in identity predication the predicate means 'is' and both the subject and the complements may be definite; d) in *wh*-questions the *wh*-word is focused, and in *yes-no*-questions the truth value of the proposition is focused; the rest is presupposed. *It was Peter who came* implies 'someone came' and implicates 'nobody but Peter came'. [*Hvem Peter møtte*], var hans

kone (litt.: whom Peter met was his wife) implies 'Peter met someone', and implicates 'it was actually his wife (counter to what you expected)', *It is her* 'no question'. [Hvem] leder du efter? (Who are you looking for?) [Is] it her?

9. When the sender emphasizes a constituent besides the focus, the focus is a contrastive focus, i.e. only valid under the restrictions indicated by the emphasized contrastive element (marked by <CAPITALS>). In sentences with contrastive focus it is implicated: 'and only under this restriction' and 'BUT>> the contrast to the focus and the contrast to the emphasized constituent', but the focus, and not the contrastive element, is in the scope of the negation. A constituent is emphasized by a) parallel fronting of the same type of constituents in two sentences, b) extra stress on the contrastive constituent, c) a constituent placed in the fronted focus position, d) overspecification of the subject topic, illocutionary verbs, or relational adverbials which introduce alternative mental spaces in the fronted topic position. [<IN THE OLD DAYS>] *the church told people how to live* 'and only in the old days', 'BUT>> in our days it does not tell'. [<IN OUR DAYS>] *the church has little importance* 'and only in our days', 'BUT>> in the old days it was very important'. [<HAM>] *kender du (da) (him you know)* 'and only him', 'BUT>> the others you don't know'. [The <FIRST> tooth] *comes in the mouth* 'and only the first one', 'BUT>> the second and the third come on the knee'. [<ON THE PICTURE>] *she has green eyes* 'and only on the picture', 'BUT>> in reality she has blue eyes'. [<IF YOU MOWE THE LAWN>], *I'll give you 50 kr.* 'and only if you mowe it', 'BUT>> if you don't I won't'.

10. Negated main clauses are only used when the sender wants to erase some information which is already in the mind of the receiver. The scope of the negation (indicated by underlining) is the focus (the utmost argument or the predicate) or possibly a circumstantial to the right of the negation. By means of negation the sender implicates: 'ELSE>> the less informative alternative to the non-negated focus is otherwise the case', 'BUT>> something else (not negated) is on the other hand the case'. [Whales] *are not fish* 'ELSE>> whales are sea animals', 'BUT>> whales are mammals'. *She didn't sleep because she was ill* is ambiguous: [She] *didn't sleep because she was ill* 'BUT>> she was awake', or: [She] *didn't sleep because she was ill* 'BUT>> because of the noise'. [Peter] *didn't eat three biscuits* 'ELSE>> he ate some', 'BUT>> he did eat two'.

11. By negative yes-no-questions the sender implicates that a positive answer is expected; the expected answer to *Didn't Peter come?* is: *Yes indeed he did!*

12. By using certain words (conjunctions, adverbs, modal verbs, special verbs and nouns, marked by underlining) which indicate the argumentative direction of the sentence, the sender implicitly presupposes certain semantic relations between other words in the sentence. The implicit presuppositions are marked: P>>'implicit presupposition', and the conclusion which can be drawn from the focus and the focus information by abductive reasoning is marked: I>>'implicit message'. [He] *was a negro but well groomed* P>>'normally negroes are not well groomed', I>>'he is good enough'. [Peter] *is little worried about his bad breath* P>> he acts as if he was not worried', I>>'therefore he will have no qualms about kissing Mary'.

13. If the information which is presupposed as known by the receiver is in fact not known, it is communicated to the receiver by **indirect message**. [When] *did you stop beating your wife?* P>>'you are a man, you have a wife, you have been beating her, you have stopped beating her'. [She] *knows that he will come* P>>'he will come'.

14. A distinction is made between **presuppositions**, the implicit information presupposed every time a certain word is used, **implicatures**, the implicit information presupposed by the utterance of a sentence in a certain situation, and **implications**, the implicit information which is communicated because it is implied by the focus.

15. If the sender is not sincere (honest) and does not believe the information presupposed and implicated, and if the sender knows that the receiver does not know that this is the case, then presupposition failures (called **deception**) and implicature failures (called **confidence tricks**) occur. Genuine presuppositions are found in definite nouns, factive verbs, implicative verbs, verbs of the event type, iteratives, evaluating illocutionary verbs, temporal clauses, cleft sentences, contrastive stress, comparison, parenthetical relative clauses, counterfactual conditionals, questions, emotive words, adverbs and conjunctions, modal verbs.

#### IV. The informative function B. Composition

§ 71. Like the text as a whole, any **sequential unit** must be relevant, i.e. not too informative, not too redundant, and in the interest of the receiver. This means that the receiver when going from one unit to the next is bound to interpret a semantic connection between them. Texts, like sentences, are composed by means of a **hierarchy** of syntagmatic units with **semantic connections** between them on all levels. The types of sequential units are defined partly by their propositional material, partly by the environmental connections, and the types of connections are defined partly by the words (conjunctions) expressing them, partly by the sequences they connect; e.g. the connection between CAUSE and EVENT is of the type **therefore:**, and sequential units connected by **therefore:** are of the types CAUSE-EFFECT, INTENTION-ACTION or EXPERIENCE-REACTION.

§ 72. Syntagmatic cohesion is established by propositions and connectors, the types of **connections** are: *and:*, *or:*, *but:*, *like:*, *even:*, *presupposed by: (prb:)*, *presupposing: (p:)*, *then:*, *while:*, *after:*, *that:*, *unquote:*, *because:*, *therefore:*, *in spite of:*, *although:*, *for:*, *viz.:*, *i.e.:*, *in short:*, *e.g.:*, *consequently:*, *since:*. **Terminal types of sequential units** (propositions) are: STATES (S), PROCESSES (P) or CHANGES (C), and: AGENTPROPOSITIONS (A), EXPERIENCER PROPOSITIONS (E), or OBJECTPROPOSITIONS (O). By their combination the following subclasses are defined (row and column indicated in parenthesis): CLASS (S&A), PSYCHOLOGICAL CHARACTER (S&E), PROPERTY (S&O), BEHAVIOUR (P&A), CONSCIOUSNESS (P&E), SITUATION (P&O), ACT (C&A), UTTERANCE (C&A), EXPERIENCE (C&E), INTENTION (C&E), EVENT (C&O). **Non-terminal sequential units** (greater than propositions) are: (PIECE OF) INFORMATION, CONCLUSION, JUDGEMENT, ASSUMPTION, (LOGICAL) PRINCIPLE, ASSERTION.

§ 73-75. The grammar of the narrative, the news story and the argumentative text can thus be described by a set of rewrite rules:

'-<'= consists of, `(...)' = optional, `/'= either ...or

<10> NARRATIVE -< (INTRODUCTION *prb: while:*) EPISODE (*consequently: then:* END)

<11> INTRODUCTION -< STATE/PROCESS (*and:* STATE/PROCESS)

<12> EPISODE -< COMPLICATION *therefore:* REACTION

<13> END -< STATE/PROCESS/CONCLUSION/ASSUMPTION/JUDGEMENT/PRINCIPLE

<14> As COMPLICATION -< As EVENT/EXPERIENCE/ Bs EPISODE

<15> REACTION -< BEHAVIOUR/ACT

<16> NEWS -< HEADLINE *viz.:* TEXT

<17> TEXT -< SUMMARY *viz.:* TEXT

<18> HEADLINE/SUMMARY/TEXT -< INFORMATION

<19> INFORMATION -< WH (*and:* INFORMATION)

<20> WH -< PROPOSITION

<21> ARGUMENTATION -< (INTRODUCTION *prb:*) THESIS (*consequently:* END)

<22> THESIS<sub>x</sub> -< ASSERTION<sub>u</sub> (*and:* PRINCIPLE<sub>v</sub>) *consequently:* CONCLUSION<sub>x</sub>

<23> CONCLUSION -< ASSUMPTION/JUDGEMENT/REGULATION/PRINCIPLE

<24> ASSERTION<sub>v</sub> -< (COUNTERASSERTION<sub>u</sub> *but*:) ASSERTION<sub>v</sub>

Composition is not only the connection of propositions and other units on a higher level, which is necessary for the interpretation of the cohesion of the text; composition can itself be a pattern with a **(poetic) message** of its own. Thus, the composition of the news story is a right branching structure, expressing actuality and gradually decreasing importance; argumentation is a left branching structure expressing the increasing degree of importance (relevance) of the propositions; and the narrative is a symmetrical structure with an asymmetrical core, expressing the symmetrical relations of the sender and the receiver and the asymmetrical relations of the hero and the antagonist in the situation described. All types of symmetry and repetition express poetic surplus meaning, e.g. the non-explicit theme of a metaphor or a parallelism. **Double isotopy** (§§ 44 and 58) is found in composition too; the punch line of a joke is the expected REACTION of an EPISODE on a low level, and on a high level at the same time the unforeseen RETROSPECTIVE REVALUATION (JUDGEMENT) of the equivocal text.

## V. The contact function A. Fairness

§ 77. As contact through the **channel** (the physical or social arrangement which makes communication possible) the text must be regular and fair, i.e. distribute communicative rights and obligations equally among the communication partners. A distinction is made between the receiver's general (counterfactual) ideal **expectations** regarding the sincerity, truth, relevance, fairness and comprehensibility of any utterance, and the sender's assertion of a specific **validity** of the utterance with accompanying specific responsibility and obligation.

The sender can, by focusing on one dimension of validity, communicate the type of speech act the utterance should count as, define the type of (confirming or rejecting) responses that are open to the communication partner, and commit herself to legitimation if the validity is doubted. In the following I note for each specific a/ **dimension of validity**, the corresponding type of b/ *speech act*, the type of c/ the receiver's possible confirming response, and the type of d/ the sender's legitimation: 1/ **sincerity** - *judgement* - revealing - ensuring, 2/ **truth** - *assertion* - belief - explanation, 3/ **relevance** - *message* - acceptance - reconfirmation, 4/ **fairness** - *regulation* - act - justification, 5/ **comprehensibility** - *communication* - understanding - elucidation.

§ 78-80. The receiver's ideal expectations are described by Searle as preparatory rules, sincerity rules and propositional rules, and by Habermas as **transcendental rules**, i.e. rules that are 'always already' presupposed prior to the event of communication even though they turn out to be counterfactual.

From the point of view of the observer, the type of speech act that an utterance should count as can not be determined until three utterances later in the communicative interaction; only from the sender's reaction to the receiver's reaction to the utterance can the observer infer whether the sender felt that her intentions were understood properly or not. A speech act can only be answered in three different ways: **by confirmation, rejection or disconfirmation**; and disconfirmation is not a proper answer.

The ideal of **truth** is sometimes described as the fundamental ideal of communication, but here it is given the same level of importance as the ideals of sincerity, relevance,

fairness and comprehensibility. Examples from Ludvig Holberg's *Erasmus Montanus* show that the ideal of truth is not more fundamental to communication than the ideal of fairness.

## V. The contact function B. Speech acts and relations

§ 81. Different **classifications of speech acts** have been proposed by Austin, Searle, Habermas, Baldegger et al. I propose a classification with five categories: *assertions*, *messages*, *regulations*, *communications*, and *judgements*. The classification criteria are: the type of the focused function of the utterance (propositional, informative, regulative, language use or expressive), the receiver's specific type of response and answer, and whether the speech act is an opening act or a reaction.

§ 82. **Regulations** are the most typical speech acts, regulating the relations of rights and obligations between the communication partners, e.g. a promise is a statement of the sender's obligation to carry out a future act and of the receiver's right to sanctions if it is not carried out. In the same way 16 regulative speech acts are defined as a group (§ 38-39): order, obey, disobey, promise, accept promise, reject promise and others.

§ 83. The **form-meaning relations in speech acts** has been discussed by Searle, Bartsch and Labov. I propose that the utterance: - *Can you pass the salt.* is interpreted by **abductive inferences** and the interpolation of logical principles of communicative implications like: 'information is only relevant for those who do not know it', 'the sender makes only manifest what is relevant', 'it is a prerequisite for someone's doing something that they are able to do it'. The sentence then means: 'the sender states that it is relevant for the receiver to pass the salt'.

§ 84. The type of speech act type is normally marked syntactically in the utterance by sentence type (§ 20), performatives, modal verbs, attitude adverbials and by the type of predicate; examples: modal verbs are used in many regulative speech acts: in 'ask for permission', 'promise', 'permit', 'order'. A distinction is made between attitude adverbs expressing criteria of knowledge (*obviously*), adverbs of judgement (*unfortunately*), markers of distance (*so-called*), signals of engagement (*really*) and markers of composition (*first*). Finally the different types of predicates (§ 30) indicate the speech act type.

§ 85-86. When information presumed known by the receiver is in fact not known (-R) it is communicated by indirect message (§ 66), but in this way a communicative relation of **mutual knowledge** between sender (S) and receiver (R) is also defined. This relation depends on whether the sender herself knows what she presumes known (S±), whether the sender knows that the receiver does not know it (SR±), whether the receiver knows whether the sender knows this (±RS) and so on until the fourth level: SRSR± and ±RSRS. From patterns of positive and negative mutual reflexive assumptions different types of communicative relations are defined: **standard situation** (+ all over), **naivety** (-R, SR+), **deception** (S-, SRS+), **disguise, insincerity** (S-), **communicative failure, communicative balance, communicative solidarity, neglect, rhetorical behaviour, irony, sarcasm, befooling, cynicism** (- all over) and **bullying**. As an example Socrates' questions in Plato's *Symposium* are analyzed as sarcasm and bullying.

§ 87. Text **types** or genres are defined as inaccurate but global hermeneutic frames, chosen by the receiver after reading the first few lines in order to facilitate further interpretation on the basis of the communicative relations (§ 85-86), the grammatical morphemes (definiteness and tense), narrator and addressee, types of speech acts (§ 81),

level of abstraction and composition of speech acts.

§ 88. Text types are the result of a historical development, and no convincing text type theory exists as yet, although proposals have been put forward by authors on classical rhetoric, Aristotle, Fafner, Wentzel, Brandt-Pedersen and Rønn-Poulsen, Werlich and Togeby.

## VI. Function of expression A. The sender

§ 89. If the text is not taken to be a sincere expression of the intentions and attitudes of the sender, there are two possibilities: the sender is either **mad or bad**. In § 85-86 different types of badness were discussed; here the causes of madness are found in the unconscious processes of the mind. Distinctions are made between different types of **unconsciousness**: rule executing processes, perception processes, memory processes, and Freudian repressed material, and between different types of **consciousness**: analog representations (having meaning because of similarity) and digital representations (combinable because of discreteness).

The transition in the history of man from nature to culture is taken as a metaphor of the change from analog semantic representations that differ in substance to digital representations with a syntax of significant differences (differences that make the difference) yielding an endless number combinations. § 90. The mental process involved in text processing comprises first of all Freud's unconscious **primary processes** characterized by: ambivalent labile but intense feelings, displacement, condensation, pars-pro-toto, no logic, i.e. no negation, no distinction between present, past and future, between reality and fantasy, nor between self and environment. These are comparable to **deep semantic configurations of semes** and the choice of words. Text processing also comprises (unconscious and conscious) **secondary processes** characterized by stable feelings and isotopy (identity), logic, postponement of reactions (distance between stimulus and response), abstract thinking. These are comparable to **surface semantics, mental models and information structure**. Thus normal text processing involves both primary and secondary processes.

§ 91. **Dreams and slips** (slips of the tongue or of the pen, misrememberings) are examples of insincere and mad texts. Freud explains them as produced by primary processes dominating over secondary processes, as conscious products of an illegitimate wish processed and 'disguised' by primary processes, and not filtered or repressed by secondary processes.

§ 92. Timpanaro argues that all Freud's examples of slips can be explained in other ways, viz. by the accepted principles of **textual criticism** in philology: as the hackneying, forgetting the redundant information and *saut même au même*. But Freud's claims are not scientific formulations of explanatory laws for textual errors, but principles of hermeneutic unravelling of the specific (historical) origin of the error. Freud's theory is a modern theory where 'cause' and 'effect' are replaced by 'structure' and 'information'.

§ 93. **Lacan's** theories concerning 'the unconscious as discourse of the Other', and 'metaphor as implantation of a foreign signifiant in the chain of signifiants' is criticized for being based on an intentional misinterpretation of both Freud and Jakobson. The theory of **Laplanche** shows correspondence between Freud's concepts of 'Sachvorstellung', 'Wortvorstellung' and 'Dingvorstellung' and Hjelmslev's 'substance of content', 'substance of expression' and 'sign relations', respectively.

## VI. Function of expression B. Style

§ 94. By means of **style**, i.e. by choosing among synonymous variants of form, the sender defines the social relation to the communication partners and presents her conception involved in the factors of the speech situation, viz. **the narrator, the addressee and the mental model**. The narrator and the addressee (the representations in the text of sender and receiver) can be inferred from the distribution of different types of information (§§ 66-69) and from the communicative relations of mutual knowledge (§§ 85-86). The addressees are characterized by the information they are not expected to have in advance, i.e. the information communicated (focused or inferred) by the utterance, e.g. - *You are not allowed to lie on the tables*; the narrator is characterized by information she believes the addressees to have, i.e. the given information, especially by the information communicated by indirect message (§ 66), e.g. - *Father was sober yesterday*.

§ 95. Style is also signalled by the choice of personal pronouns, syntactic patterns, level of complexity, level of abstraction, degree of correctness, length of the utterances and length of the sentences. All the choices communicate relations of **power and solidarity** among the communication partners, viz. ambition, dominance, belief in authorities, neatness, defiance, formality, invisibility.

§ 96. If the receiver does not take an utterance to be sincere, he interprets it as a symptom of a deficiency on the part of the sender, who is experienced as either bad or mad or both. **Textual features** which in this way **disqualify communication** are i.a.: incorrect focusing (§ 19), incorrect attitude adverbs (§ 84), coordination of non parallel material (§ 18) and incorrect indirect implicature (§ 68).

§ 97. Jakobson convincingly argues that two types of **aphasia** are caused, respectively, by a disturbance of the **faculty of selection and substitution** of equivalents and of metalinguistic operations like metaphors and definitions, and by a disturbance of the **faculty of textuality**, i.e. the cohesion of contiguous units and metonymy, and of the combination of sequential units into a hierarchy.

Based on this observation text processing is described as the manipulation of two kinds of relations: **equivalence** (E) and **contiguity** (C) in two dimensions: **position** (P) and **semantic** (S), yielding four types of processes: metaphoric (PE & SE), metonymic (PE & SC), metalinguistic (PC & SE) and predicative (PC & SC). In this scheme **poetic language** is viewed as a projection of the principle of equivalence to the axis of combination (and of the principle of contiguity to the axis of selection). And **schizophrenic discourse** is viewed as the selection of non-combinable sequences from non-equivalents, and the combination of non-contiguous units with a unit on a higher level which does not permit selection. In the terms of this book, schizophrenia is caused solely by a lack of monosemiation by isotopy.

§ 98. In conclusion text processes are defined as a dialectical exchange of processes of two types: serial, **digitally computing processes of combination** defined by **mathematical group theory**, yielding compositional hierarchical representation, and **instantaneous analogically computing processes of choice** defined by the **theory of logical types**, yielding transcendental holistic metarepresentations.

In modern neuropsychology the two types of processes are localized to the right and the left brain hemisphere respectively. As a metaphor describing how the two types of processes are intertwined in the mind, one type of representation coming from the right and another from the left, constantly being sent back and forth between the hemispheres, this description has many advantages when compared with Freud's notion of the

subconscious analogical processes as primary and conscious digital processes as secondary in time.

## VII. The Whole

§ 99-100. A good metaphor for the main problems involved in text theory is the problem you meet trying to describe the geometrical figure of a pentagram. You can either write instructions (a computer program) showing how to construct a pentagram like the following: 'Draw a straight line one step forward, make a line 4 times one step back-wards to the right at an angle of 36°; end!'

This procedural compositional reductionistic description is scientific, i.e. corresponding, exhaustive and simple, but it fails to explain the many meanings and esthetical qualities which make the pentagram a very pregnant figure as a sign: a pentagram is the prototypical star, in it 20 lines are divided by the golden section, which means that it can be multiplied in a manner of organic growth, it is symmetrical over 5 axes, and circumscribed by a pentagon, it comprises 35 golden section triangles.

Or you can grasp the impact of all these qualities, the wholeness, the non-summativity and the surplus meaning of symmetry, by mystic, religious or literary descriptions like 'the foot of the druid', 'Salomo's seal' and 'the star of wholeness'. These metaphoric, classificatory, irreducible descriptions, on the other hand, fail to describe how the golden sections are made and how the figure can be reproduced in a controlled manner. So the best description of a pentagram must be both types of descriptions taken together. But you can not combine the two types of descriptions, you can only add them: you can not describe at exactly which moment in the drawing process the golden section with its esthetical quality is being made .

And that is the problem of text theory. You can either describe the serial processes by which the text is processed and which have reality over time in the human mind, but then you can not explain what is meant. Or you can describe the meaning of the text, but you can not describe the process by which it is chosen. The two descriptions are complementary, united but mutually exclusive.

The rules for sentence syntax, for the construction of mental models, for the composition of texts, for combinations of speech acts, are all procedural rules. The choice of isotopy of the words, of the topos of the paragraph, of the theme of the text, of optimal relevance of information, and of the communicative relation of mutual knowledge are described as holistic meanings.

So text interpretation is a dialectical exchange between serial combination (both-and processes) based on mathematical groups and choice of meaning (either-or processes) based on logical types. And the shift from choice to combination and vice versa is performed at least as many times, and at exactly the same times as a golden section is being made when you are drawing a pentagram: never and always already.