

PAPERS ON FUNCTIONAL SENTENCE PERSPECTIVE

edited by

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1974

ACADEMIA
PUBLISHING HOUSE OF THE
CZECHOSLOVAK ACADEMY
OF SCIENCES
PRAGUE

MOUTON
THE HAGUE • PARIS

FUNCTIONAL SENTENCE PERSPECTIVE AND THE ORGANIZATION OF THE TEXT

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The relevance of functional sentence perspective for the organization of discourse (or text) is beyond doubt. We do not claim that the whole linguistic theory or "grammar" of texts should be reduced to FSP (cf. SKALIČKA 1960), but Halliday's statement that "given the clause as domain, ... theme [= FSP] is the grammar of discourse" (HALLIDAY 1967) holds good, with certain modifications, beyond the domain of the clause as well.

I

In the works dealing with FSP three aspects of the phenomenon under discussion have been pointed out by various authors: (1) known (given) information – new information; (2) theme (T) – rheme (R); (3) different degrees of communicative dynamism (CD). As I have pointed out elsewhere (cf. DANEŠ 1964) the distinctions (1) and (2) go back to V. MATHESIUS. In his wellknown paper from 1939 he defines the "starting point of the utterance (východisko)" as "that which is known or at least obvious in the given situation and from which the speaker proceeds", whereas "the core of the utterance (jádro)" is "what the speaker states about, or in regard to, the starting point of the utterance". The same author defines (in 1942) "the foundation (or the theme) of the utterance (základ, téma)" as something "that is being spoken about in the sentence", and "the core (jádro)" as what the speaker says about this theme. – Distinction (3) has been introduced by J. FIRBAS. By CD he means "the extent to which the sentence element contributes to the de-

velopment of the communication" (1964, 270) and at the same time he states that T is constituted "by the sentence element(s) carrying the lowest degree(s) of CD within the sentence" (ibid., 272). T "need not necessarily convey known information or such as can be gathered from the verbal and situational context" (ibid.). This third aspect of FSP may be viewed as a refined analysis of aspect (2). (In fact, the different degrees of the thematic and rhematic character of sentence elements were mentioned even by Mathesius.) Instead of a strict bipartition of the "information-bearing structure" of the sentence (to use P. Garvin's rendition of Mathesius's Czech term "aktuální členění") we arrive at an uneven distribution of CD over the sentence, assigning various degrees of thematicity, or rhematicity to different sentence elements.

The two basic aspects of FSP, i.e., the contextual and the thematic ones, have been pointed out by other linguists as well, e.g. E. BENEŠ (1959, 1968), M. A. K. HALLIDAY (1967), P. SGALL (1969), F. DANEŠ (1964, 1970). Most distinctly and consequently this distinction has been pursued by Halliday: in the broad area of "Theme" he distinguishes two simultaneous structures of text: (1) "information focus" (given – new), and (2) "thematization" (T – R). The former determines the organization of text into discourse units, the latter frames each clause into the form of a message about one of its constituents.¹

It should be noted, however, that the said distinction is an incomplete dichotomy: the differentiation concerns the first members of the two pairs only (i.e., the known (given) piece of information vs. theme), while the second members are identical, viz. the core of the utterance or the rheme (what the speaker says about the

¹ HALLIDAY (1967) summarizes this distinction in the following way: "...while 'given' means 'what you were talking about' (or 'what I was talking about before'), 'theme' means 'what I am talking about' (or 'what I am talking about now')". He calls the theme also "the point of departure"; this term (Czech "východisko") was used by Mathesius in connection with "known information", however.

known information, or what he says about the theme).² After all, what makes the investigators differentiate between "known" and "theme" is the fact that there exist cases where T does not convey known information (cf. FIRBAS 1964) or where the ranges of both do not fully coincide. It is true that such cases remain in the minority (cf. Mathesius's statement (1939) that the "starting point" (defined as known information) very often represents the theme of the utterance) and are experienced as special or marked (cf. HALLIDAY, 1967, 17: "there is in the unmarked case ... and association of the theme with the given"). Nevertheless their existence undoubtedly calls for, and justifies, the said distinction.

This being so, we may assume that the connexion of FSP with the text structure proceeds along two lines. The first line, i.e., the opposition between known (given) and new information, clearly involves the textual and situational environment. Halliday (op. cit.) states that it is "closely bound up with the cohesive patterns such as those of substitution and reference" (17) and "does contribute in large measure to the organization of discourse" (16). (The close relationship of the phenomena of anaphora with FSP has been pointed out by B. PALEK, 1968.)³

From Halliday's statement that "thematization is independent

² The position of HALLIDAY (1967) is somewhat different, and not quite clear. He defines the rheme in English clauses very indistinctly and indirectly ("the theme is assigned initial position in the clause, and all that follows is the rheme" 17) and his discussion of the T — R structure is concentrated on the choice of T; only from the example on p. 22 may we guess that focus and theme principally do not coincide. Cf. also his statement on p. 8: "...in the unmarked case the focus of information will fall on something other than the theme; it will fall at least within the rheme, though not necessarily extending over the whole of it." Roughly speaking, the most discussed problems are the focus (new information) and the theme (what is being talked about), while the other two functions stand rather in background.

³ PALEK (1968) has also suggested a useful distinction of the contextual and the textual approach: the former proceeds from the sentence and takes into account those features of it that are due to its cohesion with neighbouring sentences, while the latter takes as its point of departure the discourse and looks for the network of relations linking together its elements.

of what has gone before" (ibid., 17), i.e., of the preceding context, it might follow that this second aspect of FSP is irrelevant in respect to the organization of text. But such a conclusion appears very doubtful in the light of the fact that the choice of the themes of particular utterances can hardly be fortuitous, unmotivated, and without any structural connexion to the text. In fact, even a superficial observation of texts shows that the choice and distribution of themes in the text reveal a certain patterning; this statement also corresponds to our intuitive expectations that the progression of the presentation of subject-matter must necessarily be governed by some regularities, must be patterned.

In order to throw more light upon the relationship of the notions "known (given) information" and "theme", let us analyse more deeply the former notion.

It is evident that the notion "given (known)" is relative and very broad (if not vague):

(1) Given or known is that information which is derivable or recoverable (to use Halliday's wording) from the context, situation and the common knowledge of the speaker and listener. Certainly, there exist individual divergencies between the two, due to differences in their experience, memory, attention, etc. But after all, it is the speaker's evaluation that is the determining factor; this does not exclude, of course, that the speaker takes, more or less, into account the presupposed position of the listener.

(2) The communicative feature of "givenness", assigned to particular sentence elements, is a graded property.

(3) "Givenness" depends on the length of the portion of preceding text in relation to which the evaluation is being carried out. The upper limit of such a portion should be empirically ascertained. We may tentatively assume, that these portions or "intervals" are in a way correlated with the segmentation of text into paragraphs, groups of paragraphs, chapters, etc. We may even expect a kind of hierarchy or stratification of the feature "given": taking for granted that not only particular utterances but also the sections of text, as paragraphs, etc., and the whole text have "themes" of their own ("hyperthemes"), we can expect that, e.g., the theme of

Given

a chapter will be evaluated as "given" throughout the chapter, so that the "interval of givenness" in respect to the information carried by this "hypertheme" will be the whole chapter.

(4) The contextual determination of givenness is far from being a simple phenomenon. We might tentatively suggest that as "contextually given" may be regarded such semantic information that has been somehow mentioned in a qualified portion (interval) of the preceding text. It can be mentioned directly, or indirectly. In the first case, it can be mentioned not only with the identical wording, but also with a synonymous expression, or with a paraphrase (cf. Pike's "hypermeaning" or "verbalized concept"). The indirect mentioning is based on semantic inference (or semantic implication, if viewed from the opposite point). Thus, e.g., the expression "illness", occurring in an utterance, might be experienced as conveying a known piece of information if in a preceding sentence (belonging to the same text interval) "health" has been somehow mentioned. The notion of semantic inference (implication) needs a more exact elaboration in terms of distinctive semantic features and their sets. It is clear that, in principle, such semantic relations are involved as those obtaining between a term and its generic terms (hyponymy and hyperonymy), "associative" relations, exemplified by such as "restaurant" — "lunch"; "summer" — "vacations"; "science" — "investigator", etc.

(5) The evaluation of (the degree of) contextual givenness depends also on the delicacy (determined by various factors, partly objective — e.g., stylistic — partly subjective) with which the speaker (and listener) evaluates a given expression as semantically implied in a certain preceding expression.

(6) Last but not least let us point out the very important fact that the relative character concerns the notion of "new" information as well. Halliday has pointed out that the new piece of information is "new" not in the sense that "it has not been previously mentioned although it is often the case that it has not been, but in the sense that the speaker presents it as not being recoverable from the preceding discourse" (1967, 7/8). The first part of this exposition is obviously true, but the final statement is somewhat obscure, since

the author does not explain by what kind of procedure the speaker gets the listener to interpret what, in fact, is recoverable from context, as not being recoverable from it, as being "new". There must exist some objective principle underlying the possibility of presenting something that has been previously mentioned as a "new" piece of information.

Let us examine the following example:

Sedimentary rocks. (1) Most of historical geology has to do with sedimentary rocks and their contained organic remains. (2) This is accounted for by the fact that events in earth history are recorded mainly in terms of differing kinds of sedimentation...

It is obvious that "sedimentation", representing an essential part of the new information of sentence (2), is fully recoverable from the preceding sentence (in respect to the expression "sedimentary rocks"). But what is new is the connexion of "sediment-" into which it has been put. By "connexion" I mean here not only the rather trivial fact that a word may occur in different collocations or other phrases (i.e., in different multiverbal denominating units), but also, and foremost, the position (or function) of the given element in the communicative structure of the utterance.

In other words: the property of being new has two, independent, aspects: (1) "new" in the sense of "not mentioned in the preceding context", (2) in the sense "related as Rheme to a Theme to which it has not yet been related". In the former case, the property "new" is assigned to the expression itself, while in the latter it is the T — R nexus that appears as new.

This interpretation is justified by the following facts: First, in all cases the new element functions as R (as we have mentioned above, Mathesius did not make a distinction between "new piece of information" and R, and also HALLIDAY (1967, 8) states that new information "will fall at least within the rheme"). Second, it is not R alone, but its connexion with the given T that is communicatively relevant (cf. E. BENEŠ 1968, 271). — Thus we may conclude that the information accumulated, at a certain point of a text (or, within a text interval), comprises two kinds of elements (appearing as "known"): denominating units, and T — R nexuses.

The amount (or the potential) of successively accumulated information is mostly so extensive that the speaker, carrying on the discourse, must necessarily make a choice from this mass. And we may rightly assume that he selects the utterance theme from it (unless he has some special reason to choose something that is not comprised in it). In any case, the portions (elements) of "known" information occurring in an utterance are exactly those elements that are closely connected with the selected T (and indirectly with R). Our conception of the utterance theme stands near to E. Beneš's characterization of the "point of departure" (Cz. "východisko", G. "Basis") as "the opening element of the sentence" that "links up the utterance with the context and the situation, selecting from several possible connexions one that becomes the starting point, from which the entire further utterance unfolds and in regard to which it is oriented" (1959, 216).⁴

To put it differently: it is evidently necessary to distinguish between the mass of information accumulated up to a certain point of text, and the portion of this mass contained (occurring) in the particular utterance following this point. This distinction involves a selection from the mass of known information for every utterance. We assume that this selection is determined, directly or indirectly, by the choice of the utterance theme. Thus we must not be content with a statement that certain sentence elements convey the known information (in contrast to others, conveying the new one), but we ought to find out the principles exactly according to which this and not another portion of the mass of known information has been selected. In other words, we have to inquire into the principles underlying thematic choice and thematic progression.

Note:

In his stimulating article K. HAUSENBLAS (1969) defines the theme as "what has been posited to the fore, into the focus of the field of vision and, at the same time, what presents a foundation to be developed (elaborated) in the

⁴ BENEŠ (1959) distinguishes between this "point of departure", and what he calls "foundation (základ)" of the utterance. Cf. p. 221 of the present volume.

subsequent discourse" (7). From this statement two functions of the theme may be deduced: (1) the perspective function, consisting in hierarchical gradation of thematic text components (and involving a static point of view, regarding the text as a completed whole), (2) the prospective function, in which the theme serves as a point of departure for the further development of the semantic progression and, at the same time, as a prospect or plan of this development (in which case, the dynamic aspect of the progressive realization of the text is accounted for).

The pointing out of the dynamic aspect of text construction is new and undoubtedly deserves further attention. Unfortunately, from Hausenblas's brief exposition it is not easy to get a clear-cut picture what this aspect really consists in and where to draw the line between the two aspects. Generally speaking, these difficulties probably arise from the lack of an exact model of the dynamic structure of objects, realized in time (real or fictitious); such a model, taking into account their progressive growth, would involve a progressive nexus (relative to the "future" functions of components in the subsequent portion of the text and in the resulting whole), a regressive nexus (relative to possible modifications and transformations of components arising from the backward effect of subsequent components), and a continuous process of cumulation. It might be interesting to reinterpret our notion of "thematic progression" in terms of the two aspects.

It is obviously not by chance that the studies of FSP predominantly concern the problems of theme (and not those of rheme — cf. the frequent term "thematization" and the rarely used term "rhematization"), in spite of the fact that it is just the rheme that represents the core of the utterance (the message proper) and "pushes the communication forward" (FIRBAS): from the point of view of text organization, it is the theme that plays an important constructional role. The rheme shows its significance as the conveyor of the "new", actual information, while the theme, being informatively insignificant, will be employed as a relevant means of the construction. (The relation between the rheme and the text will be touched upon in section III of our paper.)

The inquiry into the thematic organization of the text is closely connected with the investigation of the so-called "text coherence" or "text connexity". Some scholars even define the text in terms of this property. (Cf., e.g., H. ISENBERG, 1970, 1: "Wir verstehen unter einem 'Text' eine kohärente Folge von Sätzen...") Nevertheless, as was duly pointed out by K. HAUSENBLAS (1964),

P. TROST (1962) and others, coherence (connexity, continuity) is not a necessary property of texts: they not only display this property to a very uneven degree, but some of them may be characterized exactly as "discontinuous" (HAUSENBLAS, op. cit., 79f.); and TROST (op. cit., 268) calls attention to the very old distinction between the "connected style", tending towards a very close linking up of the sentence with the text (harmonia glaphyra), and the disconnected one (harmonia austera), which tends towards a clean-cut independence of each sentence. In other words, when analysing text coherence (connexity), we should employ the term "coherence" in the neutral (unmarked) sense.

The following exposition will be devoted to the way in which FSP contributes to the inner connexity of texts. (It is based on an investigation discussed in DANEŠ 1968, 1970, 1970a.)

II

Our basic assumption is that text connexity is represented, *inter alia*, by thematic progression (TP). By this term we mean the choice and ordering of utterance themes, their mutual concatenation and hierarchy, as well as their relationship to the hyperthemes of the superior text units (such as the paragraph, chapter, ...) to the whole text, and to the situation. Thematic progression might be viewed as the skeleton of the plot.

For our purposes it is necessary to discover an objective criterion for ascertaining the theme (T) of a given utterance. The detailed analysis done by Firbas and others, ascertaining the distribution of different degrees of the communicative dynamism over sentence elements, establishes the communicative microstructure of the utterance. We may content ourselves with establishing the macrostructure, i.e., with a rough determination of the thematic and the rhematic part of the utterance, without specifying the central, peripheral and transitional elements.

To this aim we employ a procedure using *wh*-questions, prompted by the given context and situation, for eliciting the rheme (R) of a given utterance (R-questions). Generally speaking, we assume that

it is possible to assign to any sentence (taken as a grammatical unit) a set of *wh*-questions, representing all possible types of context in which the given sentence is applicable, and consequently, revealing all possible FSP-structures which it can acquire. In this way we are also able to find out, indirectly, the theme of the given utterance. This procedure seems workable, since it is objective, purely linguistic, and involves both the contextual and the thematic aspect of FSP.

Before starting with the classification of TP's, let us state that between a simple utterance (i.e., a sentence containing only one T - R nexus, with simple T and R) and a textual concatenation of grammatically independent sentences, a transitional zone exists, comprising cases of sentence units that reveal a more complicated (condensed or composed) T - R structure, i.e., units that, from the point of view of FSP, reveal a textual character, which, however, represent a single grammatical unit, one sentence only. Such sentences are now usually described by grammarians as transforms of a combination of two (or more) underlying simple sentences (different linguists will use different ways of description, but this is irrelevant for our discussion). A similar approach might be employed for the description of the FSP-structure of non-simple utterances as well.

The English sentence (describing Wöhler's well known discovery from 1828) (1) *Wöhler heated ammonium cyanate and found that it was thereby converted into urea, previously known only as a product of living organisms*, evidently revealing a complicated FSP-structure, may be reduced on the following sequence of three sentences (a), (b), (c), each of them having a simple T - R structure:

- (2) (a) Wöhler heated some ammonium cyanate.
- (b) He found that it was thereby converted into urea.
- (c) This substance had been previously known only as a product of living organisms.

A comparison of (2) with (1) shows the following transformational processes on the level of FSP leading from (2) to (1):

1. (b) has lost its independent status and has been, without the loss of its explicit T - R structure, combined with (a) into a multiple

utterance, composed of two complete $T - R$ nexuses; the connexion between (a) and (b) is supplied by the identity of T_a and T_b .

2. (c) has lost its independent utterance status, and its $T - R$ structure as well; it has been restricted to its rhematic elements and fused with R_b into a single complex $R_{(b,c)}$; or briefly, it has been rhematized. The fusion has been allowed due to the fact that T_c is a paraphrase of R_b and thus it may be omitted.

Thus the FSP-structure of (1) might be symbolized as $T_a \rightarrow R_a + T_b (= T_a) \rightarrow R_{(b,c)}$ and described as a multiple utterance with the complex second R . (The grammatical aspect of these processes will not be discussed here.)

Generally speaking: In respect to their $T - R$ structure, utterances (U 's) may be divided into simple U 's, composed U 's, and condensed U 's. — The composed U 's result from composition, by which two (or more) simple utterances are combined in a single sentence frame; if the T 's, or R 's of the two utterances are the same (from the semantic point of view), they will be mentioned only once. — The condensed U 's are based on fusion: If two subsequent simple U_1 and U_2 share a common FSP-element, they may be fused into a single condensed U , either by way of thematization, or rhematization of one of the utterances. The two possibilities depend on the type of the thematic interrelations obtaining between U_1 and U_2 :

- (1) If $T_2 = R_1$, principally both possibilities are available: (a) T_2 will be deleted, and R_2 fused with R_1 into a complex R^* (rhematization of U_2). (b) $T \rightarrow R_1$ will be fused into a complex T^* (thematization of U_1), T_2 deleted, and R_2 linked with T^* as R^* of the resulting condensed U^* . The choice between (a) and (b) depends on the proportion between respective communicative relevance of R_1 and R_2 : if, in the given context, R_1 appears more relevant than R_2 , then U_2 will be rhematized (i.e., deprived of its utterance status, and thus backgrounded); in the inverse case, R_2 will be brought to the fore by means of thematization of U_1 .
- (2) If $T_2 = T_1$, then T_2 will be deleted and R_1 fused with T_1

into complex T^* (i.e., R_1 will be thematized), to which R_2 will function as R^* of the resulting condensed U^* .

Schematically:

1. Composed U 's:

- a) multiple U : "Goethe wrote the second part of Faust after eighty, and V. Hugo astounded the world with Torquemada at eighty."
- b) U with a multiple T : "The melting of solid ice and the formation from ice of liquid water exemplify physical changes."
- c) U with a multiple R : "It is further postulated that the activated amino acids are joined together... and that the long chains are molded in a specific manner..."

2. Condensed U 's:

- a) U with a complex T : "This dark-coloured liquid, known as crude petroleum or crude oil, is obtained from wells of different depth."
- b) U with a complex R : "The amino acids are required for making proteins, consisting of long chains of these units."

From these elementary types various combinations may be produced (cf., e.g., the above adduced compound sentence (1)). These may be called "complicated" utterances.

Note:

The processes of composition and fusion on the level of FSP (on the utterance level) are manifested by means of different grammatical devices on the level of the sentence, such as coordination, apposition, some nominalizations, some relative transformations, etc. (This does not mean, however, that the said processes are the only functions of these grammatical means.) Some functions described here in terms of FSP are sometimes referred to as "backgrounding", "complex condensation", etc. (cf., e.g., WEINREICH 1963, VACHÉK 1955). But it seems to me that the explanation having recourse to FSP may supply a more exact structural explanation of these somewhat impressionistic notions of a semantic and stylistic character.

The grammatical descriptions, especially the transformational ones, have ascertained many synonymous, or nearly synonymous relationships between syntactic constructions. But they tell us nothing or very little about functional differences between such constructions, in spite of the fact that only certain differences in the functional employment of apparent synonymous linguistic means of expression are able to account for their existence in the given language. Assuming that the level of FSP, lying above the other syntactic levels (i.e., the grammatical and the semantic one), represents the domain of the functional employment of sentences, we may try to find out the motivation

for the choice between different (semantically) synonymous syntactic forms and transforms exactly in the communicative needs of FSP, to associate different syntactic options with the alternatives of the distribution of the communicative dynamism.

Our analysis of Czech scientific and other professional texts, as well as some tentative soundings in the area of German and English language materials has ascertained the following three main types of TP:

(1) Simple linear TP (or TP with linear thematization of rhemes):

$$\begin{array}{c} T_1 \rightarrow R_1 \\ \downarrow \\ T_2 (= R_1) \rightarrow R_2 \\ \downarrow \\ T_3 (= R_2) \rightarrow R_3 \end{array}$$

Examples:

Cz.: V oboru izolátorů se věnuje velká pozornost tzv. feroelektrikům. Tyto látky mají schopnost měnit energii elektrickou v mechanickou a naopak.

G.: Eine besondere Klasse stellen tragbare Geräte dar. Diese werden besonders zur Ueberwachung von Strahlungsfeldern verwendet.

E.: (a) The first of the antibiotics was discovered by Sir Alexander Fleming in 1928. He was busy at the time investigating a certain species of germ which is responsible for boils and other troubles.

(b) The chief organic compound obtained from natural gas is saturated methane. Small quantities of other volatile hydrocarbons are associated with methane.

Type (1) represents the most elementary, basic TP. Briefly, R_i of the utterance U_i appears in the next U_{i+1} as its T_{i+1} , or, in other words, each R becomes the T of the next utterance.

[In the formulae the horizontal arrow $\rightarrow$ indicates the $T-R$ nexus within an utterance, while the vertical one $\downarrow$ indicates the contextual connection of U 's. — In the formula $T \rightarrow R$ the order of symbols does not necessarily correspond to the sequence of expressions in a particular sentential utterance based on this formula, since this sequence depends on the interplay of language means employed in FSP.]

(2) TP with a continuous (constant) theme:

$$\begin{array}{c} T_1 \rightarrow R_1 \\ \downarrow \\ T_1 \rightarrow R_2 \\ \downarrow \\ T_1 \rightarrow R_3 \end{array}$$

Examples:

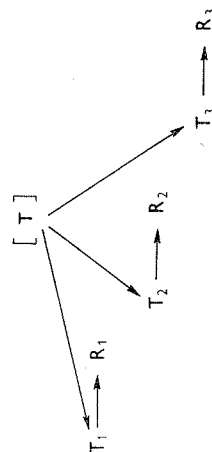
Cz.: [Mezi tzv. ovládací zařízení patří i většina automatických výrobních linek.] Tyto linky a jim podobná zařízení vykonávají samočinně všechny operace nutné k zhotovení výrobku. Tato zařízení však nemohou kontrolovat průběh a výsledky své činnosti. Nejsou také schopna způsobit se změnam vnějších podmínek...

G.: ["Goethes Erbe in unserer Zeit"] Goethe war überzeugt von dem Fortschritt der menschlichen Entwicklung. Er trat für die Erreichung des Menschengeschlechtes zur friedlicher Entwicklung... Goethes Humanismus ging aus von dem Glauben an das Gute im Menschen... Goethe nannte sich "ein Kind des Friedens".

E.: The Rousseauist especially feels an inner kinship with Prometheus and other Titans. He is fascinated by any form of insurgency... He must show an elementary energy in his explosion against the established order and at the same time a boundless sympathy for the victims of it... Further the Rousseauist is ever ready to discover beauty of soul in any one who is under the reprobation of society.

In this type one and the same T appears in a series of utterances (to be sure, in not fully identical wording), to which different R 's are linked up. (There are several ways of introducing T_1 in the utterance, but this is irrelevant here.)

(3) TP with derived T 's:



Examples:

Cz.: Záškrt (diphtheria) je infekční onemocnění. Působí je corynebacterium diphtheriae. Šíří se kapénkovou infekcí přímým stykem s nemocným, častěji však bacilonošem, nebo nepřímo předměty potřísněnými hlenem. Inkubační doba je 2 až 5 dnů.

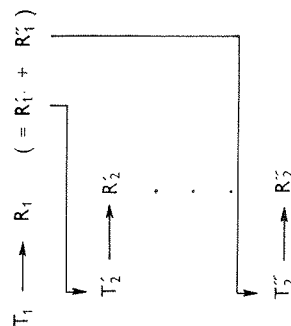
G.: Die sozialistische Republik Rumänien liegt am Schnittpunkt des 45. Breitenkreises mit 25. Längengreis. Die Bodenfläche des Landes beträgt 235 000 Quadratkilometer; seine Bevölkerungszahl ist 19 Millionen Einwohner. Die Staatsgrenze hat eine Gesamtlänge von... Kilometern.

Im Westen hat Rumänien gemeinsame Grenze mit... Im Süden bildet der Fluss Donau die Grenze mit... Die östliche Grenze ist teilweise das Schwarze Meer.

E.: New Jersey is flat along the coast and southern portion; the north-western region is mountainous. The coastal climate is mild, but there is considerable cold in the mountain areas during the winter months. Summers are fairly hot. The leading industrial production includes chemicals, processed food, coal, petroleum, metals and electrical equipment. The most important cities are Newark, Jersey City, Paterson, Trenton, Camden. Vacation districts include Asbury Park, Lakewood, Cape May, and others.

* The particular utterance themes are derived from a "hypertheme" (of a paragraph, or other text section). The choice and sequence of the derived utterance themes will be controlled by various special (mostly extralinguistic) usage of the presentation of subject matter.

The types of TP just established may be employed in various combinations. Thus the combination of (1) and (2) is frequent. Some of such combinations, revealing a certain regular pattern, may be considered as TP-types of a higher order, representing a formal frame for the employment of the basic types. The most important of such frames may be called the exposition of a split Rheme:



Examples:

Cz.: Na počátku 17. stol. položili základ novému rozvoji astronomie dva velcí mužové. Jan Kepler založil teoretickou astronomii. Ukázal, že je

možno z pozorování odvodit... Galileo Galilei založil mechaniku. Svými pokusy...

G.: Die Widerstandsfähigkeit in feuchter und trockener Luft ist bei verschiedenen Arten pathogener Viren sehr unterschiedlich. Poliomyelitisviren sterben in trockener Luft sofort ab, während bei einer Luftfeuchtigkeit von 50% relativ stabil sind. (...) Bei einem Grippevirus ist es hingegen umgekehrt; wenn die Luftfeuchtigkeit unter 40% bleibt, so halten sie sich recht gut, sie gehen aber rasch zugrunde, wenn die Luftfeuchtigkeit höher steigt.

E.: All substances can be divided into two classes: elementary substances and compounds. An elementary substance is a substance which consists of atoms of only one kind... A compound is a substance which consists of atoms of two or more different kinds...

This type of TP is characterized by the fact that a certain R is explicitly or implicitly doubled ($R' + R''$) or multiple ($R' + R'' + R''' + \dots$), so that it gives rise to a pair (triple, ...) of thematic progressions: first R' is expounded and after this progression has been finished, R'' becomes T of the second TP. (These two (three, ...) partial progressions may be of one type only, or they may represent a combination of different types, without having necessarily a parallel structure.)

Further, TP's are often complicated by various insertions (supplements, explanatory notes) or asides. They may also occur in an incomplete or somewhat modified form. Let us mention here a typical modification of type (1), namely a TP with an omitted link (or with a thematic jump). Essentially, it consists of the omission of an utterance in a TP. That is to say, the content of such an utterance is to such a degree evident, plainly implied by the context, that it appears redundant, unnecessary, and consequently omissible.

Our types of TP are to be considered as abstract principles, models, or constructs. The implementation (manifestation) of these models in particular languages depends on the properties of the given language, especially on different means available for expressing FSP. It should be also mentioned that languages have at their disposal some special means even for the purposes of TP. Thus such expressions as English *both ... and*; *on the one hand - on the other hand*; *in the first instance - in the second instance*;

etc., are often used in connexion with type (4). Every text (mainly in scientific or technical prose) is interwoven with expressions signalling significant points of TP of the text. The distribution of such expressions in a particular text might be termed its network of orientation. The ascertaining of the set of these devices for each language, and their functional classification seems to be an important as well as interesting task. (Cf. now GÜLICH, 1970.)

The study and knowledge of the thematic organization of texts have some practical applications as well, namely in practical stylistics and computational linguistics, especially in information retrieval. As for the former, the central question is how to construct and present (express) the thematic progression. As for the latter, we have to find out how to discover it, and how to make the concept of FSP and TP workable in the non-human conditions of a computer. But considerations of this kind are beyond the frame of the present paper. (Some suggestions will be found in DANEŠ, 1970.)

At the end of section II let us try to find out the systemic correlations existing between the basic types of TP's and the basic types of multiple and condensed utterances (treated as transforms of the former).

- (1) Simple linear TP involves the following relevant relations: $R_1 = T_2$, $T_1 \neq T_2$, $R_1 \neq R_2$; therefore it yields utterances with a complex T, or R;
- (2) TP with a constant T involves the following relevant relations: $T_1 = T_2$, $R_1 \neq T_2$, $R_1 \neq R_2$; therefore it yields multiple utterances, utterances with a multiple R and utterances with a complex T as well.
- (3) TP with derived T's involves the following relevant relations: $T_1 \neq T_2$, $R_1 \neq T_2$; therefore it yields multiple utterances. — Utterances with a multiple T are derivable only from a progression based on the schema $T_1 \rightarrow R_1 + T_2 \rightarrow R_1$, in which R's of U_1 and U_2 are identical; such a progression may be considered a very rare modification of (3).

Schematically:

Types of TP's	multiple U's	U's with a multiple T	U's with a multiple R	U's with a complex T	U's with a complex R
$T_1 \rightarrow R_1 + T_2 (= R_1) \rightarrow R_2$	—	—	—	+	+
$T_1 \rightarrow R_1 + T_2 (= T_1) \rightarrow R_2$	+	—	+	+	—
$T_1 \rightarrow R_1 + T_2 \rightarrow R_2$ ($T_1 \rightarrow R_1 + T_2 \rightarrow R_1$)	+	(+)	—	—	—

III

Linguists pursuing the analysis of intersentential relations in the text mostly interpret these relations in semantic terms, disregarding FSP. (One of the rare exceptions is K. E. HEIDOLPH (1966), whose approach implies FSP, without mentioning it.) Now a query arises whether or how the said semantic relations bear upon FSP. We shall content ourselves with raising some questions without trying to supply satisfactory answers.

To start with, it will be useful to find out connexions between FSP and the semantic structure of the sentence. In my paper at the Tenth International Congress of Linguists in Bucarest 1967 (cf. DANEŠ 1970b, 409) I suggested that the different semantic relations between R and T might supply a criterion for a linguistically relevant classification of utterances. A similar idea has been proposed by E. BENEŠ (1968): "This relationship of the rheme to the theme can be regarded as the constituent act of utterance, just as the relationship of subject and predicate as the constituent act of a sentence" (271). He exemplifies his thought by the following utterances: the actual communicative aim or sense of the utterance *Prague is the*

capital of ČSSR is the assignment of a particular quality to its bearer, while the sense of the other utterance (revealing the same grammatical as well as semantic structure, and the identical lexical filling), *The capital of ČSSR is Prague*, may be described as the assignment of a bearer to a quality.

Following this line we might dare propose a further generalization: Any T – R nexus actualizes a particular semantic relation contained in the semantic (propositional) structure of the underlying sentence, so that the communicative sense of an utterance (CUS) may be defined in terms of the semantic function of R-portion in relation to T-portion of the underlying sentence.⁵

A German example:

(1a) *Unsere Mutter schreibt ihre Briefe mit der Feder*

Semantic sentence structure: Ag-Act-Res-Instr

Phonological shape: unmarked, centre of intonation (CI) on the terminal word (stress-group) *Feder*

Diagnostic R-question: "Womit schreibt unsere Mutter ihre Briefe?"
R: *mit der Feder*

CUS: the assignment of an instrument to an agentive resultative action (or, more generally: indication of instrument)

(1b) *Mit der Feder schreibt ihre Briefe unsere Mutter*

Semantic sentence structure: the same as in (1a)

Phonological shape: unmarked, CI on the terminal word *Mutter*

Diagnostic R-question: "Wer schreibt seine Briefe mit der Feder?"

R: *unsere Mutter*

CUS: the assignment of an agent (to an instrument used in a resultative action)

(1c) *Mit der Feder schreibt unsere Mutter ihre Briefe*

Semantic sentence structure: the same as in (1a)

Phonological shape: unmarked CI on the terminal word *Briefe*

Diagnostic R-question: "Was schreibt unsere Mutter mit der Feder?"

R: *ihre Briefe*

CUS: the assignment of result (achieved with an instrument in an agentive action)

Note:

It is evident that the adaptation of a sentence to different contexts (resulting

⁵ An interesting attempt at a semantic classification of statements conveyed by different sentences has been made by GARVIN, BREWER, and MATHIOT (1967).

in different utterances with different CUS) merely by means of word order variations and/or of changes in the position of CI is possible in some languages only, and even there this possibility is not without restrictions. But I will not recapitulate here what is known from analyses done by Firbas and others, namely that the means for signalling FSP are various and numerous, word order and sentence intonation being only the most elementary of them (cf. DANEŠ 1967).

It is evident that CUS, being defined as a function of R, plays no part in building up thematic progressions. But this does not mean, of course, that CUS plays no part in constructing texts. We may reasonably ask, e.g., what kinds of relations hold between the rhemes of concatenated sentences in a text.

Thus in the following sequence of German sentences

(2) (a) *Dieser Brief kommt nicht von meiner Mutter her.*

(b) *Meine Mutter schreibt ihre Briefe immer nur mit der Feder.*
CUS of (a) is the contradiction of a presupposed originator (source), and that of (b) is the assignment of an instrument. The sequence is based on a simple linear TP, schematically $T_a \rightarrow R_a + T_b (=R_a) \rightarrow R_b$. The semantic relation of R_b to R_a is inexplicit, but since (b) may be considered an answer to the question (a') "Warum kommt dieser Brief nicht von meiner Mutter her?" (cf. the possibility of complementing (b) with the particle *nämlich*, stating the relation explicitly), we may identify it as the relation of "reason". Schematically:

$$T_a \rightarrow R_a + R_b (=R_a) \rightarrow R_b$$

↑
reason

In terms of CUS we may state that the indication of an instrument (CUS_b) supplies the reason for the contradiction of a presupposed originator (CUS_a).

(It may be noticed as well that the semantic sentence function of R_a ("originator") switches, when this item becomes T_b (its new function being "agent"). But such a functional semantic switch has no structural relevance for the text; it is conditioned by the choice of the grammatical construction.)

This being so, we may conclude (1) that (at least some) semantic relationships between concatenated sentences in a text (regarded by

many linguists as the text constituting relations — cf. Isenberg's notion of "Vertextungstypen") do not hold, in fact, between the whole sentences,⁶ but only between their R's, and (2) that these semantic relations (or "semantic text functions") are of another kind than those involved by CUS (i.e., the intersentential semantic relations): the former necessarily belong to a higher level of abstraction, since they appear as functional implementations of the latter (i.e., CUS's are employed as means of expression of intersentential textual relations).

But by far not all intersentential relationships belong to the same type as "reason" does, i.e., to the type of "causal" or "logical" relations (such as cause, consequence, concession, ...). Another type is represented by the temporal and local relations; to another kind of abstraction belong such notions as "explication", "enumeration, or again, "adversative relation", "gradation", "confrontation", etc. (cf., e.g., SKALIČKA 1960, BEČKA 1960).

Unfortunately, the classifications done by various investigators of text structure often fail to differentiate systematically the different types and levels of semantic abstraction (they often content themselves with semantic relations used by "traditional" as well as "modern" grammarians for the classification of clauses within compound and complex sentences, of adverbials, etc.), and what they offer seems to be an (unexhaustive) list of heterogeneous relations, lacking theoretical justification, a hierarchical order and objective classificatory criteria.

Another analytical problem is prompted by the fundamental distinction of the "semantics of reference", and the "semantics of meaning" (Quine): It is necessary to differentiate the multiple factual extralinguistic relations existing between the denotata (i.e., objects or events) of concatenated sentential utterances, from that

⁶ Our interpretation is backed by the fact that in some languages particles and conjunctions explicitly expressing the given relation may be shifted from the beginning of the sentence and placed exactly before R (or R proper). Cf. the Czech version of (3) with the particle *totiž* (equivalent to G. *nämlich*): "Tento dopis není od mé matky. Moje maminka píše dopisy totiž vždy jen perem."

(those) relation(s) which the speaker has selected for his message and which he is now conveying by means of the specific linguistic meanings (lexical and syntactic) of language units he has chosen to this aim from the overall inventory of the given language system. Especially when the intersentential relation is not explicitly expressed, all the linguist may do is to find out all linguistically possible interpretations, i.e., interpretations prompted (allowed for) by the semantic context (lexical and syntactic meanings) in question.

To sum up: In respect to FSP, the generalized structure of a coherent text may be described in terms of an underlying thematic progression (representing the most abstract thematic relationships of several types) and a rhematic sequence of semantic relations obtaining between the particular rhemes. (It is not yet clear whether there exist standardized types of rhematic sequences as well, i.e., whether the rhematic sequences reveal an underlying pattern, as TP's do.)

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ZUR FRAGE DER FUNKTIONALEN SATZPERSPEKTIVE IM DRAMATISCHEN TEXT

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1. Bei der Analyse der Texte der schönen Literatur darf die Thematik-Rhema-Gliederung keineswegs vernachlässigt werden. Natürlich sind die Verhältnisse hier komplizierter als in rein kommunikativen Texten und Fachtexten. Das bedeutet aber nicht, daß man die schwierige Arbeit nicht unternehmen sollte.

Ich habe zum Objekt meiner Untersuchung den dramatischen Text (DT) des heutigen-tschechischen Prosaschriftstellers und Dramatikers Bohuslav Březovský, *Nebezpečný věk* (*Das gefährliche Menschenalter*, Praha 1962) gemacht, der trotz aller Stilisierung den mündlichen Charakter der natürlichen Rede aufweist. Das Drama stellt den Kampf der jungen Leute und ihrer Eltern für die Wahrheit ihres Lebens und ihrer gemeinsamen Beziehungen gegen die bürgerlichen Konventionen dar.

Die Eigentümlichkeit des mündlichen Textes äußert sich darin, daß dieser situationsgebunden ist. Unter Situation eines DT verstehe ich spezifische Beziehungen der Gegenstände einer Handlung (Personen, Ort, Zeit, Requisiten, Stimmung), also z. B. eine Liebesszene. Diese Situation des Textes verweist auf eine Situation des realen Lebens und kann mit ihr konfrontiert werden. Derjenige, der einen DT wahrnimmt, bewegt sich also in drei Ebenen: Textebene, Szeneebene (charakterisiert durch szenische Anmerkungen) und Ebene der außerhalb des Textes stehenden Realität. Wichtig ist z. B. der Unterschied der realen, szenischen und der dramatischen Zeit: was sich zwischen zwei Personen früher ereignet hat, kann im Text erst nachher angeführt sein und der Leser oder Zuschauer erfährt es erst im Verlauf der Handlung.