Relevance Assignment in Discourse Comprehension

TEUN A. VAN DIJK
University of Amsterdam

An informal analysis is given of the notion of "relevance" as used in the description of discourse and discourse comprehension. The analysis is restricted to various kinds of semantic relevance. A distinction is made between relevance at the level of sentences, as it is usually discussed in terms of the opposition of topic and comment, and relevance at the global level of whole texts. In the latter case, relevance is identical with the theme or gist of a text, which is made explicit in terms of macrostructures. At both levels a further distinction is made between "normal" relevance and contrastive or differential relevance. These forms of textual relevance are distinguished from contextual relevance, which is assigned to properties of the text on the basis of the cognitive set (actual knowledge, beliefs, opinions, wishes, attitudes, or tasks) of the reader. Finally, the problem of the cognitive processes and representations involved in these various kinds of relevance assignments is discussed.

1. WHAT IS "RELEVANCE"?

By "relevance" in discourse and discourse comprehension we will understand the result of an operation by which a reader/ hearer, or a method of analysis, assigns some *degree of importance* to some property of the discourse.

Relevance is a *relative* notion. This means that relevance must always be construed with respect to a certain (con-)text: relevance for a certain speaker or hearer, relevance with respect to a certain problem, question, etc.

Second, the notion of relevance implies (con-)textual *contrastiveness*: If some properties of the text are assigned relevance, others by necessity are *not* given relevance.

We may distinguish between *textual* and *contextual* kinds of relevance. Textual relevance is defined in terms of textual structures, such that certain structures are assigned a higher degree of relevance than others on general structural grounds. Contextual relevance is the assignment of a relevance value on the basis of any kind of contextual criterion, such as the interest, attention, knowledge, wishes, etc., of the reader. This means that in a psychological process analysis relevance has a contextual nature, although it involves conventional knowledge of textual relevance cues (which are part of the language and communication systems).

2. THE ANALYSIS OF RELEVANCE

It will here be assumed that in discourse comprehension relevance is primarily assigned to *semantic structures*. This assumption follows from the general semantic (and pragmatic) goal-directedness of understanding processes and communication ("search after meaning').

Hence, phonetic, phonological, syntactic, lexical, stylistic, and rhetorical structures will, in general, only serve as cues or signals of relevance: They will *express* relevance, such that the reader may (re-)*construct* which meaning or what part of the meaning is particularly important in this context[1] (see the tentative list given in the Appendix). That is, bold characters, upper case typeface, titles, stress, pitch, italics, parallelism, metaphors, particles, etc., may all serve to signal to the reader/ listener what is semantically relevant.

We will ignore here the analysis of *pragmatic relevance*, which involves focusing attention on certain properties of the speech act or the pragmatic context (e.g., the use of German *doch* in sentences like *Ich habe dir doch gesagt. . .* expressing or signaling the contextual property of, for example, impatience of the speaker in reproaches) (Franck, 1979).

We will also ignore all kinds of *surface structure relevance*, in the sense of the use of the earlier mentioned surface structure cues for their own sake, e.g., in ritual or literary communication (rhyme, style, etc.). Hence, the notion of relevance here construed should be properly called *semantic relevance*.

In a *psychological process model* for relevance assignment we at least need the following items:

1. a distinction between the various *levels* of semantic analysis at which relevance assignment is possible;
2. for each level, the *categories, units* or *structures* which may be assigned relevance;
3. the respective *surface structures* (phonetic, phonological/graphical, syntactic, stylistic, etc.) expressing or signaling these kinds of relevance;
4. the specification of the various components of the *cognitive set* of the reader/listener (the state of his actual knowledge, beliefs, wants, attitudes, etc.; cf. van Dijk, 1979);

---

[1] This informal paper should be read against the background of my earlier work on text grammars (van Dijk, 1972, 1977a) and my work, partly in collaboration with Walter Kintsch, on the psychology of discourse processing (Kintsch & van Dijk, 1978; van Dijk & Kintsch, 1977). The aim of this paper is to clear up some of the confusion in the actual usage of the term "relevance" as it is used for discourse and discourse comprehension. We hereby ignore the meaning of the term as it is used in so-called "relevance logics," i.e., logics in which some meaningful relations between propositions are involved, for instance in "entailment" (van Dijk, 1974, 1977b, for this notion).

5. specification of the *processes* whereby the various factors of the cognitive set operate on the semantic analysis (comprehension) of the text, or whereby nontextual information determines this *contextual relevance*;

6. specification of the analysis by which a reader/listener interprets surface relevance cues, matching these with the semantic analysis: *textual relevance comprehension*;

7. specification of the *interaction between textual and contextual* relevance comprehension (reinforcement, interference, neutralization, transformation, etc.); or, more concretely, how will the cognitive set of the reader/ listener "follow" or "ignore" the relevance cues of the text? Or, how may the *relevance structures* of the speaker (as signaled in the text) differ from those of the reader/ listener?

3. LEVELS OF SEMANTIC RELEVANCE

Semantic relevance may be assigned within the sentence, in a *sequence of sentences* and in the *discourse as a whole*. At the sentence level we first of all have *normal relevance* assignment according to *topic-comment* (or focus) distribution.[2] Thus, in a sentence like

(1) Peter went to the movies.

we assign comment (focus) function to "went to the movies" or "to the movies" given a topic "Peter" or "Peter went somewhere", or after a question, *Where is Peter*? or *Where did Peter go*? respectively.

The assignment of these functions is based on *information distribution* in sentence sequences: What is supposed to be known, already introduced, etc., functions as the (normal) sentence topic. The comment (focus) serves as new or asserted information. In most languages topics are in initial position, nonstressed, and are deletable or pronominalizable.

More specific prominence, and hence relevance in a more interesting sense, may be assigned to comment/ focus parts of sentences by contrastive stress or cleft sentences:

(2) Peter went to the móvies.
(3) It was to the movies that Peter went.

_____

[2]For the notions "topic" and "comment," as used in the functional analysis of sentences, see the analysis given in van Dijk (1977a). See also Dik (1978). The distinction has been discussed above all in current Czech linguistics (cf. Sgall, Hajicová, & Benesová, 1973). The specific grammatical aspects of sentence topic, subjects, and other functional notions are treated in the papers of Li (ed.) (1976). The difference between the notion of sentence topic and that of "discourse topic"-to which we will turn below-is discussed in van Dijk (1977c).

where "Peter went somewhere" is presupposed and usually also asserted (as in a question like *Did Peter go to the theatre?).*

The same holds for nonnormal topic-comment assignment, as when subjects have comment functions:

(4) No, Péter went to the movies.
(5) No, it was Péter who went to the movies.

where "somebody went to the movies" is presupposed. Many other difficulties in topic-comment assignment are ignored here.

Important for our discussion is that a language has conventional means to signal the fact that certain parts of semantic information may be given prominence. In this case, this prominence is structural (textual): Some part of the sentence (proposition) is more prominent than other parts. The reason for this particular kind of prominence assignment must be sought in the cognitive basis of communication processes: Certain information is already *known*; other information is new for the hearer/ reader.

Besides the normal and nonnormal topic-comment assignment, we may have *selective* and *contrastive* ways of marking particular relevance (also by stress, word order, or morphemes):

(6) Jóhn went to the théatre, but Péter went to the móvies.
(7) John, Peter, Harry and Larry went out that night. Jóhn ...

We see that the sentential topic-comment assignment is in fact *sequentially* based: It depends on information distribution in a sequence. Yet, at this level relevance is strictly *local*.

Global Relevance

Relevance may also be assigned to a *sequence* or *discourse* as a whole. Global relevance should be explained in terms of *macro-structures*;[3] they define what the *topic of discourse*, *theme*, or *upshot* of a sequence or discourse is. We will here speak of *normal discourse relevance*.

As soon as we want to speak of relevance assignments to *sequences of sentences*, we no longer deal with the notion of "relevance" as it was discussed at the level of sentences, where it is linked with information distribution (topic-comment articulation).

At the sequence level we first have normal relevance due to *referential coherence* constraints: It is usual in a sequence that expressions denote

---

[3]For the notion of (semantic) "macro-structure," see van Dijk (1977a, d, and especially 1979). For a discussion of similar notions and an analysis of thematic "prominence" of certain discourse properties (and their surface structure signals) see Kay Jones (1977).

identical referents. Thus, in a story about John, we will have multiple references to John, either by proper name, or be pronoun, or by other identifying descriptions (*the boy, my brother*, etc.). In an intuitive way, then, the "permanence" of coreferential identity is an indication for the relative importance of a concept in the sequence. In another intuitive way, we say that the sequence is "about" this concept, e.g., "John" in a story, or "memory" in a handbook of psychology. This "aboutness" also plays a role in the determination of topic-comment structures at the sentence level, and only in this respect are text topic and sentence topic related, in the sense that a sentence topic may also be determined by the sequence topic.

In another more or less intuitive way identical referents obtain "importance" by the fact that respective predications are "applied" to them; we mention properties of John, his actions, his relations to other persons, whereas other discourse referents are introduced relative to the "central topic" of the sequence: his brother, his colleagues, his work, etc. Yet, although typical referential expressions will often serve as the sequential topic, the "topicality" of a sequence may also be defined in terms of the respective predications of referential expressions: Properties, relations, actions, or events then become the more central aspects of the sequence. When I tell a story about my personal experiences, e.g., about an accident I was involved in, it may be the action or event which takes the proper focus of the sequence. In *that* sense the sequence is not (only) about me, but about an accident. In fact, it is *this* aspect of the sequence which is more or less *new, unexpected, interesting*, etc., because it defines in which respect the text is *different* from other stories I tell about myself.

Since we may conclude that, apparently, *both* the (identical or central) referent and the major predications of this referent may be relevant in the sequence as a whole, we must assume that in fact it must be a full *proposition* which should be taken as the "topic" of a sequence. It is at this point that a *macro-structural* analysis of sequential topics of themes seems necessary. We map a sequence of propositions, by macro-rules, onto another sequence of propositions (macro-propositions). Thus, a full proposition "I had an accident" becomes the proper topic or theme of the sequence, and, for that matter, of the discourse as a whole.

Hence, it is the macro-structure of a sequence which theoretically defines what is "most important" about that sequence. In fact, this is precisely the rationale of macro-rules: They are defined such that nonrelevant propositions are either deleted or taken together and substituted by a more general proposition (van Dijk, 1977a, 1979).

We may thus speak of *topical* or *thematical relevance* when speaking of the conceptual structures assigned to a sequence or whole discourse on the basis of macro-rules. Note, incidentally, that the concepts which are part of macro-

propositions may also play this role, as we have seen above. A text may thus be mainly about "Peter," about "memory," or about an "accident." It is in this sense that we usually speak of a *theme* of a text.

4. DIFFERENTIAL SEMANTIC RELEVANCE

Although we now have a *first* explication of (semantic) relevance in discourse, viz. in sentences, sequences, and texts as wholes, we only have construed what has been called *normal* relevance—that is, topical or thematical relevance. There are, however, other aspects of relevance which also play a crucial role. When we say that this or that is *important* in what was said, we not always just mean the topic or upshot of what was said, but often (also) a conceptual structure which somehow is *marked* with respect to other information at *the same level*. Thus, in a sequence of ("detail") information in a sequence, there may be one property or relation which is somehow more important or striking than others, even if that property or relation does not have a macro-structural function (for example, that somebody smokes a pipe may as such be relatively unimportant, but in a detective story it may become an important cue for the identification of the murderer). In that respect the detail in question becomes more important than other detail properties predicated about some discourse referent. Hence, we here have what might be called a type of *differential relevance,* because it differentially selects items for "special treatment" from among *similar* items (i.e., items on the same level).

The same may hold at the macro-structural level. A series of macro-propositions may correctly represent the plot of a story, viz. the structure of the successive major events. Yet some of these events may still, with respect to the other major events, be assigned special importance for some reason. The problem now is how do we account for this kind of (differential) relevance, and how is it related to the other (macro-structural) relevance discussed above? Of course, this problem is not only characterizing discourse and discourse comprehension, but information and information processing in general. Also, in *perception* we should account for the fact that some details of a picture seem "important," "salient," "striking," etc.

Again, we would like to propose a two-sided analysis for this property of information processing, viz. a *textual* or *structural* one, on the one hand, and a *contextual* one on the other hand. These analyses are not mutually exclusive. On the contrary, the perception of structural or textual relevance is a cognitive process and hence is based on, and linked with, contextual assignments of relevance. One of the reasons to make the distinction is the fact that structural or textual relevance may be more or less invariant with respect to context. That is, different readers, or the same reader at different times, may assign the same kind of differential relevance to some aspect of the text.

A simple analogy from perception may illustrate this point: A picture may consist of a large amount of black circles; however, one of the circles is red. This means that the red circle will be assigned differential relevance with respect to the other circles. In the perceptual process, this means that the red circle is noticed more easily, focused upon longer, memorized better, etc., than the other (individual) circles. In this example we thus have a kind of structural relevance: the clear identification of one object or property by a different color with respect to other items all of the same color.

We also may conclude that attention for the relevant item requires the opposition of *foreground* and *background*. If we would just have one red and one black circle in the picture, there would not be the (same) differential treatment of the red circle. Hence, differential relevance requires a "background." In a text this may be a set of similar details (properties, events, etc.). Hence, it is the semantic structure of the text alone which defines which element is differentially relevant with respect to the "semantic background." An example would be the use of a very formal word in very colloquial style or the opposite; at the semantic level, it may be the description of a very unusual detail within the description of very normal everyday properties. If the rest of the text were also unusual (e.g., in a surrealist text, a dream), the first unusual detail would no longer be structurally relevant. Clearly, the identification of the unusual detail is to be determined in *contextual* terms as well: What is unusual is defined in terms of our *knowledge* and *expectations* of the world.

Let us now return to the "smoking a pipe" example. Since we do not have an unusual fact, nor a fact which "stands out" with respect to other actions of a person, there must still be another reason why, in a crime story, such a detail may be differentially important. Since, as it was sketched, the detail may *become* important because it may be a cue in the detection of a murderer, structural importance here seems to be connected with the notion of *crucial condition*. That is, many (small) events may as such be a sufficient cause/ reason in the process of finding a murderer, yet only one of these events may become decisive, i.e., a *necessary* condition. The identification of the murderer, given the conventions of crime stories, is a macro-structural event and so, a detail which becomes a crucial necessary condition for the success of a macro-action or the occurrence of a macro-event may thus acquire structural relevance.

5. CONTEXTUAL RELEVANCE

In most cases the assignment of relevance is *contextually* determined. That is, the cognitive (and social, communicative) context defines what elements of a text are found important by a reader. This does not mean that contextually relevant items may not as such be *signaled* in the text itself. It is in this

contextual sense that we say that some property of a text is "striking," "unexpected," "crucial," "shocking," "surprising," etc. It is clear that a definition of this kind of relevance should be given in terms of our *knowledge* of the (sub-)world in question, and the expectations/ predictions derived from this knowledge. If, in a crime story, we read about a knife, we assume by convention and world knowledge that this knife may be the instrument (and hence the crucial condition) in a murder. It is also with respect to our frame or script knowledge that we pay specific attention to those properties of events which do not conform with the frame: e.g., a robber running out of a bank, a fire in the library, etc.

Similarly, other components in our *cognitive set* of a given moment will define what is *now* relevant in the text. First of all, these contextually relevant items may be (part of) a contextually established macro-structure of the text, e.g., properties of women in a story when the specific *interest* or *task* is the "position of women in medieval literature." With respect to that "theme" (as it is "assigned" by the reader), some detail may become particularly relevant because it is a *typical* example illustrating the (main) theme.

The same will hold for marking relevant items in a text with respect to our actual (or more permanent) *wishes, wants*, or *desires*, conscious or not. Specific attention will in this case be given to (descriptions of) objects, properties, actions, or events which are central to such wishes, wants, or desires. We know this from text selection in the newspaper (some reports, advertisements) and for item selection in erotic literature.

More general is the influence of (moral, esthetic, etc.) *norms* and *values* and their related global *attitudes*. They determine which (description of an) object, property or event is "beautiful," "ugly," "very good," "nice," etc. The assignment of specific values is a powerful criterion for the assignment of relevance. There are several reasons for this assumption. First of all, value assignments define the specific relation of a person to the various socially relevant objects and events of his environment, and hence contribute to the necessary (social) construction of the "self." Second, since norms and values determine more global attitudes they also play an important role in preferences, decision making, and action. Thus, ultimately, the reader will, apart from other (structural and ad hoc—goal dependent—) factors assign relevance to those content properties which are most relevant in his actual and future (social) behavior. We will call this view on information processing the *functional view* on comprehension. (For details, see Franck, 1979)

The general—and nearly trivial—conclusion of this brief analysis of contextual factors in relevance assignment is that differential relevance is assigned to text features on the basis of what is considered relevant/ important in the "world" of the reader.

6. THE COGNITIVE REPRESENTATION
OF RELEVANCE

Crucial in a cognitive theory of relevance and relevance assignment is of course the problem of *how* relevance should be represented in the framework of text representation in *memory*. For the different kinds of normal textual relevance we have the usual models of discourse comprehension. At the level of sentence sequences, for instance, the necessity of *cycling* requires that certain properties of propositions remain in semantic working memory in order to establish coherence between propositions (Kintsch & van Dijk, 1978). This means that presuppositional elements will be "repeated" in working memory and will be assigned a high structural value in memory.

The same holds for macro-propositions. That is, structural relevance in memory is simply represented by the hierarchical representation of the text in which (semantically relevant) items have high structural values (van Dijk, 1979). This structural value may be measured by the number of "paths" or "edges" in the representation graph. Of course, this approach does not account for differential and contextually determined relevance, because here relevance may be assigned to an element of the text independently of its structural relevance.

The easiest procedure for representing differential and contextual relevance would of course be the assignment of a specific "relevance value" to individual elements (concepts) or nodes of the graph. However, we would in such a case beg the question: Marking certain concepts as "important" would not explain very much about the process of relevance assignment. Of course, such a procedure is not a priori excluded, especially if relevance assignment is (also) based on a kind of "imprint theory" which would specify that relevant items are "better" or more "firmly" encoded in memory. We will, however, try to give a more *structural* explication of incidental relevance assignments—an explication which is more in line with our current "structural" accounts of information processing and discourse comprehension.

Let us take differential relevance first. We have seen that differential relevance is assigned to items on the basis of their (semantic) differences with respect to other items of the same level (the "background'), with respect to which the relevant item is foregrounded. Difference, however, is essentially a structural notion: It means that an item may *not* be taken under the same node characterizing the other items.

In discourse comprehension this would mean that, besides the usual sequential and macro-structures, sequences of propositions may be assigned all kinds of (intermediate) *globally characterizing nodes* defining the "background" for some "specific" element. Such global nodes essentially

represent expectations of *regularity* about information input. Thus, part of a story may be assigned the characterization "normal events in everyday (office, school, street) life." With respect to that node, some specific property or event (an accident, a strange event, etc.) would be marked automatically by the fact that a different node must be made, e.g. as a 'deviation' from a script.

It is obvious that the phenomenon of *crucial detail* does not need separate treatment; it can directly be "read off" the normal representation of the text, namely as the "necessary condition" for some (important) macro-event.

Finally, we will have to find an appropriate representation for *contextual relevance*. The important difference with the assignment of structural (and differential) relevance here is that information must be processed that is not (directly) necessary for understanding the text as such. That is, the reader will activate and apply the information from LTM which is necessary to perform a specific *task*, to determine what is *interesting* for him (thus providing the necessary motivation and hence attention for reading or continuing to read), and to assign certain *values*. Besides the activation of frames and other types of knowledge and beliefs, the reader/ hearer thus will have either an episodic "program," defining the *actual task*, or a (partial) structure containing his specific interests, attitudes, etc.

If we assume that the *task* is also represented as a graph, this graph may be mapped onto the text graph under construction. This means that the text graph is assigned extra structure—structure deriving from the applied task graph. This means that certain terminal elements (propositions) of the text graph (text base) may be assigned nodes which they would not have in the "neutral" text graph. Thus, certain propositions in the text dealing with properties or actions of women in the middle ages could thus be marked by a node "position of women in the MA." The structural value of such terminal elements would thereby be enhanced ("upgrading'), which defines the specific relevance assigned to them and which explains specific memory and (re-) production of such elements. By the same process, other structure assignments may, due to lack of sufficient resources or due to an explicit task, be "downgraded." If we have to find specific details in a text, especially in surface structure, the formation of global coherence or topic (macro-structure) becomes less important, or *irrelevant*.

The interaction of text representation and *other contextual factors* essentially follows the same procedure: Propositions or complex propositional structures (plans, programs, etc.) are activated and mapped on text structure in working memory or episodic memory. Thus, extra nodes are assigned to the text graph—hence extra structure, hence extra relevance or prominence. "*X* is (an instantiation of) what I find interesting" (good, bad, etc.). Again, we see that all relevance may be represented in structural terms, both textual and contextual, in episodic memory.

7. RELEVANCE, LEARNING, AND RECALL

Finally we should briefly account for the role of relevance assignments in the process of learning and related retention, recall, or (re-)production tasks. The general principle operating here is that storage in LTM of textual information is determined by the structure assigned to the text in working memory, on the basis of (knowledge, task, interest, etc.) information in episodic memory (as given by the immediate context; e.g., an ad hoc task or as drawn from LTM). This means that learning, in general, is a function of assigned relevance structure. There will be a tendency for each reader to let contextual factors prevail in this process and he will learn what he thinks to be relevant (important, striking, etc.). Yet language and communication conventions at the same time require that he will construct a picture of what was *intended* to be relevant by the speaker. This means that the reader will have to look for the "objective" relevance cues in the text. For specific kinds of texts (stories and psychological articles or handbooks), this means that (1) certain content topics (actions or events) will be assigned specific relevance due to the schematic superstructure of the text (the narrative structure of a story), and that (2) a specific structure must be given attention (e.g., the argumentation structure in a scientific text). Of course such abilities must be learned: Macro-rules must be mastered (e.g., by summarization tasks at school), and relevance cues (for specific concepts and structures) must be practiced (e.g., in programmed instruction).

In a stricter sense of "learning", viz. change in *general* knowledge (frames, regularities, laws, etc.), the assigned relevance structure (including the macro-structure, the schematic structure, etc.) will be matched with an activated part of (general) knowledge about this topic space. Missing propositions may be added to knowledge, or certain propositions may be substituted (under specific conditions, such as the credibility of the source, etc.).

Relevance assignment will be most perspiciously shown in *immediate recall*, that is, the (re-)production of the text representation from episodic memory. Besides the usual macro-structurally relevant elements, the contextually relevant elements will still have their specific value. This means that immediate recall protocols will be partly similar, with respect to normal, textual (structural) relevance (readers will agree highly about the main themes of a text), but will on the other hand have many "personal" recalls of specific propositional details. Although this process may in part be more or less random, some specific individual selections will be determined by the individually different cognitive sets.

In *delayed recall*, original relevance assignments may have various effects. Since contextual relevance assignment may be completely ad hoc (what I find, should do, etc., now), they may have less permanent character. In that case we

will preferentially retain, though varying individually, the macro-structure and schema of the text. Experiments, indeed, have shown that personal "importations" in a text in immediate recall tend to disappear in later recall. One of the reasons for this may be that such elements do not get the structural "reinforcement" from other propositions, as is the case for macro-propositions. The cognitive set, by definition, is no longer active—only the episodic memory trace of the cognitive set active during reading (Kintsch & van Dijk, 1978; van Dijk & Kintsch, 1977).

However, also the opposite tendency does occur. Especially after long delays, macro-structures may become fragmentary as well, but certain specific "details" may be retained due to an extraordinary assignment of relevance—under specific conditions (attention, etc.)—during input: items which according to personal norms and values are highly interesting, beautiful, shocking, etc. We might assume that this should be explained by a specifically high degree of *upgrading* of those propositions in the representation of the text. In fact, the same holds for other cognitive domains, such as perception.

Finally, *reproduction* of text will be determined on the basis of the various kinds of structures and principles we have outlined above. Clearly, reproduction will not only involve *transformations* of episodic text representation, but also *construction* derived from (transformed) episodic memory structure together with other knowledge. Important, however, is the fact that (re-)production requires its *own context*. That is, the original reader, now writer, will assign the relevance structure to the text of the recall (or other task) protocol, not only on the basis of originally assigned relevance structure, *but also on the basis of the actual contextual relevance*. In other words, what he thinks relevant *now*, especially for the reader/ hearer, will be given special stress. A characteristic example of this procedure is exams: The student will not only reproduce (what he thought) what was important in the text, but also what he thinks the teacher will want to hear—what the teacher may be interested in.

Of course, the implication of this fact—output or production constraints— is that recall protocols do not always portray the original relevance assignments or discourse comprehension in general.

8. CONCLUSIONS

We have seen that the notion of relevance plays an important role in discourse comprehension and, for that matter, in information processing in general. We have shown that *relevance types* should be distinguished for various *levels* of analysis. Thus, semantic relevance operates at the level of sentences, sequences, and discourse as a whole. At the same time we should distinguish between *textual* (structural) relevance and *contextual* relevance. Textual relevance may be *normal,* and is defined in terms of information.

distribution concepts (topic/ comment/ focus) at the level of micro-structure and by macro-structures at the level of global themes or topics. Textual relevance in a more interesting sense is *differential* and involves contrasting or foregrounding elements with respect to other elements at the same level (background).

Contextual relevance is defined in terms of *cognitive set factors* (knowledge, task, interest, attitude, etc.); it is what the actual reader *finds important now*. The *cognitive model*, briefly presented to account for both textual and contextual relevance assignments, has a structural nature. Normal relevance is directly determined by a standard text representation in episodic memory. Propositional information derived from the cognitive set interacts with this structure by assigning specific (extra) structure to the graph, thereby "upgrading" certain elements.

It was finally shown how this model accounts for processes of text *learning, recall*, and (re-)*production* of text on the basis of relevance assignments. It was stressed that production contexts, however, have their own relevance assignments, depending on the specific task or interests of the communicative context.

APPENDIX

A Tentative List of Relevance Signals in Discourse

1. *Graphical:*
   type size, boldness
   italics, spaced, underlining, margin lines, boxes/ frames, etc;
   make-up, leads, heads, etc.; indentation; text ordering
2. *Phonetic/phonological*:
   stress, pitch, volume, length, pause
3. *Paratextual:*
   gestures, facial expression
4. *Syntactical:*
   word order
   cleft sentence structure topicalization
   paragraph and discourse ordering
5. *Lexical:*
   direct relevance expressions: *important, relevant, crutcial*, etc.
   theme indicators: *the subject/theme/ ... is*:
   summarizers: *in brief/short, in other terms/words*, etc.
   concluders: *the conclusion, result, etc. is:, we conclude...*
   connectives: *so, thus, hence*
   superstructure signals: *our premises are, the conclusion is, it all happened in, suddenly the outcome was...*
   complex event names: *accident, vacation*, etc.

6. *Semantic:*
   topic-comment functions of sentences
   contrastive/ differential structures
   thematic words and sentences (topical expressions)
   summarizing or introducing sentences (topical)
   paraphrase
   repetition
   presupposition and semantic ordering
   description level (relative completeness)
7. *Pragmatic:*
   global illocutionary force indicating devices: *I (hereby) warn, (ask, congratulate) you;* particles, etc.
8. *Schematic/superstructural*:
   global categorical ordering of the text
9. *Stylistic:*
   specific variations on the other levels
10. *Rhetorical:*
    rhetorical operations: parallelisms, repetition, contrast, etc. (on all other levels)

REFERENCES

Dik, S. C. *Functional grammar*. Amsterdam: North Holland, 1978.

Franck, D. *Grammatik und Konversation*. Diss., University of Amsterdam, 1979.

Kay Jones, L. *Theme in English expository discourse*. Lake Bluff, Ill.: Jupiter Press, 1977.

Kintsch, W., & van Dijk, T. A. Toward a model of discourse comprehension and production. *Psychological Review*, 1978, 85, 363-394.

Li, C. N., (Ed.). *Subject and topic*. New York: Academic Press, 1976.

Sgall, P., Hajicová, E., & Benesová, E. *Topic, focus and generative semantics*. Kronberg, Ts: Scriptor Verlag, 1973.

van Dijk, T. A. *Some aspects of text grammars*. The Hague: Mouton, 1972.

van Dijk, T. A. '*Relevance.' In text grammar and text logic*, paper for the Int. Congress of Relevance Logics, St. Louis (University of Amsterdam, mimeo), 1974.

van Dijk, T. A. *Text and context*. London: Longman, 1977. (a)

van Dijk, T. A. Connectives in text grammar and text logic. In T. A. van Dijk & J. S. Petöfi (Eds.), *Grammars and descriptions*. Berlin/ New York: de Gruyter, 1977, 11-63. (b)

van Dijk, T. A. Sentence topic and discourse topic. *In Papers in slavic philology*, 1977, 1, 49-61. (c)

van Dijk, T. A. Semantic macrostructures and knowledge frames in discourse comprehension. In M. Just 8c P. Carpenter (Eds.), *Cognitive processes in comprehension*. Hillsdale, N.J.: Lawrence Erlbaum Associates, 1977. (d)

van Dijk, T. A. *Macrostructures: An interdisciplinary study of global structures in discourse, interaction and cognition*. Hillsdale, N.J.: Lawrence Erlbaum Associates, in press.

van Dijk, T. A. & Kintsch, W. Cognitive psychology and discourse. In W. U. Dressler (Ed.), *Current trends in text linguistics*. Berlin/ New York: de Gruyter, 1977, 61-80.