Issues in Functional Discourse Analysis

Teun A. van Dijk
Program of Discourse Studies
University of Amsterdam

> The highest aim of a functional grammar of a particular language is to give a complete and adequate account of the grammatical organization of connected discourse in that language. (Simon C. Dik, The *Theory of Functional Grammar,* Part I, 1989, p. 12).

0. Introduction

In a paper honoring Simon C. Dik and his seminal work on Functional Grammar (FG) it may be expected that special attention be paid to the functional properties of language and language use. Similarly, given my own framework of research, it may also be expected that such a functional approach should focus on discourse. I shall fulfill these expectations by examining some of the implications of what may be called `Functional Discourse Analysis' (FDA).

FDA has a linguistic component, which deals with grammatical and other functional relations of textual structures or strategies, and a broader, interdisciplinary component, which analyzes the functional relations between these textual structures and various structures of the `context', such as those of cognition, interaction, and even the structures of the societal or cultural macro-level. The first component will be called `Functional Text Analysis' and the second `Functional Text-Context Analysis'. `Functional Discourse Analysis'

is used to denote the integration of both approaches. Following common practice, I shall use the term `functional' to denote both kinds of relationship, although obviously different kinds of lunction' are involved.

Functional Text Analysis and Functional Grammar not only overlap, they also have common roots and share links with related approaches, e.g., in Tagmemics (Pike 1967; Grimes 1975; Longacre 1977), and especially in Czech structuralist work on Functional Sentence Perspective (FSP), for instance on such important but still elusive notions as Topic/Theme, Comment/Rheme and Focus (Danes 1974). The Czech linguists were among the first to analyze systematic relations between sentences of texts, and emphasized the dependency of sentential topics from typically textual phenomena such as the dynamic relationships between `old' and `new' information in sentences and sentence sequences. It is this discussion that also inspired much later work, both in Functional Grammar (Dik 1978, 1980, 1983, 1989; Bolkestein, de Groot & Mackenzie 1985), as well as in other (typological, systemic) approaches to discourse grammar, and related work at the boundaries of linguistics and cognitive psychology. (Givón 1983, 1989a, 1989b; Haiman & Thompson 1988; Halliday 1985; Steiner & Veltman 1988; Tomlin 1987a).

Thus, it is one of the hallmarks of functional approaches to language to emphasize the discursive nature of language use and to analyze (at least some) sentential structures as being functionally dependent on the structures of text and talk. Unfortunately, among many grammarians, especially in the Netherlands, this discourse orientation is still often neglected for a more restricted focus on the structures of sentences: In everyday practice, sentence grammar continues to be seen as the proper task of the linguist, whereas the study of discourse is relegated to the domain of, e.g., conversation or argumentation analysis. Indeed, `discourse grammar' and `text linguistics' may now have become *salonfähig* in linguistics, or even popular in some countries, they are still far from being mainstream.

It cannot be the task of this paper to review the vast literature in functional linguistics that does pay explicit attention to discourse structures. Rather, I shall select a number of specific functional properties of texts that have received less (or, in my opinion, less adequate) attention in the literature, and show that an adequate theory of functional relations also needs a text-context component. Many important issues in the functional study of discourse, such as the analysis of topic, comment, foregrounding, focus, and similar notions extensively discussed in the literature, will be ignored here. Indeed, whereas these linguistic approaches may yield satisfactory *descriptions* of such functional relations within sentences and texts, a text-context analysis of functional relations also allows us

to provide *explanations* of such textual structures, for instance in terms of the details of their cognitive processing or their social functionality.

1. Functional Text Analysis

One major task for a functional analysis of text structure is to systematically describe the functional relationships between sentences of texts. These relationships may theoretically be established for each grammatical or other level of analysis, that is, in tercos of a classical phonological, syntactic, or semantic description, but also in the framework of a pragmatic, stylistic, rhetorical or superstructural (e.g., argumentative, narrative, etc.) account of text structure. Although several of these levels or `dimensions' of discourse structure are intimately related, **I** shall focus first on semantic relationships.

1.1. *Functional text semantics*

If we assume that the semantics of texts should (also) be formulated in terms of propositions, relations between sentences are to be defined in terms of relations between propositions (van Dijk 1977). These relations are of several kinds and underlie the definition of one major property of textual meaningfulness, viz., (local) coherence. First, we may have relations between concepts of subsequent propositions, for instance those of conceptual identity (synonymy) or inclusion (hyponymy, hyperonymy). Although such relations often obtain in texts, they are neither sufficient nor necessary to define coherence. To define the structural semantic notion of textual coherence, propositions should be related as a whole, and not only in terms of their predicates or arguments.

The primary conditions of textual coherence are referential or extensional. That is, discourses are coherent first of all if their respective sentences refer to `facts' (states of affairs, events, etc.) that are related in some situation (possible world, model, etc.), for instance by a relation of time, conditionality or causality, as in the trivial example

(1)   John is sick. He can't come.

Here the first sentence denotes a fact that is a cause of the fact denoted by the second sentence. Similarly, the fact denoted by a previous sentence may `enable' the fact denoted by the second sentence:

(2)   John went to the movies. He didn't like the film.

(3a)   John went to the swimming pool. **He** didn't like the water.
(3b)   ?John went to the movies. He didn't like the water.

Obviously, these coherence relations are defined relative to the knowledge of the world of the speaker (or hearer), e.g., as represented in scripts of culturally variable episodes (see below).

In other words, **coherence** in this case is not directly defined in terms of 'propositional relations, but indirectly through (known) relationships in the world. Or even more succinctly: A text is **coherent** if it describes facts that are known or believed to be related. In more formal or cognitive terms, thus, a text is coherent if it can be interpreted in a (formal, mental) model. The notion of a mental model is crucial for a functional analysis of discourse, and will be discussed in more detail below.

One of the well-known properties of local semantic coherence, viz., **co-reference,** is dependent on such a relation between facts in a model, and obtains when elements (individuals, properties, relations) of such related facts are identical. It should be repeated, however, that coreferential identity, or its functional correlate, viz., topic continuity, is neither a sufficient nor a necessary condition of local coherence: We may tell an incoherent story about the same **person, and** a coherent one about **many** different people.

Besides this type of **referential** coherence, sentences in texts may also be **functionally** coherent. In this case, the condition is not extensional but intensional: the relation may be conceptually defined in terms of the propositions themselves:

(4) John can't come. He is sick.

In this case, the first sentence doesn't describe a fact that conditions the fact described by the second **sentence,** as was the case in (1). Indeed, the order of the sentences seems to run against the 'natural order' of the events: A consequence is mentioned before its cause or reason. If natural order representations are the unmarked, 'normal' way of describing events, a different order is the marked form and usually has a specific function, as is also the case here. I shall come back to this notion of 'natural order' below.

The second sentence not only describes the cause or reason of a fact mentioned earlier, but by doing so it is assigned the function of an **Explanation.** Explanations, thus, are a functional category of textual structure, because they are defined in terms of their relations to other propositions in the text. In the

same way, next sentences (or rather, propositions) may thus `specify', Generalice', `contrast with', `paraphrase', `contradice', `conclude from' or `give an example of earlier propositions in the text (for an early approach to such functional or `rhetoricaf relations, see e.g., Grimes 1975). In other words, functional relations tefl us something about the information structure of a text, and not about the world the text is about.

Whereas such a functional analysis of coherence is intuitively satisfactory, it is rather difficult to make explicit in formal terms. Whereas referential coherence can be defined in the relatively precise terms of fact relations in formal or cognitive models, functional relations are more elusive. It is not surprising, therefore, that the most advanced current work on such textual structures still has theoretical shortcomings, e.g., because it confuses referential and functional relations of coherence, as well as local and global functional relations and categories (Mann & Thompson 1988; Mann, Matthiessen & Thompson 1989).

Some functional relations allow formal definition. For instance, Specification, Generalization and (in part) also Conclusion may be defined in tercos of semantic entailment or its cognitive counterpart, e.g., *B* is a Specification of *A* if *B* (semantically, conceptually, cognitively) entails *A,* as in the pair 'John is sick. He has the flu'. Similarly, Paraphrase or Contradiction may be (formally) defined in tercos of mutual entailment and negation. Note that these intensional definitions of functional relations also have their extensional correlates: Also the facts denoted are related (the flu is an illness, and if John has the flu he is also sick).

Explanations, however, are more complicated, if only because they seem to be dependent on a specific referential relation, vic., that of cause and consequence. Thus, explanations in general are explanations of facts, not explanations of previous information: The second sentence/proposition in (4) does not, *stricto sensu,* explain the first sentence/proposition. However, as a semantic discourse function, the functional *relation* of an Explanation consists in adding further information of a specific kind, vic., about the causes or reasons of a previously mentioned (and hence known) fact. This approximate deflnition is consistent with the most general functional relation of text semantics, vic., Addition. However, Explanation remains rather problematic as a semantic function of discourse, because unlike Generalication or Contrast the deflnition is apparently not merely given in terms of intensional propositional relations.

These functional relationships are proper discourse functions for independent sentences. Thus, they cannot usually be reduced to clausal relations within compound sentences. We cannot say, for instance, *John is sick, and he has the*

flu, whereas the sentence *John doesn't come because he is sick is* a discourse Explanation only if the information 'John doesn't come' is presupposed (and repeated in the present sentence), e.g., because of earlier information in the discourse. Whereas referential coherence links are fine within a compound sentence like *John is sick, and (so) he can't come,* we cannot say: *John can't come and he is sick* if we want to convey that his sickness is the reason for his absence.

Note that these functional relations not only hold across sentence boundaries, but also across turn boundaries in conversation, for instance in order to explain or specify earlier information (e.g., for other speech participants):

(5)   A: John can't come.
       B: He is sick.

(6)   A: John is sick.
       B: He has the flu.

Functional semantic relations in discourse not only hold between single, subsequent sentences, but may also obtain between a proposition and a set or sequence of propositions. In this way, a proposition may function as a Conclusion, Summary, Example or Contradiction of a whole stretch of discourse.

Similarly, they need not be limited to the level of local coherence relations among the propositions expressed in the subsequent sentences of a text, but may also characterice relations between inferred macropropositions `summaricing' a text fragment. Thus, the sentences that follow a summary, for instance the headline or lead of a news report in the press, may individually or jointly be assigned to the functional category of a Specification (van Dijk 1988).

In other words, functional relations not only characterice the propositional microstructure of the text, but also its overall semantic macrostructure. If such functional relations between macropropositions become conventionaliced, we analyce them in terms of superstructures, that is, as text schemata that define the overall form of a discourse genre, such as narratives, news reports, conversations, or scholarly papers, which feature such well-known functional categories as Summary, Introduction, Setting, Complication, Discussion, Evaluation or Conclusion (van Dijk 1980).

Depending on the theoretical framework, semantic functions may be analyzed in a `pragmatic' way if we see these relations not as semantic relations between

propositions or as semantic categories, but as acts, that is, as something people do: Generalicing, Specifying, Explaining, Contradicting, Paraphrasing or Concluding (van Dijk, 1981). However, note that these acts are not the usual illocutionary acts like assertions and promises, each with their own appropriateness conditions, but at most `propositional acts'. Hence, they belong to a semantic account, although such an account may be coupled with a pragmatic or interactional one, vic., as a (mental) 'act' that must be accomplished in order to accomplish an illocutionary act.

Although mental `acts' are not acts but processes, it is not surprising that functional categories do seem to have act-character, because they precisely specify the function of a proposition or speech act, and such functions are often intuitively described in terms of verbal acts:

(7)   'I have no time to go to that conference', she added (explained, specified, etc.).

Here, an assertion is categoriced by its function in the text, which seems to suggest that a specific sub-genre of the speech act of an assertion is being accomplished. This is however not the case in a proper pragmatic analysis of speech act functions (for a detailed discussion and classification of such meta-communicative acts, see Kreckel, 1981).

1.2.   *Functional pragmatics*

We see that much in the same way as sentences or propositions may be functionally related, we also find functional relations between speech acts in speech act sequences. Indeed, next speech acts may also specify, generalice, correct, contradict or explain previous speech acts:

(8)   Could you do something for me? Could you please help me change my tyre?

(9)   Could you bring me some coffee? No, bring me some tea, please!

Whereas I have doubts about the functional nature of semantic Explanation, pragmatic Explanation is a functional explanation in the strict sense: a speech act may indeed be intended as an explanation of a previous one, as in

(10)   Can you tell me the time, please? I forgot my watch.

Such an explanation, thus, pertains not to the reasons or conditions of a fact referred to by the previous sentence or speech act (telling the time), but to the appropriateness conditions of the previously accomplished speech act itself: The previous request is appropriate if the speaker has no obvious other way to realice the goal of the request.

Relations between actions, and hence between speech acts, can be assigned to a number of specific additional functional categories, however. Thus, speakers may challenge previous speech acts, usually by questioning their appropriateness conditions or their (pragmatic) implications or implicatures:

(11)   A: Can you please tell me the time?
       B: But, you have a watch yourself!

(12)   A: Congratulations!
       B: Why?

Even more than at the semantic level, functional analysis of speech act sequences is tricky. That is, we should not confuse speech acts with speech act functions! The pragmatic function of a Question (or of Questioning) is ***not*** the same as asking a question, but a functional category denoting the class of all speech acts that may be used to question a previous speech act, including not only questions but also assertions or accusations. Sometimes, as in (12), the speech act of a question may also have a Question function relative to the previous speech act. This is not the case, however, in the following example, ***where*** a subsequent question does relate to the previous speech act, but it does not question the appropriateness of the previous speech act as such:

(13)   A: The money is gone!
       B: Are you accusing me?

In this case, the function of the speech act of B is to ask for the pragmatic implication of the previous speech act, vic., whether the assertion is intended as an indirect accusation. Such a function may be called Ascertaining. Speakers may also have their own version of making sure that their previous speech act is understood correctly:

(14)   You get a new computer. That's a promise.

The second speech act may in this case function as a Qualification of the previous speech act. Interestingly, ***together*** the two speech acts function as a (macro) speech act, vic., as a promise. Although the second speech act may

itself íntuítívely also be regarded as a promise, there are formal reasons not to analyce it as such: unlíke promising speech acts it does not refer to a future action of the speaker, and the use of ***that's*** excludes it as a self-referential speech act (a performatíve).

Also at the pragmatic level, functional relations may obtain between speech acts and sequences of speech acts or macro-speech acts: One speech act may question, denounce, or correct a whole sequence of previous speech acts, together functioning as an accusation or a threat, for instance.

1.3.   ***Rhetorical functions***

Several authors have dealt with functional relations in discourse in *terms* of `rhetorical' structures (Grimes 1975; Meyer 1975; Mann & Thompson 1988). I find this use of `rhetorical' confusing and prefer to reserve it for the specific structures specified by a (partial) theory of rhetoric, such as traditional 'figurae' at several levels of linguistic description, e.g., alliteration, rhyme, parallelism, metaphor or irony.

However, some semantic and pragmatic functions also seem to require rhetorical analysis in the strict cense. For instance, Contrast may be defined in semantic terms, but also may have a rhetorical function if it is used to enhance the effectiveness of the discourse. Similarly, exaggerations or mitigations may also have both a semantic and a rhetorical function, as is the case in the following sequence, where the second sentence expresses a weaker claim than the first, a mitigation that also has a rhetorical function ín a persuasive context (see below):

(15) He ís a bloody racíst. At least he doesn't like to have a Black boss.

One of the crucial differences is that semantic functions necessarily require a definition in terms of propositional relations, as in example (15). In a rhetorical analysis, however, this is not the case. Exaggerations, mitigations, or litotes are defined with respect to what is actually meant or expected in a specific situation, and therefore suggest a form of substitution, which is one of the major meta-operations of rhetorical figurae. Hence, in rhetorical operations we do not necessarily have a relation between actually expressed propositions, but between a proposition and a potential (expected, intended) proposition. Obviously, however, semantic Mitigation may also have rhetorical functions. Both may play a fundamental interactional role in face keeping or self-presentation strategies, as is also the case for well-known semantic moves such as Apparent Denials or Apparent Concessions, e.g., typically in racist talk (van Dijk 1984, 1987a):

(16)   I have nothing against Blacks, but I don't like them as my boss.
(17)   There are also smart Blacks, but I still don't like them as my boss.

These examples are interesting also because they show other aspects of functionality in discourse. Sentences (16) and (17) do not as such have a semantic function in isolation, nor are Denials and Concessions speech acts (no more than Explanations or Generalications). Rather, they may have a functional role, as a ***move,*** within an overall strategy, for instance in a strategy that combines negative other-presentation of minorities with positive self-presentation as a tolerant citicen. Semantically speaking, the relations between the clauses are merely an example of a contrast, as is also expressed by the typical ***but*** at the beginning of the second clause. In some cases, several functions operate at the same time, as for instance in the following example taken from a racist interview, where we find both a semantic, a rhetorical and a strategic (interactional) Contrast:

(18) ***We*** always have to work hard for our money. ***They*** simply get their money
       from welfare!

We see that in actual discourse analysis, several levels and dimensions of description may exhiba similar functions. It is however important for theoretical reasons to ny to make careful distinctions between these different functions. Thus, a semantic function of Contrast may be used as an effective rhetorical figure, and such a figure may again function as a move within an overall strategy of self-presentation. It is one of the tasks of future work on functional relations in discourse to make these different types of functions more explicit for each level of discourse analysis.

2. Cognitive functions

A broader functional discourse analysis also examines the functions texts and their structures have relative to their `contexts'. Since meanings, and hence semantic functions, have a cognitive basis, we also need to explore what cognitive functions may be involved in discourse. Also classical analyses of Topic-Comment relations often (intuitively) operate with cognitive notions, such as old and new information or knowledge. Similarly, definitions of notions such as presupposition and implication also have both a more abstract semantic and a more cognitively flavored analysis.

In such a cognitive analysis we may, rather trivially, `translate' the semantic analysis given aboye of such functions as Generalization, Specification, or

Contrast, into more cognitivistic terms, vic., by identifying propositions not as abstract objects, but as units of memory representations of a text (van Dijk & Kintsch 1983). In that case, Generalication could be redefined as a cognitive operation on knowledge structures, whereas a Contrast, which is merely implicitly `expressed' as a relation in a semantic structure of the text, may even be explicitly represented as such in memory, vic., as an actually intended contrast between two propositions, that is, as a proposition in its own right (taking two other propositions as its argumenta).

2.1. ***The cognitive basis of semantic FG categories***

Instead of further exploring these rather obvious links between abstract semantic and more or less empirical cognitive properties of meaning, it is more interesting for the discussion in this paper to have a closer look at other functional properties of a cognitive approach to discourse. One interesting link between a cognitive study of discourse processing and a functional study of language is not limited to discourse analysis but specifically also pertains to the foundations of both Functional Grammar and functional discourse theories.

Thus, FG and other functional grammars embody (a variant of) classical 'case' analysis (Fillmore 1968), and distinguish such semantic role categories as Agent, Patient, Experiencer, Object, etc. (Dik 1978, 1980, 1989; Givón 1979). Strictly speaking, such a case/role analysis cannot be properly grounded in an abstract meaning analysis because an Agent is not an `agent of a proposition, but of the action denoted by the proposition; the same is true for other semantic roles.

However, in linguistics and cognitive theory we do not deal with 'real' referents in the world, that is, with actions or events, but with their cognitive counterparts, vic., with the ways such events, actions or episodes are represented by language users. Thus, words, sentences and whole discourses are not interpreted relative to the world, but to the way we know or believe the world to be. It is this mentalist philosophy which also underlies current theories of discourse production and comprehension (van Dijk & Kintsch 1983).

In this framework, then, it is assumed that the (relevant) referents of sentences and texts are to be represented as knowledge structures in episodic memory, that is as ***models*** (Johnson-Laird 1983; van Dijk & Kintsch 1983; van Dijk 1987b). The structures of these models are not arbitrary. On the contrary, we assume that they have a strategically useful, schematic nature, and consist of hierarchically ordered categories that are always used to `analyce' real world episodes, a task we accomplish thousands of times each day and which therefore is highly automated.

There are several reasons to assume that such categories in model-schemata also involve functional categories such as Time, Location, Circumstances, Agent, Patient, Event/Action, etc. These categories not only show up in the semantic role-functions of functional sentence grammars, but also in the categories of storytelling and, indeed, in any verbal `description' of the world-episode as represented in the model. Hence, the well-known semantic functions that organice the meaning of sentences are derived from, and in fact explained by, the underlying function categories of episodic models.

From these cognitive models, which also feature other knowledge (which need not be expressed in the text and therefore can be presupposed), propositions may be selected for communication and expression. In this way a cognitive representation of the meanings of the whole text and its sentences may be strategically built up, and be strategically formulated Con line') in lexical, syntactic and phonological structures. Obviously, as is well-known in functional and typological grammars, culturally different ways to interpret the (episodes of the) world, presuppose different model-schemata, and hence different ways to organice the semantic structure of sentences, and hence a different syntax (see, e.g., Pawley 1987).

2.2.   *Model structures and functional relations in discourse*

The next question we may ask is whether also the functional relations between propositions in a text have a cognitive basis. The trivial answer to this question is that this is of course the case for the semantic representation of the text in episodic memory. It is this representation which strategically monitors the actual production of the text, both at the overall macrolevel of text topics, as well as at the microlevel of actually expressed proposition sequences.

Less trivial and much more complicated is the question how this representation of the text relates to its `underlying' models. If a model is a cognitive representation of an episode, it may *be* assumed to have at least some structures that are analogical to those 'in the world' (Johnson-Laird 1983). This means that for instance spatial, temporal or causal ordering of situations or episodes is mapped into similar, but of course mentally coded, forms of organication in the model. However, discourse is linear and hence requires its own mappings of these possibly `analogue' model structures. Thus, we speak of a natural (or iconic) order if there is a direct, linear mapping between events represented the model, and those represented and expressed by the text, for instance, first (causing) events precede later (caused) events, as is the case in chronological stories (Chafe 1980, 1987; see also: Dik 1989; Givón 1989).

However, for pragmatic, communicative or interactional reasons, discourse may feature various kinds of transformation of the structures of models. Thus, as we have seen in several examples given aboye, it may be relevant to present earlier events later in the text, for instance in Explanations. The knowledge that tells us the discrepancies between text and model ordering, as is the case for Explanations, is derived from the model.

Besides linear ordering, however, models also feature hierarchical orderings. Information at lower levels of representation, thus, may be subsumed at higher, more abstract levels. For instance, our model of a bank robbery, obtained from actual observation or from a newspaper story, not only may feature such local propositions as 'The robber said: This is a hold-up', but also higher level propositions defining larger action episodes or the event as a whole, e.g. 'The robbers took one million dollars' or, indeed, 'There was a hold-up of a bank'.

These macropropositions of the model, when relevant for the communicative purposes of the speaker/writer, may also need to be expressed in the text. This means that they must be mapped onto a linear structure of subsequence sentences. Functional relations in discourse precisely allow such mappings. Thus, the Specification relation expresses the hierarchical relation in the model between higher level and lower level information, as in 'John is sick. He has the flu'. Hence, one strategy of model realication is to map top-down relations in the model onto left-right relations in discourse.

Apparently, there are general discursive strategies for the linearication of cognitively represented information, for instance in spatial and narrative descriptions (Jarvella & Klein 1982; Levelt 1982). Thus, earlier, larger, closer, more prominent or more important objects or events usually are presented first, as is typically the case in newspaper stories. There are interesting variations of, and exceptions to this strategy, however. Whereas in natural narratives chronological ordering may be dominant, newspaper stories primarily show top-down, relevance ordering: In principle, the most important information comes first (van Dijk 1988).

At the level of local text organication, this means that there will primarily be Specification relations. In scholarly discourse, logical relations may be mapped in such a way that inferences tend to come later in the text, as is characteristically the case in the functional semantic Conclusion relation or in the superstructural Conclusion category of an argumentation schema. As soon as these linearication strategies seem to be violated, we assume that the order is `marked' and requires special interpretation. Thus, sometimes, prominent

Conclusions may appear first, as also Consequences in linear ordering may be expressed first.

We see that the fundamental properties of discourse coherence are textual `codings' of the ways people organice their mental models about episodes: Temporal, causal, spatial, conceptual or logical relations in the model all have their own mapping between model and semantic representation, and hence between the model and the realication of this representation in the subsequent sentences of the text (see also the contributions in Tomlin 1987a; e.g., Chafe 1987; Dixon 1987; Givón 1987; Tomlin 1987b). The overall linearication strategy in our culture seems to be that old, first, close, recent, left-hand, causing, given, prominent, important, big objects, persons, events or information precede new, later, past, distant, right-hand, unimportant, detailed, small, or following ones. Such relations also underlie the well-known but elusive notion of foreground vs. background information (Givón 1987).

However, since there is only one ordering dimension in discourse (in addition to special intonation and graphical expression variation), these mappings may conflict. Earlier events may be less important, and it will depend on the discourse genre whether the realication of the underlying episodic model in that case will be primarily chronological, as in natural stories (although these are usually preceded also by an overall abstract, which at least gives the most important information, and hence the interesting point of the story), or whether the most important information is given first, as is the case in news stories. On the other hand, the important conclusion of an argument may often be mentioned in last position. Similarly, within sentence structure of many languages, `given', `old' or other topical information often precedes new, focused and hence more important information.

More generally, then, some of the ordering principles of underlying models, e.g., importance, prominence or *recency,* may be variously mapped as first or as last information in sentence and discourse structures. One of the important factors that also conditions this variation is not the structure of situation models the discourse `is about', but the structures of the model of the present communicative situation itself, the so-called *context model* (van Dijk & Kintsch 1983). Thus, the discourse mapping of the information from the situation model is also a function of pragmatic and interactional conditions of the discourse, such as the goals, interests, or the mutual knowledge of the speech participants and the communicative relevance of specific elements of information or discursive (inter)action. For instance, facts or objects may be important, given, close or recent in the situation model, but still occupy a later or less prominent position in discourse for tactical reasons, such as those of face keeping, positive

self-presentation or persuasion. Even esthetic reasons may be involved, such as the convention of revealing the identity of the murderer in traditional crime stories only at the end of the story. Note that context models are also crucial for the description and explanation of meta-linguistic, meta-discursive or meta-communicative information in discourse.

Although situation models and communicative context models are the basis of discourse, not all information in discourse derives from models. Indeed, the semantic function of a Generalication may feature information that is not specific to a single episode, but derives from more general knowledge, e.g., as represented in scripts (Schank & Abeison 1977), or other social cognitions, such as general, socially or culturally shared knowledge and beliefs, including attitudes, norms and values, represented in semantic (or social) memory. Stories, thus, may feature generalizations about persons, actions or events. Thus, in racist talk, stereotypes or prejudices may be expressed in order to explain why specific story protagonists, such as ethnic minority group members, act in a specific way (van Dijk 1987a).

Similarly, scholarly discourse, and generally argumentation, may feature general norms, rules, or lawlike generalications, either as conclusions or as part of their Premises (van Eemeren, Grootendorst & Kruiger 1984). Depending on the discourse genre, these may again be mapped linearly by having such general forms of information precede or follow the more specific, instantiated information of the model.

From these observations we may generally conclude that global and local discourse ordering, the functional relations between propositions or sentences, as well as the schematic categories of text genres, reflect the underlying cognitive strategies applied in mapping information from episodic models and general social cognitions onto the semantic representation of the text in memory. However, as yet we have little insight into the details of the cognitive representations and the mental strategies involved in these mapping operations. Nor do we know how different mapping principies interact, counter-act or combine with each other in the linearization of cognitive information in semantic representations and `surface structures' of text and talk.

3. Social and cultural functions

Having explored some of the cognitive implications, and indeed explanations, of functional categories in *sentence* and discourse structures, I finally turn to the social and cultural context of both the textual and the cognitive organization and strategies of discourse. At this level of analysis, we first of O deal with discourse as a form of interaction, viz., as a communicative event, which in tuco is embedded in more encompassing societal, political or cultural structures.

We have encountered some functional aspects of discourse aboye that are defined in terms of interaction structures. For instance, the moves of a discursive strategy are defined in tercos of the goals of the speaker, and hence in terms of properties of interaction. That is, a move is a functional action component which contributes to the realization of the goal of that action (see also Kreckel 1981). Thus, buying a ticket and taking a seat are functional moves in the (scripted) action of going to the movies or taking the train, whereas reading a book on the train is not a functional element of the action of taking the train, simply because without doing so one also realizes the goal of the action. However, it may be a functional move in the strategy of making a *pleasant* train journey. Similarly, we have seen that Apparent Denials and Apparent Concessions are typical discourse functions in the overafi strategy of positive self-presentation, for instance in prejudiced talk.

Thus, people do a lot of things 'with words', and often they do them at the same time, that is, by doing other things. This parallelism of discourse and interaction also obtains for the functional relations or categories of each level of analysis. This holds for intonation, syntax, semantics, rhetoric, style, superstructures and illocutionary acts, for the (other) interactional and social acts thus accomplished, as well as for their underlying cognitions. Thus, a negation followed by a contrastive proposition, functioning as a Denial, not only strategically contributes to the interactional goal of avoiding a bad impression (Arkin 1981; Brown & Levinson 1987), thereby managing the model the hearer is making of the speaker. Such a denial also functions socio-culturally: By denying that they have something against 'foreigners', speakers also emphasice that they know the official norms of tolerance of their group or culture, while at the same time asserting group membership and confirming ingroup bonds by presenting others in a negative light.

Theoretically, however, we need to distinguish in this case between what may be called *vertical* and *horizontal* functionality. A proposition functioning as a pragmatic denial, and a pragmatic denial functioning as a socio-cultural act of group cohesiveness or ethnocentrism, exhibit vertical functions between different

levels of analysis. This kind of functionality obtains when we refer to the cognitive, pragmatic, or social `functions' of language. Such functions may be described as inter-level mapping operations, for instance between model structures and semantic structures of sentences and discourse. Also, they may be characterized in tercos of interdependencies and constraints. This is the case when communicative goals limit or prescribe the choices or variation of lexical, syntactic, semantic, stylistic or pragmatic structures of text and talk, for instance when politeness strategies call for the selection of `polite' language forms, or when formal situations require 'formal' language style.

Grammatical, discursive and interactional functions, however, are horizontal or linear, and obtain between units of the same level, e.g., between propositions, between subsequent acts, between propositions and the text as a whole, or between partial acts and the oven dl action as a whole. Besides the usual ordering relations of *precedence* and consequence, we find here the functional relations of Generalication/Specification mapping the hierarchical conceptualization of models in linear discourse structures, but also the relations of identity/difference (as in Repetition functions), of whole/part, set/element, old/new, given/derived, cause/consequence, introduction/conclusion, beginning/end, etc. Most of these functional relations hold both for proposition and for action equences, and therefore also organice the temporal, spatial, informational, conceptual or logical structures of situations or episodes.

And in the same way as propositions, at the microlevel of text analysis, may have functions relative to the text as whole at the macrolevel, situations and their structures at the microlevel may have functions at the macrolevel of societal and cultural structure. Thus, the strategic move of a negative presentation of outgroup members in discourse, is a functional element of the more complex act of the reproduction of ethnic prejudice, as well as of the socio-cultural and political strategy of outgroup exclusion and marginalication charactericing white group dominance.

It hardly needs to be emphasized that such broader socio-cultural strategies need not be intended, as such. Indeed, as white ingroup speakers emphatically repeat, their negative remarks or even whole biased stories about foreigners are precisely *not* intended as an element of a pattern or as a step in a strategy, but as a local incident, as a well-motivated exception, lest the interlocutor does make the feared fatal inference: He is a racist. However, whereas for the anti-racist such Apparent Denials may function as a discursive signal which suggests that precisely such an inference may well be correct, for those who share the negative attitude about the outgroup it may function as a social warrant of good citizenship, viz., that one may at the same time respect the

official norms of tolerance and yet not like `those foreigners'. In other words, denials and similar discursive and interactional moves both function as the resolution of cognitive inconsistency and as the resolution of a social predicament.

We see that semantic, pragmatic or rhetorical discourse functions are related in many ways with interactional and socio-cultural functions. However, such relations are not direct. They always require a socio-cognitive interface, that is, episodic models of specific socio-cultural events and shared general knowledge or attitudes about societal structures, which both can be mapped on, or constrain the cognitive representations that underlie a specific discourse. The functionality of discourse and its elements at various levels of description derives from these cognitive strategies. It shows how the many spatial, temporal, logical or conceptual relations of models are translated into relations between propositions or speech acts linearly expressed by the sentences of a text or dialogue.

Functionality principles also show how both discourse and such cognitions are in tum embedded in strategic interaction and within a broader structure of socio-cultural reproduction, an embeddedness which again is cognitively represented, vic., in tercos of the relations between particular models and the general knowledge, attitudes and ideologies of shared social cognitions of the group. Indeed, selectively hearing, remembering and retelling a story about `those Turks down the street' strategically, and hence functionally, instantiates in a narratively expressed model a more general attitude and ideology about `foreigners', a social cognition that happens to function itself in the reproduction of white group power. Hence functionality in language use and discourse not only shows how sentences or texts are organized, and not only how they are related with cognition, interaction and social structure. It also shows that discourse is never context-free, and hence never innocent.

REFERENCES

Arkin, R. M. 1981. Self-presentation styles. In: J. T. Tedeschi (ed.) *Impression management. Theory and social psychological research.* 311-333. New York: Academic Press.

Bolkestein, A. M., de Groot, C., & Mackenzie, J. L (eds.) 1985. *Syntar and pragmatics in functional grammar.* Dordrecht: Foris.

Brown, P., & Levinson, S. C. 1987. *Politeness: Some universals in language usage.* Cambridge: Cambridge University Press.

Chafe, W. L. (ed.) 1980. *The peor stories.* Hillsdale, NJ: Erlbaum.

Chafe, W. L. 1987. Cognitive constraints on information flow. In: R. Tomlin (ed.) *Coherence and grounding in discourse* 21-52. Amsterdam: Benjamins.

Danes, F. (ed.) 1974. *Papers on Functional Sentence Perspective.* The Hague: Mouton.

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

Dik, S. C. 1980. *Studies in functional grammar.* London: Academic Press.

Dik, S. C. (ed.) 1983. *Advances in functional grammar.* Dordrecht: Foris.

Dik, S. C. 1989. *The theory of functional grammar. Part I: The structure of the clause.* Dordrecht: Foris.

Dixon, P. 1987. Actions and procedural directions. In: R. S. Tomlin (ed.) *Coherence and grounding in discourse,* 69-89. Amsterdam: Benjamins.

Fillmore, C. J. 1968. The case for case. In: E. Bach, & R. T. Harms (eds.) *Universals in linguistic theory,* 1-88. New York: Holt, Rinehart & Winston.

Givón, T. 1979. *On understanding grammar.* New York: Academic Press.

Givón, T. (ed.) 1983. *Topic continuity in discourse: Quantitative cross-language studies .* Amsterdam: Benjamins.

Givón, T. 1987. Beyond foreground and background. In: R. S. Tomlin (ed.) *Coherence and grounding in discourse,* 175-188. Amsterdam: Benjamins.

Givón, T. 1989a. *Mind code and context: Essays in pragmatics.* Hillsdale, *NJ:* Erlbaum.

Givón, T. 1989b. *771e grammar of referential coherence as mental processing instructures.* Eugene, OR: University of Oregon, Linguistics Department. Unpublished paper.

Grimes, J. E. 1975. *The thread of discourse.* The Hague: Mouton.

Haiman, J., & Thompson, S. A. *(eds.)* 1988. *Clause combining in grammar and discourse.* Amsterdam: Benjamins.

Halliday, M. A. K. 1985. *An introduction to functional grammar.* London: Edward Arnold.

Jarvella, R. J. & Klein, W. (eds.) 1982. *Speech, place and action.* Chichester: Wiley.

Johnson-Laird, P. N. 1983. *Mental models.* Cambridge: Cambridge University Press.

Kreckel, M. 1981. *Communicative acts and shared knowledge in natural discourse.* London: Academic Press.

Levelt, W. J. M. 1982. Linearization in describing spatial networks. In: S. Peters, & E. Saarinen (eds.) *Processes, beliefs and questions.* Dordrecht: Reidel.

Longacre, R. (ed.) 1977. *Discourse grammar.* 3 vols. Dallas, TX: Summer Institute of Linguistica.

Mann, W. C. & Thompson, S. A. 1988. Rhetorical Structure Theory: Towards a functional theory of text organization. *Text* 8, 243-281.

Mann, W. C. Matthiessen, C. M. I. M., Thompson, S. A. 1989. *Rhetorical Structure Theory and text analysis.* Los Angeles: University of Southern California, Information Sciences Institute. Research Report.

Meyer, B. J. F. 1975. The *organization of prose and its effects on memory.* Amsterdam: North Holland.

Pawley, A. 1987. Encoding events in Kalam and English: Different logics for reporting experience. In R. Tomlin (ed.) *Coherence and grounding in discourse* 329-360). Amsterdam: Benjamins.

Pike, K. L. 1967. *Language in relation to a unified diem), of human behavior.* The Hague: Mouton.

Schank, R. C., & Abelson, R. P. 1977. *Scripts, plans, goals and understanding.* Hillsdale, NJ: Erlbaum.

Steiner, E. H., & Veltman, R. (eds.) 1988. *Pragmatics, discourse and text. Some systemicall ~ inspired approaches.* London: Pinten

Tomlin, R. S. (ed.) 1987a. *Coherence and grounding in discourse.* Amsterdam: Benjamins.

Tomlin, R. S. 1987b. Linguistic relections of cognitive events. In: R.S. Tomlin, (ed.) *Coherence and grounding in discourse.* 455-480). Amsterdam: Benjamins.

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

van Dijk, T. A. 1980. *Macrostructures.* Hillsdale, NJ: Erlbaum.

van Dijk, T. A. 1981. *Studies in the pragmatics of discourse.* The Hague/Berlin: Mouton.

van Dijk, T. A. 1984. *Prejudice in discourse.* Amsterdam: Benjamins.

van Dijk, T. A. 1987a. *Communicating Racism. Ethnic Prejudice in Thought and Talk.* Newbury Park, CA: Sage.

van Dijk, T. A. 1987b. Episodic models in discourse processing. 1983. In: R. Horowitz, & S. J. Samuels (eds.) *Comprehending oral and minen language,* pp. 161-196. New York: Academic Press.

van Dijk, T. A. 1988. *News as Discourse.* Hillsdale, Ni: Erlbaum.

van Dijk, T. A. & Kintsch, W. 1983. *Strategies of discourse comprehension.* New York: Academic Press.