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Structures of News in the Press

1. Introduction

The aim of this chapter is to propose an analytical framework for the structures of news discourse in the press. Given the complexities of textual structures, and hence also of news discourse, we restrict our focus to what we call the *global* organization of news. Intuitively, this means that we are dealing only with news structures beyond the sentence level, such as thematic and schematic structurel, and must ignore syntactic, semantic, stylistic or rhetorical features of sentences and sentential connections. Similarly, we also neglect issues of graphical organization, such as lay-out, and nonverbal properties of news, such as photographs. In other words, we are concerned with macro phenomena, rather than with the micro-organization of news discourse. Finally, we limit our discussion to news in the daily press, and do not analyze TV- and radionews.

By the 'thematic structure' of a discourse, we understand the overall organization of global 'topics' a news item is about. Such a thematic analysis takes place against the background of a theory of semantic macrostructures. These are the formal representation of the global *content* of a text or dialogue, and therefore characterize part of the meaning of a text. Schemata, on the other hand, are used to describe the overall *form* of a discourse. We use the theoretical term *superstructure* to describe such schemata. Schemata have a fixed, conventional (and therefore culturally variable) nature for each type of text. We assume that also news discourse has such a conventional schema, a 'news schema', in which the overall topics or global content may be inserted. In other words, schematic superstructures organize thematic macrostructures, much in the same way as the syntax of a sentence organizes the meaning of a sentence. Indeed, in both cases, we deal with a number of formal categories, which determine the possible orderings and the hierarchical organization of sentential and textual units, respectively. To wit, the category of Headline in a news discourse, has a fixed form and position in news items in the press. At the same time, this Headline has a very specific thematic function: it usually expresses the most important topic of the news item. We see that themes and schemes, macrostructures and superstructures are closely related.

With these theoretical instruments, we are also able to analyze another notion of discourse analysis, which is of particular importance in the

characterization of news, namely, *relevance*. It will be shown, indeed, that news has what we may call a 'relevance structure', which indicates to the reader which information in the text is most important or prominent. Obviously, again, Headlines have a special role in such a relevance structure, because we just assumed that headlines express the most 'important' topic of the news.

Although the approach proposed above may contribute to an explicit structural account of news discourse, it tells us little about the (mass or media) *communication* dimension of news discourse. *Why*, for instance, have news items the kind of thematic or schematic structures we want to study? What is their role, function or effect in the *processes* of news production and reception? Obviously, there are social, cultural and cognitive constraints on such organizational properties of media messages. In other words, we assume that there is a systematic relationship between news text and context. Thus, it seems plausible that the structural forms and the overall meanings of a news text are not arbitrary, but a result of social and professional routines of journalists in institutional settings, on the one hand, and an important condition for the effective cognitive processing of news text by both journalists and readers, on the other hand. Therefore, we pay brief attention also to the *cognitive* dimension of thematic and schematic structures, but must neglect the social and institutional context of news production and use, which we can only refer to in a review section (Section 2).

Although this chapter is mainly theoretical, our examples are drawn from a large scale, empirical case study of the international press coverage of the assassination of president-elect Bechir Gemayel of Lebanon in september 1982 (van Dijk, 1984a and van Dijk, 1986). For this study 250 newspapers from 100 countries were collected, from which more than 700 articles were subjected to both quantitative and (especially) qualitative analysis. Hence, our observations about the thematic and schematic structures of news are made against the background of a rather extensive data base, even if we can give only a few examples here.

2. *Backgrounds. The Study of News*

Obviously, our approach to news structures from a discourse analytic point of view is not independent of insights obtained in other work on news or news discourse. Before we start our analysis, therefore, a few remarks are in order about the research done from different and similar perspectives. Indeed, the late 1970s have witnessed a rapidly increasing interest for the production, contents and organization of news in the media. Let us highlight only a few milestones of this development (see also the editorial introduction to this book and van Dijk, 1986, as well as the previous chapters).

Common to most studies of the news, is a sociological perspective, whatever the differences in actual frameworks of analysis. This may be a

macrosociological perspective, interested in the institutional, professional and cultural context of news production. Or it may be a microsociological analysis of journalistic routines, taken for granted practical rules, and news values or ideologies which govern the daily activities of journalists in gathering and writing the news. And when attention is paid to the content, form or style of news items, such an analysis is primarily geared towards the assessment of social or cultural dimensions of mass media and communication, such as the political views, the institutional embeddedness or the ideological orientation of journalists or newspapers. Specific properties of news are seen as the probable or even necessary results of these social and cultural constraints. In other words, news discourse is hardly ever analyzed for its own sake, either as a specific type of (media) discourse, or as a specific socio-cultural accomplishment.

There are a few purely structural approaches to news discourse, e. g. by linguists, discourse analysts or by people working in domains such as semiotics, stylistics, or rhetoric. However, such structural studies are seldom comprehensive. They usually take news as an example or illustration of a structural analysis of specific discourse features, e. g. of lexical choice as a component of style.

We are convinced that both approaches are important and necessary, but also we think that they should be integrated. A 'pure' structural analysis is a rather irrelevant theoretical exercise as long as we cannot relate textual structures with those of the cognitive and socio-cultural contexts of news production and reception. The development of linguistics and discourse analysis in the 1970s has shown, indeed, that a 'context-free' approach to language, for instance in the construction of formal grammars, is one-sided at best and certainly empirically inadequate. Of course, the same holds for the analysis of news discourse. It is impossible to really account for the many *specific* constraints on news structures, without specifying their social (institutional, professional) conditions or their socio-cognitive functions in mass mediated communication. Why, indeed, would news have headlines, and why would these be big, bold and 'on top' of the news article? And conversely, a sound psychological, sociological or even economical analysis of news production and consumption can be incomplete at best, without a detailed characterization of the nature of the 'product' involved in these processes. Both the production processes and the cognitive understanding and memory of news, depend on the 'format' of this product.

Macrosociological approaches to the news are basically restricted to the institutional and professional dimensions of news production by journalists working for news agencies or newspapers (Tunstall, 1971; Boyd-Barret, 1980), or are concerned with the economic and ideological controls of news production and newspapers (e. g. Curran, ed. 1978; Gurevitch, et al. eds., 1982). Although these studies are certainly important in an account of the social and especially the ideological contraints upon journalists during news

production, they seldom show *how* exactly such constraints work in the actual production process and in the final result: the news. Indeed, this is why we may call them macro-studies: they do not pay attention to micro-phenomena. There are exceptions though, mostly in the area of ideological analyses of the news, such as in the work of the Centre for Conteporary Cultural Studies in Birmingham (e. g. Hall, et al., eds. 1981). See also Cohen & Young, eds. (1981).

There is also an 'intermediate' level of analysis, viz. of the concrete organization of news production within news institutions (Roshco, 1975; Gans, 1979, Schlesinger, 1978, Golding & Elliott (1979). Such studies pay attention to the everyday routines, the division of labor, the hierarchical relationships, institutional constraints both from the management and the readers/sales, or the values and the culture that define the journalists' activities. Although such studies also seldom pay attention to concrete news analysis, they at least provide us rather direct insight into the professional constraints of news production, such as deadlines, beats, the editorial system, competition, and the everyday organization of news gathering and selection.

Although strict distinctions between macro- and microsociological approaches cannot (and should not, cf. Knorr-Cetina & Cicourel, eds., 1982) be made, the observation of everyday routines of news production may also take place in an even 'closer' perspective, e. g. in terms of ethnomethodology (Tuchman, 1978; Fishman, 1980). Various dimensions can be seen to 'work' at this micro-level of analysis. Not only professionalism, or ideology and news values, and not only the routine organization of news gathering practices can be observed in a detailed account of everyday practices of participants as institutional and social members. These frameworks or networks (webs) provide a device to routinely produce news as a form of 'reality construction'. They define how journalists 'see' the social world, and hence news events, and also their special tasks in the reproduction of such events through news articles in the press. Large parts of the news appear to be pre-formulated already by influential news sources, such as the police or other state or corporate institutions. Their accounts, in documents or press releases, of their own actions, already provide the journalist with a dominant definition of the situation. Through such approaches, which also have an interesting cognitive slant (they deal with the rules, the categories, the interpretation procedures journalists bring to bear in the reconstruction of news reality), we are able to link the macro-context of news with the actual meanings and forms of news discourse. But again, concrete text analysis, even in this perspective, is still scarce.

Finally, there are a series of studies, both by social scientists and linguists, that explicitly deal with news analysis per se. The work of the CCCS (Hall, et al. eds., 1981) has already been mentioned above. It derives part of its inspiration from French work in discourse and ideological analysis, and integrates a marxian analysis of media production with notions developed by

structuralists such as Barthes, Pêcheux, and Althusser (see Connell & Mills, this volume).

Of a different perspective, but also aiming at a 'social' reading of news, is the work of the Glasgow University Media Group (1976, 1980, 1982). Their influential 'bad news' studies of TV-news programs, are systematic content analyses, also of interviews and visual dimensions of news, especially focusing on strike coverage in the news. They showed, among other things, that the assumption, if not the prescription of 'impartiality' of news representations (of public broadcasting companies like the BBC) is challenged by the biased account of strikes in favor of those in power, a bias that could be detected especially in small and subtle details of news reporting (style, turns in interviews, camara shots, etc.) (see Davis, this volume, for details). Although this news analysis is certainly systematic and more or less explicit, it does not yet account for news structures in a discourse analytical or linguistic perspective. Such a grammatical approach we find in e. g. Fowler, et al. (1979). They were able to show that news bias can even be expressed in syntactic structures of sentences, such as the use of active or passive constructions, which allow the journalist to express or suppress the agent of news acts from subject positions. Such an approach shows that even with the limited instruments of a grammatical analysis, we can find linguistic correlates of ideological positions (see also Kress & Hodge, 1979) of newspapers and journalists. Hartley (1982) also focuses on (TV-)news structures, but does so from a broader, semiotic discourse analysis point of view, which also allows the systematic account of news films, stills and pictures (see also Davis & Walton, eds. 1983).

Much of this work is done in Britain, which we may consider the most advanced and theoretically most diverse location of actual research on the news. Despite the substantial differences between the various approaches mentioned here, this work embodies an interesting integration of empirical and structural analysis with a more critical idcological dimension (see also Downing, 1980). Most American studies about news have a much more anecdotical nature (many are written by journalists). When they have a critical perspective, they focus on issues of distortion, civil rights or the organizational and corporate control structure of news production (Epstein, 1973; Diamond, 1978; Bagdikian, 1971; Altheide, 1974; Barrett, 1978; Abel, ed. 1981). Often such studies will be about concrete 'cases' of portrayal: how did the media cover the presidential elections, Watergate, the 'race riots' and similar social events? They may cogently 'describe' what is and what is not being covered, but will seldom actually analyze news items systematically. Nor will such studies probe into the deeper ideological frameworks that underly American news production.

Finally, and without even trying to be complete, we should mention the important work on news being done in Germany, e. g. by Strassner and associates (Strassner, ed. 1975; Strassner, 1982). Although this work has a

linguistic bias, it also pays attention to the production and reception dimension of news. Other studies, such as Kniffka (1980) and Lüger (1983) focus on details of language and style of the news.

Concluding this brief survey of recent studies about news and news discourse, we find that most work focuses on the 'context' of news, such as practical, socio-cultural or ideological constraints on news production. Little work has been done on the details of news texts themselves, and still less about the exact relationships between text and context of the news. If news is analyzed, it is mostly its 'content', which is of course important, but only half of the story, literally. A few linguistic studies have revealed much about the local syntax and style of news language. What remains to be done in the years ahead is a thorough, systematic and theoretically founded, discourse analysis of news, on the one hand, and an integration of such an approach with the prevailing sociological approaches. Unfortunately, this chapter can only provide one small element to the first goal (for detail, see van Dijk, 1986).

3. Thematic structures

Language users, and therefore also newspaper readers, have the important capacity to tell what a text or conversation 'was about'. They are able, though with subjective and social variation, to say what the 'topic' of a discourse is. Thus, they can formulate the theme or themes of a news text, by statements like 'I read in the newspaper that the president will not negotiate with the Russians' or 'did you read who won the European soccer championship?'. In other words, language users can summarize fairly complex units of information with one or a few sentences, and these sentences are assumed to express the gist, the theme, or the topic of the information. In intuitive terms, such themes or topics organize what is most important in a text. They, indeed, define the 'upshot' of what is said or written (see Jones, 1977).

The various notions introduced in the previous paragraph can be theoretically reformulated in terms of semantic macrostructures (van Dijk, 1980). The ability of language users to derive such macrostructures from a text, is based on a number of linguistic and cognitive rules and strategies (van Dijk & Kintsch, 1983). These macrostructures are called 'semantic' because when we are talking about notions such as 'topic', 'theme' or 'gist' of a text, we are dealing with meaning and reference, and not, for example, with syntactic form, style or rhetorical devices. Also, we are not even talking about the (local) meaning of isolated words or sentences, but about the meaning of larger fragments of text or about whole texts. We do not assign a theme or topic to one sentence, but to larger stretches of talk or text. Hence, themes, topics and the semantic macrostructures we use to make these notions explicit,

pertain to *global* structures of discourse. Take for instance the following brief news text:

(1) WEINBERGER Vs. THE PRESS

Defense Secretary Caspar Weinberger is so upset over media coverage of his controversial Mideast trip that he is considering barring reporters from accompanying him on his forthcoming visit to the Far East. Weinberger's main complaint: he thinks the press twisted the meaning of his remarks so that U.S willingness to sell sophisticated weapons to Jordan came out as a final decision which brought an immediate protest from Israel. Says a Weinberger aide: "Do we really need these headaches when we're dealing with foreign governments?" The sensitive topic of arms sales probably won't come up to Weinberger's Far East trip, since neither China or Taiwan will be on his itinerary.
(From *Newsweek*, March 1, 1982, p. 7).

Although this short news text from a weekly, which itself may be a summary of more extensive news discourses, is not ideal to demonstrate the role of topics or macrostructures in the structure (or understanding) of discourse, it may be argued that it also has a few central topics. One aspect of this overall topic is signalled by the headline 'Weinberger vs. the press'. This is certainly a high level abstraction from the information in the text, since it is implied by the statement that Weinberger criticizes the press for having twisted his words in earlier arms talks. Yet, it is *also* a somewhat subjective, biased formulation of this level topic implied by the text, because it may suggest that Weinberger is opposed to the press in *general*, whereas the text only suggests that Weinberger is considering to bar the press from delicate foreign missions. Indeed, this last sentence expresses in somewhat more detail a more neutral overall topic of this text, which may be summarized e. g. as follows:

(2) The U.S defense secretary, Weinberger, is considering to bar reporters from his next trip to the Far East, because he thinks that they might disturb delicate talks with foreign governments, as they had done during his arms talks in the Middle East.

And even this text may be further summarized, e. g. as follows:

(3) Weinberger is considering not to take the press with him on his trip to the Far East, because earlier reporting had had negative results on relations with foreign governments.

and finally this summary allows even further abstraction into:

(4) Weinberger is considering not to take the press on his trip.

From this example, we may conclude several things. First, there is not just one topic or possible summary of a text, but several. Summarization may take place on a continuum, from leaving out a few less essential details on the one end, until leaving out all information except the most relevant or essential, on the other end. Second, the topics we assign to a text, or the summary we make of it, are possibly subjective. We may infer from a text what is relevant or important for *us*. Indeed, *Newsweek* perceives Weinberger's

consideration or decision as an act *against* the press, and summarizes the text in a headline that is consistent with that macro-topic. Third, part of the topics we have inferred from (or assigned to) this text, are formulated in the text itself: indeed, the first sentence of the original news text is virtually identical with our summaries (2) and (3). Fourth, topics are typically obtained by 'leaving out details' from a text. Such details may be dimensions of a situation described, such as normal reasons, components and consequences for action. But, summarization is not just a form of deletion. It may also involve generalization, e. g. 'Weinberger is upset about the press' could be a generalization of several different situations in which Weinberger did not like the actions of the press, e. g. when reporters distorted his earlier statements. Finally, abstraction may also take place by replacing a sequence of the text, e. g. describing a sequence of actions, by a single concept (proposition), which need not be expressed in the text at all. Indeed, a sequence of acts by Weinberger and his aides may in that case simply be summarized by the sentence 'Weinberger bars the press from his trip'.

In this first, intuitive analysis of an example we have found some important properties of macrostructures, and the principles that may be used to infer or derive macro-information (topics) from a text, e. g. by deletion, generalization and (re-)construction. These three summarizing principles are called *macrorules*. They reduce the complex, detailed meaning structure of a text into a simpler, more general and abstract (higher level) meaning of a text. And it is this higher level, overall meaning which we call the macrostructure of a text, and which we have also identified as the level at which we describe the topics or themes of a text. Macrorules, formally speaking, are *recursive*. They may apply again at each level of abstraction to produce even shorter abstracts. The result is a hierarchical macrostructure, consisting of several levels, each level consisting of a sequence of (macro-)propositions that 'summarize' a sequence of lower level (macro-)propositions. To avoid too many theoretical terms, we shall simply use the terms *thematic structure, theme* or *topic*. It is however understood that a theme in this case is not simply a word or a single concept, but a (macro-)proposition. Hence, 'Weinberger' or 'the press' or even 'censorship' is not, in our terms, a topic or theme of our sample text, but the sentence *Weinberger bars press from trip* does express a proposition and can therefore be a topic or theme of that text.

We have seen that topics may be subjective. This means that we should not simply say that a text 'has' a macrostructure, but that such a structure is assigned to the text by a writer or reader. In this sense, then, like meanings in general, themes or topics are *cognitive* units. They represent how the text is understood, what is found important, and how relevancies are stored in memory. This means that knowledge, beliefs, attitudes and ideologies may operate in the cognitive construction and representation of macrostructures. In order to summarize and globally understand the text about Weinberger, we must have a vast amount of political knowledge, knowledge that is not

spelled out in the text, but presupposed by it: e. g. that it is possible or even customary that reporters accompany important government officials, that the press may distort the words of such officials, that biased reports may be a reason for political tensions, and so on. Thus, we may need complex social and political knowledge schemata, or *scripts* to understand what this text is about (Schank & Abelson, 1977; Schank, 1982).

Finally, the cognitive nature of macro-interpretation also requires a more process-oriented approach to the assignment of topics to a text. Whereas abstract macrorules derive topics from a *given* text, or rather from its underlying sequence of propositions, this is not what a reader actually does. During reading, the language user starting with the beginning of a text only has one or a few sentences and their meanings at his/her disposal. And with this limited information, but with the help of vast knowledge structures about the context or the type of text, the reader will try to derive a provisional topic as soon as possible, without waiting until the whole text has been read. In other words, readers use expedient *macrostrategies* for the derivation of topics from a text. For news discourse, these strategies have important textual devices to help build the thematic structure, viz. headlines and the lead. We have seen in our earlier example that the headline and the first sentence indeed seem so express at least part of the assumed macrostructure of the news item. Headlines and lead may therefore be used as expedient signals to make effective guesses about the most important information of the text. Note however that they express the macrostructure of the writer, rather than that of the reader: the reader may infer a different thematic structure, depending on his/her own beliefs and attitudes. And when a headline or lead is not an adequate summarizaton of the full overall meaning of a text, we may, either formally or subjectively, say that they are biased.

4. *Thematic structures in news discourse*

The theoretical approach outlined in the previous section still has a rather general nature. It holds for discourse in general, and is not specific for news discourse. The only rather specific observation we have made pertains to the special macrostructural role of headlines and leads in news discourse: they are used to express or to infer the theme or topic. There are however other specific features of thematic organization in news discourse, both from a structural and from a more dynamic, cognitive point of view.

Consider for example the news article, taken from the *Bangkok Post*, about the invasion of West-Beirut by the Israeli army (next page). Disregarding for a moment the schematic category names added in the margins, to which we return below, we first observe that the headline expresses only one topic from the thematic structure, viz. the invasion of West-Beirut by the Israeli army. Another important topic, mentioned in the lead, and opening the first sentence

after the lead, viz. the assassination of Gemayel, is not mentioned in the headline. It follows that the headline is not so much incorrect as rather incomplete. If two important events are covered by a news item, a single headline can usually only express one of them, which is either the most recent event and/or the most important. Yet, in that case we often find a smaller headline above or below the main headline, as is also the case in the *Bangkok Post* article. Such secondary headlines usually express important causes or consequences.

The first sentence of the article then specifies some of the details of the second main topic: actors, instrument (bomb) and characteristics of the instrument, further participants (victims), and finally the consequences of the assassination. The second paragraph, also a complex sentence, similarly specifies some details of the other main topic, namely the reasons of the Israeli army for the invasion. So far, we obtain the following picture of the *realization* of the thematic structure in a news text: the highest or most important topic is expressed in the headline, the top of the complete macrostructure of the text is formulated in the lead, and the initial sentences or paragraphs of the text express a still lower level of macrostructure, featuring important details about time, location, participants, causes/reasons or consequences of the main events. This means that the linear, i. e. both left to right and high to low in terms of article lay-out, and linear in the sense of the reading process, organization of a news text is a *top-to-bottom* mapping of the underlying semantic macrostructure. In other words: the highest levels of the thematic structure are formulated first, and the lower levels follow.

The third paragraph of the text comes back to the assassination topic, and specifies personal and political characteristics of the main protagonist, Gemayel, as well as speculations about the political and military consequences of the assassination. And most of the rest of the text also provides particulars about the assassination, its backgrounds and consequences. This means that, when both story details and length are considered, the article nearly completely 'is about' the assassination of Gemayel, and only tangentially about the Israeli invasion of West-Beirut. Yet, the headline suggests that the latter topic is more important, even when it merely covers one small paragraph of the text. Here, we find an instance of what may be called 'skewed' headlining: one topic from this text, organizing only part of the information in the text, is promoted to the main topic. And the topic which structurally speaking dominates most of the story is merely expressed by an inserted heading across part of the article. The reason for this 'bias' in signalling topics by headlines need not be ideological or political, but seems to be determined by an implicit journalistic rule of news organization: last main events are more important. This rule is based on the actuality principle of the press. What we see in the *Bangkok Post* also happens in other newspapers that cary both the story of Gemayel's assassination and the invasion of West-Beirut. The invasion is the 'latest development', and therefore may get more prominence, 'over-

HEADLINE

Israeli troops re-enter west Beirut

From: BANGKOK POST, September 16, 1982, p. 1

LEAD

BEIRUT — Israeli forces moved into west Beirut yesterday to "insure quiet" after the assassination of Lebanese president-elect Bashir Gemayel, the Israeli military command in Jerusalem said.

MAIN EVENT

Unidentified assassins killed Gemayel Tuesday with a 200-kg (450 lb) bomb that took more than 26 lives, wounded 60 other people and returned Lebanon to relentless sectarian violence.

CONSEQUENT ACTION 1

"As a result of the assassination of Bashir Gemayel, Israel Defence Forces entered west Beirut in order to prevent possible severe occurrences and in order to insure quiet," a statement by the Israeli military command said.

EXPECTATIONS

The death of the Maronite Christian, only nine days before he was to be inaugurated as Lebanon's president, raised

After Gemayel's assassination

Gemayel

HISTORY

Phalangist military commander during the bitter 1975-76 civil war.

Twice before — in March 1979 and February 1980 — enemies tried to kill Gemayel with car bombs. The second blast killed his 12-month-old daughter.

VERBAL REACTION 1

"The news of the cowardly assassination ... is a shock to the American people and to civilized

fears of a new round of fighting between Gemayel's troops and Muslim forces in the deeply divided country.

The Government, shocked at the first assassination in Lebanese history of a person elected president, delayed confirming the death of the 34-year-old right-wing leader for nine hours.

All crossings between east and west Beirut were closed and panicky residents jammed gas stations and bakeries stocking up in fear a continued closure would lead to shortages of essential items.

An Israeli Army spokesman said the border between Israel and Lebanon was sealed off yesterday for all but military personnel, barring journalists and other civilians from crossing the frontier.

"With great pain I face this shocking news with the strongest denunciation for this criminal act," Prime Minister Chefik Wazzan said late Tuesday in an official statement about Gemayel's death.

President Elias Sarkis ordered seven days of official mourning and a state funeral yesterday in Gemayel's hometown of Bikfaya.

Six hours after the blast, Gemayel's mangled body was pulled from the rubble. Government sources said it could only be identified by his ring.

PLOT

Despite the charges of a plot, no one claimed responsibility for the blast.

Gemayel was elected over the protests of most Muslims, who remembered his role as the

men and women everywhere," President Reagan said in a statement issued from the White House.

CRIMINAL

In Jerusalem, Israeli Prime Minister Menachem Begin cabled his condolences to Gemayel's father, Pierre, saying he was "shocked to the depths of my soul at the criminal assassination."

US Mideast envoy Morris Draper yesterday met with Begin in Jerusalem and vowed to negotiate an Israeli and Syrian withdrawal from Lebanon despite complications caused by Gemayel's death.

Begin's Press spokesman, Uri Porath, said Begin and Draper agreed to work out a timetable for the withdrawal of all foreign forces from Lebanon.

Meanwhile in Rome, PLO chairman Yasser Arafat yesterday urged Israel to "return to its senses" and negotiate for a peaceful settlement of the Middle East conflict.

In a 19-minute speech at the Inter-Parliamentary Union, boycotted by Israeli delegates, Arafat blamed Israel for the murder of Gemayel and called on the parliamentarians to set up a special panel to investigate Israel's "war crimes" in Lebanon. He accused Israel of trying to turn Lebanon into a "protectorate." — UPI, AP

MAIN EVENT (cont.) ——

CONSEQUENT EVENTS —

VERBAL REACTION ——

MAIN EVENT (cont.)

DIRECT ANTECEDENTS

——VERBAL REACTION 2

——CONTEXT

——VERBAL REACTION 3

shadowing' earlier events. These then may become mere causes, conditions or reasons for the later events. The constraint on this rule is of course that the latter event must also be of high news value, as is the case for the Israeli action. What we witness here is an aspect of the so-called *relevance structure* of the news text. The thematic structure represents a formal or subjective collection of topics, which each organize part of the meanings of the text. Yet, the news item may by various devices express or assign different relevance values to the topics of this hierarchy, e. g. by the headline, lead or linear order of the text. If we represent the thematic structure of the news item in the *Bangkok Post* in a schematic diagram (see Figure 1), we observe that the text need not follow the thematic structure form left to right, or even from top to bottom: the consequence of the assassination, viz. the invasion, is mentioned first and in the most prominent position (on top, in bold type). Thus, relevance may supersede thematic hierarchy. Yet, we have also observed that of a given topic, we *first* may expect the highest level information, as is also the case for the assassination.

Let us try to identify the other, lower level topics of the story, in their order of realization in the text, starting with the third paragraph, and taking each paragraph as a thematic unit:

(5) (a) Death of F. may lead to new fighting in Lebanon
(b) The shocked government delayed the news
(c) Residents panicked
(d) The Israeli-Lebanese border was closed
(e) Wazzan strongly denounced the murder
(f) Sarkis announced official mourning and burial
(g) Body of G. found hours later
(h) No one took responsibility for the assassination
(i) Moslems opposed Gemayel's election
(j) There were earlier attacks against Gemayel
(k) Reagan says the news is a shock for the American people
(l) Begin cabled condolences to the father of Gemayel
(m) Draper continued negotations in Israel
(n) Begin and Draper will work out time table for withdrawal
(o) Arafat, in Rome, urged Israel to settle peacefully
(p) Arafat accused Israel of the murder and of war crimes.

We see that the order of presentation of the themes is not only determined by thematic importance, but also by the principle of *recency* we have met above. We first find themes that are about immediate or delayed consequences of the assassination (themes a. through e): declarations of officials, reactions of the citizens. Only then we get more information about the main event itself: when and how the body was found, who could have done it, and only with topic (i) we arrive at the conditions and possible reasons or backgrounds of the assassination: controversial election and earlier attacks. All this information is still highly general. The story in the *Bangkok Post* is, as it were, itself a summary of the stories as they were provided by the news agencies (here UPI and AP). This article, for instance, merely specifies that

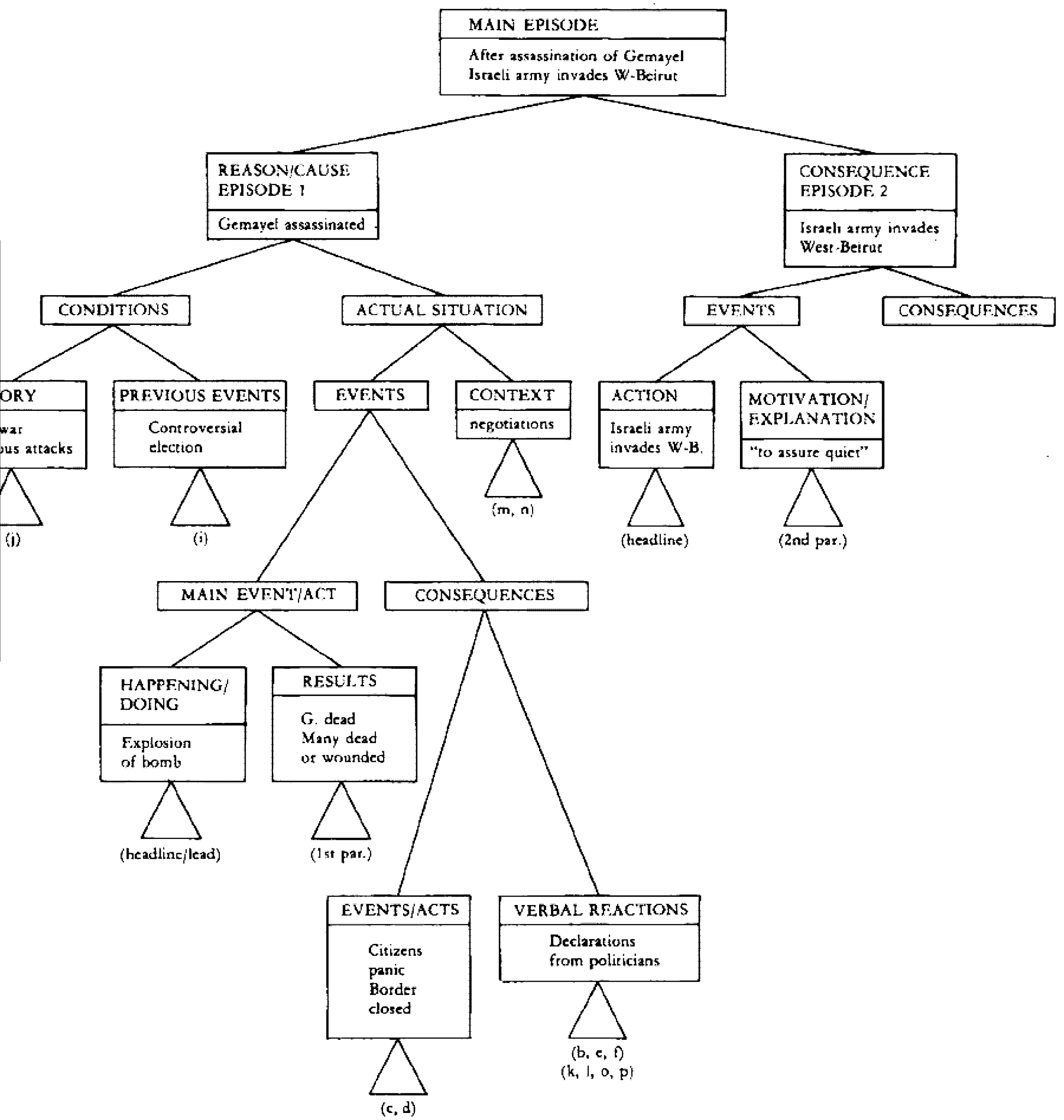

Fig. 1: Thematic structure of the news item in the Bangkok Post. Topics in lower case, semantic categories in upper case. Letters refer to the topics listed in (5) on p. 20. Triangles indicate macrostructural organization of topics.

the Moslems "remembered his role as the Phalangist military commander during the bitter 1975—76 war", but does not specify what Gemayel actually did during the civil war, as many other newspapers do in their coverage of the assassination. Nor does the newspaper detail the political reasons for the opposition against Gemayel. The reader does not get such details, but can obviously reconstruct such details through specific knowledge about the

situation in Lebanon obtained from previous press reports, that is, from a so-called *model of the situation* in memory. This model is the memory representation of accumulated experiences and information about a given situation as they were interpreted by an individual (van Dijk & Kintsch, 1983; van Dijk, 1984b). This model provides specifics, and the elements in the text may 'remind' (Schank, 1982) of information elements from the model. At the same time, the reader will of course activate more general knowledge and attitudes about civil wars, about Moslems or Christians, and about the possible atrocities committed during a civil war. This general, socially shared, script information is combined with actual, personal ('remembered') model information, and with the new information in the news text, to form a new model, namely about the actual events of the assassination and the invasion. At the same time, this new model may be used to *update* the previously existing, more general, model of the situation in Lebanon. Cognitively speaking, thus, the aim of reading a newspaper article is to construct a particular model of the situation or event the text is about, and through such a particular 'picture' of the actual situation, to update more general models. These, finally, may be used to form or change more abstract scripts or frames, e. g. about civil wars, international politics or specific actors, such as Israel or the USA in our example.

The themes of a news text are not only relevant in the construction of a general meaning structure of the text itself, its so-called 'text base' (Petöfi, 1971), but they also have an important role in the activation, the retrieval and the (trans-)formation of situation models in memory. In general, then, high level topics of a text, may also become high level 'topics' (macropropositions) in the representation of a model. And conversely, what we have represented as the high level 'definition of a situation' may be used to construct topics for a text. In our example, for instance, specific models about the Lebanese actions of the Israeli army, or attitudes about the Mid-East policy of the Israel government, may lead to a high level representation of the assassination not simply as a condition or reason for the Israeli action, but as a 'pretext' for control over West-Beirut. This is at least the overall evaluation of many newspapers and commentators.

When we inspect the other themes in the list given in (5) above, we see that as from theme (k), the focus again rests on the consequences of the assassination: declarations by important news actors (Begin, Reagan, Arafat), and further information about the actual political context of the whole event, viz. the negotations about the withdrawal of foreign (Syrian, Israeli) troops from Lebanon.

If we compare this linear realization of the respective topics ot this text with the hierarchical structure given in Figure 1, we notice that the overall *strategy of news discourse production* proceeds according to the following moves or steps:

(i) Activate the *model of the actual situation*, as it has been formed by interpretation of other press reports, agency dispatches, and other knowledge and beliefs about the situation in Lebanon and the Middle East.
(ii) Derive an overall *thematic structure* from this situation model with the goal of expressing these themes through a news text (in a communicative context, for which the journalist also has a model, which we however ignore here).
(iii) Decide which of the main themes of the thematic structure are most *relevant* or important, given a system of news values, or other journalistic norms, routines or ideologies, such as recency, negativeness, elite persons, elite nations, etc.
(iv) Start actual production by expressing the relevant main theme as a headline, and the rest of the top structure of themes as the lead of the news item.
(v) Main themes about main events are, at a next lower level of macrostructure, formulated as the first sentences/paragraphs of the text.
(v) Each next paragraph deals with a next lower topic, according to the following production principles (writing strategies):

a. Important consequences come first.
b. Details of an event or actor come after overall mentioning of the event or person
c. Causes or conditions of events are mentioned after the event and its consequences.
d. Context and background information comes last.

Of course, the steps in this complex strategy are hypothetical and approximate only. They explain in cognitive terms what a journalist (must) do during the writing of a news text, and how this process results in the characteristic structures of a news item in the press. We find several central monitoring devices in this production process, viz. general *scriptal knowledge* and general *attitudes* or idelologies (including news values), general *models* of the situation, the *thematic structure* of the text to be produced about this situation, and finally a system of practical *production moves* that operate in the actual realization, linearization and expression of the themes. These controlling instances together define the *relevance structure* of the actual news item, for the journalist as well as for the reader. Since the thematic structure tells us what topics are more general, and which ones are more detailed, it also provides a ready-made organizational strategy for production: take high level themes first, and work from top to bottom, observing the relevance criteria. This means that in actual news texts we get, as it were, a cyclical delivery 'in installments' of each topic: first the top levels of each triangle (see Figure 1), and next the respective lower levels of each triangle, and apparently (at least for this example), going from right to left (consequences before events, events before conditions).

Note that these cognitive production strategies are rather different from the production of other than news stories. There, in principle, each topic is finished, starting with details (or an occasional initial summary, especially in everyday conversational stories (see Ehlich, ed. 1980; Quasthoff, 1980), and from left to right, that is from causes, conditions, circumstances or a setting to the actions or events themselves, with the results or consequences last (we

ignore specific literary transormations here). As soon as news stories imitate this narrative pattern, in which linearity of thematic realization matches the linearity of the events, it is no longer the relevance criterion that plays a major role, but an esthetic, persuasive, or other principle, such as the creation of dramatic 'tension'. Some news reports about the assassination of Gemayel, for instance in popular mass newspapers (e. g. German *Bild Zeitung*), indeed have such a partially narrative organization (to which we come back in the next section).

We now have some insight into the formal and cognitive nature of themes or topics in (news) discourse, and into their hierarchical organization and their linear realization in a news item. We have found that several controlling principles are at work in the realization of a thematic structure in the text. Apparently, the realization depends on specific *semantic categories* for the organization of actions, events or situations, such as 'conditions', 'consequences', 'details', 'reasons', or 'participants'. This is indeed the case. The organizational concepts of the thematic structure appear to be useful in the production (and understanding) of news if we assume that 'consequences' come before 'conditions' according to a general recency principle. The same holds for the *specification* relations that relate macrostructures with microstructures, and hence with the actual words and sentences of the text. Whereas macrorules and macrostrategies derive topics from the local microstructures, specification operations work in the other direction. Given a topic, they 'elaborate' it. Again, this is not an arbitrary process, and especially in news articles, it appears to follow rather special constraints. Details of an action, for instance, are not necessarily given in their (chrono)logical order. In our example, we saw that the first paragraph first specifies the agent participants, then the time or date, then the instrument and its characteristics, then other participants (victims), and then an overall (assumed) consequence. The third paragraph gives further identification of the main participant, Gemayel, as a Maronite Christian, and further details about the 'sectarian violence' mentioned in the first paragraph: fighting between Gemayel's (Christian) troops and Moslem forces. This continues in the following paragraphs, each adding one detail to the representation we have about the main event, about Gemayel, about the political situation, about the consequences of the assassination and about the international reactions. In other words, the specification relations for a news theme follow a specific categorial 'track', in such a way that each category is cyclically treated in more or less detail (depending on the length of the article or the size of coverage): Main act, main participants, other participants, properties of main participants, properties of the event (time, place, circumstances), consequences, conditions, context, history, and again details of all these categories, in decreasing order of relevance. Further empirical research will be necessary to specify the exact rules or strategies involved in these 'inverse macro-operations' of specification and linear ordering of thematic realization in a news text.

The principles we have described for the strategic production of news discourse also hold for its strategic reading, comprehension and memorization by the reader. Headlines and leads are read and interpreted first and their formal or semantic information initiate a complex process of understanding (see van Dijk & Kintsch, 1983):

> (i) They are first recognized as newspaper headlines and leads, and thereby establish or confirm the communicative context model 'I am reading the newspaper', involving specific interests, goals and beliefs.
> (ii) They activate knowledge and beliefs about headlines and lead, e. g. as formal indicators of importance, and this importance may be 'taken over' (or not).
> (iii) Their underlying propositions activate and instantiate relevants scripts and models from memory. After activation, and given the parameters of the communicative context (time, occasion, interests, goals), such scripts, attitudes and models provide the basis for the decision 'I am (not) interested in having information about this topic or issue'.
> (iv) They indicate or express relevant macrotopics, which may be strategically used to build the highest levels of the text base and particular situation model for this article. This provisional high level topic(s) may be used as top down monitoring device for the comprehension and organization of the rest of the text (see Kozminsky, 1977).
> (v) First paragraphs are used to build full macropropositions, to confirm (or reject) the initial macro-assumptions of the reader, and to further extend the macrostructure and the model of the text. The same happens for the further paragraphs, which provide lower level details of the global meaning.
> (vi) The discontinuous delivery of topics in the news text can be strategically brought under control by the monitoring function of the central topics, the hierarchical structure of the themes, and the semantic categories (e. g. 'cause' or 'consequence') of sub-topics. That is, a 'scrambled' topic structure can be 'unscrambled' again by the thematic structure.

Although these theoretical assumptions are based on empirical work about other types of text, we still have to find out experimentally whether indeed they also hold for news discourse comprehension (see Thorndyke, 1979).

5. *News schemata*

Having discussed the macrosemantics of news discourse, we now turn to the macrosyntax. That is, we assume that news items also have a conventional *form*, a schema that organizes the overall content. To distinguish such a global form of organization from (semantic) macrostructures, we use the theoretical term *superstructures*, but for ease of reference we also simply use the more general term 'schema'.

The notion of 'schema' has a long tradition in psychology, where it was used by Bartlett (1932) to denote organization of knowledge in memory. This notion was picked up again in the 1970s to denote knowledge clusters that above were called 'scripts' or which Minsky (1975) called 'frames' (Norman & Rumelhart, eds. 1975). Such knowledge structures also extend to what people

know about the organization of action or specific discourse types, such as stories (Rumelhart, 1975). Following suggestions from structural poetics, semiotics, and linguistics, it was proposed that such story schemata can be described by some kind of 'grammar', viz. a *story grammar* (Mandler, 1978). Much like a linguistic grammar specifying syntactic structures, such a story grammar consists of (i) a set of characteristic categories, and (ii) a set of formation rules, which specify the linear and hierarchical ordering of the categories in a 'well-formed' narrative structure. Since the end of the 1970s, a rather fierce debate has been developing about the formal and empirical adequacy of such story grammars (Black & Wilensky, 1979; van Dijk, ed. 1980; Wilensky, 1983 and commentaries). The idea of a story grammar was especially critized by researchers in Artificial Intelligence. They argued that, apart from formal problems, story grammars were superfluous: story structures could simply be accounted for in terms of action structures, that is, with terms such as 'plan' or 'goal'.

This is not the place to discuss the details of this debate. In fact, both approaches have much in common, e.g. because also the story grammars feature action theoretical terms. And both directions of research lack important theoretical distinctions. Thus, we should carefully distinguish between the structure of action and the structure of *action discourse*. Since stories are a special type of action discourse (and not each action discourse is a story), it should be borne in mind that people's description of human actions is not necessarily organized in the way actions are organized. To wit, natural stories in conversation often feature a kind of summary, which is of course not a property we find in action sequences such a story is about. Next, both in AI approaches and in story grammars, no systematic distinction is made between the global, overall description of a story, and its local description in terms of sentences or propositions.

Therefore, we assume that superstructures or schemata of stories can be explicitly described in terms of conventional categories and rules (or strategies). Yet, such categories and rules do not operate on a local, but on a global level. The categories, thus, pertain to global meaning units, that is, to macropropositions or themes, and must have a conventional nature. They must parse a natural story into units that are typical for stories in our culture. If stories always begin with a summary, for instance, it makes sense to introduce the conventional category of Summary as part of the narrative structure. In several branches of discourse analysis, such categories for global formal units have been often proposed. Thus, Labov & Waletzky (1967), already suggested that natural stories feature such categories as Orientation, Complication, Resolution, Evaluation and Coda (see also Labov, 1972).

This is exactly what we want to do for news discourse. Whatever the contents, and therefore independent of local and global meanings of news discourse, we assume that there is a fixed, conventional schema, consisting of categories that are typical (at least in part) for news discourse. Each

category must correspond to a specific sequence of propositions or sentences of the text. The order of categories, as it is specified by the rules, therefore also determines the overall ordering of the respective sequences or episodes (van Dijk, 1982).

News schemata, due to their conventional nature, are at least implicitly known by their users in an given culture, that is by journalists and readers. Obvious categories for such a news schema are for instance *Headline* and *Lead* (initial capitals are used to signal the use of superstructure categories). Since in our culture practically all news discourses are headed by a Headline, we may take Headline as the first, opening category of the schema. Many newspapers, however, do not have a separate Lead, marked by bold type, so that that category is optional. In Figure 2 we have tried to represent these and the other categories to be discussed here.

Much like syntactic structures of sentences, also schemata of texts may have specific *semantic constraints*. That is, we may not simply insert *any* (macro-)proposition into each category. This is also the case for Headline and Lead, as we have seen before. They both directly express the highest level macropropositions of the news discourse. Together, then, they function as a

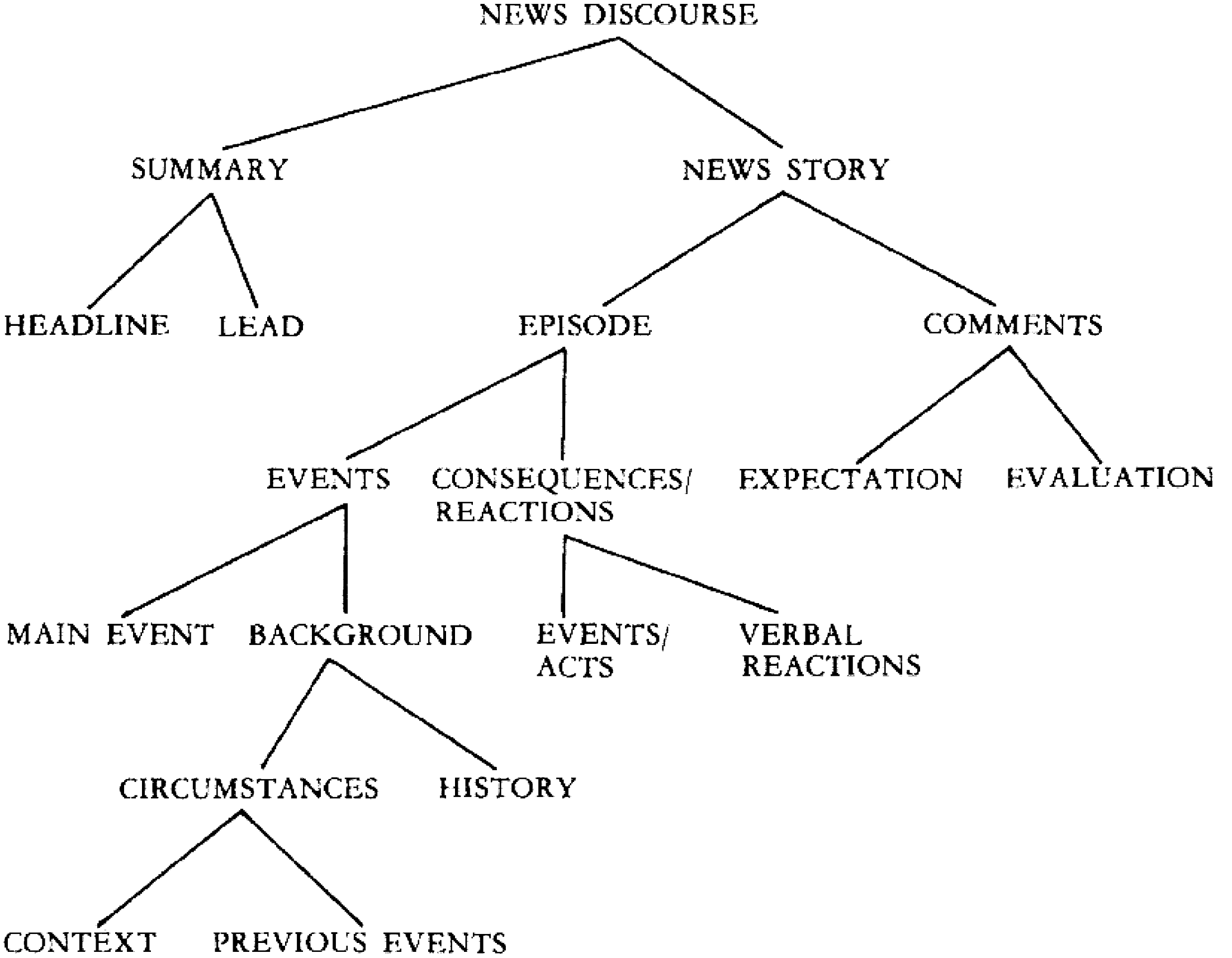

Fig. 2: Superstructure schema of news discourse

summary for the news discourse, and we therefore group them together under the higher level category of *Summary*. We have noticed above that such Summaries can also be found in everyday, conversational stories (Quasthoff, 1980). Similarly, syntactic categories may be related to specific phonological constraints, such as stress and intonation. The same holds for Headline and Lead, but then in relation to graphical lay-out: they are printed 'on top', 'first', in large, bold type and if there are more columns, across several columns. These 'expression' rules, of course, may be somewhat different for each culture or newspaper.

Other well-known news categories are for instance *Background* and quotations, which we will call *Verbal Reactions*. Background must dominate those portions of the text in which information is given which is not as such part of the actual news events, but provides general, historical, political or social context or conditions of these events. Then, we should of course not forget to introduce a category that dominates the description of these very news events, which we may call *Main Event*. And, to remind readers of what 'happened before' (and hence to activate their relevant situation model), we often find a category of *Previous Events*. In our analysis of the news item from the *Bangkok Post*, next, we found that due to a recency principle, news has special attention for results or consequences of events. Therefore, we introduce the general category of *Consequences*, which may organize all those events that are described as being caused by the Main Event. The same article showed that sometimes there is not just one main event, but several. In formal terms, this means that the category of Main Event is *recursive*: it may be repeated (at least theoretically) *n* times, much in the same way as the syntactic category of Adjective is recursive ('A big, high, beautiful . . . tree'). A slightly different way of ordering Main Events, is to consider them, not as an arbitrary series, but as one coherent unit, e. g. as an *Episode*, for which for instance certain semantic constraints hold. The first Main Event of an Episode in that case might require to be filled with a theme which is a cause or condition of the theme to be filled by the second Main Event of an Episode. (Notice that formal categories of schema do not themselves have such meaning relations as 'cause' or 'consequence' among each other. This is only the case for the themes or macropropositions that are inserted into the slots of the schema).

At the end of a news article, we often find a *Comment* section, containing conclusions, expectations, speculations, and other information — often from the journalist — about the events. Like several other categories of the schema, this category is of course optional: we also have a well-formed news article without such Comments.

Finally, there is a complex *Background* category to attend to. We may leave it unanalyzed, and insert here all macropropositions that summarize portions (episodes) of the text that are not about the main news event(s) or their consequences. Yet, there are various types of background, and we assume provisionally that they can be routinely dinstinguished — at least by

professionals. Thus, we have *History* as the category that organizes all news information of a general historical nature: events in the past that are indirectly related with the present situation or events. In our example of the assassination of Gemayel, information about the civil war in Lebanon is a good example. Such information provides a historical perspective to the *whole* of the actual situation, and hence only indirectly to a specific event in the actual situation, viz. the assassination. History is different from Previous Events, because the latter category is about a specific event, which rather directly precedes the actual main events, and which may be taken as a cause or direct condition of the actual events. And finally, we may use the category of *Context* to organize information about this actual situation we just mentioned, and in which the actual main event is a significant element. Thus, the negotations of Draper about Lebanon form the actual political context of the assassination of Gemayel.

Although it is possible to provide rather strict theoretical specifications for these various background categories, their application to concrete texts may sometimes be less easy, especially if there is only little and highly integrated background information. In that case, history, previous events and context might merge. In our example, for instance, the information about the election of Gemayel might be taken as Previous Events, viz. as those events that are recent and that probably are a direct condition or even cause of the actual assassination. Yet, the election (and therefore also the new election after Gemayel's death) might also be taken as Context, viz. as 'controversy about the presidency of Lebanon'. Similarly, the previous attacks against Gemayels life could be seen als Previous Events, and in that case the actual assassination is represented simply as the third attack in a row. But, since they occurred much earlier, and as part of the aftermath of the civil war, they might also be seen as History. These difficulties of categorial assigment, and hence of pratical analysis, are not serious however. They just show that also schematic superstructures may have some ambiguity, and depend on the formal or personal interpretation of the information in the text. It is however important that we *in principle* can make such distinctions, because they may be relevant for some type of news text, even when in other news texts some of the categories are absent, may merge or allow 'ambiguous' assignments.

Rules and strategies

Now we have informally introduced the tentative categories of a news schema, we should of course also know how they are *ordered*. After all, the ordering of the categories must also determine the ordering of information in the text, such as the sequential realization of topics as we discussed it in the previous section. Some of the ordering principles are straightforward and have been discussed above. Thus, Summary (Headline and Lead) always come first, and Comments mostly last. Then, it may be assumed that most news texts start

with Main Event after the Summary. Analysis of empirical data form many newspapers from many countries shows that this is indeed the case (van Dijk, 1984a, 1986). The information about the bomb attack against Gemayel (time, location, instrument, circumstances) usually opens the 'body' of the text. Next, various background categories may appear in the text, such as History or Context. For theoretical reasons, we assume that Previous Events and Context are 'closer' to the Main Events and therefore should preferably follow the Main Event category, and this is indeed often the case. Yet, the rules are much less strict in this case. We may also have History first and Context later. Ordering, thus, is optional in this case. Verbal reactions are usually ordered toward the end of the article, before Comments, as we also find in the *Bangkok Post* article (which has no comment section at the end).

From these few indications about ordering rules, we may conclude that some rules are fairly strict and general, whereas others have a much more optional nature, being no more than 'preferences', which may differ from culture to culture, newspaper to newspaper, journalist to journalist. In that case, the formal rules are no longer algorithmic, but become variable (as many sociolinguistic rules are, see Sankoff, 1980), or even expedient strategies (van Dijk & Kintsch, 1983). We touch upon well-known problems of linguistic theory here, such as the distinction between formal rule systems and the actual and variable *uses* of such systems. From our cognitivistic point of view, there is no real problem, however. Both rules and strategies have a cognitive nature, and language users may use both fixed rules as they are shared in a community, more variable rules, and context bound, goal-directed strategies in the production and understanding of discourse. We already discussed the possibility that relevance principles may affect the final structure of a news item. This means that categories that usually come toward the end of a news item, such as Verbal Reactions, Comments or Consequences, may be placed in an earlier position if the information in such categories is sufficiently relevant. In formal terms, such permutations or deplacements can be described as *transformations* of a (canonical) schema. Thus, in general, relevance transformations involve fronting of categories.

A much more interesting and difficult problem problem, however, is the characteristic *discontinuous* ordering of news discourse. In the previous sections, it was already observed that themes in the news may be delivered 'in installments'. Details about the Main Event of the assassination of Gemayel may be given throughout the text, in decreasing degrees of relevance or specification. Since themes are the contents of news category slots, this implies that also the categories themselves are realized discontinuously in the text. Indeed, Main Event will open the body of the news story, but the category will 'come back' in the rest of the story. Similarly, early in the article we may already find some fragments of Comments or Verbal Reactions (see also the *Bangkok Post* article). This problem is serious because the schema not only should tell us what categorial functions themes in the news may have, but

also in what conventional or canonical order they appear. The theoretical intricacies of this problem cannot be discussed in detail here. We assume that both the thematic and the schematic structure of a news discourse have an abstract nature. That is, independent of the actual *realization* of these structures, they represent the themes and their interrelations, and the typical news functions (categories) these themes may have in the text. In actual production, other constraints begin to operate, such as relevance, recency, and maybe others. This means that the news schema becomes the input (one input among other knowledge and principles) to *production strategies*. These strategies tell the writer which themes, and which categories should come first, and *how much* information from each theme or category. If we now use the news schema in Figure 2 as part of a production strategy, we should not merely realize the text from left to right, but also from top to bottom *within* each category. That is, first the highest level information of Main Event, then maybe the highest information in Consequences, then high level information of History or Context, and so on, and then reverting back to lower level information of Main Event, and similarly for the next categories. Such a strategy can operate easily because the terminal contents of each category have a macrostructural organization: we need only 'read off' the top levels from each topic to know which information is most 'general' and therefore which information should come first. This is also the strategy followed by *readers* in their recall of texts: high level macro-propositions are recalled first and best (van Dijk & Kintsch, 1983).

Our last few remarks suggest that a purely formal, structuralistic approach to news schemata has its limitations. It allows us to specify fixed, canonical structures of news, but hardly the many variations and the context-dependent strategies. It does not account for the interaction of several constraints that work 'at the same time', such as themes, (partial) schemes, relevance and recency principles. These have a cognitive nature, and the actual structure of news discourse should therefore be characterized in terms of all the information that goes into the strategies of production. Relevance decisions have some general, shared conditions (such as the news values of journalists), but also more specific constraints which derive from the knowledge of the actual situation, and hence from our models. The assassination of Gemayel is not only important, and the theme not only relevant in news discourse about such an event, because it is a violent (negative) event, a crime and directed against an elite person, as the news values would specify for selection or attention. It is also the special political situation in Lebanon, and the role of the president in restoring order in that country, which makes *this* assassination so prominent. Moreover, it fits a pre-established pattern that organizes the model of journalists about the situation in Lebanon and the Middle East (violence, factional strife, international conflict, etc.). And because the assassination fits this known pattern, it is also easier to 'see' and 'interpret' as a news event, and therefore can be assigned more importance and higher

relevance. Only a cognitive model can account for all these complex constraints. Not only text production 'as such' is involved, but also the uses of scripts and models, the socio-political interpretation of news events, and the institutional constraints and routines of newspapers in the transformation of news events into news discourses. A cognitive approach can embody and integrate these various constraints and information types, both for the journalist and for the reader. It explains production processes, and also the results of such processes in actual new structures. The same holds for processes of understanding, which we discussed for themes in section 4 (see Findahl & Höijer, 1981; Höijer & Findahl, 1984; van Dijk & Kintsch, 1983; van Dijk, 1986). In line with the findings in the cognitive psychology of stories, for instance, we assume that text schemata facilitate comprehension, storage and retrieval from memory. And despite the negative results in some experimental work (e.g. Thorndyke, 1979, who didn't use proper news schemata), we assume that both the thematic structure and the schema of news help the reader to organize information in memory, which is a primary condition for (better) recall and use of that information.

If news schemata are professionally known and shared they also will facilitate production of news. They organize the sometimes bewildering complexity of news themes, and allow the journalist to strategically search his/her memory, or 'outside' information bases, such as documentation services. Indeed, journalists may routinely look or ask for (more) 'background' about a news event, and thereby show that such a category is canonically expected to occur in the news item. The same may hold for other social news production routines and their relation with the cognitive processes of news writing.

6. Conclusions

In this chapter we have made proposals for the systematic analysis of news structures in the press, focusing especially on global structures such as topics or themes, and superstructural schemata. From a brief survey of some studies about news in the last decade, we concluded that few work is specifically concerned with the structures of news discourse per se. Most research has a sociological bias, and deals with professional routines, institutional control, or with news ideologies. Some microsociological approaches and a few recent linguistic studies, however, come closer to an account of the meanings and forms of news. A discourse analytical orientation may integrate such different directions of research.

The global analysis of news discourse deals with higher level structures, which extend beyond the study of individual words or sentences. In this chapter, we distinguished between global meanings or topics, accounted for in terms of semantic macrostructures, on the one hand, and formal schemata,

accounted for in terms of superstructures, on the other. It was shown how themes and schemata are related in news discourse. One typical property of both is for instance that they are realized discontinuously throughout the news text. News schemata are defined with the help of conventional news categories, such as Summary, Main Event and Background, and their respective sub-categories. It was finally shown that to account for the actual structures of news, in which principles of relevance and recency also play an important role, a cognitive and strategic orientation should be given to the formulation of theme and schema uses in news discourse. This cognitive approach also provides the link with the social constraints of news production (routines, news values, and ideologies).

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