

to a degree, spelling, grammar and punctuation. In other words, I am still teaching writing, but now everyone does not think he can teach it if only he had the time.

¹M.A. Zeidner, "PHYSICIAN, HEAL THYSELF," The Technical Writing Teacher, Vol. IX, No. 3, Spring, 1982.

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TOPICALITY AND MEANING: AN ANALYSIS OF TOPIC STRUCTURE IN THE WRITINGS OF BUSINESS STUDENTS ADDRESSING A MARKETING PROBLEM

Janet Giltrow

TOPIC, MEANING AND COHERENCE

When we listen to or read a text, we try to figure out what it is about: we detect or postulate connections among individual assertions, making hypotheses about what they have in common. If we have trouble figuring out what the text is about, we may blame ourselves for failing to perceive the common ground individual assertions share, or for making faulty hypotheses about this common ground. Or we may blame the producer of the message for failing to make the connections clear. But wherever the weakness lies, it shows up in the receiver's inability to determine what the text is about. In extreme cases, the frustrated receiver may judge the text as meaningless, or nonsensical. And this can happen even when the text-producer expresses himself with plain syntax and familiar diction.

The quality of a text being about something ascertainable--having, that is, a TOPIC--is closely related to the notion of MEANING. A crowd of assertions gathered together for no apparent reason is a text without meaning, even though the receiver may recognize and acknowledge the truth or acceptability of each individual assertion. It may follow then that a text's MEANING is in some sense equivalent to its TOPIC.

Topic comes about in a text by means of the relationships among separate assertions. And a reader or listener's understanding of the meaning of the text depends on his capacity to detect these relationships. Conversely, the text producer's success in making a meaningful text depends on his success in establishing relationships among the individual assertions of the text. Taken together, these relationships are the text's COHERENCE. Topic is generated by coherence.

The pattern of a text's coherence is the pattern by which assertions are interpreted relative to one another and are dependent on one

another. The kinds of relations that can arise between and among assertions are numerous, to say the least, and the same assertion can have different MEANINGS according to the different ways it can be COHERENT with other assertions in the text environment. For example, in

1. Marketing is a sophisticated activity with many parts, of which advertising is one.
2. Advertising makes consumers aware of new products.

2 is coherent with 1 by virtue of the relationship element (of set).

In

1. Consumers responded enthusiastically to the well-publicized product.
2. Advertising makes consumers aware of new products.

2 is coherent with 1 by virtue of the relationship cause. In each case, the MEANING of 2 depends on 1, and 2 is interpreted relative to 1. Sometimes relations are only inferable:

1. Consumers responded enthusiastically to the product.
2. Advertising makes consumers aware of new products.

Here the collocative tie ("well-publicized"/"advertising") is missing, and the receiver of the text must resort to the less reliable tie between "responded enthusiastically" and "aware" to infer that advertising was a cause of the product's success. And sometimes ties are more tenuous than this:

1. The manufacturer develops an appropriate distribution system for the product.
2. Advertising makes consumers aware of new products.

Here the meaning of 2 is doubtful. Does the writer mean to say that advertising is an element of distribution schemes? Or that both distribution and advertising are elements of an inferable set like "marketing"? Independently, 1 and 2 are acceptable assertions, but their meaning is clearly dependent on their relations with one another. Although one of their constituents--"product"/"products"--is shared, this is not enough to establish meaning. In textual proximity to one another, these assertions become AMBIGUOUS, permitting diverse interpretations among diverse readers, none of which need necessarily match the text producer's intention.

Coherence patterns are describable in terms of the kinds of relations established among assertions--relations like "cause," "element," "result," "attribute," "paraphrase," and so on. But coherence patterns are also describable in terms of TOPICALITY. Two-sentence texts do

not adequately reveal the phenomenon of topicality, and later in this discussion I will introduce extended texts to better investigate the issue. But for the moment I will suggest that strongly coherent texts signal to the reader that some items must be retained in order to interpret subsequent items, whereas others need not be retained, for they will not contribute to understanding of subsequent assertions. Those that must be retained are elements of the text's TOPICAL PROPOSITION, and have topical status, while those that can be abandoned without jeopardizing the reader's chances of grasping the meaning of the text have only mention status. Texts which do not give the reader the means to discriminate among topic and mention items may deprive the text receiver of the means to readily understand the text's intended meaning. When each item must be carried forward because its status has not been resolved, the reader's ATTENTION CAPACITY is overburdened, and he may miss the point. TOPICALITY is in part a mechanism which enables the reader to predict or anticipate upcoming directions in the text.

TEXT-GRAMMARS

How does the reader, making his way through a text, get from one point to another via these coherence patterns? How does he discover and confirm topic and meaning as he does so? How does he distinguish between the items that are the broad thoroughfares of the topic and the lesser routes that lead to cul-de-sacs and dead-ends? Such questions can be addressed only with a notion of text structure above sentence-level, and linguists and other students of prose have suggested various approaches and schemes to account for suprasentential structure.¹ None has so far taken very deep root: sometimes the only practitioner of a scheme is its originator, and each researcher goes ahead with his own way of plotting the shape and logic of prose. There are reasons for this diversity--whether one sees it as a sign of fertility or a sign of confusion. For one thing, it is not a simple matter to learn how to use any of the "text-grammars": either they are extremely intricate, or their application is difficult to replicate. After all, the English sentence is a mysterious enough entity, and beyond the sentence the language blossoms into a teasing complexity that mocks attempts to formalize the rules and categories by which it makes itself. Consequently, any technique for diagramming or form-

alizing these opulent complications is necessarily and correspondingly elaborate, and difficult to master.

Of course, elaborateness is in itself no reason to shy away from trying to absorb and apply any one of these various text-grammars. But so far the grammars themselves have illuminated only certain dimensions of text-structure without demonstrating the relationships among these dimensions. Halliday and Hasan, for instance, present a comprehensive and reliable scheme to account for cohesion, while Nold and Davis suggest a scheme for plotting the major "vectors" of paragraphs, but so far we have little notion of the relations between cohesion and these vectors. Eventually, the grammars will refine themselves, and perhaps ally with one another to describe the interaction of these various dimensions to show how sentences get together in meaningful units. In the meantime, I apply here yet another scheme for investigating coherence.

In some ways, what I offer here is a nonce scheme--one devised to explore a particular phenomenon. That phenomenon is the STRUCTURE OF TOPIC in the writings of some business students enrolled in a third-year marketing course and using prose to analyze a marketing problem presented to them. I apply the scheme not in the interests of urging others to adopt it, but in the interests of investigating certain features of COHERENCE and TOPICALITY in prose.

This scheme is provisional, and selective in its focus. It is also deeply indebted to other attempts to formalize suprasentential rules. It relies on ideas about inference, linkage, case categories, set intersection, recurrence, levels of generality and topic of conversation which appear frequently in other investigations of text-grammar. It distinguishes itself in certain ways:

1. Some analyses of discourse phenomena above the sentence-level work from the bottom up, accounting exhaustively for words and phrases. This is a valuable activity. The problem with it is that minute accountings can lack shape: sometimes the products of these analyses are little more than a typographical reorganization of the subject passage. Relative to these schemes, my technique works from a higher level, overlooking or collapsing some of the more detailed liaisons between and among individual items in the text.

There is risk entailed in such a practice: collapsing or deleting items involves judgements that are liable to be impressionistic and therefore not replicable. But I incur this risk because it seems to be the only way to attack issues of topic structure at the moment.

2. Other forms of analysis of discourse phenomena above the sentence-level work from the top down. This practice yields a more stimulating and dramatic image of the text--one further removed from the "natural" image of a conventionally presented text with sentences one after the other, and uniform margins and paragraph indentation, and so on. The problem here, however, is that these methods tend towards prior categories like "superordinate" and "subordinate": these may override rather than explain the baffling subtlety of the actual relations among actual assertions. Such categories can veer towards the platitudes of the rhetoric handbook--that, for instance, texts have introductions and conclusions, or thesis statements and supporting examples. The approach used here is intended to strike a happy medium between these extremes. It originates at a relatively high level, but it tries to avoid banalities by being a semantic rather than formal structure. All items are semantic nodes and nameable coherence linkages. Moreover, it also tries to account for the linear dimension of text production and reception. All texts, even non-narrative ones, have a temporal or sequential character: one thing comes after another. This temporal or linear dimension seems to me crucial in estimating the coherence of a text. Trees and paradigms may be more attractive or picturesque models, but they may have less cognitive validity in that they do not depict the sequential aspect of writing, reading and thinking.

My method of mapping the text was devised to investigate what these students' instructors called "development"--or more often "lack of development"--of ideas. Influenced by Teun van Dijk's theory of macrostructures in discourse, and his observations on coherence,² I expected that "development" had to do with the writer's success in establishing a dominating proposition (TOPIC) and then descending from this relatively high level of assertion by various COHERENCE LINKAGES to subordinate assertions which substantiated the topic. In a coherent text with strong topicality, each individual assertion would have unmistakable or strongly inferable linkages with elements of the topical proposition. Conversely, less coherent papers would

demonstrate two features:

1. relatively modest movement up and down the ladder of generalization;
2. weak or ambiguous linkages among assertions and the dominating topical proposition.

The mapping procedure was devised to

1. discover the types of linkages to which these writers resorted;
2. estimate the kinds of processing demands certain coherence patterns placed on the reader;
3. produce a graphic image of the shape of TOPIC.

Below, I will present two samples of the coherence patterns the diagramming procedure revealed, and I will cite the short texts from which these diagrams were derived.

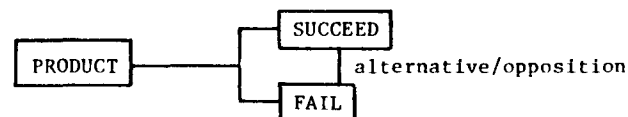
THE MARKETING PROBLEM

The students had just read a chapter in their marketing textbook which urged them to reconsider Emerson's maxim "Build a better mousetrap and the world will beat a path to your door." Marketing theory questions the truth of this saying, maintaining that no product, however worthy in itself, will succeed without appropriate marketing. This chapter of the textbook also named and explained the elements of "marketing." Having encountered these ideas, students were then asked to reckon the chances for success of a particular product: Given that consumers would be "indifferent" to the unmarketed mousetrap, would they be "similarly indifferent" to a new food product--one which provided, in "small pills, all necessary nutrients at a cost of \$100 per year per person"? Students were asked to write a single-spaced page addressing this problem, and they were informed that their brief analyses would be assessed in light of the level of writing competence demonstrated therein. It seems reasonable to speculate that these students may have seen their goal--consciously or unconsciously--as twofold: to make a reasonable statement about the marketability of nutrient pills; to produce an acceptable piece of prose.

RESPONSES TO THE PROBLEM

Analysis of these papers is not intended as an assessment of these students' writing skills. Nor does it predict the writers' future success as communicators. Rather, the analysis is a preliminary investigation of TOPIC STRUCTURE.

I began by reading the papers often enough to establish an "essential topic"--a semantic core that would facilitate a comparative perspective for subsequent analysis. I call this topic "essential" in that it appears to be inherent in the question, and probably could be derived from the problem itself, without reference to the responses. Nevertheless, the fact that it was the implicit head of almost all the essays confirms its status. The essential topic is simple, and it looks like this:



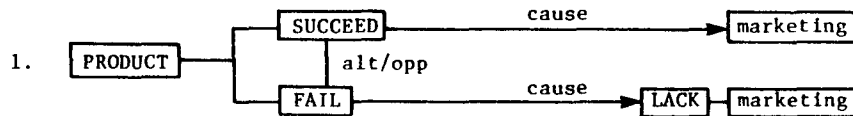
That is to say that the papers connect the entity concept /PRODUCT/ with the event concepts /SUCCEED/ and /FAIL/, which are in turn related to one another by the linkages alternative and opposition. The connection between /PRODUCT/ and /SUCCEED/-/FAIL/ is not named. Rather, it is seen as a predicate relation (e.g., succeed [product]), for two reasons:

1. TOPIC is understood as a PROPOSITION rather than a reference;
 2. attempts to name the nature of the predication were trivial, and plunged this essential and dominating structure into the network of coherence linkages that developed from it.
- For the time being, it seems best to leave the essential elements of TOPIC in this propositional form.

Clearly, this essential topic is not a sufficient response to the problem. What the students' instructors called "development" has to take place. Concept elements of the essential topic must be processed sufficiently to generate a TEXT TOPIC. The text topic is a proposition capable of dominating subsequent assertions. Or, to look at it another way, the text topic is a proposition capable of being sup-

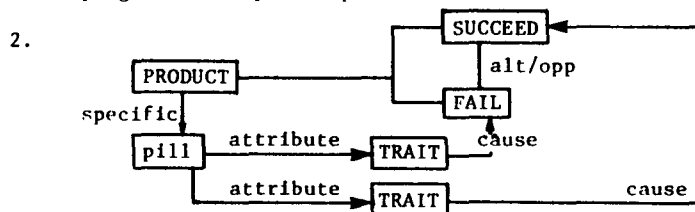
ported or "proven" by subsequent assertions. The first point of view expresses a notion of the text as a linguistic structure, while the second expresses a notion of the text as a cognitive or problem-solving structure.

As the essential topic becomes a text topic, different patterns of TOPIC STRUCTURE and different modes of problem-solving begin to appear. Some writers took their point of departure from the event concepts /SUCCEED/ and /FAIL/, which yielded the dominating nodes of the subsequent discussion:



It is important to note here that this group of writers goes on to establish TOPIC not under the success and failure concepts, but under the /marketing/ nodes. None of these writers considers the concepts of success and failure as eligible for a dominating station in the text: none, that is, explores the components--attributes, consequences, types--of a product's success in the marketplace.

Writers in a second group explain the entity/event connection by developing the entity concept:



These different modes of development make different demands on the reader. The reader of 1 does not need to keep in mind the attributes of the product in order to understand subsequent assertions about marketing. But the reader of 2 must remember the traits attributed to the product in order to grasp the meaning of subsequent assertions: /pill/ and its attributed /TRAITS/ are part of the TOPIC of 2. But they are not TOPICAL in 1, even though many students who pursued the route opened up by 1 did mention the pill's characteristics. Somehow, the reader must be able to distinguish between an

item like "all nutrients" or "low cost" having only mention status and the same item having topic status. Until we know what features of the text enable the reader to make such judgements, we can neither fully understand the phenomena of coherence and topic nor predict the degree of ease with which the meaning of a certain text can be grasped.

Each of these bare topic structures--1 and 2--is less complex than a third type which develops both the /pill/ and /marketing/ nodes and develops connections between them. This third and much rarer approach to the problem demands that the reader interpret assertions about the pills and about marketing relative to one another: general principles of marketing activities are described in light of their relevance to the product features peculiar to this commodity, while the pill's traits are interpreted vis-à-vis the demands they would make of a marketing strategy.

Owing to space restrictions, only examples of the first two types of papers will be presented here.

ANALYSIS OF RESPONSES

This text belongs to the first group of papers, those which exploit ideas about marketing.

People can not buy a certain product if they do not know whether that product exists.

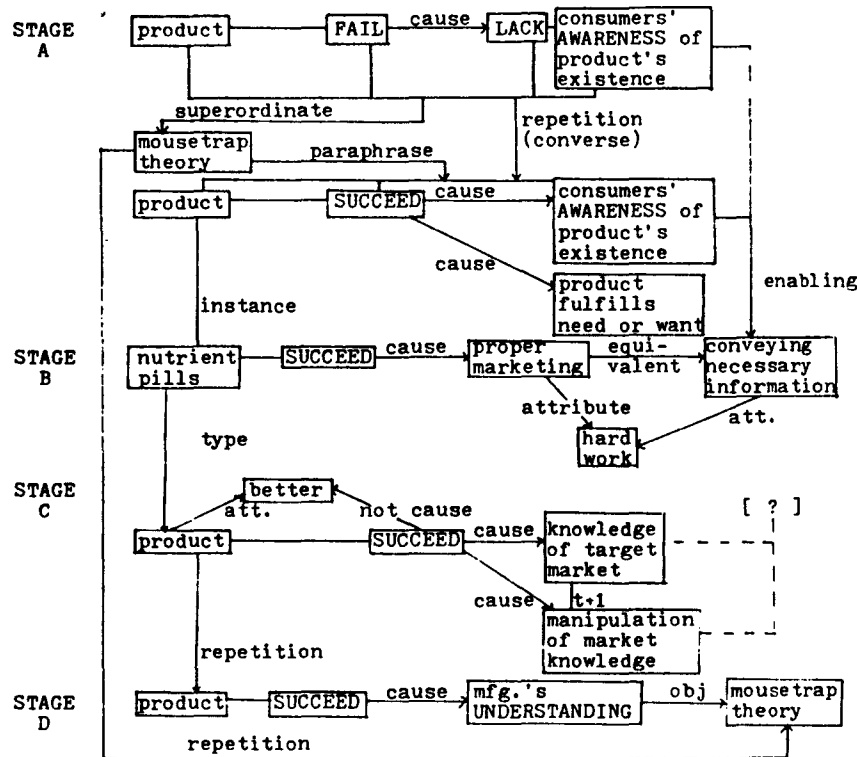
In a nutshell, this is basically the point conveyed in the mousetrap theory. A consumer must first realize that a product exists, and even then he will only buy the product if it fulfills a need or a want.

If the food processor marketed the nutrient pills properly and conveyed the necessary information to the consumers, it is likely that the consumers would not be indifferent to the product. To reach this end, however, requires much work on the part of the marketer.

The fact that a certain product is manufactured, that it is better than any similar product, does not mean success at the cash register. Success comes from knowing the particular market and the target consumers. This information must then be manipulated into a strong marketing strategy.

If the food processor keeps in mind the story of the mousetrap manufacturer, he can then concentrate his efforts more positively towards a successfully marketed product.

Analysis of the paper's TOPIC STRUCTURE might look something like this:



Broken lines signify inferred coherence linkages; names of these inferred linkages appear in square brackets. Square-bracketed words in nodes are inferred items.

DISCUSSION

Stage A appears to establish TOPIC by repeating the notion of /consumers' AWARENESS of product's existence/,³ and repeating its linkage as cause or condition of the product's success. Moreover, this configuration of nodes and linkages is further reinforced by the introduction of the superordinate item /mousetrap theory/ which names the configuration as a whole: in effect, /mousetrap theory/ stands for everything that is said in the first two paragraphs--or almost everything. The last two clauses of the second paragraph introduce another cause of a product's success: its capacity to satisfy the consumer's "need or want." The status of this item is ambiguous, as we shall see.

At this point, the reader could justly hypothesize that he must remember the /AWARENESS/ concept in order to understand what will follow. And he would be wise to retain /mousetrap theory/ as a superordinate item which may be used again to reactivate the concepts and linkages he has just grasped. /Product/ goes forward as is, and its undeveloped state may suggest that it has not achieved TOPICAL status--that is, that it will not dominate subsequent assertions.

So, the reader can predict, with seemingly justifiable confidence, that the /AWARENESS/ condition is crucial to what comes next and is, hence, TOPICAL. But the /product fulfills need or want/ node, on the other hand, has rather ambiguous status. Is it topical or is it only a mention? Is it a component of the /mousetrap theory/ concept, and thus coordinate with /AWARENESS/ nodes? Or is it merely part of the setting in which the mousetrap theory operates, and not crucial to the interpretation of subsequent assertions? The careful reader cannot shelve this node until he can answer these questions. But the careful writer might not leave the reader in suspense about the topical status of this item if he wants to ensure that the subsequent text is interpreted as intended.

This principle may not hold on literary or quasi-literary occasions, where such suspense is valued, and the quest for meaning engages both reader and writer in a fruitful or provoking collaboration. Indeed, the explicit or strongly inferable signalling of TOPICALITY

may be one of the features that most clearly distinguishes technical and business information from some other forms of expression.

The diagram depicts the text's movement from the /product fulfills need or want/ node to subsequent items as a movement to a new STAGE of discussion. Stage boundaries often correspond to paragraph boundaries (Stage A, though, in this case, incorporates two paragraphs), and generally reflect introduction or re-introduction of topical elements or their entailed sub-topics: these dominate, by coherence linkages, other items in the stage.⁴ Texts which develop definite systems of hierarchy reveal their stages more dramatically. This text, however, does not develop strong hierarchical systems, and the boundary between Stages A and B is fuzzy. And it does seem that the writer could have foregone the division between the second and third paragraphs without seriously upsetting the reader's expectations. Nevertheless, the appearance of the /proper marketing/ concept can justify the stage boundary.

The reader leaves Stage A and moves on to B anticipating that he will learn more about /AWARENESS/ as a cause of a product's success. And he does: he not only learns that /AWARENESS/ is brought about by the conveying of information, but that this activity itself has a general name--/proper marketing/. The status of /proper marketing/ is not entirely clear. Is it a superordinate which will dominate items other than /conveying necessary information/? Or is it, as diagrammed, only another way of saying /conveying necessary information/? Had it been clearly signalled as a superordinate (e.g., "the conveying of necessary information is one aspect of proper marketing"), it would have had a greater claim on the reader's attention, for two reasons. First, it would have been elevated above /AWARENESS/ to a prominent level in the text's hierarchy and have become eligible to compete for topic status. Second, such explicit signalling would have modified the reader's expectations about the subsequent direction of the discussion, for the naming of a set, along with mention of one of its elements, often precedes discussion of other elements of the set. (The Aristotelian common topic of Division recognizes this feature of discourse, and urges the speaker to exploit its formal properties.) Here, the reader cannot be sure that he has encountered a superordinate concept which may herald further investigation of its elements. But he must

keep this possibility in mind. The third paragraph ends, like the second, with a new item: /hard work/ is an attribute of what we have interpreted as an equivalent pair--/proper marketing/ and /conveying necessary information/. Since there are no surface markers in the text to signal the status of this item, the reader must entertain it in case it turns out to be a node which will dominate subsequent assertions: the next stage of discussion may or may not examine the conditions, consequences, characteristics or elements of this /hard work/ and their relation to a product's chances for success. In any case, the reader cannot yet abandon this node as non-topical.

What does the reader carry forward as he follows the transition from Stage B to Stage C? The topical status of /AWARENESS/ has been confirmed: it must be retained. /Proper marketing/ may or may not be a superordinate item necessary to the interpretation of up-coming items. The status of /product fulfills need or want/ is still unresolved. A mechanical receiver of the text would keep that slot open, and so might an unusually attentive human reader. But the average reader may begin to feel overloaded, and would consider abandoning that item as not germane after all: that is, he would forget it. Besides, there is a new item of questionable status to entertain--/hard work/ as an attribute of the /proper marketing/ and /conveying information/ pair--and the reader will have to concentrate some of his attention on determining its status. One further point: /product/ and /nutrient pills/ are coherent with one another by virtue of an instance linkage. At the end of Stage B the receiver of the text has no way of knowing if this particularization is relevant to the meaning of the text. He doesn't know if he needs to keep in mind the /nutrient pills/ concept in order to understand subsequent assertions and the gist of the text.

But the status of this item is quickly resolved. Going on to Stage C, the reader finds that he can forget /nutrient pills/ without jeopardizing comprehension, for the text returns immediately to the superior concept /product/. The type/instance linkage between /product/ and /nutrient pills/ was evidently not textually meaningful and need not be retained. In fact, the first sentence of the fourth paragraph substantiates this hypothesis by stating that product features are not conditions for product success. The causes

of success are other factors: /knowledge of target market/ and /manipulation of market knowledge/. These nodes are formally symmetrical with the /AWARENESS/ nodes which have so far dominated the text: like /AWARENESS/, they are linked to /SUCCESS/ by cause. But what is their semantic relation with what has gone before? If the /AWARENESS/ - /SUCCESS/ linkage is the dominating topical proposition of the text--as it has seemed to be in Stages A and B--then /knowledge of target market/ and /manipulation of market knowledge/ must depend on the /AWARENESS/ nodes. The nature of this linkage must be inferred: what is the logical connection between the goal of making consumers aware of the product and market knowledge? One could speculate that the writer has in mind the rhetorical dimension of information--the idea that the effectiveness of the producer's information campaign will depend on the attitudes and propensities of his potential customers. But there is no firm evidence to support this speculation, and it is a very weak inference: the /AWARENESS/ - /conveying information/ connection neither strictly nor immediately entails this idea of rhetorical analysis and planning.⁵ The weakness of this possible inference connecting Stage C with A and B jeopardizes the dominance of the /AWARENESS/ nodes.

Given the weakness of this inference, the reader may look for another way of accommodating the assertions of Stage C within the patterns of the foregoing text. Another possibility suggests itself: these assertions may be coherent with previous assertions by virtue of /market knowledge/ and its /manipulation/ being elements of the /proper marketing/ concept--a node which was not marked as superordinate but which nevertheless suggested a capacity to dominate subsequent items. This set/element linkage can be detected only through inference, but it is a slightly stronger linkage than that which would have organized these nodes as components of the /AWARENESS/ - /conveying information/ connection. Were the reader to infer the element/set linkage (/market knowledge/, /manipulation of market knowledge/ € proper marketing) between Stage C and the preceding stages, the topical status of /AWARENESS/ would deteriorate, and /proper marketing/ would take its place as the dominating name for the cause of a product's success. This upheaval in the TOPIC STRUCTURE seems significant: at this point, very near the end of the text, it is not easy to say exactly

what the text is about, now that the topical dominance of /AWARENESS/ has collapsed.

Significant too are the unresolved nodes that have accumulated. We have heard nothing more of the /product fulfills need or want/ concept from Stage A; it has not been reactivated. And the /hard work/ attribute of marketing and/or conveying information seems to contribute nothing to our understanding of subsequent assertions. /Hard work/ could have something to do with acquiring and manipulating knowledge of the market, but nothing in the presentation of the latter concepts confirms or even suggests this connection.

The conclusion of the discussion, Stage D, does not resolve or clarify the relations among the items introduced in previous paragraphs. It is strongly coherent with Stage A, for it repeats the connection between /mousetrap theory/ and product success. But this coherence only reactivates the /AWARENESS/ nodes, whose TOPICALITY has been undercut if not entirely discredited by Stage C.

The diagram of this text reveals a number of features:

1. reliance on repetition to connect assertions within Stage A and between A and D;
2. absence of clear hierarchical configurations which might have sorted out the relations between and among /proper marketing/, /AWARENESS/, /market knowledge/, /manipulation of market knowledge/;
3. dead-end nodes--/product fulfills need or want/ and /hard work/--which turn out to not contribute to understanding of subsequent assertions but which must be retained by the reader until their status can be assessed. Conceivably, the scrupulous receiver--human or mechanical--would hang on to these items to the end, only to discover that this investment of ATTENTION CAPACITY was fruitless;
4. uncertain linkages between Stage C and its neighbours. Stage C is only ambiguously coherent with the rest of the text; the reader must choose between alternative inferences in order to connect Stage C with its environment. In other words, the MEANING of the text is here uncertain.

In all, the text, despite the reasonableness of its individual assertions, lacks a clear TOPIC STRUCTURE: it is hard to say exactly what

it is ABOUT without repeating its whole content. Moreover, two of the nodes--/product fulfills need or want/ and /hard work/--turn out to be unnecessary to understanding the writer's message. And, unlike the /nutrient pill/ item, they don't signal their own unimportance or irrelevance. The reader has no way of knowing, until he has read the entire text, whether these items are topical material, interpretation of subsequent assertions, or only mentioned material, of not further consequence. So they are potentially misleading, capable of inspiring false hypotheses about the topic and meaning of the text, and deflecting the reader's attention from the intended path. Where ambiguity is undesirable, such dead-end nodes may be a greater obstacle to communication than ponderous syntax or inappropriate diction.

This paper's development is shallow, and it is a member of that group of papers which exploited the /MARKETING/ concept and ignored the /PRODUCT/ concept. The next paper I will discuss--more briefly--differs: its development is "deeper"; it exploits the /PRODUCT/ concept; it has a stronger and more complex TOPIC STRUCTURE.

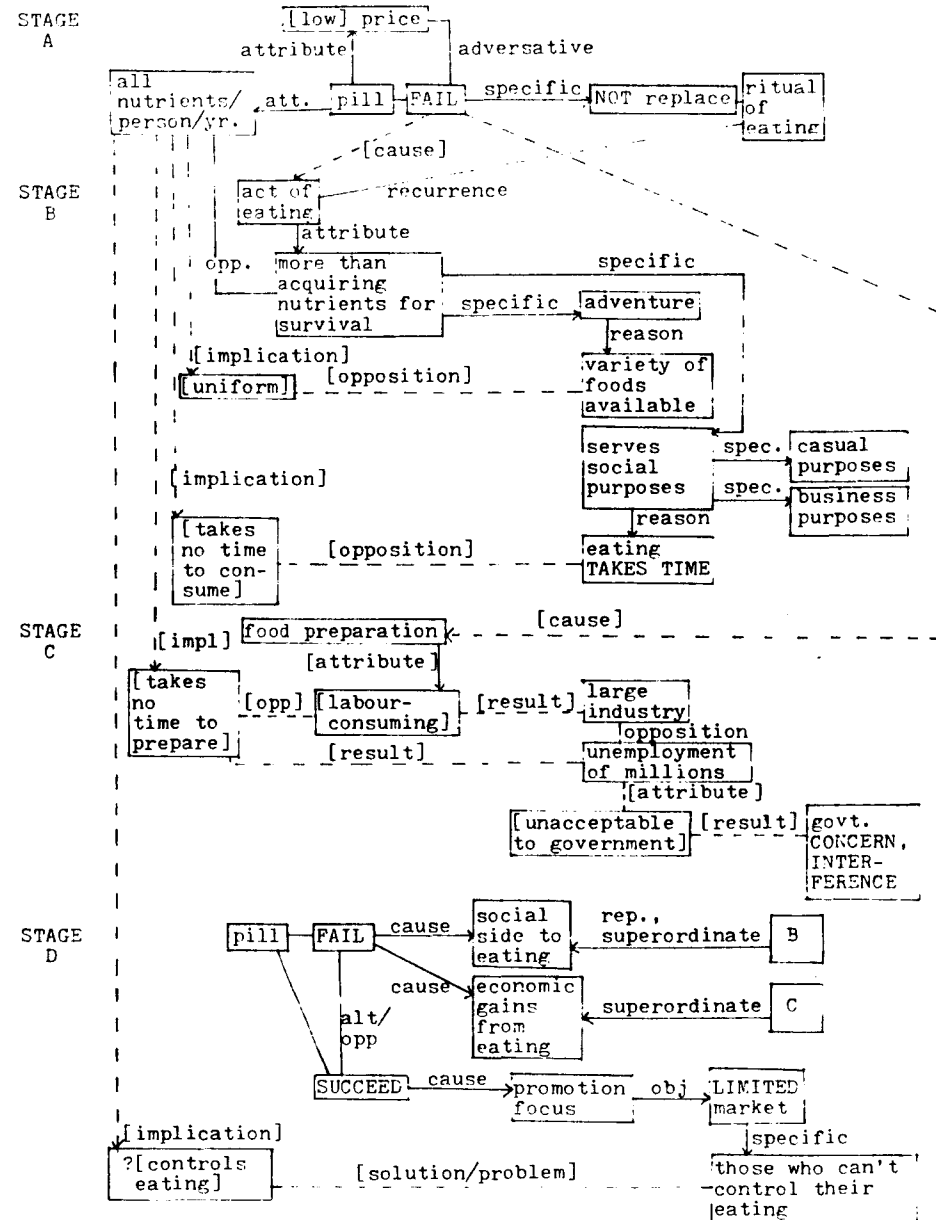
If a food processor was to develop a pill which would provide all the necessary nutrients for a person for one year, it would be unsuccessful in replacing the ritual of eating no matter what the price of the pill.

For many people, the act of eating is more than acquiring the necessary nutrients for survival. The variety of foods available make eating an adventure most people would not substitute pills for. Dining in restaurants or in one's own home can be used for social purposes. The hours allotted each day for eating are perfect times for people to meet with others whether it be for casual purposes or business purposes.

Along with the social side to eating is the large industry that has capitalized on people's need for food. If the preparation of food was no longer necessary millions of people would be unemployed; a prospect any government would consider before allowing such a pill to be sold on the market.

The combination of the social side to eating and economic gains in food industry would be enough to discourage any company from attempting to market this pill to a total population. Perhaps if the promoters focused on those people who can't control their eating they may find a market for their product.

Diagrammed, the text looks like this:



DISCUSSION

This paper takes account of the product's attributes in substantiating its topical proposition that the pill would not succeed in the marketplace, and its failure would be attributable to the nature of eating itself. Unlike many papers which perfunctorily introduced the product's traits and then ignored them, this one not only discriminates among the traits (/low price/ is seen to be less relevant than /all nutrients.../) but also keeps the /pill/-/ATTRIBUTE/ concept alive by more or less strong inferences which reactivate it throughout the discussion. /Eating/ is a dominating TOPICAL concept in the paper, but its dominance is always linked to the other side of the TOPIC STRUCTURE--the /pill/ concept, the entity affected by /FAIL/.

First mention of /eating/, at Stage A, suggests by default that /eating/ may be topical: "ritual" adds a complexity to the concept that an experienced reader may note as a potential direction for development, but more important is the fact that this first paragraph does not offer anything else as a plausible condition of the predicted failure of the product.

In any case, Stage B immediately confirms the topical status of /eating/: /act of eating/ heads the second paragraph and dominates all subsequent assertions in that paragraph. But development of the /eating/ concept (unlike many papers' development of the /MARKETING/ concept) does not proceed independently of other elements of the topical proposition. Each item of Stage B's discussion is meaningful in relation to the /pill/ concept. For example, the meaning of the statement "The hours allotted each day for eating are perfect times for people to meet with others whether it be for casual purposes or business purposes" is determined by its LINK with the /pill/ concept via the /all nutrients.../ attribute node and the strongly inferable implication that the pill takes virtually no time to consume. The /takes no time to consume/ and TAKES TIME/ are linked by [opposition] and go towards supporting the /NOT replace - ritual of eating/ idea that heads the whole discussion. Conceivably, the identical assertion about hours allotted to dining could have a different MEANING in a text with a different TOPICAL STRUCTURE.

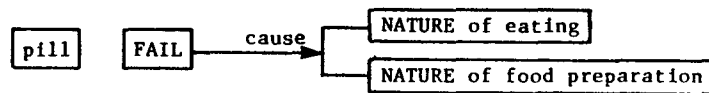
The paper relies heavily on inferencing to keep the /pill/ element of the topical proposition active. Although all but the final inference in Stage D, that which connects uncontrollable eating with a /pill/ attribute, are fairly strong, this reliance on inference may constitute a weakness in the paper. And even the major cause linkages which connect Stages B and C with A are only inferable until Stage D, where they are explicitly confirmed.

At Stage B, the predominance of inferred linkages on the left-hand side of the diagram contrasts with the explicit hierarchical linkages among assertions which are dominated by the /act of eating/ node. (The strength of the explicit right-hand connections may help to support the implicit left-hand connections.) Stage C, however, requires inferencing on both sides of the diagram to establish links with the topical proposition. The /labour-consuming/ attribute of /food preparation/ is fairly readily derivable as the link with /large industry/. So too does the opposing /takes no time to prepare/ inference appear fairly readily. But the reader must make yet another inference to establish the overall connection between the material in this stage of the discussion and Stage A. Whereas in Stage B the repeated opposition linkages sufficed to support the /NOT replace - ritual of eating/ element of the topical proposition about the product's failure, here the reader must go further to understand why Stage C's opposition linkage accounts for /pill/ - /FAIL/, postulating the /unacceptable to government/ attribute of unemployment, and /government CONCERN, INTER-FERENCE/ result as a condition of product failure. At this moment in our cultural and economic history, both these inferences are probably fairly readily inferable by the reader habituated to current notions about business and politics.

One way in which this paper differs noticeably from the first paper is in its lack of dead-end nodes of ambiguous status. A reader encountering, for instance, the /eating TAKES TIME/ or the /business purposes/ item in Stage B is unlikely to hypothesize that either will become a dominating node, for their status as subordinate items already dominated by the /act of eating/ node is clear. The reason for their appearance in this text at this point is evident; they are in a sense completed as soon as they are introduced. The role and meaning of

both items are fully apparent, and they need not be carried forward individually, for they are represented by a dominating element (/eating/) of the topical proposition about the cause of the pill's failure.

The conclusion of the text confirms the shape of the topic as it has developed in the preceding paragraphs. Stage C's sub-topic may have come as a bit of a surprise: /ritual of eating/ in Stage A does not entirely prepare the reader for the /food preparation/ material, and the link between A and C is weaker than that between A and B. But the writer seems to be aware of this situation, for Stage D is used to consolidate the final shape of the TOPIC STRUCTURE, naming the concept /economic gains in food industry/ to stand for the material presented in Stage C, and placing it in a position coordinate with the name for the total meaning of Stage B--/the social side of eating/. The final assertion of the text has only rather feeble linkage with the rest of the text. Yet that circumstance does not seem to seriously jeopardize the coherence of the text: TOPIC and ABOUTNESS have already been clearly established, and seem to be able to tolerate this somewhat alien afterthought, which is only weakly coherent with what has gone before. Whatever the writer's eventual judgement of this commodity and its marketability, the receiver of the text will likely accept



as the meaning of the text, despite the last-minute appearance of the diet market.

The inconsequence of the writer's afterthought about uncontrollable eating suggests that, once a topic reaches a certain threshold of dominance, it is less likely to be overthrown by competing items. This threshold of topic dominance may be a phenomenon which can throw some light on the difference between the coherence of business or technical communication and the coherence of other types of communication. Consider, for instance, the kind of literary or speculative text which concludes with an assertion that appears to undercut the evident TOPIC and MEANING of the preceding discourse, challenging the reader to reconsider his interpretation of what has gone before. Undertaking such a reconsideration, the reader may only re-think the connections he has made among parts of the text, or he may re-read the

entire text in order to resolve the competition between competing topics. Where the afterthought is authentic rather than merely quirky or coy, the reader who undertakes this re-reading or re-thinking may discover or recover relevant data which may have been concealed the first time through by a powerful, opposing TOPICALITY. Of course, such a process will generate AMBIGUITY when the reader finds the afterthought COHERENT with other, heretofore overshadowed items in the preceding text.⁶

No such ambiguity is generated by the afterthought in the paper about eating and food preparation. It is not coherent with any items lurking in the preceding text and therefore presents no real challenge to the firmly established topic and meaning of the text. This is as it should be. Business writing should require neither re-reading nor re-thinking to recover its meaning. Topic structures and coherence linkages should be so unequivocal as to give "afterthoughts" no leverage--no power, that is, to uproot the reader's interpretation of the preceding text.

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This inquiry into topicality and the patterns of coherence which support topicality has been only tentative. And, admittedly, the diagramming technique is crude, especially in its incapacity to account systematically for cohesive ties.

Nevertheless, this tentative inquiry suggests certain principles which could be profitably explored with more precision. Most generally, it reminds us that, where the meaning of a text is to be indisputable, it is insufficient for a text's individual assertions to be indisputably clear in reference. Comprised of sensible observations plainly expressed, the first essay connects its assertions by means of repetitive and additive linkages, making a sort of loose parity among them, and creating no hierarchy of meaning. The text thereby fails to demonstrate the significance of its assertions. What does the writer mean to say about the role of market knowledge in conveying information? Or about the relative importance of a product's capacity to satisfy needs and wants? Or about the hard work involved in conveying information? This is not to say that the writer's observations are unsound. Rather, it is to say that one cannot foresee any consensus among individual readers about the gist of the text. This

likely absence of consensus is attributable not to vague diction or injudicious syntax but to the text's failure to establish and perpetuate a clear topic structure relative to which all assertions can be interpreted and assessed for the importance. Consistent reference to the /product/ concept is not enough to accomplish this: it seems that these references must be organized into hierarchical patterns capable of supporting a topic structure.

It may also be true that once a certain threshold of topicality is reached, the text and its reader can tolerate a modest incidence of "mention" items, or even of items only weakly coherent with the text environment. Those intemperate eaters who show up in the last sentence of the second paper, unconnected as they are with the preceding text, do not seem to jeopardize the meaning of the discussion. Had this item appeared earlier in the text, before the topic structure had been established and confirmed, it might have had a different effect, perhaps weakening the rather delicate inferential linkages that connect the /eating/ concepts with the /pill/ concept.

Insights into topic structure will contribute to our understanding of the ways a text conveys its meaning and to our understanding of the kinds of processing demands particular coherence patterns make on text receivers. In business and technical prose, meaning must be indisputable. And, often, the intricacy of the information to be conveyed is such that the text itself cannot impose undue processing demands without seriously risking the success of the communication. In the interests of definiteness and efficiency, the business or technical writer must keep in mind some of the issues that have arisen in this discussion of topicality: the power of meaning hierarchies to facilitate the processing of lower-level assertions and their absorption into higher-level material; the potential disruption brought about by the introduction of "mention" and dead-end items; the ambiguity arising from the presence of competing topics in a text.

¹References presented here are decidedly selective, for a thorough review of the literature would be a book-length undertaking in itself. Such a book has recently appeared, in fact: Robert de Beaugrande and Wolfgang Dressler, Introduction to Text Linguistics (Essex: Longman, 1981). This volume includes the authors' own model of coherence and technique for diagramming coherence: see

pp. 94-110. Other interesting and significant attempts to account for suprasentential phenomena in a methodical way are: Bonnie J.F. Meyer, The Organization of Prose and its Effects on Memory (Amsterdam: North-Holland, 1975); Edward J. Crothers, Paragraph Structure Inference (New Jersey: Ablex, 1979); Ellen W. Nold and Brent E. Davis, "The Discourse Matrix" (CCC, Vol. 31 [2], May 1980); M.A.K. Halliday and Ruqaiya Hasan, Cohesion in English (London: Longman, 1976). The latter is a striking contribution to our understanding of the relations among sentences. Particularly useful to the study of coherence has been the work of Teun van Dijk. His publications in the field are numerous, but two are especially comprehensive and relevant to the study of coherence: Text and Context: Explorations in the Semantics and Pragmatics of Discourse (London: Longmans, 1977) and Macrostructures: An Interdisciplinary Study of Global Structures in Discourse, Interaction and Cognition (New Jersey: Lawrence Erlbaum, 1980). The present discussion is indebted to all these offerings, but especially to van Dijk's ideas.

²Ellen Nold and Sarah Freedman also write about "predictable rises and falls in abstraction level" in "The Ladder of Abstraction" (1976, unpublished).

³Lexemes taken directly from the text or only modestly altered (e.g., change of word class) appear in lower case; items which interpret or collapse text items for ease of diagramming appear in upper case. Unfortunately, this procedure obliterates some low-level COHESIVE TIES that are no doubt crucial to higher-level COHERENCE. Future refinement of this method must negotiate a compromise between the high-level objectives of the diagramming and the low-level actualities of the text.

⁴Compare Nold and Davis' notion of "stadium" presented in their "The Discourse Matrix."

⁵Here one can see how inferred coherence linkages can depend on the nature of the audience: as a student and teacher of rhetoric I can detect this possible connection without much effort. But to other readers such a connection may be inaccessible and unlikely. And I suspect that it is not what the writer had in mind.

⁶Afterthoughts can be crucial elements of a literary text's structure. In Hawthorne's "Young Goodman Brown," for example, the last two paragraphs of the tale challenge the reader's interpretation of the preceding goings-on: is the story "about" the demonic corruptions of seemingly respectable citizens, or "about" the protagonist's own neurotic guilt? Re-reading, of course, reveals modal and question constructions lurking alongside the ostensible topic: these elements are coherent with the competing topic revealed in the last two paragraphs.

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