mations are imposed on the intermediate passage structures? When schema nodes are passed to the passage structure, to what extent are schema nodes removed by pruning versus deleting or compressing? In general, how are structures transformed and how are different structures synchronized with one another?

There are many other analyses that could be performed on the available data. It should be apparent that the data base is sufficiently rich and detailed to explore the process of constructing structures from many angles and perspectives. In the near future we plan on using the Q/A methodology for expository passages.

DIFFERENCES BETWEEN NARRATIVE AND EXPOSITORY PROSE

Passages can be categorized into different classes, or genres. Those who have classified prose in English composition and literary criticism have usually proposed four major categories: narrative, expository, persuasive, and descriptive (Brooks & Warren, 1972; Decker, 1974; Nicholas & Nicholl, 1978; Sanderson & Gordon, 1963). In psychology, Brewer (1980) has categorized prose somewhat differently. According to Brewer, passages can be classified by structure (descriptive, expository, and narrative) and by force (informing, persuading, entertaining, and the "literary-aesthetic"), yielding a total of 12 categories. Of course, specific passages may have properties that are associated with more than one category. A novel is ordinarily narrative, but there may be a description of a setting or an exposition of why a society is the way it is. Encyclopedia articles are usually expository, but a passage may have a narrative excerpt that illustrates an important point. Genres may be viewed as fuzzy sets, just as most categories of knowledge.

According to Decker (1974) the primary purpose of expository text is to expose information or ideas. Although some expository passages may be used to entertain, to persuade, or to have an aesthetic impact, the primary purpose of expository prose is to inform the reader by exposing ideas. On the other hand, most narrative passages are written to entertain more than to inform.

In this section we describe some differences between narrative and expository prose. The following properties are characteristic of one genre or the other rather that definitional. There are two reasons for comparing the two types of prose. First, there is some evidence that narrative is much easier to comprehend and retain than expository prose. Compared to expository prose, narrative is read faster (Graesser, 1981; Graesser, Hoffman, & Clark 1980), is more absorbing (Britton, Graesser, Glynn, Hamilton, & Penland, 1983), is easier to comprehend (Graesser, Hauft-Smith, Cohen, & Pyles, 1980), is easier to recall (Cohen & Graesser, 1980; Graesser, Hauft-Smith, Cohen, & Pyles, 1980), and is selectively encoded when readers genuinely want to read in ecologically valid settings (Graesser, Higginbotham, Robertson, & Smith, 1978). Why does narrative prose

have such a privileged status in the information-processing system? In order to answer this question we need to examine some differences at the conceptual and structural levels.

The second reason for comparing expository and narrative prose reflects the history and development of the proposed representational theory. Our representational system was first developed for narrative prose. As soon as the theory was developed to satisfaction for narrative prose, we decided to apply it to expository prose. In many ways the representational system generalized to expository prose. However, in other ways, the extension required a revision of our theory. In order to point out the successes and problems, it is important to enumerate potential differences between expository and narrative prose.

1. *Suspension of Disbelief.* Whereas the reader assumes that information in expository prose is true, the information in narrative may be fictitious. In narrative prose, the reader does not constantly evaluate the truth of statements in relation to the reader's world knowledge. Coleridge (1967) has called this "the willing suspension of disbelief." The purpose of expository prose is to update the comprehender's general knowledge of well-accepted truths.

2. *Temporal and Spatial Referents.* The episodes in narrative take place at a specific time and place. Of course the time and place may be fictitious. The time and place indices tend to be generic in expository prose. Statements in expository prose are regarded as universally true at relevant times and locations (Brown, 1966). Statements in narrative are true for the specific time and location in the narrative.

3. *Literate Prose Versus Mother Tongue.* When people talk in everyday conversation, the discourse is normally narrative rather than expository. People talk about their experiences. This information conveys what happened. Expository prose is different from the language of the mother tongue (see Brown, 1966; Olson, 1977). Expository is a special genre that is normally reserved for text books and other written documents.

4. *Conceptual Structures.* Sequences of episodes in narrative unfold in a chronological order, whereas information in expository prose may not follow any temporal order. According to Colby (1973), narrative prose contains eidochronic sequences, with chains of episodes that unfold according to causal or goal-oriented relationships.

When comparing the arc categories and node categories of narrative and expository prose, there are systematic differences (Graesser, 1981). First, expository prose has more descriptive conceptualizations than does narrative. There are more Internal State nodes, Physical State nodes, and Property arcs in expository than in narrative prose. Relative to expository prose, narrative has

more goal-oriented conceptualizations with more Goal nodes, Style nodes, Reason arcs, and Initiate arcs.

5. *Number of Inferences.* Comprehenders draw more inferences in narrative prose than expository prose. The Q/A method has revealed that roughly three or four times as many inferences are generated in narrative passages than expository passages (Graesser, 1981). This may be a consequence of the fact that more inferences are drawn from goal-oriented conceptualizations than cause-oriented and descriptive conceptualizations. Alternatively, the schemas that are invoked in narrative may be richer and more developed than those in expository prose.

From one perspective, the fact that narrative passages invoke more inferences than expository passages seems inconsistent with the finding that narrative passages are read faster. Specifically, there is some evidence that reading times for sentences increase with the number of inferences that sentences generate (Olson et al., 1980). This apparent discrepancy can perhaps be resolved when an alternative perspective is considered. Some sentences and passages may require longer reading times because the comprehender does not have an adequate knowledge base to guide comprehension and to generate inferences. Narrative passages might impose more demands on processing time than expository passages when considering the number of generated inferences; at the same time, however, narrative passages may invoke rich and well-developed schemas that facilitate comprehension speed.

6. *The Communication Function of Prose.* The primary purpose of expository prose is to inform the reader about truths in the world. The primary function for narrative is to entertain the listener. Of course, these different goals are tendencies rather than necessities (Brewer, 1980).

7. *Rhetorical Features.* Given that an important feature of narrative is to entertain, writers of narrative adopt specific rhetorical devices that are entertaining, such as suspense, surprise, and irony (Brewer & Lichtenstein, 1981). Narrative often builds up to a climax with a plot that involves interaction of goals among characters (Beaugrande & Colby, 1979; Bruce, 1978; Wilensky, 1978). The episodes in narrative normally follow a chronological order (Mandler, 1979; Stein & Nezworksi, 1978) although there can be entertaining deviations from a chronological order. In narrative, the plot is usually preceded by a setting that describes the time, place, and characters. Sometimes, aspects of the setting are distributed among episodes in the plot (see Black & Bower, 1980).

Expository prose often has a pyramid development. The passage first provides the overall elements of a topic and these elements are embellished with further paragraphs (Collins & Gentner, 1980). Within paragraphs, the first sentence sets

up the theme or the topic of the paragraph and subsequent sentences embellish the theme or topic (Brown, 1966; Kieras, 1978, 1980). In expository prose the writer gets to the main point as soon as possible.

There are many different rhetorical devices that a writer may use to convey information in expository prose. Decker (1974) has enumerated the following rhetorical devices:

1. classification
2. comparison and contrast
3. illustration and concretizing
4. analogies
5. process analysis
6. cause/effect analysis
7. definition
8. induction/deduction
9. description
10. embedded narratives

Each of these rhetorical devices has its special set of constraints and conventions. The fact that expository prose has such a wide diversity in content and rhetorical devices has important implications for our representational theory and our Q/A method of exploring prose inferences. Regarding the Q/A method, why questions and how questions may not tap certain conceptualizations that are central to the organization and development of some expository passages. Regarding our representational theory, we may need to introduce additional node categories and arc categories in order to accommodate some expository passages. We have more to say about these issues in a later section.

8. *Connectives, Transitional Words, and Signaling Devices.* In narrative, transitional phrases and signaling devices play a less critical role than in expository. Transitional words and connectives help the reader keep track of the logical flow in expository passages (Grimes, 1975; Halliday & Hasan, 1976). For example, there are additive relations that signal the reader that some information should be added (*in addition, furthermore, moreover*). A temporal relation signals readers about the sequential or temporal order (*then, soon, before*). A *causal* relation clarifies the logical development (*therefore, because, consequently*). An adversative relation signals that there is a contrast or comparison (*but, however, on the other hand*). These signaling devices are important for understanding expository prose (Britton, Meyer, Hodge, & Glynn, 1980). They are less critical in narrative passages in which the chronology is important. In a narrative plot, a vague connective like *and then* may be sufficient for comprehension.