Prerequisites for Comprehending Prose

John D. Bransford  
Department of Psychology  
Vanderbilt University

NOTE: Preparation of this paper was supported in part by Grant NIE-G-79-017. The letter about Sally is adapted from a passage that was originally written by Nancy McCarrell.

Dear Jill,

Remember Sally, the person I mentioned in my letter? You'll never guess what she did this week. First, she let loose a team of gophers. The plan backfired when a dog chased them away. She then threw a party but the guests failed to bring their motorcycles. Furthermore, her stereo system was not loud enough. Sally spent the next day looking for a "Peeping Tom" but was unable to find one in the yellow pages. Obscene phone calls gave her some hope until the number was changed. It was the installation of blinking neon lights across the street that finally did the trick. Sally framed the ad from the classified section and now it hanging on her wall.

Please write soon.

Love,

Bill

Most people have difficulty understanding the preceding letter about Sally. Their problem does not stem from a lack of familiarity with the words; the letter does not contain highly technical vocabulary. Each sentence in the letter conforms to basic rules of English syntax, so syntactic abnormalities are not responsible for the fact that the letter is difficult to understand. Indeed, the hypothetical recipient of the letter, Jill, understands the message perfectly. Why is Jill able to understand while other English-speaking people are not?

The beginnings of an answer to this question were formulated several decades ago by the psychologist Karl Bühler, who argued that language comprehension depends on more than one's knowledge of a particular language. Bühler emphasized that listeners and speakers (or readers and writers) must also share a common "semantic field" if they are to understand one another:

"Given two speakers of the same language, no matter how well one of them structures a sentence, his utterance will fail if both parties do not share the same field to some degree. There are inner aspects of the field, such as an area of knowledge, or outer aspects, such as objects in the environment . . . . The structure of any particular language is largely field-independent, being determined by its own particular conventional rules, but the field determines how the rules are applied" (Blumenthal, 1971, p. 56).

Bühler would undoubtedly argue that Jill can understand the letter about Sally because Jill and the writer share a common "semantic field." In particular, Jill knows from previous letters that Sally has been attempting to do something: She has been trying to get her neighbor to move. Given this information, the letter makes much more sense. (Read it again.)

During the past ten years, psychologists have become increasingly sensitive to the fact that language comprehension involves much more than simply a "knowledge of one's language" (e.g., knowledge of vocabulary plus basic rules of syntax). People rely on their general background knowledge to fill in the gaps in messages; they actively contribute to the comprehension process by making assumptions and inferences. If you look again at the letter about Sally, for example, you will probably discover that you made a number of assumptions once you were informed of her goal. Thus, you probably assumed that the gophers were let out in the neighbor's yard, that the motorcycle and stereo noises were designed to bother the neighbor, that the "Peeping Tom" would have been hired to look in the neighbor's window, that the neighbor's telephone number was changed, that the ad from the classified section said "House for Sale," and so forth. None of this information was supplied in the letter; it was supplied by you.

The letter about Sally is a "trick" passage; it was especially written to illustrate various facets of the comprehension process. (Additional examples of such passages can be found in: Bransford, 1979; Bransford & Johnson, 1972; Bransford & McCarrell, 1974; Dooling & Lachman, 1971). There is considerable evidence that the ability to understand any conversation or text requires the use of previously acquired knowledge to fill in the gaps in messages. (Anderson, 1977; Bower, Black & Turner, 1979; Bransford, 1979; Schank & Abelson, 1977). There is also evidence to suggest that if a person is unable to remember events that were described by someone, or is unable to write a clear summary of the events, the problem may be that he or she lacks the appropriate background knowledge (Chiesi, et al, 1979; Spillich, et al, 1979). This is a very different explanation from one which assumes that the person has a "poor memory" or has failed to develop effective summarization skills. Similarly, a person may interpret a message in a manner that is quite different from the one intended by an author (Anderson, et al, 1977; Bransford, 1979; Pichert & Anderson, 1977; Steffensen, et al, 1979). These differences in interpretation may arise because readers have associated the words in the passage with their own knowledge which may differ from that of the writer. Instructors in public speaking classes and in writing classes advise students to
tailor their messages to their audience for just these reasons. If speakers and writers are to be effective, they must be especially careful to analyze what they know about various situations and to ensure that their listeners or readers are similarly informed.