that category. Characteristic features, on the other hand, are those that are usually associated with typical members of the category. That most birds fly is an example. Thus, canaries are more quickly recognized as birds than are penguins because they are more typical than penguins, which swim instead of fly. In a similar way, it takes longer to say that a bat is not a bird, because bats share features characteristic of birds even while the match on defining characteristics is poor.

Since there are a great many real world concepts of the fuzzy type (Kintsch, 1974), feature comparison models can seem very attractive. But they are not particularly economical, i.e. large collections of features would be required for learning, and the models make no claims about how such collections would be organized. Finally, semantic comparison models have been criticized for their failure to account for semantic flexibility. That is, context can cause certain aspects of a concept's meaning to be more or less prominent. If you hear, "Help me move the piano," you will probably think of it as a heavy piece of furniture, but the sentence, "You play the piano beautifully" emphasizes its musical aspect (Barclay et al., 1974).

Propositional Models of LTM. How different from one another are network and feature comparison models? In posing this question, Klatzky (1980) cited evidence that feature comparison models may in fact be rewritten as enhanced network models. Perhaps for this reason, the network has remained the primary metaphor for long-term memory. Propositional models, however, offered a new twist to the network idea. Instead of concept nodes comprising the basic unit of knowledge that is stored in memory, propositional models take this basic unit to be the proposition (Anderson & Bower, 1973). A proposition is a combination of concepts that has a subject and predicate. So, for example, instead of the concept *bird* representing a node in memory, the propositions "A bird has wings," "A bird flies," and "A bird has feathers" are stored.

There appears to be some psychological reality to the notion of propositions, because subjects will take longer to read sentences containing many propositions than those containing few, even when the number of actual words is the same (Kintsch, 1974). In addition, recall tends to reflect propositional structure rather than sentence structure. For example, suppose you read the following sentence as part of a passage on shorebirds: "The blue heron, a tall bird with a long neck and long legs, can usually be found in the marshy areas near water." Asked to recall later what you had read, you would be unlikely to reproduce this sentence. Instead, you might recall some of the ideas, or propositions, expressed in it, such as: "The blue heron is a tall bird. It has long legs and a long neck. It lives near water." For this reason, propositions have been used as a measure of recall in some memory experiments (e.g., Royer & Cable, 1975; Royer & Perkins, 1977).