WORD RELATIONSHIPS

DMITRI A. BORGMA NN
Dayton, Washington

The May 1974 issue of Psychology Today featured an interesting article about efforts under way to "teach" computers to understand and use human language.

Teaching a computer to deal with the English language has proved to be incredibly difficult. One problem is the tremendous variety and complexity of grammatical constructions that occur even in simple, conversational English. The most intricate programming is required if a computer is to analyze and interpret correctly many different run-of-the-mill sentences.

A more formidable problem is the discovery that understanding common, everyday English requires a wealth of knowledge about the outside world. A four-year-old child may possess that knowledge, but the most sophisticated computer ever devised does not. There are numerous aspects of this problem discussed in Psychology Today.

One aspect is the use of compound terms consisting of two successive nouns, the first one modifying the second one. Extensive background knowledge is needed if the character of the relationship between the two nouns is to be understood properly. The article in question cites pots as an example. A KITCHEN pot is one used in the kitchen. A SOUP pot is one in which soup is cooked. A CAST-IRON pot is one made of cast iron. To these three examples, a fourth one could be added: a QUART pot is one with a capacity of one quart. In each case, establishing the proper connection between the two nouns presupposes a vast reservoir of knowledge about the world around us.

Instructive as the illustration given may be, it was clearly not selected by a logologist. Far more illuminating than pots can ever hope to be are BAGS. The purpose of this article is to consider 24 different types of bags, involving 24 different types of relationships between modifier and "bag". For want of a more logical order, the terms are listed in alphabetical order. Words ending with the suffix "-ing" are gerunds, or verbal nouns. Observe and learn:

BOSTON BAG a kind of general-utility bag, so designated because it was first manufactured in Boston, Massachusetts
BUMPING BAG one attached to the underside of an airplane and acting as a bumper
BUSHEL BAG one with a capacity of one bushel
Is it possible, do you suppose, to find an even more extreme example of diversity in forms of word relationship?