Title
Rumelhart Prize Talk: On Words and Dinosaur Bones: Where is meaning?

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On Words and Dinosaur Bones:
Where is meaning?

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Virtually all theories of linguistics and of language processing assume the language users possess a mental dictionary – the mental lexicon – in which is stored critical knowledge of words. In recent years, the information that is assumed to be packed into the lexicon has grown significantly. The role of context in modulating the interpretation of words has also become increasingly apparent. Indeed, there exists now an embarrassment of riches which threatens the representational capacity of the lexicon.

In this talk I will review some of these results, including recent experimental work from adult psycholinguistics and child language acquisition, and suggest that the concept of a lexicon may be stretched to the point where it is useful to consider alternative ways of capturing the knowledge that language users have of words.

Following an idea suggested by Dave Rumelhart in the late 1970s, I will propose that rather than thinking of words as static representations that are subject to mental processing—*operands,* in other words—they might be better understood as *operators,* entities that operate directly on mental states in what can be formally understood as a dynamical system. These effects are lawful and predictable, and it is these regularities that we intuitively take as evidence of word knowledge. This shift from words as operands to words as operators offers insights into a number of phenomena that I will discuss at the end of the talk.