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Significance statement for "Nonliteral understanding of number words."

Human communication is rife with nonliteral language, ranging from metaphor to irony to hyperbole. How do people go so far beyond the literal meaning of an utterance to infer the speaker's intended meaning? We present a computational model that understands hyperbolic and other nonliteral uses of number words (e.g. "That watch cost ten thousand dollars.") We show that our model predicts humans' interpretation of hyperbole and its rhetorical effects with high accuracy. Our model integrates background knowledge, principles of communication, and reasoning about communicative goals to explain the computational basis of nonliteral language understanding. This framework sheds light on the nature of communication, marking a significant advancement in the flexibility and richness of formal models of language understanding.