Katz, Jerrold J. (1932-2002)

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Abstract

This biography of Jerrold J. Katz focuses on his main contributions to linguistic theory and the philosophy of language. His accomplishments include (1) developing the first comprehensive theory of semantics within generative grammar, (2) proposing ▨▨ language is an abstract rather than a physical or mental object, and (3) challenging the Fregean notions that sense determines reference and that semantic form is equivalent to logical form. In addition to his general semantic theory, Katz worked out detailed accounts of presupposition, illocutionary force, idioms and names, and published authoritatively on the work of such philosophers as René Descartes, Gottlob Frege, Willard van Orman Quine, and Ludwig Wittgenstein.

Jerrold Katz's career

Katz received a PhD in Philosophy from Princeton University in 1960. In 1961 he became Research Associate in Linguistics at the Massachusetts Institute of Technology, and was appointed Assistant Professor of Philosophy there in 1963. He quickly rose through the ranks at MIT, becoming Professor of Philosophy in 1969. He was appointed Distinguished Professor of Philosophy and Linguistics at the Graduate Center of the City University of New York in 1975, a position he held until his death. He wrote or coauthored 11 books and over 75 articles on philosophy and linguistics, and edited or coedited three books.

Semantics in generative grammar

Katz started out with the goal "to try to understand meaning in natural language using some form of Fregean intensionalism to provide a semantic theory for Chomsky's theory of generative grammar, which ... at the time had no semantic theory." (Katz, 2004: ix) He published a seminal paper with Jerry Fodor (Katz & Fodor, 1963) that proposed that semantics is a component of generative grammar, and that semantic interpretations (**senses**) are assigned to syntactic structures by **projection rules** that have some of the formal properties of transformations. In addition, they proposed that the meanings of lexical items and of the structures containing them are expressed using combinations of **semantic markers** which are "intended to reflect, in their formal structure, the structure of the concepts they represent." (Katz, 1972: 101) A year later Katz published a book with Paul Postal (Katz & Postal, 1964) that proposed that **deep structure** (underlying syntactic structure) fully determines meaning (equivalently, that syntactic transformations are meaning- preserving). This idea, along with several others that were developed around the same time, were incorporated into the **standard theory** of generative grammar formulated in Noam Chomsky (1965), in which deep structures are mapped (1) by projection rules to semantic interpretations, and (2) by syntactic transformations to **surface structures**, and ultimately to **phonetic interpretations**.

Katz (1972) provides the most complete account of his semantic theory; two later revisions were his elaboration of the theory of **illocutionary force** (Katz, 1977) and his revised treatment of **presupposition**. (Katz & Langendoen, 1976; Katz, 1979) The book also provides a vigorous defense of his views against both **generative semantics** and the variety of interpretive semantics found in the **extended standard theory**.

Language as an abstract object

Katz was an early champion of Chomskyan **mentalism** (or **psychologism** or **conceptualism**) in linguistics, (Katz, 1964) according to which linguistic theory is identified with the theory of knowledge of language. However, not long after collaborating with Chomsky in a defense of mentalism, (Chomsky & Katz, 1975) Katz rejected mentalism in favor of (Platonic) **realism**, according to which languages are **abstract objects**, and the proper theory of language is about those objects themselves, not our knowledge of them. (Katz, 1981) He described this change as follows: (Katz, 2004: x)

> I had been wondering about how well Frege's realism about senses, to which I was committed, squared with Chomsky's psychologism about language, to which I was also committed. I reached the conclusion that ... a theory of abstract senses could not be fitted into a theory of concrete syntactic structures in the human mind. My solution was to adopt a realist view of grammar as a whole, a move that seemed the right choice in light of the fact that the words and sentences that grammars are theories of are plausibly regarded as types and hence as abstract objects.

In moving from mentalism to realism, Katz saw himself as extending Chomsky's revolution that overthrew **empiricism** in favor of **rationalism**, and **nominalism** in favor of mentalism. A fully rationalist theory of language demands that it be realist, not mentalist. (Katz, 1996; see also the papers in Katz, 1985) Katz's philosophy of mathematics was similarly realist and rationalist. (Katz, 1998)

Sense, reference and logic

Sense is the central construct of Katz's semantic theory, in which the meaning of an expression is the set of its senses. Katz defined sense as "that aspect of the grammatical structure of sentences that is responsible for their sense properties and relations." (Katz 2004: 17) Sense is both **decompositional** (words and morphemes have internal structure in the form of semantic markers) and **compositional** (semantic markers are combined in accordance with their syntactic structure and projection principles). Katz did not provide a complete account of sense; for example, he did not list the primitive semantic markers. Rather, he gave many examples of senses of lexical items, such as color adjectives and English verbs like *chase* and *gossip*, and statements of particular projection rules for combining them. He used the framework to address such classical philosophical problems as the color-incompatibility problem. (Katz, 2004: 152-165)

In later work, Katz asserted both that sense does not determine reference, and that the theory of sense is not reducible to the theory of reference, unlike Frege's account, as interpreted by Rudolf Carnap, as functions from possible worlds to extensions in them. (Katz, 2004: 21) Katz had earlier affirmed, following Frege, that sense determines reference. (Katz, 1972: 240) But he went on to develop a maximally 'thin' notion of sense, according to which sense merely 'mediates' reference. (Katz, 1988; 2004: 47) Katz's reformulation of the relation of sense to reference was intended to put intensionalist semantics on a firm foundation, enabling it to deal

effectively with problems that Quine and others have raised, such as the indeterminacy of translation, the analytic-synthetic distinction, and the meaning of proper names and natural-kind terms. Katz also broke with the Frege-Carnap tradition by holding that senses are not represented by formulas in **first-order predicate logic**, which he maintained is insufficiently restrictive for linguistic semantics. His own theory of sense is **mereological**: semantic entailment is determined by the part-whole relations among senses, according to the "beams in the house" analogy of Kant, rather than the "plant in the seed" analogy of Frege.

Overall, Katz's work is distinguished by its bold independence of thought and its focus on foundational questions in philosophy of language, linguistics, and mathematics.

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My biography

I received a PhD in Linguistics from the Massachusetts Institute of Technology in 1964, and have held appointments at The Ohio State University, Brooklyn College, the Graduate Center of the City University of New York, and the University of Arizona. I was Secretary-Treasurer of the Linguistic Society of America from 1984 to 1988, and President in 1998. I am a member of the American Association for the Advancement of Science and was elected Fellow in 2002. I have been Editor of *Linguistics Abstracts* since 1997 and a Book Review Editor for the LINGUIST List since 2001. I first met Jerry Katz in the MIT Infirmary in 1962, when he was recovering from minor surgery and I from infectious hepatitis. I like to think I stimulated his interest in idioms when I reported to him one evening that the nurse on duty had spilled the beans. I was later Jerry's colleague at the CUNY Graduate Center, during which time we worked on a number of projects together, including the projection problem for presuppositions and the realist conception of language. I am honored to have been his friend, and saddened by the loss of this deep and creative thinker.