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LING 572.01: Generative Syntax and Semantics

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Linguistics 572
Generative Syntax
Fall 2014
TR, 12:40 to 2:00, Social Sciences 254

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This syllabus for the graduate course in Generative Syntax (LING 572) operates as a supplement to the syllabus for the co-convening undergraduate course (LING 472) under the identical title; that is, graduate and undergraduate students meet together according to the same course schedule and encounter the same lecture and reading material specified in that schedule for class meetings, but the quantity and, more importantly, the quality of the work that is completed for a final grade in the course is of a higher order for graduate students (see **GRADUATE INCREMENT** on Moodle).

In other words, whereas both groups of students who convene during course meetings try to develop skills in methods of linguistic analysis particular to the science of sentence-formation (syntax), graduate students enrolled in LING 572 apply analytical syntactic methods at a caliber that heightens understanding of human language as "an abstraction of utterances in the form of mathematical objects" (see **COURSE DESCRIPTION** for LING 472 on Cyberbear or Course Search).

Consider the notion *constituent*, one or more words functioning as a single unit, a notion preceding the inception of generative syntax that is representable using formal *bracket* notation:

[{cats} **[** {chase} {mice} **]**]

The outer brackets represent the sentence constituent, and each **WORD** also receives its own set of brackets (in ~~strikethrough~~); however, another set of brackets (in **bold**) represent the notion that *chase mice* functions as a constituent independently of the individual words contained therein. This intuition can be tested for constituency by applying a grammatical operation that is known as clefting (breaking a sentence in two) whereby *chase mice* is displaced from its BASIC position and relocated at the left-edge position of a new DERIVED sentence, which has other words added:

[chase mice] is what cats do

Conversely, this clefting TRANSFORMATION changing the basic sentence into a derived one cannot operate on the words *cats chase* because no single set of brackets exhaustively contains them:

* [cats chase] is what mice undergo (* means ungrammatical)

While methods of syntactic analysis prior to the advent of generative syntax can conceptualize layers of constituency graphically (e.g., bracketing), no technological counterpart then existed that was based on such formal notation and could operationalize what humans know intuitively about how sentence-formation systems work (grammatical) and why they don't (ungrammatical).

This point (intuitions of what is respectively well-formed and ill-formed constituencies) is the lynchpin of a generative syntax, or a sentence-formation system that is sufficiently general, a machine that fabricates every grammatical sentence constituency (an infinite number) and does not fabricate ungrammatical ones (intuits ill-formedness). The sentence-fabrication machine is an analogy (either apt or false) for a mental faculty that fundamentally characterizes humans. The first person to crack the code of infinity was a graduate student named Noam Chomsky, who was studying linguistics at UPenn and devised programming language prompting the innovation of a new automaton (i.e., computer) that modeled, to a degree, humans' capability of infinity.

Incarnations of his work attempt sufficient generality yet remain computer models, and the only language computers understand is mathematic: This course covers development of generative syntax from Chomsky's graduate-student years in the early 1950s until the mid 1980s.

1985-1980: the Revised Extended Standard Theory (REST), or Principles & Parameters, aka Government & Binding

1979-1970: the Extended Standard Theory (EST), or the Conditions on Transformations Framework

1969-1964: the Standard Theory, or the Aspects Model, aka Transformational Grammar

1963-1955: an emergent pre-theoretical era; a finite-state automaton is natural, not generative, and a push-down automaton is generative, not natural

Grammar as Science

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A set of hypotheses about a certain domain constitutes a **theory of that domain**. Our set of rules thus constitutes a theory of what speakers of a language know about the syntax of their language. We call such a collection of rules a **grammar**. From this perspective, a grammar becomes a scientific theory, and grammar building becomes an exercise in scientific theorizing.

A grammar of a language can be considered, in what seems to me a perfectly good sense, to be a complete scientific theory of a particular subject matter.
—*The Logical Structure of Linguistic Theory*, p. 77