

Chomskyan linguistics

Transformational grammar, also called **Transformational-generative Grammar**, a system of language analysis that recognizes the relationship among the various elements of a sentence and among the possible sentences of a language and uses processes or rules (some of which are called transformations) to express these relationships. For example, transformational grammar relates the active sentence “John read the book” with its corresponding passive, “The book was read by John.” The statement “George saw Mary” is related to the corresponding questions, “Whom [or who] did George see?” and “Who saw Mary?” Although sets such as these active and passive sentences appear to be very different on the surface (*i.e.*, in such things as word order), a transformational grammar tries to show that in the “underlying structure” (*i.e.*, in their deeper relations to one another), the sentences are very similar. Transformational grammar assigns a “deep structure” and a “surface structure” to show the relationship of such sentences. Thus, “I know a man who flies planes” can be considered the surface form of a deep structure approximately like “I know a man. The man flies airplanes.” The notion of deep structure can be especially helpful in explaining ambiguous utterances; *e.g.*, “Flying airplanes can be dangerous” may have a deep structure, or meaning, like “Airplanes can be dangerous when they fly” or “To fly airplanes can be dangerous.”

Cognitive linguistics is a cluster of overlapping approaches to the study of language as a mental phenomenon. Cognitive linguistics emerged as a school of linguistic thought in the 1970s. In the introduction to *Cognitive Linguistics: Basic Readings* (2006), linguist Dirk Geeraerts makes a distinction between uncapitalized *cognitive linguistics* (“referring to all approaches in which natural language is studied as a mental phenomenon”) and capitalized *Cognitive Linguistics* (“one form of cognitive linguistics”).

Properties of Deep Structure

“Deep structure is a level of syntactic representation with a number of properties that need not necessarily go together. Four important properties of deep structure are:

1. Major grammatical relations, such as *subject of* and *object of*, are defined at deep structure.

2. All lexical insertion occurs at deep structure.
3. All transformations occur after deep structure.
4. Semantic interpretation occurs at deep structure.

In transformational and generative grammar, *surface structure* is the outward form of a sentence. In contrast to **deep structure** (an abstract representation of a sentence), surface structure corresponds to the version of a sentence that can be spoken and heard. A modified version of the concept of surface structure is called *S-structure*.

Universal grammar is the theoretical or hypothetical system of categories, operations, and principles shared by all human languages and considered to be innate. Since the 1980s, the term has often been capitalized. The term is also known as *Universal Grammar Theory*.

Linguist Noam Chomsky explained, "[U]niversal grammar' is taken to be the set of properties, conditions, or whatever that constitute the 'initial state' of the language learner, hence the basis on which knowledge of a language develops." ("Rules and Representations." Columbia University Press, 1980)

The concept is connected to the ability of children to be able to learn their native language. "*Generative grammarians* believe that the human species evolved a genetically universal grammar common to all peoples and that the variability in modern languages is basically on the surface only," wrote Michael Tomasello. ("Constructing a Language: A Usage-Based Theory of Language Acquisition." Harvard University Press, 2003)

And Stephen Pinker elaborates thusly:

"In cracking the code of language...children's minds must be constrained to pick out just the right kinds of generalizations from the speech around them....It is this line of reasoning that led Noam Chomsky to propose that language acquisition in children is the key to understanding the nature of language, and that children must be equipped with an innate Universal Grammar: a set of plans for the grammatical machinery that powers all human languages. This idea sounds more controversial than it is (or at least more controversial than it should be) because the logic of induction mandates that children make *some* assumptions about how language works in order for them to succeed at learning a language at all. The only real controversy is what these assumptions consist of: a blueprint for a specific kind of rule system, a set of abstract principles, or a mechanism for finding simple patterns (which

might also be used in learning things other than language)." ("The Stuff of Thought." Viking, 2007)

"Universal grammar is not to be confused with universal language," noted Elena Lombardi, "or with the deep structure of language, or even with grammar itself" ("The Syntax of Desire," 2007). As Chomsky has observed, "[U]niversal grammar is not a grammar, but rather a theory of grammars, a kind of metatheory or schematism for grammar" ("Language and Responsibility," 1979).