

# Noam Chomsky

Noam Chomsky (born December 7, 1928) is an American linguist, philosopher, cognitive scientist, historian, social critic and political activist. Chomsky is credited as the creator or co-creator of the universal grammar theory, the generative grammar theory, the Chomsky hierarchy, and the minimalist program.

He developed the theory of transformational grammar; for this, he was awarded his doctorate in 1955. Sometimes he is described as "the father of modern linguistics", and one of the founders of the field of cognitive science.

- *Chomskyan linguistics* is a broad term for the principles of language and the methods of language study introduced and/or popularized by American linguist Noam Chomsky in such groundbreaking works as *Syntactic Structures* (1957) and *Aspects of the Theory of Syntax* (1965). Also spelled *Chomskian linguistics* and sometimes treated as a synonym for *formal linguistics*.

- **Universal grammar theory**
- The basic postulate of UG is that a certain set of structural rules are innate to humans, independent of sensory experience.
- With more linguistic stimuli received in the course of psychological development, children then adopt specific syntactic rules that conform to UG.
- It is sometimes known as "mental grammar", and stands contrasted with other "grammars", e.g. prescriptive, descriptive and pedagogical.

- Chomsky defines UG as a system of principles, conditions and rules that are elements or properties of all human languages (Chomsky, 1976). In other words, it comprises a set of linguistic universals. Subsequently, Chomsky characterizes these universals as consisting of principles and parameters.
- The term 'principles' stands for highly abstract properties of grammar underlying the grammatical rules of all specific languages. Although the far range of principles will not be evident in all languages, there will be no language that contravenes any principle.

- The term 'parameter' refers to principles that vary in certain restricted ways from one language to another.
- The goal of generative grammar is to identify the principles and parameters that comprise UG and to specify which principles and which parameters are operative in specific languages.

- Universal Grammar and Language Acquisition
- Chomsky stresses that language makes use of structure dependent operations. What he means is that the compositional production of utterances is not a question of stringing together sequence of words.
- Every sentence has an inaudible internal structure which must be understood by the hearer. Amazingly, all children learning language seem to know automatically that language involves structure dependent operations.
- Chomsky suggests that humans may have an innate knowledge of this phenomenon.

- Creativity is the fundamental aspect of language, which is stressed repeatedly by Chomsky.
- By this, he means two things: **Firstly** and primarily he means the fact that **humans have the ability to understand and produce novel utterances.**
- Even quite strange sentences which are unlikely to have been uttered before cause no problems for speakers and hearers(Aitchinson, 1989).
- The utterances are not controlled by external happenings. The creative aspect of language is sometimes referred to as "**rule-bound creativity**".

- Chomsky has consistently argued that UG principles are inherently impossible to learn and that therefore, they must be innate.
- They make up the "initial state" and as such provide the basis that enables the child to acquire a language.
- A child has access to a Language Acquisition Device (LAD) that maps experience into the steady "steady state"



- **Generative grammar theory**
- Generative grammar is a theory of grammar, first developed by Noam Chomsky in the 1950s, that is based on the idea that all humans have an innate language capacity.
- Linguists who study generative grammar are not interested in prescriptive rules; rather, they are interested in uncovering the foundational principals that guide all language production

- . Generative grammar accepts as a basic premise that native speakers of a language will find certain sentences grammatical or ungrammatical and that these judgments give insight into the rules governing the use of that language.
- Generative grammar is a theory of grammar that holds that human language is shaped by a set of basic principles that are part of the human brain (and even present in the brains of small children).
- This "universal grammar," according to linguists like Chomsky, comes from our innate language faculty.

## • **Principles of Generative Grammar**

- The main principle of generative grammar is that all humans are born with an innate capacity for language and that this capacity shapes the rules for what is considered "correct" grammar in a language.
- The idea of an innate language capacity—or a "universal grammar"—is not accepted by all linguists.
- Some believe, to the contrary, that all languages are learned and, therefore, based on certain constraints.

- Proponents of the universal grammar argument believe that children, when they are very young, are not exposed to enough linguistic information to learn the rules of grammar.
- That children do in fact learn the rules of grammar is proof, according to some linguists, that there is an innate language capacity that allows them to overcome the "poverty of the stimulus."

# The innateness theory

- The Innateness theory by Noam Chomsky shows the innatist limitations of behaviourist view of language acquisition in 1960"s to the alternative „generative“ account of language. The main Argument in this theory is that **children are born with an innate knowledge which guides them in the language acquisition task.**

- The children's ability makes the task of learning a first language easier than it would otherwise be claims that **“the universality of complex language is a discovery that fills linguists with awe, and is the first reason to suspect that language is not just any cultural invention but the product of a special human instinct”**.

- It is an innate biological function of human beings just like learning to walk.
- It is believed that children have the innate ability to learn language as Chomsky believes, but this needs to be learned and developed by social interacting with environments such as adults and in cognitive development.

- Chomsky argues that Language learning is not really something that the child does; it is something that happens to the child placed in an appropriate environment much as the child's body grows and matures in a predetermined way when provided with appropriate nutrition and environmental stimulation.



- Chomsky theorized that children were born with a hard-wired language acquisition device in their brains. LAD is a set of language learning tools, intuitive at birth in all children.
- The language acquisition Device (LAD) is a postulated organ of the brain that is supposed to function as a congenital device for learning symbolic language.
- To Chomsky all children share the same innateness, all children share the same internal constraints which characterize narrowly the grammar they are going to construct”.

- Therefore, LAD explains human acquisition of the syntactic structure of language; it encodes the major principles of a language and its grammatical structures into the child's brain and enables the children to analyze language and extract the basic rules of universal grammar or generative grammar because it is a system of rules that generate or produce sentences of the language.

- We are born with set of rules about language in our brains and children are equipped with an innate template or blueprint for language and this blueprint aid the child in the task of constructing a grammar for their language.

- **The universal grammar** according to Chomsky does not have the actual rules of each language but it has principles & parameters in which the rules of language are derived from the principles & parameters.
- In other words, the principles are the universal basic features of grammar such as nouns and verbs and the parameters are the variation across language that determines one or more aspects of grammar .

# Leonard Bloomfield

- Leonard Bloomfield (1887 – 1949) was an American linguist, whose influence dominated the development of structural linguistics in America between the 1930s and the 1950s. He is especially known for his book *Language* (1933), describing the state of the art of linguistics at its time. Bloomfield was the main founder of the Linguistic Society of America.

- Bloomfield's thought was mainly characterized by its behavioristic principles for the study of meaning, its insistence on formal procedures for the analysis of language data, as well as a general concern to provide linguistics with rigorous scientific methodology.

- Its pre-eminence decreased in the late 1950s and 1960s, after the emergence of Generative Grammar.

- For Bloomfield, the structure of language was the central object of linguistic study, and hence of cognitive science, had that term been popular in his day.
- Bloomfield maintained that all linguistic structure could be determined by the application of analytic procedures starting with the smallest units which combine sound (or ‘vocal features’) and meaning (or ‘stimulus-reaction features’), called morphemes (Bloomfield, 1926: 130).



- Bloomfield went on to show how to identify both smaller units (i.e., phonemes, defined as minimum units of 'distinctive' vocal features) and larger ones (words, phrases, and sentences)
- Bloomfield developed rich theories of both MORPHOLOGY and SYNTAX, much of which was carried over more or less intact into generative grammar.
- In morphology, Bloomfield paid careful attention to phonological alternations of various sorts, which led to the development of the modern theory of morphophonemics
- Bloomfield generated so much enthusiasm for syntactic analysis that his students felt that they were doing syntax for the first time in the history of linguistics.

- **Bloomfield's theory of structural linguistics provided the basic fundament for later theories. His theory was extremely influential in the community of linguists in that time.**
- After the publication of his first book *An introduction to the study of language* in 1914, Bloomfield dedicated his work to the study of the Algonquian languages, especially to Menomini, as his influential work *Menomini Morphophonemics* shows.

- This is especially the case for his theory of meaning, which changed from a mentalist position in 1914, to a radical behaviorist one in 1933.
- Due to the whole of Bloomfield's work and the great influence it had, the so-called school of American Structuralist Linguistics arose.
- Until the upcoming of Chomsky's highly influential early work in the late fifties, structural linguistics was seen as the standard approach in linguistics.

- Bloomfield introduces the notion of utterance as one central element of his theory. Utterances are produced by acts of speech.
- The following quotes illustrate Bloomfield's position:
- An act of speech is an utterance : “A speech-utterance is what mathematicians call a continuum; it can be viewed as consisting of any desired number of successive parts” (1933).
- Example: We imagine a speaker. By making an act of speech, she makes an utterance. So, any kind of act of speech brings out an utterance.

- “A speech community is a group of people who interact by means of speech and The totality of utterances that can be made in a speech community is the language of that speech-community”.
- This is necessary if we want to distinguish one language from another.
- As simple examples, we can think of the group of speakers of English and the group of speakers of German.

- Bloomfield's fundamental assumption of linguistics: In order to make sense of Bloomfield's fundamental thesis of alikeness of utterances, which he needs to distinguish groups of speakers (or speech communities), the following quote will be helpful:
  - To recognize the distinctive features of a language, we must leave the ground of pure phonetics and act as though science had progressed far enough to identify all the situations and responses that make up the meaning of speech-forms.

