Lesson 1: Transformational Generative Grammar

1.1. Mentalist Approach to Language Learning

The mentalist approach to language learning emphasizes the role of the human mind in acquiring and using language. This perspective, associated with Noam Chomsky, highlights the innate capacity of humans to learn language through cognitive processes rather than external reinforcement. Key ideas include:

- **Innateness**: Language ability is hardwired in the brain (فطرة).
- **Universal Grammar (UG)**: All languages share a common set of underlying rules.
- **Creativity**: Humans can produce an infinite number of sentences using finite rules.

Mentalism vs. Behaviorism

ASPECT	MENTALISM	BEHAVIORISM
Focus	Internal cognitive processes and innate abilities.	Observable stimuli and responses.
Learning Process	Driven by mental rule formation and hypothesis testing.	Learned through imitation, repetition, and rewards.
Example	A child hears "The cat is eating" and "The dog is running" then generates "The cat is running".	A child says "mama" because it is reinforced.
Key Proponent	Noam Chomsky	B.F. Skinner

Transformational Generative Grammar (TGG)

Definition

Transformational Generative Grammar (TGG) is a theory of syntax developed by Noam Chomsky. It explains how humans use a finite set of rules to generate an infinite number of grammatically correct sentences. TGG focuses on the mental processes underlying language production and comprehension.

Noam Chomsky: A Brief Overview

- **Date of Birth**: December 7, 1928.

- **Education**: Studied at the University of Pennsylvania, earning a Ph.D. in linguistics in 1955 under the mentorship of Zellig Harris.

- **Achievements in Linguistics**:

  o Developed Transformational Generative Grammar (TGG), revolutionizing the study of syntax and language structure.

  o Introduced the concept of Universal Grammar, highlighting the innate structures shared by all languages.

  o Authored groundbreaking works like *Syntactic Structures* (1957) and *Aspects of the Theory of Syntax* (1965).

- **Later Interests in Politics**:

  o Became an influential political activist and commentator known for his criticism of the US foreign policy.

Core Concepts of TGG

1. Deep Structure

- The underlying meaning of a sentence.

- Example: The deep structure of "The cat was chased by the dog" is similar to "The dog chased the cat."

2. Surface Structure

- The actual spoken or written form of a sentence.

- Example: "The dog chased the cat" and "The cat was chased by the dog" have different surface structures but share the same deep structure.

3. Transformations

- Rules that convert deep structures into surface structures.

- Example: Transforming a statement into a question:

  o Deep structure: "She is coming."

  o Surface structure: "Is she coming?"

4. Generative Rules

- A finite set of rules that produce all possible sentences in a language.

- Example: A basic rule for sentence formation:

  o Sentence → Noun Phrase + Verb Phrase.

- o "The boy" (Noun Phrase) + "plays football" (Verb Phrase) = "The boy plays football."

5. Competence vs. Performance

- **Competence**: A speaker's internal knowledge of language rules.

- **Performance**: The actual use of language in real-world situations.

- Example: Knowing how to say "I am going to the market" (competence) vs. saying "I'm goin' to the market" casually (performance).

Language Acquisition Device (LAD)

- The **Language Acquisition Device (LAD)** is a hypothetical mental mechanism proposed by Chomsky to explain how children acquire language.

- **Key Features:**

  - o Universal: Present in all humans.

  - o Helps children infer grammatical rules from limited input.

- **Example:** A child hears "The cat is sleeping" and "The dog is barking" and deduces the rule for forming continuous tense sentences.

Summary

- Transformational Generative Grammar (TGG) highlights the mental processes behind language use, focusing on deep and surface structures, transformations, and generative rules.

- The **mentalist approach** emphasizes innate abilities like the LAD, which allows humans to acquire and use language creatively.

- In contrast, **behaviorism** views language learning as a result of imitation and reinforcement, ignoring the role of internal mental processes.