***Section Five:*****Noam Chomsky’s Revolution**

**Chomsky’s Revolution**

1. **Criticism of ICA**

Not all sentences are easy to analyse in terms of **ICA**. The problem is that it is not always possible to know where the division can be made, like in **the example:** I met three old men and women. Where we cannot decide whether **‘old’** is meant only for men or both men and women.

**Another example:** My friend came home late last night. **This example** shows also possibility to understand two different meanings.

**A.** My friend is supposed to come home early but he came home late.

**B.** My friend did not come home early last night; he came home late last night.

Another difficulty is that even when the division is possible, the analysis overgeneralizes **the result. Example:**

**a.** The door opens.

**b.** The key opens the door.

**c.** I open the door with a key.

**ICA** of these sentences would show that: **I**, **Key**, **Door** are subjects, doers of the action, where in reality we know that these three elements function differently. This is why another vision of language analysis was needed.

* **For Chomsky**, **structural linguistics** involved **some weaknesses** in **conceptions** and in **methodology**.

1. **Corpus Analysis:**

For American structuralists, an empirical science studies only observable phenomena. For descriptive purposes, a language was defined in terms of a corpus. **A linguistic corpus has three levels: phonological structure**, **morphological structure** and **a syntactic structure**. They believed that when all elements of the corpus were grouped and labelled at each level, the grammar of the language was complete. Structural grammars offer an inventory of forms and constructions which appear in a limited corpus, they do not provide the rules needed to construct an endless range of possible grammatical sentences. **For Chomsky**, **a corpus can never represent the whole language**, **but** will **only cover** an **incomplete** and a **selective sample of it because** **language is infinite** and **creative in nature**. Transformation Generative Grammar (TGG) supporters suggest that instead of describing a corpus, a linguist can arrive at an inclusive grammar of language by describing its underlying system of rules, which is not contained within the corpus, but lies beyond it, in the minds of the speakers. The study of this system (linguistic/grammatical rules) is more important than the study of the actual sentences. In sum, **Chomsky is against the linguistic analysis based solely on a corpus**. A corpus-based approach is one which restricts itself to the analysis of a limited sample of language.

1. **Surface Analysis:**

**Structural grammars only describe the surface structure of sentences**. They cannot effectively handle important grammatical facts, like the relationship between active and passive sentences; positive, negative and interrogative sentences; and the deep dissimilarities that exist between superficially identical sentences:

**Example:** John is eager to please.

John is easy to please.

* **Chomsky** is **against the idea** that **the task of grammar** is to **account for linguistic performance only**.

1. **The Behaviourist Attitude:**

**Bloomfieldians** were **influenced** by **behaviourism**. The latter is a psychological theory of learning which takes into account only visible facts. For behaviourists, learning a language is similar to learning any other behaviour (like walking, eating, writing, etc). it is a mechanical process based on **‘habit formation’**. Learning is controlled by **an external factor** (**a stimulus**) which produces **a response**. This response is learnt when it is repeated and positively reinforced. And this **process** is **called conditioning**. Thus **language** is **learnt just** by **imitation** of **previously heard language**.

* **Chomsky** **views** that **language** is a **creative**, **dynamic force capable** of **making infinite use** of **finite means.**
* **Chomsky’s Theory of Language**

Language: it is a communication system that allows humans to express thoughts. It implies that language is not made up of a random assortment of speech symbols; these symbols of language form an interlocking, fitting, set of relations and patterns. Language consists of a set of conventionalized and arbitrary symbols, vocal and visual. This means that there is no direct relation between speech symbols and the world of ideas and objects which they represent. Language operates in a speech community and is culturally transmitted, i.e, people acquire language through their culture. It is important to note that language and language learning both have ‘universal similarities’. The point is that human languages exhibit remarkable similarities (shared properties).

* **Features of Human Languages:**

**1.** **Language is a well-defined object in the heterogeneous mass of speech facts**. It can be localized in the limited segment of speaking circuit where an auditory image becomes associated with a concept. Language is the social part of speech, outside the individual who can never creadte or modify it by himself; it is a sort of a contract.

**2.** **Duality of structure:** every language has two levels of grammatical structure;

1. **A primary or syntactic level of analysis**, at which sentences can be represented as combinations of meaningful units (words).
2. **A secondary or phonological level**, at which sentences can be represented as combinations of units which are themselves without meaning and serve for the identification of the primary units. They are sounds or phonemes. Example: He went to London. The sentence is composed of four words, the first of these primary unit sis identified by the combination of the secondary unite (h and e), etc. Although primary units unlike the secondary ones convey meaning, it is not the defining characteristic of words; there are some words at least that have no meaning (e.g., to). Every language manifests the property of duality of structure, and the description of every language will consist of three interrelated parts:

- **Syntax** which accounts for the regularities governing the combination of words.

- **Semantics** which describes the meaning of words and sentences.

- **Phonology** which deals with the sounds and their permissible combination.

* The term **‘grammar’** according **to Chomsky refers** to **the whole of the systematic description** of **language**, including: **phonology**, **syntax** and **semantics**.

**3. Creativity (open-endedness):** it is the capacity that all native speakers of a language have to produce and understand an indefinitely large number of sentences that they have never heard before. This creative competence is unconscious and unique to human beings. It is species specific. **Chomsky considers that the** **creativity is one of the most characteristics features of a language.**

It is upon **these two features** that **Noam Chomsky built his language theory** which he **called ‘Transformational Generative Grammar’ (TGG)**. The latter may be said to have officially begun with the publication of Chomsky’s 'Syntactic Structures’ (1957), though the theory had been foreshaded a few years earlier in preliminary papers by Chomsky as well as in certain articles by Harris (Chomsky was one of Harris’s pupils and later one of his collaborates and colleagues. And Harris is one of the prominent figures of the structural school). But with the publication of ‘Syntactic Structures’, **Chomsky had already moved away from the position that Harris and the other Bloomfieldians had adopted. But he continued to maintain that the phonology and syntax of a language could and should be described as a purely formal system without reference to semantic consideration**. **Semantics was secondary to and dependent upon syntax and outside linguistics proper**. In recent years (1965), Chomsky has become increasingly of Bloomfieldian linguistics and has abondoned many of the assumptions been originally held.

**Chomsky has come to the belief that in any syntactic description, the observable syntactic structure of sentences, i.e, the surface structure, should be related to a more abstract deep structure**. ***For example***, any speaker of a language easily perceives that some sentences contain other sentences as part of their internal structure. A fluent speaker of a language knows whether sentences are grammatical or ungrammatical. This fact emerges from introspection: study from inside, by intuition.

***Example:*** I was surprised by John is refusal to come.

This sentence exhibits internal relations which are identical to those found in the sentence: ‘John refused to come’.

In addition, a fluent speaker of a language is able to perceive the ambiguity in a sentence like: ‘Visiting relatives cab be a nuisance. This sentence has one surface structure, but two deep structures: one is that the speaker visits the relatives, or relatives visit them.

**TG linguistics or TGG now** incorporates a full theory of language description which has set itself the aim of doing no less than accounting fully and explicitly for everything that is involved **in the competence or intuitive knowledge of a native speaker or a fluent speaker of a language**, ‘*a linguistic description of a natural language is an attempt to reveal the nature of a fluent speaker’s mastery of that language’*. The native speaker’s ability to utter, recognize and understand grammatically acceptable sentences in his language should have been incorporated somehow into the linguist’s description. The description takes the form of **‘series of rules’**. These rules are said to **‘generate’** all and only the grammatical sentences of a language. And generation does not mean the literal production of the sentences, but the prediction of the forms that sentences, when produced, will take in the language and the recognition of non-grammatical sequences as deviant.

**Chomsky believes that when we learn a languge, we are able to formulate and understand all sorts of sentences that we never heard before**. What we **‘KNOW’**, therefore, must be something deeper – a grammar- that makes an infinite variety of sentences possible. The capacity to master grammatical structures is innate: it is genetically determined, a product of the evolutionary process, just as the organic structures of our bodies are.

**Chomsky’s theory is based on the universality of human languages**. He **proves** that **there is** a **coincidence between the human mind’s structure** and **the one of a natural language**. In other terms, we are born with **certain innate capacities** that are **similar in structure**, or system to any natural language we are exposed to, and thus **would facilitate the learning process of that language**, which is **not the case with artificial languages**. **This exposure** that **we are born with** is called **the LAD**: ***Language Acquisition Device.***

**Chomsky’s predecessors are empiricists**, i.e., **they based their theories on experiments**, like, **Boas**, **Bloomfield and others**, who **believe** that **the mind exists but has no shape**, i.e., ***the reality shapes the mind***; *while Chomsky believes in that the mind has one shape and it shapes the world, by the coincidence of them*. **He believed, as a rationalist, in the fact that mind is of highly complexed, fixed structure, which determines the form of the human mental activity**. He, then, **views** ***the child’s acquisition of a language as a filling in of a non-important detail of already existing plan.***

**Chomsky and Language**

**1.** No definite limit can be set to the length of English sentences.

**2.** The number of grammatical sentences in the language is infinite.

**3.** The vocabulary of the language is determinate, invariable and finite.

**4.** The number of distinct operations (rules) that are involved in the generation of English sentences is finite in number.

**5.** Grammar consists of a finite set of rules operating upon a finite vocabulary and is capable of generating an infinite set of sentences.

**6.** Most of the rules are applicable more than once in the generation of the same sentence (this is called ‘recursiveness’). ***Example*:** This is the man that married the girl. When we expand the sentence and we add to it the clause (that wrote the book), it is a clause of the same type as (that married the girl) that we are adding to the original sentence.

**7. Surface structure vs. Deep structure:**

* **Surface structure** is the aspect of description which determines the phonetic forms of the sentence.
* **Deep structure** determines semantic interpretation and the underlying meaning. It provides an explicit and detailed account of the meaning of the sentence. A meaning which is often not contained in any explicit way in a surface structure.

**8. Competence and performance:**

* **Competence** refers to the abstract linguistic system which is shared by all the members of the speech community. Competence is not actually spoken by anyone.
* **Performance**, by contrast, is the realization of competence in speech which is specific to the situation in which it occurs. It involves a variety of physical, psychological and social factors.

**Evaluation of TGG**

It is **limited** in the sense that **it did not take into consideration meaning in communication**. **Sociolinguists** believe that **a native speaker** of a language has **a communicative competence** which is **divided** into ***grammatical competence*** and ***pragmatic one***. **Grammatical competence** *is the system of discontextualization or the study of sentences as grammatical units out of their context*. Whereas **pragmatic competence** *is the system of contextualization or the study of language in its context*.