

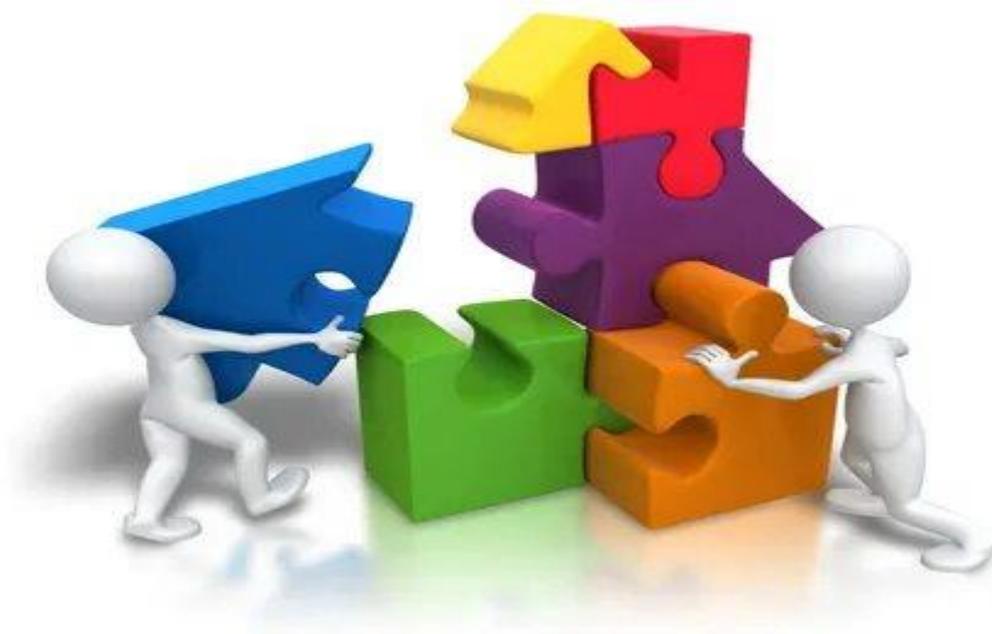
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**METHODS OF LINGUISTIC ANALYSES**



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702230101 – Linguistics (English)*

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“Methods of linguistic analyses” darsligi o‘n beshta bobdan iborat bo‘lib, har bir bob 702230101– Lingvistika (ingliz tili) mutaxassislik ta’lim yo‘nalishi o‘quv rejasi va o‘quv dasturiga mos mavzularni barchasini qamrab olgan. Har bir mavzuga oid nazariy materiallar berilgan bo‘lib, ular talabalarning olgan nazariy bilimlarini mustahkamlashga va amaliy ko‘nikmalarni ilmiy ishlarda qo‘llashga yordam beradi. Shuningdek, mavzuga oid topshiriqlar, keys savollari mavzu yuzasidan amaliy ko‘nikmalarni shakllantirish va ularni kelajakdagi tadqiqotlarda to‘g‘ri tanlashga qaratilgan.

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## CHAPTER I. THE AIM AND THE TASKS OF THE METHODS OF LINGUISTIC ANALYSIS

### Plan:

- 1.1. Linguistic analysis
- 1.2. The Structure of Language
- 1.3. The aim and tasks of the subject

**Key words:** *linguistic analysis, methods, language levels, language classifications, Linguistics, history of linguistics.*

### 1.1. Linguistic analysis.

The term *linguistic analysis* covers a lot of territory. We will use it in the narrow sense of a computer's attempt to extract meaning from text. Linguistic analysis is the theory behind what the computer is doing. Figuring out what humans are saying in written language is a difficult task. There is a huge amount of literature, and a great many software attempts to achieve this goal. The bottom line is that we are still a long way off from having computers really *understand* human language. Still, computers can do a good job at what we are after: getting concepts and sentiment from text.

There are steps in linguistic analysis that are used in nearly all attempts for computers to understand text. It's good to know some of these terms. Noam Chomsky is a key figure in linguistic theory. He conceived the idea of a "universal grammar", a way of constructing speech that is somehow understood by all humans and used in all cultures. This leads to the idea that if you can figure out the rules a computer could do it, and thereby understand human speech and text. The sentence parsing approach to linguistic analysis has its roots in this idea. Linguistic analysis refers to the scientific analysis of a language sample. It involves at least one of the five main branches of linguistics, which are phonology morphology, syntax, semantics and pragmatics. Linguistic analysis can be used to describe the unconscious rules and processes that speakers of a language use to create spoken or written language, and this can be useful to those who want to learn a language or translate from one language to another. Some argue that it can also provide insight into the minds of the speakers of a given language, although this idea is controversial.

The scientific study of language may be referred to as linguistic analysis. The discipline of linguistics is defined as the scientific study of language. People who have an education in linguistics and practice linguistic analysis are called linguists. The drive behind linguistic analysis is to understand and describe the

knowledge that underlies the ability to speak a given language, and to understand how the human mind processes and creates language.

The five main branches of linguistics are phonology, morphology, syntax, semantics, and pragmatics. An extended language analysis may cover all five of the branches, or it may focus on only one aspect of the language being analyzed. Each of the five branches focuses on a single area of language.

*Phonology* refers to the study of the sounds of a language. Every language has its own inventory of sounds and logical rules for combining those sounds to create words. The phonology of a language essentially refers to its sound system and the processes used to combine sounds in spoken language. Phonetics is the study of individual speech sounds; phonology is the study of phonemes, which are the speech sounds of an individual language. These two heavily overlapping subfields cover all the sounds that humans can make, as well as which sounds make up different languages. A phonologist could answer the question, “Why do BAT and TAB have different meanings even though they are made of the same three sounds, A, B and T?”

*Morphology* refers to the study of the internal structure of the words of a language. In any given language, a speaker can add a suffix, prefix, or infix to create a new word to many words. In some languages, these processes are more productive than others. The morphology of a language refers to the word-building rules speakers use to create new words or alter the meaning of existing words in their language. Morphology is the study of words and other meaningful units of language like suffixes and prefixes. A morphologist would be interested in the relationship between words like “dog” and “dogs” or “walk” and “walking,” and how people figure out the differences between those words.

*Syntax* is the study of sentence structure. Every language has its own rules for combining words to create sentences. Syntactic analysis attempts to define and describe the rules that speakers use to put words together to create meaningful phrases and sentences.

*Semantics* is the study of meaning in language. Linguists attempt to identify not only how speakers of a language discern the meanings of words in their language, but also how the logical rules speakers apply to determine the meaning of phrases, sentences, and entire paragraphs. The meaning of a given word can depend on the context in which it is used, and the definition of a word may vary slightly from speaker to speaker.

*Pragmatics* is the study of the social use of language. All speakers of a language use different registers, or different conversational styles, depending on the

company in which they find themselves. A linguistic analysis that focuses on pragmatics may describe the social aspects of the language sample being analyzed, such as how the status of the individuals involved in the speech act could affect the meaning of a given utterance.

## 1.2. The Structure of Language.

All languages have underlying structural rules that make meaningful communication possible. The five main components of language are phonemes, morphemes, lexemes, syntax, and context. Along with grammar, semantics, and pragmatics, these components work together to create meaningful communication among individuals.

1. A phoneme is the smallest unit of sound that may cause a change of meaning within a language but that doesn't have meaning by itself;
2. A morpheme is the smallest unit of a word that provides a specific meaning to a string of letters (which is called a phoneme). There are two main types of morpheme: free morphemes and bound morphemes;
3. A lexeme is the set of all the inflected forms of a single word;
4. Syntax is the set of rules by which a person constructs full sentences;
5. Context is how everything within language works together to convey a particular meaning.

Linguistic analysis has been used to determine historical relationships between languages and people from different regions of the world. Some governmental agencies have used linguistic analysis to confirm or deny individuals' claims of citizenship. This use of linguistic analysis remains controversial, because language use can vary greatly across geographical regions and social class, which makes it difficult to accurately define and describe the language spoken by the citizens of a particular country.

In linguistic knowledge, linguistic research methods are a set of standard tools and techniques based on assumptions about the nature of the object being analyzed. They were formed as a result of the development of science itself, as well as in the process of activity of different directions and schools.

In a broad sense, scientific linguistic methods of research are not only means and methods of studying an object, but also meta-scientific convictions and values shared by people involved in linguistics.

Within the framework of general linguistics, linguistic research methods are formed on the basis of the global analysis goals adopted by scientists of value commitments expressed in:

1. striving to get closer to the ideal of rigorous description;

2. practical value of the activity;
3. comparability of the obtained results of linguistic analysis with the results of other types of research.

With the development of the methodology, it is important to have an idea of which approaches to research can be considered scientific and which ones are not.

Along with the topic methods of linguistic research, initial positions applied without evidence. They are not questioned until there is any crisis phenomenon in the development of science or its separate direction.

In a broad sense, the methodology forms the core of the discipline, is its basic toolkit.

The key tools and techniques of language analysis should be considered methods:

2. descriptive;
3. comparative historical;
4. comparative;
5. historical;
6. structural;
7. opposition;
8. component analysis;
9. stylistic analysis;
10. quantitative;
11. transformational analysis;
12. distribution analysis.

### 1.3. The aim and tasks of the subject

Language is the ability to produce and comprehend spoken and written words; linguistics is the study of language. Language is the ability to produce and comprehend both spoken and written (and in the case of sign language, signed) words. Understanding how language works means reaching across many branches of psychology-everything from basic neurological functioning to high-level cognitive processing. Language shapes our social interactions and brings order to our lives. Complex language is one of the defining factors that makes us human. Two of the concepts that make language unique are grammar and lexicon.

Language is such a special topic that there is an entire field, linguistics, devoted to its study. Linguistics views language in an objective way, using the scientific method and rigorous research to form theories about how humans acquire, use, and sometimes abuse language. There are a few major branches of linguistics,

which it is useful to understand in order to learn about language from a psychological perspective.

Language: The term language frequently occurs in our day to day interactions. It is multidimensional and can refer to a range of phenomena. Therefore, the meaning of this term specific to the present context may emerge from its comparison with other terms such as dialect, variety, code, communication, style, etc. The following points are noteworthy:

a) Language is unique to human beings. Animals, birds and other creatures may communicate, but they do not use language like humans. Hockett in 1960 presented a host of features called the design features that separate human language from animal communication. Language is combinatorial and rule-based whereas the sounds made by animals and birds are mostly holistic expressions communicating feelings of joy or despair.

b) Language can be spoken or written or signed;

c) Language is a medium of communication. Since one of the most important roles played by language is communication, traditionally the scholars language as a medium of communication;

d) Language also serves as a medium of cognition, shaping the ideas about the world and enabling the expression thereof;

e) In some functional perspectives, the term language may refer to anything from code, dialect, variety, pidgin, creole, lingua franca, etc;

f) In formal perspectives, language is a set of all and only grammatical sentences.

Linguistics: Linguistics is an academic pursuit that models the structure of the human language, explores how language develops in human beings and examines the intricacies involved in processing different kinds of usages. A linguist is a professional who studies languages scientifically. Linguistics has attracted the scholars and language enthusiasts across times and cultures. Needless to say, it is highly inter-disciplinary, and it has several sub focusing on different aspects of speech and interaction.

Get an overview, place your own methods in context, find other relevant methods, be able to critically read studies that use different methods and take part in discussions/reviews of research. Basic overview course as basis for choosing specified methods courses and for being able to find more information on each method.

The purpose of the discipline of Linguistic Research Methods is to provide master's students with knowledge of methods in linguistics.

The task of this discipline is to be acquainted with modern linguistic methods and to make hypotheses about the origin of language, language levels and linguistics, world languages and their classification, history of linguistics and linguists, linguistic methods, modern directions of linguistics

Linguistic analysis is a complex and rapidly developing science. Several approaches to linguistic analysis have been developed, each with its own strengths and weaknesses. To obtain the best results you should choose the approach that gives superior performance for the type of analysis you need. For example, you may choose a machine learning approach to identify topics, a rules based approach for sentiment analysis, and a sentence parsing approach to identify parts of speech and their interrelationships.

**QUESTIONS:**

1. What is Linguistic analysis?
2. What language levels do you know?
3. Why do we call basic and non basic levels? Give examples
4. How the languages are classified?
5. The main diachronic and synchronic methods?
6. What is the aim and task of the study?

## CHAPTER II. OBJECT OF THE SUBJECT LINGUISTIC METHODS AND THEIR BASIC CONCEPTS, THE ROLE IN LINGUISTICS

### Plan:

- 2.1. Linguistic methods
- 2.2. The basic concepts of linguistic analysis
- 2.3. Synchronic and diachronic approach to linguistics

**Keywords:** *Language, method, methodic, induction, deduction, observation, diachronic, synchronic, the experiment, statistical method, etc.*

### 2.1. Linguistic methods

One of the constant problems in the field of linguistics is the improvement of the methods of linguistic research. Despite the fact that most textbooks on linguistics address this problem, the methodology of linguistic research has become an object of special attention relatively recently: only since the 1990s did the first textbooks on the methods of linguistic research begin to appear. As many researchers testify, one of the problems of linguistics is that linguistic methods do not represent a single set of principles and methods of research and description of linguistic entities. Rather, it is methodology is the disorder of the basic concepts used. The encyclopedias note a menu” of complementary and / or mutually exclusive methods, used in different combinations and in different proportions in private linguistics and in specific linguistic studies. Moreover, this set is not permanent. It is constantly being enriched, and the attitude towards certain methods is also changing: in different historical periods and in different scientific schools, the same method may be dominant in linguistic practice or, on the contrary, scientifically discredited. According to A.T. Khrolenko, “the presence of a significant number of research methods requires, firstly, clarification of the very concept of “method of linguistics”, and, secondly, raises the question of their classification. Both of these questions are closely related to each other and have not yet been resolved by modern linguistics. It was noted that the term method is ambiguous: it denotes an aspect of the study, methodology, techniques, methods of description, etc. Naturally, with such an undifferentiated approach to the definition of methods, it is difficult to create any scientific classification of linguistic methods. That is why even the best works on the methodology of linguistics are limited to the description of more or less indisputable methods and place them in one row without indicating a classification hierarchy. It seems that any attempt to clarify the term method and present a consistent classification is useful for linguistics, since in the empirical sciences, which includes the science of language, classification is a way to gain

new knowledge about the relationship of the studied phenomena and objects. The effectiveness of research is largely determined by the degree of development of research methods. Questions about how to study the linguistic material, where to start research, what stages of analysis need to go through, how much material is needed, what aspects, properties and characteristics of the object need to be analyzed and others arise for each scientist already at the first approach to the object.

Therefore, the methodology of linguistic research is a traditional branch of linguistics and is represented in almost all textbooks known to us on introduction to linguistics and general linguistics. It can be especially difficult for novice researchers to understand the methodology of science due to the abundance of terms, the variety of their interpretations, modifications and classification principles. As a result, the methodology and methods are defined in the works least competently. Linguistic methods of linguistic research are a set of standard tools and methods based on assumptions about the nature of the analyzed object. They were formed as a result of the development of science itself, as well as in the process of the activities of different directions and schools.

Methodology is "'a contextual framework' for research, a coherent and logical scheme based on views, beliefs, and values, that guides the choices researchers [or other users] make". It comprises the theoretical analysis of the body of methods and principles associated with a branch of knowledge such that the methodologies employed from differing disciplines vary depending on their historical development.

Method - a system of research techniques and procedures that promote targeted study of something from a certain point of view. It is impossible to study all objects of reality with the help of one method. Therefore, the question is how many methods exist and how to classify them.

Methodic - The study of method or methods, methodology; especially the methodology of language teaching.

In a broad sense scientific and linguistic research methods - this is not only the means and techniques of studying the object, but also meta scientific beliefs, values shared by people engaged in linguistics.

## 2.2. The basic concepts of linguistic analysis.

Each of the methods has its own main research task, its own area of the object studied by science, its own range of basic requirements imposed on the researcher by the method. The method requires the researcher to subordinate the entire complex process of collecting classification and explaining facts to the main

scientific task. Each special research method is embodied in the practice of scientific work in a certain system of logical actions and in a certain system of repetitive, more or less standardized methods of collecting, processing and generalizing facts. Such a system of techniques is also often called a method, but it is more convenient to call it a technique. The research method determines the way of cognition and interpretation of facts, and the methodology groups the facts themselves, classifies, shows them from the right side, puts them in different positions. V.I. Kodukhov distinguishes and describes in detail the following "basic methods of linguistic analysis": descriptive, comparative historical, comparative, stylistic, dialectographic, experimental phonetic and mathematica. Later, he names two methods of linguistic research as the main ones - descriptive and comparative; within the framework of the comparative method, he distinguishes, in turn, comparative-historical, historical-comparative (traditionally called historical) and comparative. V.N. Yu.S. Stepanov considers the following methods as "the main special methods of linguistics": algebraic (or set-theoretic), functional, opposing, distributive, representative and some others. I.P. Raspopov, describing the methods of synchronous analysis of the language, distinguishes among them the following: the method of distributive analysis, the method of differential analysis and the transformational method. I.V. Arnold emphasizes (along with others) and examines in detail such "methods and procedures of linguistic analysis": hypothetical-deductive method, opposition method, distributive analysis, distributive-statistical analysis, component analysis. As an independent research method, he singles out "the method of automatic text analysis using computers". As can be seen from all that has been said above, in modern linguistics there is no sufficiently clear understanding of the concept of the method of scientific research, there is no complete clarity in the issue of distinguishing between research methods and other related phenomena. The main linguistic methods of assimilation (analysis) of facts are: descriptive, comparative and normative-stylistic. Descriptive is a method of synchronous analysis of one language. The material is considered outside of its assessment from the point of view of the norm. Normative-stylistic - the establishment of existing norms on the basis of a descriptive method and the development of recommendations of a normative-stylistic nature based on certain criteria. The comparative historical method is the first scientific method in linguistics (formed in the first half of the 19th century). Its purpose is to explain the origin of genetically related languages from a common source. Reconstruction of certain proto-forms is a deductive study based on certain scientific premises. Private

methods of a descriptive approach to language: Techniques (private methods) for the descriptive study of phenomena: distributive analysis, differential analysis, transformational method, etc. The use of different methods of describing one material allows you to deeper knowledge of linguistic reality.

Common Methods with other Sciences are: *induction, deduction, observation, the experiment, statistical method, diachronic, synchronic, etc.*

*Induction* supposes the study of the accessible phenomena of observation by formulating a rule, a law. A relatively reduced number of phenomena is investigated taking into account “all the imaginable possibilities in the framework of certain limits”.

*Deduction* takes as the starting point or laws after which the explaining of particular phenomena takes place.

*Observation* implies the selection and the primary interpretation of the language phenomena. The experiment represents the investigation of a phenomenon “provoked under known conditions” that can be modified according to the necessary objectives.

### 1.3.Synchronic and diachronic approach to language.

In linguistics, the terms ‘synchrony’ and ‘diachrony’ refer to two different approaches in linguistic research, with respect to the periods of time considered in the research in question. The synchronic approach means studying any aspect of language solely in one particular period of time (typically the present), without taking into account other periods of time in that language’s history. For example, studying the usage patterns of double negatives in English (e.g. I ain’t got no money) in the early 21st century, without looking into the usage patterns of double negatives in English prior to the 21st century. Most fields in linguistics typically employ synchronic approaches as not lose focus in their research.

The diachronic approach means studying any aspect of language by comparing it between two (or more) periods, effectively focusing on the change and evolution of whatever it is you are looking at. As an example, studying the usage patterns of double negatives in English in the 18th century and comparing it to the patterns in the 19th, 20th, and early 21<sup>st</sup> centuries to see how double negatives in English may or may not have changed. By definition, historical linguistics typically employs diachronic approaches. Saussure distinguishes between synchronic (static) linguistics and diachronic (evolutionary) linguistics. Synchronic linguistics is the study of language at a particular point in time. Diachronic linguistics is the study of the history or evolution of language. According to Saussure, diachronic change originates in the social activity of speech. Changes

occur in individual patterns of speaking before becoming more widely accepted as a part of language. Speaking is an activity, which involves oral and auditory communication between individuals. Language is the set of rules by which individuals are able to understand each other. Saussure says that nothing enters written language without having been tested in spoken language. Language is changed by the rearranging and reinterpreting of its units. A unit is a segment of the spoken chain that corresponds to a particular concept. Saussure explains that the units of language can have a synchronic or diachronic arrangement. Saussure's investigation of structural linguistics gives us a clear and concise presentation of the view that language can be described in terms of structural units. He explains that this structural aspect means that language also represents a system of values. Linguistic value can be viewed as a quality of the signified, the signifier, or the complete sign.

**QUESTIONS:**

1. What is the language?
2. Give the definition to the word "Linguistics"
3. What kind of linguistics do you know?
4. Common methods with other sciences
5. Give example to the methods deduction, induction, observation, diachronic, synchronic methods
6. What is the synchronic and diachronic approach to linguistics?

## CHAPTER III. COMPARATIVE HISTORICAL LINGUISTICS AND COMPARATIVE HISTORICAL METHOD

### Plan:

- 3.1. Comparative-historical study of languages
- 3.2. The history of language, the discovery of Sanskrit language
- 3.3. Fundamental conceptions and consequences in Comparative-Historical method
- 3.4. Comparative-historical and historical methods

**Key words:** *comparative-historical, research, language, vocabulary, grammar, phonetics, comparative linguistics, comparative-historical method, historical method*

### 3.1. Comparative-historical study of languages.

There are many languages on Earth, both great and small. According to modern calculation the number of living languages exceed 2500 (two thousand and five hundred) languages. Alongside of highly developed national languages with ancient writing and literature, there are languages having no writing and no recorded history. Here belong the spoken languages of tribes and small nationalities in America, Africa, and Australia. Many of the spoken languages are dying out together with peoples. Due to the miserable condition, they have been reduced to by the higher European civilization, as is the case with the aboriginal Indian tribes in America or Australia. On the other hand, the number of known languages is still growing as new languages and dialects come to be recorded and studied by science. Observing the fact that some of the languages are very similar to one another in their forms while others are quite dissimilar, scholars still long ago expressed the idea that languages revealing formal features of similarity have a common origin. Attempts to establish the groups of hundred languages were repeatedly made from the XVI<sup>th</sup> century on. But a consistently scientific proof and study of the actual kinship (relationship) between languages became possible only when the comparative historical method of language study was created in the first quarter of the XIX<sup>th</sup> century. The historical-comparative method developed in connection with the comparative observation of languages belonging to the Indo-European family and its appearance was stimulated by the discovery of Sanskrit.

Comparative-historical study of languages in general, uses a variety of special techniques. It seems appropriate in this general complex system of scientific methods of comparative-historical research, not forgetting about its integrity, provide separate special tricks for closer consideration. According to modern

calculations, the number of living languages exceeds 2,500. The human mind has been speculating on the origin and relationship of languages for hundreds of years. Many scholars pointed out some common (mainly lexical) features of different languages. This idea also germinated in the minds of the first Europeans who visited India. In the sixteenth century, an Italian missionary Filippo Sassetti noted the similarity between the Italian numerals from six to nine - sei, sette, otto, nove, and their Sanskrit counterparts- sas, sapta, astau, nava. In the history of language, the discovery of Sanskrit is often compared to the discovery of America in the history of humankind. It altered the whole field of linguistic research. The languages of the Angles and the Saxons did not come out of thin air; they evolved from Proto-Germanic, the language of a tribe that occupied much of northern Europe in the first millennium B.C. The western branch of the tribe split into groups that gave us not only Anglo-Saxon, but also German and its offshoot Yiddish, and Dutch and its offshoot Afrikaans. The northern branch settled Scandinavia and came to speak Swedish, Danish, Norwegian, and Icelandic. The similarities in vocabulary among these languages are visible in an instant, and there are many similarities in grammar as well, such as forms of the past-tense ending -ed [Pinker, 1995: 251]. The ancestors of the Germanic tribes left no clear mark in written history or the archeological record. That mark was discerned in 1786 by Sir William Jones, a British judge stationed in India, in one of the most extraordinary discoveries in all scholarship. W. Jones had taken up the study of Sanskrit, a long-dead language, and pointed out in the form of a rigorously grouped scientific hypothesis that Sanskrit, Greek, Latin, Germanic and some other languages of India and Europe had sprung from the same source which no longer existed. W. Jones announced clearly the relationship between three of the great languages of antiquity - Sanskrit, Greek and Latin - and at the same time anticipated the reconstruction of the parent Indo-European language itself. Such similarities in vocabulary and grammar are seen in an immense number of modern languages. Among others, they embrace Germanic, Greek, Romance, Slavic, Celtic, and Indo-Arian languages. Subsequent scholars were able to add Anatolian (extinct languages spoken in Turkey), Armenian, Baltic (Lithuanian and Latvian), and Tocharian (two extinct languages spoken in China). The similarities are so pervasive that linguists have reconstructed a grammar and a large dictionary for a hypothetical common ancestor language, Proto-Indo-European, and a set of systematic rules by which the daughter languages changed [Pinker, 1995: 252]. Some ancient tribe must have taken over most of Europe, Turkey, Iran, Afghanistan, Pakistan, northern India, western Russia, and parts of China. The

idea has excited the imagination of a century of linguists and archeologists, though even today no one really knows who the Indo-Europeans were. Ingenious scholars have made guesses from the reconstructed vocabulary. Words for metals, wheeled vehicles, farm implements, and domesticated animals and plants suggest that the Indo-Europeans were a late Neolithic people. The ecological distributions of the natural objects for which there are Proto-Indo-European words: *elm and willow, for example, but not olive or palm* - have been used to place the speakers somewhere in the territory from inland northern Europe to southern Russia. Combined with words for *patriarch, fort, horse, and weapons, the 11 reconstructions led to an image of a powerful conquering tribe spilling out of an ancestral homeland on horseback to overrun most of Europe and Asia, the word "Aryan" became associated with the Indo-Europeans, and the Nazis claimed them as ancestors. More sanely, archeologists have linked them to artifacts of the Kurgan culture in the southern Russian steppes (modern Ukraine) from around 3500 B.C. A band of tribes that first harnessed the horse for military purposes [Pinker, 1995: 253], Archeologist Colin Renfrew [1987] argues that the Indo-Europeans lived in Anatolia (part of modern Turkey) on the flanks of the Fertile Crescent region around 7000 B.C., where they were among the world's first farmers, Archeologists agree that farming spread in a wave that began in Turkey around 8500 B.C. and reached Ireland and Scandinavia by 2500 B.C. Geneticists recently discovered that a certain set of genes is most concentrated among modern people in Turkey and becomes progressively diluted as one moves through the Balkans to northern Europe [Pinker, 1995: 253].*

### 3.2. The history of language, the discovery of Sanskrit language.

Linguistics as a science was created in the 19th century, especially comparative linguistics. The first of the great pioneers in comparative linguistics in Western Europe was the Danish Rasmus Kristian Rask (1787— 1832), his major work *Investigation on the Origin of Old Norse or Icelandic* (1818) may be called a comparative Indo-European Grammar. In this book, Rask clearly demonstrated the significance of laws of sounds as a proof of linguistic kinship, although he added that they were especially convincing when supported by grammatical similarities. Thus in Rask we find the whole kernel from which modern linguistic comparative methods have been developed. Even without the use of Sanskrit, Rask hit upon the two sound shifts in the history of the Germanic languages. It should be added that he did not see the complete regularity of the development of sounds. For example, he did not look for the reasons for the exceptions to his main rules. Important contribution to the development of comparative linguistics was

made by the German scholar Franz Bopp (1791 -1867) who wrote a book *Über das Konjugations system der Sanskrit Sprache* ("On the Conjugation System of Sanskrit ) (1816) comparing this subject with the conjugation of verbs in Greek, Persian, and German languages, and virtually creating the science of comparative linguistics. Sanskrit, supposed to be a more primitive language than Greek or Latin, became from then on the mainspring of linguistic research. The merit of his book lies in the study of inflections; his main contribution was systematic, comparison of inflectional endings of all the Indo-European languages. F. Bopp's essay is regarded as the beginning of comparative grammar. By comparing forms in languages, linguists reveal the system of phonetic correspondences characterizing one language or group of languages within the family in reference to another language or group of languages. It was the German philologist Jacob Grimm (1785-1863) who established the principle of the sound shift in the phonetic history of the Germanic group of languages, ("German Grammar") (1819). In his opinion, there were two sound-shifts. The first occurred before the 4th century; the second was completed by the 8<sup>th</sup> century. The first relates to the Low German group: the second to the High German. In 1877 the Danish linguist Karl Verner (1846-1896) added to Grimm's Law a supplementary law that has become known by his name. He explained certain irregularities in the Grimm series with reference to the position of accent in the Indo-European word. For example, in Sanskrit the accents in the words for "father", "mother" and "brother" fell as follows: *pitar*, *matar*, *bhratar*. In the first two words the accent comes after the *t*; in *bhratar* it comes before. The development of *bhratar* was therefore regular: according to Grimm's Law "t" shifted to "th" in Anglo-Saxon *brothor*, English *brother*. In cases where the accent occurred after the "t", however, a further shifting took place; the "t" became "d" instead of "th", giving the Anglo-Saxon "feeder" and "modor". Verner's Law explained other peculiarities of Anglo-Saxon phonetics and grammar. The phonetic correspondences revealed by R.K. Rask, J. Grimm and K. Verner became the foundation of the comparative phonetics of Indo-European languages.

The relations between the languages of the Indo-European family were studied systematically and scientifically at the beginning of the XIXth century by Franz Bopp, Rasmus Kristian Rask, Jacob Grimm, Alexander Vostokov and others. These scientists not only made comparative and historical observations of the hundred languages, but they defined the fundamental conception of linguistic kinship and created the historical-comparative method in Linguistics. The appearance of this method marks the rise of Linguistics as a science in the strict

sense of the word. After that, the historical-comparative study of the Indo European languages became the principal line of European Linguistics for many years to come. *The historical-comparative method* is a system of analytical procedures applied to the study of languages in their historical development. It is used to analyze and discover the relationship of different languages and groups of languages, to reconstruct prehistoric elements in the sense that they are not fixed in written monuments, to reveal the course of historical development of lingual elements in their complex interrelationship. By means of this method science collects materials for studying general laws of language development.

3.3. Fundamental conceptions and consequences in Comparative-Historical method. The following general conceptions of different aspects of language and its development underline the foundations of the *historical-comparative method*:

- 1) Families of languages originate due to historical division of languages;
- 2) Lingual signs or signals are arbitrary in the sense, that there is no natural connection between their forms and the things or ideas they signify;
- 3) The historical development of language is continual but uneven.

Now let us consider these fundamental conceptions and their consequences separately.

1) The comparative - historical method proceeds from the possibility for different languages to have been originated from the same source. The division of one language into two or more languages is brought about by the division of language speaking community due to political and economic factors. Since language is always changing historically, the isolation of daughter communities can lead to the growing differences in their language, to the rise of dialects, which in the process of further change can developed into totally different though related languages.

2) The actual kinship or non-kinship of different languages is revealed on the basis of systematic comparison of their forms. The comparison of native words of Indo-European languages can evidence their kinship: *брат; brother; bruder; мать; mother; mutter.*

3) Language develops unevenly. It concerns all the structural elements of language. It is connected with the fact that different structural elements of language specifically react to and reflect the history of the people. It follows from this that elements no longer existing in one language may be preserved in another kindred language. Thus, comparing different languages and their forms linguists can reconstruct and more exactly formulate the historical changes in languages.

For instance, comparing the forms of the word “*father*” in different Indo-European languages scientists reconstruct the word “*pater*”.

At same time it must be noted that the *comparative - historical method* has certain limitations:

- 1) It is limited by the material it can use;
- 2) It is difficult and sometimes impossible to define the time and even the relative chronology of lingual changes;
- 3) The comparative- historical method can be chiefly applied to languages with ancient writing, i.e. to languages having a long written tradition or history;
- 4) It is applied only to the comparative study of kindred languages.

The Comparative-Historical Method was founded on the basis of the diachronic comparison. It reflects the material similarity of generically related languages. It aims at the evidentiating of the common tendencies in the development of the languages of the same origin. The founders of the method are considered Fr. Bopp, R.Rask, J.Grimm, Fr. Diez, A.Vostokov, A.Schleicher, A.Meillet, etc.

The method is based on the following principles:

Arbitrariness of the linguistic sign, i.e. the report between the sound/sign and the meaning is conventional, arbitrary. As a result, one and the same signifier correlates with different significant: Rom *copil*; French *enfant*; Italian *bambino*; German *Kind*, Russian *дитя*, etc.

The generic related languages originate from an old common language, relatively unique. A. Schleicher considered that all the Indo-European languages originated from an old language, which was divided into basic languages, ramifications of related languages and their dialects. The neogrammarians K. Brugman and B. Delbruck considered that old language could be a variety of related dialects. A.Meillet considered this language a total correspondence from different levels: phonetic, lexical, morphological and syntactic. The comparative-historical method supposed regular phonetic correspondences, for ex. [pt] from Romanian which originated from Latin [ct] corresponds to [tt] from Italian, [ts] – Spanish], [it] – French in L. factum; Rom. Fapt; It. Fatto; Sp. Hecho; Fr. Fait. The comparative-historical method may be applied due to the division of the basic language or of the old language into cognate languages. Thus, the Indo-European language generated due to linguistic divergences the Romance languages, Germanic, Celtic, Slavonic, Indian, Iranian, Baltic etc.

The origin language may be reconstructed, especially the phonetic, syntactical and morphological ones. In the comparativistic studies from the end of the XX<sup>th</sup> century the analysis of the archaisms and the innovations were taking into

consideration the internal reconstruction of the units. The comparative-historical method uses the following procedures:

1. the selection of the linguistic material, the archaic forms being studied omitting the borrowed elements;
2. the established comparative units and their identification;
3. the diachronic comparison based on comparing of the facts from the related languages. In the XX<sup>th</sup> century the comparativistics and the Indo-Europeanistics attest remarkable results.

The comparative-historical method also has some deficiencies:

1. It operates with phenomena from the related languages with a different chronological period;
2. As the syntax is subject to some foreign influences to a greater extent in comparison with the morphology of the languages, the application of this method in syntax presents some difficulties;
3. This method can't be used with the isolating languages (Chinese, Tibetan, etc.).

The comparative method may be contrasted with the method of internal reconstruction in which the internal development of a single language is inferred by the analysis of features within that language. Ordinarily, both methods are used together to reconstruct prehistoric phases of languages; to fill in gaps in the historical record of a language; to discover the development of phonological, morphological and other linguistic systems and to confirm or to refute hypothesized relationships between languages. So the comparative-historical method was developed over the 19th century. The Danish scholars Rasmus Rask and Karl Verner and the German scholar Jacob Grimm also made key contributions. The first linguist to offer reconstructed forms from a proto-language was August Schleicher, in his "Compendium der vergleichenden Grammatik der indogermanischen Sprachen", originally published in 1861.

The aim of the comparative method is to highlight and interpret systematic phonological and semantic correspondences between two or more attested languages. If those correspondences cannot be rationally explained as the result of language contact (borrowings, areal influence, etc.), and if they sufficiently numerous and systematic that they cannot be dismissed as the result of random chance, then it must be assumed that they descend from a single proto-language. A sequence of regular sound changes (along with their underlying sound laws) can then be postulated to explain the correspondences between the attested forms, which eventually allows for the reconstruction of a proto-language by the

methodical comparison of “linguistic facts” within a generalized system of correspondences. Descent is defined as transmission across the generations: children learn a language from the parents' generation and, after being influenced by their peers, transmit it to the next generation, and so on. For example, a continuous chain of speakers across the centuries links Vulgar Latin to all of its modern descendants. Two languages are genetically related if they descended from the same ancestor language. For example, Italian and French both come from Latin and therefore belong to the same family, the Romance languages. Having a large component of vocabulary from a certain origin is not sufficient to establish relatedness. However, it is possible for languages to have different degrees of relatedness. English, for example, is related to both German and Russian but is more closely related to the former than to the latter. Although all three languages share a common ancestor, Proto-Indo-European, English and German also share a more recent common ancestor, Proto-Germanic, but Russian does not. Therefore, English and German are considered to belong to a different subgroup, the Germanic languages. Shared retentions from the parent language are not sufficient evidence of a sub-group. For example, German and Russian both retain from Proto-Indo-European a contrast between the dative case and the accusative case, which English has lost. However, that similarity between German and Russian is not evidence that German is more closely related to Russian than to English but means only that the innovation in question, the loss of the accusative/dative distinction, happened more recently in English than the divergence of English from German. The division of related languages into sub-groups is accomplished more certainly by finding shared linguistic innovations that differentiate them from the parent language, rather than shared features that are retained from the parent language.

In modern linguistics, the methods of genetic research can be easily misidentified with the comparative-historical method. However, contemporary genetic research widely includes the comparative-historical as well as other methods, such as quantitative, statics, the method of linguistic geography. The crucial thing is also the fact that the comparative-historical method is the most important instrument for the cognition of language history, that possesses, firstly, certain features and secondly, some constraints of implementation.

### 3.4. Comparative-historical and historical methods.

The comparative-historical method should be interpreted as a complex unit that contains three diverse components: ontological, operational and theological. The main purpose of the comparative-historical method (a theological component) is

to reconstruct the antecedent models of allied languages families and groups, their further development and division into separate languages and creation of the comparative-historical description of allied languages (grammars and dictionaries).

The specific principles (the principle of historicism, the principle of causality, consistency principle and the principle of universal connection of phenomena) and the approaches (historical, causal and systematic) constitute the ontological component of comparative-historical method. The operational component of the comparative-historical method is represented by such methods and procedures as:

- 1) Genetic equation of facts;
- 2) Linguistic reconstruction of the archetype and phonetic linguistic law;
- 3) Chronology and localization of linguistic phenomena.

Undoubtedly, the comparison is the dominant universal technique of the comparative-historical method. Uneven changes occurred in different levels of one linguistic structure. Some representatives of the language family, archaisms and innovations available are a diachronic linguistics axiom. That is why there is a constant possibility of extrapolating the past linguistic databases based on comparison of different facts and their combination either within one separate group, or through the whole linguistic group perspective. A procedure of linguistic reconstruction plays a rather significant role in the practice of modern genetic studies. For sure, the reconstruction is the most essential part of the comparative-historical method. Three kinds of linguistic reconstruction are distinguished in scientific literature: external, internal and the philological method. Definitely, the primary goal of genetic research is to outline the historical process development of allied languages or the separate language. Nowadays only, the issue of the scope of innovations in certain languages entering the jurisdiction of comparative-historical method is argued.

It is known that some scientists oppose two lingvogenetic methods – historical and comparative-historical. O.T.Hrolenko suggests that linguistics has a gradual transit from allied languages to separate language comparison. Thus, the historical method has developed within the other lingvogenetic method – comparative-historical. Both methods are based on the principle of historicism and use common set of techniques and procedures. That, according to O.T.Hrolenko, contributed to the fact that they are usually not delineated. However, the scientific literature contains a number of statements claiming that the study of the historical past of a particular language has specific features: the historicity point increases, relative chronology combines with precise historical

boundaries, comparison is limited to one language. In addition, phonetic and morphological word structure seems diverse for different periods of language development. It is therefore appropriate to extract the historical method.

Thus, the historical method is limited to one language and captures the attention to separate language tiers – phonetics, morphology, syntax, vocabulary. Practical achievements of this method are embodied and fixed in historical grammars of languages. The techniques of historical method led to comparative methods for phenomena considered throughout various stages of language development and are interpreted in a proper manner. The historical method is the most effective sphere of the internal reconstruction implementation. Modern comparative studies pay thorough attention to both the theory and the practice of reconstruction; gradual transition from external reconstruction to internal one is the main subject of its interest. Internal reconstruction opposes an external one in a fundamental difference of the empirical base. In linguistics, we regard the comparative-historical method as a technique for studying the development of languages by performing a feature-by-feature comparison of two or more languages with common descent from a shared ancestor and then extrapolating backwards to infer the properties of that ancestor. It dominated during the 19th century in Europe and started with the works of Jacob Grimm, Franz Bopp, Rasmus Rask, Alexander Vostokov, V.M. Jirmunskiy, etc. Its origin was stipulated by the discovery of Sanskrit, the ancient classical language of India. The discovery of Sanskrit disclosed the possibility of a comparative study of languages.

### **QUESTIONS:**

1. Comparative-historical study of languages. Who were the great pioneers in comparative linguistics?
2. What can you tell about the history of language, the discovery of Sanskrit language?
3. What is W. Jones' discovery about language?
4. What is the contribution of Ramus Rask, Franz Bopp' investigations in the foundation of comparative historical linguistics?
5. What is the contribution of Jacob Grimm, K. Verner' discovery in the foundation of comparative historical linguistics

## CHAPTER IV. THE USAGE OF TRADITIONAL METHODS IN LINGUISTIC SCHOOLS

### Plan:

- 4.1. The Prague Linguistic School
- 4.2. The Copenhagen school
- 4.3. The American and London linguistic school

**Key words:** *Methods of linguistic analysis, syntax, semantics, methods for phonology, language units, sound systems, structural approach, descriptive plane*

4.1. The Prague Linguistic School. *The Prague Linguistic School* represented an important moment in the history of linguistics in that it provided linguistics with new theories such as the theory of linguistic functions. It brought novelty in interpreting language but it also had shortcomings, for it did not offer a complete and overall theory, which could serve as foundation for further research. The Prague Linguistic School started activity in 1928, when, at the first International Congress of Linguistics, organized in The Hague, the Prague participants presented their program drafted by Roman Jakobson in cooperation with Nicholay Trubetzkoy and Serghey Karcévsky. The fruit of their research, “Travaux du Cercle Linguistique de Prague” was launched and made known a year later at The First International Congress of Slavists held in Prague. The first volume of “Travaux du Cercle Linguistique de Prague”, volume entitled “Thèses du Cercle Linguistique de Prague” sets out the principles of a new linguistics, structural linguistics. The Prague Linguistic School was brilliantly represented by such linguists as Vilém Mathesius, Roman Jakobson, Nicholay Serghey Trubetzkoy, Jan Mukarovsky. Their preoccupations covered various areas of the sciences of language. Trubetzkoy dealt with phonetics and phonology, Vilém Mathesius dealt with syntax, Roman Jakobson was interested in poetics and Jan Mukarovky tackled poetic language. We shall briefly mention just a few of their achievements in the field of linguistics. In 1939 Vilém Mathesius published an important paper entitled “On the So-Called Functional Sentence Perspective”. By theme, Mathesius understood what is known or obvious in the given situation and the point from which the speaker starts in his discourse. Travnicek resumed the idea of the paper, referring to Mathesius` conception of functional sentence perspective without covering all the aspects of Mathesius` theory. The basic issue with which they did not agree was the definition of theme. Travnicek does not agree with way in which Mathesius conceives theme, he defines theme as the sentence element that links up directly with the object of thought, proceeds from it and opens the sentence thereby. N.S. Trubetzkoy is another leading representative of the Prague

School in that he founded phonological studies. His fundamental conception of the role of sound patterns in language is that they serve to differentiate meaningful units from each other without themselves necessarily being carriers of meaning. In the field of linguistics, the Prague scholars were greatly influenced by Ferdinand de Saussure and by his incipient structuralism. Most linguists agree with the fact that structuralism appeared in 1916, when Ferdinand de Saussure's "Course in General Linguistics" was published. Prague school, school of linguistic thought and analysis established in Prague in the 1920 years by Vilem Mathesius. It included among its most prominent members the Russian linguist Nikolay Trubetskoy and Russian-born American linguist Roman Jakobson. The school was most active during the 1920 years and 1930 years. Linguists of the Prague school stress the function of elements within language, the contrast of language elements to one another, and the total pattern or system formed by these contrasts, and they have distinguished themselves in the study of sound systems. They developed distinctive features analysis of sounds, by this analysis, each distinctive sound in a language is seen as composed of a number of contrasting articulatory and acoustic features and any two sounds of a language that are perceived as being distinct will have at least one feature contrast in their compositions. The concept of distinctive feature analysis in studying the sound systems of languages has been incorporated within the standard model of transformational grammar.

## 1.2. The Copenhagen school.

*The Copenhagen school*, officially the Linguistic school of Copenhagen is a group of scholars dedicated to the study of linguistics. It was founded by Louis Elmslev and Viggo Brøndal. In the mid twentieth century the Copenhagen school was one of the most important centers of linguistic structuralism together with Geneva school and the Prague School. In the late 20<sup>th</sup> and early 21<sup>st</sup> century the Copenhagen school has turned from a purely structural approach to linguistics to a functionalist one, Danish functional grammar, which nonetheless incorporates many insights from the founders. Brøndal emphasized that formal properties of a system should be kept apart from its substance. Accordingly, Elmslev presented, as the key figure of Copenhagen School in the 1930s, a formal linguistic fundament, which was later known as glossematics (the double duality of the linguistic sign). He formulated his linguistic theory together with Hans Jørgen Uldall as an attempt to analyze the expression (phonetics and grammar) and the meaning of a language on a coherent basis. He assumed that language wasn't the only instrument of communication (cf. the communication of deaf), and he was

interested in a general theory of the signs of communication, semiotics or semiology.

More than the other schools, the Glossematic School referred to the teachings of Saussure, even though it was in many aspects connected with older traditions. Thus, it tried once more to combine logics and grammar. At any rate, Elmslev has taken over the psychological interpretation of the linguistic sign and thereby extended his study of the sign further than language as such. The principal ideas of the school are:

- A language consists of content and expression.
- A language consists of a succession and a system.
- Content and expression are interconnected by commutation.
- There are certain relations in the succession and the system.
- There are no one-to-one correspondents between content and expression, but the signs may be divided into smaller components.

Even more than Saussure, the Copenhagen School is interested in the langue rather than parole. It represented in a pure form the idea that language is a form and not a substance. It studied the relational system within the language on a higher level of abstraction. The Danish school of functional linguistics was developed in an attempt to combine modern functional grammar and cognitive linguistics with the best ideas and concepts of the earlier structuralist school. Like Elmslev and Saussure, the school insist in the basic structural division of communication in planes of content and expression. Like functionalist grammarians, Danish functionalists also insist that language is fundamentally a means of communication between humans and is best understood and analyzed through its communicative function. When analyzing linguistic utterances, the content and expression planes are analyzed separately, with the expression plane being analyzed through traditional structural methods and the content plane being analyzed mostly through methods from semantics and pragmatics. However, it is assumed that structures on the expression plane mirror structures on the content plane. This can be seen in the parallelism between the structure of Danish sentences as described by the structural syntactic model of Paul Diderichsen dividing utterances into three basic fields: a foundation field, a nexus field and a content field. The pragmatic structure of utterances that often uses the foundation field for discourse pragmatic functions, the nexus field for illocutionary functions and the content field for the linguistic message. Danish functionalists assume that an utterance is not to be analyzed from the minimal units and up, but rather from the maximal units and down, because speakers begin the construction of

utterances by choosing what to say in a given situation, then by choosing the words to use and finally by building the sentence by means of sounds. An example of a two-planed analysis is given below in the analysis of the utterance "The book hasn't been read by anyone for a while". The Expression plane consists of "the book" which is a noun phrase with a determiner, a finite verb with a negational adverb "hasn't", and a passive verbal phrase "been read" with an agent "by anyone" and a time adverb "for a while".

On the content plane "the book" has the function of topic of the utterance, that which the sentence is about and which links it to the larger discourse, the function of "hasn't" is to state the illocutionary force of the declarative utterance. And the predicate is the message "hasn't been read by anyone for a while" which is intended to be communicated

#### 4.3. The American and London linguistic school.

*American structural linguistics.* Structural linguistics in Europe was partly concerned with meaning and interpretation but in N. America Franz Boas and Leonard Bloomfield took a more descriptive/ positivist stance. They also reversed de Saussure's emphasis on the creative aspect of everyday language. American linguistics began as an offshoot of anthropology and was motivated by the urgency of studying and preserving the American Indian languages which were fast dying out. Boas's student Edward Sapir came closer to European interpretivism. Leonard Bloomfield 1887-1949 Early work *Introduction to the Study of Language*, 1914 was influenced by Wundt's mentalism. In his later *Language*, 1935 he adopted a strict and explicit behaviouristic stance. In psychology Behaviorism (1920s-1950s) rejected the focus on mental processes and stressed measurement based on objective behaviour. B. F. Skinner (1904-1990) *Children learn language through shaping* (correction of speech errors). The associative chain theory: each word in a sentence serves as a stimulus for the next word, and the entire sentence is produced left to right. Approaches to studying a language:

- Discover the basic sound elements (phonemes) of the language.
- Discover the rules by which these phonemes are combined to form sentences.

Post-Bloomfieldians aimed at more objectivity (even mechanisation) in phonological and morphological analysis. The "sound spectrograph" was invented at Bell Labs and made public in 1945; it analysed speech samples for physical properties. Machine translation projects were started in the early 1950s and machine parsers appeared in the late 1950s. At the same time the post-

Hullians in Psychology worked on mediation theories of language. Psychological reality of linguistic constructs (eg. phonemes) was studied by some. Subjects' judgements of similarity between speech sounds were factor analysed to identify space of speech sounds. Analyses were also done to "measure meaning" (Osgood, 1957). The first half of the 20th century saw a confluence of historical, comparative and structural descriptions of language. Phonology and morphology was well developed by this time but not so syntactic analysis. Phonology served as a model for grammar. The idea was to build from word level (morphology) to syntax and thence to semantics.

*London School of Linguistics.* The London school of structuralism, a trend in contemporary structural linguistics (J. R. Firth, W. Sidney Allen, R. H. Robins, and M. A. K. Halliday). The London school of linguistics is involved with the study of language on the descriptive plane (synchrony), the distinguishing of structural (syntagmatics) and systemic (paradigmatics) concepts, and the social aspects of language. In the forefront is semantics. The school's primary contribution to linguistics has been the situational theory of meaning in semantics (the dependence of the meaning of a linguistic unit on its use in a standard context by a definite person; functional variations in speech are distinguished on the basis of typical contexts) and the prosodic analysis in phonology (the consideration of the phenomena accruing to a sound. The number and nature of syllables, the character of sound sequences, morpheme boundaries, stress, and so on). The distinctive function is considered to be the primary function of a phoneme. In linguistics, the comparative method is a technique for studying the development of languages by performing a feature-by-feature comparison of two or more languages with common descent from a shared ancestor and then extrapolating backwards to infer the properties of that ancestor.

Although Bloomfield in 1940 was Sapir's successor as Sterling Professor of Linguistics at Yale University. It was Sapir's notion of language as a psychological reality that dominated the subsequent period of post-Bloomfieldian linguistics, as shown, by the title and orientation of *The Sound Pattern of Russian* by Halle (1959) and "The Sound Pattern of English by Chomsky and Halle" (1968). While Sapir and Jakobson provided ideas and orientation of this development, still Bloomfield's radical clarification of the conceptual framework and descriptive technology is the indispensable foundation of modern linguistics. And perhaps more importantly, his Menomini morphophonemics is the paradigm case not only of a complete descriptive analysis given in terms of an explicit, complex rule system, but also of an impressive victory of clear insight over

methodological orthodoxy. Conceding the amount of mentalistic machinery implied in this analysis of sound structure, strong theories of syntax and even semantics have in the meanwhile been shown to be possible and productive in spite of Bloomfield's antimentalistic bias.

In conclusion, Linguistic schools have been enriching every branch of science particularly in the sphere of linguistics, methodology and other related subjects. Overall, to conclude, the analysis methods play a crucial role to make researches appropriately and convey specific ideas and results on it.

### **QUESTIONS**

1. What traditional schools do you know?
2. What was the aim the Prague Linguistic School?
3. Where was organized the Prague Linguistic School?
4. Who were the key figures of American structural linguistics?
5. Who were the founders of London School of Linguistics?
6. Who were founders of The Copenhagen school?

## CHAPTER V. DESCRIPTIVE LINGUISTICS AND DESCRIPTIVE METHOD

### Plan:

5.1. The notion of descriptive Linguistics

5.2. Descriptive method

5.3. The principles of descriptive method

**Key words:** *descriptive, method, qualitative, quantitative, terms, linguistics, scientific, description, empirical, surveys, data, language, collection*

5.1. The notion of descriptive Linguistics

One of the schools of linguistic structuralism, which was dominant in American linguistics from the 1930's to the 1950's. The American linguists L. Bloomfield and E. Sapir, who reexamined the ideas of the neogrammarian doctrine, were the founders of descriptive linguistics.

The trends in descriptive linguistics associated with Bloomfield (the works of G. Trager, B. Bloch, Z. Harris, C. Hockett, and H. L. Smith, Jr.) and the other with Sapir (the works of K. L. Pike, E. A. Nida, and C. Fries) diverge in the nature of their research interests and in part in their theoretical aims but are similar in the area of methods of linguistic research. The limitation to problems of synchronic linguistic research is caused by linguistic practice (the teaching of language) and the specifics of the material from North American Indian languages. Language appears to descriptivists as an aggregate of speech utterances, which were the main object of their research. At the center of their attention were the rules of the scientific description (hence the name) of texts: the arrangement and classification of their elements. The formalization of analytical procedures in the area of phonology and morphology led to the posing of general questions on linguistic simulation. Lack of attention to the content plane of language, as well as to the paradigmatic aspect of language, did not let descriptivists sufficiently fully and correctly to interpret language as a system. There was also no consistent philosophical basis. The overcoming of descriptivism is connected with sharp criticism of its methodological basis from the viewpoint of the theory of the generative grammar of language.

The core principle of DL is that each language constitutes an autonomous system, which must be described in its own terms. Modern descriptive linguists carry out detailed empirical surveys on a language. After collecting language samples from speakers, they analyze the data so as to identify the components of the system and the principles that underlie its organization. Through its commitment to the empirical description of speakers' actual practices and to the diversity of

languages as creations of linguistic communities, DL is closely allied with the social sciences. The research agenda of DL can be contrasted with a number of related yet distinct approaches to language. *Anthropological linguistics* and *sociolinguistics* study, each in its own way, the interaction between cultural or social factors and language use; by contrast, DL focuses on the structural properties of the languages themselves. *Historical linguistics* studies the diachronic processes of language change, whereas DL focuses on the synchronic forms taken by a particular language at a given point in its development. The endeavor to compare individual languages, and the search for potential universals, is known as *linguistic typology*. DL may be understood as the preliminary step in the typological effort, the stage during which the facts of each individual language are established, for comparison can take place. These subdisciplines of linguistics differ in their scientific goals, yet they essentially share with DL the same fundamental principles, including the emphasis on a bottom-up, empirical approach: All these approaches are complementary components of a single scientific agenda. By contrast, the principles of DL conflict more frontally with those of *formal linguistics*. Formal linguists particularly proponents of generative grammar-claim that the facts of language are best explained by resorting to an apparatus of theoretical principles that are defined a priori, independently of the facts of particular languages. Descriptivists reject these aprioristic assumptions and require that all results be derived from the observable structures of the languages themselves. A Long History of Language Description. The earliest known attempts to describe a language in a systematic way originated in ancient northwestern India, where the desire for a faithful transmission of the sacred scriptures known as the Vedas brought about the need to describe Sanskrit. The best known member of that grammatical tradition, commonly dated 5th century BCE, is Pāṇini-arguably the first descriptive linguist. Similar grammatical traditions were later established in other civilizations and gave birth to the first grammars of Greek, Latin, Tamil, Chinese, Hebrew, and Arabic. Due to the dominance of Latin in medieval Europe, most modern languages had to wait until the Renaissance to be described for the first time for example, Spanish in 1492, French in 1532, and English in 1586 whether in the form of grammars or lexicons. At the same time, the languages spoken in the newly discovered Americas also became objects of description often as a result of missionaries' religious agendas.

The main turning point in the history of DL was the structuralism revolution. During the first decade of the 20th century, the Swiss linguist Ferdinand de

Saussure articulated a theory whereby a language is essentially a system of meaningful oppositions. Contrasts between forms (*signifiants*) are paired with contrasts between meanings (*signifiés*). For instance, “I feed my cat” and “I feed my dog” differ by the segments “cat” and “dog”; this contrast in form corresponds to differences in meaning. In English, the meanings of *cat* and *dog* are also defined by the set of words they compare with: *Cat* differs from *dog* but also from *tiger*, *lion*, *kitten*, and so on. Each segment gains meaning by virtue of its contrasts with other elements within the system of the particular language. Saussure’s insights inspired the new methodological principle of DL: that each language be described on its own terms, based on the empirical observation of contrasts or “structures” internal to its system, rather than on categories imported from other languages. During the same decade, anthropologists developed a sustainable interest in languages and their descriptions. The American Franz Boas placed the description of local languages at the core of his research on American peoples, initiating a long-lasting tradition in which linguistic description forms an integral part of ethnographic description. Boas also articulated a question about language that linguists had not raised: that of the relation between language and culture. Similar issues were later tackled by Boas’s student Edward Sapir, who formulated the famous “linguistic relativity hypothesis,” later consolidated by Benjamin Whorf. The Sapir-Whorf hypothesis, which concerns mutual influences between language, thought, and culture, still constitutes a significant domain of research. It took a little longer before linguists followed ethnographers in their interest for human diversity. Saussure’s theories had freed linguistic description from the Indo-European patterns, yet Saussure himself worked on Indo-European languages. In the wake of Boas and Sapir, the attention to language diversity became central to another prominent figure of linguistic structuralism, the American Leonard Bloomfield.

## 5.2. Descriptive method

It is one of the qualitative methods that are used in investigations that have the objective of evaluating some characteristics of a particular population or situation. In descriptive research, as indicated by its name, the objective is to describe the state and / or behavior of a series of variables. The descriptive method guides the researcher during the scientific method in the search for answers to questions such as: who, what, when, where, no matter why. Describing involves systematically observing the object of study and cataloging the information that is observed so that it can be used and replicated by others. The objective of this type of method is to obtain accurate data that can be applied in averages and statistical

calculations that reflect trends, for example. Normally, this type of studies is the one that opens the way to deeper and more complex ones about a given phenomenon, by offering information about its form and function. Similarly, it is common for the researcher to be tempted to establish causal relationships with results of descriptive studies, which represents a methodological error.

Some of the most representative characteristics of the descriptive method are:

1. Attends a qualitative methodology.
2. It is usually a first approach to the object of study and function as a catalyst for new research.
3. It allows to obtain many precise data about the object of study.
4. It implies careful observation and a faithful record of the observed.
5. It does not admit generalizations or projections.
6. It uses different techniques and instruments for data collection: interviews, surveys, documentation, participant observation, etc.

Stages of the descriptive method

1-Identification and delimitation of the problem

It is the first step of the investigation. This is the moment in which you decide what is going to be investigated and the type of questions to which an answer will be sought.

2-Development and construction of instruments

In accordance with what is intended to be investigated, the instruments for data collection must be selected. This phase of the process must be done with some anticipation, to ensure that the instruments will be adequate to obtain the desired information.

3-Observation and data recording

It is a crucial moment in the process, since it implies being attentive to the observed reality in order to take note of as many details as possible. Ideally, this observation should not alter the natural conditions in which the phenomenon or situation to be studied occurs.

4-Decoding and categorization of information

At this point in the process, the perceived data is transcribed in some format and organized according to its importance or meaning. In this way, it will be easier to process information when dealing with large quantities or different categories that could be confused.

5-Analysis

Once the data has been cataloged, it will be the moment of its interpretation and analysis with reference to the object of study. This analysis should not establish causal relationships, since the nature of the method does not allow it.

#### 6-Proposals

This is the moment of process in which the following steps of the investigation of the given object of study are suggested. With the information gathered, it is normal that new questions arise and this is where the inquiry into these questions is proposed.

#### Case studies

It is a type of study in which all the possible information of the existing situation is collected at the moment in which the instruments or the selected technique are applied. If you talk about an individual, you consider yourself a typical character to be able to make generalizations later on. In that case, it should include information about the people and facts surrounding the individual.

That information should come from different sources; interviews, surveys, documentary research and physical and / or psychological measurements.

#### Case series

It is the same case study, made between several entities or subjects with similar characteristics to obtain a single report / report and propose research on the interrelation of variables.

#### Predominant studies

They consist in the review of the prevalence of certain diseases in a defined geographic space during a determined period of time.

In this sense, it ends by describing the health of a population.

#### Ethnography

It is the direct, close study of people during a certain period of time. It is generally applied to groups of people with similar characteristics, such as ethnic groups or subcultures, to extract information about their customs, rituals and traits. The objective is to achieve a very realistic image of the group studied, so the researcher enters the group and participates in its uses and customs. It is a qualitative technique that only aims to offer a realistic and detailed "picture" of the functioning of a determined group of people.

In short, the descriptive method used in research is of great help to know in depth the fact or the situation subject of scientific curiosity.

#### Surveys

They are structured questionnaires that attempt to describe in depth the phenomenon under study at a given time. To achieve that description, the survey

goes to inquire into the thoughts, opinions and feelings of individuals. They can be done by mail, telephone or through personal interviews. Surveys require working with statistically representative samples.

#### Observation

When the observational method is applied, it is important to bear in mind that: It is mandatory to define the conditions of observation in a precise way. It must be a systematic and objective observation. You must make a rigorous record of the observed. You should not intervene in the observed reality to avoid altering the data.

Some investigations that use the descriptive method could be:

Censuses

Pre-electoral surveys.

Work climate studies.

States of art.

#### Expression of data in descriptive studies

The data collected through descriptive methods can be expressed in qualitative and quantitative terms, either separately or jointly.

Qualitative data are used when the objective is to examine the nature of the phenomena. While the quantitative data apply to expose the results of a calculation or a measurement.

### 5.3. Principles of Description method

The first step toward describing a language is data collection. Most descriptive linguists carry out fieldwork in a linguistic community and record samples of speech from different speakers, embodied in different speech genres: narratives, daily conversation, poetry, and so on. Although spontaneous, naturalistic speech is the ideal, in practice, linguists also carry out *elicitation*, by asking speakers for translations, testing specific sentences, and checking pronunciation or grammar rules.

This patient process can span several years and results in the creation of a corpus, a body of reference materials, against which hypotheses can be tested. Eventually, this analysis results in a published grammar, which spells out most of the rules of the language. Following the “Boasian trilogy,” a complete language description includes a grammar, a dictionary, and a collection of texts. In line with the structuralist agenda, the linguist analyzes the corpus in such a way that the language’s own structures emerge from a system-internal analysis rather than being imported from another language or imposed via theoretical assumptions. These internal structures define *emic* categories: categories whose identification

is based on the internal properties of a particular system. The terms *etic* and *emic*, whose contrast is central to structural linguistics and to structuralism in general, originate in the study of phonology; they allude to its central contrast between *phonetic* and *phonemic*. While phonetics deals with sounds and how they are produced, phonology deals with the way sounds are grouped together as meaningful, contrastive units (phonemes) in a given language. Similar observations would apply to other words in the lexicon; words cut up the semantic space in different ways across languages. The structural analysis of the lexicon parallels the one illustrated above in phonology. Finally, the same structuralist method applies in the realm of grammar. To take a brief example, one must not take it for granted that all languages distribute their words into the same syntactic categories or “word classes” such as nouns, verbs, and adjectives. In Teanu, a language of the Solomon Islands, the word meaning “beautiful” is an adjective, but “clever” is a verb, despite its English translation, because it behaves like other verbs of the system. Some languages do not even have a separate “adjective” class, because in their systems, the equivalent of English adjectives consistently behaves like verbs (e.g., Northern Iroquoian languages) or like nouns (e.g., Warlpiri, central Australia). While some languages have three major word classes, others may have Languages cut up the “grammatical space,” as it were, along different lines. Just like the units of phonology or of the lexicon, the categories of grammar can only be described accurately by observing how they behave within their own system. The same principles and methods apply throughout language description, whether to establish the units of the system (the categories) or their behavior (the rules).

Every language embodies a different way to perceive and categorize reality. The aim of DL, as a discipline, is to capture that linguistic diversity before it can be explained and interpreted.

### **QUESTIONS:**

1. Who were the founders of descriptive linguistics?
2. Which school was the base of descriptive linguistics?
3. What are the core principles of descriptive linguistics?
4. What kind of method is descriptive method?
5. When do we use descriptive method?
6. What are the shortcomings of the descriptive method?

## CHAPTER VI. CONTRASTIVE LINGUISTICS AND CONTRASTIVE COMPARATIVE METHOD

### Plan:

- 6.1. Comparative linguistics and contrastive linguistics
- 6.2. Contrastive analysis at the language levels
- 6.3. The shortcomings of contrastive method

**Key words:** *comparative, contrastive, linguistics, synchronic, diachronic, method, differences, similarities, lexis, grammar, allomorphic, isomorphic*

### 6.1. Comparative linguistics and contrastive linguistics.

A comparative and contrastive linguistic analysis differs considerably from a contrastive linguistic analysis. A comparative study is a diachronic comparison of two or more linguistic systems with a view to classifying languages into families. It is concerned with the history and evolution of languages. A comparative study is interested in establishing the similarities or correspondences between languages.

A contrastive linguistic study is a synchronic comparison. It studies languages belonging to the same period, without paying much attention to their histories or language families. It is more concerned with dissimilarities than similarities.

Typological comparative method proper differs from contrastive comparative method (contrastive analysis) The former is used with the aim of setting up categorical features necessary for defining language types (of certain groups of languages). The latter is employed in contrastive analysis mainly of two languages both common and divergent (isomorphic and allomorphic) features of which are described [Виноградов, 1988: 40]. Contrastive analysis is the main method of contrastive linguistics which is one of the youngest branches of linguistics. It was formed in the 1930s-40s [Кочерган, 2001: 3] Contrastive linguistics attempts to find out similarities and differences in both philogenically related and non-related languages at all levels of their structure. As a rule, it entails a synchronic approach to the study of languages without reference to their origins. Contrastive linguistics originated in the field of applied linguistics since it was assumed that the most effective teaching materials were those based upon a scientific description of the target language carefully compared with a parallel description of the native language of the learner. In fact, contrastive analysis grew as a result of practical demands of language teaching methodology where it was empirically shown that errors which are made recurrently by foreign language students can be often traced back to the differences in the structure of the target language and the learner's mother tongue. The procedures of contrastive analysis were formulated

by Robert Lado in his book *Linguistics across Cultures: Applied Linguistics for Language Teachers* published in 1957. R. Lado's point of view is that learning a 2nd language constitutes a very different task from learning the 1st language. The basic problems arise not only out of any essential difficulty in the features of the new language but primarily out of the special "set" created by the 1st language habits. He was the first to grasp the significance of these facts. His investigation was in comparison of two languages + comparison of two cultures to discover and describe the problems that the speakers of one of the language will have in learning the other. R. Lado's book presented a fairly new field of linguistics. Two years later work was started on the *Contrastive Structure Series* edited by Charles A. Ferguson under the auspices of the Centre of Applied Linguistics of the Modern Languages Association of America in Washington, D.C. The series had as its aim the description of differences and similarities between English, French, German, Italian, Russian, and Spanish. Besides works on language teaching, works on typological classification of languages also influenced the development of contrastive linguistics. These two sources of contrastive linguistics may still be traced in it at present [JIЭC, 1990: 239]. The aims of contrastive typological investigation:

- 1) To identify and classify the main isomorphic and allomorphic features characteristic of languages under investigation;
- 2) To draw from the common and divergent features respectively the isomorphic regularities and the allomorphic singularities in the languages contrasted;
- 3) To establish on the basis of the obtained isomorphic features the typical language structure.

Contrastive analysis as a method of research is a complicated procedure which is usually divided into several stages

1. An indispensable condition of successful contrastive analysis is availability of detailed and accurate descriptions of the language systems to be investigated. These descriptions are then contrasted with one another and contrastive conclusions are drawn in the process of comparison.

2. Contrastive analysis of elements taken from different languages aims to establish certain similarities or analogies between them which are termed correspondences. Correspondences are established on the basis of a certain common feature. Elements of different language systems which have a certain relation to this feature are considered comparable.

Correspondences are often established empirically (i.e. in terms of researchers' language experience). Later they are verified and extended in the process of

contrastive analysis. Some types of correspondences (e.g. types of actual division of the sentence) are not so obvious. They are arrived at hypothetically and later defined by means of additional analytical operations

3. While studying interlingual correspondences researchers assess and select language material for contrastive analysis. Different language units which are not comparable and do not make up correspondences cannot be studied by means of contrastive analysis. Among substantial numbers of language correspondences only those must be selected which have considerable theoretical and practical (applied) value.

4. Contrastive study of the elements chosen for analysis presupposes selection of the basis of comparison

5. Contrastive analysis aims to get an exhaustive characteristic of the contrasted language elements which are correspondences. The aim is to study not only differences but also similarities between two language elements. Only after studying both similar and dissimilar features researchers can conclude what is different about the contrasted elements.

6. Study of correspondences is closely connected with determining the degree of their equivalence. The notion of equivalence in works on contrastive analysis is equivocal. Some authors equate equivalence of language elements with their identity, sameness. It is apparent that the idea of sameness of two elements in different languages is a chimera. Equivalence should be understood as similarity of functions of language units. Equivalent units are said to render the same aim out of information (have the same semantic content) but differ in ways of expressing this content.

6.2. Contrastive analysis at the language levels.

Contrastive analysis can be carried out at three linguistic levels: phonology, grammar (morphology and syntax) and lexis (vocabulary).

In what follows we shall try to give a brief survey of contrastive analysis at the levels of lexis and grammar. On the level of lexis, contrastive analysis is applied to reveal the features of sameness and difference in lexical meanings and semantic structures of correlated words in different languages. It should be borne in mind that, though the objective reality exists outside human beings and irrespective of the language they speak, every language classifies this reality in its own way by means of vocabulary units. In English, for example, the word *foot* is used to denote the extremity of the leg. In Russian there is no exact equivalent for *foot*. The word *нога* denotes the whole leg including the foot [Soloshenko, Zavorodniev, 1998: 178]. Contrastive analysis brings to light what can be

labelled as problem pairs, i.e. words that denote two entities in one language and correspond to two different words in another language. We also find it natural that kinship terms should reflect the difference between male and female: *brother or sister, father or mother, uncle or aunt*, etc. Contrastive analysis also shows that correlated polysemantic words of different languages are not, as a rule, co-extensive. Contrastive analysis occupies itself with sets of semantically related words: synonyms, constituents of lexical fields, members of word-families, etc. In the English synonymic set *brave, courageous, bold, fearless, audacious, valiant, valorous, doughty, undaunted*, each word differs in certain components of meaning from the others: *brave* usually implies resolution and self-control in meeting, without flinching, a situation that inspires fear, *courageous* stresses stoutheartedness and firmness of temper, *bold* implies either a temperamental liking for danger or a willingness to court danger or to dare the unknown; etc.

Contrastive analysis on the level of grammatical meaning reveals that correlated words in different languages may differ in the grammatical component of their meaning. Of particular interest in the contrastive analysis are the compulsory grammatical categories which foreign language learners may find in the target language and which are different from or non-existent in their mother tongue. These are meanings which the grammar of the language “forces” us to signal, whether we want it or not. One of the compulsory grammatical categories in English is the category of definiteness/ indefiniteness. We know that English signals this category by means of articles. Another difficulty for Uzbek learners of English is presented by the fact that the Uzbek language is a synthetic language (characterized by a relatively widespread use of inflections, rather than separate words, to express syntactic relationships). English is analytic (characterized by a relatively frequent use of function words, auxiliary verbs, and changes in word order to express syntactic relations, rather than of inflected forms). Contrastive analysis reveals that analytical tendency in modern English manifests itself in various language phenomena:

- 1) Morphological forms: *have done, will play*,
- 2) Quasi-morphological forms; *be going to + infinitive, used to + infinitive*;
- 3) Non-finite forms of the verb and complexes with them;
- 4) Phrasal verbs: a) *V + post position (adverb): give up, give in*; b) *V + vN: give a look; V + N: make a remark*;
- 5) Analytical means of denomination: *railway station, lady visitor*,

6) Analytical predicate: a) compound nominal predicate; b) compound verbal predicate;

7) analytical lexical units of the type let go, make believe, get rid.

Analytical lexical units constitute one of the typological characteristics of English. They are formed by a functional-semantic model and are characterized by structural-semantic and functional integrity. Functional differentiation of components (functional and notional), contact position of their constituents, their ability to enter into synonymous/ antonymous series alongside with monolexemic verb, e.g. let go - release, make believe = pretend, make do = manage, let slip = omit, let fly = discharge, get rid = disembarass, get set = resolve. Analytical lexical units have derivational paradigm, e.g. let go (v), (n); make-believe (v), (n), make-believer (n), make believing (n). make-believe (adj). Analytical verbs are realized in all the morphological (paradigmatic) forms. Due to the analytical character of English (scarcity of inflections) the verb in it is to a great extent synsemantic, i.e. at least part of its lexico-grammatical meaning is expressed not within the verb itself, but is redistributed on to a larger context. Unlike synthetic languages, English has no morphological markers for the category of transitivity/ intransitivity, which is closely related to the notion of ergativity (Greek *ergates* 'performer'). Verbs which can have the same thing as their object, when transitive, or their subject, when intransitive, are called ergative verbs [Collins Grammar, 1990: 156j. The list of such verbs includes more than 600 items [Петрик, 2001: 9]. The contrastive linguistic method (contrastive analysis) is helpful for the establishment of structural or semantic isomorphisms and allomorphisms in the contrasted languages. The object of contrastive analysis in general is the meaning, form and functioning of certain language units, their features or phenomena. Contrastive analysis aims at providing an exhaustive account of the differences and similarities between the languages. It provides a model for comparison, defining such notions as correspondence, equivalence, congruence, *tertium comparationis*. It is now universally recognized that contrastive linguistics is a field of particular interest to teachers of foreign languages

### 6.3. The shortcomings of contrastive method

Contrastive analysis cannot be overestimated as an indispensable stage in preparation of teaching materials, in selecting lexical items to be extensively practiced and in predicting typical errors. It is also of great value for an efficient teacher who knows that, in order to have a native-like command of a foreign language, to be able to speak what we call idiomatic English, words, word-groups and whole sentences must be learned within the lexical, grammatical and

situational restrictions of the English language. Nevertheless, a number of important issues concerning the status, methodology of contrastive analysis, its application remains disputable, engendering a skeptical attitude towards contrastive linguistics as a branch of linguistics (Виноградов, 1988). As indicated above, contrastive analysis can be carried out at three linguistic levels: phonology, grammar (morphology and syntax) and lexis (vocabulary) However, if contrastive analysis is to be carried to its logical conclusion, we cannot stop there: we must base our ultimate comparison on the culture. Robert Lado (1957) was of the opinion that in order to compare two languages it was necessary to consider not only narrow linguistic features but a wide selection of social-cultural features in which the languages operate. The plan of his book rests on the assumption that we can predict and describe the patterns that will cause difficulty in learning and those that will not cause difficulty, by comparing systematically the language (sound-systems, grammatical structures, vocabulary systems, writing systems) and culture to be learned with the native language and culture of the student. "Culture" is synonymous with the "ways of people". Cultures are structured systems of patterned behaviour, i.e. all these historically created designs for living explicit, implicit, rational, irrational and non-rational which exist at any given time as potential guides for the behaviour of men (Lado, 1957). However, we need far more sophisticated techniques for cultural analysis and comparison than have yet been developed. Divergent features and phenomena in the languages under contrastive linguistic investigation are considered to be irregularities or exceptions to some general rules. The aim of contrastive linguistics has never been to establish systemic relations on a global scaler or to establish universal features. Despite all this, the contrastive linguistic method, when employed both synchronically and diachronically, provides the establishment of valuable theoretical and practical results providing, the reliable data on various aspects of languages under investigation. Contrastive linguistics contributes greatly both to the aspect and caractereological typologies of the investigated languages.

### **QUESTIONS:**

1. What is the origin of contrastive linguistics?
2. The difference between Comparative linguistics and contrastive linguistics
3. What is Robert Lado's discovery about contrastive linguistics?
4. What is the aim of contrastive typological linguistics?
5. What is contrastive analysis at the levels of lexis and grammar? Give examples
6. What kind of method is Contrastive linguistic method?

## CHAPTER VII. WILHELM VON HUMBOLDT'S LINGUISTIC DOCTRINE

### Plan:

7.1. A brief information about W.von Humboldt

7.2. Humboldt's Linguistic Relativity Theory

7.3. Humboldtian and Cartesian Linguistics.

**Key words:** *language, thinking language (linguistic relativity), humboldtian, cognition*

7.1. A brief information about W.von Humboldt.

Wilhelm von Humboldt was a German statesman and philologist. During his time as Prussian minister of education (1809-1810) he thoroughly reformed the school system, largely on the basis of the ideas of Pestalozzi, and he sent Prussian teachers to study the methods of Pestalozzi's school in Switzerland. In many of his works, the connection between language and thought is the focus of interest. He remained prominent in the government until 1819, when he retired because of his opposition to the prevailing spirit of reaction. Yet, he was not inactive but turned to writing philosophical and philological essays, which wield a great influence on scholars even today. For Humboldt the relationship between language and thought is primarily a philosophical problem, neither to be examined through the comparative investigation of different languages nor through psychological experiments. This necessitates giving a philosophical theory of what thought and language. It was almost 200 years ago that Wilhelm von Humboldt developed his ideas about what language is and does; since then, the dominant linguistic movements of the Anglophone world have given little consideration to his writings. Even though his work is often referred to on a superficial level, the reception of his writings in the Anglophone world is at best partial and certainly problematic. There is, however, good reason to believe that his time is yet to come. The present Special Issue wishes to point in this direction and demonstrate the significance, and timeliness, of his thinking. Thinking language: this expression is obviously not very idiomatic in English. It is coined in analogy with the German Sprachdenken or the French *pense'e* du language. 'Thinking', here, is distinct from either 'theory' or 'philosophy'. When speaking or thinking about language one cannot look at the object of analysis from the outside, and since theory – derived from the Greek *theoria*, which meant 'looking at' – entails an external perspective, a view on something, there cannot really be a theory of language at all. There is no outside view on language; the object and the vehicle of thought are in the case of language the same. And with Humboldt,

language is even the constitutive and generating force of the entire process. The phrase ‘philosophy of language’ is no less misleading, particularly in the Anglophone world where one would immediately think of analytic philosophy, which historically has represented a very different approach to language. There remains a tendency to see language as an obstacle to ‘clear’ thinking, and to consider any constitutive aspect of language to thinking as regrettable, something to be overcome rather than thought. Thinking language, by contrast, does not strive for the one correct neutral and objective language since it does not believe in its possibility or even its desirability. Rather, thinking language is convinced that it is precisely the diversity, the multitude of perspectives – given through different languages, but also within every language and in every single speaker and even in every moment of speaking – which endows the human world with its richness. This tradition, for which Humboldt remains the most important thinker, has at its inception Leibniz’s description of language as demonstrating ‘the wonderful variety of the operations of the human mind.

The philosophical foundation of Wilhelm von Humboldt’s linguistic relativity thesis is the hypothesis that the process of thinking organizes thought into meaningful units, also referred to as objects, which a subject makes use of. This process constitutes language in the broadest sense of the word. Consequently, as soon as an individual becomes aware of his/her self, the first act of reflection sets in and immediately produces language. The Basis of Humboldt’s Linguistic Doctrines. There are two priority hypotheses with some subordinate theses assigned to each of them.

A. Thinking is dependent upon language in general (central claim).

- Words and syntax form and determine concepts on the one hand, and influence knowledge and sensation on the other.
- The particular language determines thinking in each individual case.
- A people thinks as it does “because it so speaks”.

Comment: This implies that every individual instance of thinking is determined by language.

B. Each language represents, at a given time, the total conceptual knowledge which that speaking community has developed (“conceptual range”).

- It also represents the “total thought substance” of a nation.

Comment: Ideally, the speaker has access to the total conceptual content of his language. But this also implies that, as the total conceptual possibilities of a language are limited, it is necessary to the speaker of this language to think within these confines. In connection with these deliberations two questions remain,

which are not fully answered: To which extent does proficiency in more than one language expand the conceptual material the speaker has at his/her disposal? In addition: Is creativity possible according to this intellectual framework? In order to reach an approximate understanding of Humboldt's linguistic relativity doctrines, not only the claims must be made clear. There are some expressions in his writings, closely connected to his claims, which have a very special meaning for him.

The first is "*world view*", which signifies the total of all possible thought constituents the speaker has at his/her disposal, according to the Humboldtian system. H. Gripper emphasizes that this "world view" for Humboldt does not have the ideological implications which are often attributed to it. It is clearly distinguished from the "character" and the "inner form". "Character" in Humboldt's philosophical writings is the pervasive influence a guiding national mood or tendency has on the language, while "inner form" stands for the particular lexical and syntactic structure of a language

## 7.2. Humboldt's Linguistic Relativity Theory

Linguistic relativism - the view that our way of thinking depends, at least partially, on the language we speak - is primarily associated with anthropological linguistics, as it was practised by American scholars like Franz Boas (1858-1942), Edward Sapir (1894-1939) and Benjamin Lee Whorf (1897-1941). The expressions 'Whorf hypothesis' and '*Sapir-Whorf hypothesis*' are habitual ways of indicating linguistic relativism.

1. In linguistic historiography, there is a tradition of regarding Wilhelm von Humboldt (1767-1835) as an important predecessor of Sapir and Whorf. The picture of linguistic relativism in history is usually completed by Johann Gottfried Herder (1744-1803) and Johann Georg Hamann (1730-1788) as predecessors of Von Humboldt, and by the 19th-century '*Volkerpsychologie*' of Heymann Steinthal (1823-1899) and Wilhelm Wundt (1832-1920), as well as by the 20<sup>th</sup> century '*Inhaltbezogene Grammatik*' of Leo Weisgerber (1899-1984) as continuations of Von Humboldt's approach.

2. Recent historical research into linguistic relativity has elaborated this picture in various ways. Firstly, attempts were made to discover roots of linguistic relativism in works earlier than those of Herder and Hamann. Secondly, alleged historical links were scrutinized and explored, so that differences in importance became visible. Thirdly, the picture became more complete. Names of -less prominent-relativists were added and details were revealed about historical relationships. According to his book "Language and Culture" Humboldt wrote that the person

thinks, feels and lives only in language, but also the person feels and knows that language for it - only means that out of language there is an invisible world, to which the person seeks to accustom only with its help. The return action of language of subjects is more certain that through it all created by the people in the past influences the individual; identity of the person is similar to identity of language thanks to that a source on them same, whether but the first can hardly resist to the last. Also, that language expresses feelings as objects, but it besides follows the movements of thought of thought and feelings and language despite all foreign influences, keeps the identity which is inherent also in its character. Here, this idea is similar as Herder's. W. von Humboldt allocates *four steps (stages) of development of languages*:

"At the lowest step grammatical designation it is carried out by means of turns of speech, phrases and offers...

On the second steps grammatical designation is carried out with the help steady word order and by means of words with the unstable material and formal value ...

At the third step grammatical designation it is carried out by means of analogs of forms At the highest step grammatical designation is carried out by means of original forms, inflections and purely grammatical forms".

It is easy to see that three the last steps correspond isolating, agglutinative and to inflectional system ("analogs of forms" separate from "original forms" that, that in the first "communication ... components is still insufficiently strong, places are noticeable connections. The formed mix didn't become a single whole yet", that is it is obviously about agglutination). Stadial distinction directly communicates with extent of spiritual development: "The first, and the most essential, from this that the spirit demands from language -- it not mixture, but accurate differentiation things and forms, subject and relation. However, such differentiation occurs only at formation of original grammatical forms in the way inflection or grammatical words ... at consecutive designation grammatical forms. In each language having only analogs forms, in grammatical designation which has to be pure formal, is a material component".

*Thinking language* in the Humboldtian tradition considers language not only as communication but also as cognition, in its historical and subjective situation. It therefore touches centrally on our ideas about our mind, our world, and truth. In 2016, the Canadian philosopher Charles Taylor devoted a book to these issues, arguing that what he calls the Romantic theory of language, or 'HHH' – made up of Hamann, Herder, Humboldt – is still neglected, and that 'HLC' – that is, Hobbes, Locke, Condillac – exerts still too much power, in spite of the fact that

today nobody disputes that their, HLC's, conception has significant shortcomings. There are human meanings, which cannot be thought in HLC's rationalist and empiricist conception of language, so we must turn to HHH for the insights that will afford us an approach to language, which can cover human experience in its breadth and diversity. Yet Taylor's account of HHH so far remains light on detail, and there is no reference to the contemporary research on Humboldt, which does exist in continental Europe. The present Special issue will address this lacuna. Humboldt explains clearly, why language is more than a tool that functions in a conception of life considered within a preconceived framework. For Humboldt meaning is not preconceived, but emerges each time anew in discourse. Consequently, discourse must hold constitutive power for human life. With Humboldt, we come to see that a language is what he calls a worldview: that which provides access to and perspective on meanings. Without language, he suggests, there cannot be a human world (of course, there is some leeway in the definition of what a language is, but it cannot exclude symbolic forms understood in the sense developed by Cassirer). There was an early presence of Humboldtian ideas in American linguistics and ethnology dating back to the early nineteenth century in which Humboldt himself had played an active role. Its beginning is marked by Stephen S. Duponceau's (1760–1844) programmatic report to the American Philosophical Society in Philadelphia in 1819 on the study the American Indian languages in the "Transactions of the historical and literary committee of the American Philosophical Society". The founding document of American linguistics, with its reference to Humboldt and the ensuing correspondence between the two men. There is in addition Humboldt's important correspondence with the second founder of American linguistics, John Pickering (1777–1846) who wrote a lengthy article on the American Indian languages for Francis Lieber's *Encyclopedia Americana* where specific reference is made to Humboldt's work (see Pickering 1831). Francis Lieber (1798–1872), the creator and editor of the *Encyclopedia Americana*, besides corresponding with the German linguist, followed Humboldtian principles or what he understood of them in his own linguistic work on the American languages. The most prominent American ethnologist and linguist of the second half of the nineteenth century, Daniel G. Brinton (1837–1899) was well acquainted with Humboldt's work on the American Indian tongues, as far as it was known then. He viewed his own researches as following the path that Humboldt had first laid out. There are references to Humboldt throughout his work, he translated an unpublished treatise of his "On the American Verb System" and regarded him as founder of "the

Philosophy of Language” (Brinton 1890, p. 332.). Yet what he and his followers understood by this term was confined largely to the methodological principles that governed Humboldt’s typological and comparative studies and excluded essential dimensions and the actual philosophical concerns expressed in his writings.

A similar process of partial appropriation has been characteristic also of the philosophers who paid serious attention to Humboldt’s views, such as Ernst Cassirer (1923–29), Martin Heidegger (1927, 1959), and more recently Bruno Liebrucks (1965), Hans-Georg Gadamer (1960, 1965, 1972), and Jürgen Habermas (1985, 1988, 1991). It is only in the last decades that Humboldt’s philosophical and linguistic writings have become a focal point of attention in their own right. Linguists of various orientations, philosophers, historians and literary scholars of different nationalities alike have examined Humboldt’s philosophy and linguistic ideas by placing them into a variety of different contexts.

Subsequently, in his linguistics and philosophy of language Humboldt would advance a similar generative view of human language and speech. Because he understood linguistic form as procedural rule and direction, as *forma formans*, rather than as some kind of material shape or fixed objective entity, the structure and organization of a language for him could not be gathered from the actual verbal forms of its construction, its grammar. It was to be obtained rather from an analysis of the procedures language employs in its generation of speech. For, as Humboldt put it

Language in actuality only exists in spoken discourse; its grammar and dictionary are hardly even comparable to its dead skeleton.

How such an analysis of the process of speech production is to proceed, what it encompasses, what it is able to achieve and how it will enable the linguist to study and describe different natural languages. Humboldt has discussed in great depth and detail in several of his larger linguistic treatises, as for example in his *Fundamentals of the Linguistic Prototype*. To understand his approach to linguistics and to appreciate the empirical linguistic investigations that will follow from it, it is necessary to take a closer look at his conception of language at its formative stage where philosophy and linguistics intersect in a distinct manner. During Humboldt’s Jena period the problem of the relationship between thinking, language and reality that seemed to have been settled once and for all by rationalist (Descartes, Leibniz) and empiricist (Locke, Condillac) thinkers alike, became an open question again for Humboldt, who looked at it from the new perspective that Kantian and Fichtean philosophy had opened up. In 1795 he wrote a series of

sixteen theses on “On Thinking and Speaking” in response to a recent essay by Fichte “On the origin of language and human language ability”. In this, his first major statement on language, he takes issue with the concept of the linguistic sign, which had been one of the cornerstones of seventeenth and eighteenth-century philosophy of language. In both the rationalist and empiricist schools of thought it was assumed that signs constituted a special class of objects outside the mind existing independently from it to which convenient labels agreed upon by society had been attached. The relationship of these signs to the mental ideas they were supposed to represent were therefore understood as “arbitrary” or “conventional”. Although empiricists and rationalists agreed that speaking required the use of signs and that without them mental operations whether they derived from sensations or not were not possible, they were unable to explain as Herder had put it, how “the sound of roundness was able to represent the idea of roundness”. But Herder himself had not been able to advance a plausible solution to the problem, either, even though he connected the origin of language with reflection, claiming that it was through reflection that humans had first created language.

His notion of the rise of human self-consciousness is therefore quite the opposite of Hobbes’ and particularly Hegel’s view as depicted by the latter in the life and death struggle of the master/slave dialectics in his *Phenomenology of the Spirit*. For Humboldt it is language instead that serves as the civilizing force leading the individual to self-consciousness and societal interaction and thus involves a positive relation to the other. In his later linguistic writings, discussed below, he developed a communicative model of human speech that can be seen as an extension and transformation of the Fichtean concept of the intersubjective “I”. In the twentieth century the philosopher Jürgen Habermas attempted to incorporate Humboldt’s model in his theory of communicative action.

Humboldt’s notion of articulation first introduced in his “On Thinking and Speaking” of 1795 formed the theoretical basis also for his empirical work into the phonemic structures of natural languages where his research anticipated modern linguists’, e.g., Trubetzkoy’s and Jakobson’s, conception of phonology. Already in 1795. He drew a clear distinction between the physical sound of nature on the one hand and the “articulated” sounds that constitute language on the other. In his empirical studies he discovered that the latter alone would form a clearly discernible “unit” (*scharf zu vernehmende Einheit*), capable of embodying features to allow these sounds to enter into specific relationships with each other and any other sound. What this means is that for Humboldt, the individual sound of a given language can be formed only “in relation to the others” (*in Beziehung*

auf die übrigen) that make up the entire “sound system” (Lautsystem) of that language. He thought it possible and desirable to set up schemata accounting for the different classes of phonemes (Buchstabenlaute) found in the world’s languages, and the different relationships into which these may enter according to their affinities (Verwandtschaft) or their mutual opposition. In working with over a dozen native South and Central American languages, Humboldt created one such schema enabling him to describe and to compare the phonetic systems of these different languages.

### 7.3. Humboldtian and Cartesian Linguistics.

If linguistic signs no longer function as instruments for communicating independently existing thoughts and ideas from one mind to another. This raises the question of how individuals can communicate with each other through language, a question that becomes even more urgent if, as Humboldt maintained, states of consciousness cannot be transmitted from one individual to another at all, for “there can be nothing in our mind than that which is the result of its own activity”. However, any communication between individuals presupposes a shared foundation: “We understand the word we hear only, because we could have said it ourselves”. The words we hear and those that we utter are the stimuli for our language capacity to generate participatory responses. However, shared language capacity and linguistic competence cannot guarantee that one individual understands what the other is saying. Only through dialogue with the other can they test their understanding, amend and correct it, if necessary. Every understanding is therefore also a non-understanding, Humboldt argued. Thinking, in other words, is by its very nature tied to man’s social existence which means that it requires “a Thou that corresponds to the I”. A concept, Humboldt argued, can attain its distinctness and clarity only through its being reflected back from the intellect of another person with language as the only mediator between one intellect and another. At this point it becomes evident how radically Humboldt’s linguistic philosophy and his language studies part company with the traditional Cartesian way of understanding language. There existed for him a communicative prototype of human speech that is embedded in the structure of language itself manifesting itself in the different languages. This “prototype of all language” finds expression through the personal pronoun, that is, by the differentiation between the second and the third person. All speech is directed at someone and its structure cannot be understood by applying Cartesian grammatical analysis to it, because from a logical and grammatical point of view, it makes no difference whether I use the first, second or third personal pronoun, when in each case these

pronouns function as the subject of a sentence. But for Humboldt I and he really are different entities, and with them, he argued, all possibilities are exhausted: because they constitute the I and the not-I. Thou is also a not I but unlike he, not in the “sphere of all beings”, but rather in another sphere of common action and interaction. In his empirical investigations Humboldt therefore paid special attention to the system of personal pronouns in a given language because it was from there that one could reconstruct the specific manifestation of the prototypical speech situation. Following this line of research in his Academy addresses “On the Dual Form” (1827) and “On the Relationship of the Adverbs of Place with the Pronoun in some Languages” (1829) Humboldt analyzed several dozen languages of different language groups from around the globe. It is in these texts that the marriage of philosophy of language and empirical linguistics that characterizes his work can best be studied.

*Cartesian linguistics* is intimately connected with the notion of Universal or Philosophical Grammar and, given its revival in Chomsky’s generative approach to language and his naming of Humboldt as one of his immediate precursors, Humboldt’s relation to this tradition needs to be clarified. First of all, Humboldt was decidedly critical of all attempts to construct a system of Philosophical Grammar supposedly underlying all natural languages, because it was patterned after the concepts of Latin and French grammar and in practice had resulted in the writing of grammars that violated the nature of the Non-European languages by forcing them into the procrustean bed of a Western system, whose categories were completely alien to their own inherent structures. He did not, however, reject the idea of linguistic universals. On the contrary, these constituted the backbone of his concept of linguistic variety, the fact namely that each language by its structure and formation was able to represent a specific view of the world (*Weltansicht*). With Kant he believed in the universality of the mental structures and Kantian categories represented for him the rules and the laws of thinking that were ultimately responsible also for the rule systems that govern our linguistic utterances. But he rejected the idea that these structures were themselves already a kind of logical grammar from which a Philosophical Grammar could directly be deduced. Therefore, the comparative study of the languages required some new kind of Universal Grammar to serve as *tertium comparationes* for the linguist not to lose himself in endless and aimless comparisons.

Since linguistic form is not something material or something abstracted from natural languages, but pertains to a *Verrichtung* (performance) namely the production of speech, Humboldt’s prototype embodies the ensemble of elements

and rule systems that must be considered common and essential for speech production in all languages; in short, it is a generative rather than a substantive notion. Once established, through a combination of philosophical-methodological reflection and concrete linguistic analysis, the linguistic prototype was to serve and did serve Humboldt as a guide and *tertium comparationis* for the study and comparison of different languages and language groups. In short, the prototype is not to be seen as an object, a list of specific surface structure features, nor does it resemble any existing actual language, but instead stands for the communality of elements, rules, and structures that underlie all language production. For example, the existence of phonetic elements in a given language, constituting a sound system (*Lautsystem*) and its individual word always combining a sound-unit with a thought-unit, must be understood as part of the prototypal nature of language, whereas the particular *Lautsystem* of that language as it resulted from its historical development becomes the subject of specific linguistic investigations.

Similarly, but on a larger scale, Humboldt thought the investigation of individual languages and their specific form and character should be guided by the linguist's awareness of the prototypal element in them while his work should also contribute to our knowledge of the prototype. The task of the linguist was therefore "to study each language as a fragment of the universal language of the human species". Yet for Humboldt languages do not differ from each other as species (*Gattungen*) but as individuals; their character does not pertain to the species but to them as individuals as conditioned by and as a result of their own specific historical development. The comparative study of the world's languages, as Humboldt envisioned it, thus represented a constant challenge to the empirical linguist and to the philosopher; namely, to discover in the linguistic data that which relates to the prototypal in language and to increase our knowledge of the nature of language and the human language capacity. Furthermore, he saw the importance of linguistic studies (*Sprachstudien*) in the discovery of the part language plays in the formation and transmission of ideas (*Vorstellungen*) not just in "the metaphysical sense" as conditioning the creation of concepts, but also in the way in which an individual language imparts its formative imprint on these concepts. There are some critical distinctions that Humboldt employs in his linguistic writings, which shed light on his understanding of language and the approach he follows in his empirical investigations. Most famous (and often misunderstood) is his distinction between language perceived as product or *ergon* on the one hand and as activity on the other. It is not identical with the distinction introduced by Saussure between *langue* and *parole*, since Humboldt's distinction cuts across

both langue and parole and both can be seen from the angle of either process or product. Because Humboldt perceived language not as a fixed entity or object, but as something transitory, something that is real only in the moment of speaking, as an activity, he thought, “its true definition can only be a genetic one” Thus he distinguished sharply (as did his contemporary Schleiermacher) before Saussure and twentieth-century linguistics, between language (Sprache) and Speech (Rede). In his French Essay of 1811, he also uses Saussure’s third term, language in a similar manner as pertaining to language in a general sense. Although he developed almost single-handedly against the tenets of his time and of most of the Nineteenth Century a structural approach for his investigation of dozens of mostly non-European languages, Humboldt did not consider the study of a language’s structure, the ultimate end of linguistics. Because language in its fullest sense occurs only in the societal context in its acts of speech production and in what is being said through them, its true nature can only be intimated and perceived in living discourse and should be studied equally in its lasting manifestations in the works of culture and of science, in literature, poetry, and philosophy.

The linguistics along with sciences about thinking belongs to number of those branches of human knowledge which finds out the most close connections with philosophy throughout its development that is explained by the nature of the subject of linguistics. Language represents an indispensable condition of implementation of the abstract, generalized thinking and a rational step of human knowledge. The main linguistic idea consists in that that language is closely connected with development of thinking individual and social, including in itself long history from an origin to nowadays existing languages.

#### **QUESTIONS:**

1. Why do we call W.von Humboldt as “father” of linguistics?
2. What is Concept of “Thinking language”?
3. What can you say about Language relativity?
4. What is the conception of Humboldt’s Understanding of Language?
5. What is the differences and similarities of Humboldtian and Cartesian Linguistics?

## CHAPTER VIII. SYNCHRONIC AND DIACHRONIC LINGUISTICS F. DE SAUSSURE'S LINGUISTIC THEORY

### Plan:

8.1.Synchronic and Diachronic Linguistics

8.2.Linguistic perspective of F.de Saussure

8.3.Structuralism in Linguistics

**Key words:** *synchronic, diachronic, language, value, linguistic change, langue, parole, sign, signifier, signified, structuralism, linguistic school,*

8.1. Synchronic and Diachronic Linguistics.

Synchrony and diachrony are two different and complementary viewpoints in linguistic analysis. A synchronic approach considers a language at a moment in time without taking its history into account. Synchronic linguistics aims at describing a language at a specific point of time, usually the present. By contrast, a diachronic approach considers the development and evolution of a language through history. Historical linguistics is typically a diachronic study. The concepts were theorized by the *Swiss linguist Ferdinand de Saussure*, professor of general linguistics in Geneva from 1896 to 1911, and appeared in writing in his posthumous *Course in General Linguistics* published in 1916. In contrast with most of his predecessors, who focused on historical evolution of languages, Saussure emphasized the primacy of synchronic analysis of languages to understand their inner functioning, though never forgetting the importance of complementary diachrony. This dualistic opposition has been carried over into philosophy and sociology, for instance by Roland Barthes and Jean-Paul Sartre. Jacques Lacan also used it for psychoanalysis. Prior to de Saussure, many similar concepts were also developed independently by Polish linguists Jan Baudouin de Courtenay and Mikołaj Kruszewski of the Kazan School, who used the terms *statics and dynamics* of language. In 1970 Eugenio Coşeriu, revisiting De Saussure's synchrony and diachrony distinction in the description of language, coined the terms *diatopic, diastratic and diaphasic* to describe linguistic variation.

*Synchronic linguistics*, also known as descriptive linguistics, is the study of language at any given point in time, usually at present. However, this point in time can also be a specific point in the past. Thus, this branch of linguistics attempts to study the function of language without reference to earlier or later stages. This field analyzes and describes how language is actually used by a group of people in a speech community. Thus, involves analyzing grammar, classification, and arrangement of the features of a language.

Unlike diachronic linguistics, it does not focus on the historical development of language or language evolution. Ferdinand de Saussure introduced the concept of synchronic linguistics at the beginning of the twentieth century.

*Diachronic linguistics* basically refers to the study of language through different periods in history. Thus, it studies the historical development of language through different periods of time. This branch of linguistics is the diachronic linguistics. Main concerns of diachronic linguistics are as follows:

- Describing and accounting for observed changes in particular languages
- Reconstructing the pre-history of languages and determining their connection, grouping them into language families
- Developing general theories about how and why language changes
- Describing the history of speech communities
- Studying the history of words

Furthermore, comparative linguistics (comparing languages to identify their historical relation) and etymology (study of the history of words) are two main sub-fields of diachronic linguistics.

Thus, the main difference between synchronic and diachronic linguistics is their focus or viewpoint of study. Diachronic linguistics is concerned with language evolution while synchronic linguistics is not. Moreover, the latter focuses on subjects such as comparative linguistics, etymology and language evolution while the former focuses on grammar, classification, and arrangement of the features of a language.

The difference between synchronic and diachronic linguistics depends on their focus of study. This is because the former looks at language at a given period of time while the latter looks at language through various periods in history. However, both branches are important in order to study a language properly.

**Linguistic value and language change.** The linguistic value of a word (a signifier) comes from its property of standing for a concept (the signified). The value of the signified comes from its relation to other concepts. The value of the complete sign comes from the way in which it unites the signifier and the signified. Thus, Saussure shows that their relation to each other establishes the meaning or signification of signs. The relation of signs to each other forms the structure of language. Synchronic reality is found in the structure of language at a given point in time. Diachronic reality is found in changes of language over a period of time. Saussure views language as having an inner duality, which is manifested by the interaction of the synchronic and diachronic, the syntagmatic and associative, the

signifier and signified. One can approach all different aspects of language, such as grammar, semantics, syntax, phonology etc., from two different points of view: - Diachronic linguistics studies language in its development across time (this is what the term diachronic means), whilst, synchronic linguistics tries to understand the functioning of language at a single point of time, without reference to earlier or later stages. As it is necessary to know how a system works at any given time before one can hope to understand changes, the analysis of language at a single point in time, i.e. synchronic linguistics, now usually precedes the study in terms of diachronic linguistics." (Paul Georg Meyer et al., 2005)

"A synchronic study of language is a comparison of languages or dialects--various spoken differences of the same language used within some defined spatial region and during the same period of time. Determining the regions of the United States in which people currently say 'pop' rather than 'soda' and 'idea' rather than 'idear' are examples of the types of inquiries pertinent to a synchronic. All his publications, and almost all his teaching, throughout his career dealt with historical rather than with synchronic linguistics, and indeed with detailed analysis of various Indo-European languages rather than with the general, theoretical discourse for which he is now famous. Language Change. "For most of the twentieth century, synchronic linguistics was considered to be prior to diachronic linguistics. Historical linguists were expected to gather together descriptions of a language at various points in time, relying to a large extent on the previous work of synchronic linguists. Then they studied the changes which had taken place by comparing the various synchronic states. They behaved somewhat like a photographer trying to work out a continuous sequence of events from a series of separate snapshots on the face of it, a sensible enough procedure. The problem was simply this: linguists making the synchronic descriptions were, without realizing it, simply leaving out those aspects of the description that were essential for an understanding of language change." (Jean Aitchison, 2001)

Linguistics can be classified into different kinds, the chief of which are noted below: Diachronic Linguistics and Synchronic Linguistics. Diachronic linguistics is the kind in which we study the historical development of language through different periods of time. For example, we study how Spanish, Portuguese, French and Italian have grown out of Latin. The changes that have occurred in language with the passage of time are also studied under this kind of linguistics; therefore, it is called historical linguistics. Synchronic linguistics is not concerned with the historical development of language. It confines itself to the study of how a language is spoken by a specified speech community at a particular point of time.

It is also called 'descriptive' linguistics. Diachronic linguistics studies language change, and synchronic linguistics studies language states without their history. According to C.F. Hockett: "The study of how a language works at a given time, regardless of its past history or future destiny, is called descriptive or synchronic linguistics. The study of how speech habits change as time goes by is called historical or diachronic linguistics". The distinction synchrony and diachrony refers to the difference in treating language from different points of view. Though the historical character of a language cannot be ignored, its present form being the result of definite historical processes, changes and transformations, it is necessary for a complete understanding of it to concentrate on the units of its structure at the present moment. Some scholars do not see the two approaches apart. They assert that it is a mistake to think of descriptive and historical linguistics as two separate compartments. However, on the whole the two areas are kept apart and one is studied to the exclusion of the other. Synchronic statements make no reference to the previous stages in the language. Linguistic studies in the nineteenth century were historical in character; they originated as part of the general historical investigations into the origins and development of cultures and communities, especially West Asia, Egypt, etc. Such philological researches viewed language at different stages of its progress and attempted to understand relations among different languages. Language families were discovered and genetic affinities identified. For Zhirmunsky, Diachronic linguistics was a great discovery of the 19th century: "Which developed so powerfully and fruitfully from the 1820s to the 1880s. This discovery enabled linguists to explain modern languages as a result of law-governed historical development". On a closer look, one realizes that without a good synchronic (descriptive) work, valid historical (diachronic) postulations are not possible; in other words, a good historical linguist needs to be thorough descriptive scholar too.

## 8.2.Linguistic perspective of F.de Saussure.

F.de Saussure Swiss linguist and comparative philologist best known to semioticians for the posthumously published *Cours de linguistique générale* (CLG; *Course in General Linguistics*, 1916). The cycle of lectures on which this text is based occupied a relatively brief period in Saussure's scholarly life, which was mostly spent working within the tradition of comparative and historical linguistics with which CLG is generally presented as a decisive break. De Saussure's greatest contribution is his being among the first to expose the multifaceted nature of language. In other words, he realized that language could be studied from more than one point of view: when analyzed from the point of

view of its functions, language can be considered as a means of communication, as a means of expressing ideas, as a means of forming ideas, and so on; when analyzed from the point of view of the conditions in which it exists, language can be considered as a cultural and historical phenomenon. When analyzed from the point of view of its internal structure, language can be considered as a system of signs for encoding and decoding messages. De Saussure not only asserted the multifaceted nature of language, but also developed several concepts to bear his argument. De Saussure differentiated between the extrinsic approach and the intrinsic approach to language. The extrinsic approach is manifested in studies of the conditions in which language exists, language in relation to the history of the people and civilization where it is spoken, in relation to politics and literature, in relation to its geographical spread, and so on. The intrinsic approach yields studies of the inner composition of language, its structure. De Saussure also maintained that there was no necessary or direct relationship between the inner composition of a language and the external conditions of its existence. He explicated his position by drawing an analogy with chess: the fact that the game came to Europe from Persia is an extrinsic fact and has absolutely no bearing on either the system or the rules of the game. The inner mechanism of a language can be studied and explained quite adequately without any knowledge of its history. Furthermore, a productive study of the inner mechanism entails a clear distinction between the synchronic aspect of a language or the axis of simultaneity, and the diachronic aspect, or the axis of successiveness. The synchronic aspect is related to the diachronic, but is not determined by it. Each approach has its proper object. Synchronic linguistics studies the inner composition of a language, or its system, whereas diachronic linguistics studies the history of individual linguistic units. An analogy with chess will again be helpful. Every position in the course of a particular game is an instantaneous synchronic cut.

**Diachronic:** The term, coined by Ferdinand de Saussure, refers to the examination of languages (or a language) with reference to their origin and changes across time. **Synchronic:** A term coined by Ferdinand de Saussure that refers to the study of a linguistic system without attaching any importance to its origin, history and development. According to Saussure, a language must be understood keeping in mind that each sign acquires its meaning in relation to the other signs that are not only related to it but also define it within its synchronic system.

De Saussure distinguished between *langue* (language) and *parole* (speech). *Parole* is related to *langue*. It is *langue* as it is in use, in speech acts. The *parole* of speaker A is different from that of speaker B, and speaker C again has a different *parole*.

Parole is individual, linear, and has a physical nature. Langue is a system of interrelated signs, obligatory for all the members of a given linguistic community. It is social, nonlinear, and has a psychological nature. As a system, langue is not determined by parole, by the individual uses of the system. One could extend de Saussure's analogy and say that langue is independent of parole just as the rules of the chess game are independent of any particular application in a game between two players. Langue constitutes the rules of the linguistic game, i.e., the rules for transmitting and receiving messages by means of a system of signs. The speakers of a given language must all obey these rules in their use of the language if they wish to communicate effectively. De Saussure asserted the systemic nature of language: he defined language as a system of interdependent signs. The linguistic sign, according to de Saussure, consists of a signifier and a signified, and both elements of the sign are psychological in nature. Furthermore, neither the phoneme nor the signs that make up the code of the circuit between the two individual 'unlock' the contents of the brain of each. Signifier and signified are body and soul, or they are recto and verso of a leaf of a paper. Its two sides are ultimately inseparable one side does not exist without the other. Thus, a linguistic sign does not link a name and a thing, but a concept (signified) and an acoustic image (signifier). As Saussure explains, the connection between all 'signifiers' which are 'sound images' or 'linguistic signs' and what they are signifying - their signified object or concept - is arbitrary. Saussure argues that the goal of linguistics should be to identify the elements of a language, to classify them and finally describe their combination rules in a synchronic structure. This view was in contrast with the predominant diachronic perspectives of that time. Following Saussure, the language consists of signs, which express ideas. Linguistic signs are elements, which have some meaning. Thus, the linguistic sign links the human idea of an object or concept to the form of the sign (e.g. a particular sequence of sounds). In Saussure's view linguistic signs are relational elements which are motivated by the need to differentiate them from other linguistic signs. They are not innate to things or concepts they mean. Thereby the form of a linguistic sign is an arbitrary convention. The linguistic signs exist not in their own right but only by virtue of their being distinct from one another, and this applies to the signifiers and the signified. Language contains nothing but oppositions; "language is form, not substance", said de Saussure. In other words, what is essential for a linguistic unit is not the substance of which it is made but only the set of oppositions of which it is a member. This set determines its significance, or value. Finally, de Saussure's claim that form is independent of substance can also be supported by

the normal use of language. In a telephone conversation, our message goes through the following sequence of different substances: a condition of the nerve cells in the brain, physiological movements of the speech organs, acoustic waves, mechanical vibrations of the membranes, and electromagnetic vibrations. Certain structural characteristics of the message remain unchanged in spite of the fact that it keeps passing from one substance to another. Every new state of the message reflects the preceding state, and ultimately every state reflects the extra linguistic situation which constitutes the subject of the message. It follows from this illustration that the structure of a language would not be affected if texts in it were written not in the conventional orthography but in a mechanical, electromagnetic, or some other 'transcription'. De Saussure distinguished between two types of relations (oppositions) between linguistic units: paradigmatic (de Saussure called them 'associative') and syntagmatic. Paradigmatic relations are determined by the association of units that are alike on the paradigmatic (vertical) axis of language, and syntagmatic relations are determined by the association of units that are adjacent on the syntagmatic (horizontal) axis of language, i.e., in the flow of speech. Syntagmatic relations are the relations between morphemes in words, between words in phrases, etc. The major syntagmatic concept contributed by de Saussure was that of the syntagma. This concept, adopted with only minor modifications by contemporary structural linguists, will be discussed in detail later on. For the moment suffice it to say that the syntagma concept, which is considerably simpler and much more general than any comparable concept in traditional descriptive grammar, provided linguists with a way of representing the structure of words and sentences, no matter how complex, in the form of a hierarchy of units of the same order. The concept of the syntagma applies to any combination of two elements (whether morphemes, words, or phrases), one of which is modified (head), the other modifying (secondary, dependent). In advancing his theory of syntagmatic and paradigmatic relations, de Saussure in effect substituted for the traditional dichotomy of grammar into morphology and syntax. His division of grammar into a theory of paradigms, studying the relations between linguistic units on the paradigmatic axis, and a theory of syntagmas, studying the relations between linguistic units on the syntagmatic axis. Saussure said, when we utter words, sounds are made from vibrations and this sound image creates in the brain of the listener a mental concept of the corresponding object. Accordingly, Saussure maintains that the physical and material dimensions of these soundings and writings are merely the material or concrete vehicles through which meanings are expressed: they occur at the level of what Saussure calls

substance, and they are not the same as the meanings that they, in some sense, carry. Saussure understands that the variability of sound and writing materials in this physical and material sense contrasts with the fact that individuals who share the same linguistic code succeed more often than not in communicating with each other through the use of the soundings and writings to which meanings are attributed in regular, fairly predictable ways from one occasion to another. In order to explain the meanings themselves and to avoid equating them with their physical manifestations, Saussure proposes a more abstract level of analysis, which he characterizes as the level of form. At this level, soundings and writings and the meanings attributed to them are interpretable as classes of abstract units, independent of their physical manifestations as phonic substance (sound waves) or graphic substance (written marks on the page). These abstract classes of formal elements or sign types are dependent only on their contrasting relations with the other elements or terms in a given system. Thus, the sign is not the same thing as the phonic or graphic physical medium that embodies it. The sign is a formal and abstract relation derived from the innumerable actual occasions of its use. The emptying of the sign of any consideration of the physical substance that manifests it entails a high level of idealization. This is theoretically consistent with the requirements of a purely “internal” linguistics, which is in principle concerned only with the abstract relations among linguistic forms in a system.

### 8.3. Structuralism in Linguistics.

Structuralism in linguistics is ‘a descriptive approach to a synchronic or diachronic analysis of language’. But ‘diachronic’ analysis is precisely one that deals with ‘historical’ and, where they are a source for our knowledge of a history. This analysis is ‘the basis of its structure as reflected by irreducible units of phonological, morphological, and semantic features’. This seems to imply that the units that structural linguists establish are necessarily of these three kinds

The Oxford Advanced Learner’s Dictionary said that structuralism in literature and language is a method which concentrates on the structure of system and the relations between its elements, rather than on the individual elements themselves Ferdinand de Saussure said at his book *Course in General Linguistics*:

“A language is a system in which all the elements fit together, and which the value of any one element depends on the simultaneous coexistence of all the others”.

Saussure introduced Structuralism in Linguistics, marking a revolutionary break in the study of language, which had till then been historical and, philological. In his *Course in General Linguistics* (1916), Saussure saw language as a system of signs constructed by convention. Understanding meaning to be relational, being

produced by the interaction between various signifiers and signified, he held that meaning cannot be understood in isolation. Saussure illustrated this relationality of language, with the terms paradigmatic axis (of selection) and the syntagmatic axis (of combination), and with the example of 8.25 Geneva to Paris express. Further, he challenged the view of reality as independent and existing outside language and reduced language to a mere “naming system”. He questioned the conventional “correspondence theory of meaning” and argued that meaning is arbitrary, and that language does not merely reflect the world, but constitutes it.

There are three classical schools of structural linguistics which adopted de Saussure’s theories in one way or another: the Prague school, headed by N. S. Trubetzkoy and Roman Jakobson (functional linguistics), the Copenhagen school, headed by Louis Hjelmslev (glossematics), and (to a lesser degree) the American school, headed by Leonard Bloomfield and Zellig Harris (descriptive or distributional linguistics). The difference between them in respect to de Saussure’s theories is primarily one of emphasis. Thus all three schools of structural linguistics distinguish between synchronic and diachronic phenomena and concentrate on the former, but the Prague structuralists stress to a greater degree than the others the relationship between synchronic and diachronic phenomena and the systemic nature of the latter.

Bloomfield defined all of the linguistic concepts he developed, most notably the concepts of ‘constituent’, ‘class’, and ‘construction’. The common part of any two complex forms, if it is a linguistic form, is a constituent, or component of these complex forms. Constituents are either immediate or ultimate (terminal). In the latter case they are morphemes. The concept of immediate constituents, which is akin to de Saussure’s concept of the syntagma, can be exemplified by the sentence *Poor John ran away*, which can be divided into two immediate constituents - *poor John* and *ran away* - each of which can again be divided into two new immediate constituents in his career, Bloomfield was concerned with developing a general and comprehensive theory of language. His first formulation embedded that theory within the conceptualist framework in favor of a variety of Behaviorism. He also repudiated the classical view that the structure of language reflects the structure of thought, for him, the structure of language was the central object of linguistic study, and hence of cognitive science, had that term been popular in his day. He maintained that all linguistic structure could be determined by the application of analytic procedures starting with the smallest units, which combine sound, and meaning which called morphemes. He showed how to identify morphemes, he showed how to identify both smaller units such as phonemes and

larger ones such as words, phrases and sentences. Bloomfield's structuralism also named as taxonomy school; this idea analyzes and classifies elements of languages according to its hierarchy relationship. They analyze the sentence using Immediate Constituents Analysis (IC Analysis) to see the elements immediately. Linguistic forms in which none of the immediate constituents is a bound form are called syntactic constructions. There are two basic types of syntactic constructions: exocentric and endocentric. When a phrase belongs to the same form class as one of its constituents, it is endocentric (cf. poor John, which can be substituted by John and is therefore assigned to the same form class). When this is not the case, the construction is exocentric (cf. John ran).

In conclusion, we can say that Ferdinand de Saussure is the first person who formulates the way to analyze the language systematically, which also can be used to analyze signs system. He said that language is a system of signs to express the idea then can be compared with the written record, symbolic ceremony, manner, etc. Structuralism analyzes how a person thinks from the concept until the appearance of signs and makes the form a language system.

#### **QUESTIONS:**

1. What is the difference between synchronic and diachronic linguistics?
2. What is the Linguistic contribution of F.de Saussure?
3. What is Language, speech and parole according F. de Saussure?
4. What can you say about extrinsic approach and the intrinsic approach to language?
5. What is the linguistic sign according F. de Saussure?
6. What is the role of F.de Saussure in Structuralism?

## CHAPTER IX. OPPOSITIONAL ANALYSES

### Plan:

9.1. The origin of oppositional analysis

9.2. Types of oppositions in language levels

9.3. Applications of oppositional analysis

**Key words:** *oppositional, phonology, phoneme, sentence, level, linguistic elements, proportional, isolated, multi-dimensional, morphological (formal) opposition, positional variants, significance*

9.1. The origin of oppositional analysis.

Oppositional analysis is connected with the Prague School that created functional linguistics. The Prague School was founded in 1929 by Czech and Russian linguists V. Mathesius, B. Trnka, Nikolay Trubetzkoy, Roman Jakobson and others. The main contribution of early Praguians to modern linguistics is the technique for determining the units of the phonological structure of languages. The basic method is the use of oppositions (contrasts) of speech-sounds that change the meaning of the words in which they occur. Oppositional analysis was first introduced by Nikolay Trubetzkoy (1890- 1938) who presented an important survey of the problem of phonology in his "The Fundamentals of Phonology" published in Prague in 1939. At the heart of oppositional analysis lies the well-known principle suggested by Ferdinand de Saussure who maintained that the system of language is to be studied on the basis of the oppositions of its concrete units. In terms of N.S. Trubetzkoy's theory, opposition is defined as a functionally relevant relationship of partial difference between two partially similar elements of language. The common features of the members of the opposition make up its basis, the features that serve to differentiate them are distinctive features. For example, in English the phoneme [b] is characterized by voicing, stop articulation (that is, it involves a complete closure as contrasted with various types of fricatives), and it is oral, that is non nasal. There is another phoneme [p] in English which shares all-of those characteristics except voicing. In general, the features of a particular phoneme are not unique and the entire set consists of varying combinations of the same small inventory of features. A phoneme is distinguished from all the other phonemes by a set of distinctive (differential) features, e.g. [p] is distinguished from [b] as a voiceless sound, from [t] as a bilabial, from [m] as having no nasalisation, etc. Thus any phoneme is defined as a set or bundle' of differential (distinctive) features. The basic definitions are given by N. Trubetzkoy [1960: 53]:

1. If in a language two sounds occur in the same position and can be substituted for each other without changing the meaning of the word, such sounds are optional variants of one and the same phoneme. One and the same speaker of English, for instance, may pronounce one and the same voiceless plosive ([p], [t], [k]) in absolutely identical positions with a varying force of aspiration.

2. If two sounds occur in the same position and cannot be substituted for each other without changing the meaning of the word or distorting it beyond recognition, these two sounds are phonetic realizations of two different phonemes. Such are, for instance, the sounds [p] and [b] in the minimal pair of English words [pek] (pack) and [baek] (back).

3. If two similar sounds never occur in the same position, they are positional variants of the same phoneme. For example, the [k] sounds in the English words [ku:l] (cool), [sku:l] (school) and [lukt] (looked) are different from one another from an articulatory and therefore acoustic point of view, being respectively, aspirated, unaspirated and plosionless (unexploded). Each of these similar speech sounds occurs in a definite position in which no other of these sounds can ever occur; in other words they are mutually exclusive. N.S. Trubetzkoy developed an elaborate set of contrast criteria for the identification (recognition) and classification of phonological oppositions.

Later on other researchers proved that the notion of opposition can be applied to elements of different linguistic status: phonemes, morphemes, words, word-forms, phrases, sentences, etc. To grasp the idea of a phonological opposition, consider the relationship between minimally distinct phonemes [t] and [d], [s] and [z] or [f] and [v]. The members of these oppositions are distinguished from each other by absence vs. presence of sound (voiceless vs. voiced consonants). Girl and girlish are members of a morphemic opposition. Due to this suffix the second member of the opposition belongs to a different part of speech. Man and boy are members of a lexical opposition which is defined as the semantically relevant relationship of partial difference between two partially similar words (Arnold, 1986). In the opposition man. :: boy the distinctive feature is the semantic component of age.

Morphological (formal) opposition may be well illustrated by the pair play :: plays which represents the opposition between the third person singular present tense, on the one hand, and the other persons of the singular plus those of the plural, on the other. In literary English, however, it also represents an opposition on a different plane: the form without -s is known as the Subjunctive, the one with -s as the Indicative, and the difference is said to be one of Mood.

The meaning of each necessary grammatical abstraction makes itself clear in the course of actual usage (Rayevska, 1976). Oppositional relations on the sentence level are most obvious in the correlation between Peter plays and Peter does not play which gives the opposition affirmation :: negation Correlation between Peter plays and Does Peter play? illustrates the opposition declarative.. interrogative sentence (Rayevska, 1976: 173) It has become customary to designate opposition with the signs + or , e.g. skilled + unskilled, skilled \ unskilled. It may also be represented as a fraction, e.g. skilled//unskilled

## 9.2. Types of oppositions in language levels.

Linguistic elements may enter into several types of oppositions with other cognate elements. Oppositions between the members of the opposition: privative, gradual, and equipollent. The most widely known is the binary privative opposition in which one member of the contrastive pair is characterized by the presence of a certain feature which is lacking in the other member (hence 'privative', i.e. indicating negation or absence). The feature is said to mark the opposition. The element possessing the feature in question is called the marked (strong) member of the opposition, the other is called the unmarked (weak) member of the opposition. For example, the presence of voice marks the privative opposition [b] :: [p], the marked member of the opposition characterized by this minimal distinctive feature being the phoneme [b] !n the privative opposition boy :: iad the distinctive feature is that of stylistic colouring of the second member In morphology, privative oppositions may be illustrated by book;; books, play:: is playing, etc.

Gradual opposition is formed by a contrastive group of members which are distinguished not by the presence or absence of a feature, but by the degree of it. For example, phonemes [i:]:: [i] :: [e] :: [as] are differentiated by the degree of their openness. The verbs affect:: torment torture are distinguished by the degree of intensity implied in the inflicted suffering. In morphology, it is a minor type of oppositions, e.g. strong :: stronger:: the strongest. In an equipollent opposition the members are logically equal. They may differ according to changes in their common distinctive feature Any string of stylistic synonyms may serve as an example of an equipollent opposition, e.g. girl :: maiden :: lass. In this case the basis of the opposition is the common feature "a young woman11 and stylistic colouring is a differential feature. In morphology, it is a minor type of oppositions confined to formal relations only, e.g. opposition of the person forms am ; is; are. Oppositions defined with respect to the whole system of oppositions: proportional, isolated, and multi-dimensional.

Proportional opposition is based on correlation between sets of binary oppositions. It is composed of two subsets formed by the first and the second elements of each couple, i.e. opposition. Each element of the first set is coupled with exactly one element of the second set and vice versa. Each second element may be derived from the corresponding first element by a general rule valid for all members of the relation, e.g. [p] :: [b] = [t] : [d] = [k] :: [g] = [f:: [v] - ls ]::[z ] = [0]::[6]. Proportional oppositions allow researchers to discover some linguistic regularities. Observing the proportional opposition child :: childish = woman :: womanish = monkey :: monkeyish - book :: bookish it is possible to conclude that there is in English a type of derived adjective consisting of- a noun stem and the suffix -ish. Any word built according to this pattern contains a semantic component common to the whole group, namely, "typical of, or having the bad qualities of".

Isolated opposition is limited to one pair of words only and there is no other pair the members of which have the same relations, e.g. w it:: witness, where the noun stem of the first member combined with the native English suffix -ness forms the name of the person, whereas in the majority of cases the suffix -ness is attached to adjectives and participles, forming abstract nouns denoting quality or state, e g dark . darkness = good .. goodness = kind :: kindness = obliging :: obligingness = prepared:: preparedness.

When the basis of similarity is not limited to the members of one opposition but comprises other elements of the system, linguists call the opposition poly-dimensional. The presence of the same basis or combination of features in several words permits their grouping into a subset of the vocabulary system, i.e. lexical group. An opposition existing between two elements may under certain conditions become irrelevant. This seems to be a universal feature in language development. In various contextual conditions, one member of an opposition can be used in the position of the other, exemplifying the cases of oppositional reduction or oppositional substitution. Reduction points out the fact that the opposition is cancelled, losing its formal distinctive force. Substitution shows the very process by which the opposition is reduced, namely, the use of one member instead of the other. This kind of oppositional reduction (i.e. suspension of otherwise functioning opposition) is referred to as neutralization of opposition. The position of neutralization is filled in by the weak member of the opposition. Examples of neutralization of oppositions on the phonemic level (the loss of a distinctive feature of one of a pair of phonemes that are otherwise differentiated on the basis of that feature) may be found in numbers. Phonological neutralization in English

may be illustrated by the absence of contrast between final s and z after t. Similarly, though we distinguish the English phonemes p and b in pin, bin, there is no such opposition after s, e.g. split, splint, spray.

Extending the concept of neutralization to the other levels of structure seems fully justified as having a practical value in the study of language both in general linguistics and with regard to English particularly. Neutralization of opposition in grammar may be illustrated by the sentence “I have no brother (cf. no brothers)”. In *Man conquers nature* we observe generic use of man to denote “people in general, the human race, humankind”, thus the weak member of the lexical opposition is used instead of the strong mankind. In morphological derivation the opposition of animate personal nouns to all other nouns is in some cases sustained by such suffixes as -or /er, -ard/art (braggart), -ist (novelist) and a few others, but most often neutralized. Neutralization, as in the word cultivator, is also observed with such suffixes as -ant, -er that also occur in agent nouns, both animate and inanimate. Another kind of reduction, by which one of the members of the opposition is placed in contextual conditions uncommon for it, is transposition based on the contrast between the members of the opposition. As a rule, transpositionally employed is the strong member of the opposition. For example, in *He is constantly complaining of something* the Present Continuous is used instead of the Present Indefinite to show the frequentative character of the action. Its use is stylistically marked: by exaggeration, it intensifies the implied disapproval of the man's behaviour.

N.S. Trubetzkoy has stressed the fact that his technique of oppositional analysis may be used in other domains of linguistics. The method of oppositions has been successfully extended to grammar and semantics. It is equally effective on different linguistic levels (phonology, lexis, morphology, and syntax). The principle of binary oppositions is especially suitable for describing morphological categories. As I B. Khlebnikova rightly points out, binary relations penetrate practically every plane of language phonological, morphological, and syntactic, but are especially evident on the morphological level, which better than any other reflects the structural organization of a particular language, its intricate correlations and the interdependence of its units. Roman Jakobson has used the principle of privative oppositions for describing the morphological categories of the Russian language. One of the most interesting examples is the description of the Russian case system in terms of binary privative oppositions. In English, the formal oppositions may be well illustrated by such pairs as girl:: girls, girl:: girl's; I :: we, I :: me, and the set of three he :: she :: it. It is around such oppositions

(also called opposemes) that the grammatical system of the language is to a large extent built up. Similar formal oppositions among the verbs are play:: plays and play:: played Cf. also the set of three am :: is :: are. The general notions of grammar, which determine the structure of language and find their expression in inflection and other devices are generally called grammatical categories. In studying grammatical categories, researchers often have to resort to oppositions, that is, pairs of grammatical forms opposed to each other in some way. As it is known, a grammatical category is generally represented by at least two grammatical forms, otherwise it cannot exist. A simple case of oppositions in pairs of grammatical forms will be found, for instance, between the Singular and the Plural in nouns, or, say, between Active and Passive in verbs. In dealing with grammar, it is often useful to observe such contrasts in terms of marked and unmarked members. In binary oppositions between pairs of categories, one member (the marked member) signals the presence of a general or overall meaning, while the unmarked member may either signal absence of the marked meaning or else be noncommittal as to its absence or presence. Thus love and loved are in contrast as present and past but only the latter is actually marked as such; love is unmarked and as such may be much more widely used than merely as a present in contrast with loved. From the point of view of form, the passive voice is the marked member of the opposition: its characteristic is the pattern be + participle II, whereas the active voice is unmarked: its characteristic is the absence of that pattern. It is common that of two members of an opposition one to the other is less definite, or vague. Prof. B.A. Ilyish points out that the opposition between perfect and non-perfect forms is shown to be that between a marked and an unmarked item, the perfect forms being marked both in meaning (denoting precedence) and in morphological characteristics (have + participle II). and the non-perfect forms - unmarked both in meaning (precedence not implied) and in morphological characteristics (purely negative characteristic: the collocation have + participle II not used). The problem of oppositions on the morphological level has not been completely solved as yet and remains a source of constant interest in modern language studies The principle of privative oppositions was used to represent the traditional sentence-parts of the basic (independent declarative non-emotional) two-member sentence type. The parts of such a sentence type are defined by their position in the structure of the sentence: the subject to the left of the verb-predicate, the object to the right of the verb, the adverbial modifier to the right of the object (if any); the attribute, which may appear as an optional sentence-part, occupies the position in contact to the noun.

The syntactic relations of the sentence parts are characterized by three distinctive features: A - subordination, B - predicativeness, and C - objectiveness - feature connected, but not without reservation, with the possibility of changing the active to the passive construction.

### 9.3. Applications of oppositional analysis.

An application of the oppositional method has also been extended to describe different types of simple sentences and variants of one and the same sentence. Different sentence-types (the opposites) are those that cannot be substituted for each other without changing the structural meaning of the sentence.

1. Two-member sentences as against one-member sentences, e.g. John worked as against John! or Work!

2. Sentences differing in the arrangement of the main constituents in basic sentences, e.g. We saw a river there as against There is a river there.

3. Sentences differing in the case-form of the subject-noun, e.g. Mary was a happy girl as against Mary's was a happy life. Variants of one and the same sentence-type are those that can be substituted for each other without changing the structural meaning of the sentence or distorting it beyond recognition. The following variants are recognized: a) Positional variants - context sensitive sentences in which one or more elements are left out but can be unambiguously inferred from the preceding sentence. There are two kinds of positional variants: included and adjoined. Included positional variants - such as can be placed in the position occupied in the preceding sentence by a question word or a word which is repeated in the positional variant, e.g. Who gave you that? - Soames. Where did she see him? - In the park. What do you think I am made of? Leather? Soames gave it her. - Who? Adjoined positional variants - can be optionally added to the preceding sentence, e.g. I am leaving. Tonight. Immediately. b) Optional variants - extended sentences as against unextended sentences, the unextended sentences being understood as having objects, etc., in accord with the valence of the verb (necessary to make the sentence complete), e.g. She saw him and She saw him yesterday in the park. Stylistic variants, which may be emotional, e.g. I saw her! She is such a darling! Sentence-types in which one or more elements seem to be left out but cannot be unambiguously inferred from the context are different sentence-types, e. g. Nothing to complain of. - There is nothing to complain of. We (!) have nothing to complain of. A change coming. - There is a change coming. A change is coming.

Oppositional analysis has proved to be relevant and helpful in linguistics. This principle of opposition is of paramount importance because no unit has any

linguistic significance by itself. Its significance can arise only out of its contrast with other units in the structural patterns of a particular language system. The following quotation summarizes the Prague School conception of structuralism and the significance of oppositional analysis in linguistics (Arnold, 1986): every concept in a given system is determined by all other concepts of this system and has no significance in itself alone; it does not become unequivocal until it is integrated into the system, the structure of which it forms part, and in which it has a definite fixed place. The most-favoured principle of the Prague School is the principle of binarity, according to which the whole of language should be reducible to sets of binary oppositions, Perhaps the best known advocate of the theory of binary oppositions is R. Jakobson, who has applied this kind of analysis to the Russian system of case, to the Russian verb system, and even to the English verb system (Rayevska, 1976). In these studies, R. Jakobson analyzes grammatical concepts in terms of sets of two mutually opposite grammatical categories, one of which is marked while the other is unmarked or neutral. The principle of binarity and the type of binary oppositions have been severely criticized for simplified representation of linguistic reality. But, as I V, Arnold points out, simplification is inevitable in any modelling or abstraction. Notwithstanding the criticism, oppositional analysis is especially useful in studying language as a system and making classifications of various types (Арнольд, 1991). Oppositional analysis combines well with almost all other methods of linguistic analysis, e.g. with distributional, componential and contextual analyses.

### **QUESTIONS:**

1. What is the origin of oppositional analysis?
2. What may morphological (formal) opposition illustrate?(give example)
3. What can you say about phonological opposition? (give example)
4. How the sentence may opposition in syntactical level of language?
5. How linguistic elements may enter into oppositions with other cognate elements? (give example)
6. What is the weakness of oppositional analysis?

## CHAPTER X. DISTRIBUTION ANALYSIS

### Plan:

10.1. Defining distribution and distributional analysis

10.2. Applications of distributional analysis

10.3. Strengths and shortcomings of distributional analysis

**Key words:** *method, distribution, linguistic unit, phoneme, morpheme, word, descriptive, word classes, observation, meaning, valency, combinability*

10.1. Defining distribution and distributional analysis.

The term distribution is used to denote the possible variants of the immediate lexical, grammatical and phonetical environment of a linguistic unit (phoneme, morpheme, word, etc.) According to Harris, the distribution of an element is the total of all environments in which it occurs, i.e. the sum of all the (different) positions (or occurrences) of an element relative to the occurrence of other elements. By the term distribution, we understand the occurrence of a linguistic unit relative to other units of the same level (words relative to words, morphemes relative to morphemes, etc.). The distributional value of the verb “get” for instance, may be shown by the following examples:

*get + N (notional verb)*

*get a book get + A (copula-type verb)*

*get cool get + V inf (semi-auxiliary verb of aspect)*

*get to think get + V ing (semi-auxiliary verb of aspect)*

*get thinking get + prep + V ing (semi-auxiliary verb of aspect) and etc.*

Distribution is a factor of linguistic context, it implies the position of an element and its combinability with other elements in this or that particular context (Morokhovska, 1993: 54). Distributional analysis aims at analyzing linguistic elements in terms of their distribution. It is directed at the setting up of elements and the statement of the distribution of these elements relative to each other. Distributional analysis was recognized as primary in importance in structural (descriptive) linguistics in the 1930s-50s. Descriptive linguistics deals with the regularities in the distributional relations among the elements of speech, i.e. their occurrence relatively to each other within utterances. The approach to the problem is consequently based on the principles of distributional analysis. L. Bloomfield, Z.S. Harris, R.S. Wells, Ch.F.Hockett, W. Francis, Ch. Fries and other linguists, made great contribution to distributional analysis. Distributional analysis was not something quite novel in English linguistic theory. Occurrence of an element relative to other elements, now generally referred to as distribution, has been involved in almost every grammatical statement since antiquity. However, the

difference between the traditional and structural approaches consists in that the former did not rely upon this method as part of an explicitly formulated theory, whereas modern linguistics has given recognition, within the theory of grammar, to the distributional principle, by which traditional grammarians were always guided in practice (Rayevska, 1976). Linguists of different schools commonly use distributional analysis in its various forms nowadays. Defining word classes for distributional analysis depends on the structural use of the word in the sentence. Observation is facilitated by coding. In this, words are replaced by conventional word-class symbols. Each analyst suggests some variant suitable to his/her particular purpose. A possible version of notation is N for nouns and words that can occupy in the sentence the same position, such as personal pronouns. To indicate the class to which nouns belong subscripts are used, so that  $N_p$  means a personal noun,  $N_m$  - material noun,  $N_{abstr}$  - an abstract noun, etc. V stands for verbs,  $V_{aux}$  - auxiliary verb,  $V_{mod}$  - modal verb,  $V_{link}$  - link verb, etc. A - stands for adjectives and their equivalents, D - for adverbs and their equivalents, prep - for prepositions, d - for determiners, etc. Prepositions and conjunctions are sometimes not coded. Observation is further facilitated by simplifying the examples so that only words in direct syntactic connection with the headword remain. Thus, when studying the verb to make, for example: *The old man made Henry laugh aloud may be reduced to. The man made Henry laugh.* Until recently the standard context was taken to be the sentence, now it is often reduced to a phrase, so that this last example may be rewritten as *to make somebody laugh.* When everything but the headword of the phrase is coded, we obtain the distributional formula: *make + N<sub>p</sub> + V.* distributional formulas, and the analyst receives a complete idea of the environments the language shows for the word in question. Distribution is the matter of speech, it is describable in terms of positions and in terms of positional classes (distributional classes) of fillers for these positions. Therefore, the distribution of an element is given by the distributional formula, which is the contextual pattern of the environment characteristic of the concrete occurrence of a linguistic unit. For procedural purposes the element whose distribution is under analysis remains unsymbolized in order that the concrete environment of a concrete element should be outlined and patterned. The contextual positions in the environment of the unit under consideration are identified as function-slots, which can be filled with the elements of the appropriate fillers-class. Each positional slot of the pattern should be symbolized accordingly. For this purpose, conventional symbology is commonly used. A phrase, all elements of which, including the headword, are coded, is called a

distributional pattern, for instance *to make somebody laugh - to V; NO V2*. The subscripts t, etc. show the order of appearance of different members of the same class. The coding helps researchers to be on the alert for the distinction between classes (e.g. noun, verb), subclasses (e.g. personal noun, transitive verb) and class members or elements (e.g. make, somebody, laugh). It must be noted that in each of the above examples the meaning of the verb make is different. Some of these patterns, however, may be used for several meanings of the word make, so that the differentiation of meanings is not complete.

## 10.2. Applications of distributional analysis.

Three types of distribution are commonly distinguished in distributional analysis: complementary, contrastive and noncontrastive (Irtenyeva et al, 1969).

Complementary distribution is said to take place when two linguistic variants cannot appear in the same environment. Two units are said to be in complementary distribution if only one of them normally occurs in certain environments and only the other normally occurs in other surroundings. Thus, stems ending in consonants take as a rule the suffix -ation (e.g. liberation), stems ending in pt, however, take -tion (e.g. corruption) and the final t becomes fused with the suffix. Positional variants of the morpheme -(e)s [z], [s], [iz] are also in complementary distribution, cf.: rooms, books, boxes, etc. Contrastive distribution is understood as a difference of two linguistic units occurring in the same environment and changing one linguistic form into another linguistic form, e.g. *the zero suffix as against the -s suffix: pen-pens, book-books, etc.* Different linguistic units may be characterized by contrastive distribution, i.e. if they occur in the same environment they signal different meanings, e.g. *measurable-measured*. Non-contrastive distribution is understood as a difference of two linguistic units occurring in the same environment without changing one linguistic form into another linguistic form, e.g. *hoofs -hooves, wharfs-wharves, etc.* Distributional analysis is widely applied for different purposes: to find out typical, most commonly used collocations, investigate the possibility or impossibility of certain types of meaning in definite types of collocations, differentiate between synonyms, classify word-groups, identify class-membership and functions of linguistic units, etc.

Distributional analysis is mainly applied by linguists to find out sameness or difference of meaning. It is assumed that the meaning of any lexical unit may be viewed as made up by the lexical meanings of its components and by the meaning of the pattern of their arrangement, i.e. their distributional meaning. In a great number of cases the semantic difference between two or more synonyms is

supported by the difference in distribution. Distributional oppositions between synonyms have never been studied systematically, although the amount of data collected is very impressive. The difference in distribution may be syntactical, morphological, lexical, and surely deserves more attention than has been so far given to it. It is, for instance, known that *bare* in reference to persons is used only predicatively while *naked* occurs both predicatively and attributively. The same is true about *alone*, which, irrespectively of referent, is used only predicatively, whereas its synonyms *solitary* and *lonely* occur in both functions. The function is predicative in the following sentence: *If you are idle, be not solitary, if you are solitary, be not idle* [I. Arnold, 1986, 182]. It has been repeatedly mentioned that *begin* and *commence* differ stylistically. It must be noted, however, that their distributional difference is not less important. Distribution defined as occurrence of a lexical unit relative to other lexical units can be interpreted as co-occurrence of lexical items and the two terms can be viewed as synonyms.

Distributional analysis is of great significance for the study of syntactical combinability and lexical collocability in word-groups. Lexical collocability is distinct from syntax in that one is concerned in collocation with each word as an individual lexical item in the company of other words as individual lexical items, and not as in syntax, with words as members of classes in relation to other words also as members of classes (e.g. V + N, A + N, etc.). Speakers become accustomed to the collocations of words and the mutual expectancies that hold between them in utterances irrespectively of their grammatical relations as members of word classes or as parts of speech. A rather obvious example is co-occurrence of a lexical item *perform* with *operation* or *commit* with *crime*. There are the following stages:

1. Defining syntactical combinability of the verb support by establishing the main distributional patterns of this verb, e.g. N<sub>1</sub> (subject) + V + N<sub>2</sub> (object), etc.
2. Classification of lexical items which collocate with the verb into lexico-semantic groups, e.g. abstract nouns in the object position may denote: a) feelings (alarm, antipathy), b) belief or judgement (opinion, motion, point of view, argument); c) result of scientific research (finding, data, information); d) human activities (meeting, strike, fight, struggle, campaign, attempt, effort), etc.
3. Analysis of semantic peculiarities of these lexical items and establishment of some regularities of lexical collocability. Of great importance is investigation of lexical restrictions in collocability that are of purely intralinguistic nature and cannot be accounted for by logical considerations. This can be, perhaps, best illustrated by comparing the collocability of correlated words in different

languages. In English, for example, the verb *seize* may be combined with nouns denoting different kinds of emotions: *I was seized with joy, grief, etc.* The classification of word-groups is a much neglected subject. Most syntactic descriptions of a language distinguish different types of word-groups without making a systematic attempt to classify them. They usually distinguish the so-called subject predicate group, the coordinative group, and a variety of others, such as verb-object, prepositional phrase, etc. In his book *Language* [1933] Leonard Bloomfield presented the following classification, illustrated by means of examples taken from English: 1) endocentric constructions: coordinative (or serial), and subordinative (or attributive); 2) exocentric constructions. L. Bloomfield's classification was made by means of criteria of distribution, i.e. syntactic use, in about the following way. A group is called coordinative, if it has the same distribution as two or more of its members: boys and girls, bread and butter, coffee, tea, and milk. A group is called subordinative, if it has the same distribution as one of its members: fresh milk, very fresh. In fresh milk the member milk is called the "head", and fresh the "adjunct". Coordinative and subordinative groups are endocentric. A group is called exocentric if it has a distribution different from either of the members, e.g. John ran; with John. It is one of the merits of L. Bloomfield to have shown the importance of distribution as a criterion for classifying word-groups. Some linguists prefer to avoid the traditional terminology and establish a classification of parts of speech based only on the distributional analysis, i.e., their ability to combine with other words of different types. Thus, for instance, the words *and* and *but* will fall under one group, while *because* and *whether* are referred to as belonging to another group. The application of two methods of structural linguistics, Fries to dispense with the usual eight parts of speech. He classified words into four form -classes, designated by numbers (class 1, class 2, etc.), and\* fifteen groups of function words designated by letters. His classification is based on the assumption that all the words which can occupy the same 'set of positions' in the patterns of English single free utterances without change of structural meaning must belong to the same class or group. The classes suggested by Ch. Fries are based on distribution, i.e. they are syntactic positional classes. In the four large classes, lexical meanings of words depend on the arrangement in which these words appear. In function words, it is usually difficult if not impossible to indicate a lexical meaning apart from the structural meaning that these words signal. The form -classes correspond roughly to what most grammarians call nouns and pronouns, verbs, adjective and adverbs, though Ch. Fries especially warns the reader against the attempt to

translate them into the old grammatical terms. The group of function words contains not only prepositions and conjunctions, but also certain specific words that most traditional grammarians would class as a particular kind of pronouns, adverbs and verbs. Thus, the analysis of the distributional conditions in which linguistic elements occur is essential for the identification of their class-membership and for the identification of their functions in relation to other elements of the context.

### 10.3. Strengths and shortcomings of distributional analysis.

Distributional studies enable researchers to state a great deal about the total functioning and use of elements in a language. Especially with the development and use of the so-called distributional-statistical analysis considerable precision and exhaustiveness, not available otherwise, seem within reach. Distributional analysis is of great practical importance both in foreign language teaching and in computer-aided translation. The identification of the necessary meaning is based on the corresponding distribution that can signal it and must be present in the memory either of the pupil or the machine (Arnold, 1986).

The weakness of distributional analysis, however, is that difference in distribution is not always indicative of difference in meaning and, conversely, sameness of distribution is not an absolutely reliable criterion of sameness of meaning. Generally speaking, distribution is mainly the result of two factors: the meaning of the given word or group, and the semantic structure of the sentence, the "sentence-pattern", in the given language. The word or word-group is useable, or not useable, or useable under certain conditions only, as a certain member of a certain sentence pattern, if its meaning agrees with the semantic function of that member. Distribution is not a reliable indicator of meanings, or of similarities and dissimilarities between meanings, because it is not only the result of meaning and sentence-pattern, but also of "disturbing factors", such as arbitrary idiom, and what may be called "personal idiom", as poetical licenses.

### **QUESTIONS:**

1. What kind of analyses is distribution and distributional analysis?
2. What kind of distributional analysis do you know?(give examples)
3. How can you identify the difference between distributional analyses?
4. What is the difference between coordinative and subordinative groups in distributional analyses?
5. How did Leonard Bloomfield present classification of word groups in distributional analyses?
6. What can you say about strengths and shortcomings of distributional analysis?

## CHAPTER XI. VALENCY ANALYSIS

### Plan:

11.1. Origin of valency analysis

11.2. Application of valency analysis

11.3. The stages of valency analysis

**Key words:** *valency, combinations, analysis, linguistic, units, forms, notional, method, distributional, stage, structure, external, morphem*

11.1. Origin of valency analysis.

By taking into consideration not only classes of words but subclasses as well distributional analysis becomes a tool of considerable accuracy and forms the basis for the development of a more elaborate and exact procedure called valency analysis (Arnold. 1986). Valency analysis to be a particular type of distributional analysis. Other researchers consider them to be two separate methods of linguistic research. According to I.V. Arnold (Арнольд, 1991) valency analysis has much in common with distributional analysis, although it was developed independently and, unlike distributional analysis, it has no connections with structural (descriptive) linguistics. The term valency (derived from Latin *valentia* "strength", "worth") was borrowed from chemistry. In chemistry, it reflects the number of bonds an atom can form. It denotes the relative combining capacity of an atom or group compared with that of the standard hydrogen atom. In linguistics, the term valency is used to denote potential combining power or typical co-occurrence of a linguistic element, i.e. the types of other elements of the same level with which it can occur. The notion of valency was introduced into linguistics in 1934 by Lucian Tesnière. He defined valency as the ability of the verb to govern a number of other words in the sentence. A great contribution to valency analysis was made by S.D. Katsnelson, M.D. Stepanova, B.M. Leikina, and G. Helbig. S.D. Katsnelson (Кацнельсон, 1948) defined valency as the property of a word to be realized in a particular way in the sentence and enter into combinations with other words. Later he simplified this definition: valency is the ability of certain classes of words to attach other words. S.D. Katsnelson (Кацнельсон, 1987) claimed that valency could be understood as a property of word meaning in which there are, figuratively speaking, "empty spaces" or "blanks" which have to be filled in combinations with other words. Thus, valency is the implicit indication contained in the word that points out that the word has to be combined with other words of certain types in the sentence. Valency of a predicate verb is characterized by the number of its open positions, which necessarily have to be filled. Intransitive verbs denoting events such as fall and

drown, for instance, are one-valent (univalent). In sentences, they have to be combined with the subject. Other examples of one-valent verbs are; laugh, cry, jump. Bivalent verbs kill, find, catch have the potential ability to combine with the subject and direct object, Trivalent verbs give and present have the ability to combine with the subject, direct object and indirect object. Valency should be distinguished from the notions of combinability, distribution and context. Since valency of linguistic units is their potential combinability, it should be actualized in speech. This takes place in speech communication whenever linguistic units occur in actual speech units (utterances). The actualization of valency is achieved through the concrete combinability of linguistic units in quite concrete cases of their occurrence in speech units. The correlation of valency and combinability as linguistic potentiality and its actualization reflect the dichotomy of language and speech.

#### 11.2. Application of valency analysis.

Combinability of linguistic elements is actualized in speech in a certain linguistic environment, which is called context. The sum of all environments in which the given linguistic element occurs makes up its distribution. It follows that the actualization of valency is regulated and conditioned, in all respects, by contextual conditions, by the distributional conditions in particular. The role of distribution in providing contextual conditions for the actualization of linguistic valency should be underestimated. Such distributional conditions can be favouring and non-favouring for the actualization of the regular combining power (valency) of linguistic units and forms. Due to their central role in the sentence notional verbs are the most syntagmatically active elements which realize their active valency functioning as "heads" in syntactic constructions of nominal and adverbial complementation: V + N and V + D. According to their categorial valency substantive elements display patterning with the qualitative elements (adjectives) which are designed to denote qualities of objects and phenomena: strong body, fruitful results, profound silence, sharp knives.

The noun possesses the strongest categorial valency as it has the potential ability to combine with almost all word classes forming both left-hand and right-hand connections with them. The categorial valency of qualifying elements (adjectives and adverbs) is not strong, they pattern regularly with degree adverbs: *too imposing, very short, extremely difficult, easily enough*. Subcategorial and individual valencies are in full accord with the categorial valency of linguistic units. Grammatical valency of linguistic units reveals their potential ability to pattern with particular grammatical forms. The term lexical valency denotes the

potential capacity of words to occur with other words of certain lexical meanings by the distributional conditions in particular. Different lexico-semantic variants of the same word have different lexical valencies. Grammatical valency of verbs presupposes their potential ability to combine with concrete nouns V + N: to read a book, to eat a book, to write a letter, to write a fish, etc. Acceptability of such word combinations from the point of view of grammatical valency is beyond dispute (Аракин, 1972). But in speech such combinations as to eat a book and to write a fish are felt to be totally unacceptable. This can be explained by extra linguistic reasons: in reality such phenomena simply do not take place. Such examples prove that words besides their grammatical valency are characterized by their potential ability to selectively combine with other words with certain lexical meanings, i.e. lexical valency. External valency is characteristic of notional words. Valent properties of morphemes (stems or affixes) within the morphological structure of a notional word are qualified as internal valency of the word. External valency of morphemes is realized through their combinability. For example, analysis of the derivational pattern N + -ish: A shows that the suffix -ish is practically never combined with noun stems which denote units of time and space (\*hourish, \*mileish, etc.). The overwhelming majority of adjectives in -ish are formed from noun stems denoting living beings (wolfish, clownish, boyish, etc.) (Soloshenko, Zavhorodniev, 1998)

### 11.3. The stages of valency analysis.

Valency analysis is divided into the following stages 1. First of all, researchers make up a list of linguistic elements (e.g. words) the valency of which is going to be studied, define the types of texts to be used for collecting sample material and delimit the size of the corpus. 2. Then they study the collected examples. In some cases, all the elements which have no syntactic connections with the investigated unit in these examples (the so-called "optional linguistic environment") are discarded. 3. After that linguists may study the semantic structure of these linguistic units and establish sets of valencies (valency sets). Valency is usually defined with the help of case roles, such as Agent, Experience, Instrument, Object, based on the semantic relationship of noun phrases to verbs. Grammatical relations, as subject and direct object, are derived from these case roles. The average number of roles, as a rule, does not exceed three or four Linguistic units are then characterized as trivalent or quadrivalent, respectively. Research results provided below illustrate the valency set of English transitive verbs break, fill, open, choose, strengthen, dry, quicken. Semantic structure of these verbs reveals

the following valencies: Agent, Patient, Cause, Instrument, Content (Милютинa, 1982: 101):

Valency analysis has a wide field of application. It was applied to define valency sets of words belonging to various parts of speech. It was used to show the interdependence of denotational and conlocational components of word meaning. It was also applied to word-formation in studying the valencies of affixes and stems. Valency analysis of both notional words and morphemes is of great importance in linguistics. To describe the system of a given vocabulary one must know the typical patterns on which its words are coined. To achieve this, it is necessary not only to know the morphemes of which they consist but also to reveal their combining power (valency) and the relationship existing between them. This approach ensures a rigorously linguistic basis for the identification of lexico-grammatical classes within each part of speech. The study of the lexical system must also include the study of the words' combinatorial possibilities -their valency or capacity to combine with one another in groups of certain patterns, which serve to identify meanings (Arnold, 1986). The establishment of syntagmatic relations between words is conditioned by the valent properties of the units entering into the syntagmatic relation. The valency of notional units is their potential ability to get into syntagmatic relations and to pattern with the units of appropriate types. The character of valency is predetermined by the semantic specialization and by the semantic completeness of the unit: the more specialized a notional element is the less valent it. Valency (both grammatical and lexical) is an important characteristic of the word, it is included into lexical paradigmatics. But the word, being a unit of lexical paradigmatics, also functions as a member of various word combinations in speech. This ability belongs to lexical syntagmatics which may be defined as the realization sphere of lexical connections in their functioning. These connections may be realized only in speech, i.e. in actual word combinations. This is no longer a potential ability characteristic of the word as a unit of lexical system but a concrete realization of this ability in speech which receives the name of lexical combinability (collocability). Valency is the characteristic of the language, collocability is the characteristic of speech. The notion of combinability in linguistics is considered to be broader than that of valency. Combinability is believed to embrace both valent and non-valent connections (e.g. contextual and nonce usage). Valency embraces only subordinate connections of words, combinability implies both subordinate and coordinate. Most modern research in linguistics emphasizes the importance of studying combinability, not valency. In recent years there has been increased

interest in targeting what is variously known as collocations, fixed expressions, formulaic sequences, multiword units, chunks, lexicalized phrases (Wray, 2000). This research shows that combinability of linguistic units plays an important part in almost every linguistic issue.

**QUESTIONS:**

1. What is the origin of valency analysis?
2. How can you distinguish valency analyses?
3. What types of valency analyses do you know?
4. What are the stages of valency analyses?
5. What is the difference between valency and distributional analyses?
6. What is the grammatical valency?

## CHAPTER XII. METHOD OF TRANSFORMATIONAL ANALYSIS

### Plan:

12.1. The notion of transformational analysis

12.2. Application of transformational analysis

12.3. Strength and shortcomings of transformational analysis

**Key words:** *method, transformation, kernel, addition, deletion, substitution, permutation, recategorization, double predicates, coordination, subordination, unchanged meaning*

12.1. The notion of transformational analysis.

The theory of the IC which in the middle of the 20<sup>th</sup> century fascinated the minds of the linguists has only been obscured by Transformational grammar (TG) a new linguistic theory which appeared in the 1950s. Transformational grammar was first proposed by Zellig S. Harris as a method of analyzing the ‘raw material’ {concrete utterances} and was later elaborated by Noam Chomsky as a synthetic method of ‘generating’ (constructing) utterances. Both these grammarians belonged to the Descriptive School of American linguistics. Thus, we may say that Transformational grammar as a new method of linguistic analysis was born inside the Descriptive linguistic trend. A number of concepts and provisions developed by this school (deep and surface structures, transformations, etc.) have become common currency in linguistic literature today. Noam Chomsky called attention to two fundamental facts about language (Pinker, 1995). First, virtually every sentence that a person utters or understands is a brand-new combination of words, appearing for the first time in the history of the universe. Therefore, a language cannot be a repertoire of responses; the brain must contain a recipe or program that can build an unlimited set of sentences out of a finite list of words. That program may be called a mental grammar (not to be confused with pedagogical “grammars”, which are just guides to the etiquette of written prose). The way the language works, then, is that each person’s brain contains a lexicon of words and the concepts they stand for (a mental dictionary) and a set of rules that combine the words to convey relationships among concepts (a mental grammar). The second fundamental fact is that children develop these complex grammars rapidly and without formal instruction and grow up to give consistent interpretations to novel sentence constructions that they have never before encountered. Therefore, N. Chomsky argued, children must innately be equipped with a plan common to the grammars of all languages, a Universal Grammar, that tells them how to distill the syntactic patterns out of the speech of their parents. Linguists and psychologists have been puzzling over the phenomenon of young

children's ability to learn their native language at an early age and with no tuition; and some children do more than this. If their homes are bilingual, they learn two languages. This is done in spite of the tremendous diversity of sentence structures. When we look at this immense complexity of language we wonder how anyone can be bright enough or have a powerful enough memory to learn a language and use it. Yet all people do this. People master all the grammar of their native language (though of course not all of its vocabulary) and they achieve this without conscious study at a very early age. If there is any explanation at all, it must be that language structure is not really as complicated as it looks at first. There must be some system to it simple enough to be grasped and held by any human mind, however ordinary. The main assumption of Transformational grammar is that any language consists of a limited number of kernel (basic) sentences and an unlimited number of other sentence structures derived or generated from them. They are generated by means of transformations which constitute the transformational mechanism, a very important area in a language system. As defined by Z.S. Harris the approach of transformational grammar presents each sentence as derived in accordance with a set of transformational rules from one or more (generally simpler) sentences, i.e. from other entities of the same level, e.g. the sentence 'Tests are short' is made up from two simple kernel sentences: 'Tests are short' and 'Tests are good'. A language is then described as consisting of specified sets of kernel sentences and a set of transforms generated from these kernel sentences by certain transformational rules which are not very numerous or difficult. The two fundamental problems of Transformational grammar are: the establishment of the domain of the kernel sentences (the set of kernel or basic structures), and the establishment of the set of transformation rules for deriving all the other sentences as their transforms. Thus, a fundamental distinction is made between two kinds of sentences: kernel sentences and transforms. Some transformations are operated not upon one of the kernel sentences, but they may be operated upon some underlying sentence which is a transform of the kernel sentence. Kernel sentences are the basic elementary sentences of the language from which all other sentences are made. They are simple, active, declarative, unextended sentences that may be used in making more elaborate sentences. For English, Z.S. Harris lists seven principal patterns of kernel sentences: 1. N V: The team went there. 2. N V N: We'll take it. 3. N V Prep N: The teacher looked at him. 4. N is N: He is an architect. 5. N is A: The girl is pretty. 6. N is Prep N: The paper is of importance. 7. N is D: The man is here. Z.S. Harris also includes a few minor constructions into the set, such as N is between N and N and some insert

constructions, which hardly enter into transformations, e.g. N! (a call), Yes. He also makes an important observation that a different set of kernel sentences may be yielded but this will not in the least make a difference for the picture of the structure of language in general. A similar list of patterns is recommended to language teachers under the heading. These are the basic patterns for all English sentences: 1. Birds fly. 2. Birds eat worms. 3. Birds are happy. 4. Birds are animals. 5. Birds give me happiness. 6. They made me president. 7. They made me happy. The five patterns described in this grammar are determined only by the position of the major components of a sentence. If the position of one of the major components is altered, the sentence follows a minor, rather than a major pattern. The five major patterns are: 1. Subject+Verb: Women applauded. 2. Subject+Verb+Object: We ate hamburgers. 3. Subject+Verb+ Predicate Nominative: Husbands are nice. 4. Subject+Verb+Predicate Adjective: Helen is beautiful. 5. Expletive+Verb+Predicate Adjective Subject: It is easy to swim. S. Potter (1960: 82) reduces the number of kernel sentences to three: 1. The sun warms the earth. 2. The sun is a star. 3. The sun is bright. More extensive and accurate is the tabulated survey of 39 types of kernel sentences given by G.G. Pocheptsov (Почепцов, 1971). Based on certain assumptions about the kinds of processes that exist in language and the manner in which they correlate this survey presents a major linguistic interest. The problem of transformations must begin with the definition of the term transformation, transform and transformational rule.

## 12.2. Application of transformational analysis.

Transformation is the changing of a sentence, phrase or formula according to a prescribed model and following certain rules. The change is controlled with respect to morphemic composition and the meaning of the phrase (Arnold, 1986). The possibility of transformation is called the transformation potential. The result of transformation is called a transform. Transforms are syntactic constructions (sentences and phrases) derived from the kernel sentences retaining their grammatical and semantic relations, but having an additional grammatical meaning of their own. According to the additional grammatical meaning transforms may be affirmative, interrogative, imperative, exclamatory, negative, passive, compound, complex, etc. To give an example, the sentence: Was the sky overcast? is a transform derived from the kernel sentence: The sky was overcast. The grammatical meaning of the kernel sentence is the relation “thing and as stele”. Transforms are derived from kernel sentences by certain transformational rules. A transformational rule is a rule, which requires or allows us to perform

certain changes in the kernel structure. It tells us how to derive, something from something else by switching things about, putting things in or leaving them out. Transformational rules may also be called derivation rules because they tell us how a variety of sentence structures and nominal structures are derived or generated from the kernel sentences (Irtenyeva et al., 1969). Transformational rules may concern the introduction of new elements into kernel sentences or kernel formulas (e.g. negatives, adjectives), the rearrangement of their elements (e.g. to produce a negative or interrogative sentence) or both (e.g. transformation into passive) (Arnold, 1986). The following are examples of transformational rules: 1. NP+V+NP2 > NP2+Aux+ Ven+by+NP, The dog chased the man > The man was chased by the dog. This rule will generate all regular active-passive sentences. Four separate operations are recognized here: 1) the first noun phrase in the active sentence (NP is placed at the end of the passive sentence; 2) the second noun phrase in the active sentence (NP2) is placed at the beginning of the passive sentence; 3) the verb (V) is changed from past tense to past participle (Ven), and an auxiliary verb (Aux) is inserted before it; 4) preposition by is inserted between the verb and the final noun phrase (Poluzhyn, 2004). According to this transformational rule, nominal structures are derived from kernel sentences. The operations applied to the kernel sentence are; 1) deletion of the verb; 2) embedding A into NP between T and N (Irtenyeva et al., 1969) NP is A TN/A of NP (N/A is an N derived from A) The task was difficult > the difficulty of the task. The day was lovely - the loveliness of the day. These transformational rulers also used to derive nominal structures from kernel sentences. The operations applied to the sentence are performed on two levels: on the morphemic level -the N is derived from the A by means of certain suffix transformations; on the syntactic level the NP of the kernel sentence is connected with TN/A by means of preposition of (Irtenyeva et al, 1969). As can be seen, a transformational rule has two parts: structural analysis (SA) - it is used to determine sentence constituents (constituent structure) of the input string and structural change (SC) - it specifies how to change the original structure to get the derived structure (Poluzhyn, 2004). Transformational rules are studied in three sets, indicated by Z.S. Harris: 1. Transformations of kernel sentences into other simple sentences (S > S). 2. Transformations of simple sentences into NP - nominalization (S -NP). 3. Transformations of two or more simple sentences into a complex or compound sentence (S1 + S2 -> S3). Transformations in simple sentences usually imply the transformation of:

- affirmation (T-A): I love summer. I do > I love summer I've been there> But I have been there
- negation (T-NOT): She saw him. > She did not see him. >Somebody saw that> Nobody saw that.
- general question (T-Q): She loves summer. >Does she love summer? Mary is not your friend. > Is Mary not your friend?
- tag-question (T-TAG): She loves sweets. > She loves sweets, doesn't she?
- special question (T-W): Peter has come. >Who has come? Do you know the song? > What do you know?
- exclamation (T-EX): The girl is pretty. > What a boy he is!
- command or request (T-I): You must be quiet. >Be quiet! Do be quiet! Let's be quiet! Please be quiet!
- the passive (T-PASS) can be applied only to sentence structures containing certain subclasses of verbs: He put the book aside. > The book was put aside. The woman gave the child a chocolate. > A chocolate was given the child. >The child was given a chocolate.
  - preposition introduction (T-PREP): He gave his mother some money. > He gave some money to his mother. Mother bought Jonny a toy. >Mother bought a toy for Jonny

The most commonly used transformational procedures in transformational analysis are:

1. Permutation - repatterning of the kernel transform on condition that the basic subordinate relationships between language units are not changed. In the following example, the basic relationships between the lexical units and the stems of notional words are essentially the same: his work is excellent > his excellent work >the excellence of his work >he works excellently.
2. Replacement (or substitution) - is testing of similarity by placing language units into identical environment: It is reddish > it is somewhat red. A component of the distributional structure may be substituted by a member of a certain strictly defined set of lexical units, e.g., replacement of a notional verb by an auxiliary or a link verb, etc. Thus, in the two sentences having identical distributional structure: *He will make a bad mistake and He will make a good teacher* - the verb make can be substituted for by become or be only in the second sentence (he will become /be a good teacher) but not in the first (he will become a bad mistake), which is a formal proof of the intuitively felt difference in the meaning of the verb make in each of the sentences. In other words, the fact of impossibility of identical transformations of distributionally identical structures is a formal proof of

difference in their meanings. Substitution is also useful in determining classes of words. Thus, the words family, boy and house belong to different classes of nouns because they are differently substituted: I like this family > I like them. I like this boy > I like him. I like this house > I like it.

3. Addition (or expansion) - may be illustrated by application of the procedure of addition to the classification of adjectives into two groups - adjectives denoting inherent and non-inherent properties. For example, if to the two sentences John is happy (popular, etc.) and John is tall (clever, etc.) - we add, say, in Moscow, we shall see that \*John is tall (clever, etc.) in Moscow is utterly nonsensical, whereas John is happy (popular, etc.) in Moscow is a well-formed sentence. Evidently, this may be accounted for by the difference in meanings of adjectives denoting inherent (tall, clever, etc.) and non-inherent (happy, popular, etc) properties.

4. Deletion (or zeroing) - a procedure which shows whether one of the words is semantically subordinated to the other or others, i.e. whether the semantic relations between words are identical. For example, the word-group red flowers may be transformed into flowers without making the sentence nonsensical: I love red flowers > I love flowers - whereas I hate red tape cannot be transformed into > I hate tape Transformation of nominalization converts the kernel sentence into a noun-phrase (NP) retaining the same semantic relations, e.g. The seagull shrieks > the shriek of the seagull. The newly derived transform retains the semantic relations of the kernel sentence actor action Nominalization implies the following procedures:

- deletion of the verb: The sea is rough. > the rough sea. The girl is near the window > the girl near the window.
- introduction of prepositions: The man is wise. > the wisdom of the man. My wife is like an angel. > my angel of a wife.
- introduction of the -'s element between the two NP: The man has a son > the man's son.
- permutation of NP<sub>1</sub> and NP<sub>2</sub>: The bowl is for sugar. > a sugar bowl. The cup is for coffee. > a coffee cup.
- derivation of the corresponding N from V: The bird sang > the song of the bird. He loves pictures. > his love for pictures.
- transformation of V-finite into Ving and V,0: The bird sings. > the singing of the bird / the bird's singing /for the bird to sing.

N-transforms can be used in NP positions in other sentences to expand them:

N-subject position: The shriek of the seagull startled me. Where is my angel of a wife? The girl's dancing was beautiful.

N-object position: I heard the shriek of a seagull. He called her his angel of a wife. We all admired the girl's dancing.

N-predicative position: The sound was the shriek of a seagull. This is my angel of a wife. The best thing was the girl's dancing.

Thus three degrees of nominalization are distinguished 1) the slightest degree when the only trait of nominalization is the capability of standing in the NP position (N+clauses); 2) the lower degree when the transform capable of standing in the NP position still have a V, but it is non-finite (semi+clauses); and 3) the higher degree of normalization, N structures without V. It will be of interest to seek out the reason why native speakers of English generate N-transforms and extensively use them. The first reason is that no lexicon can be large enough to contain names for all the things about which at some time or other we shall speak and for which we must have distinct names, e.g. not the shriek of a seagull but the shriek of an engine, and the like. The second reason for using N-transforms, especially those with Vto and Ving> is that they make English sentences more compact as compared with the complex sentences. Transformations of two or more simple sentences into a complex or compound sentence are defined as two-base transformations or transformations in sentence sequences (Irtenyeva et al., 1969). An utterance may consist of two or more sentences. Independent sentence sequences occurring within a super-sentential structure always show signals of connection. The simplest example of a super-sentential structure is the 'question - answer' arrangement: Did John come? - Yes he did. In any sentence sequence in a super-sentential structure the first sentence is a situation or a leading one, the second is a sequential sentence: He's just been over there (situation sentence). - So have I (sequential sentence). Many sentences which have what might be called complex structures can be analyzed as containing a sequence of two or more sentences or sentence structures, some or all of which have special forms. In all these cases the sections with special forms can be shown to be transforms of ordinary independent sentences (Irtenyeva et al., 1969). In other words, any compound or any complex sentence is also a sentence sequence. Transformations in sentence sequences reveal the mechanism by which two or more sentences can be joined into one larger structural pattern  $S1 + S2 > S3$ , where S1 is a matrix sentence; S2 is an insert sentence. Two kernel sentences may be joined together into a compound sentence by means of: 1. the procedure of conjunction (but, and, etc.): The man came to the window. The detective saw him > The man came to

the window and the detective saw him; 2. conjunction, substitution (sometimes permutation) in the second sentence: We asked for the book. He gave us the book > We asked for the book and he gave it to us; 3. conjunction, V-substitutes, permutation, addition of function words (so, neither, etc.): I shall do it tomorrow. He will do it tomorrow. > I shall do it tomorrow and so will he. Kernel sentences may be joined together into a semi compound sentence. If NP, in the two sentences are identical, the identical element in the second sentence is zeroed (deleted); the operation is conjunction: The car rounded the corner. The car stopped. > The car rounded the corner and stopped. Two sentences may be joined into a complex sentence by means of:

1. Wh-substitutes (who, which, etc.) Here is a man. The man is waiting for you. > Here is the man who is waiting for you.
2. Embedding, accompanied by introducing a conjunctive: I know it - What I know is not important. He explained to me what I know. The insert clause what I know may be embedded in the NP position of any matrix sentence.
3. Embedding and adjustment: He asked me where I lived.
4. Addition of subordinators (when, because, as, etc.): He did not come. He was busy. > He did not come because he was busy.

Two sentences may be joined into a semi-complex sentence by means of word sharing if they contain a word in common. The shared word may be: a) different in grammatical status in both sentences: I saw him. He was crossing the street > I saw him crossing the street. b) Similar in grammatical status in both sentences: He was there. He was working. > He was there working. Here is a bus. The bus goes in this direction. > Here is a bus going in this direction.

Transformational grammar is a system of grammatical analysis, a form of generative grammar, that uses transformations to express the relations between equivalent structures. Transformational analysis is used to identify syntactic and semantic similarities and differences between language units through similarities and differences in their transformation sets (Бацевич, 2004). An elementary example will show the essence of the procedure (Arnold, 1986) monthly > occurring every month, hourly > occurring every hour, yearly > occurring every year. The above procedure of showing the process of word formation is an elementary case of transformational analysis, in which the semantic similarity or difference of words is revealed by the possibility or impossibility of transforming them according to a prescribed model and following certain rules into a different form, called their transform. The conditions of equivalence between the original form and the transform are prefixed. In our case the conditions to be fulfilled are

the sameness of meaning and of the kernel morpheme. The rules of transformational analysis, therefore, are rather strict and should not be identified with paraphrasing in the usual sense of the term. There are many restrictions on both the syntactic and the lexical level.

Transformational analysis also enables us to show the relationship between sentences that have the same meaning but are of different grammatical form, e.g. the link between active and passive sentences. Transformational procedures bring to light the so-called sentence paradigm, or, to be more exact, different ways in which the same message may be worded in Modern English (Soloshenko, Zavhorodniev, 1998). It is argued that certain paired sentences, one containing a verb and the other containing an adjective, are understood in the same way, e.g., sentence pairs where there is form similarity between the verb and the adjective: I desire that ... > I am desirous that John hopes that ... > John is hopeful that. His stories amuse me - are amusing to me; Cigarettes harm people - are harmful to people. Such sentence pairs occur regularly in Modern English and are used interchangeably in many cases. It is also argued that certain paired sentences, one containing a verb and the other - a deverbal noun, are also a common occurrence in Modern English, e.g. I like jazz > my liking for jazz; John considers Mary's feelings > John's consideration of Mary's feelings. Several commonly used structures with similar meanings make up what can be described as a sentence paradigm just as a set of forms (e.g., go - went - gone, etc.) makes up a word paradigm. Methods of sub classifying parts of speech based on syntax are now extended to a point where lexical items are grouped so that they fall into classes with similar distributional and substitutional properties and a similar transformation potential (Arnold, 1986). Thus, nouns denoting state (despair, disgrace, love, rage, etc.) may be used in the formula V+in(to)+Nv, where Nv is a noun with a verbal stem: e.g. to be in despair, to fall into disgrace, to fail in love, to fly into a rage. Since one can say the state of despair, the state of disgrace, etc. all these nouns can be substituted into the formula the state of +NV: the state of despair (disgrace, fear, love, rage). Nouns denoting processes (fall, run, break) behave differently. It is possible to use them in the first formula V+ in(to)+ Nv (break into a run), but not in the second formula: we can't say "the state of run".

### 12.3. Strength and shortcomings of transformational analysis.

Transformational grammar symbolized a new stage in the living languages and their syntax investigation. It opened up the most extensive field for linguistic investigations, which demonstrated a new view on language and its structure. Transformational grammar was the subject of scientific debates and even now,

there are alternative theories, which emerged in response to scientific ideas put forward by N. Chomsky (Poluzhyn, 2004). The work of Noam Chomsky meant a fundamental breakthrough in the development of linguistic theory in the second half of the 20th century. Linguistic theory should contribute to the study of human mental processes and intellectual capacity. The aim of Transformational and Generative Grammar was higher than that of any other previous group of linguists. N. Chomsky called for the grammar of a particular language to be supplemented by a Universal Grammar. The main task of Linguistics must be to develop an account of linguistic universals, that is principles valid for all (or majority of) languages (Poluzhyn, 2004). It should also be noted that there are co-occurrence restrictions which differ radically from what has hitherto been understood by 'selection'. First, there appears to be no arbitrary way of deciding which of the elements in question determines the choice of the other. N. Chomsky spoke about "the creative aspect of language use". Proceeding to explain what this means, he says that much of what we say in the course of normal language use is entirely new, not a repetition of what we have heard before and not even similar in pattern to sentences or discourse that we have heard in the past. It should be noted that, although a new thought does require a new sentence for its expression, the latter is not completely new, contrary to what N. Chomsky said Every new sentence is built to a ready-made pattern (model or structural formula) known to the speaker and the listener and filled by concrete words. Such patterns underlie all grammatically correct sentences, representing their internal organization, or structure. New sentences are understood since they reproduce patterns already existing in a language. The patterns, being filled with new words, give a common "pattern determined" meaning to a variety of new sentences. The speaker and the listener know this common meaning; it is part of linguistic competence. Modern computational linguistics claims that a person's knowledge of language is representable as a stored set of patterns, overlearned through constant repetition and detailed training, with innovation being at most a matter of analogy. Attempts have been made to prove that many relevant and systematic phenomena of language are properties of discourse and cannot be described by the existing types of structural and generative-transformational grammars are, at least in practice, limited to the formal enumeration and structural description of the sentences of a language and therefore are equated with sentence grammars.

### **QUESTIONS:**

1. What kind of analysis is transformational method?
2. What is the origin of the transformational method?

3. The main assumption of Transformational grammar
4. How does transformations imply in simple sentences usually? (give examples)
5. What procedures are carried out in simple sentences in transformational analyses? (give examples)
6. What is the weakness of transformational analyses?

## CHAPTER XIII. METHOD OF COMPONENTIAL ANALYSIS

### Plan:

13.1. Semantics and semasiology

13.2. Origin of Componential approach to meaning

13.3. Application of componential analyses

**Key words:** *semantics, semasiology, componential, analysis, meaning, words, components, combinations, minimal, semes*

13.1. Semantics and semasiology.

The study of meaning is a permanent interest of scholars. It has been pursued in all the languages of the major civilizations and in ancient times, especially in Sanskrit, Greek: and Latin. The disciplines and techniques of linguistics are directed at investigating meaning. Indeed, the main concern of descriptive linguistics is to make statements of meaning (Firth, 1991). The branch of linguistics concerned with the meaning of words is called semasiology. The name comes from the Greek *semasia* 'signification' (from *sema* 'sign' and *semantikos* 'significant'). The main objects of semasiological study are as follows: semantic development of words (i.e. change in meaning), its causes and classification, relevant distinctive features and types of lexical meaning, polysemy and semantic structure of words, semantic grouping and connections in the vocabulary system, i.e. synonyms, antonyms, terminological systems, etc. (Arnold, 1986). The two terms, semasiology and semantics, are sometimes used indiscriminately as synonyms referring to the science of meaning. According to Prof. J.R. Firth, the English word for the historical study of change of meaning was semasiology, until the new term semantics was introduced into linguistic studies. As far back as the 1820s German classicist C.Chr. Reisig set up semasiology as an independent division of linguistics, and suggested that it should investigate the conditions governing the development of meaning. The branch of study advocated in this article was not entirely new; yet it was mainly M. Bréal's generation and in the first place M. Bréal himself, who established semantics as a discipline in its own right. In 1897 he published his *Essai de sémantique* which saw many subsequent editions. Three years after its publication, M. Bréal's *Essai Semantics: Studies in the Science of Meaning*, and although the term had been used in English a few years earlier, this translation played a decisive role in the diffusion of the new science and its name (Ullmann, 1975). The term semantics has become highly ambiguous. It is used to cover several different meanings. It is used to refer to the study of meaning in linguistics. It is also used to denote the meaning or an interpretation of the meaning of a word, sign, sentence, etc. There are also other

meanings, not sufficiently divorced from linguistics and apt to create confusion. Academic semantics, also called pure semantics, is a branch of symbolic or mathematical logic originated by Rudolf P. Carnap. It aims at developing an abstract theory of relations between signs and what they denote. It is a branch of semiotics - the study of signs and languages in general, including all sorts of codes, such as military signals, traffic signals, etc. Unlike linguistic semantics, which deals with real languages, pure semantics has as its subject formalized language and has very little in common with the homonymous science practised by philologists. Thus for some linguists the term semasiology is preferable for the science of word meaning because it is less ambiguous. The only meaning it has is that stated in the definition above. As semasiology deals with lexical meaning only, it may be regarded as a branch of linguistic semantics, which deals with all kinds of linguistic meaning {i.e. meaning of all kinds of units - words, morphemes, grammatical forms, word combinations, sentences). The fundamental term of semantics, meaning, is ambiguous and difficult to define. C.K. Ogden and I.A. Richards devoted to this problem their famous book on semantics, *The Meaning of Meaning* first published in 1923. Here they listed no less than sixteen different definitions of the term - *of twenty-three if each subdivision is counted separately* (Ullmann, 1973). The study of the lexical meaning of the word and its semantic structure is especially difficult due to the complexity of the process by which language and human conscience serve to reflect outward reality and to adapt it to human needs. The definition of lexical meaning has been attempted more than once in accordance with the main principles of different, linguistic schools. The disciples of Ferdinand de Saussure consider meaning to be the relation between the object or notion named, and the name itself (Arnold, 1986). This is known as analytical or referential denotational concept of meaning which is schematically represented below (Ullmann, 1973).

Some linguists insist that we are not ready for semantic studies, and that the only features which are of any real importance are the formal, structural ones. To this objection, E.A. Nida makes three replies: 1) the practical requirements of our work as linguists force us to do something about semantics; 2) structural analyses, made on any practical level, must take meaning into consideration in the very definition of a morpheme as 'a minimal unit. Some of phonetic-semantic distinguishes describable relationships between the linguistic signals and the cultural features which are signaled. If this is not true, then speech is idle babbling (Nida, 1985). According to Stephen Ullmann some of the reluctance to tackle problems of meaning undoubtedly is connected with

the fact that semantic phenomena cannot usually be described with the same scientific rigour as the formal elements of language, and to many linguists scientific rigour is the supreme test of scholarship, even if the subject matter would invite a different method of approach. This attitude explains why semantics was virtually ostracized by extreme structuralists. The problems of semantics have come to the fore in the research work of linguists of different schools of thought and a number of attempts have been made to find efficient procedures for the analysis and interpretation of word meaning. An important step forward was taken in the 1950s with the development of componential analysis.

### 13.2. Origin of Componential approach to meaning.

Componential analysis is one of the modern methods of semantic research. It attempts to reduce meaning to its smallest components. Hence the term componential analysis. Componential approach to meaning has a long history in linguistics. The first researchers who suggested and developed the method of componential analysis of word meaning were American anthropologists-linguists F.G. Lounsbury and W H. Goodenough who studied the American Indian languages. Their particular interest lay in studying kinship terms of various Amerindian tribes. In the 1950s-80s there appeared a sizable linguistic literature of articles and book-length monographs devoted to componential analysis. A lot of linguists were concerned with componential analysis, among them J.J. Katz, J.A. Fodor, E.A. Nida, A.J. Greimas, B Pettier, Yu.D. Apresyan, I.V. Arnold, R.S Ginzburg, E.M. Mednikova, O.N. Seliverstova, I. A. Stern and others. Special procedures of componential analysis have been developed to determine the components of each meaning and represent this as a combination of elementary senses. To illustrate what is meant by this we can take a simple example, used for this purpose by many linguists [Arnold, 1986: 283]. Consider the following set of words: man, woman, boy, girl, bull, cow. We can arrange them as correlations of binary oppositions man :: woman = boy :: girl = bull :: cow. The meanings of words man, boy, bull on the one hand, and woman, girl and cow, on the other, have one semantic component in common. In this case the semantic distinctive feature is that of sex - male or female. Another possible correlation is man :: boy ~ woman :: girl. The distinctive feature is that of age - adult or non-adult. If we compare this with a third correlation man .. bull = woman .. cow we obtain a third distinctive feature contrasting human and animal beings. Therefore the meaning of man can be described as {male [adult (human being)]}, woman as {female [adult (human being)]}, boy as {male [non-adult (human being)]}, girl as {female [non-adult (human being)]}, bull as {male [adult (animal being)]}, cow as

{female [adult (animal being)]}. Componential analysis is the analysis of a set of related linguistic items, especially word meanings, into combinations of features in terms of which each item may be compared with every other. Componential analysis is thus an attempt to describe the meaning of words in terms of a universal inventory of semantic components and their possible combinations. There are several varieties, American and European, described by their practitioners as componential analysis (Ullmann, 1973). The best-known experiment in this kind of analysis is the theory of American linguists J. J. Katz and J.A. Fodor, which is designed to provide the semantic component of a transformational generative grammar. This was first put forward in 1963 but has since undergone several modifications. The essential feature of the Katz Fodor scheme is that it breaks down each meaning of a word into a series of elementary components arranged in such a way that they progress, like a tree diagram, from the general to the particular, on other words, it is assumed that any item can be described in terms of categories arranged in a hierarchical way; that is, a subsequent category is a subcategory of the previous category. Semantic features are classified into semantic markers - semantic features which are present also in the lexical meaning of other words and distinguishers - semantic features which are idiosyncratic (i.e. which do not recur in the lexical meaning of other words). Markers refer to features which the item has in common with other items, distinguishers refer to what differentiates an item from other items. Not every lexical meaning has a distinguisher; if there is one, it always stands at the end of the series. There is also a third type of component a syntactic marker specifying the part of speech to which the word belongs. The following examples may illustrate the procedure. The meaning of boy may be analyzed as involving the following components, the first of which is a syntactic marker while the rest are semantic markers: 'noun - countable noun - human - young - male'. Girl will have the same components, except that here we shall have 'female' instead of 'male': 'noun - countable noun - human - young - female'. Woman will also have the same components with the exception of 'female' instead of 'male' and 'adult' instead of 'young': 'noun - countable noun - human - adult - female'.

Thus, the componential analysis may be represented as a hierarchical structure with several subcategories each of which stands in relation of subordination to the preceding subclass of semantic features.

European semanticists using very different methods, have also been trying to reduce meaning to minimal components or, as they call them, semes. A seme is an elementary constituent of meaning comparable in function to distinctive

features in phonology. Just as the phoneme [b] in *bale* differs from the [p] in *pale* in respect of voice, the meaning of *boy* differs from that of *girl* in respect of sex. The opposition between [b] (voiced) and [p] (voiceless) corresponds to that between *boy* (male) and *girl* (female): 'male' and 'female' are therefore 'semes' - in Katz-Fodor's terminology, semantic markers (Ullmann, 1973). In European tradition componential analysis also proceeds from the assumption that word meaning is not an unanalyzable whole but can be decomposed into elementary semantic components called semes. It is also assumed that these basic semantic elements can be classified into several subtypes thus ultimately constituting a highly structured system. Different authors give different names and classifications of semes. Alongside the term, some researchers use the following terms to refer to the the minimum elements of lexical meaning: semantic component, semantic multiplier, semantic parameter, semantic function, etc. The following types of semes are distinguished by the majority of scholars. (Арнольд, 1991)

1. *classeme* - categorial seme which refers the word to a certain lexico-grammatical class of words (part of speech), i.e. the general semantic characteristic of the class. *Classemes* are semantic features of higher order, They regulate the realization of the categorial valencies of notional units.
2. *archeseme* - the most basic, principal generic seme in units of a certain class reflecting their common categorial features, e.g. in kinship terms *father*, *mother*, *son*, *daughter*, etc. the *archeseme* is 'a person who is related by blood or marriage, relative';
3. *differential semes* - specific semes that differentiate the meaning of a word from other words, e.g. kinship terms *father* and *mother* have differential semes 'male' and 'female' respectively, *father* and *son* - 'parent' and 'offspring', *father* and *uncle* - 'direct lineality' and 'indirect lineality'.
4. *integrative semes* - common semes that do not differentiate the meaning of a word from other words within some thematic group, e.g. for kinship terms *daughter* and *son* the seme 'direct lineality' is differential because it is the basis for the opposition *son* - *nephew*, *daughter* - *niece*., but for the kinship term *children* it is integrative since there is no single word for *niece* and *nephew* opposed to *children* in English.

*Archisemes* and *differential semes* are in hyperonymic relations (relations of inclusion). That is why they are also termed *hypersemes* and *hyposemes* by some authors:

1. *hyperseme* - thematic seme referring the word to a certain lexico-semantic field or thematic group;

2. hyposemes - semes which are subcategories of a more general thematic seme. Another distinction is made between denotative semes and connotative semes. Denotative semes belong to the denotative component of meaning. Connotative semes are additional semantic components, which represent the connotative component of meaning. The meaning of many words is subject to complex associations originating in habitual contexts, verbal or situational, of which the speaker and the listener are aware, and which form the connotational component of meaning. In some words denotative meaning is accompanied by additional stylistic characteristics revealing the speaker's attitude to the situation, the subject-matter, and to the interlocutor (Arnold, 1986). There are three major types of commonly recognized connotative meaning: 1) emotive (affective) expressing emotions or feelings, e.g. to shudder is to tremble with horror, fear, disgust, etc.; to glare is to look in anger, rage, etc.; 2) evaluative (attitudinal) rendering some widespread attitude to the referent, e.g. famous refers to someone or something having a widespread reputation of a favorable nature: a famous writer, a famous lighthouse; 3) associative consisting of the stereotypical expectations rightly or wrongly associated with the referent, e.g. a possible connotation of home is 'a place of warmth, comfort, and affection'. Researchers also distinguish contextual (connotative nonce) semes defined as occasional figurative meaning of a word originated in a certain context (Арнольд, 1991). Distinction is also made between implicit (potential) and explicit semes. Implicit semes become explicit only in word combinations. The adjective pretty, for instance, when combined with nouns denoting human beings presupposes in these nouns the semes 'youth' and 'female', e.g. a pretty girl. Combinability with nouns denoting men of old age is not natural, e.g. \*a pretty old man. Thus, implicit (potential) meaning is given to a word by the meaning of some other word with which it collocates to form a commonly used phrase. Presupposed implicit meaning arises from co-occurrence restrictions, i.e. restrictions on what other word or expression we expect to see before or after a particular lexical unit. The term seme identifies any minimal feature of meaning, i.e. any minimal feature of the semantic structure of a word. One should not confuse a seme with a single complete sense of a word which is called a sememe. Semes are realized as components of a sememe which is defined as an elementary meaning or lexico-semantic variant of a word. Unlike semes, sememes are units of a higher status in the plane of content. Lexicographic definitions lend themselves as suitable material for the analysis of lexical groups in terms of a finite set of semantic components. Componential analysis is currently carried out on the basis of dictionary definitions (Арнольд, 1991), i.e. it is combined with

the so-called definitional analysis, For example, in Advanced Learner's Dictionary by A.S, Hornby the definition of the noun hum runs 'a continuous murmuring sound'. It gives us two semes: 'sound' and 'continuousness'. The word murmur in the definition of the noun hum denotes a complex notion and requires a further explanation. The number of such recurrent explanations taken from the same or a different dictionary is called definition depth. The definition of murmur in the same dictionary is 'a low continuous sound, vague or indistinct'. This gives us two more semes: 'lowness' and 'indistinctness'. Basic steps of componential analysis are: 1) determining the limits of a 'closed corpus' of data; 2) defining the terms as precisely as possible on the basis of the objects involved; 3) identifying the distinctive features; 4) mapping the semantic space. Componential analysis is, as a rule, formalized only as far as the symbolic representation of meaning components is concerned. Thus, in the analysis of kinship terms, the component denoting sex may be represented by A - male, A - female, B may stand for one generation above ego, B - for the generation below ego, C - for direct lineality, C - for indirect lineality, etc. Accordingly, the clusters of symbols ABC and ABC represent the semantic components of the words mother and father respectively.

### 13.3. Application of componential analyses.

Componential analysis was developed as a method of semantic research to study the meaning of words. In its classical form it was applied to the so-called closed subsystems of the vocabulary, mostly to kinship and colour terms. Componential analysis was also successfully applied in the analysis of polysemantic words, synonyms, hyponymic groups, thematic classification of vocabulary, etc. Componential analysis is most widely used with lexical words, denoting combination of qualities, cultural words (realia). Componential analysis can be used to differentiate also synonyms, conceptual terms, neologisms, etc. Componential analysis is a method of bridging many lexical gaps, both linguistic and cultural. Componential analysis also found application in other branches of linguistics, for instance, in phonology (e.g. 'componential analysis' of segmental phonemes into their distinctive features or components on the basis of their binary oppositions) (Арнольд, 1991). It is a valuable tool in morphology (Гулыга, Шендельс, 1976) and syntax (Гак, 1972, Апресян, 1974). It should be pointed out that componential analysis deals with individual meanings. Different meanings of polysemantic words have different componential structure. For example, the comparison of two meanings of the noun boy: 1) a male child up to the age of 17 or 18, and 2) a male servant (any age) esp. in African and Asian countries) reveals that though both of them contain the semantic components

'human' and 'male' the component 'young' which is part of one meaning is not necessarily to be found in the other (Soloshenko, Zavhorodniev, 1998). No two meanings of the same word will have identical semantic components, so that componential analysis may help in the removal of ambiguities. Componential analysis is also used in investigation of the semantic structure of synonyms. For example, brave, courageous, valiant, fearless, gallant, audacious refer to confident bearing in the face of difficulties or dangers. Brave is the most comprehensive: it is especially used of that confident fortitude or daring that actively faces and endures anything threatening: her brave fight against cancer. Courageous implies a higher or nobler kind of bravery especially as resulting from an inborn quality of mind or spirit that faces or endures perils or difficulties without fear and even with enthusiasm: a courageous speech against the dictator. Valliant implies a correspondence between an inner courageousness and external deeds, particularly of physical strength or endurance: a valiant soldier. Fearless implies unflinching spirit and coolness in the face of danger: a fearless soldier. Gallant implies a chivalrous, impetuous, or dashing bravery: a gallant knight, a gallant rescue attempt. Audacious implies extreme boldness or daring, reckless bravery: an audacious explorer. In a number of cases this distinctive semantic component may be hard to define, nevertheless intuitively it is felt by all native speakers. For instance, that is how the difference in the meaning components of the words like, enjoy, appreciate, etc. is described. In the semantic analysis of hyponymic groups researchers find that they constitute a series with an increasingly larger range of inclusion. For example, bear, mammal, animal represent three successive markers in which bear is subordinated to mammal and mammal to animal. As one ascends the hierarchical structure the terms generally become fewer and the domains - larger, i.e the shift is from greater specificity to greater generic character. Words that belong to the same step in the hierarchical ladder are of the same degree of specificity of them have, at least, one marker - one component of meaning in common. They constitute a series where the relationship between the members is essentially identical. Generally speaking, practically all classifications of lexical units implicitly presuppose application of the theory of semantic components. For instance, the classification of nouns into animate - inanimate, human - non-human proceeds from the assumption that there is a common semantic component found in such words. Thematic classification of vocabulary is also based on componential analysis. Thus, we can observe the common semantic component 'foodstuffs' in the lexico-semantic group made up of such words as sugar, pepper, salt, bread, etc., or the common semantic component 'non-human living being' in

cat, lion, dog, tiger etc. One of the most fruitful concepts evolved in structural semantics is that of the 'lexical (or semantic) field'. The concept of lexical field first arose in the 1920s and was developed by Prof Jost Trier in his famous monograph on German terms for intellectual qualities which appeared in 1931. Close study of the history of intellectual terminology in Old and Middle High German convinced J.Trier that it was fundamentally wrong to consider words in isolation: they must be viewed within the context of the lexical field to which they belong. A lexical field is a closely organized and integrated sector of the vocabulary, whose elements fit together and delimit each other and derive their significance from their place within the system as a whole (Ullmann, 1975). To take a trivial example, military ranks and ranks of any strictly hierarchical organization of people in relationship of seniority, command, and subordination are examples of a culturally produced field that is closely delimited and ordered. In each field some sphere of experience is analyzed, divided up and classified in a unique way. In this sense, the vocabulary of every language embodies a peculiar vision of the universe; it implies a definite philosophy of life and hierarchy of values which is handed down from one generation to another (Ullmann, 1975). How differently the raw material of experience is elaborated by various languages can be seen even in such a preeminently concrete field as the scale of colours. The spectrum is a continuous band, without any sharp boundaries, the number and nature of colour distinctions is therefore largely a matter of habit and convention. A wide variety of lexical fields have been investigated employing componential analysis: aesthetic, moral and religious terms, those denoting hostile attitudes, the terminology of dwelling, cooking, and domestic animals, verbs of motion, adjectives for 'old' and 'young', and other spheres (Ullmann, 1975). Componential analysis of syntactic units yields some interesting observations about the regularities of functioning of words in speech and their syntagmatic and collocational properties. The following rules were discovered as a result of componential analysis of word groups and sentences: \* selection restriction rules showing the kind of items with which a word in a particular meaning may combine: thus the adjective honest in the old sense of 'chaste' would have the selection restriction 'female'.

1.rules of interaction of lexical meanings highlighting nonadditive character of summation of lexical meanings of words in some word combinations: thus in some word combinations the meanings of the constituents add up in creating the meaning of the whole, e.g. green field, to live in the forest. In some combinations

the meaning of the whole is not a mere sum of its elements, e.g. cruel kindness, to make haste slowly (Yu. D. Апресян).

2. rules of semantic agreement showing obligatory repetition of certain components of meaning in the constituents of word combinations: thus in The bird flew to its nest the seme 'fly' is present in the verb fly and the noun bird (V.G. Gak). The advocates of a componential approach to the meanings of lexically compatible words reveal "shared semantic components" in them and formulate the fundamental semantic law governing the correct understanding of a text by a listener: such an interpretation of a sentence is chosen as to ensure a maximum recurrence of its semantic elements (Апресян, 1974) Componential analysis is of direct relevance to the structure of vocabulary. It proves to be very efficient for certain linguistic issues and finds an ever-widening application, providing researchers with a deeper insight into some aspects of language. Componential analysis is indispensable to lexicography as a means to refine and improve definitions of words in dictionaries. It is also widely used in preparation of teaching materials. Nevertheless, componential analysis also has its deficiencies and has prompted severe critical discussions. Componential analysis tries to break down meaning into its minimal components.

#### **QUESTIONS:**

1. What is the difference between Semantics and semasiology?
2. How can you account for the reluctance of structural linguists to deal with the problems of meaning?
3. What is the origin of Componential approach to meaning?
4. What is Seme? Types of semes (give examples to each type of seme?)
5. What levels of language can componential analyses be used?(give examples)
6. What is the weakness of componential analyses?

## CHAPTER XIV. SEMANTICO-SYNTACTIC ANALYSIS

### Plan:

14.1. Semantic analysis

14.2. Application of semantic analyses

14.3. Syntactic analysis

**Key words:** *semantic, syntactic, analysis, meaning, concept, recursive, descent, parser, shift-reduce, chart parser, right-most derivation, left-most derivation, a parse tree*

14.1. Semantic analysis.

In linguistics, semantic analysis is the process of relating syntactic structures from the levels of phrases, clauses, sentences and paragraphs to the level of the writing as a whole, to their language-independent meanings. It also involves removing features specific to particular linguistic and cultural contexts. Semantic analysis is examined at three basic levels: Semantic features of words in a text, Semantic roles of words in a text and Lexical relationship between words in a text. In the analysis of texts, attention is paid to words and the way they are used in the projection of the speaker's thought; this is otherwise referred to as the 'semantic features' of words, The roles and functions these words are used to perform are the 'semantic roles' they fulfill in the text. While, the way and manner in which the particular word in the text relates to other words used in the texts in the projection of meaning is referred to as lexical relation. Semantics is the study of meaning communicated through language; it is the study of the meaning of words, phrases and sentences. One of the insights of modern linguistics is that speakers of a language have different types of linguistic knowledge, including how to pronounce words, how to construct sentences, and about the meaning of individual sentences. To reflect this, linguistic description has different levels of analysis. So phonology is the study of what sounds a language has and how these sounds combine to form words; Syntax is the study of how words can be combined into sentences; and semantics is the study of the meanings of words and sentences. These linguistic components are in turn organized in such a way that we can convey meaningful messages or receive and understand messages. We know that language is used to express meanings which can be understood by others. But meanings exist in our minds and we can express what is in our minds through the spoken and written forms of language (as well as through gestures, action etc.). How language is organized in order to be meaningful is what is treated at the level of semantics. Semantics is that level of linguistic analysis where meaning is analyzed. It is the most abstract level of linguistic analysis, since we

cannot see or observe meaning as we can observe and record sounds. In semantics, we study the meaning of words and sentences of languages. Linguistic semantics studies meaning in a systematic and objective way, it is the goal of Linguistic semantics to describe the meaning of linguistic elements and to study the principles which allow and exclude the assignment of meaning to combinations of these elements in a way that makes it function as the bridge between linguistic form and linguistic meaning. Linguistic Semantics can be described as the scientific study of meaning in language; it is comprised of 'Word meaning' and 'Sentence Meaning'. In semantics, the meaning of words are usually elusive if investigated in isolation, they are usually studied by paying attention to the relationship they share with other words. Lexical relations could either assume: a. A paradigmatic or b. Syntagmatic relationship The syntagmatic relationship between lexemes entails compatible combinations i.e. Collocations of words that are simultaneously used in speech. It views language at the horizontal level as a system that functions like a 'Chain'. According to J.R Firth, "The meaning of a word can be discerned by the company it keeps", such that the meaning of words becomes predictable in this sense. For example: the word 'rancid' collocates with 'butter', 'stale' collocates with 'news' or 'bread' but not with 'wine' etc. Paradigmatic sense relations on the other hand see language as entailing a plethora of choices that functions in a way that gives room for multiple words to be used interchangeably to serve the same purposes in sentences or speech; these words may be similar or differ in meaning. Paradigmatic relation denotes which words are likely to belong to the same word class; as it allows items from a semantic set to be grouped together under an umbrella term. For example: Cars, Tricycle and Motorcycles can be used interchangeably because they are grouped into the umbrella term 'Automobiles', whereas Automobiles, Computers, Aircraft etc. can be used interchangeably to be referred to as 'Machines'. A recursive concept in the study of semantics is 'Meaning', this is however the core essence of the study of semantics in linguistic domain. Meaning is predictable by examining the nature of complete semantic environment as well as the assessment of syntactic well-formedness. C.K. Ogden and I.A. Richards made an attempt to define meaning. When we use the word 'mean', we use it in different ways. "I mean to do this" is a way of expressing our intention. "An Olive branch means peace" is a way of indicating what the 'Olive branch' signifies. Since all language consists of signs, we can say that every word is a sign indicating something. Ogden and Richards give the following list of some definitions of "meaning".

Meaning can be any of the following:

1. An intrinsic property of something;
2. Other words related to that word in a dictionary;
3. The connotations of a word;
4. The thing to which the speaker of that word refers;
5. The thing to which the speaker of that word should refer;
6. The thing to which the speaker of that word believes himself to be referring;

7. The thing to which the hearer of that word believes is being referred to.

These definitions refer to many different ways in which meaning is understood. One reason for the range of definitions of meaning is that words (or signs) in a language are of different types. Furthermore, Meaning is related very closely to the human capacity to think logically and to understand. So when we try to analyze meaning, we are trying to analyze our own capacity to think and understand our own ability to create meaning. Semantics concerns itself with “giving a systematic account of the nature of meaning”. The meaning of words is to be derived from the relations between words, concepts and things in the real world and not necessarily derived from their physical properties. It cannot be reduced to the real world objects or their perception and it cannot be reduced to the particular image in our minds.

#### 14.2. Application of semantic analyses.

A total theory of linguistic understanding is often taken to require three sub-theories: a syntactic theory, a semantic theory, and a pragmatic theory. The semantic theory occupies an intermediary role; it takes as input structures generated by the syntax, assigns to those structures meanings, and then passes those meanings on to the pragmatics, which characterizes the conversational impact of those meanings. Semantic theories thus seek to explain phenomena such as truth conditions of and inferential relations among sentences/utterances, anaphoric relations among terms, and ambiguity and incoherence of expression. Several theories such as the Referential, Speech Acts, Componential, Componential Analysis Theory of Meaning, Truth-conditional, and Use Theories of meaning have been developed over time. Accordingly, Akmaijan, argues that a semantic theory should assign expressions in a language their respective semantic properties and relationship that they actually have. Moreover, it should be able to define those properties and relations. A complete and adequate linguistic semantic theory must characterize the systematic meaning relations between words and sentences of a language, and provide an account of the relations between words and linguistic expressions and the things that they can be

used to talk about. The Componential Theory of Meaning will however be elaborated upon in this work. Semantics is the study of the meaning of words, phrases and sentences. In semantic analysis, there is always an attempt to focus on what the words conventionally mean, rather than on what an individual speaker might want them to mean on a particular occasion. This approach is concerned with objective or general meaning and avoids trying to account for subjective or local meaning. Doing semantics is attempting to spell out what it is we all know when we behave as if we share knowledge of the meaning of a word, a phrase, or a sentence in a language. Yule (2010) Semantic analysis is understanding language and lies majorly with the receiver of a linguistic input generated by a speaker. It is the act of processing language to produce common-sense knowledge about the world. Semantic analysis draws ideas from lexical semantics (which treats the meaning of component words; and word sense disambiguation in the case of polysemous words having more than one meaning) as well as anomalous sentences which are syntactically correct, but semantically odd. It also draws from compositional semantics (i.e. how words combine to form larger meanings in sentences). Syntactic parsing is useful in exploring the deep surface of sentences also helps in deciphering meaning in semantic analysis. The morphology of words also has a huge impact on meaning inference; the addition or subtraction of a morpheme to a word can alter or give another dimension to the meaning of a text as well as changing the class of the word. It is the job of a semantic analyst to discover grammatical patterns, the meanings of colloquial speech, and to uncover specific as well as various accruable meanings to words and expressions. In linguistics, semantic analysis is the process of relating syntactic structures, from the level of phrases, clauses, sentences and paragraphs to the level of the sentence as a whole, to their language independent meanings. Semantic analysis can begin with the relationship between individual words. This requires an understanding of lexical hierarchy such as: hyponymy, metonymy, polysemy, synonyms, antonyms, homophones, prototype and homonyms. It also relates to concepts like connotation and collocation, which is the particular combination of words that can be or frequently are surrounding a single word; this can include idioms, metaphors, and simile and figurative speech. In literature, semantic analysis is used to give the work meaning by looking at the writer's point of view. Through semantic analysis the style of writing of a particular author can be deciphered through the analysis of a good number of his or her written or spoken texts. The analyst examines how and why the author structured the language of the piece as he or she did. When using semantic analysis to study variations of the same

language (dialects) and foreign languages, the analyst compares the grammatical structure and meanings of different words to those in his or her native language. Linguists study both semantic meaning and speaker's meaning.

In an attempt to analyze a text semantically, we have to bring together three main components to bear in the analysis of the text:

- a. The roles that words play in a sentence or text. (Semantic function),
- b. The meanings of the words in relation to other occurring words in the sentence or text. (Lexical relations), and
- c. The componential features of the sense of the words in a text or sentence. (Semantic features).

Semantic analysis in terms of Lexical relations can be observed through the following lexical tools:

a. **Synonymy:** this refers to word that have the same meanings or very closely -related meanings, which are often, but not always, intersubstitutable in sentences. It should be noted that the idea of 'sameness of meaning' in synonymy is not necessarily 'total sameness'. Examples of synonyms are: flourish/thrive, answer/reply, almost reply, broad/wide, freedom/liberty etc. The context of usage or use in a stretch of utterance or discourse may not give room for total substitution between words; in this case, one word tends to be more suitable to the context at play than the other, in some cases this dichotomy is highlighted by the formality that a particular word has in contrast to its synonym. For example: Buy/Purchase, Automobile/Car.

b. **Antonym:** This refers to a relationship of oppositeness in meaning between words e.g. hot and cold. Antonymous pairs can either be gradable or non-gradable. Gradable antonyms can be used in comparative constructions. The negative of one member does not necessarily imply the other e.g. 'not old' does not necessarily mean 'young'. Non- gradable antonyms can be used in comparative constructions. The negative of one member does imply the other e.g. Dead/Alive, Present/Absent, Married/Single, Fast/Slow or in a sentence as; Now we right the wrongs in history.

c. **Homonymy:** It is when a word has two or more unrelated meanings, but have the same pronunciation and spelling; e.g. bank (of a river) and bank (financial institution). They have quite different meanings but accidentally have the same form.

d. **Hyponymy:** When the meaning of one form is included in the meaning of another, the relationship is called 'hyponymy'. In this category, we are looking at the meaning of words in some type of hierarchical relationship e.g. animal-horse,

animal-dog. We can say that two or more terms which shares the same superordinate term are called co- hyponyms. So, ‘Dog’ and ‘Horse’ are co-hyponyms and ‘Animal’ is the superordinate. The Hyponymy captures the idea of ‘is a kind of’ e.g. Viper is a kind of snake. Terms for actions can also be hyponyms; e.g. cut, punch, shoot, and stab can all be found as co - hyponyms of the superordinate term ‘injure’. Men, women, boys and girls are hyponyms of human or Man as the super-ordinate.

e. Metonymy: This relationship is essentially based on a close connection in everyday experience. It may be container-content relation (can-juice); a whole-part relation (car-wheels); or a representative-symbol relation (king-crown). Sometimes making sense of many expressions depends on context, background knowledge and inference.

f. Polysemy: It has its origin in the Greek word “poly” meaning “many” and “semeion” meaning “sign”. It refers to a situation where the sense of a word has multiple meanings which are all related by extension. e.g. head refers to top of your body, top of a glass of beer, top of a company. If two words are treated as homonyms, they will typically have two separate entities.

g. Prototype: It explains the meaning of certain words like bird not in terms of component feature (e.g. ‘has wings’) but in terms of resemblance to the clearest exemplar; e.g. native speakers of English might wonder if ‘ostrich’ or ‘penguin’ should be hyponyms of bird, probably due to their inability to ‘fly’, but have no trouble deciding about ‘sparrow’ or ‘pigeon’. The last two are prototypes for what birds should look like.

h. Homography: When two or more forms are the same only in writing but different in pronunciation and meaning they are described as homographs such as lead ([lid]) and lead ([led]). i. Homophony: When two or more differently written forms have the same pronunciation but different meaning; e.g. sea-see, bat-bath, tyre-tire, pail-pale, to-tow, right-rite, flowerflour etc.

### 14.3. Syntactic analysis.

Syntactic analysis is defined as analysis that tells us the logical meaning of certainly given sentences or parts of those sentences. We also need to consider rules of grammar in order to define the logical meaning as well as the correctness of the sentences. In simple words, Syntactic analysis is the process of analyzing natural language with the rules of formal grammar. We applied grammatical rules only to categories and groups of words, not applies to individual words. The syntactic analysis basically assigns a semantic structure to text. It is also known as syntax analysis or parsing. The word ‘parsing’ is originated from the Latin

word ‘pars’ which means ‘part’. The syntactic analysis deals with the syntax of Natural Language. In syntactic analysis, grammar rules have been used. *School go a boy*. The sentence does not logically convey its meaning, and its grammatical structure is not correct. So, Syntactic analysis tells us whether a particular sentence conveys its logical meaning or not and whether its grammatical structure is correct or not. The steps or different levels of NLP, the third level of NLP is Syntactic analysis or parsing or syntax analysis. The main aim of this level is to draw exact meaning, or in simple words, you can say finding a dictionary meaning from the text. Syntax analysis checks the text for meaningfulness compared to the rules of formal grammar. Difference between Lexical and Syntactic analysis is that the aim of lexical analysis is in Data Cleaning and Feature Extraction with the help of techniques such as stemming, lemmatization, correcting misspelled words, etc. but on the contrary, in syntactic analysis, our target is to find the roles played by words in a sentence, interpret the relationship between words, interpret the grammatical structure of sentences:

*Patna is the capital of Bihar.*

*Is Patna the of Bihar capital?*

In both sentences, all the words are the same, but only the first sentence is syntactically correct and easily understandable. But we cannot make these distinctions using Basic lexical processing techniques. Therefore, we require more sophisticated syntax processing techniques to understand the relationship between individual words in a sentence.

The syntactical analysis looks at the following aspects in the sentence, which lexical doesn't: Words Order and Meaning: the syntactical analysis aims to extract the dependency of words with other words in the document. If we change the order of the words, then it will make it difficult to comprehend the sentence. Retaining Stop-Words: if we remove the stop-words, then it can altogether change the meaning of a sentence.

Morphology of Words: Stemming, lemmatization will bring the words to their base form, thus modifying the grammar of the sentence. Parts-of-speech of Words in a Sentence: Identifying the correct part-of-speech of a word is important. Ex.: *cuts on his hand (Here 'cuts' is a noun); he cuts an pineapple (Here, 'cuts' is a verb)*

The parser is used to implement the task of parsing. It is defined as the software component that is designed for taking input text data and gives a structural representation of the input after verifying for correct syntax with the help of

formal grammar. It also generates a data structure generally in the form of a parse tree or abstract syntax tree or other hierarchical structure.

The relevance of parsing in NLP with the help of the following points:

- The parser can be used to report any syntax error.
- It helps to recover from commonly occurring errors so that the processing of the remainder of the program can be continued.
- A parse tree is created with the help of a parser.
- The parser is used to create a symbol table, which plays an important role in NLP.
- A parser is also used to produce intermediate representations (IR).

As discussed, Basically, a parser is a procedural interpretation of grammar. It tries to find an optimal tree for a particular sentence after searching through the space of a variety of trees.

Let's discuss some of the available parsers: recursive descent parser; shift-reduce parser; chart parser; regexp parser.

### **Recursive Descent Parser**

It is one of the most straightforward forms of parsing. Some important points about recursive descent parser are as follows:

- It follows a top-down process.
- It tries to check whether the syntax of the input stream is correct or not.
- It scans the input text from left to right.
- The necessary operation for these types of parsers is to scan characters from the input stream and match them with the terminals with the help of grammar.

### **Shift-reduce Parser**

Some of the important points about shift-reduce parser are as follows:

- It follows a simple bottom-up process.
- It aims to find the words and phrases sequence that corresponds to the right-hand side of a grammar production and replaces them with the left-hand side of the production.
- It tries to find a word sequence that continues until the whole sentence is reduced.
- In simple words, this parser starts with the input symbol and aims to construct the parser tree up to the start symbol.

### **Chart Parser**

Some of the important points about chart parser are as follows:

- Mainly, this parser is useful for ambiguous grammars, including grammars of natural languages.
- It applies the concept of dynamic programming to the parsing problems.
- Because of dynamic programming, it stores partial hypothesized results in a structure called a ‘chart’.
- The ‘chart’ can also be reused in different scenarios.

### **Regex Parser**

It is one of the most commonly used parsers. Some of the important points about the Regex parser are as follows:

- It uses a regular expression that is defined in the form of grammar on top of a POS-tagged string.
- Basically, it uses these regular expressions to parse the input sentences and produce a parse tree out of this.

We need a sequence of production rules in order to get the input string. The derivation is a set of production rules. During parsing, we have to decide the non-terminal, which is to be replaced along with deciding the production rule with the help of which the non-terminal will be replaced. In the left-most derivation, the sentential form of input is scanned and replaced from the left to the right. In this case, the sentential form is known as the left-sentential form. In the right-most derivation, the sentential form of input is scanned and replaced from right to left. In this case, the sentential form is called the right-sentential form.

### **QUESTIONS:**

1. What is the Semantic analysis?
2. How does semantic analysis is examined at three basic levels?
3. How does semantic analysis in terms of Lexical relations can be observed?
4. How do we analyse the text from the point of semantics?
5. What is the difference between Lexical and Syntactic analysis?
6. What is the parser?

## CHAPTER XV. CONTEXTUAL METHOD

### Plan:

- 15.1. Definition of contextual method.
- 15.2. Application of contextual analyses
- 15.3. Shortcoming and strengths of contextual method

**Key words:** *context, interpretations, linguistic, environment, words, sentences, meaning, verbal context, deixis, languages, features, utterance, speech*

### 15.1. Definition of contextual method.

The contextual method of linguistic research holds its own alongside statistical, structural and other developments. Like structural methods and procedures, it is based on the assumption that difference in meaning of linguistic units is always indicated by a difference in environment. Unlike structural distributional procedures, it is not formalized. In some respects, nevertheless, it is more rigorous than the structural procedures, because it strictly limits its observations and conclusions to an impressive corpus of actually recorded material. No changes, whether controlled or not, are permitted in linguistic data observed, no conclusions are made unless there is a sufficient number of examples to support their validity. The size of a representative sample is determined not so much by calculation though, but rather by custom. Words are observed in real texts, not on the basis of dictionaries. The importance of the approach cannot be overestimated; in fact, as E. Nida puts it, “it is from linguistic contexts that the meanings of a high proportion of lexical units in active or passive vocabularies are learned. The notion of context has several interpretations. According to N. N. Amosova context is a combination of an indicator or indicating minimum and the dependant, that is the word, the meaning of which is to be rendered in a given utterance.

Contextual analysis is a method of observing words in actual speech, as well as their influence on one another in speech (Amosova, 1968). Two notions, context and distribution, must be differentiated because the context implies any environment, lingual (verbal) and extralingual (non-verbal), in which an element functions in the process of speech communication. The distribution is conversely characterized as the factor of lingual environment only. The notion is applicable to the position and combinability of linguistic elements occurring in the environment of other speech elements. Distribution is only one aspect of the contextual characteristics of speech elements. Nevertheless, the *contextual analysis* is based on the principles of distributional analysis because the distribution of an element, its position in the utterance, regulates its syntagmatic behaviour. Thus, the lingual context represented by the distributional conditions

in which an element occurs turns out to be the decisive factor governing the actualization of language-forms in speech (Morokhovska, 2013). Contextual analysis (the contextual method) is close to distributional analysis and valency analysis since all of them are aimed at studying certain linguistic units through their linguistic environment, i.e. their syntagmatic neighbours. But they differ in some of their aspects. The contextual method, which holds its own place alongside structural developments, is not formalized. Like structural methods (distributional analysis), it is based on the assumption that difference in meaning of linguistic units is always indicated by a difference in environment. Its results, however, are more like a large collection of neatly organized examples, supplemented with comments about these examples. In some respects it is more rigorous than the structural procedures, because it strictly limits observation to actually recorded material. No changes, whether controlled or not, are permitted in linguistic data observed, no conclusions are made unless there is a considerable number of examples to support their validity (Arnold, 1993)

The method of contextual analysis is closely connected with the corresponding linguistic theory, in this case the theory of context and contextual semantics (Арнольд, 1991). The term context (derived from Latin contextus "a joining together, scheme, structure") implies any environment and medium, lingual (verbal) and extralingual (non-verbal), in which an element functions in the process of speech communication and which actualizes its meaning (Morokhovska, 2013). The context of an utterance can mean two different things. It can refer to the situation in which the utterance is produced: this is the situational context. It can refer to the linguistic environment- the surrounding language; this is the linguistic context. Both types of context influence the choice of language forms and therefore have an effect on output (Lewis, 1993). The concept of context as extralinguistic environment in which linguistic units function appeared earlier than the concept of linguistic context which lies at the heart of contextual analysis. The founder of the theory of context was John Rupert Firth (1890-1960), the first Professor of General Linguistics in Great Britain and the head of London School of Linguistics. J R. Firth was concerned with stating meaning in terms of the linguistic and nonlinguistic context in which language is used. Contextual theories were also advanced by other scholars, among them N.N Amosova, V I Kodukhov, G.V. Kolshanskiy. They made a notable contribution to the development of contextology, i.e. the branch of linguistics that attempts to characterize and classify contexts and studies the actualization and

contextualization of linguistic units in speech. In developing his general theory which may be called the contextual theory of language.

J.R. Firth took a more accurate and precise linguistic approach to the problem of context. He preferred to see context of situation as part of linguistic analysis of language and he suggested the following categories with the help of which contexts of situation could be grouped and classified. The relevant features of the participants: persons, personalities. (i) The verbal action of the participants. (ii) The non-verbal action of the participants. B. The relevant objects. C. The effects of the verbal action. As an example of context of situation J.R. Firth considered a typical Cockney event with the sentence *I'm going to get one for Bert. "What," he asks, "is the minimum number of participants? Three? Four? Where might it happen? In a pub? Where is Bert? Outside?*

We notice meaning of words by watching what happened before, during, and after the words were spoken, by noticing the part played by words in what was going on. The people, their specific behaviour, the relevant things, events, and the words are all component terms in what may be called the context of situation. Meaning is best regarded in this way as a complex of relations of various kinds between the component terms of a context of situation (Firth, 2001). In other words, meaning is a property of the mutually relevant people, things, events in the situation. J.R. Firth and his followers also stressed the need to investigate words in their linguistic contexts to determine the meaning of the investigated units J.R. Firth argued that each word when used in a new context is a new word. J.R Firth treated all linguistic description as the statement of meaning, thereby stretching the application of the equation 'meaning is function in context' to cover grammatical and phonological analysis. The move away from the identification of meanings simply as what is 'stood for' or referred to (since with many words no such referent is readily available), towards the interpretation of meaning as function in context (how words and combinations of words are used) is considered to be one of the most valuable contributions to semantics made by J.R. Firth. B. Malinowski and J R. Firth believed that the description of a language could not be complete without some reference to the context of situation in which the language operated. A more extreme view sees the meaning of the linguistic elements as totally accounted for in terms of the situation in which it is used (Palmer,1991)

This is behaviourism, associated first in linguistics with Leonard Bloomfield (1887-1949). He defined the meaning of a linguistic form as the situation in which the speaker utters it and the response it calls forth in the hearer. This is going much

further than either B. Malinowski or J.R. Firth. They made statements of meaning in terms of the situation.

At the same time no one would deny the crucial importance of context in the determination of meaning. As far as the role of verbal context is concerned, some of the pioneers of modern semantics already recognized this as fundamental. Modern linguists, however, have not only placed greater emphasis on context but have considerably broadened its scope and have also probed more deeply into its influence on meaning. Linguistic or verbal context is defined as the stretch of text separated and integrated by the language element which functions in it uncovering its meaning, immediate syntactical environment of the word capable of the realization of its meaning (Amosova, 1968); the minimum stretch of speech necessary and sufficient to determine which of the possible meanings of a polysemantic word is used: blue eyes and to feel blue.

Not all linguistic units have verbal contexts and can be part of this context. Only units, which can be used independently, have contexts. These are lexemes and nominative word combinations (i.e. synthetic and analytical nominative units), sentences and phrases. Phonemes, letters, stems and affixes (suffixes or prefixes) are not context *forming* elements in the text.

The language matter itself, by the discourse, in fact, gives the lingual or verbal context. It has been found that lingual contexts can be characterized as *lexical, grammatical and stylistic contexts* in accordance with the peculiarities of contextual phenomena (Morokhovska, 2013).

The lexical context is represented by the denotative units in the environment of the element under consideration, of a lexeme and of a categorial form either. The semantics (i.e. the meanings) of the units in the environment of the given element or form is relevant for the actualization of its meanings, lexical and grammatical too. The verb “take”, for instance, is of very general semantics which is of significate character. The meaning of this verb in concrete cases of its occurrence is predetermined by its combinability with different nouns in the subject and in the object positions. Similarly, the meanings of the N's form are different in the following examples because this form patterns with the nouns of different types: *a lion's paw, a lion's share*. Lexical context determines the meaning of the adjective *black* in the following examples. *Black* denotes colour when used with a key-word naming some material or thing, e.g. *black velvet, black gloves*. When used with keywords denoting feeling or thought, it means “sad”, “dismal”: *black thoughts, black despair*. With nouns denoting time, the meaning is “unhappy”, “full of hardships”: *black days, black period*. The grammatical context, which is

given by the grammatical environment in which the given unit occurs, is, of course, of greater significance for the actualization of grammatical meanings. The following examples illustrate the immediate grammatical context of the verb *stop*: *stop + Ving.: She even stopped shivering for a moment. stop + Vinf.: The waiter stopped to take their order.*

A purely syntactic context is rare. As a rule the indication comes from syntactic, lexical and sometimes morphological factors combined. Thus, *late*, when used predicatively, means ‘after the right, expected or fixed time’, as *be late for school*. When used attributively with words denoting periods of time, it means ‘towards the end of the period’, e. g. *in late summer*. Used attributively with proper personal nouns and preceded with a definite article, *late* means ‘recently dead’

Context of situation is the central concept of linguistic pragmatics. It is represented by the social and cultural conditions of communication. The social status of the communicants, their culture and philosophical outlook are the background factors which lay constraints on the communicative use of language. Verbal context is opposed to non-verbal context which includes nonverbal, usually unconscious, communication through the use of postures, gestures, facial expressions, body movements. Nonverbal context always accompanies verbal context and sometimes replaces it. Non-verbal context is essential in understanding the meaning of deictic elements specifying identity or spatial or temporal location from the perspective of one or more of the participants in an act of speech or writing, in the context of either an external situation or the surrounding discourse, as *we, you, here, there, now, then, this, that, the former, or the latter*. For example, a selecting gesture, as in “*This is my coat and this one is Amy's*” specifies the meaning of demonstrative pronouns. Another distinction is made between explicit and implicit context. Explicit context may be expressed both by verbal and nonverbal means. Implicit context embraces presuppositions and background knowledge of the participants in the communicative act. Thus, the utterance *It has grown cold in the evening* contains the implicit context *It was warm during the day*. This widening of contexts has opened new horizons for the study of meaning.

## 15.2. Applications of contextual analyses.

Contextual analysis is used in lexicology to study word meaning and syntagmatic relationships between words, i.e. their combinability or collocability. The implementation of the method of contextual analysis can be efficient for grammar

too. Contextual analysis can provide an explanation for actualization of grammatical categories.

Every word, no matter how precise and unambiguous, will derive from, the context a certain determinateness which, by the very nature of things, can arise only in specific utterances. Even proper names, the most concrete of all words, have a variety of aspects only one of which will be relevant to a particular situation. Only the context will show whether when speaking of Queen Victoria, we are referring to the young Queen advised by Lord Melbourne, to the aged monarch reigning at the time of the Boer War, or to any other stage in the 82 years of her life. Another factor, which depends largely on the context, is the emotive side of word meaning. In principle, practically any term may acquire emotive overtones in a suitable context; conversely, even words with a strong emotional charge may on occasion be employed in a purely objective manner. *Home*, for example, is one of the great emotional words of the language, and is used that way in many contexts: *Home, sweet home. England, home and beauty. Home is the sailor, home from the sea*, etc.), but it is stripped of all emotion in *Home Office* or *BBC Home Service*. Apart from this general influence, context may also play a vital part in fixing the meaning of words, which are too vague or too ambiguous to make sense by themselves. To take an extreme case, the verb *do* has such a wide variety of uses that it is virtually meaningless in itself. It is interesting to note, however, that in less advanced cases of ambiguity there is sometimes a kind of hierarchy between the various meanings, which is largely independent of context. Recent experiments have shown, for example, that when German speakers were asked to make up a sentence containing the word *Nagel*, all the subjects automatically took it in the sense of "metal nail"; apparently it did not even occur to them that it also means "finger-nail, toe-nail". Another type of ambiguity, which only the context will dispel is found in words belonging to more than one word-class: This is particularly common in English where words can pass freely by a process known as *conversion* - from one class to another. Here too there is no doubt a hierarchy of functions: *fire* is primarily a noun, though it can be used as a verb; *have* is first and foremost a verb though it becomes a noun in *the haves and the have-nots*.

Context is essential in the case of homonyms. It would obviously be meaningless to ask someone to find the equivalent of the English word *sole* in a foreign language; one would first have to specify which of the three *soles* is meant - the adjective, the fish, or the bottom of the foot - not to mention *soul* which, though spelt differently, is pronounced in the same way. The role of context is even more

essential in the case of deictic elements. Deixis as a linguistic term is borrowed from the Greek word for pointing or indicating, and entails the use of demonstratives (*this, that*), first and second person pronouns (*we, you*), tense, specific time and place adverbs (*now, then, here, there*), and a variety of other grammatical features tied directly to the circumstances of utterance. Essentially, deixis concerns the ways in which languages encode features of the context of utterance or speech event, and thus concerns ways in which the interpretation of utterances depends on the analysis of that context of utterance. Thus the pronoun *this* does not name or refer to any particular entity on all occasions of use; rather it is a variable or placeholder for some particular entity given by the context (e.g. by a gesture). The importance of context for the interpretation of deictic elements is perhaps best illustrated by what happens when such context is lacking. Consider, for example, finding the following notice on someone's office door: *I'll be back in an hour.*

### 15.3. Shortcoming and strengths of contextual method

The study of linguistic context is of interest to semantics for two reasons. First, by looking at the linguistic contexts of words we can often distinguish between different meanings. Dictionaries, especially the larger ones, quite rightly make considerable use of this kind of contextualization. Secondly, contextual analysis concerns itself with the study of word collocability and collocations. This was strongly emphasized by J.R. Firth and British linguists influenced by his ideas. The task of distinguishing between different meanings of a word and different variations of combinability is actually a question of singling out different denotations within the semantic structure of the word: 1) a sad woman; 2) a sad voice; 3) a sad story; 4) a sad scoundrel (= an incorrigible scoundrel); 5) a sad night. Obviously, the first three contexts have the common denotation of sorrow, whereas in the fourth and fifth contexts the denotations are different. So, in these five contexts we can identify three meanings of "sad". All this leads us to the conclusion that context is not the ultimate criterion for meaning and it should be used in combination with other criteria (Soloshenko, Zavhorodniev, 2008). The principles of contextology appear most valuable and explanatory for the analysis of the actualization of grammatical categories. The elaboration of text-linguistics and the speech-act theory makes it evident that the principles of contextual analysis can be effectively used whenever the functional aspects of linguistic forms come into focus. However, comparatively little progress has been achieved in grammar as far as the typology of contexts is concerned. Some attempts to characterize and to classify contexts have been

undertaken but the principles on the basis of which these were made are hardly acceptable for the grammatical contextology which aims at the analysis of the actualization of grammatical phenomena in speech. It does not mean at all that grammarians ignore contextological principles but they resort to them yet too occasionally (Morokhovska, 2013). One more conclusion, perhaps, should be that we need far more sophisticated techniques for context of situation than have yet been developed. Contextual analysis suggests important pedagogical strategies. It raises the embarrassing question of what language means when it is used only for practicing language, for example, the decontextualized examples of a grammar exercise. Frequently it does not mean anything. Some applied linguists have gone so far as to deny that such language is language at all, coining instead the phrase "language-like behaviour" (Lewis, 1993). In general, de-contextualized lexical items words and phrases retain the codified element of their meaning; fully grammaticalized sentences, other than those used as lexical items, are wholly devoid of meaning when de-contextualized. Context - situation, participant and purpose- are not optional extras in the creation of meaning; they are intrinsic to it. This has important implications for what actually constitutes a language practice.

#### **QUESTIONS:**

1. What is the meaning of context?
2. What is context in language?
3. What are the types of linguistic context?
4. What is contextual analysis in linguistics?
5. What is the importance of contextual analysis?
6. What is the difference between contextual and content analysis?

## CHAPTER XVI. THE METHOD OF IMMEDIATE CONSTITUENTS

### Plan:

16.1. Notion of IC method

16.2. Application of IC method

16.3. Advantages and shortcomings of the IC method

**Key words:** *IC analysis, aims, advantages, weaknesses, phrase, grammar, syntactically analysis, sentence, constituent, action*

16.1. Notion of IC method. The method of Immediate Constituents (IC) was originally elaborated as an attempt to determine the ways in which lexical units are relevantly related to one another. It was discovered that combinations of such units are usually structured into hierarchically arranged sets of binary constructions. For example, in the word group *a black dress in severe style* we do not relate *a* to *black*, *black* to *dress*, *dress* to *in*, etc. but set up a structure which may be represented as *a black dress /in severe style*. Thus, the fundamental aim of IC analysis is to segment a set of lexical units into two maximally independent sequences or ICs, thus revealing the hierarchical structure of this set. An Immediate Constituent (IC) is a group of linguistic elements which functions as a unit in some larger whole. The division of a construction begins with the larger elements and continues as far as possible. Successive segmentation results in Ultimate Constituents (UC), i.e. two-facet units that cannot be segmented into smaller units having both sound-form and meaning. The Ultimate Constituents of the word-group analyzed above are: *a / black I dress i in I severe I style*. The sentence *My younger brother left all his things there* will be analyzed as follows (Rayevska, 1976) it is a series of groupings of words, the series of constructions that cluster and nest inside other constructions. A basic sentence pattern consists first of all of a subject and a predicate. These are the immediate constituents of the sentence. They are constituents in the sense that they constitute, or make up, the sentence. They are immediate in the sense that they act immediately on one another: the whole meaning of the one applies to the whole meaning of the other. The concept of IC analysis was first introduced by Leonard Bloomfield and later on developed by Rulon S. Wells and other linguists K L. Pike, S. Chatman, E.A. Nida, R.S. Pittman. It is well known that in his book *Language* L. Bloomfield insisted on the analysis based on the principle of immediate constituents, but he failed to provide any criteria for correct division of linguistic material into immediate constituents. L. Bloomfield wrote but little about specific procedures and techniques of analysis. The task of elaborating suitable means of analysis was carried out by his followers and pupils (Burlakova,1971). Rulon S.Wells

succeeded in making the principles of IC analysis more precise and comprehensible. R.S. Wells is true to the structuralistic principle of making practically no difference between combinations of morphemes forming words and combinations of words forming phrases, clauses and sentences. The fundamental aim of IC analysis is to analyze each utterance and each constitute into maximally independent sequences preserving the same meaning. Phrased differently, it is necessary to decide how to break up sequences into adequate parts. IC analysis can be based not only on the principle of expansion but that there are also two other principles of patterning: the principle of choosing ICs that will be as independent of each other in their distribution as possible, and the principle that word division should be respected. The term *constituents* used for the ICs of a sentence, and the ICs of those ICs, and so on down to the morphemes and conversely the term a *constitute* for a sequence constituted by two or more ICs. The fact that every word is a constituent (unless it is a sentence by itself) and also a constitute (unless it is a single morpheme). One of the prime functions of analysis into ICs is to reveal a formal difference correlated with the semantic one. Thus, it is showed that *The King of England's people* has two meanings, and correspondingly two ICs analyses: 1) that we are speaking about "the King of a certain people, viz the English") and 2) The King of England/'s people which has a different meaning "the people of a certain King, viz the King of England". Thus, a correct ICs analysis helps to understand the real relations of elements constituting the sequence. IC analysis is based on the assumption that despite the apparent simple linear progression language consists of layer upon layer of structure. Each layer having its internal structure ignored and being treated as a single unit as it enters into the next layer of structural relationship (Burlakova, 1971) How this method works can be illustrated by a diagram in which the sentence.

## 16.2. Application of IC method

The concept of immediate constituents (ICs) is important both in morphology and syntax. The study of syntax is greatly facilitated by studying the types of immediate constituents which occur. The analysis into immediate constituents is also used to study the morphemic structure of words and provides the basis for further word-formation analysis. To arrive at the complete structural meaning of a sentence, to know how the sentence is built (constructed) we must determine how the separate units of the sentence, its constituents, are grouped. IC analysis is a very important tool for syntactically analysis. The technique applies that a sentence must be analyzed into immediate constituent actor and action. The

construction inside the immediate constituents must be further analyzed until the final constituents are reached that is a word.

Firstly, a sentence is divided into major parts or immediate constituents. These constituents are divided into further immediate constituents. This continues until each constituent consists of only one meaningful part of a word. All is presented in a diagram, usually in trees form, that reveals the hierarchical immediate constituent structure. The lecturer presented the IC course clearly

This tree illustrates the manner in which the entire sentences is divided first into the two immediate constituents the lecturer and presented the IC course clearly. These two constituents are further divided into the immediate constituents the and lecturer and presented the IC course and clearly. Then presented and the IC course. The last one is the and IC course. Each individual word is a constituent by definition. This is a significant aspect of IC analysis is phrase structure grammar. A word as the smallest constituent is the final process of IC-analysis. A different process happens in a dependency grammar where individual words are not as the final result of constituents.

IC-Analysis in Grammar. The finite verb functions as the root of all sentence structure. There is no initial binary actor-action division of the clause. A finite verb phrase (VP) constituent and many individual words are not qualified as constituents in the IC-analysis. The lecturer presented the IC course clearly While the structures that IC-analysis identifies for dependency and constituency grammars differ in significant ways, as the two trees just produced illustrate, both views of sentence structure are acknowledging constituents. Immediate constituent produces the preference for binary analyses. Breaking down sentences into two and only two immediate constituents was one example of the work. Obviously, in morphological analysis, many words can also be divided in two. Thus, English incompleteness consists of the suffix *-ness* and the word *completeness*, which in turn consists of the prefix *in-* and *complete*. In a bigger example of a sentence, we can make components in first cutting in constituent analysis as in *The teacher teaches a lesson*. This sentence has two immediate constituents, *The teacher* and *teaches a lesson*. *The teacher teaches a lesson* has six ultimate constituents i.e. *The*, *teach*, *-er*, *teach*, *-es*, *a lesson*. It can also be used for any languages. The analysis is begun with the largest IC and comes down to the smallest phrases. If the sentence is complex the largest IC are the clauses included into the complex construction. The diagramme may be drawn somewhat differently without changing its principle of analysis. Such a diagramme is called a candelabra diagramme (Irtenyeva et al., 1969) When the

analytical IC model was created and diagrammed there was left only one step to its understanding as a generative model, a model by which sentences can be built (or generated). The messianic figure was Noam Chomsky and the starting point his book *Syntactic Structures*. He sought a simple linguistic theory which would generate all the sequences of morphemes (or words) that constitute grammatical English sentences. For him a constituent analysis of the sentence has the following representation (Chomsky, 1957).

1. Sentence - NP + VP
2. NP T + N
3. VP-Verb+ NP
4. T - the
5. N -man, ball, etc.
6. Verb —» hit, etc.

Every sentence (S) or syntactic construction is built up of two immediate constituents: the noun phrase (NP) and verb phrase (VP). The noun phrase consists of two IC: the determiner (T) and noun or its equivalent (N). The verb phrase consists of the verb (V) and its noun phrase (NP). Symbolic representation of constituents is very explicit. It is now widely used in modern linguistics for the sake of economy and clarity. Using the IC model we may work out rigid rules for generating (building up) sentences. The set of rules showing how a sentence is generated are called rewrite rules. In each rule above -» represents the word *rewrite*, and each statement is an instruction of the type *rewrite X as Y*. Given the set of rules one can generate an English sentence or a number of sentences changing only the N and the transitive V, in accord with the situation. The generation of the sentence must proceed with the change of only one element at the application of each rule. The following series shows what happens to the sentence *The man hit the ball* if it is rewritten in terms of the IC grammar given above. The procedure of generating is as follows:

3. Sentence Applying rule 1: NP + VP
- Applying rule 2: T + N + VP
- Applying rule 3: T + N + Verb + NP
- Applying rule 4: the + N + Verb + NP
- Applying rule 5: the + man + Verb + NP
- Applying rule 6: the + man + hit + NP

### 16.3. Advantages and shortcomings of the IC method

The practical value of the IC theory is great, because it gives correct division of speech into phrases that signals the meaning of the syntactic constructions and

gives the speech its natural rhythm. It is a well-known fact that a speaker of a foreign language who has a perfect command of the sounds, but whose phrase pauses are wrong, cannot be understood by native listeners. This proves the practical value of the phrase grammar and suggests teaching the phrase grammar together with the rhythmical division of the chunks of speech. IC analysis seems to extend and deepen our understanding of phrase structure: it shows how to break up constructions and means of building them up. The IC theory (or grammar), or the phrase theory (grammar) was the first modern grammar fit for generating sentences. There were two grammar theories which sought to teach how a sentence is generated. These are the Linear grammar and the Immediate Constituent grammar (IC grammar, phrase grammar) The linear theory taught that a sentence is generated on a very simple model consisting of three elements: S+V+O. This grammar may be traced in the *Essentials of English Grammar* by Otto Jespersen This model is quite familiar to the English teachers who begin their first lessons explaining that in the English sentence subject stands first, then it is followed by a verb (or predicate) and then by an object. The linear theory (or model) is rather trivial as it has no power to generate different sentence structures but the simplest. It cannot even do this properly as it does not indicate the groupings of the sentence. What is meant is as follows: it may be easy to fill in the word *John* in the S-position, or *took* in the V -position: but it will be wrong to fill in *book* in the O-position, because an NP ; not a word must stand here, e, g. a *book*, or *the book*, or *my book*, etc. If a sentence is complex, the linear theory will fail to construct it although the sentence has but three elements: S-V-O and their groups of the constituents. The IC model has certain advantages as a generating model because it indicates the groupings of the IC and it shows the order in which the generating of a sentence must proceed. In spite of its merits the IC model also has some demerits. Its sphere of application is limited to generating only simple sentences. If the sentence is expanded, then the rewrite rules become too numerous to hold and the generation of the sentence hinders. The interrogative and passive sentence-structures must have different set of rules which are difficult or impossible to work out on the dichotomous scheme. The meaning of the sentence, word-group, etc. and IC binary segmentation are interdependent. Its weakness is that it depends on intuition about grammatical acceptability. The IC model cannot sometimes show that the relation between the elements of the two sentences are different, i.e it cannot sometimes resolve ambiguity in homonymic patterns, e.g. John is easy to please and John is eager to please have the same derivation tree showing the IC of the sentences.

**QUESTIONS:**

1. What is IC analysis?
2. What is the purpose of IC analysis?
3. Who is the founder of IC analysis?
4. What are limitations of IC analysis?
5. What is the importance of IC analysis?
6. What is phrase structure grammar?

## CHAPTER XVII. USAGE OF COMPUTERS IN LINGUISTICS

### Plan:

17.1. Computational linguistics

17.2. Computers are means for effective communication

17.3. Application of computers in linguistics

**Key words:** *computational, linguistics, linguistic modeling, algorithmization, computers, calculators, data, text-to-speech, synthesizers, automated voice, text editors, language materials*

17.1. Computational linguistics

The creation of computers in the middle of the 20th century and the rapid development of cybernetic ideas stimulated the emergence of new sciences. As a rule, they arose at the junction of sciences, often unrelated to each other. At the junction of computing technology and linguistics, a science was born, which changed its name several times: first it was called mathematical linguistics, then structural linguistics and computer linguistics. Finally, its modern name - computational linguistics - was firmly entrenched behind it. This is a wide area of using computer programs, computer technologies for organizing and processing data in order to create functional models. Computer modeling of a language can also be considered as a field of application of programming theory in linguistics. In the 20s. of the last century, an autonomous scientific discipline, applied linguistics, appeared, engaged in the development of methods for solving practical problems related to the use of language. Applied linguistics was born after the need for a rigorous scientific solution of linguistic problems using precise formal methods was realized. General methods for solving problems in applied linguistics are developed by theoretical linguistics (the area that studies formal algorithmic procedures for language analysis), as well as mathematical linguistics. Therefore, modern applied linguistics includes many issues of mathematical (quantitative) linguistics, computational linguistics, the theory of speech influence (pragmalinguistics); R. G. Piotrovsky also distinguishes engineering linguistics, which has not become widespread.

The range of tasks includes: linguistic modeling, algorithmization, linguistic support of scientific and technical information systems, creation of text generation systems, creation of computer language learning systems, machine translation, development of various types of machine (automated) dictionaries, development of information transmission systems via the Internet, etc. etc. (many of them coincide with the tasks facing applied linguistics, which once again emphasizes their close relationship).

Two reasons led to the emergence of a new science. First, linguistic researchers hoped that modern exact sciences (and above all mathematics) would help linguistics to acquire the accuracy it lacks. The advent of the computer strengthened these hopes, since it was clear to many linguists from the very beginning that computers are not only "fast adding machines", but also a powerful tool for automating work with texts. Secondly, with the advent of computers, the problem of communicating with them for unprepared users almost immediately arose. Undoubtedly, familiar natural language could be the best form for such users. But to organize such interaction, one must first understand the laws and features of the use of natural language in the process of communication between people. And, as it soon became clear, traditional linguistics practically did not study these laws.

One of the leaders of the world DBMS (Database Management System) market is the Oracle Company. Oracle technologies are based on the use of a semantic dictionary of the English language - a thesaurus containing about half a million words classified according to thematic categories and synonymous series: synonyms, more general and more specific concepts, as well as related words that often have a semantic connection with it are established for each word in the text. For example, the word linguistics corresponds to the synonyms linguistics and linguistics, and the term "linguistics" itself refers to the thematic group represented by the more general concept of "philology". At the same time, linguistics acts as a thematic category for a number of more specific concepts - phonetics, vocabulary, morphology, and also has related phrases: the science of language, linguistic discipline. In general, the hierarchy of categories presented in the thesaurus has up to seven levels of nesting and includes several thousand topics in the main branches of knowledge. Clearly, the use of the thesaurus in the inter Media Text Oracle Database (inter Media Text Cartridge combines text processing with all the capabilities an Oracle user has to work with relational databases) can provide invaluable help in contextual search by expanding the query words with various types of words that are close in meaning.

Currently, several areas have emerged in computational linguistics: machine translation problems, communication modeling, plot structure modeling, hypertext technologies for text presentation, computer lexicography, etc.

Machine translation is translation from one language into another that is done with the help of a computer.

Here is one of the most common translation algorithms, which consists of several stages:

1) Comprehension of the text in a foreign language. This is the understanding of the text: understanding of all its words and phrases, general content, as well as - the author's intention;

2) Interpretation of the text. This stage is associated with the fact that a linguistically accurate, literal translation from language into language is, in principle, impossible, since there is no complete identity of the meaning of many words, phrases, sentences. Therefore, we are only talking about a more or less adequate interpretation of the original text;

3) Transmission of the content of the text in another language. This stage assumes the most adequate transfer of the understood content into another language.

Computational Linguistics is a rather young academic discipline that is closely connected to the latest developments in information technology. Flexible search engines, smart dialogue systems, advanced office automation or e-learning tools are only some of the applications of computational linguists. The improvement of all these applications depends on the integration of linguistic data structures, and that is what Computational Linguistics is mostly concerned with. Computational linguists work at modelling and simulating human language to make it understandable for computers.

Language is one of the most essential and fascinating products of our cultural evolution. It is humanities' prime means for communication and interaction. It allows us to talk about everyday business and express the most extravagant and abstract ideas. The human need for communication is mirrored by the fact that thousands of languages and dialects have emerged over the centuries and keep developing today to accommodate new facts and ideas. Although language is a complex phenomenon which never ceases to puzzle those who try to find out how it works, little children have no difficulty learning it within a very short time. This shows how closely language is connected to our innate capabilities of thought and understanding.

#### 17.2. Computers are means for effective communication

Looking back on the 20th century, it is easy to see that computers have been one of the most important inventions with respect to cultural evolution. Today, computers are everywhere. It is hard to imagine our professional or personal lives without them. Computers started out as simple calculators, and it took a while before people started using them to process different kinds of data. Today language in its spoken and written form is very much in the focus of interest as an effective and ubiquitous means for communication. The focus is not only on

developing applications which support humans in their interaction, but also on facilitating communication between humans and machines.

Human beings generally use something called 'natural' language, a rather complex system of sounds and signs, which is subject to constant change, allows for variation and ambiguity, and is robust enough for meaningful messages to be exchanged under almost any circumstances. Computers on the other hand have problems deciding what is important and what is just background noise. They are restricted to 'formal' languages, which are vulnerable to ambiguity, variation, unfinished sentences or spontaneous changes. One of the most important tasks in Computational Linguistics is therefore the adequate representation of the properties of natural language into a formal system that allows for the above-mentioned characteristics of human language.

At a glance, Computational Linguistics seems to be a merger of Linguistics and Computer Science, but it actually bridges even more scientific disciplines: it is closely connected to Cognitive Psychology, Mathematics, the different philologies (i.e. the large panorama of the languages of the world) and finally Philosophy. We might say, that your studies in Computational Linguistics will bring you into contact with the oldest reflections about language and the latest developments in information technology.

"Simply put, Computational Linguistics is the scientific study of language from a computational perspective. Computational linguists are therefore interested in providing computational models of various kinds of linguistic phenomena. These models may be "knowledge-based" ("hand-crafted") or "data-driven" ("statistical" or "empirical"). Work in computational linguistics is in some cases motivated from a scientific perspective in that one is trying to provide a computational explanation for a particular linguistic or psycholinguistic phenomenon; and in other cases the motivation may be more purely technological in that one wants to provide a working component of a speech or natural language system. Indeed, the work of computational linguists is incorporated into many working systems today, including speech recognition systems, text-to-speech synthesizers, automated voice response systems, web search engines, text editors, language instruction materials, to name just a few." *from the "What is CL?"-Website at the [Association for Computational Linguistics](#) - ACL)*

Computers have already had a considerable impact on linguistics, and there is every reason to believe that the impact will be far greater and far more important in the future. The application of computer methods in linguistics has been along several lines: There have been applications to traditional or usual linguistic

methods. There have been applications to extensions of traditional methods made possible by the special abilities of the computer. These are both important, but most important of all are applications to methods that are entirely new to linguistics and that hold the exciting promise of new and deeper insights into language phenomena. Computer applications to traditional or usual linguistic methods are the most straightforward. These are methods that have been useful in an unautomated form for many years. Concordance making, text searching, and the handling and sorting of linguistic data lend themselves to easy automation. The use of the computer can bring speed, convenience, accuracy, and relief from a certain amount of drudgery.

### 17.3. Application of computers in linguistics

Computer applications that involve straightforward extensions of the older techniques hold the promise of yielding results virtually unattainable using the older techniques. This is because the superior speed, accuracy and clerical manipulating ability of the computer bring a new dimension to the research capabilities of the investigator. The kinds of operations envisaged in these extensions of older techniques would be entirely impractical without the computer because of the large amount of manual labor that would be entailed. The computer thus becomes an instrument for increasing or extending the scope and usefulness of older techniques into areas that had previously been effectively closed to investigation. But some of the computer applications to linguistics are entirely new and are not just straightforward applications or extensions of older non-computer methods. The computer is opening up exciting new vistas in linguistic research. It offers opportunities for the exploration of virgin territory and the possibility of obtaining new and deeper insights into language, its structure and its use by the human organism. The full scope of the future possibilities is only dimly seen, but the results already in hand tend to indicate that the future will be very bright indeed. It is thus important to understand these new techniques and to develop them and apply them systematically in linguistics. A representative and diverse selection of applications is discussed here. We do not here present a complete survey:<sup>1</sup> there are other applications that are perhaps equally important. But the ones presented here should serve to indicate the kind of an impact that computers are already having in linguistic research. In this new area, progress may be limited only by the bounds of our creative imagination.

**File Processing.** Many existing linguistic procedures involve the handling of large files of data or large quantities of text. In each case the application of the computer brings certain advantages. In the case of files of data, computer handling makes

possible frequent updating involving the interfiling of new material, and then, with each updating, the whole file can be printed out in its new form. Thus the linguist always has available the whole current file arranged and printed in a convenient format. With the file stored in a form amenable to computer operations, the possibility is open for easy production of complex new arranging and sortings, with printed copies in each new arrangement. Or it is possible to make special searches of the file for particular types of items answering to certain specified search criteria. The ease with which specialized searches of the data can be carried out makes possible a considerable flexibility in research, for new searches can be planned on the results obtained from previous searches. The advantages that automation brings to these rather straightforward file operations are several. First of all there is the advantage of accuracy in sorting and copying. The accuracy of the computer far exceeds that of manual sorting and copying. Another advantage is the more flexible and convenient arranging and displaying of the data without the necessity for extensive manual operations. Then there are the speed and flexibility in research that are gained by having the data in a tractable form where they can be easily searched, sorted, arranged and printed. But perhaps one of the greatest advantages of the automation of file operations is the possibility of introducing sophisticated error checks and controls based on known regularities in the data entries. For example, in a large file of personal names in the ancient Semitic Amorite language, it is presumed that the names will conform to a certain known internal morphological structure. It is thus possible to program computer checks of the accuracy of the manual copying and transliteration based on the presumed structure of the entries. Any names that do not conform to the posited structure are automatically located and marked by the computer so that they can be examined in detail to determine whether the deviation is significant or whether it is due to an inadvertent error in copying or keypunching the data. By such means the data can easily be maintained in a state of accuracy much higher than is generally feasible without an inordinate amount of manual checking.

**Text Handling.** In the case of text handling, there are several operations that become quite easy with the availability of text in machinable form. The first thing that comes to mind, of course, is the preparation of concordances, a task that has been a very time consuming one for scholars in the past. With the use of the computer and existing concordance programs, concordances can be obtained relatively easily. Related to the production of concordances are a number of other operations that can easily be automated. These include the extraction of

vocabulary from text and the counting of words, morphemes, or other items of interest. These operations and other more sophisticated ones are being extensively applied in dictionary and glossary making, as well as in areas of literary and textual criticism and stylistics. With the availability of text in the computer, certain important extensions of concordance techniques emerge. These involve the ability of the computer to carry out searches of the text according to complex search criteria. The limitations of the concordance that this possibility overcomes are twofold. In the first place, the typical concordance arranges segments of the text alphabetically according to each of the words of the text, so that the investigator can look up any word and find all of its contexts brought together. But typically the investigator has neither the interest nor the time to look up every word in the concordance. But also, typically, he could not use a partial or selective concordance because he cannot foresee which words he is going to want to look up, because he cannot foresee the exact course that his research will take. The ability to carry out text searches to order overcomes this difficulty, for a number of searches can be carried out during the course of the research. The second difficulty of the traditional concordance is that, although it is easy to find all of the contexts of a given word, it is difficult to use a concordance to help find examples of more complex patterns, for example, sentences involving inversion, sentences involving three or more clauses, sentences involving one of a number of negative adverbs and a progressive verb form. Searches of text for patterns such as these become possible with the newer computer techniques. Particularly important in achieving the flexibility and ease of programming required for specifying and carrying out such complex searches is the use of a convenient high-level programming language. The flexibility of the clerical tasks that can be accomplished by the computer to order, especially if a high-level programming language, is so great that the effect of this approach is to give the investigator a much more powerful tool for searching his text than he could possibly expect by using concordances.

Models of Language Users. If a computer program can analyze and synthesize sentences according to a linguistic statement, the program itself can be considered a theory in the sense that it makes predictions. Thus as our knowledge advances of how to test grammars by means of programs, we may find that it will be reasonable to make no distinction between the program and the linguistic statement. This practice becomes quite feasible with the use of high-level programming languages which a computer program can be written in a way that is convenient for the linguist to read and comprehend. But the most exciting

implication of computers to linguistics follows from the fact that both man and computer are symbol manipulators or information processors. For this reason, a computer simulation of linguistic behavior stands a chance of giving us much deeper insights into language phenomena than computer simulation might provide in other areas, such as the simulation of traffic flow in a city or of material flow in a manufacturing process. In other words, a computer program may be a model of man in his role of symbol manipulator in a much deeper sense than a computer program may be a model of other processes, because the computer is also a symbol manipulator. An example of the heuristic value for linguistics that a computer model of language behavior can provide is to be found in the work on the relation of the temporary memory to linguistic structure. In this work, a computer program was devised to model a certain facet of human language behavior, namely the production of grammatical sentences. This led to a more unified understanding of a wide diversity of previously unconnected facts of the structure of English, and led to a unified view of syntax that promises to be extremely important in the understanding of language typology and language change. On the basis of this work it has become possible to comprehend perhaps the major reason for the complexity of languages. It may be safe to say that we will only really understand human language behavior when we can make working models that also exhibit language behavior. The emergence of the computer as a tool in linguistics puts at our disposal the very techniques that we need for making such working models, and the prospect is extremely exciting.

**QUESTIONS:**

1. When did computational linguistics appear?
2. What is the task of computational linguistics?
3. What are stages of common translation algorithms?
4. Why do we call computers are means for effective communication?
5. What is the usage of Computers in linguistics
6. What are the advantages and disadvantages of using computers?

## CHAPTER XVIII. MAIN TRENDS IN MODERN LINGUISTICS

### Plan:

18.1. The term “Linguistics”

18.2. The branches of linguistics

18.3. Modern trends in linguistics

**Key words:** *language, linguistics, branches, trends, static, synchronous, diachronous, intralinguistics, extralinguistics, paralinguistics, psycholinguistics, sociolinguistics, cognitive, pragmalinguistics, linguoculturalology*

Linguistics is the scientific study of human language. Linguistics can be broadly broken into three categories or subfields of study: language form, language meaning, and language in context. The earliest known activities in descriptive linguistics have been attributed to Pāṇini around 500 BCE, with his analysis of Sanskrit in *Ashtadhyayi*. One subfield of linguistics is the study of language structure, or grammar. This focuses on the system of rules followed by the users of a language. It includes the study of morphology, syntax, and phonology. Phonetics is a related branch of linguistics concerned with the actual properties of speech sounds and non speech sounds, and how they are produced and perceived. The study of language meaning is concerned with how languages employ logical structures and real-world references to convey, process, and assign meaning, as well as to manage and resolve ambiguity. This category includes the study of semantics and pragmatics. Linguistics today is a subject of study, independent of other disciplines. Before the twentieth century, the study of language was not regarded as a separate area of study in its own right. It was considered to be a part of studying the history of language or the philosophy of language, and this was known not as linguistics but as philosophy. So ‘Linguistics’ is a modern name which defines a specific discipline, in which we study language not in relation to some other area such as history or philosophy, but language as itself, as a self enclosed and autonomous system, worthy of study in its own right. It was necessary at the beginning of the growth of modern linguistics to define this autonomy of the subject, otherwise it would not have been possible to study the language system with the depth and exhaustiveness which it requires. However, now we acknowledge that while linguistics is a distinct area of study, it is also linked to other disciplines and there are overlapping areas of concern.

The main concern of modern linguistics is to describe language, to study its nature and to establish a theory of language. That is, it aims at studying the components of the language system and to ultimately arrive at an explanatory statement on how the system works. In modern linguistics, the activity of describing the

language system is the most important and so modern linguistics is generally known as descriptive. But linguistics has other concerns as well, which fall within its scope and these include historical and comparative study of language. These differ from the descriptive approach in their emphasis; otherwise, these approaches also involve description of language.

The term linguistics is actively used in a number of European countries: English, French, German, Spanish, Russian and other languages, and refers to the science of language. The root of the word is *lingua*, which means language. Consequently, the Uzbek alternative to the term linguistics is *linguistics*, which is synonymous with each other. Linguistics, or linguistics, studies and analyzes the communication tool - language as a system - as a whole object, a complex social phenomenon. In the process, it comes in many forms. This is due to the nature of language, which has a social character, the need to study and study it from different angles, and the fact that this is absolutely true from a scientific point of view.

## 18.2. The branches of linguistics

The study of linguistics has been further divided into different branches according to different aspects one needs to address through one's studies. Though there are several branches of linguistics, we will discuss a few widely studied and a few branches of current importance. Linguistics is a powerful symbol of spirituality, which is reflected in the study of the language, which is the wealth of the nation, in the following ways: 1. Dynamic linguistics. 2. Static linguistics. 3. Synchronous linguistics. 4. Diachronous linguistics. 5. Intralinguistics. 6. Extralinguistics. 7. Paralinguistics. 8. Psycholinguistics. 9. Sociolinguistics. 10. Mathematical linguistics. 11. Computer Linguistics. 12. Cognitive linguistics. 13. Pragmalinguistics. 14. Linguoculturalology

1. Dynamic linguistics. Dynamic linguistics mainly studies language in its real existence, in the active performance of various tasks in the communicative process, in "development" and change. 2. Static linguistics. Static linguistics distinguishes and describes a specific period (segment) of language activity that is fully synchronized. This field of linguistics, unlike dynamic linguistics, which is completely alienated from the process of development and change in language, examines the state of a certain "stagnant" part of language in relation to the present-day period. 3. Synchronous linguistics. Simultaneous linguistics is inextricably linked with static and structural linguistics and serves to describe the "stagnant" and "stable" state of a language in a given period.

4. Diachronous linguistics. Diachronous linguistics is inextricably linked with dynamic and atomistic linguistics, and studies the laws and consequences of the development of language and the development of language units.

5. Intralinguistics (internal linguistics). Internal linguistics studies the systematic relationship of language units, regardless of extralinguistic factors. Sources of research in internal linguistics include phonology, lexicology, and grammar.

6. Extralinguistics (external linguistics). Foreign linguistics studies the development and function of language in relation to socio-political, socio-historical, ethnic, and geographical factors. Accordingly, this linguistics examines language as a social phenomenon.

7. Mathematical linguistics. Mathematical linguistics examines the application of mathematical methods (eg, statistical methods, information theory, etc.) in the study and description of language.

8. Paralinguistics. Paralinguistics is directly related to the activity of speech, the movement of hands and face (gestures, facial expressions), which is a constant companion of speech, which occurs simultaneously with the expression of ideas in the speech process, the height of speech, expressive- is an area that explores a number of aspects, such as emotional painting. Paralinguistics is a science that studies the means and ways of communicating information in a non-verbal way.

In any conversation, a person uses both verbal, and non-verbal ways of conveying information to the interlocutor. Paralinguistics is a separate section in the science of linguistics. Of course, the methods of transmitting information relating to paralinguistic ones are not units of speech and part of the language system. Nevertheless, this way of communication is extremely important.

Paralinguistic funds began to be studied not so long ago, namely, in the thirties of the twentieth century. The concept itself was introduced in the 1940s. Actually this science began to develop in the early 60-ies of the twentieth century.

### 18.3. Modern trends in linguistics

1. Psycholinguistics. Psycholinguistics as a generalization (synthesis) of psychology and linguistics studies the speech process in terms of content, communicative significance, the orientation of the speech act to a specific socio-practical goal, and its relevance. He pays special attention to the unity of form and content in speech. Psycholinguistics is the study of the formation and acceptance of speech units on the basis of linguistic possibilities, the state of mind in the speech process (exchange expression and comprehension), including conditions (situations), similarity (analogy), differentiation, sensitivity, so pays special attention to the mood of the listener and the listener. Traditionally we all believed

that the language we speak has a direct connection with our mind as our mind responds to everything we speak and everything we do. Psychology is the science of mind and Linguistics is the science of language. The combination of the two is psycholinguistics. The founders of modern psycholinguistics like Broca and Wernicke speak about different speech disorders in their work. The famous linguists like Leonard Bloomfield, Ferdinand de Saussure, John Mead and Franz Boas were regular students of Wundt's psychology lecture as Wundt elaborated the relationship between mind and language. This enabled these modern linguists to elaborate the complex system of communication and the simultaneous mental processes.

Many twentieth century psychologists put forth the theories of language learning. Though the behaviourists and cognitive psychologists differ in their theories of language learning, they ultimately speak about the language learning process only. Edward Sapir, J.F. Skinner, Noam Chomsky and other speak about language learning processes. Chomsky is the only linguist but he speaks about LAD (Language Acquisition Device) which is an innate ability of a learner which enables him to process the linguistic data and create his own sentences using it. Study of linguistics is incomplete without taking into account the theoretical preliminaries in psychology and vice versa. We all are familiar with the psychological counselling treatment. Here, the patient is allowed or encouraged to express himself so that his mind acquires normal conditions. The intrinsic relationship between language and psychology attracts many linguists to psychology and vice versa.

2.Sociolinguistics. Sociolinguistics is a necessary and logical connection between the sciences of sociology and linguistics and deals with the relationship between society and language (language and society). He interprets language as a social phenomenon. In this regard, the most important problem of sociolinguistics is to study the nature of language as a social phenomenon, to determine its place and importance in society, in the science of linguistics. Sociolinguistics mainly studies the relationship between language and social relations, social life, developmental events, facts, and the reasons for this connection. In fact, this field analyzes the social life of language in the life and development of society, that is, the events, processes, changes that occur as a result of the influence of external extralinguistic factors (factors). Thus, sociolinguistics studies how social factors affect language, how they are reflected in the language system, and how they are reflected. It should be noted that sociolinguistics expands its activities with the use of statistics, censuses and questionnaires.

Neurolinguistics. We all know that our mind and our linguistic abilities are closely connected. However, everything we read or listen is stored somewhere in our brain. It is this storage which sends adequate words which we need while speaking. Our mind is never at rest. It constantly draws words from this left hemisphere of our brain. It means that our mind, language and brain are closely connected to one another. They have certain functions to perform in the given linguistic position. Modern linguists have undertaken study of this relationship under the branch neurolinguistics. 3. Neurolinguistics is the branch of linguistics that researches the manner in which language is presented in the brain and the way it is processed by the brain. Neurolinguistics undertakes the study of neurons and their functions during language processing. The left hemisphere of human brain stores all information related to language. It stores words, acquires structures and shoots adequate words. This is a very overt process. In fact, it is simply impossible to understand the internal working of neurons as most of the researchers have to study brains of dead or injured people. Neurolinguistics also undertakes study of certain spoken disorders such as ‘stutter’, ‘aphasia’, ‘amnesia’, ‘agrammatism’ and so on.

4. Cognitive linguistics. Cognitive linguistics is regarded as an interdisciplinary branch of linguistics with a combination of knowledge and investigation adopting from cognitive psychology, neuropsychology and linguistics. It is a modern school of linguistic thought that originally emerged in the early 1970s out of dissatisfaction; and it is a cluster of overlapping approaches to the study of language as a mental phenomenon. Cognitive Linguistics is a method to deal with the study of natural language that began in the late 70s and early 80s in the work of George Lakoff, Ron Langacker, and Len Talmy. It is emphasizing on language as an instrument for arranging, handling, and passing on information. Cognitive linguistics is an approach to the study of language which is based upon human perception and conceptualization of the world. In other words, it studies the ways in which linguistic units and structures reflect the manner in which human beings perceive, categorize and conceptualize the world. Cognitive linguistics is a considerably new approach to language analysis. It introduces a fundamentally different conception of language structure, linguistic investigation and the mode of language description. The central claim of cognitive linguistics is that grammar forms a continuum with lexicon and can be described in terms of symbolic units. Thus, cognitive linguistics, or cognitive grammar, as it is often called, focuses on meaning and explains it by the fact that language as an integral part of human cognition is symbolic in its nature, and accordingly, it

makes available to the speaker an open-ended set of linguistic signs or expressions, each of which associates a semantic representation of some kind with a phonological representation. From the symbolic nature language follows the centrality of meaning – meaning is what language all about. As any linguistic structure is treated as a direct reflex of cognition, it follows that a particular linguistic expression is associated with particular way of conceptualizing a given situation. This leads to a quite different view between language and cognition in general: universal principles governing the design of all languages are rooted in cognition.

5. Computer Linguistics. Computer linguistics is a branch of applied linguistics whose main purpose is to solve linguistic problems by means of a computer, directly under its "guidance". More precisely, computer linguistics is actively involved in a number of processes, such as language teaching, assessment of knowledge in a particular subject, editing texts, translating from one language to another, conducting statistical research. Ours is the age of information and technology. Every day we get information about different issues around through the medium of newspapers, magazines, radio, television, computers, internet, etc. This information needs processing before it is fed to the internet through the medium of computers and smartphones. Whatever we type on the screen get converted into natural human language. This is basically a miracle. Yet, human beings have made it possible by constantly working on different technological tools.

6. Pragmalinguistics. Pragmatic linguistics is the result of a new stage of cognitive (empirical) research, research, formed on the basis of the achievements of structural linguistics. It takes as a system the state of use of the linguistic unit, the speech activity. Accordingly, it studies and examines a particular unity in speech activity, in reality, in the manifestation of speech, in cooperation with various non-linguistic factors and at different levels, in relation to them. Pragmatics roots back to the American philosophical teaching of pragmatism of the late XIXth - early XXth century (W. James, J. Dewey, Ch. Pierce), European linguistic philosophy of the first half of the XXth century (J. Austin, R. Carnap, B. Russell, L. Wittgenstein) and semiotics (science about signs) of the 40-s and 50-s (A. Greimas, G. Frege, Ch. Morris). Volumes have been written on the philosophical and linguistic aspects of pragmatics and "speech act theory" by scholars of practically all major countries of the world, including those of the former Soviet Union. The general assumption of the modern linguistics is that language and speech (i.e. the "system of signs" and its "communicative

application") rest upon three "pillars": syntactics (relationships between language signs); semantics (relationships between the sign, its meaning and its referent) and pragmatics (relationships between signs and their users). In more simple terms, we may assume that syntactics is the science about the interrelationships within the "physical matter" of languages, semantics is the science about the meaning of the "physical matter" and pragmatics is the science of application of this "physical matter" by people with certain purposes in speech.

7. Linguoculturalology. Linguoculturalology was formed on the basis of linguistics, cultural studies, ethnography, psycholinguistics. He studies the relationship and influence of culture, ethnos, national mentality on the principles of anthropocentric paradigm. Linguoculturalology is a complex field of scientific knowledge on the interconnection and interaction of language and culture that arose on the basis of the research works of the phraseological school of V. N. Telia, the publications of V. V. Vorobev, V. G. Kostomarov, V. A. Maslova, the works of other linguists. Linguoculturalology is closely connected with such disciplines as linguistics, ethno-linguistics, psycholinguistics, cognitivistics. As a relatively new science, a number of contradictions characterizes linguoculturalology. So, for example, in the framework of linguoculturalology, according to V. N. Telia, language phenomena in synchrony should be considered. However, at the turn of the XX-XXI centuries it is necessary to study the language and using not only the synchronous but also the diachronic method, as well as from the positions of the timeliness, since at the present time the «synchronous/diachronic» option is replaced by the idea of panchrony. The emergence of linguoculturalology is a natural result of the development of the philosophical and linguistic theory of the XIX-XX century. In the last decade, several works devoted to this discipline were published. The most popular in science work can be considered a textbook by V. A. Maslova. It provides a methodological basis, describes the current trends of linguocultural researches. In short, the science of linguistics as a whole, as noted, studies the language system through its various features, areas, with all its essence, complexity, with infinite communicative possibilities. In the same process, it interacts with a number of disciplines, actively participates in the coverage of the most pressing and complex issues such as language and society, language and history, language and development, language and thinking, language and speech. Linguistics serves to confirm and prove that language is a tool of communication, one of the most important, basic, unique criteria for the development and prosperity of society. It also helps the learner to develop creative thinking, to think in the mother tongue and the peculiarities of

the structure of the mother tongue, to be radically different from other languages. By absorbing the "self" reflection of the world, it serves as a solid foundation in the formation of national consciousness, national outlook, national pride and ideology.

**QUESTIONS:**

1. What is the definition of the term “Linguistics”?
2. What are main branches of linguistics?
3. What does mathematical linguistics study?
4. What are modern branches in linguistics?
5. What is the difference between cognitive linguistics and Linguoculturology?
6. What is the main purpose of linguoculturology?

## CHAPTER IX. HOW TO CHOOSE METHODS IN RESEACH

### Plan:

19.1. Defining the word “research”

19.2. How to choose the method

19.3. The Elements of a Research Project

**Key words:** *research, questions, method, data collection, evaluation, discussion, presentation, accuracy, qualitative, quantitative*

19.1. Definition to the word “research”

Conducting research is often the stepping stone when you are writing your dissertation, thesis, or any report. Choosing the correct research methodology can determine the success and overall quality of your report. It is hence essential to get the initial stage of your research right. In this article, we discuss the research methodologies in detail and help you identify which method should you choose for your study. When working on your research project there are so many things to consider! You have to think about the plan of the study, the research questions, the data collection, the evaluation, the discussion, the presentation. It can be really quite overwhelming and what looks like a great idea in your head can turn into a complicated nightmare once you start structuring it in an academic manner.

One of the big issues related to planning and conducting a research project is – how to choose a research method.

As you begin to think about your research topic, keep in mind that you will be conducting a scientific study. Whether you are building a perception experiment or addressing a core grammar theory, there is a prescribed that must be followed. Research is defined as careful consideration of study regarding a particular concern or problem using scientific methods. According to the American sociologist Earl Robert Babbie, “research is a systematic inquiry to describe, explain, predict, and control the observed phenomenon. It involves inductive and deductive methods.”

Inductive research methods analyze an observed event, while deductive methods verify the observed event. Inductive approaches are associated with qualitative research, and deductive methods are more commonly associated with quantitative analysis.

Research is conducted with a purpose to:

1. Identify potential and new customers
2. Understand existing customers
3. Set pragmatic goals
4. Develop productive market strategies

5. Address business challenges
6. Put together a business expansion plan
7. Identify new business opportunities

Good research follows a systematic approach to capture accurate data. Researchers need to practice ethics and a code of conduct while making observations or drawing conclusions. The analysis is based on logical reasoning and involves both inductive and deductive methods. Real-time data and knowledge is derived from actual observations in natural settings. There is an in-depth analysis of all data collected so that there are no anomalies associated with it. It creates a path for generating new questions. Existing data helps create more research opportunities.

It is analytical and uses all the available data so that there is no ambiguity in inference.

Accuracy is one of the most critical aspects of research. The information must be accurate and correct. For example, laboratories provide a controlled environment to collect data. Accuracy is measured in the instruments used, the calibrations of instruments or tools, and the experiment's final result.

#### 19.2. How to choose the method

There are different types of research methods either in social science, management, medical, engineering among others. In all the field of study there are various research methods available and understanding of these methods will assist an individuals to choose the right research methodology in his or her research exercise. There are many ways to categorize different types of research. The words you use to describe your research depend on your discipline and field. Generally, the form ones research (types of research methods) approach takes will be shaped by the followings:

The type of knowledge you aim to produce

The type of data you will collect and analyze

The sampling methods, timescale and location of the research.

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The study might include an intervention such as a training programme, some kind of social activity, the introduction of a change in the person's living environment (e.g. different lighting, background noise, different care routine) or different forms of interaction (e.g. linked to physical contact, conversation, eye contact, interaction time etc.). Often the interaction will be followed by some kind of test (as mentioned above), sometimes before and after the intervention. In other cases,

the person may be asked to complete a questionnaire (e.g. about his/her feelings, level of satisfaction or general well-being).

Some studies are just based on one group (within-group design). The researchers might be interested in observing people's reactions or behaviour before and after a certain intervention (e.g. a training programme). However, in most cases, there are at least two groups (a between-subjects design). One of the groups serves as a control group and is not exposed to the intervention. This is quite similar to the procedure in clinical trials whereby one group does not receive the experimental drug. This enables researchers to compare the two groups and determine the impact of the intervention. Alternatively, the two groups might differ in some important way (e.g. gender, severity of dementia, living at home or in residential care, etc.) and it is that difference that is of interest to the researchers.

Qualitative research methods focus on words and meanings, while quantitative research methods focus on numbers and statistics. Is your research more concerned with measuring something or interpreting something? You can also create a mixed methods research design that has elements of both.

Linguistic research can be quantitative or qualitative, depending on the nature of data you are gathering. In quantitative research, the researcher will gather precise numerical data with the goal of supporting a hypothesis. The data are analyzed statistically and presented in graphs and charts.

On the other hand, qualitative researchers have an idea of what they are looking for, but this may change as the research develops. Subjects (or participants) are observed, interviewed, or asked to write descriptions of their experiences. The researcher will then interpret and present findings. Quantitative research tends to be more along the lines of the scientific method whereas qualitative research is more open to interpretation. The nature of your research project will determine which method is preferable. Moreover, it is possible to blend methods by, for example, quantifying qualitative data by assigning numeric values to different gradients of input.

### 19.3. The Elements of a Research Project

#### **Selecting a Topic**

Choosing a focused yet interesting subject is perhaps the most difficult task in the research process. Remember, it is better to feel that your topic is too narrow rather than launch into a study that is too broad or vague. For instance, instead of looking at whether or not women are more polite than men, instead of looking at specific forms of politeness or impoliteness (such as women use 'please' and 'thank you' more than men do), focus on a precise social environment in which

you expect to find them. And be concrete in providing a basis for your choice. Also, select a topic that you are comfortable with and interested in.

### **The Hypothesis**

Regardless of which method of data gathering you decide on, there are certain elements that must be presented in your research project. First, you must carefully craft a clear and focused **hypothesis** or research question/prediction. Remember that a hypothesis is not simply an observation, but a prediction that can be tested. For example, you may have observed that speakers of England use Uzbek words. This is an observation that could be made by anyone who speaks Uzbek. However, by adding variables that can be tested, you will be able to form a ‘working’ hypothesis, that can be somewhat general, such as, ‘the Uzbek words used in England seem to include mostly nouns, verbs, and adjectives’. A testable hypothesis will focus on perhaps when these words are used, or which part of speech is more commonly used.

### The Literature Review

A literature review is not always necessary. However, if you plan on writing one, here are a few key concepts. First, keep in mind that you are not reviewing papers that have already been written on your topic. You carefully select and refer to the peer-reviewed publications/primary sources to build an argument for why your study is so important. Thus, you may begin with a very brief and general overview of what has been claimed concerning your topic. Then you can show how these have accounted for various types of data, but then you also show how the literature lacks current information on your topic, (the data that has not been accounted for, or material that has not yet been written about).

### The Methodology

The methodology for scientific research is fairly straight forward.

First, you will need to decide on the source of your data. This could be a corpus of archived information, or **participants** from whom you will elicit data. Be sure that you will have access to enough data to test your hypothesis. In terms of participants, the fewer you have, the more stimuli (questions/tasks) you will need to create. The larger the number of participants, the fewer. (Of course, this is not always the case!!) Controls are needed to ensure that all sources of data share certain parameters, i.e., for participants: age, gender, etc., for corpora: dates of publication, type of speech (formal or casual) etc., so that your data is not skewed. A reliable method for gathering data must be carefully thought out and formulated. Software programs now exist that can extract various types of linguistic information from text. If you are working with human beings,

possibilities include surveys or questionnaires, recordings, or simply information compiled onto a document. Be sure to obtain the proper equipment. If you are observing a classroom of children, you will want to use a video camera with good sound so that you don't miss any data. If you are interviewing your participants, or asking them to 'do' speech, use a tape recorder or Tascam. Don't count on your memory to recall accurate information. Controls in this area include presenting all stimuli identically, i.e., on a computer screen, using a computerized voice, in the same location to control for noise and other variables. After the data are gathered, they must be carefully organized in a way that facilitates interpretation. You may use excel sheets, or annotation software.

### The Results

Organizing and describing your results is key. Initial observations are presented in a narrative and should include statistics (tables, charts, etc.). This is a good time to discuss how variables interface, show outliers, etc. Label tables and figures clearly and provide explanations for selecting the tables and figures you use. Explain how they best demonstrate the phenomena you are presenting.

### The Analysis

This section provides your readers with a more detailed discussion of your interpretation of findings, what they actually demonstrate, how they support the hypothesis, (or not), and what they contribute to the literature in the field. Before the conclusion, the writer should address the weaknesses of the study, what type of improvements could be made, as well as suggestions as to the next steps to further the study.

### References

Everyone has their preference for citing and referencing literature, including your professor. The two most widely accepted styles for linguistics are:

Modern Language Association (MLA) uses brief citations (usually author(s) name(s) and page numbers) that are inserted into the text, rather than using footnotes. The references for these citations are listed at the end of the paper, and include all required information on each entry.

American Psychological Association (APA) focuses on using an in-text citation that provides the author's name and the year of the publication. A detailed list of these references are included at the end of the paper.

### *Power Point Presentation*

Here is an outline to guide you in creating a power point presentation.

### *Abstract*

- This is not always required.

- An abbreviated version should be used (approximately 100-150 words).

### *Introduction*

- Describe the linguistic element you are presenting.
- State the hypothesis.
- Explain why this topic is so interesting and needed. In other words, show how the current literature does not address your topic specifically.
- Include a literature review framing the need for your study.

### *Methodology*

#### **I. Subjects and controls**

- These depend on the source of data.
- Be sure to carefully control your testing environment.

#### **II. Data**

- Methods for elicitation
- Verification of reliability (pre-test)
- Organization/classification

#### **III. Results**

- State the facts about what you found.
- Organize your data by using graphs and tables.

#### **IV. Analysis**

- Significance of findings
- Implications

#### **V. Conclusion**

- Restate your hypothesis
- Show support (not proof!) of hypothesis or lack thereof
- How you could improve on the research process
- What could be done as a next step in researching your topic

#### **VI. References**

The research process is quite rewarding. Give yourself plenty of time by planning ahead and staying organized. Remember, your contribution to linguistics research could be revolutionary!

#### **QUESTIONS:**

1. What is research?
2. Why research is conducted?
3. What do researchers need to write some scientific works?
4. How can we choose research methods?
5. What are the elements of a Research Project?
6. What is literature review?

## CASE QUESTIONS and EXERCISES

**TASK 1.** What grounds do we have for saying that linguistics as a science was created in the 19<sup>th</sup> century, especially comparative linguistics? Who were the great pioneers in comparative linguistics? Discuss these questions with your partner.

**TASK 2.** Some basic typological properties of other types of languages are found in English and the supposedly distinctive typological traits of English can be found in other languages. Complete the following sentences.

1. English, like the inflecting languages it supposedly differs from, has ... And like agglutinating languages, it has ...
2. English, like free-word-order languages, has ...
3. English, like ergative languages, marks ...
4. English, like topic-prominent languages, has ...
5. Like SOV languages, not too long ago English availed itself of an SOV order, which is still interpretable in ...
6. Like classifier languages, English insists upon ...

**TASK 3.** Every human language has a phonological system, and phonological patterning is always hierarchical. Vowels and consonants, word stress and utterance stress, intonation are phonological universals. Point out other phonological universals.

**TASK 4.** The semantic structure of the bulk of English nouns is different from that of the Uzbek nouns. Give English equivalents for the following Uzbek words: *қўл, оёқ, йўл, юз.*

**TASK 5.** It is common knowledge that comparison is the basic principle in historical comparative method, typological comparative method and contrastive comparative method (contrastive analysis). Working in small groups, discuss the similarities and differences of underlying principles of comparison in comparative linguistics

(historical or diachronic linguistics), language typology and contrastive linguistics. What does contrastive linguistics aim at? What are its main problems?

**TASK 6.** Give examples of problem pairs, i.e. words that denote two entities in one language and correspond to two different words in another language.

**TASK 7.** Employing contrastive analysis, prove that correlated polysemantic words in English and Uzbek are not co-extensive. Can the analysis show where to expect an unusual degree of learning difficulty.

**TASK 8.** Contrastive analysis helps to distinguish cultural and implicit components of meaning which can be established only by means of contrastive analysis. Contrast the meanings of the Russian verb **свистит** and the

corresponding English verb to **whistle**. Can you trace any differences in their evaluative connotations?

**TASK 9.** Illustrate with your own examples the role of oppositions in the description of morphological categories in English and Uzbek (e.g. case, tense, aspect, time correlation, voice, mood, person, number, etc.)

**TASK 10.** Any linguistic phenomenon-phoneme, morpheme or word -gets its function from being in contrast with other comparable phenomena in the system, Linguistic elements are opposed to each other, and each of the distinctive features involves a choice between two terms of an opposition that displays a specific differential property, diverging from the properties of all other oppositions. Supply your own examples to prove this statement.

**TASK 11.** Illustrate the distributional value of the verbs **come, go, take, talk** in Modern English and compare their translation in Uzbek. (give examples)

**TASK 12.** Illustrate distributional oppositions between synonyms in English and Uzbek with your own examples.

**TASK 13.** We know that not all words that have the same syntactic distribution have the same meaning, and, conversely, not all words with different distribution have a different meaning. Illustrate this in English and Uzbek with your own examples

**TASK 14.** Collect some instances to illustrate the realization of the combining power valency of the verbs *break, fill, open, choose, strengthen, dry, quicken*. Outline the field of valency in each particular case.

**TASK 15.** Give your own examples of sentences in which valency does not account for actual combinability in English and Uzbek and compare.

**TASK 16.** Join the following into semi-complex sentences and explain the transformational procedures

1) *She has a friend. He lives in New York*

2) *Mary stood. She was waiting for the trolley bus.*

3) *Waves of excitement went round the theatre. Waves of excitement swept round the theatre.*

4) *The noise of the band blew back. The noise of the band was strong on her.*

**TASK 17.** Try to illustrate a) commonly used transformational procedures: b) different types of transformations with the examples in English and Uzbek.

**TASK 18.** Using transformational procedures, demonstrate the difference in meaning in the following items: **birthday card, business card, credit card, graduation card, health card, identity card, invitation card, library card, playing card, visiting card.**

**TASK 19.** When was semantics established as a self-contained branch of linguistics? How can you account for the reluctance of structural linguists to deal with the problems of meaning?

**TASK 20.** Discuss and illustrate different types of word meaning: grammatical and lexical, denotative and connotative with your own examples in English and Uzbek.

**TASK 21.** Illustrate and comment on the distinctive function of senses by analyzing the meaning of the following English words for various kinds of movement: **jump, hobble, stroll, wander, stride, strut, march, pace, stamp.**

**TASK 22.** Analyze two or three meanings of any polysemantic word in terms of their components structure. How does componential analysis help to point out the difference in meaning?

**TASK 23.** In case of indirect correlation between the syntactic and semantic levels of the sentence, the subject may express different roles. Define the semantic roles of the subjects in the following sentences.

- 1) *John broke the window with a stone.*
- 2) *The stone broke the window.*
- 3) *The rain prevented us from going there.*
- 4) *The room sleeps three persons.*

**TASK 24.** Analyze the following semantically equivalent analytical and synthetic sentences. Are they assigned different deep structure descriptions in case grammar? Which case categories are missing?

- 1) Many mothers bottle feed their babies;
- 2) Many mothers feed their babies with a bottle;
- 3) Many mothers give their babies food with a bottle.

**TASK 25.** Working in small groups, discuss different types of contexts: linguistic (verbal) and non-linguistic context or context of situation. Note the difference between lexical and grammatical contexts and their role in differentiating the meanings of polysemantic words.

**TASK 26.** Define if these statements about context are true or false. 1) A linguistic context is the encirclement of a language unit by other language units in speech. Such encirclement is especially important in case with polysemantic words. 2) It is often impossible to answer the question **What does word so-and-so mean?** 3) A dictionary gives the real meaning of a word. 4) Language does not exist except in a social context. 5) Context can only refer to time and place. 6) Context can help to clarify an item of communication.

**TASK 27.** Show the difference in meaning between two homonyms by finding them

in contexts in English and Uzbek languages and compare the procedure.

**TASK 28.** How can you illustrate the influence of context on meaning? We know that contextual analysis is helpful in decoding the meaning of neologisms. Before translating a new word, its structure should be analyzed to discover its meaning. The next step is to study the word in its textual environment or context. Working with your partner, find and explain the meaning of the neologisms, which are not registered in dictionaries, paying special attention to their contexts.

**TASK 29.** What classroom activities can you suggest which will help learners to practice new language in context?

**TASK 30.** Introduction: overview of linguistic methods. The scientific process.

Chapter 1 (or corresponding):

- 1. Write a short (1/2 page) description of a linguistic phenomenon that demands both understanding and explanation. (your dissertation theme)
- 2. Sketch (1 page) an investigation that demands a combination of at least 6 of the methods mentioned in the overview of methods.
- 3. Discuss how the investigation in 2 fits with the 10 types of study methods mentioned.
- 4. Which ethical problems arise in your investigation?

Chapter 2 (or corresponding):

- 1. Make a time and work plan for your sketched investigation.
- 2. Make a literature search for relevant literature for the investigation.

1. What are main branches of linguistics?
  - a. morphology, syntax, semantics and pragmatics
  - b. phonology, semantics and pragmatics
  - c. phonology, morphology, syntax, semantics and pragmatics
  - d. phonology, morphology, semantics and pragmatics
2. What analysis can be used to describe the unconscious rules and processes that speakers of a language use to create spoken or written language?
  - a. historical analysis
  - b. linguistic analysis
  - c. scientific analysis
  - d. mathematic analysis
3. W. Jones announced clearly the relationship between three of the great languages of antiquity .....
  - a. English, Greek and Dutch
  - b. Sanskrit, Greek and Latin
  - c. Sanskrit, French and Latin
  - d. English, Greek and Dutch
4. What level does refer to the study of the sounds of a language?
  - a. lexicology
  - b. phonology
  - c. syntax
  - d. morphology
5. What analysis grew as a result of practical demands of language teaching methodology where it was empirically shown that errors which are made recurrently by foreign language students can be often traced back to the differences in the structure of the target language and the learner's mother tongue
  - a. contrastive analysis
  - b. comparative analysis
  - c. historical analysis
  - d. linguistic analysis
6. Who formulated the procedures of contrastive analysis?
  - a. Robert Lado
  - b. Rasmus Rask
  - c. Franz Bopp
  - d. Karl Verner
7. What linguistics as a science was created in the 19th century?

- a. comparative linguistics
  - b. contrastive linguistics
  - c. diachronic linguistics
  - d. synchronic linguistics
8. Who was the first of the great pioneers in comparative linguistics in Western Europe?
- a. Robert Lado
  - b. Rasmus Rask
  - c. Franz Bopp
  - d. Karl Verner
9. What level does refer to the study of the internal structure of the words of a language?
- a. lexicology
  - b. phonology
  - c. syntax
  - d. morphology
10. Classification of languages into types according to their structural characteristics is .....
- a. typological classification
  - b. genetic classification
  - c. structural classification
  - d. etymological classification
11. A diachronic comparison of two or more linguistic systems with a view to classifying languages into families.
- a. comparative study
  - b. contrastive study
  - c. diachronic study
  - d. synchronic study
12. Where was organized the Prague Linguistic School?
- a. in France, at the first International Congress of Linguistics
  - b. in Hague, at the first International Congress of Linguistics
  - c. in London, at the second International Congress of Linguistics
  - d. in German, at the first International Congress of Linguistics
13. What is interested in establishing the similarities or correspondences between languages?
- a. comparative study
  - b. contrastive study

- c. diachronic study
  - d. synchronic study
14. What level does attempt to define and describe the rules that speakers use to put words together to create meaningful phrases and sentences.
- a. lexicology
  - b. phonology
  - c. syntax
  - d. morphology
15. It studies languages belonging to the same period, without paying much attention to their histories or language families. It is more concerned with dissimilarities than similarities.
- a. comparative study
  - b. contrastive study
  - c. diachronic study
  - d. synchronic study
16. What method is a system of analytical procedures applied to the study of languages in their historical development.
- a. historical-comparative
  - b. historical
  - c. comparative
  - d. distributive
17. What level is the study of meaning in language?
- a. lexicology
  - b. phonology
  - c. semantics
  - d. morphology
18. It comprises the theoretical analysis of the body of methods and principles associated with a branch of knowledge such that the methodologies employed from differing disciplines vary depending on their historical development.
- a. method
  - b. methodology
  - c. theory
  - d. methodics
19. Who were the key figures of American structural linguistics?
- a. Fr. Bopp, Leonard Bloomfield
  - b. Franz Boas, K. Verner, J.Grimm

- c. K. Verner, Leonard Bloomfield
  - d. Franz Boas, Leonard Bloomfield
20. What level is the study of the social use of language?
- a. pragmatics
  - b. phonology
  - c. semantics
  - d. morphology
21. "A contextual framework' for research, a coherent and logical scheme based on views, beliefs, and values, that guides the choices researchers [or other users] make".
- a. methodology
  - b. method
  - c. theory
  - d. methodics
22. Who were the founders of London School of Linguistics?
- a. J. R. Firth, W. Sidney Allen, R. H. Robins, Leonard Bloomfield
  - b. J. R. Firth, Franz Boas, R. H. Robins, M. A. K. Halliday
  - c. Fr. Bopp, W. Sidney Allen, R. H. Robins, M. A. K. Halliday
  - d. J. R. Firth, W. Sidney Allen, R. H. Robins, M. A. K. Halliday
23. When did Verner's law established?
- a. in 1877
  - b. in 1777
  - c. in 1677
  - d. in 1977
24. What method was founded on the basis of the diachronic comparison. It reflects the material similarity of generical related languages.
- a. comparative-historical method
  - b. historical
  - c. comparative
  - d. distributive
25. Which method aims at the evidention of the common tendencies in the development of the languages of the same origin.
- a. comparative-historical method
  - b. historical
  - c. comparative
  - d. distributive

26. Who were the founders of the comparative method?
- Fr. Bopp, K. Verner, J.Grimm, Fr. Diez, A.Vostokov etc.
  - Fr. Bopp, R.Rask, J.Grimm, F.Lado, A.Vostokov etc.
  - Fr. Bopp, R.Rask, J.Grimm, Fr. Diez, A.Vostokov etc.
  - Fr. Bopp, A.Stepanov, J.Grimm, Fr. Diez, A.Vostokov etc.
27. What method's aim is to highlight and interpret systematic phonological and semantic correspondences between two or more attested languages.
- valency
  - historical
  - comparative
  - distributive
28. A system of research techniques and procedures that promote targeted study of something from a certain point of view. It is impossible to study all objects of reality with the help of one method. Therefore, the question is how many methods exist and how to classify them.
- methodology
  - method
  - theory
  - methodics
29. The ability to produce and comprehend both spoken and written words.
- culture
  - language
  - communication
  - theory
30. What analysis is helpful for the establishment of structural or semantic isomorphisms and allomorphisms in the contrasted languages?
- comparative linguistics
  - contrastive linguistics
  - diachronic linguistics
  - synchronic linguistics
31. What is the object of contrastive analysis?
- the meaning, form and functioning of certain language units, their features or phenomena
  - the meaning and functioning of certain language units, their features or phenomena
  - functioning of certain language units, their features or phenomena
  - the meaning, form of certain language units, their features or phenomena

32. There are two kinds of classification of languages practiced in linguistics:
- genetic (or genealogical) and structural
  - analytical and typological
  - semantic and typological
  - genetic (or genealogical) and typological
33. What is the purpose of genetic classification?
- to group languages into families according to their structure
  - to group languages into families according to their degree of synchronic relatedness
  - to group languages into families according to their degree of diachronic relatedness
  - to group languages into families according to their semantics
34. The study of method or methods, methodology; especially the methodology of language teaching.....
- methodology
  - method
  - theory
  - methodics
35. An academic pursuit that models the structure of the human language, explores how language develops in human beings and examines the intricacies involved in processing different kinds of usages.
- linguistics
  - paralinguistic
  - pragmalinguistics
  - language
36. Who were founders of The Copenhagen school?
- L. Elmslev, V. Brondal
  - R.K. Rask, J. Grim
  - V. Brondal, F.Lado
  - Fr. Bopp, V. Brondal
37. A professional who studies languages scientifically is.....,
- teacher
  - linguist
  - student
  - professor

38. The view that our way of thinking depends, at least partially, on the language we speak - is primarily associated with anthropological linguistics.
- linguistic relativism
  - scientific relativism
  - structural relativism
  - linguistic view
39. Who revealed the phonetic correspondences in comparative phonetics of Indo-European languages?
- Fr. Bopp, K. Verner, J.Grimm
  - R.K. Rask, J. Grim and K. Verner
  - Fr. Bopp, R.Rask, F.Lado
  - Fr. Bopp, A.Stepanov, J.Grimm
40. Which are Common Methods with other Sciences?
- distribution, observation, the experiment, statistical method, diachronic, synchronic, etc
  - deduction, observation, statistical method, diachronic, synchronic, valency etc
  - induction, deduction, observation, the experiment, statistical method, diachronic, synchronic, etc
  - distribution, induction, deduction, observation, the experiment, diachronic, synchronic, etc
41. When did the Prague Linguistic School started activity?
- in 1928
  - in 1938
  - in 1948
  - in 1958
42. In which book did Humboldt write: “the person thinks, feels and lives only in language, but also the person feels and knows that language for it - only means that out of language there is an invisible world, to which the person seeks to accustom only with its help”
- Language and Linguistics
  - Language relativity
  - Language and Culture
  - Common linguistics

43. Which linguistics has developed along several discernible trends: historical comparative linguistics, areal comparative linguistics, typological comparative linguistics, contrastive comparative linguistics?
- comparative linguistics
  - contrastive linguistics
  - diachronic linguistics
  - synchronic linguistics
44. Who allocated four steps (stages) of development of languages: "At the lowest step grammatical designation it is carried out by means of turns of speech, phrases and offers ... On the second steps grammatical designation is carried out with the help steady word order and by means of words with the unstable material and formal value ... At the third step grammatical designation it is carried out by means of analogs of forms ... At the highest step grammatical designation is carried out by means of original forms, inflections and purely grammatical forms".
- W. von Humboldt
  - Ferdinand de Saussure
  - Roman Jakobson
  - Vilém Mathesius
45. Which analysis on the level of grammatical meaning reveals that correlated words in different languages may differ in the grammatical component of their meaning?
- historical analyses
  - contrastive analysis
  - comparative analysis
  - linguistic analysis
46. Which Linguistic School was represented by linguists as Vilém Mathesius, Roman Jakobson, Nicholay Serghey Trubetzkoy, Jan Mukarovsky.
- The Prague Linguistic School
  - American structural linguistics
  - London School of Linguistics
  - The Copenhagen school
47. Which level of language, contrastive analysis is applied to reveal the features of sameness and difference in lexical meanings and semantic structures of correlated words in different languages?
- lexicology

- b. phonology
  - c. syntax
  - d. morphology
48. Who was the key figure of Copenhagen School in the 1930s?
- a. Fr. Bopp
  - b. F.Lado
  - c. A.Stepanov
  - d. E.Hjelmslev
49. What analysis can be carried out at three linguistic levels: phonology, grammar (morphology and syntax) and lexis (vocabulary)?
- a. comparative linguistics
  - b. contrastive linguistics
  - c. diachronic linguisticsd
  - d. synchronic linguistics
50. Which linguistic school of linguistics is involved with the study of language on the descriptive plane (synchrony)?
- a. The Prague Linguistic School
  - b. American structural linguistics
  - c. London School of Linguistics
  - d. The Copenhagen school

## REFERENCES

1. Amosova N.N. English Contextology. - Leningrad, 1968
2. Anderson J M. The Grammar of Case. - Cambridge: Cambridge University Press, 1971
3. Aitchison J. Language Change: Progress or Decay? 3rd ed. Cambridge University Press, 2001
4. Akmajan, et al. Linguistics: An Introduction to Language and Communication(5th Edition).The MIT Press. Cambridge, London, England, 2000
5. Arnold I.V. The English Word. - Moscow: Vyssaja Skola, 1986
6. Cruse A. A Glossary of Semantics and Pragmatics. Edinburgh University Press Ltd. 2006
7. Cruse A. Meaning in Language: An Introduction to Semantics and Pragmatics. Oxford University Press Inc., New York, 2000
8. Dalton-Puffer, C. and Ritt. N. Words: Structure, Meaning and Function. Trends in Linguistics (Studies and Monographs 130). A Festschrift for Dieter Kastovsky. Mouton de Gruyter. New York, 2000
9. Dever J. "Semantic Value" // The Concise Encyclopaedia of Philosophy of Language and Linguistics. Elsevier Ltd. University of Texas, Austin, TX, USA, 2006
10. De Saussure F. Course in General Linguistics. (Translated by Wade Baskin, 1959). New York, 2000
11. Eddington D. Linguistics and scientific method. Brigham Young University, 2003
12. Evans V. and Green M. Cognitive linguistics. Edinburgh University Press, 2006.
13. Bloomfield L. Language. - London: George Allen and Unwin, 1933
14. Firth J.R. Papers In Linguistics//Хрестоматия по английской филологии / Сост. О.В. Александрова. М.: Высшая школа,2001.

15. Garcia R. N. Contrastive Linguistics and Translation Studies Interconnected: The Corpus-Based Approach. *Linguistica Antverpiensia*, 2002.
16. Ghosh S. Ferdinand De Saussure and the Development of Structuralism *International Journal of Sociology and Social Anthropology (IJSSA)*. 1(1): 59-64, Dec. 2016
17. Graddol D., Cheshire J., Swann J. Describing Language. Buckingham: Open University Press, 1994
18. Geeraerts D. The theories of lexical-semantics. -Oxford., Oxford University Press, 2010.
19. Johansson S. Contrastive analysis and learner language: A corpus-based approach. Oslo: University of Oslo, 2008
20. Chomsky N. Syntactic Structures. - The Hague; Mouton, 1957
21. Chomsky N. Aspects of the Theory of Syntax - Cambridge, Mass.: MIT Press, 1965
22. Krzeszowski, Tomasz P. Contrasting Languages. The Scope of Contrastive Linguistics. Berlin: Mouton, 1990
23. Irtenyeva N.F., Barsova O.M., Blokh M.Y., Shapkin A.P. A Theoretical English Grammar. Syntax. Moscow: Higher School Publishing House, 1969
24. Lado R. Linguistics across Cultures. Ann Arbor: University of Michigan Press, 1957
25. Lakoff G., Johnson M. Metaphors We Live By. - Chicago, London: University of Chicago Press, 1980
26. Leech G.N., Svartvik J, A Communicative Grammar of English. London and New York: Longman, 1994
27. Lewis M., The Lexical Approach. Hove: Teacher Training Publications, 1993
28. Morokhovska E.J. Fundamentals of English Grammar. Theory and Practice. - Kyiv: Vysca Skola, 2013

29. Meyer P. G. et al. Synchronic English Linguistics: An Introduction, 3rd ed. Gunter Nar Verlag, 2005
30. Nida E. Componential Analysis of Meaning: An Introduction to Semantic Structures. The Hague and Paris: Mouton, 1975
31. Nordquist R. “What Is Synchronic Linguistics?”//ThoughtCo, ThoughtCo. “Historical Linguistics.” Wikipedia, Wikimedia Foundation, 3 May 2018
32. Pajevic M. “Thinking language: Wilhelm von Humboldt now”, //Article in Forum for Modern Language Studies, 2016
33. Halliday M. A. Language as social semiotic. -NY., 2003.
34. Harris Z. S. Structural Linguistics. The university of Chicago press,1963
35. Haegeman L. and Guéron J. English grammar: A generative perspective. Oxford, UK: Blackwell Publishers. 1999
36. Huddleston R. English grammar: An outline. Cambridge, UK: Cambridge University Press, 1988
37. Riemer N. Introducing Semantics. –Cambridge University Press. 2010.
38. Roy H. and Taylor T. Landmarks in linguistic thought: The Western tradition from Socrates to Saussure. 2d ed. London and New York: Routledge,1997
39. Rasulov R. Umumiy tilshunoslik. T., 2017
40. Rasulova M., Shukurova Z. Comparative typology of English, Uzbek and Russian languages. Tashkent. 2017
41. Robert J. Research methods in linguistics. Satnford University, 2013
42. Poluzhyn M M. Lecture Notes on Historiography of Linguistics. - Vinnytsia: Foliant Publishers, 2004
43. Sampson G. Schools of linguistics. Bergvlei, 2012
44. Soloshenko O.D., Zavorodniev Yu.A. Lecture Notes on English Lexicology (for 2nd and 3rd - year students of the English Department). Lvov, 2008

45. Stabler Ed. Introduction to Linguistics. Lecture Notes in Linguistics. Campbell. [https://t.me/linguistics\\_library](https://t.me/linguistics_library), 2010
46. Taylor Ch. The Language Animal: The Full Shape of the Human Linguistic Capacity. Cambridge, MA: Harvard University Press, 2016
47. Tyschenko K. The specifics of lingvogenetic research: comparative-historical and historical methods. Research result. Social studies and humanities. Vol.2, N-2, 2016
48. Talmy.L Toward a Cognitive Semantics. -Cambridge Mass. 2000. p. 67
49. Wierzbicka A. Semantic primitives. -Frankfurt Athenaum, 2000
50. Umarxo'jayev M.E. Umumiy tilshunoslik. Andijon, 2007
51. Ullmann S. Meaning and Style. Oxford: Basil Blackwell, 1973
52. Underhill J.W. Humboldt, Worldview and Language. Edinburgh University Press, 2009
53. Underhill J.W. Ethnolinguistics and Cultural Concepts: truth, love, hate & war. Cambridge University Press, 2012
54. Shomatov O.N. Filologiyaning ilmiy tadqiqot metodlari. T., 2009
55. Valiyeva N. Comparative Typology of the English, Russian and Azerbaijani Languages. Baku. 2019
56. Арнольд И.В. Семантическая структура слова в современном английском языке и методика ее исследования. -Л.: Просвещение, 1966
57. Арнольд И. Основы компонентного анализа. М., 1991
58. Бацевич Ф.С. Основи комунікативної лінгвістики. - Київ: Видавничий центр "Академія", 2004
59. Милютина В.Д. Семантика подлежащего и контекста //Синтаксис германских языков. - М., 1982. - Выл. 188
60. Почепцов Г. Г. Конструктивный анализ структуры предложения, - Киев: Вища школа, 1971. Почепцов Г.Г. Коммуникативные аспекты семантики. -Киев: Вища школа, 1987.

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