Linguistics

سری کتاب‌های کمک آموزشی کارشناسی ارشد

مجموعه آموزش زبان انگلیسی

Team of Authors

«ن والقلم و ما یسطرون»

کلمه نزد خدا بود و خدا آن را با قلم بر ما نازل کرد.

به پاس تشکر از چنین موهبت الهی، موسسه ماهان درصدد برآمده است تا در راستای انتقال دانش و مفاهیم با کمک اساتید مجرب و مجموعه کتب آموزشی خود برای شما داوطلبان ادامه تحصیل در مقطع کارشناسی ارشد گام موثری بردارد. امید است تلاش‌های خدمتگزاران شما در این موسسه پایه‌گذار گام‌های بلند فردای شما باشد.

مجموعه کتاب‌های کمک آموزشی ماهان به‌منظور استفاده داوطلبان کنکور کارشناسی ارشد سراسری و آزاد تالیف شده‌اند. در این کتاب‌ها سعی کرده‌ایم با بهره‌گیری از تجربه اساتید بزرگ و کتب معتبر داوطلبان را از مطالعه کتاب‌های متعدد در هر درس بی‌نیاز کنیم.

دیگر تالیفات ماهان برای سایر دانشجویان به‌صورت ذیل می‌باشد.

● **مجموعه کتاب‌های سوالات کنکور:** شامل چند مرحله کنکور کارشناسی ارشد و دکتری همراه با پاسخ تشریحی می‌باشد که برای آشنایی با نمونه سوالات کنکور طراحی شده است. این مجموعه کتاب‌ها با توجه به تحلیل ۳ ساله اخیر کنکور و بودجه‌بندی مباحث در هر یک از دروس، اطلاعات مناسبی جهت برنامه‌ریزی درسی در اختیار دانشجو قرار می‌دهد.

بدین‌وسیله از مجموعه اساتید، مولفان و همکاران محترم خانواده بزرگ ماهان که در تولید و به‌روزر سانی تالیفات ماهان نقش موثری داشته‌اند، صمیمانه تقدیر و تشکر می‌نماییم.

دانشجویان عزیز و اساتید محترم می‌توانند هرگونه انتقاد و پیشنهاد درخصوص تالیفات ماهان را از طریق سایت ماهان به آدرس Entesharatmahan@yahoo.com با ما در میان بگذارند.

موسسه آموزش عالی آزاد ماهان

سخن مؤلف

با توجه به افزایش تعداد سوالات زبان شناسی در کنکور کارشناسی ارشد از سال ۹۳، اهمیت این درس هم افزایش یافته است. بهعلاوه، از آنجاییکه در کنکور دکتری هم که از سال ۹۰ بهصورت نیمهمتمرکز برگزار میشود یکی از مواد امتحانی زبان شناسی میباشد، این درس برای داوطلبان کنکور دکتری نیز اهمیت دارد. از اینرو داوطلبان بهدنبال منبعی کامل هستند که هم توضیحات کافی در مورد مباحث مهم ارائه کرده باشد و هم سوالات کنکور سالهای اخیر را در خود جا داده باشد. هدف از گردآوری این کتاب نیز پاسخ به این نیاز داوطلبان است. مطالب این کتاب بر اساس محتوای سوالات کنکور ۱۰ سال اخیر میباشد. این مطالب از روی منابع اصلی جمعآوری شدهاند و مطالعه دقیق آنها به همراه تستهای کنکور سالهای قبل که بهصورت موضوعی در انتهای هر فصل پخش شدهاند به داوطلبان در پاسخگویی به سوالات این درس کمک قابل توجهی میکند.

منابع اصلی که در این درس وجود دارند (بر اساس نام نویسندگان) عبارتند از: Falk, Hudson, Yule, Fromkin. در گردآوری این کتاب گروه مولفان سعی کرده همه مطالب لازم منابع اصلی را با یکدگر تلفیق کند که این امر داوطلبان را از مطالعه مطالب تکراری بینیاز میکند. حجم مطالب هر فصل متناسب با میزان اهمیت آن فصل در کنکور، برمبنای تعداد سوالات آن فصل، گردآوری شده است. برایناساس، فصل Semantics بیشترین اهمیت و فصل Origins of language کمترین اهمیت را دارند. با مطالعه این کتاب تقریبا نیازی به مطالعه هیچیک از منابع بالا نیست.

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Chapter 1

Preliminaries of Linguistics

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Preliminaries of Linguistics

1. SEMIOTICS

SEMIOTICS is the theory and study of *signs*, especially as elements of language or other systems of communication. Humans seem to be driven by a natural force to make meanings. Instinctively, we continually create and interpret signs; therefore, we are always engaged in making meanings. Signs can take different forms like: words, images, sounds, odors, flavors, acts or objects, but such things have no intrinsic meaning and become signs only when we invest them with meaning. Anything can be a sign as long as someone interprets it as 'signifying' something – referring to or standing for something.

In other words, a sign is "whatever that signifies or stands for something" and as can be inferred from above it may be understood as an intersection or relationship of form and meaning, where form is something concrete and meaning is the concept or object that appears in our minds when we encounter the form. Saussure offered a dyadic or two-part model of the sign. He defined a sign as being composed of:

- the 'signifier' (or signifiant): the form which the sign takes; and
- the 'signified' (or signifié): the concept it represents

If we take a linguistic example, the phrase NO SMOKING (when seen by someone) is a sign consisting of:

- a signifier (form): the written words NO SMOKING;
- a signified concept (meaning): that everyone is forbidden to smoke.

Therefore, the schematic representation of sign would look like:

As illustrated in the examples, a form without a meaning is not sign, nor is a meaning without a form. It may be argued that form and meaning cannot exist apart from one another, and it is not easy to argue otherwise.

Here, we can define communication as 'the use of signs' in which one presents the signs to others. Accordingly, we can define a third component for sign which is called *interpreter*. The relationship between the form of a sign and its meaning must be part of the knowledge of its interpreter. In the course of communication, the speaker may attach a meaning to the form s/he presents while the

interpreter or third party may attach another meaning to that form. As a result, interpreter adds an aspect or dimension of variability to our understanding of sign, because different interpreters may recognize different aspects of meaning in association with different forms.
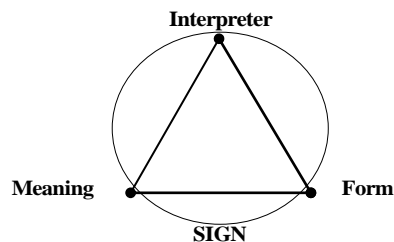
There are three types of signs, which differ according to the three types of relationship that exist between form and meaning:

Icon: It is a sign whose form has actual characteristics of its meanings. For example, the sign shown on the left, means man. Its meaning is so obvious because the sign has the actual characteristics of the meaning.

Index: It is a sign whose form has characteristics which are only associated in nature with its meaning. For example, skull and crossed bones traditionally mean 'poison'. Let's consider the indexical nature of this signs. When you see this sign on a barrel of gunpowder, you can *infer* that if it explodes, you will die and in a few months you will look like this.

Symbol: It is a sign whose form is arbitrarily or conventionally associated with its meaning. For example, the symbol on the left, which is a cuneiform writing symbol, has no relationship with its meaning 'God/ heaven'. In fact, nothing in nature associates this word with this meaning.

2. LINGUISTIC SIGNS

In their communication, human beings almost always use simple words such as *cat*, complex words such as *catfish*, or sub-word types like *im-*. From previous explanation you should have realized by now that with rare exceptions, the typical signs of human language are symbolic.

2.1. Evidence for the Symbolic Nature of Linguistic Signs

There are three sorts of clear evidence that linguistic signs are typically symbolic:

- **Translation equivalents:** These are words with approximately the same meanings in different languages. If words were typically iconic or indexical, then equivalents from language to language would be similar in form as well as meaning. The word meaning *dog*, for example, should sound (or look) the same in different languages. But in English, a dog is called *dog,* in French *chien*, in Spanish *perro,* and in Arabic *kalb*. This is typical for translation equivalents: the words do not sound (or look) similar at all.
- **Synonyms:** These are words with the same or similar meanings within a language. If words were typically iconic or indexical, words with the similar meaning within a language should have similar forms; and such equivalents such as *car* and *automobile* would not exist.
- **Iconically expressible meanings:** Consider meanings that, theoretically, could be readily expressed as pronunciations. An example would be numbers, such as *one*, *two*, etc. We

could somehow express their meaning by lengthening *two* twice as long as *one* and lengthening *ten* ten times as long as *one*. However, their written form does not reflect this. That is, the written form *ten* is not ten times as big as *one*.

2.2. Exceptions to the Symbolic Nature of Linguistic Signs

The following represent exceptions to the symbolic nature of language:

- **Sound symbolism:** It refers to words whose pronunciation suggests the meaning.
    - There are some words which are iconic signs, termed *mimetic words*. **MIMETIC** (or **ONOMATOPOEIC**) **WORDS** sound like what they mean, for example, *bow-wow, tick-tock,* and *bam.* The phonetic forms of such words have actual characteristics of their meanings, which are sounds; mimetic words sound something like the sounds they mean.
    - Another case of iconicity in morphemes is drawing out the pronunciation of word *long* so that the form of the word, like the meaning, is long: *loooooong*.
    - Still, a third case is when particular sound sequences seem to relate to a particular concept. In English many words beginning with *gl* relate to 'sight', such as *glare, glint, gleam, glisten, glossy, glance, glimmer, glimpse* and *glisten.*
- Here is an example of indexicality. Suppose you wanted to get someone's attention. You might say *Hey!* for the first time. If he does not get it you would try louder *HEY!* Yet if he does not notice you would be louder than before ***HEY!*** This is an example of indexicality; the schematic representation of this situation is like:

<div align="center">

Form   **Meaning**
increased loudness   ~~~~~➤   attracting attention

</div>

The form 'increasing loudness' naturally does not have the meaning of 'attracting attention'; that is, loudness is not an actual characteristic of getting attention. Thus, this is an example of indexicality in language.

3. LINGUISTIC COMPETENCE vs. LINGUISTIC PERFORMANCE

Language and speech are not synonyms. **SPEECH** is a concrete, physical act – the production of specific utterances containing particular words arranged in particular ways and expressed by means of certain sounds. **LANGUAGE** is a mental phenomenon, a body of knowledge about sounds, meanings and syntax which resides in the mind. This knowledge can be put to use but the speech or writing that results is merely a representation of the language.

The knowledge of language is rarely conscious; that is, speakers of a language are not aware of what they know. Furthermore, our use of this unconscious knowledge is often subject to error. We all occasionally make slips of the tongue, fail to complete a sentence we started to say, etc. Thus, someone may say *I took the hook home* rather than *I took the book home*.

The knowledge of language is not, therefore, always accurately reflected by the use of language. Because of this, Chomsky (1965) found it useful to distinguish between linguistic competence and linguistic performance. **LINGUISTIC COMPETENCE** is the unconscious knowledge about sounds, meanings, and syntax possessed by the speakers of a language. Therefore, linguistic competence

is a mental concept and not directly observable. **LINGUISTIC PERFORMANCE** is the actual use of linguistic competence in the production and comprehension of language.

The linguist's domain of study is language itself. Various errors in language performance often are caused by factors that have nothing to do with our knowledge of language such as a person's health, emotional state, memory and attention span, the topic, etc. The linguist, therefore, must sort out linguistic competence from all of the other factors involved in performance. Only in this way can we arrive at some understanding of the linguistic system that constitutes a human language.

Since linguistic competence is a mental reality, not a physical one, the isolation of competence from performance is a difficult task. Only performance is directly observable. Linguists have two ways to determine linguistic competence. First, they can investigate language by noting instances of actual language behavior. Linguists observe the sentences produced by speakers as well as those comprehended by listeners and attempt to determine the kinds of linguistic knowledge that people must have to use language as they do. Second, speakers of language can make judgments about sentences; they can tell when a sentence is ambiguous, or when it is ungrammatical. To make such judgments requires an underlying knowledge of the language, and thus speakers' judgments about sentences provide the linguists with further insight into that knowledge.

4. THREE SUB-STRUCTURES OF LINGUISTIC COMPETENCE

What constitutes our unconscious knowledge of language? According to Chomsky, speakers of a language have at least three types of knowledge as components of their linguistic competence, i.e. knowledge of sounds, knowledge of words and knowledge of sentence from non-sentence.

4.1. Knowledge of the Sound System

This type of knowledge consists of phonetics and phonology. **PHONETICS** is knowing what sounds are in a language and what sounds are not, and how these sounds are produced. One way this unconscious knowledge is revealed is by the way speakers of one language pronounce words from another language. French people speaking English often pronounce words like *this* and *that* as if they were spelled *zis* and *zat*.

Besides knowing the list of inventory of sounds, we know which sounds may start a word, end a word, and follow each other; this is phonology. **PHONOLOGY** could be defined as the way speech sounds form patterns. For example, English speakers pronounce the name *Nkrumah* either as *Nekrumah* or *Enkrumah* because no word in English begins with the *nk* sound.

4.2. Knowledge of Words

Knowledge of the sound system of the language is only one part of linguistic knowledge that speakers of a language have. Native speakers of a language also know that certain strings of sounds stand for certain concepts or **meanings**. Speakers of English know what *boy* means, and that it is different from *girl*. When you know a language, you know words in that language; that is, you know which sequences of sounds relate to specific meanings and which do not. At the same time, speakers of a language know the smallest meaningful units of language, their different forms, the internal structure of words, and the processes and rules by which words are formed. This

knowledge is called **MORPHOLOGY**. Morphological rules express the possible combination of these small meaningful units into words, e.g., how to combine *-er*, *learn*, *-s*, yielding *learners*.

4.3. Knowledge of Sentence and Non-sentence

To memorize and store an infinite set of sentences would require an infinite storage capacity. However, the brain is finite, and even if it were not, we could not store novel sentences. When you learn a language you must learn something finite and that can be stored. If putting one word after another in any order always formed sentences, then language could simply be a set of words. However, words are not enough and that is why we reject the following as unacceptable:

> *What are drinking and go home?[1]
> *Lost Fatima security blanket his.
> *What he thought was want a sports car.

Therefore, in addition to knowing the words of the language, linguistic knowledge includes rules for forming sentences, called knowledge of syntax, i.e. the ability to distinguish grammatical sentences from ungrammatical ones. **SYNTAX** concerns the combinations of words as phrases and of phrases as sentence. Every language has words, which combine as phrases and sentences. The possibilities of combination are strictly limited, so every language has syntax or sentence structure. *Syntactic rules* specify the possible combinations of words as phrases and as sentences of general types, such as affirmative, statements, etc.

5. GRAMMAR

The word grammar has two usages. In one sense, grammar refers to the **MENTAL GRAMMAR** speakers have in their brain, i.e. it refers to the knowledge speakers have about the units and rules of their language—rules for combining sounds into words (called **PHONOLOGY**), rules of word formation (called **MORPHOLOGY**), rules for combining words into phrases and phrases into sentences (called **SYNTAX**), as well as the rules for assigning meaning (called **SEMANTICS**). The grammar, together with a mental dictionary (called **LEXICON**) that lists the words of the language, represents our linguistic competence.

In another sense it refers to the systematic, formal, explicit description of this linguistic knowledge (or internalized grammar). When we say that a sentence is grammatical, we mean that it conforms to the rules of the mental grammar (as described by the linguistic); when we say that it is ungrammatical, we mean it deviates from the rules in some way.

5.1. Descriptive vs. Prescriptive Approach

A grammar of a language, in a linguistic sense, is a description of the underlying, mental linguistic competence of its speakers. Such a grammar is **DESCRIPTIVE**; it describes the knowledge that underlies actual language use; the rules in such a grammar are constitutive—they describe what the language is. But the grammars that one usually encounters in school are not descriptive at all; rather, they are **PRESCRIPTIVE GRAMMARS**, which usually contain regulative rules—rules of what the

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1 The symbol * means that the sentence is syntactically or semantically unacceptable.

language should be. These grammars attempt to change actual language use by prohibiting certain forms.

Accordingly, structural and generative linguists follow a descriptive approach as they collect samples of a language and attempt to describe the regular structures of the language as it is used. Some familiar examples of prescriptive rules for English sentences are:

- You must not split an infinitive.
- You must not end a sentence with a preposition.
- You must not use double negation.
- You must use *were* with *you*, though it is singular.

Following these types of rules, traditional teachers would correct sentences like *Who did you go with?* to *With whom did you go?*

5.2. Traditional Grammar

The term **TRADITIONAL GRAMMAR** is often used with clear pejorative connotations, reflecting the sometimes inadequate nature of traditional descriptions (like scholastic and rationalist philosophers) and the overtly prescriptive orientation of earlier grammars based on Latin and Greek (like Alexandrians, Romans, and 18th and 19th century grammarians). Since there were well-established grammatical descriptions of Greek and Latin, it seemed appropriate to adopt the existing categories from these descriptions and apply them in the analysis of newer languages such as English. The best-known terms from that tradition are those used in describing the **parts of speech**. Parts of speech include *nouns, verbs, adverbs, prepositions, pronouns, conjunctions, articles,* and *adjectives*.

In addition to the terms used for the parts of speech, traditional grammatical analysis has also given us a number of other categories, including *number*, *person*, *tense*, *voice* and *gender*. The role of these categories in describing language structure becomes clearer when we consider them in terms of **agreement**. For example, we say that the verb *loves* agrees with the noun *Fatima* in the sentence *Fatima loves her dog*. This agreement is partially based on:

the category of number, that is, whether the noun is singular or plural;
the category of person, which covers the distinctions of first person, second person and third person;
the concept of tense of the verb is present which is different from the past tense.

The sentence is also in the active voice, describing what 'Fatima' does. The final category is gender, which helps us describe the agreement between 'Fatima' and 'her' in the example.

5.3. Structural Grammar

American linguists who were involved in the study of American-Indian languages found out that the historical orientation of 19th century European linguistics was not very practical for languages that lacked written materials from the past. Before long, linguists once again concentrated on studying the form of languages, emphasizing descriptions, rather than the history of these languages. It was in the beginning of the 20th century when the **STRUCTURAL LINGUISTICS** school emerged. The father of modern structural linguistics was *Ferdinand de Saussure*, who believed in language as a systematic structure serving as a link between thought and sound.

American linguists frequently approached American-Indian languages without the advantage of knowing even the basic sound system, let alone the principles of sentence formation or meaning. Thus, they had to start their studies with what was immediately observable in language - the sounds. Because of their attention to form/structure, American linguists were called structuralists. They were characterized by an intensive investigation of sounds and principles of word formation, and little attention was paid to syntax or meaning. Franz Boas, Edward Sapir, and Bloomfield are some of these famous American structuralists. In their work, they gradually evolved a set of procedures considered useful in determining the sound system of languages. Later, known as *discovery procedures*, these techniques of linguistic analysis were eventually extended from the sound system to the principles of word formation in various languages. The two discovery procedures used by structuralists were "structural analysis" and "immediate constituent analysis." The main concern of **STRUCTURAL ANALYSIS** was to investigate the distribution of forms in a language. The method involved the use of 'test-frames' that can be sentences with empty slots in them. For example:

> The …… is very heavy.

There are a lot of forms that can fit into these slots to produce good grammatical sentences of English (e.g. car, child, radio). As a result, we can propose that because all these forms fit in the same test-frame, they are likely to be examples of the same grammatical category. The label we give to this grammatical category is 'noun'.

IMMEDIATE CONSTITUENT ANALYSIS employed in this approach was designed to show how small constituents in sentences go together to form larger constituents as shown in the following example:

the	man	bought	a	book	for	his	wife

However, when applied to syntax, these procedures were not fully successful. Take the following two sentences:

> John is eager to please.
> John is easy to please.

According to structuralists, the above sentences have the same structure. But this is contrary to the speakers' intuition. 'John' in the first sentence is the subject of 'please'; while in the second sentence 'John' is the object of 'please'.

5.4. Generative Grammar

Structural linguists contributed little to our understanding of meaning. Furthermore, since insights into syntax achieved by structuralist approach were limited and with a renewed interest in the rationalist approach to language, some American linguists, led predominantly by the distinguished scholar Noam Chomsky, developed a new approach to the study of language now known as **TRANSFORMATIONAL LINGUISTICS**. Chomsky postulated a syntactic base of language (called deep structure), and a series of rules (called transformations). The end result of a transformational-generative grammar is a surface structure that, after the addition of words and pronunciations, is identical to an actual sentence of a language. All languages have the same deep structure, but they

differ from each other in surface structure because of the application of different rules for transformations, pronunciation, and word insertion (for more on this, refer to Chapter 8).

5.5. Teaching Grammar

TEACHING (or **PEDAGOGICAL**) **GRAMMAR** is used to learn another language or dialect. Teaching grammars are used in school to fulfill language requirements. They can be helpful to people who do not speak the standard or prestige dialect, but find it would be advantageous socially and economically to do so. Teaching grammars state explicitly the rules of the language, list the words and their pronunciations, and aid in learning a new language or dialect.

Teaching grammar assumes that the student already knows one language and compares the grammar of the target language with the grammar of the native language. The meaning of a word is given by providing a **GLOSS** – the parallel word in the student's native language such as *house*, خانه in Persian. Sounds of the target language that do not occur in the native language are often described by reference to known sounds. The rules on how to put words together to form grammatical sentences also refer to the learner's knowledge of his native language.

State University Questions

**1- Alongside comprehension and production of grammatical sentences, native speakers are able to
………… .** (State University, 81)
1) comprehensively justify their linguistic intuitions
2) formulate the grammar of their language explicitly
3) describe the body of linguistic knowledge in their minds
4) make judgments about grammatically of different sentences

**2- Mary, a little girl, painted a tree, a house, and a river flowing by the house. Her painting looks
real. Her painting is ………… .** (State University, 82)
1) interpretive 2) symbolic 3) indexical 4) iconic

3- Sound symbolism in language ………… . (State University, 85)
1) is a specific example of onomatopoeia
2) is exemplified in words such as "lion" as the symbol of bravery
3) results from arbitrary sound-concept relationship
4) refers to the use of words whose pronunciation suggests the meaning

4- Which choice is NOT clear evidence that morphemes are typically symbolic? (State University, 88)
1) Synonyms 2) Onomatopoeic words
3) Translation equivalents 4) Iconically expressible meanings

5- Which of the following is true of an index as a sign? Its form ………… . (State University, 90)
1) has actual characteristics of its meaning
2) is arbitrarily associated with its meaning
3) has characteristics which are only conventionally associated with its meaning
4) has characteristics which are only associated in nature with its meaning

**6- The fact that translation equivalents from language to language are different in form indicates
that linguistic signs are ………… .** (State University, 90)
1) iconic 2) symbolic 3) figurative 4) indexical

7- The empiricist camp in linguistics claims that ………… . (State University, PhD 93)
1) languages represent basic human knowledge 2) generalizations have no place in empirical studies
3) the mind starts out as a blank slate 4) the ability to encode input develops universally

8- Which of the following is FALSE? (State University, PhD 97)
1) In recursion, each noun phrase has the potential to generate a prepositional phrase which may generate
   another noun phrase, which may generate another prepositional phrase.
2) A form of communication that arises when people come into contact sharing no common language is
   known as pidgin.
3) Chomsky's linguistic competence refers to a language user's grammatical knowledge of syntax,
   morphology and phonology as well as social knowledge about how and when to use utterances
   appropriately.
4) The theory that language determines other aspects of culture since language provides the categories
   through which social reality is defined and constructed is called the Sapir-Whorf hypothesis.

**9- If the items of language resemble the objects or activities they refer to, there is said to be a degree
of ………… .** (State University, PhD 1400)
1) creativity 2) reciprocity 3) iconicity 4) arbitrariness

State University Answers

1- Choice 4

Linguistic knowledge is the knowledge of a language represented by the mental grammar that accounts for speakers' linguistic ability and creativity. For the most part, it is unconscious knowledge. This unconscious knowledge of the syntactic rules of grammar permits us to make grammaticality judgments.

2- Choice 4

As the symbols in painting resemble what they actually refer to, they are of iconic type.

3- Choice 4

There is some **sound symbolism** in language—that is, words whose pronunciation suggests their meanings. Instance of sound symbolism are bow-wow, drip-drip, tick-tock, and *gl* in *gleam*, *glisten*, *glitter*, which all relate to vision.

4- Choice 2

On the contrary, onomatopoeia is an exception to the symbolic nature of linguistic signs.

5- Choice 4

Choice four gives the correct definition of indexical signs.

6- Choice 2

There are three pieces of evidence which support symbolic nature of linguistic signs: translation equivalent, synonym, iconically expressible meaning.

7- Choice 3

The question is whether we have knowledge innately, or derive all our knowledge by experience. The former position was early taken by Rene Descartes, and goes by the name **rationalism**. Descartes' philosophy emphasized the necessity of doubt in acquiring knowledge by introspection, hence his formula "I think, therefore I am". Rationalism inspired a linguistic work known as the Port Royal Grammar by Antoine Arnauld and Claude Lancelot. This grammar tried to show that the grammars of all languages are, in fact, unified at their core by logical structural principles. The alternative to rationalism, **empiricism**, is often represented in the ideas of John Locke who believed that the mind starts out as a blank slate, which we fill with experience and generalizations based on experience.

8- Choice 3

"Social knowledge" has no place in Chomsky's notion of linguistic competence.

9- Choice 3

Refer to Section 1.

Azad University Questions

When a sign language becomes widely used, it develops the same kind of dialects and varieties as occur in spoken language. This kind of variation can be seen in ASL, which is now used by over half a million deaf people-by many, as a native language.

1- The text implies that sign languages ………… .   (Azad University, 80)
   1) have their own dialects   2) are identical world-widely
   3) are terribly hard to understand   4) have spoken variations too

2- In order to show that in a certain region, there were poisonous snakes, cave-dwellers used to draw pictures of snakes on the cave walls. Thus, in communication, they used ………… .
(Azad University, 82)
   1) icons   2) indexical signs   3) symbols   4) morphemes

3- The phonetic forms of some words have actual characteristics of their meanings. These forms are technically called ………… .   (Azad University, 82)
   1) synonyms   2) polysemies   3) equivalents   4) mimetic words

4- If words are typically iconic or indexical, then translation equivalents from language to language would be ………… .   (Azad University, 84)
   1) similar in form as well as meaning   2) similar in character as well as use
   3) dissimilar both in form and meaning   4) dissimilar both in function and use

5- When a sign has actual characteristics of its meaning, it is said to be ………… (Azad University, 85)
   1) iconic   2) indexical   3) symbolic   4) phonemic

6- Passengers commuting between cities, sometimes, face a sign with a picture of a fork and spoon, which provides us with information that a restaurant is way ahead. The relationship is ………… .
(Azad University, 86)
   1) iconic   2) symbolic   3) indexical   4) lexical

7- The kind of grammar of a language which represents the unconscious linguistic knowledge or capacity of its speakers and is a model of the mental grammar that every speaker of the language knows is called ………… grammar.   (Azad University, 89)
   1) prescriptive   2) universal   3) descriptive   4) generative

8- ………… is based on a theory of what every speaker of a language unconsciously knows about the sound patterns of that language.   (Azad University, 92)
   1) Phonotactics   2) Phonology   3) Morphology   4) Phonetics

Azad University Answers

1- Choice 1

All languages are productive, dynamic and involved in the process of changing. Sign language, whose only difference with speaking is in the means of communication, undergoes change and has different dialects, too.

2- Choice 1

Cave-carvings, i.e. the *pictures of snakes* showed that there are *snakes* in the region. That is, the forms resemble what they refer to. Therefore, the cave-carvings are iconic symbols.

3- Choice 4

Stem gives the definition onomatopoeic or mimetic words.

4- Choice 1

Iconicity or indexicality means that forms refer to their meaning. If words were iconic or indexical then translation equivalents from one language to another would be similar in both form and meaning.

5- Choice 1

Stem gives the definition of iconic signs.

6- Choice 3

A sign posted at the side of a road, will suggest 'restaurant' or 'food (service)', by the association we can make between fork and spoon and these meanings.

7- Choice 3

There are different kinds of "grammars." The **descriptive grammar** of a language represents the unconscious linguistic knowledge or capacity of its speakers. Such a grammar is a model of the **mental grammar** every speaker of the language possesses. It does not teach the rules of the language; it describes the rules that are already known. A grammar that attempts to legislate what your grammar should be is called a **prescriptive grammar**.

8- Choice 2

Phonology is the component of a grammar that includes the inventory of sounds (phonetic and phonemic units) and rules for their combination and pronunciation; the study of the sound systems of all languages.

Chapter 2

Properties of Human Language

◈ **Types of Signals**

◈ **Unique Properties of Human Language**

◈ **Properties Common Between Human and Animal Language**

◈ **Talking to Animals**

Properties of Human Language

1. TYPES OF SIGNALS

There are two types of signals:

- **Communicative signals:** The use of signals to convey information intentionally, e.g. bird songs are used to attract mates; deaf people use sign language to convey ideas; and others use linguistic signals to their purposes.
- **Informative signals:** Those which convey information unintentionally, e.g. people may notice that you have cold when they see you have a runny nose, sneeze, and speak through your nose.

When we compare and contrast animal and human language we are considering them in terms of their potential as intentional signs for communication.

2. UNIQUE PROPERTIES OF HUMAN LANGUAGE

2.1. Arbitrariness

Based on **ARBITRARINESS** property, there is no natural relation between a linguistic form and its meaning. The connection is quite arbitrary. This view is supported by the **CONVENTION(ALIST) POSITION** that the relationship between linguistic signs and objects in the world was conventional and arbitrary with no direct connection to reality. For example, the linguistic form *dog* has no natural or iconic relationship with that hairy four-legged barking object out in the world. This arbitrary relationship between form and meaning of a word is also true in sign languages. If you see someone using a sign language you do not know, it is doubtful that you will understand the message from the sign alone.

The inventory of speech sounds used by a particular language is also arbitrary. English is spoken using only 36 different sounds (a few more or less). But the sounds used in English are not all the same as the sounds needed to speak other languages, nor are they put together in the same way. The 36 sounds of English are in turn arbitrarily represented by 26 letters, some of which stand for two or more sounds (like *g* in *gin* and in *gimp*) while other sounds are spelled in two or more different ways (consider *c* in *center* and *s* in *sender* or *c* in *cup*, *k* in *kelp*, and *qu* in *quiche*). The patterns into which words and sounds are arranged are also arbitrary. Adjectives go before nouns in English – so it's *fat man*; in French nouns go before adjectives, making it *homme gros*. Some manual signs in sign languages are iconic – they look like what they mean – but most signs give not the slightest clue to their meaning.

On the other hand, those who supported the **NATURAL(IST) POSITION** maintained that the relationship between pronunciation and meaning is a natural one, in which the meaning of a word is evident from its pronunciation. In support of the natural position, scholars cited examples of onomatopoeic words like *bow-wow* in which the pronunciation seems to bear some resemblance to the actual sounds involved in the activity presented by the words.

2.2. Displacement

DISPLACEMENT is the characteristic that in languages meanings are expressed which are displaced or removed from the concrete or physical presence of the object or stimulus of those meanings. Having symbolic signs means that we can give form to abstract meanings like 'past' and 'future' and associate other signs with these. Indeed, all languages have morphemes and constructions which make it possible to talk about the past and future as well as present, and so to talk about persons and places not present, and even about hypothetical things, like *the present king of France, Superman, Unicorn,* etc.

It might be argued the language of some animals like bees has this property, as they perform a complex dance to indicate the location of food source; but care must be taken that this is very limited in an extremely limited form.

2.3. Cultural Transmission

The process whereby a language is passed on from one generation to the next is described as **CULTURAL TRANSMISSION**. It is clear that humans are born with some kind of predisposition to acquire language in a general sense. However, we are not born with the ability to produce utterances in a specific language such as English. We acquire our first language as children in a culture. Languages differ from place to place in the world and we have to learn the form appropriate for the place.

> 🕬 *Note: Cultural transmission is in contrast with **innateness** of the signs of animal language. The general pattern of animal communication is that the signals used are instinctive and not learned.*

2.4. Modularity

Most linguists believe that language is a modular system. That is, people produce and interpret language using a set of component subsystems (or modules) in a coordinated way. These modules include phonetics, phonology, morphology, syntax, lexicon, semantics, and discourse. Each module is responsible for a part of the total job; it takes the output of other modules as its input and distributes its own output to those other modules. In all languages, sound units combine to form morphemes, morphemes combine to form words, words combine to form larger units—phrases and sentences, and sentences combine to form discourse.

2.5. Discreteness

Each module of language deals with the characterization and coordination of some discrete linguistic unit (sounds, words, phrases, sentences). **DISCRETENESS**, another property of languages, divides the continuous space of sound or meaning into discrete units – sounds, words, phrases.

When we listen to the flow of an utterance we can perceive it to be made up of distinct sounds. The word *top* in English has individual parts – /t/, /ɒ/, /p/ – that can be rearranged to produce *pot* or *opt*. Further, these distinct sounds used in language are meaningfully distinct. For example, the difference between /b/ and /t/ is not very great but in English they distinct meaning in *bake* /beɪk/ and *take* /teɪk/. Similarly, we can decompose words into their constituent parts. For example, *incompletely* can be divided into *in-*, *complete*, *-ly*. Finally, the phrase *the cat on the mat* is composed of the following discrete units: *the*, *cat*, *on*, *mat*. These units can be rearranged to produce the *mat on the cat*. We can arrange and rearrange the units of our language to form an infinite number of expressions. The creativity of human language depends on discreteness.

Discreteness also shows itself in other modules of language, for example, meaning. The color spectrum is a clear example. Color variation is a continuum – red shades through red-orange to orange to yellow-orange to yellow and so on through the spectrum. But all languages divide the color spectrum into discrete categories, although languages differ in how they divide those continua into words. In some languages there are only two basic color terms, roughly meaning 'light' and 'dark;' others add red, yellow, and green, whereas still others, including English, have developed words for many more colors.

2.6. Productivity

Every human language is a **CREATIVE** or **PRODUCTIVE** system in that the system enables its users to continually produce and comprehend novel utterances – utterances that a particular speaker may have neither heard nor produced in the past. And, a linguistic system is infinitely productive, for the range of possible sentences in a language is truly infinite, i.e. human languages have a finite set of forms by which they can produce infinite meaning. In other words, language-users manipulate their linguistic resources to produce new expressions and new sentences. Creativity shows up in:

- **Openness:** Humans are able to come up with new words to express new ideas, new things in the world and new ways of expressing old ones such as *aspirin*.
- **Recursion:** A characteristic of languages that allows phrases to expand. Recursive rules have the capacity to be applied more than once in generating a structure. For example, the phrase *a friend* may expand as *a friend of mine,* and this may be an expansion in another phrase *a friend of a friend of mine*. Another example is the expansion of *meet near the bakery* to *meet near the bakery next to the bookstore* to *meet near the bakery next to the bookstore behind the park*. This property of recursion makes it impossible to set a limit on the length of sentences or the number of sentences.

  The recursiveness of language has a profound implication: no one can learn a language by memorizing all the sentences of that language; instead, they must learn the system for creating and combining constituents in that language.

Creativity is in direct contrast to the **FIXED-REFERENCE** feature of animal language: each signal is fixed as relating to a particular object or occasion. For example, Cicadas have four signals to choose from and they cannot manipulate them to produce and express new events and experiences.

2.7. Duality of Patterning

DUALITY or **DOUBLE ARTICULATION** is the characteristic of linguistic signs that these have a two-part or dual structure, in which the meaningful whole is made up of meaningless parts. Morphemes are meaningful, but the phones and features which make up the phonemes are meaningless. Meaningless units *labial, stop, voiceless* make up the phoneme *p*, which is still meaningless. The meaningless *p, t,* and *a* combine as meaningful units like: *pot, opt,* and *top*. So, at one level, we have distinct sounds, and, at another level, we have distinct meanings. This duality is, in fact, one of the most **economical features** of human language because, with a limited set of discrete sounds, we are capable of producing a very large number of sound combinations (words) which are distinct in meaning.

Some books consider duality – also defined as a single sequence of sounds can have more than one meaning – a corollary of arbitrariness. Because there is nothing about the pronunciation of the word *one* [wʌn] that necessarily associates it with the numeral 1, that same sequence of sounds (but spelled *won*) can also be used to mean something entirely different – the past tense of the verb *to win*. But if the same sequence of sounds can represent different concepts in the same language, how are you able to figure out which meaning one intends when they say [wʌn]? The answer is that you **rely on context**. If one says [wʌn] before a noun, as in "[wʌn] dog," your knowledge of English grammar will lead you to guess that they mean *one*. On the other hand, if one says [wʌn] after a noun (or pronoun), as in "Mary [wʌn]," that same knowledge will lead you to guess that I mean the past tense of *win*.

2.8. Grammaticality

GRAMMATICALITY or **PATTERNING** is the characteristic of languages that they have rather strict rules about how things may be said. Only certain sounds may be combined in words, and meanings have to be combined in certain ways, in words and sentences. For example, /kæt/ is possible in English but /ktæ/ is not; or to form question from *Fatima is studying* we should invert subject and verb and *Studying Fatima is?* is ungrammatical.

2.9. Reflexivity

All creatures communicate in some way, even if it is not through vocalization. However, we suspect that other creatures are not reflecting on the way they create their communicative messages or reviewing how they work (or not). That is, one barking dog is probably not offering advice to another barking dog along the lines of "Hey, you should lower your bark to make it sound more menacing." They're not barking about barking. Humans are clearly able to reflect on language and its uses (e.g. "I wish he wouldn't use so many technical terms"). This is reflexivity. The property of **REFLEXIVITY** or **REFLEXIVENESS** accounts for the fact that we can use language to think and talk about language itself. Hence, this property is closely related to the concept of meta-language – the language used to analyze or describe a language.

2.10. Prevarication

PREVARICATION is that property of language through which we can make false statements, lie, deceive and make nonsense statements.

2.11. Variability

Although all languages share some universal characteristics, languages also differ in many ways. **VARIABILITY** (or **DIFFERENCE**; **DIVERSITY**) in language allows people to communicate far more than the semantic content of the words and sentences they utter. The variability of language is indexical. Speakers vary the language they use to signal their social identities (geographical, social status, ethnicity, and even gender), and also to define the immediate speech situation.

People let the world know who they are by the variety of their language that they use. They reveal their geographical and social status origins after saying just a few words. People also use their variety of language to signal membership in a range of overlapping social groups – as male or female, as a teenager or an adult, as a member of a particular ethnic group. People also use language variation to communicate the situation and purpose in which they are talking, as well as the roles they are playing in those situations. A priest uses different forms of language during a sermon than during the social hour after a church service, playing different roles (and projecting different roles on the churchgoers he addresses). At work, people speak differently to subordinates than to superiors, and differently during coffee breaks than in meetings.

A large part of a speech community's culture is transacted through the medium of language variation. Norms of appropriate language use help speakers to construct and negotiate their relations to each other. The unwritten and unconsciously applied rules for the various forms and uses of language can vary from one cultural milieu to another, within and between societies, and even between genders.

> ☺ *Note: One of the consequences of language variation is that no variety or dialect of a language can be better than any other.*

3. PROPERTIES COMMON BETWEEN HUMAN AND ANIMAL LANGUAGE

Listed below are six other properties (or "design features") that are often discussed when human language is compared to other communication systems.

3.1. Reciprocity

RECIPROCITY or **INTERCHANGEABILITY** refers to the idea that any speaker/sender of a linguistic signal can also be a listener/receiver.

3.2. Specialization

The purpose of linguistic signals is communication and not some other biological function such as breathing or feeding. An example of non-specialized communication is dog panting. When a dog pants, it often communicates to its owner that it is hot or thirsty; however, the dog pants in order to cool itself off. This is a biological function, and the communication is a secondary matter.

3.3. Rapid fade

RAPID FACE or **TRANSITORINESS** refers to the idea of temporary quality of language. Language sounds exist for only a brief period of time, after which they are no longer perceived. Sound waves quickly disappear once a speaker stops speaking.

3.4. Non-directionality

Communication signals have no inherent direction and can be picked up by anyone within hearing,

even unseen. When humans speak, sounds are transmitted in all directions; however, listeners perceive the direction from which the sounds are coming.

3.5. Vocal-auditory

Communication signals are typically generated via the vocal organs and perceived via the ears. This applies to many animal communication systems, but there are many exceptions. For example, cobras extend the ribs behind their heads to send the message of intimidation or of feeling threatened.

4. TALKING TO ANIMALS

If properties of human language make it such a unique communication system, quite different from the communication systems of other creatures, then it would seem extremely unlikely that other creatures would be able to understand it. Some humans, however, do not behave as if this is the case. There is, after all, a lot of spoken language directed by humans to animals, apparently under the impression that the animal follows what is being said. Riders can say Whoa to horses and they stop (or so it seems), and a variety of circus animals go Up, Down and Roll over in response to spoken commands. Should we treat these examples as evidence that non-humans can understand human language? Probably not. The standard explanation is that the animal produces a particular behavior in response to a particular sound-stimulus or noise, but does not actually "understand" what the words in the noise mean. If it seems difficult to conceive of animals understanding human language, then it appears to be even less likely that an animal would be capable of producing human language. After all, we do not generally observe animals of one species learning to produce the signals of another species.

The idea of raising a chimp and a child together may seem like a nightmare, but this is basically what was done in an early attempt to teach a chimpanzee to use human language. In the 1930s, two scientists (Luella and Winthrop Kellogg) reported on their experience of raising an infant chimpanzee together with their baby son. The chimpanzee, called Gua, was reported to be able to understand about a hundred words, but did not "say" any of them. Other attempts have been carried out on other Chimpanzees like Viki, Washoe, Sarah, Lana, and Nim, to name a few, with more or less similar results. However, these studies have not been without criticism. For example, the psychologist Herbert Terrace argued that chimpanzees simply produce signs in response to the demands of people and tend to repeat signs those people use, yet they are treated as if they are taking part in a "conversation." As in many critical studies of animal learning, the chimpanzees' behavior is viewed as a type of conditioned response to cues provided by human trainers. Herbert's conclusion was that chimpanzee language-learning projects is that the chimpanzees are simply making responses like trained animals for rewards and are consequently not using language to express anything.

State University Questions

1- As one of the characteristics of languages, "recursion" is the one which ………… .
(State University, 81)

1) allows the repetition of morphemes to form new words
2) states that the meaningful whole who is made up of meaningless parts
3) allows phrases to expand by the expansion of phrases within themselves
4) enables languages to come up with morphemes to express new ideas and new things in the world

2- All of the following are among the unique features of human language <u>EXCEPT</u> ………… .
(State University, 83)

1) discreteness and duality
2) displacement and arbitrariness
3) critical period and communication
4) cultural transmission and productivity

3- The fact that linguistic signals do not normally serve non-linguistic functions is called ……… .
(State University, 83)

1) reciprocity
2) vocal-auditory channel
3) specialization
4) non-directionality

4- Two of the unique core features of human language are ………… . **(State University, 85)**

1) productivity and non-directionality
2) displacement and reciprocity
3) displacement and arbitrariness
4) arbitrariness and flexibility

5- The distinction between "sham" (dinner) and "kham" (raw) in terms of meaningfully distinct sounds in Persian exemplifies the property of language called ………… . **(State University, 86)**

1) arbitrariness
2) discreteness
3) fixed-reference
4) specialization

6- The characteristic which allows phrases to expand by the expansion of phrases within themselves is called ………… . **(State University, 90)**

1) recursion
2) openness
3) grammaticality
4) displacement

7- Languages differ from place to place in the world, and we have to learn the form appropriate for the place. This characteristic of language contrasts with the ………… of the typical signs of nonhuman species like songs of birds. **(State University, 90)**

1) duality
2) innateness
3) conventionality
4) arbitrariness

8- In English, [pat] is a possible word, but [pta] is not. Which characteristic of language would this example refer to? **(State University, 90)**

1) creativity
2) grammaticality
3) cultural transmission
4) double articulation

9- "A language user being able to both receive and broadcast the same signal" refers to ………… as a feature of language. **(State University, 96)**

l) arbitrariness
2) cultural transmission
3) displacement
4) interchangeability

10- The pair '<u>can</u>' and '<u>knack</u>' reveals the quality of human languages referred to as ………… .
(State University, 99)

1) Displacement
2) Discreteness
3) Recursiveness
4) Embeddedness

11- Which quality of human languages does the comparison of the words "con" and "knock" reveal?
(State University, PhD 99)

1) Discreteness
2) Displacement
3) Recursiveness
4) Embeddedness