

## Lecture №6: Domains of Linguistics

### **I. Phonetics and Phonology**

#### **A. phonetics**

##### **1. Definition**

Phonetics is a branch of linguistics that studies the material aspects of speech sounds. Material aspects of sounds are those aspects that make for the *physical production, transportation, and comprehension* of the sound. Individuals who conduct research on speech sounds are known as *phoneticians*.

##### **2. Vowels and consonants**

Phonetics is the study of the sounds that we produce when we engage in spoken communication. In contrast with other mammals, the human body contains a complex set of equipment, commonly known as *the organs of speech*, which enables us to produce spoken language. The power for all speech sounds emanates from the lungs, travels up the windpipe, past the vocal cords and then into and out of the mouth or nose.

Sounds can be divided into two main types. A vowel is a sound that needs an open air passage in the mouth. The air passage can be modified in terms of shape with different mouth and tongue shapes producing different vowels. A consonant is formed when the air stream is restricted or stopped at some point between the vocal cords and the lips.

##### **3. The modern alphabet and IPA**

The modern alphabet does not suffice to transcribe all sounds on a one-to-one basis. Therefore, A *special alphabet* was devised by the International Phonetic Association (IPA). The International Phonetic Alphabet (IPA) shows the means and place of articulation of consonants and vowels that users of English as a mother tongue use. Phonetic characters refer to the actual utterance of a sound. In phonetic writing, the symbols for these sounds are put within brackets, such as: [θ], [ə], and [δ].

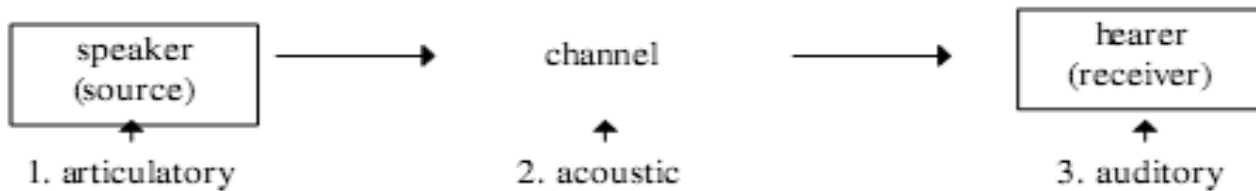
##### **4. Branches of phonetics**

Phoneticians investigate speech sounds in one of three ways: *articulatory phonetics, acoustic phonetics,* and *auditory phonetics*.

**a. articulatory phonetics:** it researches where and how sounds are originated and thus carries out physiological studies of the respiratory tract, trying to locate precisely at which location and in which manner a sound is produced.

**b. acoustic phonetics:** it examines the length, frequency and pitch of sounds. Special instruments are required to measure and analyze the sounds while they travel via the channel.

**c. auditory phonetics:** it studies what happens inside the ear and brain when sounds are finally received. It also interested in our ability to identify and differentiate sounds.



We stated above that there are three different physical aspects of a sound. These are the articulatory aspect of the speaker, the acoustic aspect of the channel, and the auditory aspect of the hearer.

## **B. Phonology**

### **1. Definition**

Another key area of study in the investigation of sounds is *phonology*, which is a very closely related discipline to phonetics. Individuals who specialise in the study of phonology are known as *phonologists*. As a general way of distinguishing between the two disciplinary areas, phonology can be perceived as investigating sounds as an abstract system, whereas phonetics focuses on the actual sounds as they are spoken by specific individuals during particular speech events.

### **2. Phoneme and phone**

Within phonology, the term *phoneme* refers to a set of abstract units which together form the sound system of a language. Contrasts in meaning are produced through directly contrasting phonemes. For example, if we compare /p/ with /b/ as in the words *pin* and *bin*, which differ only by one sound, then a different meaning is created by the contrast. By replacing the beginning consonants, the meaning of the word changes. Phonemes of the English language, or any other language for that matter, can only exist as abstract entities. They can never be literally produced by speakers.

While the phoneme is the abstract unit or sound-type (“in the mind”), there are many different versions of that sound-type regularly produced in actual speech (“in the mouth”). We can describe those different versions as phones. Phones are phonetic units and appear in *square brackets* [ ]; however, phonemes are put within *slashes* / /, such as /p/ and /b/ for phonological transcription. These are, of course, ideal units of the sound system of a language. They should not be confused with the sounds of actual utterances examined by phonetics.

### 3. Free variation and complementary distribution

Not all sounds of a language are necessarily distinctive sounds. Compare the English and American pronunciations of "dance": [dæns] versus [da:ns]. Although there are different sounds in the pair, the meaning does not change. Thus, [æ] and [a:] are not phonemes in this case. We call this phenomenon *free variation*. The two sounds can be referred to as *allophones*. When we have a set of phones, all of which are versions of one phoneme, we add the prefix “allo-” (=one of a closely related set) and refer to them as allophones of that phoneme. These sounds are merely variations in pronunciation of the same phoneme and do not change the meaning of the word. Free variation can be found in various accents of the same language. In this case, the different pronunciations of words throughout a country do not change the meaning of those words.

Another example of sounds which are not phonemes are those which occur in *complementary distribution*. This means that where one sound of the pair occurs, the other does not. An example for complementary distribution are the aspirated and unaspirated allophones of /p/. The initial consonant as in "pill" is aspirated. The consonant after /s/ in "sprint" is unaspirated. The respective transcriptions would be [p<sup>h</sup>il] and [sprɪnt], where [h] indicates aspiration. Aspirated [p<sup>h</sup>], as you can see in this example, occurs only at the beginning of words. [p<sup>h</sup>] and [p] are only allophones of the same phoneme /p/.

### 4. Syllables and clusters

The analysis of the possible sequences of phonemes is focuses not only on phonemes themselves, but also on syllables and clusters. A syllable must comprise a vowel, but usually there is also a consonant (C) before the vowel (V). *Syllables* are frequently described as consisting of an *onset*, which is a consonant, or a few consonants, and a *rhyme*, often subdivided into a *nucleus* (a vowel), and *coda* (any following consonants). In the English language coda does not always have to occur in a syllable, like for instance in the words: he (CV), or too (CV). Clusters, or consonant clusters are simply two or more consonants one

after another. Clusters, like other phonotactic rules, are characteristic of a given language, for instance the /st/ cluster in English can be an onset: street or a coda: highest, however it is impossible in Japanese.

## 5. Coarticulation effects

The most frequent processes that can be observed in casual speech are assimilation and elision. Assimilation is a process in which certain sounds copy the characteristics of another, adjacent sound (e.g. I have to go [aihæftəgəu]). Elision is a process in which some sounds, or even syllables are omitted and not pronounced at all, although in other situations they are normally uttered (e.g. you and me [juənmi]). Elision occurs in order to make the pronunciation more fluent.

Take note of the fact that Americans use the term "phonology" to refer to both phonetics and phonology. They refer to what we call 'phonetics' also as 'phonetics', but refer to what Europeans call 'phonology' as 'phonemics'. So if you ever come across the American terminology, do not be confused. In any way, in this lecture we will stick to the European terms.

## II. Morphology and Syntax

### A. Morphology

#### 1. Definition

Morphology is the part of [linguistics](#) that deals with the study of words, their internal structure and partially their [meanings](#). It is also interested in how the users of a given language understand complex words and invent new lexical items. Whereas phonology studies the smallest distinctive elements of a language, morphology is the study of the smallest meaning units of a language. Scholars differentiate between derivational morphology and inflectional morphology. The former is concerned with the relationships of different words, and with the ways in which vocabulary items can be built from some elements, as in *un-speak-able*; while the latter deals with the forms of one word that it takes up depending on its grammatical functions in a sentence. When it comes to English, it appears that it rather takes advantage of derivational morphemes rather than inflectional ones.

#### 2. Morpheme, morph, and allomorph

##### a. morpheme

Morphemes in morphology are the smallest units that carry meaning or fulfill some grammatical function. The word *house* itself consists of one morpheme, and because it can stand by itself it can be

called a *free morpheme*. In the word *houses* there are two morphemes *house*, which is free, and *s* which is a *bound morpheme*, because it cannot stand by itself as it would have no meaning. In the second example above the bound morpheme *s* was attached to *house* – a free morpheme, which in this case can be also called a *stem*. Stem is what a bound morpheme is attached to.

What is more, free morphemes can be subdivided into two categories: *lexical morphemes* and *Functional morphemes*. *Lexical morphemes* are words that have some meaning – [verbs](#), [adjectives](#), [nouns](#), like for example *print*, *house*, *pretty*, *fire*, *go*, *girl*. We can add new lexical morphemes to the language rather easily, so they are treated as an *open class* of words. On the other hand, *Functional morphemes* such as [articles](#), [prepositions](#), and [pronouns](#) which do not carry any meaning on their own, but only fulfill a grammatical function. Because we almost never add new functional morphemes to the language, they are described as a *closed class* of words.

Not only free morphemes are subdivided, there is a similar situation with bound morphemes which are subdivided into derivational and inflectional morphemes. *Derivational morphemes* are those morphemes which produce new words, or change the function of a word. It is achieved by means of prefixes or suffixes in case of [English](#) and infixes in other languages, like Arabic. *Inflectional morphemes* do not create new words, but only show grammatical functions of a word such as *keeps*, *marshes*, *given*, *singing*, and *higher*. A good example of an inflectional language could be Latin which has numerous case endings for nouns, as well as endings for verbs and adjectives.

## **b. Zero morphemes**

As already mentioned above, there do exist meaningful grammatical features that are not materialized, neither in writing nor in sound waves, in a consistent manner. The plural of a noun, for instance, is not always formed by adding a bound morpheme ‘s’ to the word. Some words are not changed at all when meaning the plural. We usually simply understand which case the speaker meant from the context of the conversation. One such example is the word ‘sheep’, designating singular as well as plural sheep. The zero morpheme ‘plural’ would, in this case, designate the abstract concept of the plurality. It then means the plural sheep as opposed to the singular sheep.

## **b. morph**

While morphemes remain ideal *abstract* units, the physical realizations of which are called morphs. The corresponding morphs may show some variation. In the case of the plural morpheme, various realizations

are possible. For instance in the word *dogs*, the morph *s* represents the morpheme ‘plural’ and in the word *oxen* the morph is *en*.

### c. Allomorph

Several morphs that belong to the same morpheme are also called allomorphs: variants of one morpheme. For example, all three morphs /z/ (in "dogs and beds"), /s/ (in "cats"), /iz/ (in "garages") are different representations of the same morpheme of plurality.

## B. Syntax

### 1. Definition

We have studied the phonological and morphological structures of the English language. But to know a language and to speak it correctly also involves being able to articulate complete sentences. The study of the syntax of a language is the study of its sentence structure as well as the linguistic knowledge necessary to form sentences.

### 2. Definitions of sentence

#### a. Aristotelian Definition

Aristotelian logic claims that a sentence is an utterance consisting of *subject* and *predicate*.

#### Example:

1. Susie smokes.
2. Alexander is clever.
3. Elizabeth believes that astrology is garbage.

#### b. logical definition

A logical definition claims that a sentence is the expression of one single, complete thought. However, complex sentences may consist of several thoughts which are interwoven. Thus, this definition does not apply to all sentences. One example of a complex thought structure are complex, compound, and compound- complex sentences.

**Example:** Albert enlisted in the Army, and Robert, who was his older brother, joined him a day later.

### c. Structuralist definition (Bloomfield)

Following the American structuralist Bloomfield, a sentence is "an independent linguistic form, not included by virtue of any grammatical construction in any larger linguistic form." A sentence is independent of any other linguistic form because it can stand alone, other than a single lexeme, which represents no independent syntactic unit. According to this definition, subordinate clauses are not sentences of their own because the dependence on the main clause.

### 3. Major and Minor Sentences

A *major sentence* is a *regular* sentence; it has a *subject* and a *predicate*. For example: *I have a ball*. In this sentence one can change the persons: *We have a ball*. However, a minor sentence is an irregular type of sentence. It does not contain a finite verb. For example, *Mary!*, *Yes*, *Coffee*, etc. Other examples of *minor sentences* are headings (e.g. *Major and Minor Sentences*), stereotyped expressions (*Hello!*), interjections (*Wow!*), phrasal questions (*Jam or honey?*), signs (*Staff only*), proverbs (*Better an open enemy than a false friend*), etc. This can also include *nominal sentences* like *The more, the merrier*.

### 4. Generative Grammar

An American linguist Noam Chomsky came up with an idea of generative grammar, which was supposed to look at the grammar of language from the mathematical point of view, constructing a limited number of rules describing all the possible patterns of forming correct sentences. For example, *John runs*.

Sentence	consists of	noun-phrase	plus	verb-phrase
S	→	NP	+	VP
				"John runs"

Moreover, what Chomsky showed was the difference between the *deep* and *surface* structure of a sentence. What he called the surface structure of a sentence was its grammatical form, and the deep structure was understood as the meaning of sentence. For example the two sentences: "Mary opened the door" and "The door was opened by Mary" differ in their surface structure, but not in their deep structure. Still, it is the deep structure that might cause the biggest problems. Certain sentences, although easily understood, can be ambiguous because of their structure, like for instance *He hit a guy with a car*. This

sentence can mean that he was driving a car and hit someone, or that he hit somebody who had a car. Here are other ambiguous sentences in terms of their structure:

1. Visiting neighbours are a nuisance.
2. Anne likes horses more than Mark.
3. The Shooting of hunters was appalling.
4. Small boys and girls are easily frightened.
5. Yesterday, I met our English history teacher.

### **III. Semantics and Pragmatics**

#### **A. Semantics**

##### **1. definition:**

Semantics is a branch of linguistics dealing with the meaning of words, phrases and sentences. In principle, all words in the lexicon of a language are lexemes. Examining the meaning of words in the lexicon is called *lexical semantics*.

##### **2. conceptual/denotative and associative/connotative meaning**

There are two aspects to the meaning of a word. We also say that there is a "core" meaning to every word, as well as some additional meaning. The "core" meaning is the meaning of a word in its literal sense. We call this the *conceptual/denotative* meaning. The additional meaning is what we add according to our feelings about the term. This is the connotative meaning. A good example is the disease called cancer. The denotation of "cancer" is the mere disease that can be described by growing tumors, malfunctioning organs, etc. The connotation of cancer is all the emotional additions, as "cruel", "frightening", "hard to heal", etc. While the denotation of a lexeme is subject to language change in the broad sense, the *association/connotation* may change according to the taste en vogue. A few decades ago, "fur coat" had a connotation of value and high social status. Nowadays, "fur coat" evinces a connotation of "animal murder", "cruelty", "ignorance", and so on. In short, the wearer of such a coat might find that people judge her (or him) differently.

##### **3. The Most Relevant Semantic Relations Between Lexemes**



### a. synonymy

Two or more words with very closely related meanings are called synonyms. They can often, though not always, be substituted for each other in sentences. Common examples of synonyms are the pairs: *almost/nearly*, *big/large*, *broad/wide*, *buy/purchase*, *cab/taxi*, *car/automobile*, *couch/sofa*, *freedom/liberty*. We should keep in mind that the idea of “sameness” of meaning used in discussing synonymy is not necessarily “total sameness.” For example, whereas the word **answer** fits in the sentence *Sandy had only one answer correct on the test*, the word **reply** would sound odd.

### b. antonymy

Apart from equality in meaning, as with synonyms, there is also the opposite. Opposition in meaning is known as antonymy. *Large-small*, *wide-narrow*, *white-black*, *fat-slim* are some examples for antonyms. All classes of words can have antonyms. Antonyms are usually divided into two main types, **gradable** (opposites along a scale) and **non-gradable** (direct opposites). Gradable antonyms, such as the pair *big/small*, can be used in comparative constructions like I’m bigger than you and A pony is smaller than a horse. Also, the negative of one member of a gradable pair does not necessarily imply the other. For example, the sentence *My car isn’t old*, doesn’t necessarily mean *My car is new*.

### c. hyponymy

When the meaning of one form is included in the meaning of another, the relationship is described as hyponymy. Examples are the pairs: *animal/dog*, *dog/poodle*, *vegetable/carrot*, *flower/rose*, *tree/banyan*. The concept of “inclusion” involved in this relationship is the idea that if an object is a *rose*, then it is necessarily a *flower*, so the meaning of *flower* is included in the meaning of *rose*. Or, *rose* is a hyponym of *flower*.

### d. Polysemy

When we encounter two or more words with the same form and related meanings, we have what is technically known as polysemy. Polysemy can be defined as one form (written or spoken) having multiple meanings that are all related by extension. Example is the word **head**, used to refer to the object on top of your body, froth on top of a glass of beer, person at the top of a company or department, and many other things. Other examples of polysemy are *foot* (of person, of bed, of mountain) or *run* (person does, water does, colours do).

### e. Homonymy

Two lexemes that look or sound the same may mean something different. Hence, there are two types of homonymy:

- **Homophony:** These lexemes sound the same, such as "whether-weather" and "meet-meat".
- **Homography:** These lexemes look the same, as "read", meaning as well /ri:d/ as /red/ in the past tense.