

Unit 13 Putting It All Together Again

Objectives

After completing this unit, you will be able to

1. Describe the complexity of Language: its interconnectedness and change
2. Explain how the Language Mechanism works through Synthesis & Analysis

13.0 Introduction

In the past weeks, we have studied Language on different levels:

1. We first examined it as a complex living structure of arbitrary symbols, a union of thought and form. In order to understand the whole of language, we identified its smallest unit – word-meaning.
2. We then focused on the physical *forms* of language – its structures and sounds.

In this final unit of our course, we will summarise all the lessons learnt by ‘putting it all together again’ – this is what we call ‘synthesis on a higher level of understanding.’

13.1 Quick Revision of Main Points

13.1.1 Summary of Unit 1

1. **Linguistics is the scientific study of Language**
 - a. **The Scientific Method:** 4 stages:
 - i. Observation
 - ii. Hypothesis making
 - iii. Experimentation
 - iv. validation
 - b. **Generalization** is based on drawing a general conclusion based on many individual events of the same kind (inductive logic); deductive logic moves from a general rule to an individual case in the same category.
 - c. **Science versus Arts:** Science explores reality/facts; Art represents artists’ perceptions of reality
2. **A brief survey of the history of linguistics:** 3 stages
 - a. Philosophy: prescriptive grammar and logic
 - b. Philology: comparative and historical studies
 - c. Structuralism: focus on the WHOLE of Language
3. **Metaphysical reasoning** examines the ‘bits and pieces’ of reality without paying attention to their interrelatedness and transformation; **Dialectics** views issues in their totality, interconnectedness, and development (evolution)
 - a. Evolution is a spiral movement (not circular)
 - b. Thesis + Antithesis = Synthesis
4. **The scope of linguistics and its ‘core’ domains:**
 - ⇒ Phonetics & Phonology: study of speech sounds and patterns of sounds

- ⇒ Morphology: word structure
 - ⇒ Syntax: sentence structure
 - ⇒ Semantics & Pragmatics: meaning
5. **Symbols:**
 - a. Iconic: resembling their meaning, and
 - b. Arbitrary: no link to meaning
 6. **Ambiguity:** double meaning
 - a. Lexical: resulting from > one meaning of a word, &
 - b. Structural: resulting from the way words are put together in a sentence

13.1.2 Summary of Unit 2

1. The Psycho-Physical Basis of Language:

- a. Language represents ideas through arbitrary physical sound patterns, used by social convention;
- b. A complex network of articulatory, auditory and nerve transmission processes make up the dual psycho-physical nature of Language.
- c. Traditional approaches to the study of Language focused more on the forms of language (its physical aspect).

2. Language is a Living Structure of arbitrary symbols (word-meanings)

- a. Living Structure Characteristics: wholeness, transformation, & self-regulation

3. Analysis into Units: Word-Meaning is the smallest unit of the complex WHOLE of Language, because it maintains its psycho-physical and social properties (Word = Speech + Thought)

4. Every Word of Language is a Generalization or an act of thought. To generalize, we must be able to connect (as well as contrast) the concepts we are trying to understand with those already familiar to us, based on Resemblance, Contiguity and Cause/ Effect (Hume's '3 principles of human understanding')

5. Dialectics is the method of reasoning which aims to understand things in all their interconnectedness, movement, and change. Analysis and Synthesis

6. Dialectical linguistics examines the *dynamic* structure of *live* word-meanings in the context of their interconnectedness, development and transformation. It uses the natural mechanism and logic of human thought – *abstraction* and *generalisation*, *analysis* and *synthesis*, to arrive at a new understanding of the complex phenomenon of Language. Both analysis and synthesis on a higher level of understanding are required for comprehensive understanding — breaking the object of study into its various parts, and then arriving at a *new* understanding based on how the parts interact and merge with each other etc.

13.1.3 Summary of Unit 3

1. Word-meanings develop; they 'grow' and change, both in individual and in collective consciousness

2. **Grammar is shaped by ‘reanalysis’ of content words** in the collective mind of the speech community, whereby lexical words and phrases acquire more abstract grammatical functions (become function words)
3. **Grammaticalization** is the process whereby concrete words acquire grammatical functions
4. **Piaget’s stages of cognitive development are:**
 - a. Sensori-motor
 - b. Pre-operational
 - c. Concrete operational
 - d. Formal operational
5. **In babies, as in animals, speech is non-intellectual, and intelligence – non-verbal;** during the first (sensori-motor) stage of cognitive development, speech and thought begin to overlap
6. **Children develop Language before Logic**
7. **Word-meanings depend on how we use them:** when, where, why, how, and to whom we speak all determine the meaning of the words we use
8. **Intended meanings may be misunderstood (interpreted differently) by others,** because we all see the world through our own eyes (our perceptions may vary, as our attitudes, feelings, assumptions, etc. differ).

13.1.4 Summary of Unit 4

1. **Thought and speech have different roots.**
2. **In the speech development of the child, there is a pre-intellectual stage, and in his thought development, a pre-linguistic stage.**
3. **Up to a certain point in time, the two follow different lines, independently of each other.**
4. **By the end of the sensorimotor stage of cognitive development, these lines meet: thought becomes verbal, and speech – rational.**
5. **Main differences between these two perspectives on the origins of language:**

The Divine Creation View:

- ⇒ Language is a culturally-modulated *species characteristic* (like hair).
- ⇒ Humans, like other species, were created as such; therefore, the question of language origins amounts to discovering how humans spoke at creation (before the Tower of Babel – this was a common view in the ancient world and in mediaeval Europe).

The Evolutionary View:

- ⇒ Language and the human brain have co-evolved for about 2 million years: the Human Brain has *shaped* Language – that is why it is so receptive to language acquisition.
- ⇒ Language arose out of social need: its development was stimulated by the need to make promises (to satisfy the naturally selected male instinct to promote their own genes) in view of the new behaviour patterns (the hunters’ long absences from the community).
- ⇒ The co-evolution of language and the brain was accelerated by a change in diet and the addition of hunting to the gathering mode of subsistence, which resulted in behavioural, physiological and anatomical changes.

⇒ Natural languages share many features of their basic structure, because they all reflect the human *symbolic* way of thinking.

6. **Generalisation, which involves Synthesis and Analysis, is the *heart* of Language/Thought;** every word/ sentence of Language is a generalisation; → Language as a whole is also Generalisation (act of Thought)
7. **Meaning /Concept/ Idea/ Generalisation** (i.e., the creation / association of ideas by Resemblance, Contiguity, and Cause/Effect) is only possible through the human ability to *analyse* and *synthesise* our experiences

13.1.5 Summary of Unit 5

1. **Syntax** – arrangement of words in the sentence
 - a. The **Sentence** – saying something *about* something
 - b. The **Subject** – what we speak about
 - c. The **Predicate** – what we say about the Subject
 - d. **Parts of Speech** – functions of words and groups of words in the sentence
 - e. **Phrases** – groups of words that function together as 1 part of speech; no SVC pattern
 - f. **Clauses** – groups of words with SVC structure that function as 1 part of speech (Noun, Adjective, or Adverb)
2. **Synthesis & Analysis** together are **generalisation**; since the words and sentences of language are generalisations, languages structures embody **Synthesis & Analysis**
3. **Recursion** – the potentially unlimited extension of language structures by embedding phrases and sentences into other sentences; it shows how **generalisation** can generate an infinity of ideas through the **synthesis & analysis** of word-meanings
4. **Generalising Sentence Analysis (G-nalysis)** aims to identify S/V/C patterns and determine how they relate to each other (how they function, or what they do in the main sentence).

13.1.6 Summary of Unit 6

1. Grammaticality measures the conformity of utterances to the rules of the language system.
2. Apart from enabling us to distinguish grammatical strings from ungrammatical ones, our knowledge of syntax allows us to know
 - When a sentence is structurally ambiguous
 - When two sentences of different structure mean the same thing, and
 - What the *meaning relations* are in sentences; in other words, it allows us to see the *logical connections* between words, how words *relate* to each other in a sentence.
3. Grammaticality exists on different linguistic levels: lexical, syntactic, and semantic.
4. Utterances, which break the basic phrase structure rules, often become unintelligible.

5. Ambiguity results when different deep structures (meanings) overlap in the same surface structure.
6. Only grammatical and unambiguous forms (utterances) transmit meaning effectively
7. The interplay of 2 factors create 'chunks' of complex meaning:
 - The blend of all the word-meanings we use in a phrase/sentence, and
 - The order in which the word-meanings are joined together.
8. Syntactic forms/structures have a direct bearing on the logical relationships between word-meanings in a sentence, and on the thematic relations between the verbs and nouns (particularly in a fixed word order system):

S	V	C _(DO)		S	V	C _(DO)
The dog	bit	the <i>man</i>	≠	The man	bit	the <i>dog</i>
agent		<i>DO</i>		agent		<i>DO</i>
9. We determine the 'truth' of sentences by assessing how the statement correlates to reality.
10. We determine the grammaticality of utterances by assessing their compliance with the syntactic, lexical and semantic rules of the language we share with others.
11. The rules of a language govern how elements and units of language (sounds, morphemes, word-meanings, phrases and sentences are put together; these rules determine the *forms* (structures) of language.
12. Some combinations of word-meanings become set expressions (collocations, idioms, etc.)

13.1.7 Summary of Unit 7

Grammaticalisation is the process of language change, driven by the way the human brains think (generalize, based on associating ideas by Resemblance, Contiguity, and Cause/Effect). It occurs because of *re-analysis* of word-meanings in the collective mind of language speakers: concrete word-meanings become more abstract, acquire grammatical functions and thus form the grammar of the language. Language structure is shaped by human brain, by the mechanism of human thought (generalisation).

13.1.8 Summary of Unit 8

1. **Morphemes** are the *smallest meaningful units of language*:
 - a. They cannot be subdivided
 - b. They add meaning to a word
 - c. They are 'recyclable'
 - d. They can have any number of syllables

2. Our mental dictionaries contain **morphemes and instructions for combining them**.
3. Morphological rules can create complex *three-dimensional* structures: this makes the number of possible combinations infinite.
4. Bloomfield's definition of **word** as **a minimum free form** is not always useful, because
 - a. Words may be bound too tightly with their context (Cf. set phrases/idioms), or
 - b. They can be homonyms/homophones – they can actually belong to different lexical items.
5. Word sound sequences are distinguished by **uninterruptibility** and **mobility**.
6. Morphemes can be isolated through comparing sound sequences.
7. Morphemes can be *free* or *bound*; *free morphemes* can be *lexical* or *functional*, and *bound morphemes* can be *inflectional* or *derivational*.
8. Two different *types* of morphemes act as building blocks that make up English words – **Roots** and **Affixes**. Each of these classes can be further subdivided:
 - a. **Roots** can be *free* or *bound*
 - b. **Affixes** can be divided into **prefixes** and **suffixes**
 - i. Infixes and circumfixes may be common in other languages

13.1.9 Summary of Unit 9

1. **Morphemes have variant forms** (allomorphs)
2. **Morphemes change**, depending on
 - a. their history (lexical conditioning) and
 - b. the neighbouring speech sounds
3. **There are three major types of language morphology:**
 - a. Isolating (free morphemes)
 - b. Agglutinating (morphemes 'strung' together)
 - c. Fusional /inflectional (morphemes fused together)

13.1.10 Summary of Unit 10

1. The kind of vowel you pronounce is determined by the shape of your resonance chambers
2. Stress patterns, distinguished by the pitch, loudness, and length of vowel sounds, affect the quality of the sounds we hear.
3. Consonants are classed according to the force, place, and manner of articulation.
4. Vowels are classed according to the position of the tongue (front/back, high/mid/low), whether the lips are rounded or not when pronouncing them, whether they are long/short (tense/lax), and by whether they are monophthongs or diphthongs
5. In running speech, sounds interact and influence each other, because
 - a. our articulators are not fast or flexible enough to keep up with the flow of speech
 - b. our speech has stress patterns, which influence sound quality, etc.
6. The various phonological adaptations usually include:
 - a. Assimilation of Place, Manner or Voice::
 - i. progressive / regressive,
 - ii. partial / total

- b. Neutralisation, often leading to elision, and
 - c. Linking, or sound *insertion* for the sake of ease of articulation.
7. Sound change is one of the fundamental driving forces of language evolution
8. Despite the diversity of human languages, we can still talk of some **natural tendencies** in their development, based on the fact that certain types of sound change are very common, whereas others are unlikely.

13.1.11 Summary of Unit 11

Part of our knowledge of a language is knowledge of its sound system. We must be able to use the sounds of the language, and know the ways in which they combine into *patterns*. The number of possible sound combinations determines the number of *phonemes* in a language.

A few definitions of 'phoneme':

- ⇒ *Phoneme* is what the speaker and the hearer regard as the same *contrastive* sound. It is not any actual sound, but a *mental representation* of it.
- ⇒ *Phoneme* is the smallest phonetic unit in a language that is capable of conveying a distinction in meaning, as the *m* of a *mat* and a *b* of a *bat*.
- ⇒ Also: (linguistic meaning) – one of a small set of speech sounds that are distinguished by the speakers of a particular language.

Each *spoken* phone is perceived as 'belonging' to a particular phoneme, depending on whether it affects meaning (*pail* vs. *bail*, *pig* vs. *big*, etc. – these are referred to as *minimal pairs*).

Each language has a set of phonemes that are combined to form all the words of the language. English has 46 phonemes (R.P. – 44).

Speech sounds (phones) that are *variants of the same phoneme* are called *allophones*. Allophones do not affect meaning, although very divergent forms may cause misunderstanding occasionally, like in the case of that poor woman in an Australian hospital, who burst into tears upon hearing her doctor say, [jə 'gəʊɪŋ 'həʊm tə'dai]! ☺

13.1.12 Summary of Unit 12

1. Explain the meaning of such concepts as *semantic properties & semantic features*
2. **Lexical relations** refer to the relationships between words:
 - a. *Synonymy* refers to words with similar meanings
 - b. *Antonymy* refers to words with opposite meanings; antonyms can be
 - i. **Complementary**: *single* (= not married) : *married* (= not single), or *alive* (= not dead) : *dead* (= not alive)
 - ii. **Gradable contrast**, i.e., *big* : *small*, *hot* : *cold*, *fast* : *slow*, *happy* : *sad*, etc., and
 - iii. **Relational opposites** (contrast depends on perspective): *give* : *take*/ *receive*, *buy* : *sell*, *teacher* : *pupil*, *parent* : *child*, etc.
3. **Homonymy/ homophony/ homography** refer to unrelated meanings, whereas **polysemy** refers to having several related meanings as a result of metaphoric/ metonymic extension

4. **Metaphor** and **Metonymy** drive semantic change
5. Four types of semantic change are:
 - a. **Widening** of meaning: raise of quantity
 - b. **Narrowing** of meaning: loss of quantity
 - c. **Amelioration** of meaning: raise of quality
 - d. **Pejoration** of meaning: loss of quality

13.2 Synthesis after Analysis: Rising to a New Level of Understanding

In this course, we have taken the dialectic approach to Language, trying to capture its essence in all its complexity, interconnectedness, development and change. You are now aware of its multi-faceted psycho-physical and socio-historical nature, and know that Language and Thought cannot be separated, that every word and sentence you utter is a generalisation.

We examined the process of language acquisition in the course of our cognitive development (from vague complex but holophrastic ideas to more precise analytical expression), and compared this process to language origins and evolution in human society. We now know that Language, shaped by the human brain, reflects the *mechanism of human thought*, the way people think – by associating ideas based on

1. Resemblance (metaphoric extension),
2. Contiguity in space / time (metonymy), and
3. Cause/effect.

All these associations together constitute the process of generalisation which, we now know, is the driving force, the ‘beating heart’ of our wonderful living creation – Language.

In Part II of this course, we focused on the physical forms of Language: its smallest units (word-meanings) and how we put them together to create complex meaning. We also ‘dug’ deeper and examined the smaller and smallest physical elements of language, the bits that word-meanings are made of – morphemes and sounds, and how they make up the units of language.

Our aim in this course was to discover how language creates meaning – the *mechanism* of Language. You have seen that the same principles that govern human thought (generalisation) have shaped, and are reflected in the structures of, all languages. These principles of human cognition are just two: Synthesis and Analysis. Dialectical reasoning is characterised by the never ending cycle of

Synthesis + Analysis → Synthesis on a higher level of understanding →
→ Synthesis + Analysis → Synthesis on a higher level of understanding →
→ Synthesis + Analysis → Synthesis on a higher level of understanding, and so forth...

Remember the Spiral of human Knowledge (Re: unit 1)?



Every coil of the spiral rises higher than the one before.

13.3 The Language Mechanism

Language *is* this living cycle of synthesis and analysis of human thought – it embodies it, and so works the same way, through synthesis of word-meanings into Subject-Predicate patterns (in whichever order they come) and Analysis of the major sentence constituents through specification/ modification/ description.

We have now risen to a new level in the spiral of our knowledge of Language, thanks to all the synthesis and analysis that have driven the development of linguistic thought up until now. New horizons beckon – more analysis will lead us to new conclusions, to new heights of Knowledge. Good Luck!