Unit 2 Language: a Knot of Contradictions

Objectives

After completing this unit, you will be able to

1. Define the complexity of Language from the psycho-physical, social and historical perspectives
2. Describe how Saussure cut the **Gordian Knot**[1] of Language contradictions; state the fundamental principles of Saussure's Structuralism
3. State the ***dialectical* view** of Language, emphasising the *indivisible fusio*n of all the strands in ***living*** structure of Language;
4. State the main arguments of **Vygotsky's *Analysis into Units***:
    a. Give reasons why ***word-meaning*** is the ***smallest unit*** of Language
    b. Briefly state the concept of 'fluid' meaning / evolution of meaning
5. Explain the unity of Thought & Language (every word is a generalization)
6. Explain the concept of ***generalization*** & the 'workings of the human mind,' with reference to David Hume's '***principles of human understanding***' and dialectic reasoning (analysis & synthesis)

2.0 Introduction

This Unit focuses on the complexities of human Language: its psycho-physical, social and historical aspects, which all make up its complex living structure. We will try to unravel the '***Gordian knot***' of Language, viewing it from the dialectic perspective, in its totality. We will identify the smallest unit of language that has all of its properties intact – ***word-meaning*** – and discover that 'every word is a generalisation,' and that words and their meanings are 'fluid' and relatively independent of each other.

Since Language IS Thought (most of the time☺), we will focus on the *mechanism* of human thought: the way the human mind *understands* things, first described by David Hume. Thought mechanism will help us to understand the Language Mechanism.

2.1 Language: Gordian Knot of Contradictions

In his lectures on General Linguistics, Ferdinand de Saussure presented his students with a real problem; he asked,

> Where do we find the linguistic phenomenon in its concrete, complete, integral form? Where do we find the object we have to confront? With all its characteristics as yet contained within it and unanalysed? This is a difficulty which does not arise in many other disciplines - not having your subject matter there in front of you.
>
> (Saussure: 1910)

Indeed, in other sciences, like biology, physics or chemistry, we have concrete objects and processes that we can examine, hypothesize about, experiment and observe through our physical (or technologically extended) senses. But where, indeed, is that

[1] **Gordian knot**: n. a difficult or apparently impossible problem or task. **Idiomatic expression**: to **cut the Gordian knot –** to solve a difficult problem in a direct or forceful way, rejecting gentler and more indirect methods (Oxford Advanced Learner's Dictionary, 1995)

Language that we should /could observe? The more we think about it, the more puzzling the tangle of contradictions that is 'Language' appears to be:

The Physical Nature of Language

Language is not just our 'organs of speech'[2] – we may have our tongues and lips, but that alone will not enable us to speak Amanab or Chinese! You don't even need your tongues and ears to communicate in Sign, the language of the deaf. And yet, our ability to produce /perceive speech sounds, and the speech sounds themselves are undeniably part of all human languages (apart from Sign). Saussure warned that

> It would be a mistake to believe that this integral, complete object can be grasped by picking out whatever is most general. The operation of generalisation presupposes that we have already investigated the object under scrutiny in such a way as to be able to pronounce upon what its general features are. What is general in language will not be what we are looking for; but nor must we focus on what is only part of it.

The physical organs we use to communicate abstract meaning – be they our tongues and ears or hands – make up only the ***physical*** part of Language, perceivable through our senses of hearing and sight:

> It is clear that the vocal apparatus has an importance which may monopolise our attention, and when we have studied this articulatory aspect of languages we shall soon realise that there is a corresponding acoustic aspect. But even that does not go beyond purely *material* considerations (Saussure: 1910).

The Psychological Nature of Language

Another part Language, **psychological**, is our knowledge of the sounds, words, and structures of the particular language we speak. This knowledge is stored in our memory, which is the property of our physical brains, but is not physical in itself (you can't touch, smell, taste, hear or see memory).

Meaning is the most important aspect of the psychological nature of language – in fact, meaning is the whole purpose/ function of language! It is difficult to 'pin down' meanings, since they only exist in our minds (not in the objective, material world). Hamlet put it beautifully:

> There is nothing that is either good or bad,
> But thinking makes it so.
>
> Shakespeare: *Hamlet*

This intangible, invisible knowledge of word meanings and of how to put words together to create ever larger chunks of meaning makes up the ***psychological*** part of Language.

[2] Edward Sapir, an American linguist of the first half of the 20th century, warned that 'We must not be misled by the mere term [***organs of speech*** – OT]. There are, properly speaking, no organs of speech; there are only organs that are *incidentally* useful in the production of speech sounds. The lungs, the larynx, the palate, the nose, the tongue, the teeth, and the lips, are all so utilized, but they are no more to be thought of as primary organs of speech than are the fingers to be considered as essentially organs of piano-playing or the knees as organs of prayer' (Sapir: 1921).

The Psycho-Physical Basis of Speech

The fusion of the physical and the psychological in Language is indivisible. The physical aspect of language (our ability to articulate and perceive speech sounds, as well as the sound patterns / words themselves) cannot be separated from its psychological aspect: a word without a meaning is empty sound, and thoughts are born by the words that define them. Saussure captured this duality of language when he said that

> ***It is the combination of the idea with a vocal sign which suffices to constitute the whole language***.
>
> Saussure: 4 November 1910. Retrieved 29 September 2008 from http://www.marxists.org/reference/subject/philosophy/works/fr/saussure.htm

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Activity 2.1.1

Saussure also said that

> '… the acoustic image linked to an idea - that is what is ***essential*** to the language. It is in the phonetic execution that all the accidental things occur; for inaccurate repetition of what was given is at the root of that immense class of facts, phonetic changes, which are a host of accidents.'

1. How do you understand Saussure's words? Apply your argument to the use of Tok Pisin in Port Moresby (or any other part of Papua New Guinea).
2. Which aspect of human language, do you think, is more important – psychological or physical?
3. Can the same ideas be expressed in different human languages, or will they be 'lost in translation'?
4. What, if anything, do all human languages have in common?

Language is not the function of a special organ biologically adapted for the purpose of speech production (like eyes are for seeing, ears for hearing, lungs for breathing, etc.). Speech is a very complex network of adjustments – in the brain, in the nervous system, and in the articulating and auditory organs which *together* create *symbolic* thought. Language brings together physical forms representing ideas and thus creates meaning in the minds of the speakers.

The Social and Historical Nature of Language

This tangle of psycho-physical aspects of language is not the end of the story; there are many other strands in the complicated knot of Language, i.e.,

Social: 'If we take the combination of the idea and the vocal sign,' asked Saussure, 'we must ask if this is to be studied in the individual or in a society.' The answer is, of course, that:

⇒ We all speak differently: our voices, intonation and manner of speaking are unique; no one individual sets the standards of language use in the community; even the same person speaks differently at different times (imagine the ways you speak when you are angry, sad, or when you have a blocked nose! ☺).

⇒ Therefore, it is the Language in the collective mind of the society that is the object of our study.

Saussure explained it this way:

> Language is **a 'social product'**; You can conjure up a very precise idea of this product - and thus set the language, so to speak, materially in front of you - by focussing on what is potentially in the brains of a set of individuals (belonging to one and the same community) even when they are asleep; we can say that in each of these heads is the whole product that we call the language. We can say that the object to be studied is the hoard deposited in the brain of each one of us. Doubtless, this hoard, in any individual case, will never turn out to be absolutely complete. We can say that ***language always works through a language***; without that, it does not exist.

Activity 2.1.2

Think about the meaning of this statement, and explain it in your own words:

> ***"Language always works through a language; without that, it does not exist"***

Historical: Like everything else around us, societies live /change in Time and Space. The symbolic systems they use to create meaning (including Language) also change with time, place and circumstance. Look, for example, at how cultures and languages of Papua New Guinea have changed in the past 50 years! Is the way you speak today different from the way your ancestors used language?

Even at the same point in time, Language varies: people use language differently, depending on who they are, where they come from, what they want to say, who they are talking to, etc. (the way we talk to our 'buddies' is different from the way we would speak in a formal situation, i.e., at a job interview, exam, etc.).

There are also dialects and jargons, marking regional, social class and other demographic differences in language use. If you talk to people from different walks of life and from different parts of the country, you will notice some variation in the way people use Tok Pisin or English, for example; this is due to the diversity of the speakers' life experiences and the influence of their Tok Ples and culture.

Activity 2.1.3

Give 5 examples of regional variation in the way Papua New Guineans use Tok Pisin.

Hint: Think of how British, American, Australian, Irish, Indian, or PNG 'Englishes' differ in pronunciation, vocabulary, etc.

Saussure was one of the first scholars[3] to see Language as one **COMPLEX WHOLE**. He puzzled over its distinct 'complementary facets, each depending on the other':

> (1) The ear perceives articulated syllables as auditory impressions. …One cannot divorce what is heard from oral articulation. Nor, on the other hand, can one specify the relevant movements of the vocal organs without reference to the corresponding auditory impression.
>
> (2) But even if we ignored this phonetic duality, would language then be reducible to phonetic facts? No. **Speech sounds are only the instrument of thought**, **and have no independent existence**. Here another complementarity emerges, and one of great importance. A sound, itself **a complex auditory-articulatory unit**, **in turn combines with an idea, to form another complex unit, both *physiologically* and *psychologically***. Nor is this all.
>
> (3) Language has **an individual aspect and a social aspect**. One is not conceivable without the other. Furthermore:
>
> (4) Language at any given time involves **an established system and an evolution**. At any given time, it is an institution in the present and a product of the past. At first sight, it looks very easy to distinguish between the system and its history, between what it is and what it was. In reality, the connexion between the two is so close that it is hard to separate them. … There is no way out of the circle.

Activity 2.1.4

As we remember from Unit 1, Saussure concluded that

> However we approach the question, no one object of linguistic study emerges of its own accord. Whichever way we turn, the same dilemma confronts us. Either we tackle each problem on one front only, and risk failing to take into account the dualities mentioned above, or else we seem committed to trying to study language in several ways simultaneously, in which case the object of study becomes a muddle of disparate, unconnected things. By proceeding thus, one opens the door to various sciences - psychology, anthropology, prescriptive grammar, philology, and so on - which are to be distinguished from linguistics. These sciences could lay claim to language as falling in their domain; but their methods are not the ones that are needed.

Can we draw sharp divisions between the methods used by all these sciences? Why? /Why not?

2.2 Saussure's Solution: Structuralism

Only one approach to the multiple contradictions and dualities of Language could, in Saussure's view, loosen this intractable knot: focus on linguistic STRUCTURE,

[3] Wilhelm von **Humboldt** (1767-1835), a German scholar, had voiced similar thoughts on language and linguistics almost a century before, but the extent of his influence on de Saussure is uncertain (Robins: 1995)

which he saw as the only thing that is '*independently definable*,' concrete, 'something our minds can satisfactorily grasp':

> The linguist must take the study of linguistic structure as his primary concern and relate all other manifestations of language to it (Saussure: 1983).

Since Language has 'no discernible unity,' Saussure saw only one way out of the 'circle of contradictions' – to cut off the pesky tangles altogether, and focus solely on Language structure:

> A science which studies linguistic structure is not only able to dispense with other elements of language, but is possible only if those other elements are kept separate (Ibid.).

Activity 2.2.1

Read the excerpt from Ch. 3 'On defining a language' of Saussure's *Course in General Linguistics* (Re: your Resource Book).

Why did Saussure take the ***structuralist*** approach to Language? Why was he so sure that 'A language system, as distinct from speech, is an object that may be studied independently'?

Whereas linguistics in the 19th century expanded our knowledge in highly specialised areas, such as phonetics and phonology, historical and comparative studies, etc., Ferdinand de Saussure looked beyond the 'bits and pieces' of language; he saw language as an integrated ***complex structure*** of arbitrary symbols (Linguistic Signs), and tried to uncover the underlying structure that 'makes it tick' – the *mechanism* of Language.

Fundamentals of Saussure's Structuralism

Saussure defined Language as a '**system of distinct signs corresponding to distinct ideas**' (Ibid.). He insisted that a language **system** can be *separated*/ *abstracted* from the complexities of speech and studied on its own, arguing that 'Dead languages are no longer spoken, but we can perfectly well acquaint ourselves with their linguistic structure' (Ibid.).

Please remember these most important points of Saussure's theory:

1. **'Signs comprising a language are not abstractions, but real objects'**: you need only to open a dictionary to see lists of Linguistic Signs (words and phrases), all representing that essential 'union of form and idea.' These, to Saussure, are 'concrete objects' existing in society by virtue of a 'kind of contract agreed between the members of a community.'

2. **'Linguistics studies these *objects* and the *relations* between them'**: i.e., both *units* and *rules* of the system are the '*concrete entities*' of the linguistic science.

3. **Any linguistic entity exists only by virtue of the association between signal and signification** (i.e., form + concept): it stops being a part of language 'the moment we concentrate exclusively on just one or the other.' Each linguistic sign is the association between the *Signifier* (signal, sound form) and the *Signified* (concept, idea).

4. **Each linguistic sign is an integral part of the language system because of its *difference* from all the others**: *cat* is different from *dog*, as it is from *man* or *bird*, etc.; if each sign were not different from all the other ones, the system would simply not be there.

5. ***Meaning* vs. *Value* of the Linguistic Sign**: words have conventional meanings outside of discourse (words in isolation); in context, their meanings acquire Value through the influence of the other signs in the sequence. Compare:
    a. ***Bucket*** - a cylindrical vessel used for holding or carrying liquids or solids; a pail (http://www.thefreedictionary.com/bucket)
    b. *To kick the* ***bucket*** (idiomatic expression) – to die

The Language Mechanism

Language creates meaning through different combinations of linguistic signs. In the language system, according to Saussure, '**everything depends on relations'** between signs. These *relations* and *differences* between linguistic items, he said, are of two kinds:

1. **Linear** (*syntagmatic*): we string words together in speech one after another, because we cannot say two words at the same time; meanings change, if the sequencing (order) of words changes, i.e., compare:

    i. 'A *Papuan Black bit the man*' and
    ii. '*The man bit a Papuan Black*'

2. **Associative**: words form clusters in our memory, based on some similarity, part-whole or cause/effect relationship; that is how, when we perceive words, whether spoken or written, they evoke ideas in our minds:

> This kind of connexion between words is of quite a different order. It is not based on linear sequence. It is a connexion in the brain. Such connexions are part of that accumulated store which is the form the language takes in an individual's brain (Saussure: 2006).

Saussure saw the 'language mechanism' in the ***simultaneous functioning*** of syntagmatic and associative relations between Linguistic Signs, noting that 'Groups of both kinds are in large measure established by the language. … This set of habitual relations is what constitutes linguistic structure and determines how the language functions. … Syntagmatic groups formed in this way are linked by interdependence, each contributing to all. Linear ordering in space helps to create associative connexions, and these in turn play an essential part in syntagmatic analysis.' (Ibid.)

As you see, in his search for something concrete, tangible, something that 'our minds can grasp,' Saussure deliberately limited his view of language to the structure of concrete **objects** (signs) and **relations** between them; these, according to him, are the '***concrete entities***' of the linguistic science. The goal of linguistics, Saussure felt, was **to describe the mechanism of language**, its structure, in minute detail; and this, he believed, was only possible in isolation from the tangle of contradictions, inherent in live communication /speech. This emphasis on fixed structures/ objects, 'something our minds can satisfactorily grasp' and describe, prompted the ascendancy of the ***descriptive*** approach that flourished in the 20th century and is still dominant in linguistics today.

However, **change, transformation, is an essential property of language**, as it is of any ***living*** **structure**. Any attempt to freeze it in time will provide us at best with a poor quality still image of its mechanism – not a video footage of it; studying this still, 'frozen' image of language is like trying to understand chicken behaviour by poring over Zenag chickens in Boroko Foodworld! ☺

2.3 Dialectical Linguistics

2.3.1 The Difference of Dialectics

In this course, we will try to understand Language ***dialectically***, i.e., viewing it 'live' - in its totality, interconnectedness and development (evolution). Dialectic approach to Language took a long time in maturing; scholars as far back as in the 18th century commented on the extraordinary creativity – *fertility* – of Language. Look, for example, at the short account of some of **Wilhelm von Humboldt**'s profound thoughts on the nature of Language (Activity 2.3.1):

Activity 2.3.1

> Humboldt's theory of language lays stress on the creative linguistic ability inherent in every speaker's brain or mind. A **language is to be identified with the living capability by which speakers produce and understand utterances, not with the observed products of the acts of speaking and writing**; in his words it is a creative ability *(energeia, Tätigkeit, Erzeugung),* not a mere product *(ergon, Werk, Erzeugtes)*.
>
> Still less should a language be identified with the dead products of the grammarian's analysis. The capacity for language is an essential part of the human mind; otherwise language could not have originated just environmentally; and by the nature of this capacity languages can be changed and adapted as circumstances require, and only so can the central fact (and mystery!) of language be explained: that speakers can make **infinite use of the finite linguistic resources** available to them at any time.
>
> Therefore, **no matter how much one analyses and describes a language, something of its essential nature remains unsaid**, a point that perhaps linguists of today who look to Humboldt for part of their theory should heed. (Robins: 1995)

Can you identify the main points of Humboldt's theory of language presented here?

After almost 200 years of accumulating knowledge in the specialized fields of comparative, historical, and descriptive linguistics, psychology and cognitive science, we are now able to rise to this new level of our spiral ascent to Understanding. This is the natural evolution of human learning (cognition) that Engels wrote about, remember? (Re: Unit 1)

When we consider and reflect upon Nature at large, or the history of mankind, or our own intellectual activity, at first we see the picture of an endless entanglement of relations and reactions, permutations and combinations, in which nothing remains what, where and as it was, but everything moves, changes, comes into being and passes away. We see, therefore, at first the picture as a whole, with its individual parts still more or less kept in the background; we observe the movements, transitions, connections, rather than the things that move, combine, and are connected. This primitive, naive but intrinsically correct conception of the world is that of ancient Greek philosophy, and was first clearly formulated by Heraclitus: everything is and is not, for everything is fluid, is constantly changing, constantly coming into being and passing away.

But this conception, correctly as it expresses the general character of the picture of appearances as a whole, does not suffice to explain the details of which this picture is made up, and so long as we do not understand these, we have not a clear idea of the whole picture. In **order to understand these details, we must detach them from their natural, special causes, effects, etc. This is, primarily, the task of natural science and historical research**.
…
A certain amount of natural and historical material must be collected before there can be any critical analysis, comparison, and arrangement in classes, orders, and species. The foundations of the exact natural sciences were, therefore, first worked out by the Greeks and later on, in the Middle Ages, by the Arabs. Real natural science dates from the second half of the 15th century, and thence onward it had advanced with constantly increasing rapidity. The analysis of Nature into its individual parts, the grouping of the different natural processes and objects in definite classes, the study of the internal anatomy of organized bodies in their manifold forms — these were the fundamental conditions of the gigantic strides in our knowledge of Nature that have been made during the last 400 years. But this method of work has also left us as legacy the habit of observing natural objects and processes in isolation, apart from their connection with the vast whole; of observing them in repose, not in motion; as constraints, not as essentially variables; in their death, not in their life.

To put this simply, whenever we are confronted (individually or collectively) with a complex situation/ problem, we tend to first see it in its totality, as an interrelated blur that we really don't understand. We must focus on details (analyse parts of the whole) in order to put it all together again, *synthesise* everything at a higher level of understanding in the spiral of our cognitive evolution.

This natural process is clearly seen in the history of all sciences (not just linguistics): philosophy is called the 'Mother of all sciences' because all sciences germinated as part of ancient philosophy. They later branched off into the specialized fields of natural and precise sciences, as opposed to humanities. Darwin's theory of Evolution had a tremendous impact on philosophy and all other sciences, and triggered off the coming together (synthesis) of our, until then, fragmented knowledge, thus bringing us to a higher level of understanding of the world. We also see the 'coming together' of specialized knowledge in the birth of new sciences, such as biochemistry, biophysics, molecular biology, nuclear and quantum physics, etc.

Where Saussure's Structuralism 'lost' Language

There is one thing in common between Structuralism and Anatomy [4] - both dissect complex wholes to learn about their internal structure; both examine 'dead bodies' to obtain their information. There is more to a person than his/her body; knowledge of our body structure is useful in gaining control over our physical bodies, but without our minds, we are just that – a body. In the same way, knowledge of concrete, *fixed* linguistic structures is useful, but it is only a *part* of language – there is *Life* in it that structuralism failed to capture. According to Humboldt, remember,

"… language is to be identified with the ***living capability*** by which speakers produce and understand utterances, not with the observed products of the acts of speaking and writing … **No matter how much one analyses and describes a language, something of its essential nature remains unsaid**" (Robins: 1995).

As opposed to metaphysical approaches, dialectics views Language concretely in all its movement, change, interconnection, and contradiction. Unlike Structuralism, which 'freezes linguistic structures in Time, dialectical linguistics views Language as a ***living*** structure – in all its complexity, interconnectedness, inconstancy and change:

2.3.2 Concept of *Living* Structure

The Oxford Advanced Learner's Dictionary defines ***structure*** as '*the way in which something is organized, built, or put together*.' Basically, that's it – we talk about the structure of a house, or of an organization, for example. In what ways is a ***living structure*** different from a non-living structure, such as a house?

Every living structure has 3 properties which are not found in non-living structures:

⇒ ***Wholeness***: This means that the system functions *as a whole*, not just as a collection of independent parts. Take, for example, the human body: you are not just a collection of your parts (head, legs, arms, ears, etc.) – you function as a *whole*, and any change in any of your organs will affect the system *as a whole*. This takes us to the next property of structure:

⇒ ***Transformation***: This means that the system is not static, but is capable of change. New units can enter the system, but when they do, they are governed by the *rules of the system*. Your red blood cells are renewed every 120 days – old ones go, new ones replace them. The body (as a living system) does maintenance work on all its cells: the cells that make up *you* today are not the ones you came into this world with, but you are still *you*, and all the new cells fit into the system and follow its rules.

⇒ ***Self-Regulation***: This is related to the idea of transformation. You can add elements to the system, but you can't change the basic structure of the system

[4] **Anatomy** (definition from http://www.thefreedictionary.com/anatomy):
1. The science of the shape and structure of organisms and their parts.
2. Dissection of a plant or animal to study the structure, position, and interrelation of its various parts.
(From Greek anatom$^{\bar{e}}$, ***dissection*** : ana-, *ana-* + tom$^{\bar{e}}$, *a cutting* (from temnein, *to cut*)

> (rules of *how* it operates), no matter what you add to it. The transformations of a system never lead to anything *outside* the system. We can add new words to a language, 'borrowed' from other languages, but the loanwords will have to obey the rules of the language system that has adopted them (for example, *billum* 'toes the line' with other English nouns).

Just like your body is made up of living cells and organs, each **language is a *living structure*** made up of Signs (arbitrary symbols) and ***groups*** of Signs (phrases). Each language structure functions as a whole, and is constantly changing and self-regulating. Just like metabolic processes govern the functioning of your cells and organs (the *units* of your living structure), so *rules of possible combinations* of sounds, words, phrases and clauses govern the way these units of the living structure of language can combine/ function within one 'whole' to create meaning.

Activity 2.3.2

These features of a living structure (Wholeness, Transformation, and Self-Regulation) bring to mind a remark from Samuel Beckett's play *Happy Days*:

> 'Then … now… what difficulty's here, for the mind: to have been always what I *am* – and so *changed* from what I *was*…'

Can you think of how you are different today from what you were 10 years ago?

Give 5 examples of living structures (physical, as well as ***virtual***) that function in our society, and explain how they function as one complex whole, how they change over time, and how they self-regulate.

But where do the rules of Language structure come from? The physiological processes in our bodies follow the laws of Nature, and are much the same in all people; languages, on the other hand, have such diverse grammars – where do all of them come from? It is a difficult question: we must try and wrap our brains around something that is in constant flux, changing as we try to grasp it. It is greater than any one of us, and no one can know any language absolutely – no wonder it has mystified us ever since we created it!

Thought and Language are so closely interrelated that we can only answer this question using dialectics, i.e., viewing them in their interconnectedness and development. To do that, in this course, we will have to cross into the traditionally 'different' field of psychology and take a close look at our minds and how they work. Hopefully, by the end of this course, we'll have found some answers… But where do we start?
To understand the nature of any complex thing, we must identify and then examine its smallest unit. *Descriptive linguistics* views phonemes (distinctive speech sounds) as these smallest units which, like bricks, make up the structure of language. *Dialectics* demands that the smallest unit of a complex WHOLE must retain all the properties and characteristics of the WHOLE intact.

2.4 Analysis into Units: Word-Meaning

The physical world around us is made up of just over 100 chemical *elements*.[5] Different combinations of these basic elements make up all the liquids, solids, gasses, and living organisms (including you and me). All *substances* (complex wholes) have their own characteristic properties, different from those of the elements that make them up.
Take, for example, water: it extinguishes fire and sustains Life.[6] Water, as we know, is made up of hydrogen and oxygen: H_2O. Neither hydrogen (H_2) nor oxygen (O_2) possesses the properties of the whole (water), and each of these elements possesses properties not present in the whole. If we apply this method in looking for the explanation of some property of water – say, why it extinguishes fire, we will find that hydrogen burns, and oxygen sustains fire.

The properties of constituent ***parts*** cannot help us understand the properties of the complex ***whole***. By analogy, if you break Language into its smallest elements (individual speech sounds), the properties of these 'fragments' of language will be completely different from the properties of language (such as its psycho-physical, social and historical aspects). Individual sounds lose the ability to carry *meaning* (which is what language is all about). It is easy to check this out: approach a friend, or even a complete stranger, and say, "***Gggg!***" If you get a funny look in return, don't give up – try again, this time carefully articulating the fricative "***Fff!***" ☺

This seems so simple – and yet, linguists have traditionally viewed speech *sounds* as the smallest units of Language, devoting much of their energies to detailed descriptions of linguistic forms, such as speech sounds and ways of combining these 'building blocks' into larger units, such as morphemes, words, phrases and sentences. All these methods of analysis failed to grasp the essence of Language as a living structure of meaning, because they fragmented its complex WHOLE into meaningless parts (what is the meaning of [k], for example? ☺).

We cannot analyse **verbal thought** into its components, **word** and **thought**, and study them in isolation from each other. In the course of analysis into elements, the original properties of verbal thought disappear. We are left searching for the mechanical interaction of the two elements, but where are the properties of the WHOLE? If we ignore the *oneness* of the living union of sound and meaning that we call **word**, and focus on the physical forms of language separately from their meanings, we lose sight of the ***interaction*** between ***thinking*** and ***speaking***. By breaking up the word into two parts, sounds and meaning, we automatically assume that they are held together merely by a mechanical bond. This separation of sound and meaning, typical in traditional phonetics and semantics, failed to reveal the true nature of Language.

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[5] "An element is a substance that cannot be broken down into simpler substances through ordinary chemistry – it is not destroyed by acids, for example, nor changed by electricity, light, or heat. Although philosophers in the ancient world had a rudimentary concept of elements, they were incorrect in identifying water, for example, as one. Today it is common knowledge that water is a compound, whose smallest unit is a molecule. Passing electricity through a molecule of water can separate it into two atoms of hydrogen and one atom of oxygen, each a separate element" [Re: http://www.aip.org/history/curie/periodic.htm].

[6] The human body is almost 80% water – without it, we get dehydrated and cannot survive for longer than about a week.

Lev Vygotsky (1896–1934), a brilliant Russian psychologist, proposed another type of analysis, which he called ***analysis into units***.

Main Points of Vygotsky's Analysis into Units:

1. ***Word-meaning*** **is the smallest indivisible unit of Language-Thought:**

By ***unit***, Vygotsky meant that object of analysis which, unlike the smallest parts, or elements, retains all the basic properties of the complex whole, and which cannot be further divided without losing those basic properties:

> "Not the chemical composition of water but its molecules and their behaviour is the key to the understanding of the properties of water. The true unit of biological analysis is the living cell, possessing the basic properties of the living organism.
>
> What is the unit of verbal thought that meets these requirements? We believe that it can be found in the internal aspect of the word, in *word meaning*. … The nature of meaning as such is not clear. Yet it is in word meaning that thought and speech unite into verbal thought. In *meaning*, then, the answers to our questions about the relationship between thought and speech can be found"
>
> Lev Vygotsky: Thinking and Speaking, 1934. Retrieved 03/24/2008 from http://www.marxists.org/archive/vygotsky/works/words/vygotsky.htm

Vygotsky's choice of ***word-meaning*** as the smallest unit of language cut through the Gordian Knot of dualities of language that had puzzled Ferdinand de Saussure and breathed life into his 'fractured' Linguistic Sign (Signifier + Signified), restoring the organic wholeness of word's duality:

> … A word does not refer to a single object but to a group or to a class of objects. ***Each word is therefore already a generalisation. Generalisation is a verbal act of thought and reflects reality in quite another way than sensation and perception reflect it***. Such a qualitative difference is implied in the proposition that there is a dialectic leap not only between total absence of consciousness (in inanimate matter) and sensation but also between sensation and thought.
>
> There is every reason to suppose that the qualitative distinction between sensation and thought is the presence in the latter of a *generalised* reflection of reality, which is also the essence of word meaning: and consequently that meaning is an act of thought in the full sense of the term (Ibid.).

'A word without meaning is an empty sound: **meaning**, therefore, **is a criterion of *word*,'** wrote Vygotsky. On the other hand, while ***meaning*** is the product of thinking, it cannot exist without the ***word***:

> Word meaning is a phenomenon of thought only in so far as thought is embodied in speech, and of speech only in so far as speech is connected with thought … It is a

phenomenon of ***verbal thought***, or meaningful speech – a union of word and thought (Ibid.).

Since word meaning is both thought and speech, it is indeed that unit of Language (i.e., verbal thought) that we have been looking for, the one that preserves the psycho-physical and social nature of the WHOLE! Clearly, then, the method to use in our exploration of the Language (i.e., verbal thought) is semantic analysis: the study of the development, the functioning, and the structure of this unit, which contains thought and speech interrelated. 'Analysis into units' combines the advantages of analysis and synthesis, and is perfectly suited to the study of complex wholes.

Activity 2.4

Why does Vygotsky's method of language analysis focus on word-meaning, as opposed to the phoneme, which traditionally has been considered to be the smallest unit of language?

The new focus on ***word-meaning*** enabled Vygotsky to make another remarkable conclusion that **word meanings develop**. 'This insight,' he wrote, 'must replace the postulate of the immutability of word meanings' (Vygotsky: 1934, Ch. 7). Thus, the smallest unit of Language, according to Vygotsky, is the **fusion of Thought and Sign**, interacting with each other, in a state of constant flux.

2. Word-Meanings are '*fluid*':

We all 'make sense' of the world in our own heads, based on our individual perceptions, knowledge, experience and circumstances – that is why we often understand the same words differently. Even conventional meanings of words change over time, for example:

In Old English, the word that became ***silly*** meant ***blessed***. By implication, it later acquired the meaning of *innocent*: by '1400, we find sentences such as ***Cely art thou, hooli virgyne marie***' (McWhorter: 2001, p. 32). Since the *innocent* usually *deserve compassion*, this meaning also got into the mix (a 1470 statement: ***Sely Scotland that of helpe has gret neide***). But because we usually associate 'deserving of compassion' with weakness, *silly* soon started to mean '***weak***' (1633: ***Thou onely art The mightie God, but I a sillie worm***). From here it was a short step to 'simple' or 'ignorant,' and finally silly came to mean '***foolish***' – having begun meaning 'sanctified by God'! (Ibid.).

We will talk more about the 'fluid' nature of word-meanings in Unit 3; for now, just remember that this constitutes a major difference from the structuralist point of view, which saw meaning as a fixed, concrete 'given' at any point in time – a product of society / conventional use.

2.5 Thought in Word: Every Word Is a Generalization [7]

"Each word is … already a generalisation. Generalisation is a verbal act of thought and reflects reality in quite another way than sensation and perception reflect it."
Lev Vygotsky

With our physical senses, we perceive the concrete reality; we smell, taste, see, hear and touch concrete things around us (they say, '*out of sight, out of mind*').
Language gives us the power to feel, see, hear, smell, and taste with our minds – to experience things through the legends and stories that reach us from distant times and places: we can read the thoughts of ancient writers, and see their world through their eyes. That is how we know now what **Gorgias** thought and felt all those thousands of years ago (Re: Unit 1, Activity 1.2.3):

"The power of speech has the same relation to the order of the soul as drugs have to the nature of bodies. For as different drugs expel different humors from the body, and some put an end to sickness and others to life, so some words cause grief, others joy, some fear, others render their hearers bold, and still others drug and bewitch the soul through an evil persuasion . . ."

(*Praise of Helen*)

How do we get ideas, and create meaning? Through GENERALIZATION!

What *Is* Generalization?

A word is not the 'name' of any single object – it names a ***category*** of similar objects. When our distant ancestors observed the world around them, they noticed that concrete objects around them (such as stones, for example), were similar to each other in some ways. The same, of course, applies to everything they perceived through their senses: all men share some similarities, as do all fish, all crabs, all trees, all birds, etc. People gave names to those ***similarities*** between concrete things; their minds 'squeezed out' (*abstracted*) the commonality between similar things and gave them symbolic forms; that is how ***ideas*** (word-meanings) are born. The words of language name those ***ideas*** of reality that we create in our minds; we use these abstract ideas (word-meanings) to refer to the concrete world around us. When we think, or solve problems, we basically do the same 'naming'; for example "What has two wings, and is juicy, crisp and delicious, when roasted?" **Get the *idea*?** ☺

Activity 2.5

Strain your brain! ☺ Here are a few more problems for you to solve:

1. It stands on one leg with its heart in its head – what is it?
2. It has been around for millions of years, but it's no more than a month old - ?
3. What has four wheels and flies?
4. What belongs to you, but others use it more than you do?
5. What can you catch but not throw?

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[7] **generalization:**

⇒ the process of formulating general concepts by abstracting common properties of instances [synonym: abstraction]

⇒ reasoning from detailed facts to general principles [synonym: induction, inductive reasoning]

Retrieved October 14, 2008 from: http://dictionary.die.net/generalization

6. No sooner spoken than broken. What is it?
7. What is it: the more you take away, the larger it becomes?

Get the idea? ☺ Compare your answers to the ones listed at the end of this unit.

Generalization, then, is the conclusion of *inductive* reasoning (Re: Unit 1). In that sense, each word of language is indeed a generalization: an ***idea***, grasped by the human mind, of some common feature shared by a category of concrete things or of some relationship existing between them (i.e., part : whole, cause/effect, etc.).

How do we get the *idea*? How do we reason, *understand* things? What is it that we actually *do*, when we think? How do we make sense of the world around us?

2.6 How do we generalize? Three Principles of Human Understanding

David Hume (1711–1776), the Scottish philosopher, also wondered about what it meant to *understand* something. He came to the conclusion that humans, in all times and places, make sense of things by making *connections* between ideas that let us see how things *relate* to each other. In his *Enquiry Concerning Human Understanding*, Hume wrote over 250 years ago:

"It is evident that there is a principle of connexion between the different thoughts or ideas of the mind, and that in their appearance to the memory or imagination, they introduce each other with a certain degree of method and regularity. In our more serious thinking or discourse, this is so observable that any particular thought, which breaks in upon the regular tract or chain of ideas, is immediately remarked and rejected. And even in our …dreams, we shall find … that …there was still a connexion upheld among the different ideas, which succeeded each other. Were the loosest and freest conversation to be transcribed, there would immediately be observed something which connected it in all its transitions. … Among different languages, even where we cannot suspect the least connexion or communication, it is found, that the words, expressive of ideas, the most compounded, do yet nearly correspond to each other: a certain proof that the simple **ideas**, comprehended in the compound ones, were bound together by some **universal principle**, which had an equal influence on all mankind.

Though it be too obvious to escape observation, that different ideas are connected together; I do not find that any philosopher has attempted to enumerate or class all the principles of association; a subject, however, that seems worthy of curiosity. To me, there appear to be only three principles of connexion among ideas, namely, **Resemblance**, **Contiguity** in time or place, and **Cause or Effect**.

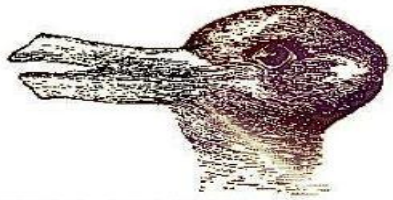
That these principles serve to connect ideas will not, I believe, be much doubted. A picture naturally leads our thoughts to the original:[1] the mention of one apartment in a building naturally introduces an enquiry or discourse concerning the others:[2] and if we think of a wound, we can scarcely forbear reflecting on the pain which follows it.[3] … The more instances we examine, and the more care we employ, the more assurance shall we acquire, that the enumeration, which we form from the whole, is complete and entire:

[1] Resemblance; [2] Contiguity; [3] Cause and effect

[4] … Contrast or Contrariety is also a connexion among Ideas: but it may perhaps, be considered as a mixture of Causation and Resemblance. Where two objects are contrary, the one destroys the other; that is the cause of its annihilation, and the idea of the annihilation of an object, implies the idea of its former existence."

(David Hume: An Enquiry Concerning Human Understanding, Section III – Of the Association of Ideas. Retrieved on February 24, 2008 from http://18th.eserver.org/hume-enquiry.html)

So: for us to be able to generalize, we must be able to 'connect' concepts, see how they relate to each other. The power of the human brain to 'get ideas' (or, to *generalize*) is the consequence of our ability to see how things relate to each other (if they resemble, or are a part of each other in time/ space, or have some sort of causal relationship). When trying to figure things out, we establish links between the things we want to understand and the things we already know. For example, study the picture below – what is it?



A Rabbit.... Or A Duck?
hint: the duck is looking left, the rabbit is looking right

If you don't know what a rabbit looks like, you'll think it is a duck – and the other way around… Why? Because you *recognize* what you *know*! Whenever confronted with something new, we compare it with things already familiar to us, and connect things, based on Resemblance, Contiguity, and Cause/Effect associations between them. You know the saying: "If it looks like a duck, walks like a duck, and quacks like a duck, then it must be a duck!" Another version of the same idea: 'If it smells like a rat, it is a rat!" ☺ Both of these 'pearls of human wisdom' outline the workings of the human mind. Let us now 'zoom up' even closer and examine the *way* we reason:

2.6.1 Synthesis & Analysis

In order to see similarities between things, all the part-whole and causal relationships, we must be able not only to connect, but also to ***abstract***, to ***single out*** characteristic elements, and to view them separately from the "totality of the concrete experience in which they are embedded" (Vygotsky: 1986, p. 135).

If you think about it, getting to understand something is a complex process of both *connecting* and *contrasting* ideas in the course of comparison: "In genuine concept formation, it is equally important to unite and to separate: *Synthesis*[8] and *Analysis*[9] presuppose each other, as inhalation presupposes exhalation" (Ibid.).

[8] **a)** The combining of separate elements or substances to form a coherent whole.
b) The complex whole so formed.
In philosophy: a) Reasoning from the general to the particular; logical deduction.

Activity 2.6.1

Look at the definitions of ***synthesis*** and ***analysis*** at the bottom of the page before this one, and compare them with the explanation below:

§Analysis and Synthesis

Analysis and Synthesis are philosophical terms denoting the processes of mentally breaking down of a whole into its constituent parts, and reconstituting a whole from its parts. Dialectics is a unity of both analysis and synthesis. Both analysis and synthesis take part, alternately, in every stage of the cognition of a thing. Like 'abstraction' and 'generalisation', both analysis and synthesis arrive at new knowledge of the thing, and both are required for an all-sided knowledge of a thing — breaking it down and identifying its various parts, aspects, and then arriving at a new understanding based on how the parts interact and merge with each other etc., and gaining a new conception of the parts.

Source: http://www.marxists.org/reference/archive/hegel/help/glossary.htm

Explain the concepts in your own words, and state why / how both processes are part of reasoning. From your personal experience, give an example of your own reasoning, when you tried to understand something. How did you arrive at that understanding?

Analysis and *synthesis*, just as the related concepts of *deduction* and *induction* that we discussed in Unit 1 (Re: Resource Book, text on Inductive and Deductive Logic), are part of dialectical reasoning.

2.6.2 Dialectics & the Study of Language

Armed with these principles of dialectic reasoning, we are now ready to examine the *embodiment* of thought – Language. Analysis into Units has given us the concept of *live* word-meanings as the smallest units in its complex interconnected system of meaning. This regulated but dynamic social system of relatively few *live, fluid word-meanings* enables us to create and communicate infinity of meanings by combining smaller units into larger chunks of meaning. Language structures *embody* and *reflect* the dynamic interrelation between the analysis and synthesis of Thought which, as we will discover, is the creative powerhouse of Language.

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b) The combination of thesis and antithesis in the Hegelian dialectical process whereby a new and higher level of truth is produced.

→ Latin, *collection*, from Greek *sunthesis*, from *suntithenai*, *to put together* : sun-, *syn-* + *tithenai*, *to put*; see dh$\bar{e}$- in Indo-European roots.

[9] **a)** The separation of an intellectual or material whole into its constituent parts for individual study.
b) The study of such constituent parts and their interrelationships in making up a whole.
c) A spoken or written presentation of such study: published an analysis of poetic meter.

Source: http://www.thefreedictionary.com/synthesis

Like everything else in Nature, Language is a living proof of dialectics:

> Human speech is structured variation, like … the images in a kaleidoscope after each shake: within the bounds of anatomy, human cognition, and the exigencies of social harmony, the first language took on a dazzling array of permutations. … In a true sense, there is not even really such a thing as "a language" at all… It's the nature of language change that makes the concept of "a language" logically impossible" (McWhorter: 2001).

That's a thought, though, isn't it? ☺

Activity 2.6.2

Below is a list of examples of Dialectics in Nature; can you think of more examples?

The syllogism may be seen in the magnet
Quantity and Quality in Chemistry
Darkness and light
Attraction and repulsion
Action and reaction in physics
Gradualness and discontinuity
The rainbow (light spectrum)
Something moves, because at one and the same moment it is here and not here
Development of a plant from its germ (your own development, from conception to adulthood)
A hand /head, when cut off from the body, is a hand /head in name only

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In Unit 3, we will learn more about the way we think and why we think the way we do. We will also discuss the origins of Language and the ongoing development of word-meanings.

Summary

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.

Activity 2.5 Answers

1.cabbage; 2.the moon; 3.garbage truck; 4.your name; 5.a cold; 6.silence; 7.a hole.

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