

Lecture 1: Linguistics in a Nutshell

Overview: Language & Linguistics

We remember that linguistics is ‘*The scientific study of language or of particular languages.*’

Let’s make sure we revise the terms of this definition (*study*, *scientific*, and *language*) :

What Is ‘*Study*’? How Do We Learn? The General Principles of Human Understanding

All humans (it does not matter where or when you were born) learn things in a surprisingly similar way. We can explain all human understanding in terms of physical senses (*perceptions*) and *logic*: our perceptions give us concepts, on which we then operate with logic. The Scottish philosopher David Hume wrote almost 250 years ago:

‘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]’²

So: thinking means making connections (associations) between ideas. Can you think in any other way?

We perceive (experience) the world around us through our senses, and then explain and categorize it using three types of association: ***Resemblance***, ***Contiguity*** (meaning, *closeness in time or space*), and ***Cause and Effect***.

This, of course, is an oversimplification: the division between our sensual experiences and their rationalization (resulting thoughts) is not clear-cut: ***our thoughts*** can accumulate, fossilize and ***become experiences*** in themselves. As such, they then influence our subsequent thinking, just like our physical experiences do. Whereas sensing precedes thinking in babies, for most adults this sensing-thinking connection is interactive: our thinking often begins in our senses, but our thoughts can also shape the way we sense.

The *mechanism* of our thinking, however, whether triggered by our physical senses, past thoughts, or a combination of both, is always based on three types of association: Resemblance, Contiguity, and Cause and Effect. An important goal of this book is to show you how this human mechanism of reasoning operates in the grammars of all human languages.

Food for Thought:

‘*There is nothing in the mind unless it is first in the senses*’
(Aquinas, c. 1226–1274 AD)

1. Does this mean that the better we sense, the better we think?
2. Why are seeing and hearing considered to be our two most important senses for thinking?
3. Is seeing always believing?
4. Can words affect our senses?

However, our senses can both enlighten and deceive our mind: the Sun does not really go around the Earth, the ‘bent’ oar in the water is not really bent, and your own reflection in a crooked mirror is not really how you look, etc. To really understand the world around us (and language as part of it), we must be *scientific* in our approach. What does *scientific* mean?

The Scientific Method in Language Study

What is the Scientific Method? It involves:

1. **Observation** (based on our physical or technologically extended senses)
2. **Hypothesis** (based on logical apprehensions)
3. **Experimentation**, and
4. **Validation** with evaluation (analysis).

Reproducibility of experimental results is central to the scientific method. That is why we need some point of reference – *standards*, and to measure the standards, we need a system of *units*.

The scientific study of language is not a precise science like physics, mathematics or chemistry – yet, like all sciences, it is based on observation (description), analysis, hypothesis formation, hypothesis testing and amending hypotheses. As we shall see in the following chapters, it also uses units to examine the rules and structures of language.

Linguistics vs. Traditional Grammar

Traditional grammar teaches us how to communicate our ideas effectively and in socially acceptable ways – we learn to follow *prescriptions of correct usage*, much like we follow instructions when learning any specialized skill.

The first step of the scientific method, however, is **observation**: linguists *observe* and *describe* the way people use language. They do not tell people *how* to speak, they study how people *do* in fact speak. They *describe* actual language use without passing judgments like ‘*You must talk proper, like wot I do!*’ ☺

Descriptive Grammar:	Prescriptive Grammar:
<i>It's me.</i>	<i>It's I.</i>
<i>He don't know that.</i>	<i>He doesn't know that.</i>
<i>He funny.</i>	<i>He is funny.</i>

Linguists do not judge one language by the standards of another: they simply record, describe, and analyze language as people speak it. Linguistics looks at language the way it *is* - in constant flux, and tries to describe and explain the various changes as they happen.

So: scientific observation is different from passing judgments or telling people how to talk or write. Linguists describe and analyze languages the way people *speak* them.

Observation	↔	Judgment
Many languages use double negatives:		Wrong usage! 2 negatives = 1 positive
<i>Es neko nezinu</i> (Latvian for 'I don't know nothing')		Must mean, ' <i>I know something</i> '!
<i>Don't chew no buai here!</i>		Must mean, <i>Chew buai here!</i> ☺

Traditional grammar concerned itself mostly with the written language for several reasons:

- For one thing, it was impossible to study the sounds of language scientifically before the invention of sound recording.
- For another, Latin (a dead language that no one really spoke) dominated science and the limited education there was for centuries, and spoken 'living' languages were looked down upon as vulgar.

Unlike traditional grammar, linguistics regards *spoken language* as *primary*. It makes sense, because the spoken words pre-existed writing everywhere in the world (in fact, most writing systems are based on sounds).

Food for Thought:

1 What do you think Winston Churchill meant when he reportedly said, 'This is a rule up with which we should not put'? ☺

2 English infinitives = 2 words, *to* + verb stem, i.e., *to read, to speak, to see, to feel*, etc.; infinitives in most other languages = 1 word. Look at these examples, and think of others in the languages that you speak - Can you think of the reason why split infinitives are in common English use, despite all the prescriptive teaching?

estar: 'to be' [Spanish]
danser: 'to dance' [French]
gaidit: 'to wait' [Latvian]
wensen: 'to wish' [Dutch]
raitim: 'to write' [Tok Pisin]
rausim: 'to remove' [Tok Pisin]
winim: 'to blow' [Tok Pisin]
henia: 'to give' [Motu]
kamonai: 'to hear' [Motu]

The Scope of Linguistics

Most people are not conscious of what they know when they speak their language. Linguistics studies what people *know* when they know a language, focusing on speakers' *competence* as opposed to their *performance*. Most of the time we learn what people *know* by what they *do*.

Sometimes what we actually *do* does not reliably indicate what we *know*. Many external factors affect our performance: for example, you cannot do anything well when you are sick, drunk, tired, scared, angry, or feel embarrassed, depressed, etc.

Linguistics abstracts away from such complicating factors and focuses on the ‘technical’ aspects of language:

Phonology studies the sounds of language, **morphology** – the structure of words, **syntax** – the structure of phrases and sentences, and **semantics** tries to figure out how language creates meaning. Together, they describe how the system of language works to formulate and express our thoughts. These four disciplines form the core of linguistic studies. Together, they make up the **grammar** of a language:

PHONOLOGY + MORPHOLOGY + SYNTAX + SEMANTICS = GRAMMAR

Because language affects every aspect of human life, the scope of linguistics covers areas that go beyond the ‘technical’ aspects of language structure, including issues as diverse as the origins and history of language, the enigma of how the human brain produces language, and the ways language affects our thinking, behavior, society, etc.

Linguistics often interfaces with other sciences to explore language in various contexts. For example,

Psycholinguistics is a blend of several sciences: to be a psycholinguist, you need to know brain anatomy, understand the way brain operates (neurology), the processes by which we perceive and interpret the world (psychology), and the categories and structures of language (linguistics).

Sociolinguistics looks at language *in* society, so it requires a good grounding in sociology. Sociolinguists examine the influence of our environment, culture, education, occupation, social class, age, and gender on the way we speak.

Pragmatics studies the way we use language ‘to express or interpret real intentions in particular situations, esp. when the actual words used may appear to mean sth different’¹

Philosophical Linguistics explores the connection between language and *logic*.

Historical Linguistics is the study of how language changes over time. We must first understand how a system works at any given time before we can understand the way it changes – that is why the **synchronic** approach (the analysis of language at a single point in time), usually precedes **diachronic**, which analyzes linguistic change over time.

What Is Language?

We all know that language is a means of human communication, based on sound – but it is much more than that: language is both the creator and the creation of our species, *Homo sapiens*.

Language & Thought

Have you ever wondered about what happens in our brains when we think? What does it actually mean – *to think*? How do *you* think you *think*? That's a hard question to answer: trying to know your mind with your mind is a bit like trying to see your eyes with your eyes. Our eyes need a mirror to see themselves. In the same way, our thinking mind needs a mirror to reflect its thoughts. Just like a mirror reflects our image, so language *reflects* our thoughts. And just as the image we see depends on the quality of the mirror we use, so the accuracy of our thought representation depends on our language skills.

Language, however, is not just the reflection of our thoughts – it is the body of our thoughts, it *forms* our ideas.

Food for Thought:

- Q 1 Can you think without language?
- Q 2 If you think you can, please do some 'languageless' thinking now.
- Q 3 Now, if you succeeded in 'languageless' thinking, try to communicate it to someone else (also 'languagelessly' ☺).
- Q 4 Any comments? In language, please! ☺

We think with words. As you read this, you are using language to think. Even though images and feelings also blend in, enriching and influencing our thoughts, Language is our main *thinking medium*: without it, no coherent thought, no consciousness is possible - only vague feelings and images.

Many linguists and philosophers agree that thought cannot exist without language, that *as we learn language, we learn how to think* – in that sense, thought and language are really one. In the process of evolution, our minds '*de-centered*' from our environment, we became *conscious* of our own separate existence through the ability to look at everything (including ourselves) from a *third perspective*. This enabled us to represent one thing in terms of another – which is what using *symbols* is all about.

We, *Homo sapiens*, are unique amongst all living things on Earth, because we are the only species that have figured out how to use symbols to represent our thoughts. '*Biologically, we are just another ape. Mentally, we are a new phylum of species,*' wrote the brilliant American neuroscientist Terence W. Deacon in his groundbreaking book, *The Symbolic Species*.³ How can he be so sure that we are unique in our way of thinking? See if you can find the answer in the paragraphs from Chapter One cited below:

'As our species designation--*sapiens*--suggests, the defining attribute of human beings is an unparalleled cognitive ability. We think differently from all other creatures on earth, and we can share those thoughts with one another in ways that no other species even approaches. In comparison, the rest of our biology is almost incidental. Hundreds of millions of years of evolution have produced hundreds of thousands of species with brains, and tens of thousands with complex behavioural, perceptual, and learning abilities. Only one of these has ever wondered about its place in the world, because only one evolved the ability to do so.

Though we share the same earth with millions of kinds of living creatures, we also live in a world that no other species has access to. We inhabit a world full of abstractions, impossibilities, and paradoxes. We alone brood about what didn't happen, and spend a large part of each day musing about the way things could have been if events had transpired differently. And we alone ponder what it will be like not to be. In what other species could individuals ever be troubled by the fact that they do not recall the way things were before they were born and will not know what will occur after they die?

We tell stories about our real experiences and invent stories about imagined ones, and we even make use of these stories to organize our lives. *In a real sense, we live our lives in this shared virtual world.* And slowly, over the millennia, we have come to realize that no other species on earth seems able to follow us into this miraculous place.

We are all familiar with this facet of our lives, but how, you might ask, could I feel so confident that it is not part of the mental experience of other species--so sure that they do not share these kinds of thoughts and concerns--when they cannot be queried about them? That's just it! My answer, which will be argued in detail in the following chapters, has everything to do with language and the absence of it in other species. The doorway into this virtual world was opened to us alone by the evolution of language, because ***language is not merely a mode of communication, it is also the outward expression of an unusual mode of thought - symbolic representation.*** Without symbolization the entire virtual world that I have described is out of reach: inconceivable. My extravagant claim to know what other species cannot know rests on evidence that symbolic thought does not come innately built in, but ***develops by internalising the symbolic process that underlies language.*** So species that have not acquired the ability to communicate symbolically cannot have acquired the ability to think this way either.'

Because using symbols is, in fact, the *basis* of human thought and language, we are going to look at what they are in a bit of detail in the next section:

Symbolic Representation – the Soul of Human Thought & Language *Symbolic* representation, as we have seen, distinguishes both the human mind and human Language from the way animal brains and communication systems work.

What is a Symbol? Almost everything that we know, and practically everything that we learn in formal education, comes to us through language. Language has the power to transfer thoughts from one mind to another. But our thoughts have no physical substance –you can't hear, see, touch, smell, or taste them. How, then, can we know what we, or other people think? What is the mechanism of thought transfer?

The answer is, we use something to ***represent*** our thoughts - something that we ***can perceive***. This something is ***symbols*** (signs that represent thoughts) – signs that we can *see* or *hear*.

Just like you have body and soul, all symbols have two inseparable parts to them:

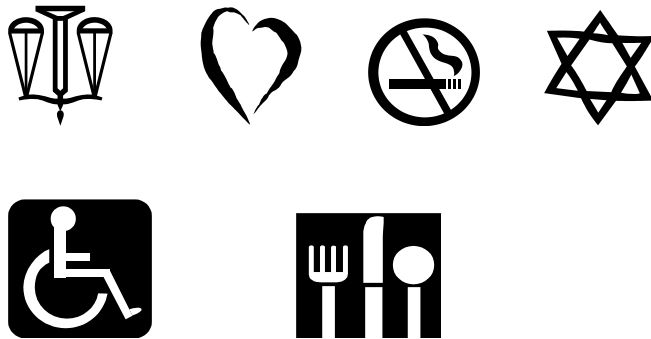
- ***form*** (what they look or sound like) and
- ***meaning*** (the idea / thought that they represent).

Symbols Aural & Visual: The symbols we use in communication are usually of ***two kinds***: those that we can see (***visual***), and those that we can hear (***aural***).

Visual symbols are images or objects (that we *can see*), used to represent something else:

- Pigs are a symbol of wealth in many parts of PNG.
- The cross is the symbol of Christianity.
- The kangaroo is the symbol of Qantas.
- The Bird of Paradise is a national symbol of Papua New Guinea.
- Red light at an intersection is a symbol for ‘*Stay Put*’
- The wedding ring is a symbol of commitment to one’s partner.
- Uniform is a symbol of belonging to a group/organization.
- The icons on your computer screen symbolize the various software programs you have (Word, Excel, Access, etc.)
- The V-sign symbolizes victory.
- An olive branch symbolizes an offer of peace, etc.

Look at the symbols below:



1. Can you tell what each of the above symbols represents?
2. Think of some other visual symbols you would recognize.
3. Think of some traditional visual symbols used in your native community and test them on your friends from other places – can they understand what they mean?

In the sciences, such as chemistry, physics, and math, we also use symbols:

- = means ‘is equal to’
- > means ‘is greater than’
- < means ‘is less than,’
- H₂O = water
- λ - the Greek letter ‘l’ (pronounced [Lamda]) is used as shorthand for ‘Language’
- ∴ usually means, ‘*therefore*’
- m = mass
- g = gravitational force
- e = electron, etc.

The majority of written languages use visual symbols to represent speech sounds (this is how you are now able to read my thoughts ☺).

What a *visual* symbol *looks* like is called its *form*.

Aural Symbols are those that we *hear*. Our ears distinguish the *form* of sound combinations, just like our eyes see shapes and colours.. Aural symbols are *sounds* which represent thoughts. For example, the military trumpet calling warriors into battle, church bells calling the faithful to the service, or the beat of a wooden drum (such as *tamtam* in Vanuatu, the ‘talking drums’ in southern Nigeria) - the traditional means of calling people to a meeting.

What an *aural* symbol *sounds* like is called its *form*.

In every case we associate a particular form with a particular meaning: the picture of a vicious dog evokes the same association in mind of an English speaker as the words ‘*vicious dog*.’

Another word for *symbol* (i.e., representing something in terms of something else) is *metaphor* (it comes from 2 Greek words: *meta* means ‘with,’ ‘after,’ or ‘beyond,’ and *phorein* means ‘to carry’). So a metaphor ‘carries’ our mind beyond one idea to another. You may remember metaphors as one of the figures of speech that you studied in your English classes. Basically, *metaphors* (i.e., calling your loved one *honey*, *sugar plum*, etc.☺), *simile* (explicit comparisons, such as Mohammad Ali’s famous phrase, ‘*Float like a butterfly, sting like a bee*’) and *analogy* (extended comparisons, such as this sentence you are reading ☺) are all associations based on Resemblance (the first of the three principles of human understanding - Re: Section 1). Come to think of it, our own names, and names of everything – in fact, all the words of language are metaphors: they are all forms representing something else! ☺ In that sense, even the equations you learnt in physics, chemistry, or mathematics are metaphors – they represent one thing in terms of another. Take, for example, the famous equation $E = mc^2$ representing Energy in terms of mass times speed of light squared (c^2). Einstein’s insight is basically metaphorical, bringing two things together, expressing one in terms of the other, and creating a new entity through establishing that link, that connection between them: mass and energy are the same, they are actually interchangeable.

Depending on whether a symbolic form ‘carries’ your mind automatically to its meaning or not, symbols fall into 2 broad classes: *iconic* and *arbitrary*.

arbitrary [ɑ:bɪtrəri] *adj* based on personal opinion or impulse, not on any reason or system:
arbitrary decisions ◦ *The choice of players for the team seems completely arbitrary.*¹

Symbols: Iconic & Arbitrary

Iconic Symbols are those whose *form* resembles the idea the symbol represents and so automatically ‘carries’ your mind to the symbol’s meaning.

Arbitrary Symbols are those whose *form* has *no* obvious link to their *meaning*.

Iconic Symbols: Some symbolic forms actually resemble the things that they represent. For example, 'Jolly Roger' (skull and bones) usually means death or mortal danger; the crescent literally looks like the Moon, etc. Such symbols are like *icons*, or pictures, of real things, so we call them *iconic*. Aural symbols can also be iconic: the so-called *mimic* words like *hiss*, *buzz*, *zoom*, *squawk*, *squeal*, *shriek*, *screech*, *splash*, *plonk*, *fizz*, etc., actually mimic the sounds of the actions they represent.

Arbitrary Symbols: These symbols do not at all resemble the ideas they represent. We learn their meanings from other people. Take the stoplights, for example: a person who has never set foot in a city may not know what the green, yellow and red lights mean. Because there is no direct link between the *form* of the symbol and the *idea* it represents, only those people who know the symbol can recognize it and 'decode' its meaning.

The *form* of arbitrary symbols is based on *custom* rather than on resemblance to the idea (meaning) they represent.

The meaning of most linguistic symbols is unrelated to their sound forms - this explains why we call some languages foreign! ☺ Because language symbols (words) are for the most part arbitrary, only those people who are familiar with their form will recognize them! ☺

Ambiguity: Much of our body language (i.e., gestures, expressions, etc.) is *instinctive*: we all cry and laugh in the same way. These instinctive, inborn reactions are easy to understand, because they are common to all of our species.

However, most of our communication involves the use of *arbitrary* symbols. Their *form* does not unequivocally suggest their *meaning*, and therefore the meanings that people attach to these forms are based on custom, and differ from culture to culture.

Signs with more than one meaning are called *ambiguous* (i.e., you can understand them in more than one way). Here are some examples of ambiguous visual symbols that may cause misunderstanding in cross-cultural situations:

- Most Europeans nod their heads to say 'yes' and shake their heads to say 'no'; Bulgarians, however, as well as Tamils of South India, shake their heads from side to side to say 'yes' and nod their heads to say 'no'
- In most European cultures, hugging and kissing on the cheek is a common expression of friendship; in India, Arab, and most African cultures, however, this greeting may be misunderstood.
- The 'stop' gesture (outstretched arm with the palm of the hand tilted in the direction of the 'receiver' with fingers all spread out) is the '*waka*' gesture in Nigeria (the worst abuse you can think of!). It appears to be equally rude in Greece, too – judging by one of the HSBC advertisements ☺
- The 'okay' gesture, quite common in North America and Europe, is frowned upon in Brazil, where it is considered to be very rude.

Aural symbols, being mostly arbitrary, are particularly prone to ambiguity: the same combinations of similar sounds may mean absolutely different things in different languages, which sometimes causes misunderstanding and is a rich source of 'linguistic' jokes.

Even in the same language, there may be two or more sound symbols (words) with the same sound form, but different meanings, i.e., see: sea, bread: bred, hour: our, break: brake, etc.

This can make the whole sentence ambiguous, for example:

- Bush Wins on Budget, But More Lies Ahead
- Child's Stool Great for Use in Garden (newspaper ad)
- Iraqi Head Seeks Arms
- Queen Mary Having Bottom Scraped (HMS Queen Mary ☺)
- My son has grown another foot.

Strings of words can also sometimes be perceived in different ways, for example:

euthanasia: youth in Asia, or it's late : its slate, it's sin : it's in, etc.

Whole sentences can also be ambiguous, either because of the different meanings that their words may have, or because the words *can be grouped* differently. Examples of *lexical* ambiguity (a word has more than one meaning):

- The Manager has personally passed all the water served here (Hotel, Acapulco).
- Ladies are requested not to have children in the bar (cocktail lounge, Norway).

Examples of *structural* ambiguity (words can be grouped differently):

- We Need More Honest Politicians
- Special cocktails for ladies with nuts (notice in a Tokyo bar)
- Visiting relatives can be boring.
- Vegetarians don't know how good meat tastes.

People often use ambiguity intentionally, when making fun, for example, or when they want to manipulate others. Poor language skills may also result in ambiguous messages, such as:

- Customers who find our waitresses rude ought to see the Manager (Nairobi restaurant).