

Introduction to Linguistics

What is language?

Language is:

- **untaught:**
People occasionally try to teach you things about language (e.g. “don’t split an infinitive,” or “never end a sentence with a preposition”), but the really interesting things you know (e.g. there’s a “t” in *write*, but not in *writer*) are things nobody taught you.
- **tacit:**
We can and (will) try to figure out how the rules of language work, but it’s instinctive and we don’t think about them when we use language.
- **uniform:**
All developmentally normal children acquire language. In addition, human language, though they differ from each other, differ in *highly constrained* ways, so that we find the same patterns and rules over and over.
- **infinite:**
We’re not just memorizing sentences we’ve heard, but can create and interpret sentences we’ve never heard of infinite length (“My pet octopus believes that his friend Bob believes that everyone believes that...”).
- **species-specific:**
Only humans acquire language.

Universal Grammar (Noam Chomsky): We are all born knowing (tacitly) certain things about how human language is put together. This is how we acquire this complex system, without instruction: we have a head start.

Linguistics is the study of the knowledge in the human mind that allows us to acquire and use language.

In this course, we will look at examples of this in:

- **Morphology:** how words are put together
- **Phonetics:** how we make sounds
- **Phonology:** how we put sounds together
- **Syntax:** how sentences are formed
- **Semantics:** how we assign meaning

English Morphology

Word – the smallest free form found in language. A free form is an element that does not have to occur in a fixed position with respect to neighboring elements.

1) Dinosaurs are extinct

We all share the intuition that *dinosaurs* is a word here but that *-s* is not a word. The key observation is that *-s* never occurs in isolation and cannot be separated from the noun which it attaches to.

2) *Dinosaur are *-s* extinct

By contrast *dinosaurs* can occur on its own:

3) Q: What do you like?

A: Dinosaurs

It can move around to different places in the sentence:

4) Some people at MIT study *dinosaurs*.

Exercise: What about words like *are, is*? Are they free or fixed?

Morphemes

Words have internal structure

The most important aspect of word structure is what we call the morpheme. A morpheme is the smallest unit of language that carries information about meaning or function.

4) *Builder* → *build + er*
Build → to construct
er → ???

er is the part of the word that indicates that the entire word functions as a noun.

5) *cats* → *cat + s*
cat → *feline*
s → ???

Not all words have more than one morpheme: *tremble*

Words with one morpheme are simple. Words with more than one morpheme are complex. *And, couple, couple-s, hunt-er-s, re-act-iv-ate(?)*.

A **free morpheme** is a word that can occur on its own

A **bound morpheme** must be attached to another element.

Complex words typically consist of a **root** morpheme and one or more **affixes**. The root consists of the core of the word and the core of its meaning. Typically, roots belong to a lexical category like noun, verb, adjective, or preposition.

Unlike roots affixes *don't* belong to a lexical category and always bound morphemes. For example, the affix *-er* is a bound morpheme that combines with a verb:

6) *teach + er = teacher* → 'a person who teaches'

Notice that *er* is fussy. It can't attach to nouns for example:

7) *desk + er = *desker*

In order to represent the structure in (6) above we are going to draw trees:

$[_N[_V \text{teach}][_{Af} \text{er}]]$

This means that our *er* affix merges with the verb *teach* and magically turns it into a noun. Draw some examples yourself: *unkind, books, blacken, destroyed, blackened*.

What did you notice about the last example? This is the difference between a *root* and a *base*. A base is the form to which an affix is added. The base can be larger than the root.

Prefixes: *replay, inaccurate*

Suffixes: *hunter, kindness*

Exercise: draw trees for *treatment, unkind, seasonal, modernize*.

Complex derivations

Unhappiness – What is the structure?

What does the word *embodiment* teach us?

Why is *unlockable* ambiguous?

Some morphology in other languages

Not all languages are English (surprise!). What is a *bound morpheme* in English may be a *free morpheme* in other languages:

English
big banana-**s**

Tagalog
mga malalaking saging
PL big banana
'big bananas'

English
my **friend**

Passamaquoddy
n-**itap** (*itap)
my-friend

In addition to this, affixes can either be attached at the beginning of a word, as **prefixes**, or at the end of the word, as **suffixes**:

English
dance-**d**

Lardil
yuud-luuli
PAST-dance
'danced'

Part of the work of morphology is **morphological analysis** of unfamiliar languages: figuring out the morphemes in a language, whether they are free or bound, and where they go.

Let's give it a go!

Swahili

nilipata	'I got'	niliwapiga	'I hit them'
walipata	'they got'	walitupiga	'they hit us'
nilipiga	'I hit'	utatupiga	'you will hit us'
nilikipata	'I got it'	ulipata	'you got'
ulikipata	'you got it'	watakupiga	'they will hit you'
nitakupata	'I will get it'	ulitupiga	'you hit us'
ulipiga	'you hit'	nitakupata	'I will get you'
watakupiga	'they will hit it'		

Step 1: Find the verb stem!

nilipata 'I got'
walipata 'they got'
nilipiga 'I hit'
nilikipata 'I got it'
ulikipata 'you got it'
nitakipata 'I will get it'
ulipiga 'you hit'
watakipiga 'they will hit it'

niliwapiga 'I hit them'
walitupiga 'they hit us'
utatupiga 'you will hit us'
ulipata 'you got'
watakupiga 'they will hit you'
ulitupiga 'you hit us'
nitakupata 'I will get you'

Step 2: Sort them by affix:

pata 'get'

nilipata 'I got'
nilikipata 'I got it'
nitakipata 'I will get it'
nitakupata 'I will get you'
ulipata 'you got'
ulikipata 'you got it'
walipata 'they got'

piga 'hit'

nilipiga 'I hit'
niliwapiga 'I hit them'
ulipiga 'you hit'
ulitupiga 'you hit us'
utatupiga 'you will hit us'
walitupiga 'they hit us'
watakipiga 'they will hit it'
watakupiga 'they will hit you'

Now we can identify the first prefix:

nilipata 'I got'
nilikipata 'I got it'
nitakipata 'I will get it'
nitakupata 'I will get you'
ulipata 'you got'
ulikipata 'you got it'
walipata 'they got'

nilipiga 'I hit'
niliwapiga 'I hit them'
ulipiga 'you hit'
ulitupiga 'you hit us'
utatupiga 'you will hit us'
walitupiga 'they hit us'
watakipiga 'they will hit it'
watakupiga 'they will hit you'

What do these mean?

ni- = 'I' (subject)
u- = 'you' (subject)
wa- = 'they' (subject)

Step three: Sort by the remaining affixes:

<i>ni</i> <u>li</u> pata	'I got'	<i>ni</i> <u>li</u> piga	'I hit'
<i>u</i> <u>li</u> pata	'you got'	<i>u</i> <u>li</u> piga	'you hit'
<i>wal</i> <u>li</u> pata	'they got'	<i>u</i> <u>li</u> <u>tu</u> piga	'you hit us'
<i>ni</i> <u>li</u> <u>ki</u> pata	'I got it'	<i>wal</i> <u>li</u> <u>tu</u> piga	'they hit us'
<i>u</i> <u>li</u> <u>ki</u> pata	'you got it'	<i>ni</i> <u>li</u> <u>wa</u> piga	'I hit them'
<i>ni</i> <u>ta</u> <u>ki</u> pata	'I will get it'	<i>wata<u>ku</u>piga</i>	'they will hit you'
<i>ni</i> <u>ta</u> <u>ku</u> pata	'I will get you'	<i>u</i> <u>ta</u> <u>tu</u> piga	'you will hit us'
		<i>wata<u>ki</u>piga</i>	'they will hit it'

We can see that:

li- = past tense
ta- = future

Step four: Sort again!

<i>ni</i> lipata	'I got'	<i>ni</i> lipiga	'I hit'
<i>u</i> lipata	'you got'	<i>u</i> lipiga	'you hit'
<i>wal</i> lipata	'they got'	<i>wata</i> <u>ki</u> piga	'they will hit it'
<i>ni</i> <u>li</u> <u>ki</u> pata	'I got it'	<i>wata</i> <u>ku</u> piga	'they will hit you'
<i>u</i> <u>li</u> <u>ki</u> pata	'you got it'	<i>wal</i> <u>li</u> <u>tu</u> piga	'they hit us'
<i>ni</i> <u>ta</u> <u>ki</u> pata	'I will get it'	<i>u</i> <u>li</u> <u>tu</u> piga	'you hit us'
<i>ni</i> <u>ta</u> <u>ku</u> pata	'I will get you'	<i>u</i> <u>ta</u> <u>tu</u> piga	'you will hit us'
		<i>ni</i> <u>li</u> <u>wa</u> piga	'I hit them'

Now we see that:

ki- = 'it' (object)
ku- = 'you' (object)
tu- = 'us' (object)
wa- = 'them' (object)

Step five: Declare victory!
 (After carefully checking you've covered everything)