

Sutra 8: Allomorphy & Morphological Types

Here we have more proof of the changing nature of language – morphemes can, and do, change, depending on their history and the neighbouring speech sounds.

8.1 Allomorphs – Variant Forms of the Same Morpheme

One of the main discoveries of modern linguistics, in the words of the American linguist Steven Pinker, is that ‘a morpheme may be stored in the mental dictionary in a different form from the one that is actually pronounced.’

Compare, for example, the sounds of the

- ⇒ Past Tense morpheme –**ed** in the following verbs: played**ed**, passed**ed**, watched**ed**, cleaned**ed**, etc.
- ⇒ 3rd Person Singular ending –**s** in He sits; She watches**s**; It figures**s**; Time passes**s**; etc.

Why do they sound different? The answer is simple: our tongues are not fast enough to keep up with the complex strings of sounds we want to make, and sometimes it is either difficult or even impossible to produce certain sounds in combination; try, for example, to say *Time passes* or *He watches* without inserting that [i] sound before the final [s]! In Unit 10, we will learn more about our Organs of Speech and speech sounds, but, basically, there are two interrelated factors at play here:

- ⇒ The physical limitations of our articulators (when we speak, the movement and position of our organs of speech are not always precisely the same, which naturally affects the *quality* of the sounds we produce), and
- ⇒ The actual sounds we make are influenced by other sounds that come before and after them.

Language-specific phonological rules adjust the *features* of the sounds we make, not *phonemes*. When communicating, we are not sidetracked by the differences in the actual sounds we hear (allophones) – we still perceive them to be the distinctive sound intended by the speaker. Communication generally would become impossible, if we could not match speech sounds with the ‘*footprint images*’ of targeted phonemes.

Morphemes are made up of phonemes, which in turn are represented by their variant forms (allophones). It is logical to suppose that forms, which made up of varying constituent parts, will also vary. Therefore, our speech sounds form strings of *allomorphs* (variant forms of morphemes), which we still *perceive* to be the same morpheme, i.e.:

He plays [z], she watches [ɪz], and it all makes [s] sense.

Allomorphy processes, then, are largely due to some *natural tendencies* in the way we make speech sounds (more on this in Unit 10).

8.2 Some Problems of Our Morphological Description

There are also some other puzzling issues which sometimes make it difficult to identify morphemes. Sometimes it is impossible to separate the morpheme from the word remember also that morphological rules do not just ‘glue’ morphemes together in a chain, where they could be easily identifiable as separate ‘meaningful units.’ The output of one morphological rule could be the input to another, including the rule that created it. Through their interaction, these rules can create complex three-dimensional structures that are not always easy to understand without an insight into language change over time. Why, for example, is the plural of *sheep*, *sheep*? And what about all those other ‘exceptions to the rule’ like *mice*, *men*, *geese*, or *deer*, not to mention all those hundreds of irregular verbs?

Sometimes a morpheme has only one phonological form – but often it has a number of variants known as **allomorphs**. Totally dissimilar forms may be allomorphs of the same morpheme: *cats*, *dogs*, *horses*, *sheep*, *oxen*, *geese*, *feet* – all contain the English plural morpheme.

An **allomorph** is said to be **phonologically conditioned** when its form is dependent on the adjacent sounds.

An **allomorph** is said to be **lexically conditioned** when its form *seems* to be purely accidental, linked to a particular vocabulary item.

Let us now look at the English plural morpheme, because it is a good example of both types of conditioning:

8.2.1 Phonological Conditioning

Morphophonology is the study of different phonemic shapes of allomorphs; it is sometimes abbreviated to **morphonology**.

/-z/ /-s/ /-ɪz/ are all phonologically conditioned allomorphs of the English plural morpheme. That is, each allomorph occurs in a predictable set of environments:

/-z/ occurs after most voiced sounds, as in *dogs*, *lambs*, *bees*, etc.

8.2.2 Lexical Conditioning

Down at the level of word roots, we also find messy patterns in irregular plurals like *oxen, feet, sheep, mice*, etc. and in irregular past tense forms like *think – thought, bring – brought, seek – sought, fight – fought; drink – drank, shrink – shrank, sing – sang, sink – sank; know – knew, blow – blew, fly – flew, and throw – threw*. This is because Proto-Indo-European had rules which replaced root vowels with others to form plurals and past tense forms. This explains why we have irregular (strong) verbs in English – they still obey those old rules, though they no longer apply in present day English. Most words have ‘moved with the times’ and now obey new rules, but a few stubborn words always remain. These ‘fossils,’ then, are considered to be **lexically conditioned**. They do not follow any specific modern rule, and so have to be learnt separately. Linguists have thought of ways of analysing them, such as: *oxen, sheep, geese* each contain 2 morphemes, which cannot be separated: ox + plural; sheep + plural, etc.

Verbs, such as *went, took*, etc., receive a similar explanation (go + past tense; take+ past tense, etc.)

8.3 Morphological Type

Languages can be grouped according to their **morphological type**, i.e. the way in which they combine morphemes into words. We generally distinguish three main types of languages:

1. **Isolating** (also called **analytical**) languages typically have only one morpheme per word; this means that most of their morphemes are free, and thus function as word-meanings. Many Asian languages, such as Vietnamese, Korean, and Chinese (Mandarin) are the isolating type, as do English and Hiri Motu. If you examine the Hiri Motu sentence below, you will see that each word expresses only one meaning:

Laegu sinana gwarume ta ia hoia Koki dekenai

My mother fish one she bought Koki at

‘My mother bought a fish at Koki.’

2. **Agglutinating** languages typically have words made up of many separate morphemes, all ‘glued’ together to make up larger words. The boundaries between morphemes in an agglutinating language are easy to recognise, because they are just ‘strung’ together into longer words. Turkish and Swahili are well-known examples. The Sye language (spoken in Vanuatu) also belongs to this type:

ov-nevyarep yu-tw-ampy-oyh-or u-ntoy
 plural-boy they-will-not-want-to-see-them in-sea
 ‘The boys will not want to see them in the sea.’

3. **Fusional (Inflectional, or Synthetic)** languages. These languages also typically have many morphemes in a single word, but the boundaries between different morphemes are not always clear. The morphemes are ‘glued’ together so tightly, that they ‘fuse,’ or ‘blend’ together, resulting in a single morpheme having several different meanings, all wrapped up in one (Latin is a good example, as are also many other Indo-European languages, such as Slavic (Polish, Czech, etc.), Baltic and many others).

Agglutinating and fusional languages are sometimes called **synthetic** languages, because both agglutinating and fusional languages ‘synthesize’ /join or *connect* morphemes together, even though in different ways.

For an example of the agglutinating type of language, look at these words from **Swahili**, the *lingua franca* of East and Central Africa:

Nitakupenda	= I will love you:	ni	ta	ku	penda
		‘I’	‘will’	‘you’	‘love’
Ninakupenda	= I love you:	ni	na	ku	penda
		‘I’	present	‘you’	‘love’
Nilikupenda	= I loved you:	ni	li	ku	penda
		‘I’	past	‘you’	‘love’

We should remember, though, that no language is of one ‘pure’ morphological type, because languages are ‘live’ structures that change over time – word-meanings tend to get ‘glued’ or later ‘fused’ together, foreign words enter the lexicon, etc.

Another commonly used system of morphological classification divides languages into four basic types:

- isolating (or, monosyllabic),
- agglutinative,
- inflective (fusional), and
- incorporating (or, synthetic)

In the past, this four-way classification was misused by various scholars, who viewed the types as stages in linguistic evolution. This typology is no longer

Genesutra: Sutra 8 – Allomorphy

viewed this way, but it is certainly still used to provide an imprecise and imperfect but still useful rough morphological characterization of languages.

The four types differ in their degree of morphological synthesis, that is, the four types range from most analytic to most synthetic. Of course, these types are relative rather than absolute, that is, no language is purely one type or another.

For example, different parts of the English morphological system suggest different analyses. Monosyllabic English forms, particularly the grammatical words like *to*, *for*, *when*, *not*, *must*, *the*, and *or*, make English appear to be isolating (or, monosyllabic).

Inflectional paradigms such as *ox*, *ox's*, *oxen*, *oxen's* for nouns; *go*, *goes*, *going*, *went*, and *gone* for verbs; and *good*, *better*, *best* and *bad*, *worse* and *worst* for adjectives suggest that English is inflectional (or, fusional). Words composed of easily segmentable prefixes, roots, and suffixes, like *anti-dis-establish-ment-ari-an-ism* and *photo-graph-ic-al-ly* make English look decidedly agglutinative. And, finally, verb constructions like *horseback-riding*, *baby-sitting* or *sun-loving* have an undeniable incorporative element to them.

Summary

1. Morphemes have variant forms (allomorphs)
2. Morphemes change, depending on
 - ⇒ their history (lexical conditioning) and
 - ⇒ 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, forming 'portmanteaus')

Practice Exercise

Label each of the following language samples as monosyllabic (or, isolating), inflectional, agglutinative, or incorporating (or, polysynthetic). What morphological type are these languages?

a. **Ya dumayu chto eto xorosho.** – ‘I think it’s good’ in Russian.

Ya	duma	-yu		chto	eto	xorosho
I	think	1 st pers., sg., pres. tense, indic. mood		that	it	good

b. **Es ceru, ka tu esi laimiiga.** – ‘I hope you are happy’ in Latvian.

Es	cer	-u	ka	tu	es	-i	laimig	-a
I	hope	1 st person singular present tense, indicative mood	that	you (sg.)	are	2 nd pers. Singular Present tense Indicative mood	happy	Feminine gender, singular