English Morphology

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What is a word?

Word: not a strightforward notion.

The smalles meaningful unit of language is a MORPHEME

certain, mean, linguist: **free morphemes** (they can stand on their own)

-ly, -ing, -less: **bound morphemes** (they can only be used attached to a free morpheme)

What is morphology?

The subdiscipline of linguistics which studies the *internal structure* of words, the *rules* that govern it, as well as the ways of creating *new words*.

Morphology (1)

- Morphology is normally subdivided into <u>two</u> branches:

1. Derivational (or **Lexical**) Morphology

it studies the means by which *existing words* have been constructed and by which *new words* might be created.

2. Inflectional Morphology

it studies the way words are adapted in different *grammatical* contexts.

(e.g. making a noun plural)

Morphemes

Word analysis involves breaking a word into its *morphemes*.

- Literally, the word "morpheme" means 'an element in a system of forms.'
- Linguists define it more precisely as *the smallest form* which is paired with a particular *meaning*.

We say that each **form** (i.e. **MORPH**) *plus* the **meaning** linked to it is a single **morpheme**.

Meaningful units (1)

- How can we identify which part in a word is meaningful and what meaning it has?

SHYNESS

- 'shy' = 'nervous and embarrassed about meeting and speaking to other people'.

a meaningful unit, a *morpheme*.

- -ness = **?**

There is <u>no</u> such a word in English. <u>BUT</u> the fact that there are many words that contain the unit 'ness' makes us think that it might be a morpheme.

To verify this, we should find out if it has a *meaning*, by *paraphrasing* different words containing '-ness', in order to see whether it contributes any meaning to the overall meaning of these words.

Meaningful units (2)

- shy**ness** = 'the state or property of being shy'
- loud**ness** = 'the state or property of being loud'
- sad**ness** = 'the state or property of being sad'
- happi**ness** = 'the state or property of being happy'

-NESS = 'the state or property of being X'

it is a *morpheme*

it cannot be subdivided any further into meaningful components

The same thing happens for:

dream, shy, loud, sad, happy

Types of Words

- dream
- shy
- happy
- sad
- loud

- These words consist of **only one** morpheme.

MONOMORPHEMIC or **SIMPLEX** words

- dreamless
- shyness
- happiness
- sadness
- loudness

- These words consist of **more** than one morpheme.

POLYMORPHEMIC or **COMPLEX** words

Complex Words…

Clearly *morphemes* and *words* are not necessarily the same thing.

Words may be composed of one or many morphemes.

In fact, most long words in English can be broken down into smaller units.

The longest word in English (according to Webster's Unabridged Dictionary) contains **45** letters; it can be broken down into **9** morphemes.

pneumonoultramicroscopicsilicovolcanoconiosis

'lung,respiration' 'beyond' 'small' 'look,see' 'flint,silicon' 'volcanic' 'dust'
'ADJECTIVE' 'NOUN {condition,result}'

'a lung condition caused by very small-looking particles of volcanic silicon dust'

Morphology vs. Etymology (3)

- If we compare the paraphrases of words containing '-*tain*' and '*ped*–', they do not follow the same pattern as was the case with the morphemes '-*less*' or '-*ness*'.
- The meaning of these Latin morphemes is not readily *traceable*.
- It is *unclear*, from the point of view of today's English, what the meaning of '-*tain*' in these words might be.

- These words are *etymologically complex*, **BUT** they are *simplex* in today's English

Morphology ≠ **Etymology**

Exercise…

➢ Complex or Simplex words?

• thinker	**C**	think - er
• student	**S**	student
• unfair	**C**	un - fair
• excellent	**C**	excel(l) - ent
• ugly	**S**	ugly
• postmodernist	**C**	post - modern - ist
• paper	**S**	paper
• classroom	**C**	class - room
• trial	**C**	try - al
• sadly	**C**	sad - ly
• dogs	**C**	dog - s

Morphemes vs. Syllables (1)

- **Morphemes** should not be confused with **syllables**.

a unit of *meaning*   a unit of *sound*

- Sometimes a *single* morpheme has *several* syllables.

e.g. English speakers would probably consider the word "**hurricane**" as a *single morpheme*.

(derived from Spanish, which in turn drew the word from Taino, an Arawak language from the Caribbean)

- At other times a morpheme will use *less* than one syllable.

cats has **two** morphemes in one syllable: 'feline' + 'plural'.
cats' has **three** morphemes in a single syllable: 'feline' + 'plural' + 'belonging to'.

Characteristics of Morphemes

- Morphemes have four **defining characteristics**:

1. **They cannot be subdivided.**
2. **They add meaning to a word.**
3. **They can appear in many different words.**
4. **They can have any number of syllables.**

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1. One form, two (or more) meanings

- Two different *meanings* can be expressed using the same arrangement of *sounds*. Since there are clearly two different and unrelated meanings, we would want to say that there are *two different morphemes*.

- The case of '*in-*':

  in- → **'not'** in words like **in**capable, **in**sufficient
  in- → **'into, within'**, as in **in**vade, **in**clude

These similarities are just *accidental* and typically the origins of the two morphemes are completely *unrelated*.

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2. Two (or more) forms, one meaning

- When two different *forms* have the same *meaning*, they could be different *morphemes*, or they might be a single *morpheme*.

  - **Two forms, one meaning = two morphemes**

  There are two situations in which two forms have the same meaning, but they are different morphemes.

1. The *forms* are usually rather different from one another.

   andr → **'man, male'** as in **andr**oid
   vir → **'man, male'** as in **vir**ile

Both morphemes *mean* the same thing, **but** they are very different in *form*. They have completely different origins, and we want to think of them as *different morphemes*.

Allomorphs

- The same morpheme can be realised in different ways.
- The *different* realisations of the *same* morpheme are called **ALLOMORPHS**.
- This is usually the result of *phonology* interacting with *morphology*.

  - in-elegant   im-polite   il-legal   ir-regular
    '*in-*', '*im-*', '*il-*', '*ir-*' → allomorphs

- Consider the different realisations of the morpheme {plural}:

car > car**s**	→ (Regular form)
m**ou**se > m**i**ce	→ vowel change
t**oo**th > t**ee**th	→ vowel change
ch**i**ld > ch**i**l**dren**	→ vowel change + suffix '-*ren*'
sheep > sheep	→ zero morph

Bases

• agree	• disagree	• disagreement
• construct	• construction	• constructional
• cheer	• cheerful	• cheerfulness
• create	• recreation	• recreational

- Words in (1) give the bases for the derivatives in (2), which in turn contain the bases for the derivatives in (3).
- However, bases in (1) differ from bases in (2).
- Bases in (1) do not contain any further morphemes, therefore they cannot be analysed into constituent morphemes, unlike bases in (2).
- Bases in (1) are *simplex* and they are called **ROOTS**.
- Bases in (2) are *complex*:

  '*disagree*' → dis-, agree → **2** constituent morphemes
  '*recreation*' → re-, create, -ion → **3** constituent morphemes

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Roots, Bases and Stems

ROOT: The morpheme which lies at the core of a complex word form. Words may have multiple roots.
BASE: Any form (morpheme or word) which enters a word-formation process which yields a more complex form.

The term "stem" is reserved for inflectional processes .
STEM: A form without any inflectional endings.

WINNERS: "winner" is the stem. Also, {WIN} is the root.
WINNER: {WIN} is the root and "win" is (also) the base.
PLAYFUL: {PLAY} is the root of the word and "play" is its base.
PLAYFULNESS: the root is still {PLAY}, but the base is "playful".
FAIRPLAY: two roots, {FAIR} and {PLAY}.

Types of morphemes (3)

- **un**happy
- **dis**like
- **mis**pronounce
- **mal**nutrition

- manage**ment**
- mother**hood**
- cheer**ful**
- settle**ment**

- Bound morphemes, such as '**un**-' and '-**ment**', which appear only attached to other, usually free, morphemes are termed **AFFIXES**.
- Affixes attached *before* the base are **PREFIXES**.
- Affixes attached *after* the base are **SUFFIXES**.
- Affixes can differ in their *position* with respect to their bases.
- Cases in which the affix is inserted *into* the base → **INFIXES**.

In English, infixation generally only happens with swear words such as 'fan-fucking-tastic' or ' abso-bloody-lutely'.

Types of morphemes (4)

🔹 *Irregular* words do <u>not</u> obey the general rules for forming plurals or past tenses. However they are still considered to be made up of the same number of morphemes as if they were regular.

- sheep > sheep → *zero morph*
- m**ou**se > m**i**ce → *vowel alternation*

'mice' contains <u>two</u> morphemes as it is made up of the root 'mouse' and the idea of plurality, i.e. the morpheme 'more than one'.

- g**i**ve > g**a**ve → *vowel alternation*

'gave' also contains <u>two</u> morphemes as it is made up of the root ''give'' and the idea of past tense.

Morphological Analysis (1)

BLENDER

- It consists of **2** morphemes: 'blend' and '-er'.
- 'blend' is the **root** and the **base** to which the **suffix** '-er' is attached.

GLOBALISATION

- It contains **4** morphemes.
- 'globe' is the **root** and '-al', '-ise' and '-ation' are the **suffixes**.
- Each suffix has been attached successively to that part of the word after which it appears:
- '-al' appears after 'globe', which is its **root** and **base**,
- '-ise' appears after 'global', which is its **base**,
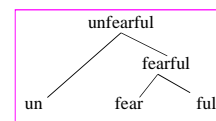- '-ation' appears after 'globalise', which is its **base**.

⚠️ *Spelling changes* may occur if affixes are attached to a base.

Morphological Analysis (2)

UNFEARFUL

- It consists of **3** morphemes.
- 'fear' is the **root** and **base** to which the **suffix** '-ful' is attached.
- 'un-' is the **prefix** attached to the **base** 'fearful'.

```
         unfearful
        /         \
                  fearful
       /         /      \
      un      fear      ful
```

🔹 **Morphological Analysis** → it shows what *morphemes* a word consists of, it describes these morphemes in terms of their *type*, and it also identifies the *order* in which they are combined.

Exercise…

➤ Morphological analysis: For the following words identify the <u>number</u> of morphemes, all **roots**, **bases** and **affixes**.

- premodernism
- uncivilised
- demilitarisation
- historicity
- minimalists
- recreation
- removable
- exceptionally

3 morphemes: **pre**modern**ism**
4 morphemes: **un**civil**ised**
4 morphemes: **demilitarisation**
3 morphemes: **historicity**
4 morphemes: **minimalists**
3 morphemes: **recreation**
3 morphemes: **removable**
4 morphemes: **exceptionally**

Morphological processes

BAKES   BAKED

- They are <u>not</u> two different words, <u>but</u> two different *forms* of the same word, i.e. *bake*.
- They are *grammatically fully specified forms* of an abstract unit, i.e. *bake*.

LEXEME
A word as an abstract unit in the vocabulary of a language
(e.g. *bake*)

WORD-FORMS
(or *grammatical words*)
The different grammatically specified forms of a given lexeme (e.g. *bakes, baking, baked*)

BAKER *vs.* BAKES/BAKED

- It is <u>not</u> a word-form of the lexeme bake, <u>but</u> it is a different *lexeme*.
- As a lexeme, it manifests itself in different word-forms, e.g. *baker* (sing.), *bakers* (pl.), *baker's* (possessive).

Morphological processes (3)

INFLECTION

- The morphological expression of *grammatical* information and categories.
- Affixes used to encode grammatical information and thus to create different word-forms of the same lexeme.
    - '-s' in bake*s*
    - '-ed' in bak*ed*
- Such affixes are called *inflectional*.

DERIVATION

- The morphological process for the *creation of a new lexeme* by affixation.
- Affixes used for the creation of new lexemes, i.e. 'new' stands for 'different in meaning from the base'.
    - '-er' in bak*er*
    - '-ery' in bak*ery*
- Such affixes are called *derivational*.

Inflectional Affixes

- The inventory of English *inflectional* affixes is quite small.

See Ballard, *The Frameworks of English*, Chapter 4.

Derivational Affixes

See Ballard, *The Frameworks of English*, Chapter 3.

Recap on Affixes

INFLECTIONAL Affixes

- they encode grammatical information and are used to create word-forms
- they are always suffixes
- they have consistently the same grammatical function of the word they attach to
- they attach to every word of a given class
- they never change the word-class of the base.

DERIVATIONAL Affixes

- they create new lexemes
- they can be suffixes or prefixes
- they can have different meanings in different words
- they attach to certain words of a given class
- they can change the word-class of the base.

Word Formation

- See Ballard, *The Frameworks of English*, Chapter 3.

Exercise…

➢ Identify the type of word-formation process by which the following words have been created.

ad	BACK CLIPPING → 'advertisement'
edit	BACKFORMATION → 'editor'
Chaplinesque	DERIVATION → Suffix '-*esque*' (Adj)
deforestation	DERIVATION → Prefix '-de' / Suffix '-*ation*'
phone	FRONT CLIPPING → 'telephone'
blackboard	COMPOUNDING → Adj + N
NASA	ABBREVIATION (Acronym)
YMCA	ABBREVIATON (Initialism)
happily	DERIVATION → Suffix '-*ly*' (Adv)
flu	MIXED CLIPPING → 'influenza'
oxen	INFLECTION → irreg. plural of 'ox'
goes	INFLECTION → 3rd person sing. Present
motel	BLENDING → *mot*orway + hot*el*

Exercise…

> Derivation with word-class change:

• slow	• slow**ness**	Adj → N
• memory	• memor**ise**	N → V
• recreation	• recreation**al**	N → Adj
• glory	• glor**ify**	N → V
• drink	• drink**able**	V → Adj
• deliver	• deliver**y**	V → N
• rich	• **en**rich	Adj → V
• determine	• determin**ation**	V → N
• love	• lov**ing**	V → Adj
• power	• power**ful**	N → Adj
• happy	• happi**ly**	Adj → Adv

Recap 1

- Morphology
- Morpheme = form + meaning
- bound *vs.* free morphemes
- Bases (simplex or complex), roots, affixes
- Affixes → prefixes, suffixes, infixes
- Types of morphemes → zero morph, vowel change (allomorphs)
- Morphological analysis
- Morphological processes → derivation *vs.* inflection
- Derivational *vs.* inflectional affixes
- Lexemes *vs.* word-forms

Recap 2

- **Word Formation**
  - **New Root formation**
    - *Inheritance*
    - *Borrowing* → domination, need, prestige
    - *Root creation* → motivated, *ex nihilo*
  - **Modification**
    - *Folk Etymology*
    - *Functional Shift* → conversion
    - *Abbreviation* → initialisms, acronyms, clipping, back formation
  - **Generation**
    - *Derivation* → affixation
    - *Compounding* → endocentric, exocentric, appositional
    - *Blending*
  - **Semantic change**
    - *Generalisation*
    - *Specialisation*
    - *Metaphor*
    - *Shift*

Exercise…

> From the following list of words, identify words with *inflectional* and *derivational* morphology.

• elements	→ *I*		• links	→ *I*
• gain	→ free m.		• Indo-European	→ *D*
• and	→ free m.		• ordering	→ *I*
• unkind	→ *D*		• geese	→ *I*
• as	→ free m.		• such	→ free m.
• some	→ free m.		• flew	→ *I*
• case	→ free m.		• these	→ *I*
• example	→ free m.		• within	→ *D*
• features	→ *I*		• John's	→ *I*
• great	→ free m.		• beloved	→ *D*
• had	→ *I*		• thought	→ *I*
• speech	→ free m.		• uncomfortable	→ *D*

Exercise…

> Analyse the following words:

• mismatched	→ 3 ms: **mis**match**ed** / *D - I*
• telebanking	→ 3 ms: **tele**bank**ing** / *D - D*
• rosewater	→ 2 ms: rose **+** water / Compound
• postmastership	→ 3 ms: **post**master**ship** / *D - D*
• beloved	→ 3 ms: be**lov**ed / *D - D*
• sang	→ 2 ms: sing **+** Past Tense / *I*
• Indo-European	→ 3 ms: Indo **+** European / Comp. *D*
• (many) sheep	→ 2 ms: sheep + plural / *I*
• inputs	→ 3 ms: **in**put**s** / *D - I*
• economics	→ 3 ms: **econom**ics / *D - D*
• academically	→ 4 ms: **academ**ical**ly** / *D - D - D*
• cleverer	→ 2 ms: clever **+** comparative -*er* / *I*

Exercise…

1. mistreatment

2. disactivation

3. psychology

4. terrorized

1. treat (root) + mis- (derivational) + -ment (derivational)

2. act (root) + -ive (derivational) + -ate (derivational) + -ion (derivational) + dis- (derivational)

3. psych- or psyche (root) + -ology (derivational)

4. terror (root) + -ize (derivational) + PAST (inflectional) if the word is a verb form
OR terrorized = terror (root) + -ize (derivational) + -ed (derivational) if the word is an adjective

Exercise…

When a compound has more than 2 roots, two of them might form a compound which then combines with a third root to form another compound.

drop-in center

↓

drop-in + *center*

Exercise…

Identify the relations between the elements of the following compounds:

- dual carriageway   dual + carriageway
- disk operating system   disk + [operating + system]
- Dutch elm desease [Dutch + Elm] + desease
- fair-weather friend   fair-weather + friend
- fine-tooth comb   fine-tooth + comb
- local area network   local + [area + network]
- optical character recognition   optical + [c. + r.]
- repetitive strain injury   [r. + s.] + injury

Exercise…

Aanalyse the following lexical items:

filling stations

Root(s):
fill, station

Affixe(s):
-ing, -s

Morphological process(es):
I (pres. part.) + D (compound) + I (pl)
([[fill+ing] + station] + s)

Word-class:
Noun

Exercise…

Aanalyse the following lexical items:

radio-controlled

Root(s):
radio, control

Affixe(s):
-ed

Morphological process(es):
D (compound) + I (past part.)
([radio + control] + (l)ed)

Word-class:
Adj

Exercise…

Aanalyse the following lexical items:

absent-minded

Root(s):
absent, mind

Affixe(s):
-ed

Morphological process(es):
D (compound) + D (-ed)
([absent + mind] + ed)

Word-class:
Adj

Exercise…

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Root(s):
radio, control

Affixe(s):
-ed

Morphological process(es):
D (compound) + I (past part.)
([radio + control] + (l)ed)

Word-class:
Adj

Exercise…

Which part is the combining form (part of a neo-classical compound)?

- meritocracy
- merito**cracy ("rule")**
- pesticide
- pesti**cide ("killing")**
- neorosurgery
- **neuro**surgery **("nerve")**
- anglophile
- anglo**phile ("fond of")**
- technophobia
- techno**phobia ("fear")**
- television
- **tele**vision **("distant")**

Exercise…

Which one is the semantic head in the following compounds?

- pinhead

the **head** of a pin

- pinhole

a small **hole** made with or as if with a pin

- pin money

money for incidental expenses

- pinprick

a slight **puncture** made by or as if by a pin

Exercise…

Which one is the meaning relation between the components in the following compounds?

- bookworm

One who spends much time reading or studying.

- brainbox

a clever person

- egghead

an intellectual, a highbrow

- mastermind

A highly intelligent person, especially one who plans and directs a complex or difficult project

Identify the inflectional morphemes

The place fascinated us, as it should have. For this was the kitchen midden of all the civilization we knew. It gave us the most tantalizing glimpses into our neighbors' lives and our own; it provided an aesthetic distance from which to know ourselves.

The town dump was our poetry and our history. We took it home with us by the wagonload, bringing back into town the things the town had used and thrown away. Some little part of what we gathered, mainly bottles, we managed to bring back to usefulness, but most of our gleanings we left lying around barn or attic or cellar until in some renewed fury of spring cleanup our families carted them off to the dump again, to be rescued and briefly treasured by some other boy. Occasionally something we really valued with a passion was snatched from us in horror and returned at once. That happened to the mounted head of a white mountain goat, somebody's trophy from old times and the far Rocky Mountains, that I brought home one day. My mother took one look and discovered that his beard was full of moths.

I remember that goat; I regret him yet. Poetry is seldom useful, but always memorable. If I were a sociologist anxious to study in detail the life of any community I would go very early to its refuse piles. For a community may be as well judged by what it throws away - what it has to throw away and what it chooses to - as by any other evidence. For whole civilizations we sometimes have no more of the poetry and little more of the history than this (from Wolf Willow 1955: 35-36).

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Mandatory Readings

Introducing English Language, Sections A2, C2.

The Frameworks of English, Chapters 3 and 4.

Additional Readings

The Cambridge Encyclopedia of the English Language, Chapter 14, p. 198-205.

Possible questions

- Analyse the following words in terms of base, affixes, morphological process(es), word category
- Identify bound and free morphemes
- Identify the morphological process at work