Morphology

Word, lexeme, word form; morpheme; allomorph: types of conditioning; types of morphemes; inflection, derivation; word formation processes; morphological analysis of words.

Morphology is the study of the shape and internal structure of words.

It is not easy to define what counts as a "word". In writing, we tend to identify the boundaries of the words by the spaces left between them, but this convention is not observed in all languages/societies and does not help us identifying words in a spoken text. We need, therefore, a different kind of definition to work with. One possible way of defining what a "word" and its representations are is:

Word: an abstract sign that is the smallest grammatically independent unit of language.

Lexeme: dictionary entry, cover term for various grammatical shapes that such a dictionary entry can take.

Word form: representation of a lexeme, grammatical form of a lexeme.

Examples:

Word forms	Lexemes
Cats, cat	1 lexeme ("cat")
Singers, sings	2 lexemes ("singer", "sing")

Words can be analyzed into smaller meaningful units. This small units can be combined in a variety of ways to form new words and word forms. We call the smallest possible meaningful units morphemes.

Morpheme: the smallest meaningful unit in language. Each morpheme is a combination of form (sound/spelling) and meaning.

A **morph** is a minimal meaningful and/or functionally relevant element of an utterance. (It is only when we already know something about the meaning that we can talk about morphemes.)

Words that are made of more than one morpheme are called **polymorphemic** or complex words. Words than are composed of only one morpheme are **monomorphemic** or simplex words.

Types of morphemes

The different types of morphemes can be described according to 3 main criteria:

1. autonomy (free vs. bound)
2. function/meaning (lexical vs. grammatical)
3. position (affixes: prefixes, suffixes, infixes, circumfixes)

There are some morphemes that need to be considered separately, as they represent "special cases".

1. Autonomy

Free morphemes can appear on their own without any other morphemes attached to them, e.g. *dog, mother.*

Bound morphemes can only appear in combination with other morphemes, e.g. *-ment, -s*.

2. Function/ Meaning

Lexical morphemes = content words; they establish a relation between the word and the world. Lexical morphemes are usually "words" of the open classes (new items can be added quite easily, new lexemes are easily created).

Grammatical morphemes = function words, establish a relation with other parts of the sentence. These are typically members of closed classes (e.g. prepositions, conjunctions, pronouns) and "grammatical markers" (e.g. plural or tense endings). Spontaneous neologisms are impossible.

3. Position

Affixes are bound morphemes that can be divided into prefixes, suffixes, infixes, and circumfixes.

Prefixes are the affixes added at the beginning of the "word"/base[1]: *rewrite, dislike, mispronounce*.

Suffixes are added at the end of the base: *judgment, motherhood, cupful*.

Infixes are morphemes embedded into the base. These are very rare in English and we can only find them in cases of expletive infixation, like *abso-fucking-lutely, forty-bloody-five, fan-damn-tastic*. They are, however, common in other languages, e.g. Tagalog, Kamhmu.

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[1] Because it was not an issue during this course, no distinction will be made here between the terms *base*, *root* and *stem* and only the first will be used. It is, however, necessary to mention that many linguists do make that distinction and that those terms are not always used in the same way.
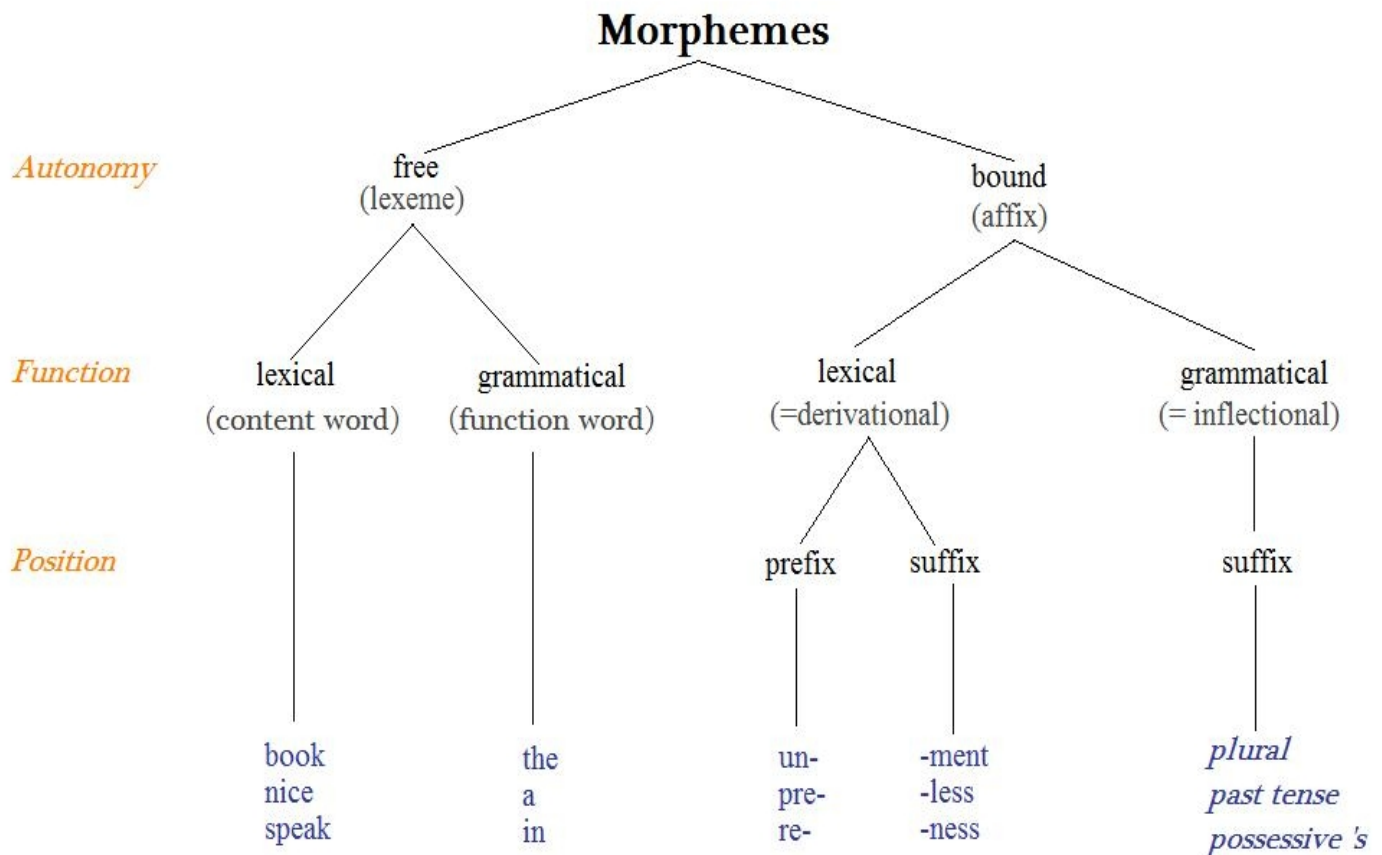
Circumfixes do not occur in English. They are discontinuous morphemes attached around the base (on both sides). These kinds of morphemes are easily found, for instance, in German (*gemacht, gezeigt, gekannt*) and were used in Old and Middle English.

Special cases:

Unique or blocked **morpheme**/cranberry morpheme = a type of bound morpheme that cannot be assigned a meaning nor a grammatical function, but that nonetheless serves to distinguish one lexeme from another. Their occurrence is restricted to one single word and their "own meaning" was lost during the process of evolution of the language, e.g. *cranberry, huckleberry*.

Clitic = a word-like unit that is phonologically dependent on another word but has grammatical independence, e.g. *I'm, We'll, The girl next door's cat*.

Summary:

Morphemes

Autonomy	free (lexeme)		bound (affix)	
Function	lexical (content word)	grammatical (function word)	lexical (=derivational)	grammatical (= inflectional)
Position			prefix suffix	suffix
	book nice speak	the a in	un- -ment pre- -less re- -ness	*plural* *past tense* *possessive 's*

Allomorphy

A **morph** is a minimal meaningful and/or functionally relevant element of an utterance. It is the actual form used to realize a morpheme.

Allomorphs[2] are morphs that have been classified as representations of a specific morpheme, e.g. "a" and "an" are allomorphes of the morpheme {INDEFINITE ARTICLE} in English. Morphemes are abstract units and are indicated by { }.

Morphs with the same phonemic form and different meaning are allomorphs of different morphemes[3], e.g. *"I hate this fly", "I hate to fly"*.

Types of conditioning:

1. phonologically conditioned = the shape of the allomorph depends on neighboring sounds, e.g. {INDEFINITE ARTICLE} ([ə] before consonant sound, [ən] before a vowel sound, [ei] if stressed); {PLURAL} regular ([s] if word ends in a voiceless sound, [z] if word ends with voiced sound, [əz] if word ends with sibilant sound)

2. morphologically conditioned = the shape of the allomorph depends on the morpheme which precedes or follows, e.g. *demon → demonic; exclaim → exclamation*

3. lexically conditioned = the shape of the allomorph depends on the word as a whole, e.g. {PLURAL} irregular, e.g. *child → children; sheep → sheep* (zero-morph); *mouse → mice* (vowel mutation)

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2   The relationship between allomorphs and morphemes is identical to the one between allophones and phonemes (in Phonetics & Phonology).

3   This is an important notion and should always be kept in mind when doing morphological analysis. The same form can refer to different morphemes and, so, it needs to be classified accordingly, e.g. *hood* is a free lexical morpheme in *The coat has a detachable hood* but a derivational suffix in *She had a happy childhood*; *-er* is a derivational morpheme in *He's a writer* but a inflectional one in *The temptation is stronger now.*

Morphological Processes/Word formation processes

Every time something new is invented or we are confronted with new circumstances, we need words that allow us to refer to these new things and situations efficiently. In order to add new words to a language, we can choose from a variety of different options: invent a word from scratch, borrow a word from another language, give a new meaning to an existing word, or create a new word from already existing elements. The most relevant of these processes are:

1. Affixation
   a) Inflection
   b) Derivation
      i. Prefixes
      ii. Suffixes
2. Compounding
3. Shortening
   a) back-formation
   b) clipping
   c) blending
   d) hypocorism
   e) abbreviations
      i. acronyms
      ii. initialisms
4. Conversion
5. Coinage
   a) eponyms
6. Borrowing
   a) calque

1. Affixation

a) **Inflection** = If grammatical information and categories are expressed by affixes, this is called inflection.

In English, all inflectional morphemes (also called bound grammatical morphemes) are suffixes. They never change the word class (because they only add grammatical information) and attach to all possible bases. There is a stable form-meaning relationship. Modern English has only 8 such morphemes: {PLURAL} (e.g. *-s*), {POSSESSIVE} (*'s*), {PAST TENSE} (*-ed*), {PAST PARTICIPLE} (-en), {3rd PERSON SINGULAR} (*-s*), {PROGRESSIVE} (*-ing*), {COMPARATIVE} (*-er*), and {SUPERLATIVE} (*-est*).

b) **Derivation** = if new lexemes are created by adding an affix to a lexical base, this is called derivation.

Derivational (or bound lexical) morphemes can be both suffixes and prefixes and they can (but need not) change word class of the derivative. There is a variable form-meaning relationship and these affixes attach only to a subset of possible bases. Depending on the affix added, words can be derived by prefixation, suffixation or both.

(prefix) + base + (suffix)

i. Prefixes

- rarely change the word class of the derivative (there are, however, some untypical prefixes that do change the word class, e.g. *witch > bewitch*)
- imply a semantic change

ii. Suffixes

- often (but not always) change the word class
- create derivatives of a certain word class
- attach to bases of a certain word class
- the same suffix can render a range of different meanings, e.g. *-er* can be used to derivate both agent nouns (a person who *X*s: teacher, preacher, player) and instrumental nouns (an instrument that *X*s: mixer, slicer, dishwasher)
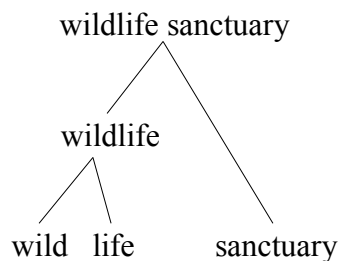
Suffix	Bases		Derivatives	
-ee	employ, escape	Verb	employee, escapee	Noun
-al	fiction, culture	Noun	fictional, cultural	Adjective
-en	black, wide, sick	Adjective	blacken, widen, sicken	Verb
-wise	length, clock	Noun	lengthwise, clockwise	Adverb

If a word as both a derivational and an inflectional suffix, they always appear in that order, e.g. *teachers, widening, employees*.

2. **Compounding** = joining two elements to form a new term, e.g. textbook, bookcase, fingerprint.

Features of English compounds:

a) alternative spellings (e.g. word formation vs. word-formation)
b) stress – compounds are stressed on their left-hand member (ENGlish students – students who study English – vs. English STUdents – students from England)
c) complexity and constituency – compounds have a binary structure (2 main elements) in which the right-hand element contributes the main meaning and carries the grammatical information (inflection, word class)

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              wildlife sanctuary
               /              \
          wildlife             \
           /    \               \
        wild    life         sanctuary
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d) word classes – it is the right-hand member that determines the word class of the compound
e) productivity – some combinations of word classes are more common than others; some (e.g. 'preposition+adjective') never occur. In English, the combination 'noun+noun' is the most productive and 'verb+verb' the least productive.

	Noun	Adjective	Verb
N	newspaper	colorblind	to housekeep
A	fast food	dark blue	to deep-fry
V	playground	-	to crash-land
P	overweight	-	-

3. Shortenings

The formation of a new lexeme through shortening implies that linguistic material is deleted rather than added.

a) **Back-formation** = a seeming suffix is stripped away from the base, resulting in change of word class. A word of one class (usually a noun) is reduced to form a word of another class (usually a verb), e.g. *edit < editor*; *intuit < intuition*, *babysit < babysitter*.

b) **clipping** = a part of the word is simply deleted, but there is no change of word class or meaning, e.g. *doctor > doc*; *Thomas > Tom*, *influenza > flu, facsimile > fax*. Typically, this process begins with a word of more than one syllable being reduced to a shorter form in casual speech. Clipping each other's names is very common in English speaking countries.

c) **blending** = formed by combining parts of two words without change of word class, e.g. *brunch* (> breakfast + lunch), *modem* (> modulator + demodulator), *infotainment* (> information + entertainment)

d) **hypocorism** = special type of shortening in which a longer word is clipped and then -y or -ie is added to the end, e.g. *movie* (moving pictures), *telly* (television), *Aussie* (Australian). This process is particularly common in Australian and British English.

e) abbreviations = formed from the initial letters/sounds of several words

i. **acronyms** = pronounced like a word, e.g. *UNESCO, TOEFL, RAM, NATO, AIDS*

ii. **initialisms** (or alphabetisms) = pronounced letter by letter, e.g. *TV, CD, DJ, USA, UK*

Some abbreviations make their way into the lexicon of the language and become "regular" words, e.g. *laser, radar, asap, dinky, zip* (code).

4. **Conversion**[4] = there is a change in the word class but not in the form, e.g. *a picture/to picture, to guess/a guess, to stand up/ a stand-up (comedy)*.

5. **Coinage** = invention of totally new terms, e.g. *aspirin, zipper, xerox*. This is one of the least common processes of word formation in English.

a) **eponyms** = new words based on the name of a person or place, e.g. *hoover, sandwich, jeans*.

6. **Borrowing** = taking over words from other languages, e.g. *croissant* (French), *sofa* (Arabic), *zebra* (Bantu).

a) **calque** (or loan translation) = special type of borrowing in which there is a direct translation of the elements of a word into the borrowing word, e.g. *loan word* (from the German *Lehnwort*), *superman* (from the German *Übermensch*).

In some cases, new lexemes are created by combining two or more of these processes.

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4   Some linguists call this process "zero derivation", arguing that a zero-morpheme is added to the base resulting in the change of word class.

➢ **Productivity**: some of these processes are more frequently used than others. In English, there are more lexemes formed by compounding or derivation than by shortening or coinage.

Examples of exercises

Exercises covering the issues discussed in the lecture can include morphological analysis of words and sentences, and identification of word formation processes. Probably, the exam will include both exercises in which you are asked to analyze the examples given and others in which you need to give examples (for instance, of a word that has one derivational and one inflectional morpheme or of a word which contains one functional morpheme, or of a word created by back-formation or conversion, etc...).

This practical component of the course is extensively covered in the tutorial, that also includes the revision of the most important theoretical issues related to morphology, semantics and syntax.

Here are some examples of possible analysis[5]:

1. *recreated*

re	–	creat	–	ed
bound lexical		free lexical		bound grammatical
prefix		base		suffix

2. *modernism*

modern	–	ism
free lexical		bound lexical
base		suffix

3. *from* = free grammatical morpheme

4. *post-modern*

post	–	modern
bound lexical		free lexical
prefix		base

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5   I have used different terminology in these examples (e.g. both 'functional' and 'free grammatical' for the same type of morpheme) because they are used in the textbooks recommended for the lecture and because both came up in the exam.

5. The child's wildness shocked the teachers.

Functional = free grammatical morpheme
Lexical = free lexical morpheme
Inflectional = bound grammatical morpheme (suffix)
Derivational = bound lexical morpheme

6. *to enthuse* = back-formation

7. *modem* = blending

8. *language lab* = compounding + clipping

9. *rewrite* = affixation

10. *a printout* = conversion