Morphology: words and lexemes

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Inflectional morphology and lexical morphology

Morphology deals with the composition and internal structure of words, and the way that structure determines the word meaning, rather than the way they combine to make larger units like phrases and clauses. We divide the topic into **inflectional** and **lexical** morphology.

Inflectional morphology and lexical morphology

LEXEME		INFLECTIONAL FORMS	
i *friend* (N):	*friend*	*friends*	*friend's*
ii *friendly* (Adj):	*friendly*	*friendlier*	*friendliest*

Inflectional morphology deals with <u>the differences between the shapes of the inflectional forms of variable lexemes.</u>

Lexical morphology deals with the <u>formation of lexical bases.</u>

So, to summarise, **inflectional** morphology ties in mainly with <u>syntax</u>, while **lexical** morphology is mainly relevant to the <u>content of the dictionary</u>.

Basic concepts in inflectional morphology

Lexical base

In English, the lexical base is almost always identical with one of the inflectional forms. There are a few exceptional lexemes whose lexical base is not identical with any of the inflectional forms. They are lexemes that don't have the full set of inflectional forms normally associated with their category.

Morphological operations

Inflectional forms of a lexeme are formed by different **operations** on lexical bases like the operations of **suffixation** and **modification**.

		PLURAL NOUN FORMATION	PRETERITE VERB FORMATION
i	SUFFIXATION	*dog* + ·*s* = *dogs*	*want* + ·*ed* = *wanted*
ii	MODIFICATION	*goose* modified = *geese*	*take* modified = *took*

Shape sharing

The various inflectional forms of a lexeme are not always overtly distinct: two (or more) of them may share the same shape.

Alternation

Alternation is use of the suffixes ·s and ·es for the same purpouse in different contexts. The two shapes are called **alternants**.

The priority of speech

When we deal with the internal structure of words, we have to pay some attention to speech, for at least two reasons.

Firstly, there are alternations in speech that don't show up in writing. The plural suffixes in *cats* and *dogs*, for example, are written the same way but they sound different.

Secondly, the choice between alternants in writing often depends on features of the pronunciation.

Letters and symbols

In describing spelling alternations we need to distinguish between letters of the alphabet and symbols for sounds.

Vowel and **consonant** are terms that by themselves apply purely to speech sounds.

When we talk about **vowel symbols** and **consonant symbols**, all we'll mean is symbols representing vowel sounds and symbols representing consonant sounds.

Regular and irregular forms

An inflectional form is regular if it is formed by a general rule and irregular if it is formed by a rule applying only to some fixed number of particular lexemes. We call an entire lexeme regular only if ALL its inflectional forms are regular.

Some general spelling rules:

- Consonant doubling
- Final *e* deletion
- Final *y* replacement
- Alternation between ·*s* and ·*es*

Consonant doubling

Consonant doubling is illustrated in sets of forms like the ones below, where stop has one p but stopped has two, and so on:

i	VERB	*stop*	*stopped*	*stopping*	*stops*
ii	ADJECTIVE	*fat*	*fatter*	*fattest*	
iii	NOUN	*quiz*	*quizzes*		

The final consonant letter of the base is doubled if all of the following conditions are satisfied:

- it occurs before a suffix beginning with a vowel sound;
- the base ends in a single consonant sound represented by a single letter;
- the consonant letter follows a single-letter vowel symbol ;
- the base is stressed on the final (or only) syllable.

Final e deletion

Bases ending in *e* often lose this *e* when a suffix beginning with a vowel is added. But there are two cases: ***mute e*** in the end and when the *e* is a part of a composite symbol.

		hope	hoping	hoped
i	MUTE *e*	subdue	subduing	subdued
ii	PART OF COMPOSITE SYMBOL			

Final *y* replacement

The third rule applies with bases ending in y as a single-letter vowel symbol. Before a suffix we have the alternation shown below:

TREATMENT OF *y*	CONTEXT	EXAMPLES			
i *y* is retained	before ·*ing* or ·'s	*deny*	*deny·ing*	*baby*	*baby·'s*
ii replaced by *ie*	before ·*s*	*deny*	*denie·s*	*baby*	*babie·s*
iii replaced by *i*	elsewhere	*deny*	*deni·ed*	*pretty*	*pretti·er*

Alternation between ·s and ·es

This alternation occurs with the 3rd person singular present tense suffix in verbs and the plural suffix in nouns. There are two cases to consider:

1. The ·es alternant represents spoken vowel + consonant.

 2. The ·es alternant is commonly required after bases ending in consonant + *o*.

Verb inflection

Almost all lexical verbs have six inflectional forms. The plain form and the plain present tense are identical with the lexical base. Of the others, the gerund-participle and the 3rd person singular present tense are very straightforward. Also we have preterite and past participle forms.

The gerund-participle

The gerund-participle is invariably formed by adding the suffix *·ing* to the lexical base. In writing, addition of the suffix may lead to modification of the base involving consonant doubling, *e* deletion and replacement of *ie* by *y:*

i	LEXICAL BASE		*see*	*stop*	*hope*	*subdue*	*hoe*	*lie*
ii	GERUND-PARTICIPLE		*see·ing*	*stopp·ing*	*hop·ing*	*subdu·ing*	*hoe·ing*	*ly·ing*

The 3rd person singular present tense

This is normally formed by adding ·*s* or ·*es* to the base. But in this case *be* is irregular: we get *is*, not **bes*. *Have* is also irregular, losing the *ve* of the base: *has*, not **haves*. A sample of formes are given below:

i	LEXICAL BASE	*miss*	*lose*	*touch*	*go*	*boo*	*stop*
ii	3RD SING PRESENT	*miss·es*	*los·es*	*touch·es*	*go·es*	*boo·s*	*stop·s*

The preterite and past participle

Regular forms

Are formed by the addition of the suffix
·*ed*, with consonant doubling, *e* deletion
and replacement of *y* by *i* applying.
Examples are given:

	LEXICAL BASE	*laugh*	*stop*	*prefer*	*hope*	*subdue*	*deny*
i							
ii	PRETERITE	*laugh·ed*	*stopp·ed*	*preferr·ed*	*hop·ed*	*subdu·ed*	*deni·ed*

Irregular forms with preterite and past participle identical

There are a few types of morphological relations between the preterite/past participle and the lexical base:

		A	B	C	D	E	F	G	H
i	BASE	*hit*	*bend*	*burn*	*keep*	*flee*	*think*	*dig*	*stand*
ii	PRETERITE	*hit*	*bent*	*burnt*	*kept*	*fled*	*thought*	*dug*	*stood*

A. Preterite identical with base.

B. Base-final *d* replaced by *t.*

C. Preterite formed by addition of ·*t.*

D. Addition of ·*t* with modification of the base.

E. Addition of ·*d* with modification of the base.

F. Preterites in *ought* or *aught.*

G. Preterite formed by vowel change.

H. Miscellaneous.

Exercise 1

The following irregular verbs have **shape-sharing** between the **preterite** and the **past participle**. Assign them to one or other of Types A-H according to the relation between these forms and the lexical base.

1. Bind
2. Burst
3. Dig
4. Dream
5. Fight
6. Hold
7. Kneel
8. Leave
9. Lend
10. Meet

1. Bind – Bound - type G. Formed by vowel change
2. Burst – Burst – type A. Identical with base
3. Dig – Dug – type G. Formed by vowel change
4. Dream – Dreamt – type C. Formed by addition of *-t*
5. Fight – Fought – type F. Preterites in *ought*
6. Hold – Held – type G. Formed by vowel change
7. Kneel – Knelt – type D. Addition of *–t* with modification of the base
8. Leave – Left – type D. Addition of *–t* with modification of the base
9. Lend – Lent – type B. Base-final *d* replaced by *t*
10. Meet – Met – type G. Formed by vowel change

Irregular forms with preterite and past participle distinct

i	*n*	after vowel symbol or *re*:	grown	lain	seen	sewn	torn
ii	*ne*	for **bear**, **do**, and **go**:	borne	done	gone		
iii	*en*	elsewhere:	broken	chosen	fallen	swollen	taken

Again we find a variety of morphological relations between lexical base, preterite and past participle. Here's a sample of examples and classification:

		A	B	C	D	E	F
i	BASE	show	take	ride	lie	drink	fly
ii	PRETERITE	showed	took	rode	lay	drank	flew
iii	PAST PARTICIPLE	shown	taken	ridden	lain	drunk	flown

A. Preterite: regular; past participle: base + suffix.

B. Preterite: vowel change; past participle: base + suffix.

C. Preterite: vowel change; past participle: modified base + suffix.

D. Preterite: vowel change; past participle: preterite form + suffix.

E. Three different vowels; no suffix.

F. Miscellaneous.

Noun inflection

Nouns inflect for **number** and for **case**. The non-genitive singular, or **plain singular**, is identical with the lexical base. What we need to consider here is the marking of **plural** number and **genitive** case.

Plural formation

Plurals which are regular in speech are formed in writing by adding ·*es* or the default ·*s* to the lexical base.

i	LEXICAL BASE	*cross*	*horse*	*edge*	*echo*	*book*	*studio*
ii	PLURAL	*cross·es*	*hors·es*	*edg·es*	*echo·es*	*book·s*	*studio·s*

Plurals that are irregular in speech we discuss under four headings.

Modification of the base-final consonant

When the consonant in question is represented in writing by *f*, the modification is reflected in the spelling, as in:

		calf	knife	leaf	loaf	thief	wife	wolf
i	BASE	calf	knife	leaf	loaf	thief	wife	wolf
ii	PLURAL	calve·s	knive·s	leave·s	loave·s	thieve·s	wive·s	wolve·s

Vowel change and the suffix ·*en*/·*ren*

With a small number of nouns the plural is formed by changing the vowel and/or adding the suffix ·*en* or ·*ren*. Examples are given below:

i BASE	*man*	*woman*	*foot*	*tooth*	*mouse*	*ox*	*child*
ii PLURAL	*men*	*women*	*feet*	*teeth*	*mice*	*ox·en*	*child·ren*

Base plurals

A fair number of nouns have plurals that are, like the singular, identical with the base, for example, *sheep, cod, bison, barracks, series, Chinese, Roma*. Most of them belong to one or other of the following categories:

1. Nouns denoting edible fish and game animals - creatures that are traditionally hunted, like *salmon, deer* and so on.

2. Nouns with bases ending in *s* (*a single s*, not double): *barracks, headquarters, means, series, species*, etc.

3. Nationality nouns in ·*ese*, like *Chinese or Japanese*.

4. Many names of tribes and ethnic groups: *Apache, Bedouin, Inuit, Kikuyu, Navajo, Roma* and so on.

Foreign plurals

A considerable number of nouns of Latin, Greek and various other origins have plurals taken from those languages:

i	BASE	*formula*	*larva*	*stimulus*	*syllabus*	*phenomenon*	*chassis*
ii	FOREIGN PLURAL	*formulae*	*larvae*	*stimuli*	*syllabi*	*phenomena*	*chassis*
iii	REGULAR PLURAL	*formulas*	–	–	*syllabuses*	–	–

Exercise 2

Rewrite these examples with all noun phrases changed to their plural counterparts and all present-tense verbs changed to the correct preterite form.

1. The other student sings in a rock band.

2. The TV series made from that novel is as good as any film ever made.

3. The bison roams the prairie and the wolf preys on the deer in the forest.

4. The man drives the Mercedes into a garage and hopes no thief has a key to the building.

5. The chief focus of this task is investigating the larva and developing a criterion for distinguishing its response to an environmental stimulus from any similar phenomenon at a later stage.

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Genitive formation

From a morphological point of view, there are two kinds of genitive, the **'s genitive** and the **bare genitive**:

i	'S GENITIVE	girl ~ *girl's*	woman ~ *woman's*	women ~ *women's*	James ~ *James's*
ii	BARE GENITIVE	girls ~ *girls'*	barracks ~ *barracks'*		James ~ *James'*

The bare genitive

The bare genitive is virtually restricted to nouns ending in *s.*
In writing, it is marked by a final apostrophe.

i	PLURALS FORMED WITH THE ·s/·es SUFFIX	obligatory	*girls'*	*foxes'*
ii	NOUNS IN *s* WITH BASE PLURALS	obligatory	*barracks'*	*series'*
iii	CERTAIN PROPER NOUNS IN *s*	optional	*James'*	*Socrates'*

The *'s* genitive

In writing, the *'s* genitive is invariably formed by adding *'s* to the non-genitive counterpart - which may be a singular (*woman's*) or a plural that is not marked by the ·s/·es suffix (*women's*).

Grade

The last of the three inflectional systems of English to consider is that of **grade**, with three contrasting terms: plain, comparative and superlative.

		ADJECTIVE				ADVERB	DETERMINATIVE
i	PLAIN	cold	hot	rare	easy	soon	few
ii	COMPARATIVE	cold·er	hott·er	rar·er	easi·er	soon·er	few·er
iii	SUPERLATIVE	cold·est	hott·est	rar·est	easi·est	soon·est	few·est

The plain form is identical with the lexical base while the comparative and superlative forms are marked by the suffixes ·*er* and ·*est*.

There are a few lexemes where the comparative and superlative forms are highly irregular, bearing little if any resemblance to the plain form. These include the following:

		good / well	*bad / badly*	*much / many*	*little*
i	PLAIN				
ii	COMPARATIVE	*better*	*worse*	*more*	*less*
iii	SUPERLATIVE	*best*	*worst*	*most*	*least*

Inflectional and non-inflectional marking of grade

The comparative and superlative categories can be marked by the separate words more and most as well as by means of inflection. Some lexemes have only inflectional comparatives and superlatives others have only the non-inflectional type, while others accept both. These comparative examples illustrate:

	INFLECTIONAL COMPARATIVE	NON-INFLECTIONAL COMPARATIVE
i INFLECTIONAL ONLY	*This is better than that.*	**This is more good than that.*
ii NON-INFLECTIONAL ONLY	**This is usefuller than that.*	*This is more useful than that.*
iii EITHER TYPE	*This is gentler than that.*	*This is more gentle than that.*

Exercise 3

For each of the following lexical bases give the inflectional form specified below, and show how the treatment of the final *y* follows the rule of final *y* replacement.

i.   *Dry* - gerund-participle

ii. *Embody* - preterite

iii. *Guy* - plural

iv. *Silly* - superlative

v. *Try (verb)* - 3rd sing present

1. Drying
2. Embodied
3. Guys
4. Silliest
5. Tries

Lexical morphology

Lexical morphology is concerned with the formation and structure of the lexical bases of lexemes. It is **complementary** with inflectional morphology: it deals with those aspects of the formation and structure of words that are NOT a mat-ter of inflection.
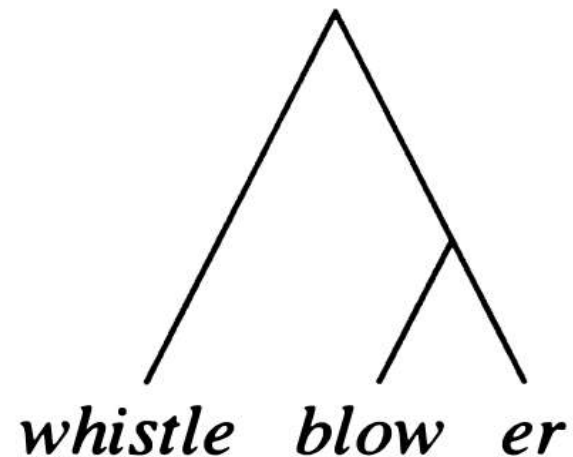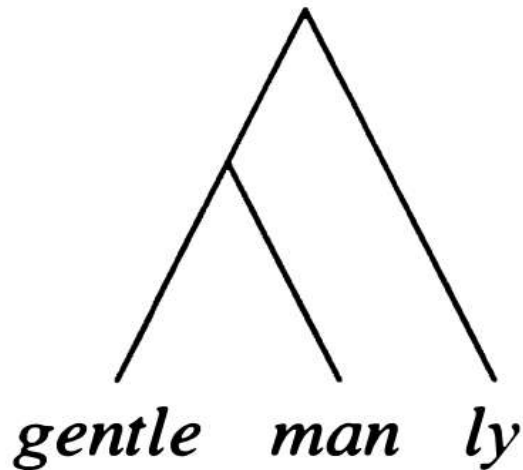
Bases and affixes

The two main kinds of morphological unit are **bases** and **affixes**.

i	BASE:	usually a **free** element, one able to stand alone as a word
ii	AFFIX:	a **bound** element, one unable to stand alone as a word

The layered structure of words

Bases containing more than two elements almost always have a layered structure:

gentle man ly   whistle blow er

Morphological operations:

- Compounding
- Affixation
- Conversion
- Derivation by base modification
- Back-formation
- Clipping
- Blending
- Initialism

Compounding

Compounding forms a complex base from a combination of smaller bases - almost always two.

i	NOUNS	*birdcage*	*gentleman*	*hangman*
ii	ADJECTIVES	*dirt-cheap*	*heart-breaking*	*heart-broken*
iii	VERBS	*baby-sit*	*blow-dry*	*handwash*

Affixation

In affixation a base is expanded by the addition of a **prefix** at the beginning of the base or a **suffix** at the end. We speak here of **category-changing** affixes, as opposed to **category-preserving** affixes

		CATEGORY-CHANGING		CATEGORY-PRESERVING	
i	PREFIX	*be·friend*	*en·danger*	*un·happy*	*re·open*
ii	SUFFIX	*wet·ness*	*achiev·able*	*green·ish*	*lion·ess*

Conversion

Conversion - a base of one category is formed by extending the use of a base of another category.

		PRIMARY USE	CONVERSION
i	NOUN TO VERB	The plants need $water_N$.	I'll $water_V$ the plants.
ii	VERB TO NOUN	I'll try_V to persuade her.	It was a good try_N.

Productivity and lexicalisation

A word-formation operation is said to be **productive** if it is still available for the creation of new words (such suffixes as *·able, 'ness, ·er* or such prefixes as *un·* and *pre·*), and **non-productive** if it is not (bond·*age*, duck·*ling*, drunk·*ard*, en·*able*, inform·*ant*, young·*ster*) .

Degrees of productivity

Productive affixes have different **degrees of productivity** - they have differing ranges of bases they can attach to. Among suffixes forming nouns, for example, *·ness* is highly productive, *·ity* somewhat less so, while *·dom* is of very low productivity.

Words which couldn't be formed with their present meaning by means of operations still productive in the grammar today are said to be **lexicalised**: they absolutely have to be included in a dictionary.

Thank you for attention!