1. Introduction

1.1 General info: website: bibliography, lecture script

1.2 Conventions:

- underline cited forms: fly
- prefixes end with a hyphen: pre-
- suffixes begin with a hyphen: -less

- Where necessary, write lexical base form in CAPs:
  the 3rd person singular of the verb FLY is flies, the present participle flying,
  and the past tense (or preterite) form is flew

- Mark primary stress with ´ on vowel and secondary stress with ` on vowel,

  Thus: bláck bírd = 'bird which is black'
  bláckbird = 'species of bird'

- Mark unacceptable forms with an asterisk: *bluity

1.3 Why morphology?

Morphology is at the crossroads between phonology, syntax, semantics, lexicon and context; even spelling frequently plays a role in word-formation:
phonological:  sane - sanity  allude – allusion

syntactic:  cook trans verb, intrans verb, noun

semantic:  watchdog = 'dog that keeps watch'
            lapdog = 'dog that sits on your lap'
            bulldog = 'breed of dog, looks like bull'
            hotdog = 'sausage'

lexical:  Is software a word? Is hard drive? Is RAM?

contextual:  by rule or systematic regularity, we know
              unplayable = 'can't be played', but only context clarifies
compare:  unplayable CD, unplayable chess game, unplayable sax, unplayable sax solo

spelling:  besides RAM (Acronymy) and CD (Initialism), we find
deejay from DJ from Disk Jockey

We pronounce zoo based on spelling, rather than as it
sounds in it's source word zoological garden.

Due to word-formation, morphology more obviously displays individual creativity than
phonology, syntax, semantics.

In word-formation and borrowing, morphology has a more accessible diachronic
dimension than other branches.

Word-formation is more obviously indeterminate in meaning without the concrete
context, e.g.

crop dusters apply (insecticide) dust to crops
furniture dusters remove dust from furniture

Rules determine the semantic relation of the noun duster to the verb dust, but context
determines which verb meaning fits.

Dutch shoe-makers = 1. people from Holland who make shoes
                    2. makers of Dutch-style shoes
Al bought a Dutch shoe-maker = 1. device for making Dutch-style shoes
                           2. shoe-making device from Holland

Special focus in this lecture will be on morphological processes and context.

1.4 A historical perspective on morphology

Morphology as "Formenlehre" is often reduced to patterns of inflection in traditional linguistics; even where the paradigms were irregular, they were at least fixed and describable.

Typical inflectional patterns or paradigms, e.g. personal pronouns and possessive adjectives in English:

<table>
<thead>
<tr>
<th>I</th>
<th>me</th>
<th>my/mine</th>
</tr>
</thead>
<tbody>
<tr>
<td>you</td>
<td>you</td>
<td>your/yours</td>
</tr>
<tr>
<td>he, she, it</td>
<td>him, her, it</td>
<td>his/his, her/hers, its/its</td>
</tr>
</tbody>
</table>

But word-formation combines elements of phonology, syntax, semantics, lexicon, spelling and context.

This makes it impossible to deal with in a uniform manner.

The acceptability of words is not rule-governed in the same way as pronunciations or sentences are, e.g.

- trumpet and fiddle yield verbs to trumpet and to fiddle, but
- oboe and violin do not: no *to oboe or *to violin

19th century language scholars wanted to see linguistics as science.

--law-like relationships between languages
--formal correspondences between Sanskrit, Latin, German, English
--comparable paradigms like personal pronouns

But, morphological processes seem contrary to general laws

--idiosyncratic, creative word-formation patterns
--word borrowing confuses regular patterns, e.g. Zeitgeist, apartheid
Morphology marginalized by 20th century linguists

--diachronic dimension cannot be conveniently ignored

Recall Saussure’s distinction of synchronic and diachronic:

--"nonce formations" represent potential new words and may enter regular vocabulary, e.g. e-mail leads to initially jocular form snail mail

Acceptance or rejection of new words depends on non-linguistic factors.

Saussure’s dichotomy synchronic-diachronic important in late 19th Century, but it has had consequences detrimental to linguistics since.

--word-formation happens in real language performance (parole)
--acceptance of new words takes place over time (diachronic)
--creative morphology as anomaly in structural description of language

1.5 Discourse morphology

How are new words introduced into specific discourse contexts?

Rules and regular types of word-formation versus acceptability

Consider nonce word-formation bottle-orderer

Automatically the guest who ordered a bottle of liquor a few minutes after arrival aroused the credit manager's suspicion. Most new arrivals who wanted a drink quickly--after a journey or a tiring day--ordered a mixed drink from the bar. The immediate bottle-orderer was often starting on a drunk, and might not intend to pay, or couldn't. (A. Hailey, Hotel, Pan Books)

Opposed tendency: creation of words not to be understood by everyone
Within groups, certain forms serve to signal common interests and rapport, e.g.

Hey Judy!

Watsup? not 2 much here. thanx 4 writing back, i love hearing from u!

Newayz, guess what!!! i met chris today, he's such a sweetie!!! omygosh, i don't know if he likes me though. he might or might not.

i can still dream and wonder what it would be like to go out with him. LOLAL (laugh out loud a lot).

Well not much to say, i'll right back later. o that's cool about bill and the summer vacay stuff. where r u going???

I'llbc-ingu, luv ya lots!!!

Note parenthetical explanation for LOLAL

Note interrelation between spelling and word-formation

Note potential of word-formation processes for play.

Morphologically-based word-play is common in the press, advertising, literature, as well as in everyday talk.

Playful word-formation is often the basis for humor.

Also note comic-book language
Author sets the stage for the far-fetched word-formation whappable with the somewhat more acceptable compound buggable.

Three factors:

facilitative explanation,

conspiritorial encryption

humorous orientation

1.6 Morphology in linguistics

Structuralist linguistic systems usually begin with phonetics and work up:

--phonological processes, e.g. delete initial /h/ in unstressed words like her and him

--phonotactic regularities in syllable structure, e.g.: no initial nasal + stop consonants in English, hence no *mtoto

--morphology: responsible for inflectional paradigms, so-called stems and derivational affixes on the way to syntax
OR morphology as bridge from syntax to phonotactics and phonological processes in a structuralist system.

syntax: abstract noun related to the verb prósper.
morphology: adds affix -ity to form the abstract noun prospérito and appropriate stress-shift.

Either way:

--prósper (verb) and prospérito (abstract noun) with stress-shift due to the suffix -ity

--bláckbird is a species of bird and bláck bird is a noun phrase with a head noun and an adjective modifier

Description of multi-morpheme words and relations between their parts is the province of morphology.

Traditional views of semantics place the word at the center of linguistic theorizing.

The word functions as a sign, as described by Saussure, because it combines form and meaning.

The combination of form and meaning characterizes the morpheme, and the morpheme stands at the center of morphology.

1.7 Morphemes

Morpheme = smallest unit of form-meaning or form-function
A word may consist of single morpheme, e.g.: tree, run, new, for, who, etc. or a word may contain multiple morphemes, e.g.: prosperity, blackbird.

Morphemes are *lexical*: nouns, verbs, adjectives, adverbs (open classes) or *functional*: prepositions, conjunctions, pronouns etc. (closed classes).

*Stems* are usually free, as in lexical and functional words but stems may also be bound, as in:

- *caval* which appears only in a few words like cavalry, cavalier, cavalcade
- or even of unique occurrence like *cran-* in cranberry
  
  hence the term: "cranberry morpheme":

- cf. raspberry, spareribs, cobweb, werewolf etc.

Affixes are either inflectional or derivational:

*Inflectional affixes* (always suffixes in English) indicate relationships between words in clauses.

*Derivational affixes* (both prefixes and suffixes) change meaning, grammatical category or phonological form.

English has only a few inflectional morphemes:

- On nouns: plural *-s* and possessive *-s*
- On verbs: 3rd person singular *-s*
Past Tense  -ed
Present Participle  -ing
Past Participle  -en/-ed

On adjectives and adverbs: comparative -er, superlative -est
with alternates: more, most

English follows the Germanic pattern with suffixes -er and -est:

on one-syllable words: bigger, faster, darkest, highest

on two-syllable words ending in vowels: sillier, mellower, tiniest, narrowest

on two-syllable words ending in syllabic –l, -n, -r: simpler, oftener, cleverer, simplest, noblest

and the Romance pattern with preposed more and most on longer words.

But, inevitably, both may apply sometimes, e.g.

politer - more polite commonest - most common

Also a few inflectional paradigms like the personal pronouns listed above,

the demonstratives: this - that, these – those

and the wh-words: who, whom, whose

Two kinds of variation for the inflectional suffixes:

First: morphologically irregular noun and verb suffixes

--nouns: few old irregular plurals like: sheep (zero-plural), oxen, children
knife - knives, house - houses, bath - bathes (voicing; only f-v shift in spelling)
also: men, feet, mice, geese (with vowel mutation or "umlaut")
and foreign plurals like: funghi, schemata, indices, curricula, stimuli etc.
--verbs: some irregular past tense and past participles like:

ride, rode, ridden   sing, sang, sung   come, came, come  (gradation or ablaut)
say, said, said       sleep, slept, slept
hit, hit, hit        set, set, set    bid, bid, bid  (defective pattern) (note final dental -t/-d)

a few common verbs have "suppletive" paradigms, e.g.

be:  Pres Sg    am, are, is   Pl    are
     Past Sg    was           Pl    were

go:  go, went, gone

Second: phonologically conditioned variants of the regular suffixes

--plural and possessive  -s

/lz/ after sibilants, as in: watches, busses, bushes
/s/ after voiceless consonants
/z/ elsewhere (voiced consonants and vowels)

--Past Tense  -ed

/ld/ after /t, d/, as in: spotted, loaded
/t/ after voiceless consonants
/d/ elsewhere (voiced consonants and vowels)

Variant forms of a morpheme are called allomorphs.

Thus, for the plural morpheme:

both irregular, morphologically conditioned allomorphs like -en,
and regular phonologically conditioned allomorphs /lz, s, z/
Lots of morphemes have two or more allomorphs, e.g.

-- the indefinite article has the allomorphs a and an

-- wo in won't is an allomorph of will

-- abil in ability is an allomorph of able

-- ed in edible is an allomorph of eat

-- child has a sg allomorph with /a/ and pl allomorph with short /l/

The alternate forms of the comparative morpheme, the suffix -er and more, can also be considered allomorphs

2. The word

The word as natural language element by contrast with morpheme, syllable, sentence etc. Hence the difficulty in providing any single, exact definition.

2.1 Spelling

The word is what we write between spaces (though illiterate cultures and kids recognize words, and spelling conventions vary by national unit and publishing house).

compare: can not, cannot, can't
she'll've, she'll have, she will have
socalled, so-called, so called
i'llbc-ingu, WYSIWYG

2.2 Phonology

Word is pronounced with a single intonation contour though function words often have no discrete value or at least can be under contrastive stress.
This eliminates i'llbc-ing u and, perhaps, WYSIWWYG, but offers no help with so-called and she'll've, no matter how they're written.

Phonotactic constraints eliminate obvious discrepancies like *mtoto and *ngoo, but again it's no help with so-called and she'll've etc.

2.3 Syntax

Words are units belonging to certain parts of speech:

--they can be listed in a *lexicon* or dictionary,

--they can be subjected to grammatical tests, e.g.

    adjectives must fit in the slot: a ___ noun,
    adjectives must take the comparative ending -er
    or follow *more* in the slot above

But syntax can't deal with contractions like she'll and she'll've or with new words, esp. those based on spelling like i'llbc-ing u and WYSIWWYG.

According to Bloomfield (1933) the word is the minimal free form, but we still find jocular expansions like:

    absobloodylutely and Califrigginfornia

In conversation, we even interrupt compounds, e.g.

Jason: The Russians have the busiest *space like port* in the world, don't they?

    They launch something like every- every couple of weeks.

Jason inserts *like* to express doubt about the form (or as a *hedge*).

2.4 Words and phrases

Boundary between words and phrases problematic,

--*variable spelling* like so-called/ so called;

--*phrasal verbs* like to get up and to put up with;

--*semi-compounds* like to give rise to and to take advantage of;
--*binomials* like *up and coming* and *by and large* and so on

Compare: spoonfuls - spoonsful - spoons full,
daughters in law - daughter-in-laws
passers by, passer bys
still lifes - still lives

Conversational example of alternation

Teddy: See what kind of a deal you can make. But I'm only giving you that-
twenty thousand dollars {laughing}. Well, Henry *wheeled and dealt*. 
**Wheeled and dealled?**
Jim: {laughs}.
Teddy: And he did get it for twenty thousand.

Teddy questions formation of the past tense for binomial *to wheel and deal*.

--historical past tense of *deal* as a free form is *dealt*,
--if to *wheel and deal* is word-like unit, then regular past tense: *dealed*.

2.5 Homophony

When two items sound alike (are *homophones*) are they one word or two?

A word expresses a single unitary meaning

--though function words like *the* and *at* express no obvious meaning
--words like *myth* and *culture* express no single unitary meaning

So how do we differentiate:

--separate words with the same sound
--one word with multiple related meanings?

Compare also:

right N: The rights of all citizens are equal.
V: They righted the car after its tumble.
adj: The right solution may be elusive.
adv: She ran right out the door.

alongside the verb write

well as N, Aj, Av, interjection and pause-filler etc.

The problem of homophony recurs in morphology, e.g. in affixes:

-er: comparative in faster, bigger
  for agent in climber, singer
  for resident in New Yorker, Londoner
  for family member in brother, mother
  part of un-analyzable stem in water, butter

3. Word classes (parts of speech)

Define the word by defining parts of speech

3.1 Traditional, notional definitions

Noun as name of a person, place, thing or concept
Verb as expression of action, state or relation
Adjectives express properties
Adverbs express relations of place, time, manner etc.
Prepositions express spatial, temporal etc. relations
Unhelpful as definition or as a guide to identification

3.2 Slots

Noun as word that can function as subject or object
Verb as word that can function as main element of predicator
Adjective as word that can modify a noun
Adverb as word that can modify a verb, adjective, adverb and clause
Provides test frames based on a grammar:

"determiner __ predicator" for noun
"determiner __ noun" for adjective
"modal __ noun" for transitive verb etc

Problem of conversion (also called zero-derivation): one part of speech in slot normally occupied by another, e.g.

adjective (with adjective inflection) in noun slot:

The poor hate the rich
The poorer hate the richer
The poorest hate the richest

noun (proper noun) in verb slot:

"J. W. Marriot Sr. and J. W. Jr. Pan Am'd out of here Saturday for Peking." (Herb Caen in newspaper column)

"I know it's across from a quarry. That's the only way I can landmark it." (conversational directions to beach)

3.3 Paradigms

Paradigm = a set of inflected words belonging to a single stem or a set of elements which can be substituted for each other.

Recall personal pronouns:

Sg

I    me    my/mine
you you    your/yours
he,  him,  his/his,
she,  her,  her/hers,
it    it    its/its
Pl
we  us  our/ours
you you your/yours
they them their/their

cf. reflexive pronouns:
Sg. myself, yourself, himself, herself, itself
Pl. ourselves, yourselves, themselves

and interrogative/relative pronouns:
Nom who
Obj whom
poss whose

compare nouns:
nominautive
Sg  cat  ox  man  sheep  alumnus
Pl  cats  oxen  men  sheep  alumni

possessive
Sg  cat's  ox's  man's  sheep's  alumnus's
Pl  cats' oxen's men's sheep's alumni's

Word like ox and sheep with irregular or zero plurals belong in the same class as regular nouns like cat because they function in the same slots.
verbs: person

<table>
<thead>
<tr>
<th></th>
<th>1st</th>
<th>am</th>
<th>go</th>
</tr>
</thead>
<tbody>
<tr>
<td>2nd</td>
<td>are</td>
<td></td>
<td>go</td>
</tr>
<tr>
<td>3rd</td>
<td>is</td>
<td></td>
<td>goes</td>
</tr>
</tbody>
</table>

infinitive: be go eat kick hit
3rd Sg pres: is goes eats kicks hits
past tense: was went ate kicked hit
pres part: being going eating kicking hitting
past part: been gone eaten kicked hit

Note suppletive and irregular and defective forms.

Also modal verbs: present tense and past tense

can could
may might
shall should
will would

by back shift (sequence of tenses): I think I can, I thought I could

demonstratives: near - distant

Sg this - that
Pl these - those

adjective and adverb:

comparative -er and superlative -est

(or occur with more and most in: “Article more ___ Noun”)

Thus: blue, bluer, bluest
big, bigger, biggest

important, more important, most important

Note irregular adj comparison: good – better – best

bad – worse – worst

Many parts of speech don't inflect at all, e.g.

articles: a, an; the
prepositions: at, between, by, for, in, on, under etc
conjunctions: and, but, or
subordinators: because, since, though etc

3.4 Endings: inflectional, derivational

Besides taking inflections plural -s and possessive -s, nouns fall into classes with a range of derivational suffixes, e.g.

-er lover, baker, jogger, manufacturer
-ity prosperity, sanity, reality, solemnity
-ion motion, revolution, suspicion, succession
-ness kindness, silliness, willingness, truthfulness
-ism racism, truism, Marxism, liberalism etc

Verbs also have characteristic derivational suffixes, besides displaying the appropriate inflectional forms, namely:

infinitive, 3rd pers sg pres, past tense, pres and past participles,

-en redder, fatten, sweeten, enlighten
-ify beautify, pacify, magnify, ratify
-ate motivate, liberate, inundate, tolerate
-ize harmonize, realize, recognize, rationalize
Adjectives have characteristic derivational suffixes, besides inflectional forms for the comparative and superlative.

-**ous** anxious, prosperous, mountainous, advantageous
-**ful** awful, beautiful, peaceful, powerful
-**-able** viable, admirable, comfortable, irritable
-**-ly** lovely, friendly, womanly, brotherly
-**-some** awesome, wholesome, lonesome, handsome
-**-y** icy, hilly, funny, handy, shaky

Adverbs take characteristic derivational suffixes, besides same comparative and superlative as adjectives.

-**-ly** hardly, awfully, anxiously, admirably
-**-wise** edgewise, clockwise, contrariwise, moneywise
-**-ward** inward, backward, northward, homeward
-**-s** always, sideways, weekdays, evenings

Note homophony again:

adj + -**ly** yields adv quickly
N + -**ly** yields adj friendly
adj + -**en** yields V deaden
N + -**en** yields adj leaden

Sometimes even within single word class:

N + -**-y** yields adj dirty
N + -**-y** yields N dolly

Even inflectional suffixes have derivational homophones:

past participle -**en** vs -**en** in deaden & leaden
3rd pers Sg Pres -s vs -s in *sideways*

pres participle -ing vs -ing in *wedding*

adj comparative -er vs -er in *runner*

4. Word-Formation

The study of Word-Formation includes:

--analysis of existing words

--creative production of new words

As an exercise, consider the types of word-formation in the poem below: e. e. cummings

in *Just-spring* when the world is *mud-luscious* the little lame *balloonman*

whistles far and wee

and *eddieandbill* come running from marbles and piracies and it's spring

when the world is *puddle-wonderful*

the queer old balloonman whistles far and wee and *bettyandisbel* come dancing

from *hop-scotch* and *jump-rope* and

it's spring and the *goat-footed*

balloonman whistles far and wee
4.1 Inflection, derivation, compounding

*Inflection*, summarized from previous sections,

regular noun inflections: plural -s and possessive -s,

regular verb inflections: 3rd pers Sg. Pres -s,

past tense -ed
pres participle -ing
past participle -en (-ed)

regular adj/adv inflections: comparative -er (more)
superlative -est (most)

Except for forms in paradigms above, all other suffixes are *derivational*.

*Derivation* builds words by means of affixes, both suffixes and prefixes, e.g.

able + -ity yields ability

in- + ability yields inability

*Compounding* builds words by combining already existing words, as in:

steam + ship yields steamship

sky + blue yields skyblue

4.2 Word-formation as an anomaly in grammar

*Acceptability* of derived or compound words is not rule-governed

--we readily derive the verb to bike from the noun bike, but the verb to car from the noun car is oddly unacceptable.

--we form housedoor from house and door, and doorknob from door and knob but compound houseknob is oddly unacceptable.
Meanings of derived or compound words are not predictable

**Marxism** = philosophy of Marx
**racism** = intolerance of other races
**truism** = a self-evident statement
**dragonfly** = a fly that looks like a dragon
**horse fly** = a fly that hangs around horses
**firefly** = a beetle with a light-producing organ
**butterfly** = a lepidopteran

Word-formation processes collapse syntactic differences and create ambiguity.

Japanese paper folders

-- people from Japan who fold paper, either professionally or as a hobby,
-- devices for folding paper the Japanese way or for folding Japanese paper
-- binders (from Japan) either made of (Japanese) paper or for holding Japanese paper etc.

Clear relations between Japan, fold and paper in sentences

-- are blurred in forming the Adj Japanese,
-- and the Noun folder from the verb fold + -er,
-- and further in the compound paper-folder

This effect is heightened through homophony in the system as a whole.

Abbreviation processes create truly opaque words:

- **clipping** = flu pram mike
- **hypocorism** = hanky movie telly
- **acronymy** = AIDS TESOL
- **initialism** = HIV AAA
Note also tendency to simplify compounds:

- public house becomes pub
- floppy disk becomes floppy

What advantages does word-formation bring with it to make up for all this ambiguity?

5. Derivation: Affixation

*Derivation* builds words by means of *affixation*. *Affixation* involves addition of prefixes and suffixes.

5.1 Derivation vs. Compounding

Derivation involves *bound forms*: prefixes and suffixes

- pre- de- in- -al -ous -ity

Compounding involves *free forms*: lexical or grammatical words: fly, door, many, into, up, through

Historically affixes often derive from free forms, and they may look identical, sound identical, and even have similar meanings, e.g.

- in in-, full -ful(l), less –less, able -able/-ible. (recall how spoonful can turn into spoons full in the plural)

Compare: -dom in wisdom freedom kingdom

from OE dom 'judgment' seen in doom, doomsday

*Particle Compounds* include elements similar to both affixes and free grammatical forms, e.g.

- inset\textsubscript{N} from to set in    drive-in\textsubscript{N} from to drive in
- upset\textsubscript{N} from to upset    sétup\textsubscript{N} from to set up

Many Latin-based forms recur in compounds, but not as free forms, e.g. *micro-* and –ology:

- microphone, micrometer, microchip, microprocessor
zoology, biology, anthropology, morphology

These so-called neo-classical or neo-Latin compounds are usually analyzed as consisting of bound stems.

Like the particles mentioned above, some Latin-based elements have a status somewhere between affixes and bound stems, e.g. ex-, sub-, super-, ultra-, besides occurring in neo-classical compounds like:

exhibition, subcutaneous, supernumerary, ultrasonic

These elements routinely combine with native English stems: ex-wife, sub-floor, super-clean, ultra-bright

In fact, sub occurs as a free form meaning 'submarine', and ex now occurs as a free form meaning 'ex-partner'.

Neo-classical elements may become free forms, usually through clipping, e.g.

phone from telephone, zoo from zoological garden, bio from biography, pro from professional

Even: pros and cons from generalized meanings of the prefixes

5.2. Prefixing

Prefixes may change the part of speech of the stem they combine with e.g.

noun band + dis- becomes verb disband

But they may leave it as it is, e.g. verb tie + un- remains verb untie

A single prefix may have both effects, depending on the stem it attaches to, e.g.

noun war + pre- becomes adjective pre-war
noun school + pre- remains noun preschool
Verb heat + pre- remains Verb pre-heat
Noun throne + de- becomes Verb dethrone
verb centralize + de- remains verb decentralize

Prefixes often combine with several types of stems. Semantically, most prefixes fall into a few classes:

NEGATIVE: un- unfair unequal unreal
non- non-binding non-existent non-fat
in- inhuman insane intractable

variants: im- impatient imbalanced immaculate
il- illogical illegitimate
ir- irregular irreversible

REVERSIVE un- untie unlock unfold
dis- disband dismount disqualify
de- dethrone decentralize desegregate

PRIVATIVE a- asymmetry asocial amorphous
mal- malformed maladjusted malcontent
mis- mistake mislead misfortune
semi- semi-fluid semi-annual semi-attached

NUMBER bi- bicarbonate bi-weekly bilingual
multi- multilateral multi-colored
poly- polyglot polyvalent polysemy

TIME ante- ante-bellum antediluvian ante-room
pre- pre-war pre-heat pre-natal
post- post-war post-meridian post-date

SIZE mega- megalopolis mega-ton mega-hit
micro- microscope micro-biology microwave
mini- miniature minigolf minivan
en- can have a causal sense in *denominal* verbs (derived from Nouns) and *de-adjectival* verbs (derived from Adjectives): enslave empower ennable

Variant: prefix en- AND suffix –en, e.g. enliven enlighten embolden

be- also sometimes has a causal sense in *de-adjectival* and *denominal* verbs:

becalm benumb belittle bedew beshrew beknight

Note: be- was historically not a prefix at all, instead, be- derives from prep by with no obvious uniform sense: before, become, befall, bestir, bemoan

Similarly, a- derives from OE on:

ablaze, ajar, atop, adrift, aloft, awash

Latinate prefix re- ‘again’: repeat, replay, re-examine

‘reversal’: regain, recoil, reclaim

5.3 Suffixing

Suffixes may change the part of speech of the stem they combine with e.g. verb view + -er becomes noun viewer, and they may leave it as is, while altering its sense, e.g.

noun duck + -ling remains noun duckling (diminutive -ling)

noun friend + -ly becomes adjective friendly

noun friend + -ship remains noun friendship (concrete noun becomes abstract noun)
A single suffix (or homophonous suffixes) may have both effects, depending on the stem it attaches to, e.g.

noun **hand** + -y becomes Adjective **handy**

noun **pup** + -y remains Noun **puppy** (diminutive -y)

noun **child** + -ish becomes Adjective **childish**

adjective **yellow** + -ish remains Adjective **yellowish**

Note use of –ish to mean ‘kind of’, e.g.

In the 1960s he moved from Hollywood to England and bought a **statelyish** house near, but not too near, London.

(《The Economist》Mar. 13, 1999)

One even hears: **They’re getting oldish.**

**Can you be there around sixish?**

Suffixes may combine with several types of stems, with or without altering the parts of speech, e.g.

- **-ish** with nouns, adjectives and other types of words,

- **-y** with different kinds of nouns
  - -- diminutive -y in nouns like **mommy**
  - -- -y in de-nominal adjectives like **leafy**.

5.3.1 Productivity, stress

*Productivity* is the measure of how generally applicable an affix is.

An affix which applies to all or most words in a particular syntactic group to form new words is maximally productive, e.g.

- **-able/-ible** to derive adjectives from transitive verbs

- **-ly** to derive adverbs from adjectives:
Examples:

- drinkable, readable, measurable, combinable
- corruptible, reversible, convertible, note edible

(cf. visible, feasible, credible, risible)

- extremely, vastly, actually, jauntily but *bigly *fastly

Hence notion of derivational rule or formula:

\[ V_{\text{trans}} + \text{-able} \rightarrow \text{adjective} \]

Where the adj denotes the property of being able to undergo the process identified by the verb

\[ \text{fix } + \text{-able} \rightarrow \text{fixable} \]

Sue can fix the car.

The car can be fixed by Sue.

The car is able to be fixed (by Sue).

The car is fixable (by Sue).

Consider the very productive: \( V + \text{-er} \rightarrow \text{noun} \)

where the Noun denotes a person who habitually or professionally performs the act identified by the verb

\[ V_{\text{intr}a\text{n}} \text{ sing } \rightarrow \text{singer} \]

\[ V_{\text{trans}} \text{ bake } \rightarrow \text{baker} \]

But there are exceptions:

- Sue worries me doesn’t mean Sue’s a worrier
- Sue concerns me but no *concerner
- The baby spits up but no *spitter up *up-spitter *spit upper
Sue puts up with people but no *putter up with *put up wither

But: A house that needs fixing up is a fixer-upper!

An affix which applies to few words in a particular syntactic group to form new words is minimally productive, e.g.

-ling as a diminutive suffix on nouns: darling, sapling, stripling, yearling, fingerling

but *dogling *carling

Affixes once productive may have become unproductive over time: they're no longer used as or felt to be suffixes at all, e.g. the historical noun-forming suffix -th in:

width, depth, length, health, wealth, strength

but *narrowth *tallth *cleverth

All native suffixes and many suffixes derived from foreign words can be added to words with no phonological change modifying the derivative, e.g.

boyish, withdrawal, urbanite, fixable, baker

Though historically we find regular phonological alterations from voiceless to voiced consonants before vowels, e.g.

belief\textsubscript{N} believe\textsubscript{v} believer\textsubscript{N} grief\textsubscript{N} grieve\textsubscript{v} grievous\textsubscript{A}

loss\textsubscript{N} - lose\textsubscript{v} worth\textsubscript{N} - worthy\textsubscript{A} house\textsubscript{N} house\textsubscript{v} housing\textsubscript{N}

Latin-coined suffixes cause various sorts of phonological changes, e.g.

addition of consonant: autumn - autumnal column - columnar

consonant shift: office - official decide - decision  

electric - electricity pollute - pollution

confuse-confusion

vowel shift: severe - severity sane - sanity
Native English stress is on the stem so it tends to be initial or near the beginning of a word.

Latin stress tends to fall on the penultimate or ante-penultimate syllable.

Consequently there may be inconsistency and uncertainty, esp. between BE and AE varieties, e.g.

extraordinary vs extra-ordinary (just 5 syllables)

omnipotent vs omnipotent

AE laboratory vs BE laboratory (both 4 syllables, but different syllables)

AE rénaissance vs BE renaisance

AE stalactite vs BE stálactite

5.3.2 Word classes: forms and meanings

Some derived adjectives are transforms of predicate adjectives, e.g.

my childish sister from My sister is childish.

my careless sister from My sister is careless.

Parallel to: my young sister from My sister is young.

These adjectives provide descriptive information about the noun they modify.

Other adjectives require a predication with an adverbial, e.g.

a polar bear not from *the bear is polar
but from the bear lives near the pole

a financial expert not from *the expert is financial

but from the expert deals in finance

These adjectives determine the type or class of the noun they modify.

Derived words must often be built up and taken apart in a fixed order:

unadventurousness --> unadventurous + -ness

Then: un- + adventurous but not *unadventure + -ous

extraterritorial --> extra- + territorial but not: *extraterritory + -al

Thus derived words have a particular constituent structure.

Consider:

able + -ity --> ability and ability + in- --> inability

but: in- + able --> *unable

instead: un- + able --> unable and: unable + -ity --> *unability

As a group, de-adjectival and de-nominal verbs tend to have a simple causal relation with the underlying adjective or noun:

beautify 'cause to be beautiful'

redden 'cause to be red'

alienate 'cause to be alien'

hospitalize 'cause to be in hospital'

Compare de-verbal nouns with a range of relations to underlying verb:

employer 'one who employs'

employee 'one who is employed'
employment 'state of being employed'

But we do find regular semantic patterns from adj to verb to noun(s):

- **pure**<sub>A</sub> **purify**<sub>V</sub> **purifier**<sub>N</sub> **purification**<sub>N</sub>
- **facile**<sub>A</sub> **facilitate**<sub>V</sub> **facilitator**<sub>N</sub> **facilitation**<sub>N</sub>
- **fertile**<sub>A</sub> **fertilize**<sub>V</sub> **fertilizer**<sub>N</sub> **fertilization**<sub>N</sub>

With Latin-based words, the apparent underlying adjective is often missing, e.g.

- --- **edify**<sub>V</sub> **edifier**<sub>N</sub> **edification**<sub>N</sub>
- --- **dedicate**<sub>V</sub> **dedicator**<sub>N</sub> **dedication**<sub>N</sub>
- --- **tantalize**<sub>V</sub> **tantalizer**<sub>N</sub> **tantalization**<sub>N</sub>

Similarly, we find regular semantic patterns from noun to verb to noun(s) like:

- **pollen**<sub>N</sub> **pollenate**<sub>V</sub> **pollenator**<sub>N</sub> **pollenation**<sub>N</sub>
- ---- **innovate**<sub>V</sub> **innovator**<sub>N</sub> **innovation**<sub>N</sub>
- ---- **rotate**<sub>V</sub> **rotator**<sub>N</sub> **rotation**<sub>N</sub>

Many suffixes with many meanings and/or functions, no generally established method of grouping them

Consider a few select examples of special interest due to homophony, variant forms, meanings etc.

- **-able** with its variant -ible, from OF,

  with native stems in ME: believable and with un- unknowable

  de-verbal acceptable 'can be accepted'

  de-nominal reasonable 'accordant to reason'

  also: comfortable, charitable 'offering comfort/charity'
-al forms de-verbal nouns: arrival refusal trial

and de-nominal adjectives: bridal accidental herbal global

cf. focal local (from focus and locus ?)

also as -ial in pictorial editorial dictatorial

esp. in essential (vs. essence) circumstantial (vs. circumstance)

even -ical as in conical periodical puritanical

and -ual as in spiritual actual textual

-ate: de-nominal noun suffix meaning 'office, institution' as in

consulate electorate syndicate

de-nominal adjective suffix in proportionate passionate affectionate

verbal suffix originally used to anglicize Latin verbs ending in -are

as in create translate isolate

then to derive new verbs like mutate facilitate dehydrate

With natural extension to -ation: mutation facilitation dehydration

-ation even appears as an independent suffix in exportation

with verbs in -ize like organization formalization

and more generally as in: relaxation temptation starvation

Cf. -cation with verbs in -ify like purification justification beautification

-ed forms adjectives meaning 'possessed of, provided with'

as in feathered, crested, well-mannered, five-fingered and in palefaced, lemon-flavored, heart-shaped with a strong tendency to lose the suffix before nouns: lemon-flavor cake, heart-shape leaves

Pronounced as an independent syllable after alveolars t/d as in: white-spotted or heavy headed

but also in OE and ME words such as: crooked dogged jagged wicked
-ess feminine suffix borrowed with French words like:

  baroness  countess  hostess  patroness  traitress (Note r )

later applied to native words such as: shepherdess, priestess, stewardess,

  seamstress (Note r )

  even lioness and tigress

Cf. -ette originally diminutive in novelette, collarette

  esp. 20th C. AE after suffragette used as a feminine suffix, e.g. majorette
  usherette  censorette

  due to asymmetry of pairs like governor-governess and major-majorette, both
  suffixes are often objectionable, esp. on names of professions: poetess,
  waitress, stewardess

Words with feminine suffixes count as marked by comparison with masculine or
neutral terms without suffixes. Historically, they tend to undergo pejoration, e.g. master – mistress, steward - stewardess

-ic originally adjectival suffix:

  in scientific terms: chloric  ferric  formic

  also -tic in learned words: operatic  lunatic  dramatic

  with ethnic names: Celtic  Gallic  Germanic

  and proper names: Platonic  Miltonic  Byronic

also sometimes -ical, e.g. in: geographical  rhetorical  classical

-icity further derives nouns: elastic - elasticity, public - publicity

  anthropomorphic - anthropomorhicity

cf. noun-forming –ician: musician  physician  tactician  politician  statistician
-ie, -y  originally hypocoristic suffix on proper names like: Charlie, Georgie, Annie, Jenny, Davy, Bessy

then on common nouns like: baby, granny, brownie, cookie
also to derive de-nominal adjectives with the meaning 'full of' as in:
bloody, guilty, cloudy, risky, newsy
and deverbal adjectives like: sleepy, creepy, squeaky, crumbly
even de-adjectival adjectives like: crispy, lanky

Note by-form -sy, perhaps originally from plurals like: tricksy, sudsy
but also playful in folksy, tipsy, bitsy (esp. in itsy-bitsy)

-ness  very productive since OE, attaches primarily to adjectives to form nouns:
    bitterness, idleness, redness
also on derived adjectives: carelessness, willfulness, righteousness
and participles: drunkenness, unexpectedness
even composite participles: level-headedness, kind-heartedness,
left-handedness, far-sightedness
non-adjectives: oneness, nothingness
and phrases: matter-of-factness, used-upness
sometimes in competition with other suffixes: accurateness - accuracy
    oddness - oddity  corruptness - corruption

Note:  business is today a moneme vs the derivative busyness and wilderness
differs from wilderness

-ize  very productive verb-forming suffix with a range of meanings:
'cause or make' as in legalize, familiarize

'put into form of' as in itemize, satirize

'subject to treatment of' as in terrorize, propagandize

'treat with special process' as in galvanize, simonize

'treat or combine with' as in oxidize, ionize

Note the connection of meaning with certain special technical fields

-ize expands to –ization to form nouns designating process:

legalization, itemization, galvanization, oxidation

Hence series like: legal_{A} legalize_{V} legalizer_{N} legalization_{N}

And again missing adjectives: ----_{A} galvanize_{V} galvanizer_{N} galvanization_{N}

5.3.3 Back-formation

Back-formation from apparent derivational series with missing initial term

Recall missing nouns, as in:

----_{N} rotate_{V} rotator_{N} rotation_{N} which suggests creation of a noun rotor

Historically, such verbs as edit, sculpt and scavenge are back-formations

----_{V} editor_{N} edition_{N} suggests: edit_{V}

----_{V} sculptor_{N} sculpture_{N} suggests: sculpt_{V}

We also find isolated examples like:

to laze from the adjective lazy

to jell from the noun jelly
to reminisce from the noun reminiscence

Newer back-formations are televise, babysit, aggress (against) and, of course, for linguists: back-form

Historically, we can check dates to see if a word was back-formed, e.g.

noun pedlar recorded 1377 long before verb to peddle (1532)

noun editor recorded 1712 before verb to edit (1791)

But also semantically back-formations often depend on their source:

edit means 'perform the duties of an editor'

televise means 'broadcast on television'

aggress (against) means 'perform an act of aggression (against)'

to laze means 'act lazy'

Similarly, sculpt means 'to produce a sculpture' not 'to perform sculpting' and babysit means 'to act as a babysitter' rather than 'to sit like a baby' or 'to sit on a baby' etc.

Back-formations may become semantically free of their source nouns:

resurrect 'to revive', back-formed from resurrection

preempt 'replace', from preemption;

Also to jell 'congeal' is used figuratively so often that it no longer depends on the noun jelly for its meaning, e.g. in:

"My ideas are beginning to jell"

Nouns back-formed from adjectives may violate constraints on prefixing, e.g.

unsurprise and illogic with negative prefixes usually reserved for adjectives in: "our utter unsurprise" (Listener 28, 1968)

"scientists . . . often are accused of illogic" (Listener 11, 1968)
Hence the oddity and sometimes humor of back-formations, e.g.

- to carpent from the noun carpenter
- to auth from the noun author

"Coroners began coroning in the 12th century" (New Statesman 10, 1967)
"If it's feasible, let's fease it" (Hockett 1960)

Back-formation can also lead to polysemy, as in:

"Felix is in the study computing"

compute means 'to work at a computer' back-formed from the noun compute, like earlier formation to typewrite.

5.3.4 Zero-Derivation

Zero-derivation (also call conversion) is the use of a word to represent a different part of speech with no affix expressed but still understood to be present in content, thanks to an association with derivatives where the item of content finds expression in an affix.

The lexical adjective clean is used as a verb meaning 'make clean' in:

This filter cleans the water.

Just as purify means 'make pure' in: This filter purifies the water.

and freshen means 'make fresh' in: This filter freshens the water.

Jespersen called zero-derivation a "specifically English" process.

English possesses very few affixes for deriving verbs from nouns, namely the prefixes be-, en- and the suffixes -ify, -ate, -ize

There are even fewer affixes for deriving nouns from adjectives. Only -ness is highly productive, as e.g. in:

bigness, truthfulness, silliness versus -ship and -ment in hardship and merriment
English has the very productive suffixes -er in freezer or experiencer, and -ation in summation and marginalization.

Yet English freely forms nouns from verbs by zero-derivation as well, e.g.

someone who smiles produces a smile

someone who rides takes a ride

someone who cheats others is a cheat

something which surprises someone is a surprise

someplace we dump things is a dump

someone who hurries is in a hurry

something that gets caught is a catch etc

The commonest group of zero-derived words is de-nominal verbs:

intransitives like: fish 'to attempt to catch fish'

bloom 'to produce a bloom'

journey 'to go on a journey'

drum 'to play a drum'

pity 'to experience pity for someone'

transitives like: copy 'to make a copy'

wreck 'to make a wreck of something'

pilot 'to perform the function of a pilot'

ape 'to act like an ape'

hammer 'to perform an action using hammer'

vacation 'to spend the period of a vacation'

bag 'to put into a bag'

skin 'to remove the skin from something'

sugar 'to prepare or treat with sugar'
Zero-derived de-adjectival verbs are:

- **mellow** 'to become mellow'
- **warm** 'to make something warm'

Many verbs are in both groups: **cool** 'to become cool' and 'to make something cool'

Note: on the usual definition of derivation with a zero-affix, zero-derivation might seem to include cases where vowel shift or stress shift mark derivation, e.g.

- vowel shift: \( \text{loss}_N - \text{lose}_V \)
- consonant shift: \( \text{loose}_{\text{adj}} - \text{lose}_V \)
- stress shift: \( \text{rébel}_N - \text{rebé}_V \quad \text{cónvert}_N - \text{convért}_V \)

but these examples are generally treated separately.

Strictly, zero-derivation is only derivation with a zero-affix *and no other changes*.

5.4 Analyzing derived words: isolating the stem

Two strategies for analyzing derived words:

1. Identify the stem by finding the same form in other words, then split off the affixes.
2. Identify and remove affixes till only the stem remains.

Recall that in *neo-classical compounds* analysis may yield *bound stems* or with a status somewhere between affixes and bound stems.
e.g. growth grow -th
ugly ug -ly
happiness happy -ness hap -y cf. happen hap haply
manufacturing manufactur -ing manufact -ure cf. (manu)factory
manu fact cf. manu script manu -al
posterity poster -ity cf. poster -ior
familiarization familiar -ize -ation famil -ar cf. familial family
irresponsibility irresponsibil -ity ir- response -ible
re- sponse cf. respond sponsor
comprehensive comprehens -ive cf. comprehend apprehend
com- prehens cf. prehension prehensile
contradictorily contradictory -ly contradict -ory
contra- dict cf. diction predict
indecisive in- decis -ive cf. decide
de- cis cf. incisive incisor scissors

6. Compounding

Compounding forms new words by combining two or more independent words (or free or stems),

By contrast derivation forms new words by adding affixes (which are bound, not free) to words.

6.1 Compounding and syntax

Compounding is more like syntax than derivation.

recall: There's a bláckbirdN vs. There's a bláckbirdN

Note: There's a véry bláckbirdN vs. *There's a very bláckbirdN

cf. The sky is blue vs. the blue sky vs. the skyblue flowers
Usually second word of two-word compound is base, and first word is modifier:

- **houseboat** 'boat used as a house'
- **boathouse** 'house (building) used for sheltering boats'

Hence the second word determines the part of speech of the compound:

- **skyblue** is an adjective because **blue** is an adjective
- **bluebird** is a noun because **bird** is a noun

Consider so-called *synthetic compounds* like **watchmaker** and **chimney sweep**

In **watchmaker** 'one who makes watches', **watch** determines the process named by the verb **make**, and **maker** can't stand alone.

Cf. **deerhunter** 'hunter of deer' where **deer** modifies independent noun **hunter**

In **chimney sweep** 'one who sweeps chimneys' **sweep** should be **sweeper**, and so is even more dependent on **chimney**.

**keep** can serve as half of the compound **barkeep** 'one who tends bar' only because **bar** determines its meaning

**sunset** (also **sunrise**) relies on **set** as a stem, though **set** can't function in this way independently: cf. **setting of the sun**

**pickpocket** 'one who picks pockets' reverses the usual order of elements. Even for a synthetic compound, it should be **pocket-picker**. And **pocket-picker** is semantically odd, cf. **cherry-picker**, **cotton-picker**.

Compare *pseudo-compounds* (also called *bahuvrihi compounds*) like **loudmouth**, **birdbrain** and **blackcap**:

- **loudmouth** means 'talkative person', i.e. one with a loud mouth
- **birdbrain** means 'dull-witted person', i.e. one with a brain like a bird
blackcap denotes a bird with a black cap (Sylvia atricapilla), not the cap itself

The apparent stem of such pseudo-compounds doesn't function as the stem for structural/semantic purposes at all.

Some theorists distinguish "endocentric" (= head-internal) from "exocentric" (=head external) compounds.

Then loudmouth, birdbrain and blackcap are all exocentric, because referents are not mouths, brains, caps, but people and birds.

cherry-picker and cotton-picker are both endocentric, because the head picker refers to the agent of the action described.

pickpocket is exocentric, because pocket does not denote the agent of the action.

6.2 Noun compounds

In terms of underlying relations, noun compounds focus on the subject (or agent) of an activity, on its object (or goal), on the predicate (or activity itself) or on an adverbial complement (place, time, instrument).

<table>
<thead>
<tr>
<th>subject focus</th>
<th>crybaby</th>
<th>'baby cries'</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>pickpocket</td>
<td>'person picks pockets'</td>
</tr>
<tr>
<td>object focus</td>
<td>drawbridge</td>
<td>'bridge meant to be drawn'</td>
</tr>
<tr>
<td></td>
<td>mincemeat</td>
<td>'meat was minced'</td>
</tr>
<tr>
<td>predicate focus</td>
<td>sunrise</td>
<td>'sun is rising'</td>
</tr>
<tr>
<td></td>
<td>bloodshed</td>
<td>'blood is being shed'</td>
</tr>
<tr>
<td>adverbial focus</td>
<td>writing table</td>
<td>'table for (the purpose of) writing'</td>
</tr>
<tr>
<td></td>
<td>bus stop</td>
<td>'place where the bus stops'</td>
</tr>
<tr>
<td></td>
<td>washday</td>
<td>'day when we wash (clothes)'</td>
</tr>
</tbody>
</table>
Structurally, noun compounds can be analyzed as follows.

N + N  
steamboat  'steam drives boat'  
bedtime  'time for bed'  
girlfriend  'friend is a girl'  
oaktree  'tree is an oak'

N-s + N  
craftsman  'man practices a craft'  
driver's seat  'driver has a seat'

V-ing + N  
writing table  'table for writing on'

V + N  
whetstone  'stone for whetting blades'

N + V-ing  
housekeeping  sight-seeing

N + zero-derived de-verbal N  
earthquake  bloodshed

N + V-er  
watchmaker  shoplifter  cf.  self-starter

Some theorists also distinguish semantic compound types, according to which, e.g. houseboat counts as "appositive" because both house and boat denote the object.

Semantically similar examples are: girlfriend and twenty-three

By contrast, syntactically parallel compounds may belong to different semantic classes, e.g.

housedoor and barstool both instantiate the type "whole-part"

stonewall and cheesecake both instantiate the type "material-object"

wine-maker and playwright both instantiate the type "goal-agent"
and so on for other semantic types

6.3 Adjective compounds

Some adjective compound types parallel noun types from above.

Same form may serve as either an adjective or a noun, e.g.

an evergreen bush vs. an evergreen

a deafmute boss vs. the boss is a deafmute

N + A  colorblind  'blind as to color'

cf.  self-sufficient

skyblue  'blue as the sky'  world-wide  'wide as the world'

A + A  blue-green  deafmute;  Anglo-French  socio-economic

N + V-ing  ocean-going  heart-breaking  cf. all-knowing

A + V-ing  good-looking  sweet-smelling

N + V-ed/-en  home-made  crestfallen  god-forsaken

bug-eyed  cf. self-made

A + V-ed/-en  deep-fried  free-born  broad-leaved

Adv + A  evergreen  lukewarm

Adv + V-ing  hard-hitting  plain-speaking
According to Marchand (1969), "Verbal composition does not exist in Present-day English." Instead we find pseudo-compounds due to:

- zero-derivation, e.g. spotlight, blacklist, sidetrack, pinpoint
- back-formation, e.g. stage-manage (from stage-manager)
  - globetrot (from globetrotter)
  - playact (from playacting)

And verbal combinations with an initial locative particle (out over under), e.g.

- OUT de-verbal: outrun outlive outgrow
- de-nominal: outnumber outdistance outwit
- de-adjectival: outsmart

- OVER only de-verbal 'cover, control': overrun overcome oversee
  - 'do to excess': overdo overeat overexert

- UNDER only de-verbal 'beneath': underline undermine underlay
  - 'do too little': underestimate underrate

Some verbs appear as participles only: underfed undernourished

Note: don and doff from do on and do off

But there are apparent verbal compounds not fitting the patterns mentioned:

- figurative compounds: browbeat eavesdrop and hitchhike
- literal action verbs: double-park breastfeed taperecord
- technical terms: hog-tie kiln-dry pan-fry spot-weld mass-produce
- dance & locomotion terms: cake-walk slow-dance high-step

Consider:
"She spent the day exploring various old churches . . . she had been cathedral-looking at Avignon." (Koestler *Scum of the Earth*)

"Ivan Pope, aged nine, consumer-tested one of the newest boy's toys for us." (Evening Standard 19 Nov 1971)

And washing instructions on clothing:  hand wash  tumble dry  warm iron  etc

6.5 Phrasal compounds

Compounds may derive from complete phrases, e.g.

X and X  bread and butter  cut and dried

noun phrase  man-in-the-street  mother-of-pearl

N, N  queen mother  player-coach  cf.  actor-turned-director

E.g. "The reporter-turned-hostess-turned-novelist is Sally Quinn." (Time 11 Aug 1986)

verb phrase  has-been  wannabe  also-ran

know-how  know-it-all  hand-me-down

happy-go-lucky  merry-go-round

Consider another example from the press (Evening Standard 30 July 1968); note the intervening suffix -able:

"Nobody could ever meet anyone remotely fallable-in-love-with on the Irish Mail."

adjective/adverb phrase  inside-out  upside-down

complete clause:  forget-me-not  devil-may-care  cf.  IOU

proper noun + noun:  tomcat  billygoat  jackass

proper noun + phrase:  jack-in-the-box  jack-o'-lantern

Johnny-come-lately
In an 869 word editorial in *U.S. News* (7 June 99):

Talk about a **right-brain, left-brain** problem
candidates were **Johnny-on-the-spot** with instant analysis
both parties reverted to the predictable **scalp 'em-scenario**
their temptation to move into **all-China-all-the-time** politics
Calling for Clinton's scalp is a **been-there-done-that** kind of thing by now

Finally, from the US television series *Friends*:

  RACHEL: . . . John and David boots on sale, fifty percent off!
  CHANDLER: Oh, how well you know me.
  RACHEL: They're **my new "I don't need a job, I don't need my parents, I've got great boots" boots**!

7. New words for old

Why do we keep inventing new words?

Some words enter language along with the things they name, e.g. **coffee**, **automobile**, **Communism**, **psychotherapy**.

Abbreviations of various kinds may be preferred, e.g. **ICBM** for **intercontinental ballistic missile** and **lab** for **laboratory**.

Abbreviations may involve **conspiritorial encryption**, i.e. introducing new words as a test of membership, commonly in slang and technical language.

Writers and advertisers invent new words to display creativity and to make their texts-and hence their products--memorable.

We get tired of old words and replace them with new ones, just as we replace old clothes and accessories.

Like clothes and accessories, new words are especially attractive if they come from exotic places: hence the appeal of foreign words.
7.1 Borrowing

Language communities import words from each other along with goods and ideas.

A language may serve as a source for whole areas of vocabulary, e.g. Latin for terminology of Christianity, French for war and law following the Norman Conquest, Latin as lingua franca in Middle Ages.

7.1.1 Periods of borrowing

From Latin: before 450 on the continent: street cheese pipe mint (L. moneta)

450-600 initial period in England: port mountain -wich/-wick (L. vicus) Greenwich

600- Roman missionaries: altar angel candle priest temple

From Scandinavian 850-1050: Sky skin skill get give take call they-them-their

From French 1066-: government state royal court

religion baptism faith mercy

fashion dress robe gown

food dinner supper feast beef pork sausage

art music color beauty

general able clear calm save wait push

Latin again in ME: adjacent gesture history legal summary

Latin again in Renaissance: education describe acceptance analogy

7.1.2 Loan translation

Loan translation is the process whereby a native translation is modeled on a foreign compound, as in:

superman is a loan-translation from German Übermensch

loan-word itself is a loan- translation from German Lehnwort

in the other direction, German loan-translated skyscraper as Wolkenkratzer
Folk etymology occurs when a foreign word is misunderstood and re-modeled on native principles, e.g.

female from OF femelle by association with male

coleslaw from Dutch koolsla 'cabbage salad' cf. cold slaw

buckaroo from Spanish vaquero 'cowboy' due to buck (of horses)

cockroach from Spanish cucaracha by association with cock and perhaps roach 'fish'

7.2 Onomatopoeia and Phonesthesmes

Saussure made arbitrariness the basic feature of language as a system of signs,

But we find motivation or iconicity at many points in the language, e.g.

Onomatopoeia (also called Echoism), as in:

- **hiss** (of humans, snakes, steam),
- **murmur** (of voices and brooks),
- **wheeze** (of humans and machinery),
- **cockadoodle** (of cocks/roosters)
- **quack** (of ducks).

The imitative word may also act as the name of the animal itself, as in: cuckoo, bobwhite, chickadee.

Verbs like boo, pooh-pooh, shush are formed from coded sounds people make.

Phonesthemes = sounds or clusters of sounds (not morphemes) associated with a certain recurrent meaning in some language (also called sound symbolism).

--initial fl- associated with flying and flowing, e.g. fly, flow, fleet, flutter, fluid, float, flotsam, flush, etc.

--initial sp- associated with squirting water, e.g. spit, spout, spurt, spew, sputter

Also when l follows, as in splash, splatter, splosh

--suffix -er associated with recurrent motion, e.g. glitter, flutter, scatter, sputter, chatter, twitter
--syllable-initial cluster tw associated with the number 2: two, twice, twelve, twenty, twain, between, betwixt, twin, twine, twig, twilight (cf. zw in German)

Unfortunately, there are plenty of exceptions to all these regularities, e.g.

  fl- in flat, floor, flower

  sp- spider, spur, spooky

  -tter in matter, potter, gutter

  tw in twang, twirl, twitch

so sounds or clusters don’t carry a specific meaning,

though they do recur in certain semantically related words

7.3 Reduplication

Reduplication can also be seen as a sort of iconic process in word-formation, since rime and Ablaut (or vowel gradation, as in sing-sang-sung) relate the elements of a pair based on a similarity of sound.

RIME nitwit, lovey-dovey, super-duper, handy-dandy, boogie-woogie

cf. chock-a-block ding-a-ling

limiting case: verbatim repetition, as in: pooh-pooh, so-so, bye-bye

cf. so-and-so, through-and-through

nursery words: mama, dada, pee-pee, boo-boo

Note hifi from high fidelity with vowel shift to create rime

ABLAUT sing-song, criss-cross, chit-chat, wishy-washy, doo-dad

cf. spic-n-span bric-a-brac even tic-tac-toe

Onomatopoeia along with verbatim repetition, rime or ablaut, e.g. Choo-choo, murmur, ga-ga

bow-wow, hubbub

tick-tock, ding-dong, ping-pong, flip-flop, pitter-patter
The independent base word is usually the second word: *chit-chat*, *nitwit*

But it may be the first word: *super-duper*, *tick-tock*

Both words may be attested: *sing-song*, *handy-dandy*

Or perhaps neither, esp. when the combination enjoys onomatopoeic motivation, as in: *ga-ga*, *boogie-woogie*

Many rime and ablaut combinations retain a non-serious character even after centuries of use, e.g.

handy-dandy recorded in 1362, pitter-patter in 1425, rifffraff in 1470

7.4 Blending

In *blending* two words are fused into one, usually the first part of one word and the last part of the other, as in:

*brunch* from *breakfast* and *lunch*

*simulcast* from *simultaneous* and *broadcast*

The resultant blend partakes of both original meanings.

Blends are also called *portmanteau words* due to Humpty-Dumpty in Carroll's *Alice in Wonderland*, who says:

"You see it's like a portmanteau--there are two meanings packed up into one word."

Increasingly, blending is a creative, jocular process:

*alcoholidays* from *alcohol* and *holidays*

*balloonatic* from *balloon* and *lunatic*

*guesstimate* (or *guestimate*) from *guess* and *estimate*

*californication* apparently via spelling from *California* and *fornication*

7.5 Clipping and Hypercorism

In *clipping* sections of words (not necessarily morphemes or even full syllables) are removed to yield a new shorter form, i.e. with no meaning change.
back-clipping lab from lab(ory) gas from gas(oline)
fore-clipping plane from (air)plane bus from (omni)bus

Both back- and fore-clipping

flu from (in)flu(enza)
fridge from (re)fridge(rator)
still from (de)still(ery)

clipping compounds

Amerindian from Amer(ican) Indian
navicert from navi(gation) cert(ification)

In compounds, clipping may leave just initial syllables:
tacsatcom from tactical satellite communications
alnico from aluminum-nickle-cobalt
cf. Frisco from (San) Fr(anc)isco

Clipped form may be respelled:
mike bike from microphone bicycle
fax from facsimile

Clipped pronunciation may change spelling:
pram from perambulator
divvy up from divide up

Clipped spelling may change pronunciation:
préfab from prefábricated mob from L. mobile vulgus

BE vs AE differences: BE advert subs vs AE ad burbs
In hypocorism a final -y or -ie is added to a back-clipped word, as in:

movie from moving picture    telly from television

Note: AE uses initialism TV instead of hypocorism telly

The source word may be further simplified, as in: hanky for handkerchief

For one-syllable words, hypocorism yields the same result as simply adding the diminutive suffix -y or -ie, as in: mommy, daddy, doggy, ducky, dolly

Hypocorism probably originated as baby-talk with names of grandparents, aunts and uncles, siblings etc, as in: granny, aunty, Eddie, Susie, Johnny

Hypocorisms often retain some of the intimacy and playfulness of nursery language.

brekkie for breakfast

Chrissy pressies for Christmas presents

Note: Aussies use barbie for barbeque

7.6 Antonomasia (Commonization)

Antonomasia (commonization) occurs when a proper name enters the language as a common noun, e.g.

--proper noun Vandal for member of a destructive, war-like tribe becomes generally used as a common noun for any person who wantonly destroys property,

--name of Earl of Sandwich, who liked eating meat between slices of bread, becomes generally used as a common noun for the bread-meat-bread treat.

Compare, e.g. romeo einstein

gin from Genever

denim from serge de Nimes

plimsoll from Plimsoll mark from Samuel Plimsoll (AE sneakers!)

tuxedo from Tuxedo Park, NY (BE dinner jacket!)

wellies by hypocorism from Wellingtons from Duke of Wellington

(AE rubber boots)

In the 20th century, antonomasia has increasingly taken the form of trade names entering general vocabulary as common nouns, e.g. aspirin, zipper, nylon, teflon, xerox.
Since the dominant firms differed from one place to another, the commonized names tend to differ as well, e.g.

AE  scotch tape  BE  sello tape
Kleenex       tissue
pen          biro

7.7 Acronymy: Spelling, initials, syllables etc

Acronymy = formation of new words based on the initial letters of words

Initialism (or Alphabetism) pronounces the initials separately, as in:

CD  VCR  USA  UFO  PC  CPU
alphabet itself is initialism from alpha beta with final vowel clipped

Acronymy proper where the letters are pronounced together:

Nato from North Atlantic Treaty Organization
Aids from acquired immune deficiency syndrome
Ram from random access memory

Some linguists include syllable words here (same as clipping compounds above):

sial from silicon and aluminum
aldehyde from alcohol dehydrogenatum

There are also various forms mixing initials and syllables, like:

radar from radio distancing and ranging

binac from binary automatic computer

Jeep originally GP from General Purpose Vehicle
cf. Veep from VP from Vice President
The acronym may be perceived as a separate word and respelled as such:

deejay for DJ from disk jockey
emcee for MC from master of ceremonies

Some acronyms just happen, but others are planned:
CARE packages from Cooperative for American Remittances to Europe
MAGIC from machine for automatic graphics interface to a computer
MADD from Women Against Drunk Drivers

Combinations of processes, e.g.
laser by acronymy from light amplification by simulated emission of radiation
    yielded to lase by back-formation
delicatessen borrowed from German, then clipped to deli
hanky by hypocormism from handkerchief yielded hanky-panky by riming reduplication

8. Discourse morphology
8.1 Group-Formation

--Recall discussion of -ess and -ette,
-ess spread in its function of marking the feminine member of pairs, e.g. governor-governess,

This leads to pejoration in the whole group of words. -ette became associated with feminine meaning in suffragette, and spread to forms like majorette, again with negative connotations compared with unmarked "masculine" group.

--Recall formation of groups through reduplication based on rime and ablaut, e.g. namby-pamby and sing-song.

Words in both groups have a non-serious quality, associated with baby-talk.
Hypocorisms as a group also have a non-serious quality, e.g. Chrissy Pressies

The suffix -nik entered English in 1957 with the Russian word sputnik.

Failure of American satellite spawned: Yanknik, flopnik, goofnik, sputternik.

Associated with counter-culture types: beatnik peacenik protestnik folknik

Introduced suffixes led to formation of word-groups as early as 1516 when More's book title Utopia spawned eutopia a year later.

Modern words modeled on utopia are: dystopia 'bad place, negative utopia', subtopia 'place of suburbs'

Churchill's sarcastic queueutopia 'place where people queue'

Pornotopia originally a 'place for studying pornography'

Many current examples of group-formation in computer jargon, below.

8.2 Word-formation in technical language

Computer jargon especially interesting because it's grown so fast

acronyms PC CPI CD-ROM RAM WYSIWYG

abbreviation, clipping and blending:

e-zine from electronic and magazine modeled on e-mail

know-bot from know and robot reanalyzing ro -bot

net-izen from (inter)net and (cit)izen

blog from web + log retains final consonant of first word

also blogger and blogging

Spamming maybe from spill and cram
but perhaps instead metaphorically from Spam

Group formation, e.g. the morpheme ware

originally ware meant 'articles of merchandise or manufacture'

software was modeled on hardware in computer parlance
then came freeware 'free software' shareware guiltware nagware

Also: cybernetics invented 1948 by N. Wiener

then: cybertech(nology) cybergenetics cyberspace
cyberpunk cybersearch cybersex
cyborg blending of cybernetics and organism

And: hypertext hyperlink hypermedia hypermarket

hypertext markup language (html)

Metaphor: mouse zip (hence zip drive zip or zipped files etc)
cookie virus window surfing

snail mail modeled on e-mail with rime-based reduplication

8.3 Word-formation in literature

Shakespeare's Word-formation

invention: assassination obscene dwindle
derivation: countless premeditated courtship
blending: glaze from glare and gaze

triumphaterate from triumph and triumverate
compounding: fancy-free lack-lustre uncle-father giant-dwarf

fortunate-unhappy devilish-holy

zero-derivation: out-herod Herod outvillain'd villany

"I am proverbed with a grandsire phrase"

Double zero-derivation? (from "Romeo and Juliet" III v 151-54)

"Proud," and "I thank you," and "I thank you not,"And yet "not proud." Mistress minion, you, Thank me no thankings, nor proud me no prouds, But fettle your fine joints 'gainst Thursday next.

Word-formation in Dylan Thomas: "A Child's Christmas in Wales"
One Christmas was so much like another, in those years around the sea-town corner now and out of all sound except the distant speaking of the voices I sometimes hear a moment before sleep, that I can never remember whether it snowed for six days and six nights when I was twelve or whether it snowed for twelve days and twelve nights when I was six. All the Christmases roll down toward the two-tongued sea, like a cold and headlong moon bundling down the sky that was our street; and they stop at the rim of the ice-edged fish-freezing waves, and I plunge my hands in the snow and bring out whatever I can find. In goes my hand into that wool-white bell-tongued ball of holidays resting at the rim of the carol-singing sea, and out come Mrs. Prothero and the firemen.

Further examples of nonce word-formation in "Child's Christmas"

horrible-whiskered cats

harp-shaped hills

duchess-faced horse

snow minutely-ivied the walls

wind-cherried noses

the bat-black, snow-white belfries

down the tea-tray-slithered run of the chilly glinting hill

a substance that could be tug-o'-warred down to the galoshes

the rainbow-billed and pea-green birds.

8.4 Morphology and punning

Conversational word-play thrives on creative re-analysis of words.

Tom: so what about Bob?

Fred: well right now he's working as a freelance photographer.

Norm: yeah, and nobody's lance is freer than Bob's.

{General laughter}

Lydia: we had such a nice day today,

so you hurry and get rested.

because you're going to have a big nice[day tomorrow.]

Brandond: [hurry and] get rested.
Ned: {laughs}
Brandon: that's oxymoronic.
Ned: {laughing} yeah, can you imagine the ox?
Brandon: no, but I've spotted the moron.
Ned: I see {laughing}.
you'd think as dumb as oxes are.

to call one a moron would be tautological.
{Laughter}