## Lecture 8: Lexical Relations \& Lexical Change

## I. Application of the principles of human reasoning in semantic analysis:

$\Rightarrow$ Establishing 'connections' between concepts through analogy: lexical relations

- synonymy,
- antonomy,
- hyponymy,
- homonymy,
- homophony,
- homography,
- polysemy, etc.


## II. Lexical \& Semantic Change

$\Rightarrow$ Lexical Innovation / Loss of Words<br>$\Rightarrow$ Semantic Change: Broadening, Narrowing, Meaning Shifts

We remember that Logic is closely connected with semantics: the human mind tends to categorize all objects of thought by a set of shared criteria/properties. These are assumed to establish relations between categories which are both necessary and sufficient to capture meaning.

We should remember, however, that everything is relative, and that natural categories tend to be fuzzy at their boundaries and inconsistent in the status of their members. Systems of categories are not objectively 'out there' in the world - they exist in human minds and are rooted in people's experience. That is why conceptual categories may vary from person to person, and from culture to culture - they are not identical for every speaker of the language.

With this word of warning, let us now see how our minds classify/categorize concepts in semantic analysis.

## Word Meaning

Language creates meaning on many levels: morphemes, words, phrases, sentences, etc. Since larger units of meaning are made up of smaller ones, we shall first focus first on the meaning of individual words, or (more accurately) lexical items [We shall be concerned primarily with content words, such as mango, run, blue, etc., rather than with function words such as of, which, that, etc., whose role is mainly to show the relationship between syntactic units.]

## Lexical Relations

First of all, let us establish how concepts are related by using analogy based on resemblance (or lack of it): metaphor. Concepts can resemble each other or contrast:
$\Rightarrow \quad$ Synonyms are words with similar meanings, i.e. liberty - freedom, broad - wide, near close, athlete - sportsman, etc. There are no perfect synonyms - no two words ever have exactly the same meaning in all contexts: to 'break' is synonymous with 'snap' in the phrase 'break/snap a stick into two', but not in 'snap/ *break one's fingers' or 'break/*snap a world record.' © : Meanings can 'overlap' in some contexts and diverge in others.
$\Rightarrow$ Antonyms are 'opposites.' There are several types of opposite:

- The negative of one implies the other, i.e., single (not married) : married (not single), or easy (not hard) : hard (not easy), alive (not dead) : dead (not alive)
- Contrast is gradable: big : small, hot : cold, fast : slow, happy : sad, etc. With gradable pairs, the negative of one is not synonymous with the other: not happy is not necessarily sad, not cold is not the same as hot, etc.
- Relational opposites (contrast depends on perspective): give : take/ receive, buy : sell, teacher : pupil, parent : child, etc.

Metaphoric extension can be used as a figure of speech, when a relation is made between two concepts based on some form of resemblance. Metaphor as a literary device involves the use of words figuratively, beyond their primary meaning, i.e., eye of a needle / eye of a potato / eye of a storm; 'Walls have ears, etc.

Metonymy always involves an association between two things that is based on something other than resemblance. We use the inclusion principle to build a hierarchy of related concepts, for example:


The vocabulary of English is classified in this way in Roget's Thesaurus: each entry has under it a list of hyponyms. A hyponym is a lexical item that is conceptually included within the definition of another word, as scarlet, vermilion, carmine and crimson are all hyponyms of red. Although closely related to synonymy, established through resemblance (metaphor), hyponymy is a different semantic category, classifying concepts based on subordination (metonymy): rose and tulip are hyponyms of flower, for instance, but they are not synonymous with flower.

In hyponymy, one word may be replaced by a second word, but not the other way around, without a significant change in meaning. "drink" entails "beverage", which in turn entails "tea," but the entailment does not go the other way around. Other examples:

> "To copy" vs. "to xerox"
> "To walk" vs. "to stroll"
> "To sleep" vs. "to nap"

## Homonymy and Polysemy

There are several other, less well-known terms, which are used to describe relationships between words in a language:

Homonymy: homonyms are words which have the same form (orthographic or phonetic), but unrelated meanings. If they only differ in one way, they are called homophones or homographs, respectively:
$\checkmark$ Homonym = 'has the same name': bat (tennis) : bat (flying rodent), grave (serious) : grave (burial site), etc.*
$\checkmark$ Homophone $=$ 'has the same sound': two : too, break : brake, flower : flour, etc.
$\checkmark$ Homograph = 'has the same spelling, written the same way': lead (the metal) vs. lead (not follow ©), moped (motorized bicycle) vs. moped (wallowed in self-pity), etc.

* There is a fish called a fluke, a part of a whale called a fluke, and a stroke of luck called a fluke, but these are three different words with separate etymologies (histories) - they just happen to share the same form. Similarly, a river bank, a savings bank, and a bank of switches share the same spelling and sound, but have unrelated meanings and etymology - they are homonyms.

From a historical point of view, homonymy often results from an accidental phonological similarity between two unrelated words, e.g., the words bark (of a dog) and bark (of a tree) come from two completely different historical sources. The first is from Anglo Saxon beorcan, and the second is from Old Norse börkr.
Homonymy may also result when two related meanings drift apart over time. The word sole (a kind of fish) was originally related to the word sole (of the foot), because the sole of the foot is shaped like the fish. Speakers of modern-day English do not find any such similarity of meaning.

Polysemy refers to a concept of words with multiple etymologically related meanings, or senses. Polysemy results when there is a semantic change (i.e., when a semantic extension becomes conventionalized) and the original meaning of the word is retained.

Example: fork. The word fork can refer either to a branch in the road, an instrument used for digging, or to a utensil used for eating. The three senses of fork are all related in terms of shape.

Polysemy is distinct from homonymy, as situation in which two lexical items happen to have the same form (e.g. bat 'stick used for hitting a baseball' vs. bat 'flying mammal')
Polysemous senses of a lexical item always have related meanings. Homonyms do not normally have related meanings.

Polysemy almost always arises historically when a meaning is extended. For example, the word pig originally just referred to the animal but was later extended to mean 'a gluttonous person'. Why do you think this semantic extension was possible? $\cdot($

## The Driving Forces behind the Processes of Semantic Change: Metaphor \& Metonymy

Semantic change is possible because humans have the cognitive capability (the power of analogy) to form associations between different concepts. The two principle types of association are, as we already know, metaphor, and metonymy.

They are the processes of semantic extension, which sometimes (but not always) lead to semantic change and polysemy.

Metaphor always involves an association between two things that is based on resemblance. Metaphors express one concept in terms of another, based on the similarity between the two. Often, metaphor involves expressing a relatively abstract concept in terms of a relatively concrete one.

In the history of English, many ordinary English words have been extended to take on metaphorical meanings. The result is typically polysemy between literal and metaphorical meanings.
cold - 'low temperature' $\rightarrow$ 'distant and uncaring': She gave him a cold look.
hot - 'high temperature' $\rightarrow$ 'attractive': He is hot!
foot - 'body part at bottom of leg] $\rightarrow$ 'bottom': The house is at the foot of the hill.

Metaphors often apply to entire domains of experience, and affect entire discourses, not just isolated words, i.e.:

## HAPPY = UP; SAD = DOWN

I was feeling down, but now I'm feeling up again. My spirits rose, but then they sank. What can I do to lift your fallen spirits?

TIME = MONEY
You're wasting my time. How do you spend your time? Is it really worth your time? You need to budget your time better. I'm living on borrowed time. This will save you a lot of time.

## THE MIND = A MACHINE

My math skills are a little rusty. He's trying to grind out a solution to the problem. My mind just isn't working properly.

## LOVE = MADNESS

I'm crazy about him. He drives me out of my mind. He raves about her all the time because he's mad about her.

## SEEING = TOUCHING

His eyes are glued to the television. He can't take his eyes off of her. Their eyes made contact.
LOVE = SICKNESS: Our relationship is very healthy, but theirs is sick. We thought their marriage was dead, but now it's on the mend.
*Some of the above words in bold are polysemous. For example, the words up and down clearly have the senses of 'happy' and 'sad'.
**However, others are probably just the result of productive metaphorical extensions that have not been conventionalized in the language. The word healthy, for example, probably does not have a special sense referring to human relationships.

Whether a metaphorical meaning signals polysemy or not depends on whether the meaning has been conventionalized in the language.

Polysemy results from the conventionalization of a semantic extension and the retention of the original meaning.

As you remember, metonymy always involves an association between two things that is based on something other than resemblance. Usually, the meaning changes from one object to another that is close to it in space or time.

For example, people often say things like, 'He drank a whole bottle.' Of course, what they really mean is that he drank the contents of the bottle, not the bottle itself. But the bottle and whatever is inside it happened to be close together in space and time. This close association leads to a natural metonymic shift - the form that was associated with the bottle comes to be linked with the contents, i.e. it shifts its meaning. Also: 'bottle shop,' 'to go/be on the bottle,' 'to drown one's sorrows in the bottle,' etc.
*Please note that there is no resemblance between the bottle and its contents! :)
So metonymy expresses something in terms of one of its attributes or something closely related to it, usually in space or time. In everyday English usage, metonymy is a highly productive means of extending the meanings of words. Look at these examples:

## INSTITUTION FOR PEOPLE RESPONSIBLE:

The company laid off $50 \%$ of its workers (company = leaders of the company)
Lae is supposed to call this morning (Singapore= representative of a company in Lae)
The University will not agree to that (University = leaders of the university).

## CONTROLLER FOR CONTROLLED

I was driving along and $\mathbf{I}$ hit a tree. ( $\mathrm{I}=\mathrm{my}$ car)
A truck hit John in the right front fender (John = John's car)

## PRODUCER FOR PRODUCT

Crowley is not available at the library (Crowley = book by Crowley)
He owns a Picasso. $($ Picasso $=$ artwork by Picasso)
I'd like to drive a Ford. (Ford = car made by Ford)

## PART FOR WHOLE

The suits upstairs don't like the idea at all (suits = business people wearing suits)
She's not just another pretty face (face = person)
We need a hand here! (hand = person who can help)

## Other examples of metonymy:

The chicken breast at table four needs more coffee ( = customer eating a chicken breast)
He walked through the door (door = door frame)
The buses are on strike (buses = bus drivers)
She's in design (design $=$ the design profession)
We need some good minds for this project (good minds = intelligent people)
*As in the case of metaphor, it is probably the case that some of the words above in bold are polysemous, but others are just the result of productive metonymic extensions. For example, the word suit clearly has a sense of 'business person', but the word bus probably does not have a special sense meaning 'bus driver'.

## Thematic Roles

The semantic relationship between nouns and the verb is called thematic role (or thematic relations). Thematic roles of nouns can be expressed through case endings as is typical in the Slavic languages, or through the use of prepositions, as is the case in English, for example. The meanings of possible relationships between nouns and verbs (thematic roles) include:
$\checkmark$ Agent: Subject performs the action (Nominative case): Paul fries fish.
$\checkmark$ Source: where the action originated (Genitive): Fish comes from the sea.
$\checkmark$ Goal: what the action is directed towards (Dative): Paul gave the fish to his friends
$\checkmark$ Receiver of Action: Object of the verb (Accusative): Paul fries fish.
$\checkmark$ Instrument: what is used to carry out the action (Instrumental): Paul stuffed himself with fish.
$\checkmark$ Location: where the action occurs (Locative): Paul fries fish in the frying pan.

## Collocations, Phrasal Verbs, \& Idiomatic Expressions

## Collocations

Knowing a language means knowing the sounds of language, as well as the larger units, such as morphemes, words, and set expressions, conventionally used groups of words, i.e.,

When words are regularly/conventionally used together in a language, they are said to collocate with each other, for example: weak collocates with tea, but feeble does not (i.e., weak and tea collocate). Collocations are regular/conventional combinations of words, i.e.: 'resounding victory’ and 'crying shame' are English collocations.

## Phrasal Verbls

English also has a class of verbs called phrasal verbs: apart from their regular meaning when they are used in isolation, they acquire (take on) many other meanings when followed by a preposition (called postposition in this case - ) or an adverb, i.e.,

Come (move to here): come around (agree), come into (inherit), come off (to take place, to happen; to be successful /of a plan or scheme/); come round (relent, compromise; regain consciousness; visit), come to (regain consciousness, awaken), etc.

Go (move there): go out with (date), go off (explode), go off (spoil), go in for (choose, engage in habitually), go under (fail, go bankrupt), etc.

Do (act): do somebody in (kill), do something up (decorate), etc.
Take (cause to go with): take in (swindle, deceive; welcome), take off (launch), take over (usurp), take up (commence), etc.

Hang (suspend/be suspended): hang about (wait idly), hang back (hesitate), hang on (wait), hang on to (cling, retain), hang out (relax), hang out with (keep company with), hang up (end telephone conversation), etc.

Hold (to keep/support something using one's hands): hold dear (value), hold good (remain valid), hold back (hesitate), hold forth (speak boringly at great length), hold together (remain united), hold on (wait), hold up (rob using threat of violence), etc.

## Idioms

The meanings of some of the set expressions in all languages seem to have little to do with the meanings of words that make up these expressions, i.e., kick the bucket, etc.
Set expressions whose meanings are not straightforward combinations of the meanings of their constituent words, are called idiomatic expressions, or idioms. Idioms often violate restrictions of semantic properties, for example:

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a shrinking violet (joc. an extremely shy person)
at the eleventh hour
all hot and bothered (in a state of anxiety, pressured)
back to square one
be/get hooked on sb/sth (get addicted)
behind the scenes
bring home the bacon (achieve sth successfully)
bring sth home to sb (make sb realize sth fully)
come off it (imperative: stop saying what you are saying)
come out of /go into one's shell
do a number on (overwhelm)
do the honours (act as host)
eat one's words
get a life (self-improve)
go nuts (dement)
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have the honour (of sth / doing sth) - to be given the privilege specified
have a cow (be angry) [this must have undergone a semantic extension and become:
have beef with someone]
hold it
hold something against somebody (be hostile to sb)
hold the fort
hop it (go away)
hope against hope
hopping mad (very angry)
jump the gun
jump ship
keep tabs on someone
milk/suck sb dry
pass the buck
play hooky (stay away from school)
put her foot in her mouth
save one's/sb's bacon (to avoid / help sb avoid failure: I was nearly bankrupt, but your loan
saved my bacon)
see red
see the light
sell sb/sth/oneself short
send sb packing
set the stage (prepare)
split hairs (be petty)
take the bull by the horns
take a leak (urinate)
wrap sb around one's little finger
Idioms have peculiar grammatical/semantic properties, and exist in our mental dictionary (lexicon) as single items. Many idioms originated as metaphorical expressions that 'took hold' in the language and so became 'mummified' in their form and meaning.

## Some General Word Formation Processes

New words appear in our lexicon all the time - people make them up to reflect new concepts and realities. One of the relatively recent developments, for example, is amateur journalism on the net people write on issues they feel strongly about and post their thoughts and comments on their web pages (in itself a new concept () ). They are bloggers, or 'web loggers'; where did the name come from? You know the word for an official written record of events during a ship's voyage, or an aircraft's flight - 'log', also 'logbook' - 'a detailed record of things done, experienced, etc., as in 'keep a logbook'? That is exactly what bloggers do - they give a detailed written account of their experiences and thoughts, and post them on the web - that is why their writings are called weblogs / blogs, their occupation - weblogging / blogging, etc. We have no trouble in understanding all those derivative words - why, do you think?
Or take morphing, for example. According to the Collins Gem Computer Jargon list, it is the technique of blending one image smoothly into another to create a radical transformation. Now, would you be confused, if you heard of a bear being morphed into a cat, or of morphing software, which brings such effects to the average computer? I guess even morphers is possible... I have also heard people talking recently about rascality, and being rascalled $\odot$ ) Although you, like me, may not have heard some of these terms before, we 'catch on' with no problem - why is it so?

We can understand new words and form new ones, because we know the rules of word formation in the language that we use. Here is a list and a brief discussion of the general word formation processes, which include:

- Derivation
- Compounding
- Blending
- Clipping
- Backformation
- Conversion
- Acronyms
- Analogy
- Coinage
- Reduplication
- Multiple processes
- Borrowing


## Derivation

You remember that affixes (all bound morphemes) are used to 'add' meaning to word roots. We also remember that affixes fall into two main groups*:

- prefixes, that come before the root, and
- suffixes, that come after the root
*infixes are not common in English and circumfixes are simply not there!
We also remember that the 'kind' and 'amount' of meaning that these bound morphemes add to the roots depends on the kind of affix:
- prefixes and derivational suffixes change the overall meaning of the word, they help us form new words, whereas
- inflectional suffixes add only grammatical meaning that helps us understand the relationships between words in a sentence, but they do not change the core meaning of the word.

English prefixes and derivational suffixes come from a variety of source languages, including Old French, Latin and Greek.

Affixes, whose meaning is obvious to the average English speaker (i.e., un-+clean, or fear/-less, etc.), are sometimes called productive, whereas the more obscure ones, whose meaning is not immediately obvious, are called unproductive. Why? Because the average English speaker, without the knowledge of classical Latin or Greek, would not know their meanings, and consequently will not use them to form new words. Here is

## A Selective List of Some of the More Common ('Productive') English Affixes:

after- from the Old English preposition, giving compound nouns like afternoon, afterbirth, afterlife, afterthought, aftermath, after-effects, etc. A wide range of adjectives is also possible: after-school, after-work, after-dinner, after-hours, etc. (The adjectives usually take a hyphen, the nouns don't).
by- from OE 'by,' giving compounds like bystander, bypass, bygones, etc.
dis- /dif- /di- from Latin 'apart' or 'another': this prefix can elide ('fuse') with other consonants, giving words like diffuse, divide, differ. More importantly, it also combines with many existing verbs to give their opposites: disagree, disappear, disapprove, dissociate, disconnect, disengage, disinfect, dislike, dislodge, disobey, etc.
double- from Old French meaning 'two,' as in double-glazing, double-locked, double-sided, double-jointed, double Dutch, double Scotch, etc. There is also a meaning of deception in compounds like double-dealing, double-talk, double-cross, etc.
down- from OE, giving compounds like downfall, downcast, downbeat, downturn, downgrade, as well as vogue terms like downsize, downturn, etc.
ex- / ef-/ e- from Latin 'out of,' as in exhale, exceed, exhume, expatriate, expire, exonerate. The prefix forms ef- and $e$ - before certain consonants, as in effusive, emerge, elapse, erase, evade, escape, educate, etc. Words like ex-lover, ex-husband, ex-boxer, ex-president, etc., indicating people who 'used-to-be' something, are also from this prefix.
extra- from Latin for 'beyond,' as in extraordinary, extra-special, extra-marital, extra-curricular, extravagant, extraneous, etc. In many of its hyphenated constructions it act as 'intensifier' meaning 'very': extra-large, extra-bright, etc.
for- from OE preposition, usually meaning prohibition (forbid), abstention (forbear, forgo), or neglect (forsake, forget, forlorn).
fore- from OE 'before' or 'in front,' giving compounds such as forecast, foretell, forewarn, forefather, foregoing, forehead, forestall, etc.
hand- from OE, giving compounds such as hand-made, handwriting, hand-grenade, handshake, handbag, handkerchief, handcuffs, etc.
hyper- from Greek for 'over' or 'above' in the sense of 'excessively,' as in hyperactive, hypercritical, hypersensitive, hyperinflation, hypertensive, hyperbole, etc. A prefix functioning as an intensifier, hyper- also functions nowadays as an independent word, meaning 'agitated' or 'keyed up': hype, hyped-up.
in- from OE preposition, giving compounds like insight, inbred, inlet, income, inhale, as well as endear, enthral, embed / imbed, engrave, etc.
inter- / intel- / enter- from Latin for 'between,' as in interact, intercontinental, intercourse, intermarriage, interview, interrupt, intercom, inter-city, internet, etc. Also: intelligent, entertain, enterprise, etc.
intra- from Latin 'within,' now used as an opposite of 'extra,' as in intra-European, intravenous, intramuscular, intranet, etc.
intro- from Latin 'to, towards' or 'within': introduce, introvert, introspective, etc.
low- productive contemporary compound, giving low-key, low-profile, low-budget, low-grade, etc.
mid- from OE 'middle': midnight, midday, mid-week, mid-term, mid-semester, etc.
mis- partly from OE for 'wrongly' or 'badly,' and partly from Latin 'minus' via Old French mes, which came to have a similar meaning, giving misbehave, misjudge, misconstrue, mismanage, misspell, misplace, misdeed, mishap, mischief, etc.
out- from OE, giving compounds meaning 'do better than': outdo, outwit, outstrip, outmanoeuvre, etc. Others, such as outrage, outlaw, outside have the prefix stressed, and mean 'outside of.'
over- from OE, giving compounds like overcome, overtake, overeat, overreact, overdo, etc.
un- from OE, meaning (1) 'not': unkind, unfair, unsound, unlikely, unimaginable, unwise, untrue, uncool, etc., and (2) 'back,' with the sense of 'reversal': undo, untie, unfold, unbend, etc.
up- from OE: upright, uptight, upriver, upfront, etc.
wel- / well- from OE adverb: welcome, welfare, well-bred, well-trained, etc.
with- from the OE preposition: withstand, withhold, withdraw, etc.
-dom OE abstract noun suffix, indicating (1) a state or condition: freedom, boredom, martyrdom, stardom, etc., and (2) a territory, as in kingdom, Christendom, etc.
-down English suffix giving (1) compound adjectives: face-down, nose-down, top-down, handsdown, head-down, etc., and (2) nouns: breakdown, crackdown, showdown, touchdown, meltdown, sundown, etc.
-en English suffix giving (1) diminutive nouns: chicken, kitten, maiden; (2) verbs denoting 'making like (a quality)': broaden, shorten, lengthen, sweeten, fatten, lighten, frighten, etc., and (3) adjectives indicating 'substance' something is made of: wooden, woollen, silken, golden, leaden, waxen, etc.
-ful English adjective suffix indicating: (1) quantity: handful, bagful, mouthful, spoonful, etc., and (2) characteristics: beautiful, awful, thoughtful, etc.
-head English noun affixed to other nouns, giving (1) a range of (usually pejorative) meanings: egghead, fathead, sleepyhead, paw-paw-head, dickhead, thickhead, etc. (2)indicating the top, or front of something: letterhead, masthead, spearhead, etc.
-ie / -y English diminutive suffix: baby, dearie, doggy, Annie, Johnny, sweetie, etc.
-ish English adj. Suffix indicating (1) 'diluted' quality: bluish, reddish, greenish, boorish, etc., or (2) nationality: Irish, British, Scottish, Turkish, Kurdish, etc.
-less English adjective-forming Suffix, indicating lack of (quality): timeless, priceless, sleepless, lawless, toothless, thoughtless, etc.
-like / -ly English adjective-forming suffix: bird-like, fin-like, warlike, lifelike, businesslike, heavenly, manly, lovely, saintly, orderly, fatherly, ghastly, etc.
-ly standard and most productive English adverb-forming suffix: quickly, surely, squarely, etc.
-most English adj. Suffix: topmost, uppermost, utmost, etc.
-ship English abstract noun suffix: friendship, hardship, scholarship, workmanship, etc.
-y Adj. Suffix: hairy, moody, bloody, guilty, greedy, guilty, etc.
The rules of 'derivational' morphology allow us to create a new word out of an old one. For example, the suffix -able, as in lovable, movable, pronounceable, huggable, etc., converts a verb meaning 'to do X ' into an adjective meaning 'capable of having X done to it.'

## Compounding

In addition, English is very good at 'compounding, which 'glues' two words together to form a new one. This word-combining process is very common in all Germanic languages (less so in their Romanic 'cousins'): bookcase, fingerprint, armchair, wallpaper, car-park, underground, flyover, expressway, maybe, thunderstorm, blackout, therefore, forehead, weekend, eyeball, birthday, gridlock, toothbrush, standstill, go-slow, touchdown, shutdown, takeoff, cyberstalking, to mailbomb somebody, etc.

## Food for Thought:

In English, a compound is often spelled with a hyphen, or as one word, but it can also be spelled with a space between the components, as in 'no one,' for example. There is a simple way to tell whether you have a compound or a phrase: compounds generally have stress on the first element, and phrases - on the second. A dark room (phrase) is any room that is dark, but a dark room (a compound) is a photo lab. A black board (phrase) is a board that is black, but some blackboards (compound) are green, or even white. Pronounced wrongly (or written without punctuation marks) some word strings can be ambiguous: ©

Squad Helps Dog Bite Victim
Man Eating Piranha Mistakenly Sold as Pet Fish
Juvenile Court to Try Shooting Defendant

## Blending

This is when we use two (or more) 'pieces' of different words and combine them into a 'blend' of both:
brunch < breakfast + lunch
modem <modulator-demodulator
breathalyser < breath+analyzer
electrocute < electro-+execute
sitcom < situation+comedy
slithy < slimy + lithe
televangelism < television+evangelism
ginormous < gigantic + enormous

> Eurovision < European+television
> smog < smoke + fog
> motel < motor+ hotel
> glitzy < glamour + ritzy
> telecast < television+broadcast
> biodegradable < biologically degradable
> chortle < chuckle+snort,
> blog < web log, etc.

Blending is popular with advertisers, with words like informecials, Schweppervescence, twicicles, and nicicles ()

## Clipping

Clipping is a type of word formation which occurs when a word is abbreviated. The resulting terms are often colloquial, and found more often in spoken rather than written English (as the term suggests, 'clipping' means 'cutting short' the longer words). Who has the time to pronounce laboratory, when you can simply say lab? Or: fax, bra, ad, gas, kilo, cab, perm, flu, porn, plane, pram, phone, synch (in the phrase 'to be out of synch with something'), etc. Names are also typically shortened: Al, Kay, Ed, Dick, Mike, Ike, Tom, etc.
There must be a 'lazy bug' present in educational environments, because here we see the blossoming of 'clippings': exam, typo, chem., gym, math, Prof, doc, uni, varsity, admin, circs: in / under the circs, no bull (for 'no bullshit'), etc.
Sometimes a whole phrase can be clipped: It shorted (it short-circuited), etc.
A few other examples:
Amp < ampere Photo < photograph
Bus < omnibus
Chimp < chimpanzee
Coke < cocaine, coca-cola
Demo < demonstration
Disco < discotheque
Fax < facsimile
Mob < mobile vulgus (< Latin: 'the masses')
Phone < telephone

Photo < photograph
Piano < pianoforte
Pram < perambulator
Pro < professional
Reps < representatives
Tacs < tactics (as in to 'change tacs')
Revs < revolutions
Spec < specification,
Blog < weblog, etc.

## Backformation

Backformation is a process of forming a new word by removing an element from - rather than adding one to - an imagined root, or base. This is a specialized type of reduction process: typically, a word of one grammatical class (usu. a N ) is reduced to form a word of another grammatical class (usu. a V): television $\rightarrow$ televise; donation $\rightarrow$ donate; option $\rightarrow$ opt; emotion $\rightarrow$ emote; enthusiasm $\rightarrow$ enthuse; liaison $\rightarrow$ liaise; babysitter $\rightarrow$ to babysit; psychology $\rightarrow$ to psych ,obsession $\rightarrow$ to obsess (on sth.), etc. The word permutation has recently been observed attempting to backform a verb, permutate, when the verb has in fact existed for centuries, as permute (to backform is itself a backformation! ©) A few other examples:

Automate < automation
Craze < crazy
Eavesdrop < eavesdropper
Vivisect < vivisection,

Sync < synchrony, Psych (as in 'psych someone up'), etc.

Nouns ending in '-er' are often 'backformed' into verbs: burglars burgle; swindlers swindle; peddlers peddle; editors edit; sculptors sculpt, etc. - it stands to reason, doesn't it? ©)

Hypocorisms are a special type of backformation, typical of British and Australian English. A longer word is usually 'clipped' to a single syllable, and then the diminutive suffix '-y' or '-ie' is added to the 'tail': telly, movie, Aussie, hankie, Barbie doll, bookie, cabbie, cookie, roadie, etc.

## Conversion

Conversion is a term we use to name a word-formation process, which 'converts' words from one part of speech to another, i.e., when we use familiar nouns as words, or adjectives (without any reduction):

## He buttered his bread.

They import the wine in barrels, and bottle it here.
She likes to vacation in Australia.
It's expected to factor into that $=\mathrm{it}$ 's expected to impact the outcome
Conversion is particularly productive in modern English: Prices are bottoming/leveling out. They downned their beer in one long gulp. School party, sea air, user-friendly, vacation time, etc., etc. in fact, the use of nouns as adjectives is becoming the norm!

## Acronyms

Acronyms are abbreviations pronounced as if they were words, and they are a fairly recent method of word formation. They have proliferated particularly in the past 100 years. Acronyms are made up of the first letters of constituent words (they are shorter, simpler, and more user-friendly! ©):

```
CD for 'compact disc'
VCR for 'video cassette recorder'
MP for 'Member of Parliament'
AIDS for 'auto-Immune Deficiency Syndrome'
PIN for 'personal identification number'
ATM for 'automatic teller machine'
UFO for 'unidentified flying object'
laser for 'Light Amplification by Stimulated Emission of Radiation'
scuba for 'self-contained underwater breathing apparatus'
radar for 'radio detecting and ranging,'
SARS for 'severe acute respiratory syndrome,
Q2 for 'second quarter,' etc.
```

Note that the first set of examples are spelled out as capital letters, while the second set are written as ordinary words (one of the earliest acronyms is found in both forms: OK, or okay, meaning 'ol korrect' ${ }^{())}$

## Analogy

Another, and much more productive method of word formation is analogy, one of the driving forces of linguistic change. Many words and expressions are formed in this way, whether you describe a boring person as 'underwhelming' by analogy with 'overwhelming,' or say that a person has 'hidden shallows' by analogy with 'hidden depths,' or coin words like motorcade by analogy with cavalcade, technobabble by analogy with 'nukespeak,' etopia by analogy with 'utopia,' or telethon / cleanathon by analogy with 'marathon.' Some people, wanting to show off, extend the use of Latin affixes to new forms by analogy, i.e., religiosity, criticality, systematicity, randomicity,
insipidify, optimality, stereotypy, etc. Such words have an air of heaviosity and seriosity about them, which clouds their meaning (a tactic used frequently by unscrupulous bureaucrats and politicians).
©
Analogy is also used for humorous precision, not pomposity. Look at these items from The New Hacker's Dictionary:

ambimoustrous<br>barfulous<br>bogosity<br>depeditate<br>dimwittery<br>geekdom<br>marketoid<br>mumblage<br>pessimal<br>wedgitude<br>wizardly

> capable of operating a mouse with either hand quality that would make anyone barf the degree to which something is bogus to cut the feet off (e.g., while printing the bottom of a page) example of a dim-witted statement state of being a techno-nerd member of a company's marketing department the topic of one's mumbling the opposite of 'optimal' the state of being wedged (stuck; unable to proceed without help) pertaining to expert computer programmers

## Coinage

Because of so many other ways in which we can form new words, coining, or the invention of completely new terms is rather rare in English. Some words, however, like aspirin, hoover, nylon, kleenex, xerox, etc., that began as invented trade names, were quickly absorbed into the language and became common words that we use every day. With the IT revolution, so many new concepts entered our reality that new terms had to be invented for many of them, i.e., kerning (adjusting the spacing between the letters, so they look better), modem (short for Modulator-DEModulator), dingbats (a font consisting of graphical symbols), website, weblog/blog, etc.

## Reduplication

Here words are created by partial or complete repetition (reduplication is particularly common among children): abracadabra, puff-puff (for train, in the days of steam engines), wee-wee, teenyweeny, bye-bye, tom-tom, tut-tut, tick-tock. Many words formed this way have contrasting sounds, i.e., hanky-panky, helter-skelter, okie-dokie, hocus-pocus, knick-knack, mish-mash, ping-pong, mumbo-jumbo, etc.Most of these reduplicative words rhyme - that is what makes them memorable:

## Rhyming

arty-farty
backpack
Delhi belly
easy-peasy (-japaneasy)
fat cat

## Non-rhyming

hi-fi
hoity-toity
namby-pamby
pub grub
silly-billy, willy-nilly, etc.
dilly-dally
ding-dong
singsong
shilly-shally
flimflam, flip-flop, etc.

Repetative: gaga, goo-goo, go-go, so-so, chin-chin, chop-chop, lik-lik, singsing, toktok, etc.

## Multiple Processes

Thanks to all these word formation processes, the number of possible words we can build out of 'pieces' of words is immense. What makes their number infinite, is the fact that morphological rules can function together to create complex three-dimensional structures, not simple chains of morphemes stuck together. Remember? The output of one morphological rule can be the input to another, or to itself: we can talk of unmicrowaveability of some 'Liberty' ;) fries, or a floppy disk drive slot feature availability in some computers, etc.
More often than not, several word-formation processes are at work:
delicatessen $\rightarrow$ deli (borrowing + clipping);
snow + ball $\rightarrow$ to snowball (compounding + conversion),
$w e b+\log \rightarrow$ blog (clipping + blending), etc.
This is another example of how grammar functions as a complex mechanism tailored to the transmission of propositional structures through a serial interface.

## Borrowing (using words from other languages)

This is one of the simplest kinds of word formation: the word is simply 'lifted' from another language. Over 70\% of all the words in the Miriam-Webster Unabridged Dictionary are borrowed from other languages (majority from Old French, Latin and Greek). The new word may be needed in English, because it describes something not previously known to English speakers. That is how the names of exotic plants and animals came into English: orange, lemon, paprika, avocado, yam, yak, kangaroo, pelican, etc. Walter Scott popularized in his novel Ivanhoe the realization that while many animals in their lifetime have English names (ox, cow, calf, sheep, swine, pig, boar, deer), they reach our table with French names (beef, veal, mutton, porc, bacon, venison, brawn, etc.). This is a relic from the time when Norman masters left the care of the living animals to the Anglo-Saxon lower classes, while the superior French cuisine was kept in the hands of Norman cooks and chefs. Many other borrowings testify to this superiority: sauce, boil, fry, roast, toast, pastry, soup, sausage, jelly, dainty. And while the humbler breakfast is English, the more sumptuous meals, dinner, supper, and feasts generally, are French. Most of these borrowings date from the Norman Conquest ( 1066 AD ) and are no longer perceived to be foreign. We tend to be more aware of more recent borrowings, such as glasnost, perestroika, etc.

Loanwords are words that exist in one language and are imported into another language. Examples:

- bature is a Hausa word for a 'white man' (baturia - a 'white woman'), along with numerous other Hausa words, are used extensively in Nigerian English
- the words tai tai 'wife' and gweilo 'foreigner' were imported directly from Cantonese into Hong Kong English
- bilum - which language does it come from? $) \cdot$ - is part of PNG English, as are tokples, toksave, etc.
As we know, borrowing is one of the most common sources of new words in English. English has 'soaked up' numerous loanwords from a multitude of languages through contact with other nations and cultures: alcohol (Arabic), boss (Dutch), robot (Czech), yoghurt (Turkish), etc. Here are a few other examples:
Dutch: apartheid, bluff, brandy, bully, bumpkin, clamp, coleslaw, commando, dope, drill, sledge, slim, snoop, spook, spoor, stoop, trek, golf, frolic, yacht, etc.
German: frankfurter, hamburger, hamster, waltz, quartz, schnitzel, etc.
Norse and the Scandinavian languages: anger, blink, bloom, blunder, blur, crook, die, dirt, doze, dregs, egg, fellow, gaze, geyser, law, leg, meek, muck, nasty, odd, roof, scold, sky, slalom, sniff, squeal, take, kick, weak, ugly, want, window, etc.
Indian languages: mango, bungalow, dungarees, crimson, nirvana, pariah, sapphire, shampoo, sugar, swastika, yoga, etc.
Russian: [tok Sou] < talk show, [bai] < Bye!, etc.
A loan-translation, or calque, is a special type of borrowing, which translates a foreign word, phrase, or idiom and adopts its meaning: French un grate-ciel $\rightarrow$ sky-scraper, English 'boyfriend' $\rightarrow$ Japanese boyifurendo (borrowing with sound modification), but a calque in Chinese: nan pengyu. [oxota na ved ${ }^{\mathrm{j}} \mathrm{m}$ ] is the Russian calque of 'witch hunting.,' meaning 'hunt for witches', [Sok i tr ${ }^{j}$ ep ${ }^{j}$ et] < 'shock and awe,' [os ${ }^{j}$ zla] < 'axis of evil,' [avia Sou] < air show (here we have a calque + borrowing $(\cdot)$, etc.


## Self-Assessment Exercises

Ex. 1 Explain the semantic ambiguity by providing two sentences that paraphrase the two meanings. Example: 'She can't bear children' can mean either 'She can't stand children' or 'She can't have children.'

He waited by the bank.
Is he really that kind?
He saw the gasoline can explode.
The bat flew through the air and landed in the bushes.
The fisherman was the sole store owner.
Ex. 2 There are several kinds of antonymy: Distinguish them by writing R for relational, C for complementary, and G for gradable in the $3^{\text {rd }}$ column:

| Good | Bad |  |
| :---: | :---: | :---: |
| Expensive | Cheap |  |
| Parent | Child |  |
| Beautiful | Ugly |  |
| False | True |  |
| Employer | Employee |  |
| Hot | Cold |  |
| Pass | Fail |  |
| Legal | Illegal |  |
| Larger | Smaller |  |
| Poor | Rich |  |
| Asleep | Awake |  |
| Husband | Wife |  |
| Teacher | Student |  |
| Rude | Polite |  |
| Doctor | Patient |  |
| Healthy | Sick |  |

Ex. 3 The following sentences are ambiguous when you read them. After figuring out the double sense, indicate those of them that can be disambiguated in speech by intonation or pauses.

The chick is too hot for me to swallow.
Wise men and women avoid conflict situations.
Peter loves kissing girls most.
John hates Rodney more than Martha.
Martha hit the man with a brick.
They are moving pictures.
Sarah loves reading magazines on hot new cars and other vehicles, even tractors.

## Ex. 4 What is the lexical relationship between the following pairs of words?

```
shallow : deep }\quad=>\quad\mathrm{ vehicle : car
mature : ripe }\quad=>\mathrm{ move : run
 suite : sweet }\quad=>\quad\mathrm{ hate : love
table : furniture }\quad=>\mathrm{ black : white
single : married }\quad=>\quad\mathrm{ sing : hum
bat: bat }\quad=>\quad\mathrm{ insect: bee
meet:meat }\quad=>\mathrm{ source : receiver
fan : fan
```

Ex. 5 Identify the kind of analogy (metaphor / metonymy) used in the following statements:
$\Rightarrow \quad$ Mom cooked very nice stew yesterday, but Rodney is a pig - he ate the whole pot before I could even taste it.
$\Rightarrow \quad$ She is just an angel, always ready to help others.
$\Rightarrow \quad$ Peter is a walking encyclopaedia, he knows it all.
$\Rightarrow \quad$ You are a stupid egg-head!
$\Rightarrow$ A 4-wheel-drive jeep hit us from behind - now the car is damaged.
$\Rightarrow \quad$ The University has made a transition to two-semester academic year.
$\Rightarrow \quad$ Telikom introduced a new type of phone card.
$\Rightarrow \quad$ She is everything to me - my life, my heart, my soul.
$\Rightarrow \quad$ PMVs are on strike today - no buses are running since morning.
$\Rightarrow \quad$ Seconds creep by when you are waiting for something desperately.
Ex. 6 Which of the following statements are best described as polysemy or as metonymy?
$\Rightarrow \quad$ Computer chips are an important new technology.
$\Rightarrow \quad$ The university bookstore has a few new titles in linguistics.
$\Rightarrow \quad$ We happened to be in the eye of the storm.
$\Rightarrow \quad$ The pen is mightier than the sword.
$\Rightarrow \quad$ Students usually sit at the foot of the stairs, waiting for their lecturers to arrive.

