Derivation (Affixation)

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Derivation

- **Derivational affixes**: English has over 60 common derivational affixes, and there is no theoretical limit to their number.
- Unlike inflectional affixes, derivational affixes can change the word class of the item they are added to.
- If both inflectional and derivational affixes are used, then the derivational affixes are inner, closer to the stem, and inflectional affixes are outer, furthest from the stem.
- E.g. *fright + en + ed = frightened*
  resign + ation + s = resignations

Derivational affixes

- They are usually divided into class-changing and class-maintaining d.a.
- Class-changing derivational affixes change the word class of the word to which they are added. In English, they are usually suffixes.
- *resign* (verb) + *ation* = resignation
- *active* (adjective) + *ist* = activist.

Class-changing der.affixes

- NOMINALIZERS (noun derivational affixes, nominal affixes)

- VERBALIZERS (verb derivational affixes, verbal affixes)

- ADJECTIVIZERS (adjective derivational affixes, adjectival affixes)

- ADVERBIALIZERS (adverb derivational affixes, adverbial affixes)

Class-maintaining der.affixes

- Class-maintaining derivational affixes do not change the word class of the word to which they are added. They are mainly prefixes:

- anti+malaria → anti-malaria
- dis+agree → disagree
- scholar + ship → scholarship
- un + tie → untie
- ex + wife → ex-wife
- green + ish → greenish
- re + open → reopen
- *Mis-, be-, ex-, mal-, re-, un-, dis-, in-,*

Nominal suffixes

Nominal suffixes are often employed to derive abstract nouns from verbs, adjectives, and nouns. Such abstract nouns can denote actions, results of actions, or other related concepts, but also properties, qualities, and the like.

-age
This suffix derives nouns that express an activity (or its result) as in *coverage, leakage, spillage, and nouns denoting a collective entity or quantity, as in acreage, voltage, yardage. Due to inherent ambiguities of certain coinages, the meaning can be extended to include locations, as in orphanage. Base words may be verbal or nominal and are often monosyllabic.*
-al
A number of verbs take *-al to form abstract nouns denoting an action or the result of an action, such as arrival, overthrowal, recital, referral, renewal. Base words for nominal -al all have their main stress on the last syllable.*

Nominal suffixes

- **-ance** *(with its variants –ence/-ancy/-ency)*
Attaching mostly to verbs, *-ance creates action nouns such as absorbance, riddance, retardance.*

- **-ant**
This suffix forms count nouns referring to persons (often in technical or legal discourse, cf. *applicant, defendant, disclaimant*) or to substances involved in biological, chemical, or physical processes *(attractant, dispersant, etchant, suppressant).* Most bases are verbs of Latinate origin.

- **-dom**
The native suffix *-dom is semantically closely related to -hood and -ship,* which express similar concepts. *-dom attaches to nouns to form nominals which can* be paraphrased as 'state ofbeing X' as in *apedom, clerkdom, slumdom, yuppiedom,* or which refer to collective entities, such as *professordom, studentdom,* or denote domains, realms or territories as in *kingdom, cameldom, maoridom.*

Nominal suffixes

- **-(e)ry**
Formations in *-(e)ry refer to locations which stand in some kind of connection* to what is denoted by the base. More specific meanings such as 'place where a specific activity is carried out' or 'place where a specific article or service is available' could be postulated (cf., for example, *bakery, brewery, fishery, pottery* or *cakery, carwashery, eatery),* but examples such as *mousery, cannery, rabbitry* speak for an underspecified meaning, which is then fleshed out for each derivative on the bas is of the meaning of the base.

- **-ful**
The nominal suffix *-ful derives measure partitive nouns (similar to expressions* such as *a lot of, a bunch of)* from nominal base words that can be construed as containers: *bootful, cupful, handful, tumblerful, stickful. .There is also an adjectival suffix -ful.*

Nominal suffixes

- **-ee**
The meaning ofthis suffix can be rather clearly discerned. It derives nouns denoting sentient entities that are involved in an event as non-volitional participants (so-called 'episodic *-ee').* Thus, *employee denotes someone who is employed, a biographee is someone who is the subject ofa biography, and a standee is someone* who is forced to stand (on a bus, for example).

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In addition to the locations, *-(e)ry derivatives can also denote collectivities (as* in *confectionery, cutlery, machinery, pottery),* or activities (as in *summitry 'having* many political summits,' *crookery 'foul deeds').*

Nominal suffixes

- **-er** (and its orthographic variant -or)
The suffix **-er** can be seen as closely related to **-ee,** as its derivatives frequently signify entities that are active or volitional participants in an event (e.g. teacher, singer, writer, etc.). This is, however, only a subclass of **-er** derivatives, and there is a wide range of forms with quite heterogeneous meanings. Apart from
performers of actions we find instrument nouns such as blender, mixer, steamer, toaster, and nouns denoting entities associated with an activity such as diner, lounger, trainer, winner (in the sense 'winning shot').
Furthermore, **-er** is used to create person nouns indicating place of origin or residence (e.g. Londoner, New Yorker, Highlander, New Englander).
This heterogeneity suggests that the semantics of **-er** should be described as rather underspecified, simply meaning something like 'person or thing having to do with X.' The more specific interpretations of individual formations would then follow from an interaction of the meanings of base and suffix and further inferences on the basis of world knowledge.
-er is often described as a deverbal suffix, but there are numerous forms (not only inhabitant names) that are derived on the basis of nouns (e.g. sealer, whaler, noser, souther), numerals (e.g. fiver, tenner), or even phrases (four-wheeler, fourthgrader).
The orthographic variant -or occurs mainly with Latinate bases ending in /s/ or /t/, such as conductor, oscillator, compressor.

Nominal suffixes

- **-ing**
Derivatives with this deverbal suffix denote processes *(begging, running, sleeping)* or results *(building, wrapping, stuffing).The suffix is somewhat peculiar* among derivational suffixes in that it is primarily used as a verbal inflectional suffix forming present participles. Examples of pertinent derivatives are abundant since *-ing can attach to practically any verb. See also adjectival -ing below.*

- **-ion**
This Latinate suffix has three allomorphs: when attached to a verb in *-ify, the verbal suffix and -ion* surface together as *-ification (personification).When attached to a verb ending in -ate, we find -ion* (accompanied by a change ofthe base-final consonant from [t] to [ʃ], *hyphenation), and we find the allomorph −ation in all other cases (starvation, colonization).*
Derivatives in *-ion denote events or results ofprocesses. As such, verbal bases are by far the most* frequent, but there is also a comparatively large number of forms where *-ation is directly attached* to nouns without any intervening verb in *-ate.These forms are found primarily in scientific discourse with* words denoting chemical or other substances as bases (e.g. *epoxide−epoxidation, sediment− sedimentation).*

Verbal suffixes

- **-ate**
Forms ending in this suffix represent a rather heterogeneous group.There is a class of derivatives with chemical substances as bases, which systematically exhibit so-called ornative and resultative meanings.These can be paraphrased as 'provide with X' (ornative), as in *fluorinate, or 'make into X' (resultative), as in methanate. However, a large proportion off orms in -ate do not conform to this* pattern, but show various kinds of idiosyncrasies, with *-ate being apparently no* more than an indicator of verbal status.
Phonologically, *-ate is largely restricted to attachment to words that end in one* or two unstressed syllables.

- **-en**
The Germanic suffix *-en attaches to monosyllables that end in a plosive,* fricative or affricate. Most bases are adjectives (e.g. *blacken, broaden, quicken, ripen),* but a few nouns can also be found (e.g. *strengthen, lengthen).The meaning* of *-en formations can be described as causative 'make (more) X.'*

Verbal suffixes

- **-ify**

This suffix attaches to three kinds of base word: to monosyllabic words, to words stressed on the final syllable, and to words stressed on the penult followed by a final syllable ending in unstressed /i /. Neologisms usually do not show stress shift, but some older forms do (h´umid–hum´idify, s´olid–sol´idify). These restrictions have the effect that -ify is in (almost) complementary distribution with the suffix -ize (see the answer key, exercise 3.5, for details).

Semantically, -ify shows the same range of meanings as -ize and the two suffixes could therefore be considered phonologically conditioned allomorphs.

Verbal suffixes

- **-ize**

Both -ize and -ify are polysemous suffixes, which can express a whole range of related concepts such as locative, ornative, causative/factitive, resultative, inchoative, performative, similative.

Locatives can be paraphrased as 'put into X,' as in computerize, hospitalize, tubify.

Patinatize, fluoridize, youthify are ornative examples ('provide with X'), randomize, functionalize, humidify are causative ('make (more) X'),

carbonize, itemize, trustify and nazify are resultative ('make into X'), aerosolize and mucify are inchoative ('become X'),

anthropologize and speechify are performative ('perform X'), cannibalize, vampirize can be analyzed as similative ('act like X').

The suffix -ize attaches primarily to bases ending in an unstressed syllable and the resulting derivatives show rather complex patterns of base allomorphy.

Adjectival suffixes

The adjectival suffixes of English can be subdivided into two major groups. A large proportion of derived adjectives are **relational adjectives,** whose role is simply to relate the noun the adjective qualifies to the base word of the derived adjective. For example, algebraic mind means 'a mind having to do with algebra, referring to algebra, characterized by algebra,' colonial officer means 'officer having to do with the colonies,' and so on.

On the other hand, there is a large group of derived adjectives that express more specific concepts, and which are often called **qualitative adjectives.** Sometimes, relational adjectives can adopt

qualitative meanings, as can be seen with the derivative grammatical, which has a relational meaning 'having to do with grammar' in the sentence she is a grammatical genius, but which also has a qualitative sense 'conforming to the rules Of grammar ,' as in This is a grammatical sentence. Note that relational adjectives usually occur only in attributive position, i.e. as prenominal modifiers (as in

a lexical problem). If we find them in predicative position in a clause (as in This sentence is grammatical), they usually have adopted a qualitative sense.

Adjectival suffixes

- **-able/-ible**

This suffix chiefly combines with transitive and intransitive verbal bases, as in deterrable and perishable, respectively, as well as with nouns, as in serviceable, fashionable.

The semantics of deverbal -able forms seem to involve two different cases, which have been described as 'capable of being Xed' (cf. breakable, deterrable, readable), and 'liable or disposed to X' (cf. agreeable, perishable, variable; changeable can have both meanings). What unites the two patterns is that in both cases the referent of the noun modified by the -able adjective is described as a potential non-volitional participant in an event. In this respect, -able closely resembles episodic -ee.

Denominal forms can convey the same meaning, as e.g. marriageable, jeepable, kitchenable, roadable.

Adjectival suffixes

- **-al**

This relational suffix attaches almost exclusively to Latinate bases (accidental, colonial, cultural, federal, institutional, modal). All derivatives have stress either on their penultimate or antepenultimate syllable. If the base does not have its stress on one of the two syllables preceding the suffix, stress is shifted to the antepenultimate syllable ofthe derivative (e.g. c´olony–col´onial).

Apart from the allomorphy already discussed in section 2.2 (-ar after bases ending in [l], -al elsewhere), there are the two variants -ial (as in confidential, labial, racial, substantial) and -ual (as in contextual, gradual, spiritual, visual). With bases ending in [s] or [t], -ial triggers assimilation of the base-final sound to [ʃ] (e.g. facial, presidential). The distribution of -ial and -ual is not entirely clear, but it seems that bases ending in -ant/ance (and their variants) and -or obligatorily take -ial (e.g. circumstantial, professorial).

Adjectival suffixes

- **-ary**

Again a relational adjective-forming suffix, -ary usually attaches to nouns, as in complementary, evolutionary, fragmentary, legendary, precautionary. We find stress-shifts only with polysyllabic base nouns ending in -ment (cf. Complim´entary vs. m´omentary).

- **-ed**

This suffix derives adjectives with the general meaning 'having X, being provided with X,' as in broad-minded, pig-headed, wooded. The majority of derivatives are based on compounds or phrases (empty-headed, pig-headed, air-minded, fair-minded).

- **-ful**

Adjectival -ful has the general meaning 'having X, being characterized by X' and is typically attached to abstract nouns, as in beautiful, insightful, purposeful, tactful, but verbal bases are not uncommon (e.g. forgetful, mournful, resentful).

Adjectival suffixes

- **-ing**

This verbal inflectional suffix primarily forms present participles, which can in general also be used as adjectives in attributive positions (and as nouns, see above). The grammatical status of a verb suffixed by *-ing* in predicative position is not always clear. In *the changing weather the -ing form can be analyzed as an adjective*, but in *the weather is changing we should classify it as a verb* (in particular as a progressive form). In *the film was boring, however, we would probably want to argue that boring is an adjective, because the relation to the event denoted by the verb is much less prominent than in the case of changing.*

- **-less**

Semantically, denominal *-less can be seen as antonymic to -ful, with the meaning being paraphrasable as 'without X': expressionless, hopeless, speechless, thankless.*

Adjectival suffixes

- **-ly**

This suffix is appended to nouns and adjectives. With base nouns denoting persons, *-ly usually conveys the notion of' in the manner of X' or 'like an X,' as in brotherly, daughterly, fatherly, womanly. Other common types of derivative have bases denoting temporal concepts (e.g. half-hourly, daily, monthly) or directions (easterly, southwesterly).*

- **-ous**

This suffix derives adjectives from nouns and bound roots, the vast majority being of Latinate origin (*curious, barbarous, famous, synonymous, tremendous*). Like derivatives in *-al, -ous formations are stressed either on the penultimate or the antepenultimate syllable with stress being shifted there, if necessary (e.g. pl´atitude – platit´udinous). There are further variants of the suffix, -eous (e.g. erroneous, homogeneous), -ious (e.g. gracious, prestigious), and -uous (e.g. ambiguous, continuous).*

Adverbial suffixes

- **-ly**

The presence of this exclusively de-adjectival suffix is for the most part syntactically triggered and obligatory, and it can therefore be considered inflectional. However, in some formations there is a difference in meaning between the adjective and the adverb derived by *-ly* attachment: *shortly, hardly,* and *dryly* are semantically distinct from their base words and *hotly, coldly,* and *darkly can only have metaphorical senses. Such changes of meaning are unexpected for an inflectional suffix, which speaks against the classification of adverbial -ly as inflectional.*

- **-wise**

This suffix derives adverbs from nouns, with two distinguishable subgroups: manner/dimension adverbs, and so-called viewpoint adverbs. The former adverb type has the meaning 'in the manner of X, like X' as in *The towel wound sarongwise about his middle, or indicates a spatial arrangement or movement, as in The cone can be sliced lengthwise.*

Prefixes

The prefixes of English can be classified semantically into the following groups.

First, there is a large group that quantify over their base words' meaning, for example, '**one**' (*uni-, unilateral, unification*), '**twice or two**' (*bi-, bilateral, bifurcation* and *di-, disyllabic, ditransitive*), '**many**' (*multi-, multi-purpose, multilateral* and *poly-, polysyllabic, polyclinic*), '**half**' (*semi-, semi-conscious, semidesert*), '**all**' (*omni-, omnipotent, omnipresent*), '**small**' (*micro-, micro-surgical, microwave*), '**large**' (*macro-, macro-economics, macro-biotic*), '**to excess**' (*hyper-, hyperactive, hypermarket* and *over-, overestimate, overtax*), '**not sufficiently**' (*undernourish, underpay*).

Only three prefixes, which are no longer productive in English, systematically change the part of speech of the root:

- a-N/V > A *ablaze, asleep, astir, astride, abed, abroad*
- be-N > V *betoken, befriend, bedeck, becalm, besmirch*
- en-A/N > V *enlarge, ensure, encircle, encase, entrap*

Other prefixes change only the meaning of the root, not its class. Prefixes fall into a number of semantic classes in English, depending upon the meaning that they contribute to the root.

Furthermore, some prefixes may fit into more than one category; e.g. *under-,* expresses both degree (in *underpayment*) and place (in *underwater*). Prefixes may often attach to more than one part of speech, e.g. *mislead (V)* and *misfortune (N).*

Semantic Classes of Prefixes in English

a. Time	*prearrange, presuppose, preheat aftershock, afterthought, afterglow*
b. Number	*tricycle, triannual, triconsonantal multinational, multilingual, multimillionaire*
c. Place	*infield, in-patient, ingrown interconnect, interbreed, interlace*
d. Degree	*supersensitive, supersaturated, superheat overanxious, overconfident, overdue*
e. Privation	*amoral, apolitical, asymmetric unlock, untie, unfold*
f. Negation	*unafraid, unsafe, unwise, antisocial, antitrust, antiwar*
g. Size	*microcosm, microchip, microfilm*
	miniskirt, minivan, minimall

Prefixes

Second, there are numerous locative prefixes such as *circum-* '*around*' *(circumnavigate, circumscribe), counter-*'*against*' *(counterbalance, counterexample), endo-* '*internal to X*' *(endocentric, endocrinology), epi-* '*on, over*' *(epiglottis, epicentral), inter-*'*between*' *(interbreed, intergalactic), intra-*'*inside*' *(intramuscular, intravenous), para-*'*along with*' *(paramedic, paranormal), retro-*'*back, backwards*' *(retroflex, retrospection), trans-* '*across*' *(transcontinental, transmigrate).*

- Third, there are temporal prefixes expressing notions like '**before**' *(ante-, pre-,* and *fore-, as in antechamber, antedate, preconcert, predetermine, premedical, forefather, foresee),* '***after***' *(post-, poststructuralism, postmodify, postmodern),* or '**new**' *(neo-, neoclassical, Neo-Latin).*
- *A fourth group consists of prefixes expressing negation (a(n)-, de-, dis-, in-, non-, un-).*

Prefixes

- **a(n)-**

This prefix only occurs in Latinate adjectives. With denominal adjectives, the meaning can either be paraphrased as 'without what is referred to by the nominal base,' cf. for example *achromatic* '*without color,*' *asexual* '*without sex,*' or as 'not X,' as in *ahistorical, asymmetrical. Opposites formed by a(n)- are mostly* contraries (see section 2.3 for a discussion of the notion of contraries).

- **anti-**

This polysemous prefix can express two different but related notions. In words like *anti-war, anti-abortion, anti-capitalistic, anti-scientific, anti-freeze, anti-glare* it can be paraphrased as 'against, opposing,' with denominal, deadjectival and deverbal derivatives behaving like adjectives (cf. *anti-war movement, Are you pro-abortion or anti-abortion?, an anti-freeze liquid).* Another type Of denominal *anti-* derivatives are nouns denoting something like 'the opposite Of an X' or 'not having the proper characteristics of an X,' as in *anti-hero, antiparticle, anti-professor.*

Prefixes

- **de-**

This prefix attaches to verbs and nouns to form reversative or privative verbs: *decolonize, decaffeinate, defla, depollute, dethrone, deselect.* Very often, *de-* verbs are parasynthetic formations, as evidenced by, for example, *decaffeinate,* for which no verb *∗caffeinate is attested.*

- **dis-**

Closely related semantically to *un-* and *de-,* the prefix *dis-* forms reversative verbs from foreign verbal bases: *disassemble, disassociate, discharge, disconnect, disproof, disqualify. Apart from deriving reversative verbs, this suffix* uniquely offers the possibility to negate the base verb in much the same way as clausal negation does: *disagree* '*not agree,*' *disobey* '*not obey,*' *dislike* '*not like.*'

Prefixes

- **in-**

This negative prefix is exclusively found with Latinate adjectives and the general negative meaning 'not': *incomprehensible, inactive, intolerable, implausible, illegal, irregular. It assimilates to the first sound of the base in the manner* described in the answer key to exercise 2.5.

- **mis-**

Modifying verbs and nouns (with similar bracketing problems as those mentioned above for *dis-), mis-* conveys the meaning 'inaccurate(ly), wrong(ly)': *misalign, mispronounce, misreport, misstate, misjoinder, misdemeanor, mistrial.*

The prefix is usually either unstressed or secondarily stressed. Exceptions with primary stress on the prefix are either lexicalizations (e.g.*m´ischief) or some nouns that* are segmentally homophonous with verbs: *m´iscount (noun) vs. misc´ount (verb), m´ismatch vs. mism´atch, m´isprint vs. mispr´int.*

- **non-**

When attached to adjectives this prefix has the general meaning of 'not X': *non-biological, non-commercial, non-returnable. In contrast to un-* and *in-,* negation with *non-* does not carry evaluative force, as can be seen from the pairs

unscientific vs. non-scientific, irrational vs. non-rational. Furthermore, non- primarily forms contradictory and complementary opposites (see section 2.3 for a discussion of the different concepts of oppositeness).

Prefixes

- **un-**

As already discussed in chapter 2, *un- can attach to verbs and sometimes* nouns (mostly of native stock) to yield a reversative or privative ('remove X') meaning: *unbind, uncork, unleash, unsaddle, unwind, unwrap. The prefix is also* used to negate simple and derived adjectives: *uncomplicated, unhappy, unsuccessful, unreadable. Adjectival un-* derivatives usually express contraries, especially with simplex bases (see section 2.3 for a more detailed discussion).

Nouns are also attested with *un-,* usually expressing 'absence of X' (e.g. *unease, unbelief, uneducation, unrepair). Such nouns are often the result of analogy or* back-formation (e.g. *educated : uneducated :: education : **uneducation). We also*** find a meaning extension similar to the one observed with *anti-* and *non-,* namely 'not having the proper characteristics of X': *uncelebrate, unevent, un-Hollywood* (all attested in the BNC)