

The Status of Etymology in the Synchronic Morphology of English

Daniel Lenski

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Even before the English language existed as such, when it was merely a collection of dialects spoken by Germanic tribes on the North Sea coast, it had already begun to borrow vocabulary from its neighbors. The words *anchor* and *mile*, taken from Late Latin along with a few others, probably crossed the North Sea with the Angles and the Saxons (Cannon 1987:4). A few hundred more had trickled in by the time of the Norman Conquest. However, the majority of borrowed words, and indeed the bulk of the Modern English lexicon, have come from Medieval French and Medieval, Renaissance, or Scientific Latin.¹

This importation of Latinate vocabulary occurred on such a large scale that it has affected not only the lexicon of English, but its phonology, syntax, and morphology as well. In the latter domain, its effect has been particularly strong and lasting, since many of the Latinate loan words, in particular the scientific and abstract vocabulary, were morphologically complex.

Marchand describes the transfer of morphological structure more or less intact into English as follows:

... when a number of analysable foreign words of the same structure had been introduced into the language, the pattern could be extended to new formations i.e. the [affix] then became a derivative morpheme. (Marchand 1966:85)

¹This so called “Neo-Latin” vocabulary often contains many Greek elements (consider the hybrid Greek-Latin term *bio-log-ic-al*). Greek and hybrid words seem to pattern with Latinate vocabulary in English, other than in scientific words in which Greek and Latin quantity or intensity prefixes such as *mono-* ↔ *uni-*, *bi-* ↔ *di-*, *poly-* ↔ *multi-*, etc. only attach to stems derived from the same language. Even this constraint is routinely violated in less learned words, such as *hypersensitive*, combining a Greek prefix with a Latinate stem. Greek morphemes will be considered “Latinate” in this paper.

English has directly borrowed many French or Latin affixes, such as *re-* or *-age*. In other cases, the morphology of the loan words has been simplified or reanalyzed, leading to back formations such as the truncated form *bus* (originally from Latin *omnibus*), or the verb *act*, obtained in the reanalysis of *action* as Verb + *-ion* (by analogy with pairs such as *permit* ⇔ *permission*).

The morphological status of these elements has remained unclear right down to modern English. Have Latinate affixes become fully assimilated into English morphology, combining freely with native and borrowed stems alike? The answer to this seems to be definitely negative. For example, there is only one standard English word, *oddity*, that contains a native Germanic stem immediately followed by the Latinate affix *-ity*. Might one then suppose that all other words containing the suffix *-ity* were borrowed whole from French or Latin, without regard to their internal morphological structure? Again, this is not possible: words like *authenticity* and *electricity* are composed of Latinate morphemes, yet they appeared in the seventeenth century and predate their cognates in French (Marchand 1966:252).

One approach to this problem has been to posit a morphological rule known as the Latinate Constraint, which is defined by Plag (1999:48) as:

Bases and affixes may combine only if their etymological features are compatible.

In this scheme, each English morpheme must be classified as either [+ Latinate], [– Latinate], or possibly unmarked for etymology (in which case it should freely combine with any morpheme, regardless of origin). Of course, in the synchronic grammar etymology is not supposed to play any role. (Educated speakers might be aware of the etymology of their vocabulary and could select words or morphemes based on this knowledge; however, this probably only applies to a small minority of speakers throughout the Modern English period.) The purely morphological [\pm Latinate] feature is intended to be merely the synchronic artifact of a historical process.

If the Latinate Constraint holds, how well will the [\pm Latinate] morphological feature actually reflect the etymology of the morphemes that it marks? For some, it would do quite

well, such as *-ation*, *-ition*, *-ission*, and *-sion*, a set of Latin-derived nominative suffixes. These are clearly [+ Latinate] in their domains, as Haldeman (1865:168, 230) finds no case in which they follow a Germanic stem, while Marchand (1966:204) lists only *flirtation*² and *starvation*,³ in addition to a few attested but ephemeral mocking forms. The suffix *-ive* is a similar Latinate-only stalwart. On the Germanic side, the suffix *-th*⁴ combines exclusively with [– Latinate] stems to form *breadth*, *strength*, *growth*, etc. Among the prefixes, *a-* binds only with Latinate stems (Marchand 1966:93; Haldeman 1865:46).

For most other English affixes, the morphological and etymological aspects of the [± Latinate] feature are less in agreement. Consider the identity crisis of the suffix *-ment*: though it is Old French in origin (and survives in modern French with identical spelling), it attaches to numerous Germanic stems, forming *wonderment*, *merriment*, *acknowledgment*, *amazement*, *bereavement*, *embodiment*, and several dozen others (see Haldeman 1865; Marchand 1966). The Germanic suffix *-ness* is similar, binding to the Latinate stems *clear*, *feeble*, *gentle*, etc., as well as to native English stems (ibid.). Latinate prefix *re-*, also preserved and highly productive in modern French, can attach to essentially any English action verb (as opposed to stative verbs such as *be*), without regard to its origin. Even some very old and now more or less opaque Germanic prefixes such as *be-* can bind to Latinate stems, as in *besiege*, *belabor*, *betray*, *beguile*, and others.

Must these less discriminating affixes be designated as neither [+ Latinate] nor [– Latinate], but unmarked for etymological selection? This is a very unsatisfactory solution since these affixes outnumber those which can be confidently classified in one category or the other. The Latinate Constraint and the etymologically-based [± Latinate] feature must be called into question if they are either contradictory or irrelevant in the majority of cases. Yet they cannot

²*flirt* is of uncertain origin and may actually be derived from French *fleur* ‘flower.’ Modern French *conter fleurette* [flœβɛtə] means ‘to court.’

³My own theory is that *starvation* (18th c.) was formed by analogy with the semantically and phonologically similar word *privation*, which is entirely Latinate and is attested in English from the 14th century.

⁴Haldeman (1865:227-8) notes that *-t* and *-d* were formerly phonologically conditioned allomorphs of *-th*, and lists several forms that would not be considered transparently bimorphemic by most speakers of English today, such as *sloth* (< *slow*), *broth* (< *brew*), and *flood* (< *flow*).

be entirely dismissed since they do help to account for the domains of a substantial minority of affixes. (Plag (1999:59) also points out that the [\pm Latinate] feature seems to have phonological as well as morphological implications, since it affects prosodic structure.)

Although the Latinate Constraint fails to establish a solid requirement of compatibility between the etymology of English affixes and that of their binding domains, this does not mean that the [\pm Latinate] feature can have no role in the the synchronic morphology of English. Perhaps the Latinate Constraint is an overly restricted version of a more general rule that determines which affixes can attach to a given English stem, and which is correlated to the [\pm Latinate] feature of the stems. A systematic examination of the English affix system may shed some light on this problem.

A quick glance at a list of common English prefixes (see table on page 11) will reveal several interesting patterns. First of all, very few prefixes are category-changing (as noted by Bauer 1983:216). The only exceptions are the deadjectival verbalizing prefix *en-*₂ (as in *enlarge*, *embody*, etc.), the denominal verbalizing prefix *de-* (as in *debark*, *debone*) and the denominal or deverbal prefix *a-* which forms predicative adjectives (as in *agliter*, *ablaze*), and the semantically unpredictable verbalizing prefix *be-*. The negative prefixes *dis-* and *un-* are also found in a few forms with nominal stems, such as *disgrace* or *unhorse*, in a reversative or privative sense. In these cases the outwardly nominal stems are probably denominal zero-affix verbs, even if they only occur in bound form (i.e. *-horse* is a bound verb meaning ‘to place someone on a horse’). These few category-changing prefixes are certainly the exception rather than the rule. It is not even clear that *a-* and *be-* should be considered derivational affixes in all cases. They are more like prepositions in *ashore* (= ‘on/towards shore’), *afire* (= ‘on fire’), *belie* (= ‘lie near,’ cf. *underlie*), and *bemoan* (= ‘moan about’), while in its deverbal use *a-* is almost like a gerundive⁵ inflectional affix (as in *ablaze*, *aglow*).

Not only are English prefixes rarely category-changing, but they are rarely of Germanic origin as well. Marchand (1966:86) attributes the low productivity of Germanic prefixation

⁵Consider also the redundant colloquial forms *acoming* and *agoing*.

since the Norman Conquest to the massive influx of French prefixes and to the movement of locative particles to post-verbal position during the Middle English period. Nonetheless, a few Germanic prefixes have remained highly productive: negative *un-* and *under-*, *over-*, *fore-*, and *out-*. The last four are the remnants of the preverbal locative particles, and in some cases their locative meaning has been eliminated (as in *understand*). All of these productive prefixes attach to either [+ Latinate] or [– Latinate] stems. The prefixes *be-* and *a-* also bind to both types of stems, although they have not been productive⁶ at least for the last century. This leaves only *for-*⁷ as a “purely” Germanic prefix; it seems to mean ‘against’ or ‘despite.’ It no longer has a transparent meaning except in the forms *forgo*, *forswear*, *forbid*, *forbear*, and perhaps *foredo*. This prefix has not been productive for hundreds of years and is marginal in Modern English.

Lack of etymological discrimination is also the norm for Latinate prefixes in English. Nearly all of the Latinate prefixes attach to both [+ Latinate] and [– Latinate] stems. The exceptions, negative *in-* and *a-*, which attach only to [+ Latinate] stems, could be explained by a blocking effect: *in-* and *a-* do not attach to Germanic stems because the more productive *un-* or *de-* get there first. *A-* has probably almost never been productive on a native English basis; it exists mostly in learned or scientific words (*atypical* and *apolitical* are recent and notable exceptions). Historically, *in-* was quite productive adjectivally, but forms such as **impopular* and **incertain* have now been replaced by the corresponding *un-* forms. Yet *in-* seems to be holding its ground, barely, for nouns; this gives us odd pairs such as *unjust* ⇔ *injustice* and *unable* ⇔ *inability*, although **incertainty* has gone the way of **incertain* (Marchand 1966:121). Since *in-* was at one time productive in English, why did it never bind to any Germanic stems? One possible explanation is that, historically, the Latinate Constraint was more tightly enforced in English and that it did not erode until after *in-* had already become

⁶In the nineteenth century, *a-* produced a flurry of new forms, but it has been dormant since (see Marchand 1966:92).

⁷If one accepts the word *forfend* (= ‘to prevent, ward off’) as morphologically complex (perhaps an amalgam of *forbid* and *defend*?), then even *for-* can combine with a [+ Latinate] stem!

less productive than *un-*.

What should be done with [+ Latinate] affixes such as *hydro-*, *infra-*, *-trophy*, and the countless other “scientific” affixations that are used very productively in scientific terms containing almost exclusively Latinate morphemes? Cannon (1987:160) and Bauer (1983:213) treat them as affix-like ICFs (initial combining forms, after the OED designation); however, they obey slightly different combinatoric rules. Bauer also proposes a practical means of distinguishing them on a semantic basis:

In general, it seems that ICFs contain a higher density of lexical information than prefixes do . . . The intention can be seen by comparing *socio-* or *eco-* with *pre-* or *un-*, where some reference to society and ecology is required for the specification of the meanings of the ICFs, but where the information for the prefixes can be expressed in terms of function words. (Bauer 1983:215)

One could further argue that ICFs are largely irrelevant to a discussion of the status of the [\pm Latinate] feature in the synchronic English morphology because terms containing ICFs are usually formed in an explicit and intentional emulation of Latin or Greek morphology or syntax. The coiners do not intend for these words to be used in vernacular English. Moreover, when these “Neo-Latin” terms become part of everyday speech, for whatever reason, their Latin or Greek morphology is usually lost or incorrectly reanalyzed: *television* has become *TV* or *telly*, *analyze* has led to the analogical formation *breathalyze*, etc.

Bauer’s criterion also hints at the overriding theme of English prefixes: prefixes tend to be replacements for function words. There is a trend in English towards the transformation of certain prefixes into syntactic structures. Prefixes such as *post-* and *co-* regularly receive primary or secondary stress in words such as *post-election* or *co-captain* (although not in others such as *coexistence* or *co-chairman*). At least one prefix, *extra-*, has completely freed itself from morphological constraints to become an independent adjective or adverb, as in, “I brought some extra spending money.” Given the apparent drift of English prefixes towards a more syntactic and less morphological role, it is not surprising that neither Germanic nor Latinate prefixes are picky about the etymological characteristics of the stems to which they bind. After studying the English suffixes, it will be very clear that drift away from complex

morphology towards increased reliance on syntactic structure is underway.

The set of English suffixes must be examined next. In marked contrast to the prefixes, English suffixes are nearly all category-changing. In fact, the only suffixes that are *not* category-changing are Noun → Noun suffixes. All of these affixes can also function as Adj. → Noun suffixes, suggesting that adjectives and nouns share some morphosyntactic feature (Bauer 1983:216-7), except for the suffix *-age*, which can only be Noun → Noun or Verb → Verb. The set of suffixes is somewhat larger than the set of prefixes; about two-thirds of English suffixes are Latinate, one third are Germanic.

It is interesting to note that there are quite a few suffixes that bind only to [+ Latinate] stems, as well as three (both *-en₁* and *-en₂*, and *-th*) that bind only to [– Latinate] stems. Among the remaining suffixes, those that do not discriminate based on the [± Latinate] feature, one finds some of the most productive English affixes, including *-ment*, *-ness*, *-y₁*, and *-er₁*. On the other hand, among those that bind only to [+ Latinate] stems, one finds affixes for which the attested forms contain a high percentage of loanwords that were not historically the result of productive English derivation (such as *-ant* or *-ic*). How can one explain the apparent relation between the productivity of a suffix and its lack of sensitivity to the [± Latinate] feature?

The Level Ordering system may give some insight into this problem. Level Ordering (developed by Siegel, Bloomfield, and others) posits two types of derivational affixes, morpheme boundary affixes and word boundary affixes (Plag 1999:54-5). All morpheme boundary, or level 1, affixes must be bound to a stem before any word boundary, or level 2, affixes can be bound to the resultant word. Certain phonological processes (in particular stress assignment) can occur only after level 1 and not after level 2. Determination of the level of an affix is relatively straightforward; it is done by observing the manner in which an affix combines with other affixes and its ability or inability to affect the prosodic features of the stems to which it binds. Although Level Ordering has been thoroughly discredited by Fabb (1988) as a means of determining unallowed affix combinations in English, it remains useful in other ways.

Reading the table of English suffixes (begins on page 12), one may observe that suffixes that bind with both [+ Latinate] and [– Latinate] stems tend to be level 2 suffixes, while those that can take only one sort of stem tend to be level 1. If this is a general rule, it has some very interesting implications. But first, the inevitable exceptions to this pattern must be sorted out.

To start off, what is the domain of the suffix *-an*? It is classified as level 1 and, indeed, all the common nouns that it adopts as stems are [+ Latinate]. However, it also binds to a very large group of proper nouns, and it is really only with this group that it can be considered productive in English, since most of the common noun-stem forms were borrowed into English with their affixes intact (Marchand 1966:189-91). Since *-an* only binds productively to proper nouns, can it really be claimed that it only binds to [+ Latinate] nouns? Many of these proper nouns are clearly [+ Latinate] by virtue of having been coined by the Romans. For example, few would dispute that *Caledonia*, *Iberia*, or *Augustus* are [+ Latinate]. Secondly, many of the other proper nouns that bind to *-an* share some superficial morphophonemic features with Latin proper nouns: most of the place names that bind to *-an* end in *-a* or *-ia*. Failing that, there is often a conscious effort to make names more “Latin-like” before adding *-an* to them. Consider the words *Wincastrian* (< *Winchester*), *Cantabrigian* (< *Canterbury*), or *Shavian* (< *George Bernard Shaw*), all cited by Marchand (1966:190).

Next, one must confront the problem of the level 2 suffixes *-ism*, *-ist*, and *-ize*, which bind almost exclusively to [+ Latinate] stems. These suffixes have acquired a bit of a bad reputation, so to speak, in that they are frequently used to form derogatory labels for attitudes, people, and actions, respectively. This effect seems to be particularly pronounced on the rare occasions in which they *do* combine with Germanic stems, as in *jingoism* and *gangsterism*, *chalkologist* or *doggist* (undoubtedly mocking forms cited by Marchand 1966:247), and *womanize* or *heathenize*. Very old Latinate words containing these affixes do not carry this stigma; however, Latinate words formed in the last few centuries, such as *legitimize*, *racism*, and *sexist*, are not immune to it. It is probable that the negative connotations of these affixes have hampered their productivity for at least a century. Also, since the primary victims of these affixes

are ideologies, philosophies, and politicians, it is not surprising that they generally attach to Latinate nouns and proper nouns. Marchand (1966:257) notes that *-ize*, at least, has recently produced two forms with [– Latinate] stems: *winterize* and *weatherize*.

Finally, consider the Germanic suffix *-en*, which binds to only two [+ Latinate] stems, in *hasten* and *glassen*. There is a simple phonological explanation for its failure to bind to other stems of this type: *-en* binds only to monosyllabic adjectives ending in obstruents. This virtually destroys the entire potential pool of Latinate adjectives in English, most of which are polysyllabic and many of which end in [ɪ] or [ɪ]. Unfortunately, this is not sufficient for the purposes of this paper. Fabb (1988:531) calls *-en* a level 2 suffix. This is perplexing because it violates one of the forthcoming conclusions regarding the nature of level 2 suffixes. There does not actually seem to be much empirical evidence that would definitively classify *-en* one way or another: it never affects stress and it never interacts with other affixes (except in the form *lengthen*, where it follows a level 1 affix). From a theoretical standpoint, it will make much more sense to consider *-en* level 1.

Having explained these obstacles, I assert the following: **Level 1 suffixes may attach only to those stems that are etymologically compatible with them. Level 2 suffixes incur no such restriction.** To discover the true significance of this statement, return to the basic premise of Level Ordering: **Level 1 affixes bind to stem morphemes. Level 2 affixes bind to words.** I believe that these two statements, taken together, demonstrate the fundamental tension between synthetic morphological structures and analytic syntactical structures in Modern English. Level 1 suffixes in English are highly conservative: they strive to follow the morphological rules of Old English, Old French, Latin, or Greek, all of which were synthetic languages in which complex words were formed by combining many bound morphemes. Because morphemes within a word have access to each others' phonology and can impose arbitrary selectional requirements on each other, level 1 affixes naturally divide themselves into two incompatible groups: those which impose the phonological and selectional rules of Old

English, and those which impose the rules of the Latinate languages.⁸ Level 2 suffixes, in contrast, do not affect their stems phonologically and tend to impose fewer selectional requirements on them. They are increasing their productivity by behaving more like syntactic structures, which admit no accidental or arbitrary gaps. In the words *disembody* or *believability*, one observes the very interesting situation in which a level 2 [+ Latinate] morpheme “bridges the gap” between a level 1 [+ Latinate] affix and a [– Latinate] stem.

From a historical perspective, the level 2 affixes appear to be winning. English prefixes are, by and large, oblivious to the etymological features of the stems to which they attach, and the same appears to be true of suffixes. Since the English lexicon is derived from two etymologically and thus morphologically incompatible sources, affixes can become more productive by becoming less fussy about morphology and phonology. Those affixes that have failed to do so, such as the Germanic suffix *-en*, remain stagnant and may eventually disappear as their domains are encroached on by more productive formations. Modern English is becoming more and more an analytical language as it slowly loses track of its complex morphological heritage.

⁸Of course, this does not preclude the occurrence of words like *starvation*. Its stem may, by pure chance, fulfill the phonological and other selectional requirements that determine whether or not a Latinate verb can take the suffix *-ation*.

Affixes

This table lists the most common English affixes. The sources are:

1. Prefixes are based on Lightner (1983:45) (some opaque prefixes with no synchronic morphological value were omitted) and Bauer (1983:217-20). I added *under-*, *over-*, *out-*, *counter-*, and *non-*.
2. Suffixes are based on Fabb (1988). I added *-less* and *-th*.
3. Data on the bindings domains are taken from Marchand (1966) and Haldeman (1865).
4. Level-ordering for suffixes is from Fabb (1988:531).
5. I have not included level-ordering information for prefixes since I could not find a source of data on it except for a few prefixes such as *in-* or *un-*. It seems as if level-ordering in general does not produce very useful results for prefixes.

AFFIX	ORIGIN	LEVEL ORDER	ETYMOLOGIC DOMAIN	EXAMPLE
1) <i>a</i> ₋₁	Germ.		Most [– Lat.]	<i>asleep, aboard, aflower</i>
2) <i>a</i> ₋₂	Greek		[+ Lat.]	<i>asymmetric, atypical, apolitical</i>
3) <i>anti-</i>	Greek		[± Lat.]	<i>antifascist, antihero, anti-war</i>
4) <i>arch-</i>	Latin		[± Lat.]	<i>archbishop, archenemy, archfiend</i>
5) <i>be-</i>	Germ.		[± Lat.]	<i>befriend, belabor, besiege</i>
6) <i>bi-</i>	Latin		Most [+ Lat.]	<i>bifacial, bivalve, bimonthly</i>
7) <i>co-</i>	Latin		[± Lat.]	<i>codefendant, cooperate, coworker</i>
8) <i>counter-</i>	Latin		[± Lat.]	<i>counteract, counterweight, counter-stroke</i>
9) <i>de-</i>	Latin		[± Lat.]	<i>decentralize, dethrone, defang</i> (vbl.)
10) <i>dis</i> ₋₁	Latin		Most [+ Lat.]	<i>displease, disown, disembody</i> (vbl.)
11) <i>dis</i> ₋₂	Latin		[+ Lat.]	<i>disobedient, disfavor, dishonor</i> (adj., nom.)
12) <i>en</i> ₋₁	Latin		[± Lat.]	<i>enclose, enroll, enwrap</i> (vbl.)
13) <i>en</i> ₋₂	Latin		[± Lat.]	<i>enchain, embed, enshrine</i> (nom.)
14) <i>ex-</i>	Latin		[± Lat.]	<i>ex-officer, ex-rich, ex-husband</i>
15) <i>extra-</i>	Latin		[+ Lat.]	<i>extraordinary, extraterritorial, extra-planetary</i>

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16)	<i>for-</i>	Germ.	[– Lat.]	<i>forbear, forgo, forswear</i>
17)	<i>fore-</i>	Germ.	[± Lat.]	<i>foresee, foretell, foreordain</i> (vbl.)
18)	<i>hyper-</i>	Greek	[+ Lat.]	<i>hyperpersensitive, hyperactivity, hyperacute</i>
19)	<i>in-</i>	Latin	[+ Lat.]	<i>infirm, inhuman, infrequent</i>
20)	<i>mis-</i>	Multiple ⁸	[± Lat.]	<i>misgovern, misdeed, mistake</i>
21)	<i>non-</i>	Latin	[± Lat.]	<i>nondescript, non-realistic, nonbeing</i>
22)	<i>over-</i>	Germ.	[± Lat.]	<i>overdo, overreact, overanalyze</i>
23)	<i>post-</i>	Latin	[+ Lat.]	<i>postpone, post-glacial, postnatal</i>
24)	<i>para-</i>	Greek	[± Lat.]	<i>paraphysical, paralegal, paraglide</i>
25)	<i>pre-₁</i>	Latin	[± Lat.]	<i>prejudge, prefigure, preheat</i> (vbl.)
26)	<i>pre-₂</i>	Latin	Most [+ Lat.]	<i>prenatal, pre-election, pre-knowledge</i> (adj., nom.)
27)	<i>pro-</i>	Greek	[± Lat.]	<i>pro-action, pro-American, pro-life</i>
28)	<i>re-</i>	Latin	[± Lat.]	<i>readmit, redo, reset</i>
29)	<i>sub-₁</i>	Latin	Most [+ Lat.]	<i>subdivide, subcolonize, sublet</i>
30)	<i>sub-₂</i>	Latin	[± Lat.]	<i>subcontinent, subgroup, subway</i>
31)	<i>super-</i>	Latin	[± Lat.]	<i>supernatural, superhuman, superheat</i>
32)	<i>trans-</i>	Latin	[± Lat.]	<i>transatlantic, transborder, transship</i>
33)	<i>un-₁</i>	Germ.	[± Lat.]	<i>undo, unlace, uncross</i> (vbl.)
34)	<i>un-₂</i>	Germ.	[± Lat.]	<i>unknown, uncertain, unsafe</i> (adj.)
35)	<i>under-</i>	Germ.	[± Lat.]	<i>underfeed, underestimate, under-value</i> (adj.)

1)	<i>-able</i>	Latin	2 [± Lat.]	<i>comfortable, doable, knowable</i>
2)	<i>-age₁</i>	Latin	2 [± Lat.]	<i>assemblage, marriage, storage</i> (de-vbl.)
3)	<i>-age₂</i>	Latin	2 [± Lat.]	<i>parsonage, clientage, freightage</i> (denom.)
4)	<i>-al₁</i>	Latin	1 [± Lat.]	<i>approval, revival, betrayal</i> (nomz.)
5)	<i>-al₂</i>	Latin	1 Most [+ Lat.]	<i>natural, tidal, bridal</i> (adjz.)
6)	<i>-an₁</i>	Latin	1 [+ Lat.] ⁹	<i>barbarian, Elizabethan, Arabian</i> (nomz.)

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7)	<i>-an₂</i>	Latin	1		Same as previous (adjz.)
8)	<i>-ance</i>	Latin	1	Most [+ Lat.]	<i>dependance, subsistence, hindrance</i>
9)	<i>-ant₁</i>	Latin	1	Most [+ Lat.]	<i>occupant, resident, coolant</i>
10)	<i>-ant₂</i>	Latin	1	[+ Lat.]	<i>absorbent, defiant, reluctant</i>
11)	<i>-ary₁</i>	Latin	1	[+ Lat.]	<i>visionary, revolutionary, dietary</i> (nomz.)
12)	<i>-ary</i>	Latin	1	[+ Lat.]	Same as previous (adjz.)
13)	<i>-ate₁</i>	Latin	1	Most [+ Lat.]	<i>electorate, sultanate, aldermanate</i> (nomz.)
14)	<i>-ate₂</i>	Latin	1	[+ Lat.]	<i>passionate, affectionate, compassion-</i> <i>ate</i> (adjz.)
15)	<i>-ed</i>	Germ.	2	[± Lat.]	<i>fanged, landed, propertied</i>
16)	<i>-en₁</i>	Germ.	2	Most [- Lat.]	<i>brighten, soften, hasten</i> (deadj. and denom. nomz.)
17)	<i>-en₂</i>	Germ.	1	[- Lat.]	<i>wooden, woolen, earthen</i> (adjz.)
18)	<i>-er₁</i>	Germ.	2	[± Lat.]	<i>worker, player, silencer</i> (deverb.)
19)	<i>-er₂</i>	Germ.	2	[± Lat.]	<i>needler, potter, prisoner</i> (denom.)
20)	<i>-ful₁</i>	Germ.	2	[± Lat.]	<i>mournful, forgetful, neglectful</i> (de- vbl.)
21)	<i>-ful₂</i>	Germ.	2	[± Lat.]	<i>trustful, wrathful, graceful</i> (denom.)
22)	<i>-hood₁</i>	Germ.	2	[± Lat.]	<i>childhood, fatherhood, nationhood</i> (denom.)
23)	<i>-hood₂</i>	Germ.	2	[± Lat.]	<i>likelihood, livelihood, falsehood</i> (deadj.)
24)	<i>-ic</i>	Latin	1	[+ Lat.]	<i>acidic, systematic, geometric</i>
25)	<i>-ify₁</i>	Latin	1	[+ Lat.]	<i>glorify, classify, liquefy</i> (denom.)
26)	<i>-ify₂</i>	Latin	1	Most [+ Lat.]	<i>intensify, amplify, prettify</i> ¹⁰ (deadj.)
27)	<i>-ion</i>	Latin	1	Most [+ Lat.]	<i>vision, information, starvation</i>
28)	<i>-ish</i>	Germ.	2	[± Lat.]	<i>smallish, roguish, blueish</i>
29)	<i>-ism₁</i>	Greek	2	Most [+ Lat.]	<i>idealism, truism, jingoism</i> ¹¹ (denom.)
30)	<i>-ism₂</i>	Greek	2	[+ Lat.]	<i>impressionism, favoritism, fascism</i> (deadj.)
31)	<i>-ist₁</i>	Greek	2	Most [+ Lat.]	<i>balloonist, novelist, landscapist</i>
32)	<i>-ist₂</i>	Greek	2	Most [+ Lat.]	<i>socialist, humanist, rightist</i>

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33)	<i>-ity</i>	Latin	1	[+ Lat.]	<i>agility, availability, oddity</i>
34)	<i>-ive</i>	Latin	1	Most [+ Lat.]	<i>expressive, abusive, talkative</i>
35)	<i>-ize</i> ₁	Greek	2	[± Lat.]	<i>canonize, hospitalize, weatherize</i> (denom.)
36)	<i>-ize</i> ₂	Greek	2	[+ Lat.]	<i>moralize, equalize, militarize</i>
37)	<i>-less</i>	Germ.	2	[± Lat.]	<i>lifeless, mindless, graceless</i>
38)	<i>-ly</i> ₁	Germ.	2	[± Lat.]	<i>friendly, cowardly, scholarly</i> (denom.)
39)	<i>-ly</i> ₂	Germ.	2	[± Lat.]	<i>goodly, sickly, poorly</i> (deadj.)
40)	<i>-ment</i>	Latin	2	[± Lat.]	<i>arrangement, measurement, shipment</i>
41)	<i>-ness</i>	Germ.	2	[± Lat.]	<i>kindness, goodness, humanness</i>
42)	<i>-th</i>	Germ.	1	[− Lat.]	<i>depth, breadth, width</i>
43)	<i>-ory</i>	Latin	1	[+ Lat.]	<i>obligatory, promissory, observatory</i>
44)	<i>-ous</i>	Latin	1	Most [+ Lat.]	<i>glamorous, treasonous, thunderous</i>
45)	<i>-y</i> ₁	Germ.	2	[± Lat.]	<i>meaty, hungry, risky</i> (denom. adj.)
46)	<i>-y</i> ₂	Latin	1	[+ Lat.]	<i>assembly, inquiry, entreaty</i>
47)	<i>-y</i> ₃	Latin	2	[± Lat.]	<i>soldiery, beggary, robbery</i>

⁸The prefix *mis-* existed in Old English. It fused with the prefix *mes-* of some imported Middle French words, which was a cognate morpheme and semantically similar (Marchand 1966:126).

⁹The suffix *-an* appears never to have been productive in English except with proper nouns (as in *Elizabethan, Australian, Lutheran*) and perhaps with some scientific or zoological terms. Most other words with this suffix were borrowed into English more or less intact. Most of the proper nouns that bind to *-an* seem Latinate in orthography and phonology; they often end in *-ia*.

¹⁰There are a fair number of mocking or derogatory examples of *-ify* combining with a [− Latinate] stem: *prettify, speechify, happyfy*. These probably strengthen the claim that the domain of *-ify* is [+ Latinate] because they derive their derogatory and mocking effect from their obvious ungrammaticality.

¹¹Here again, *-ism* only seems to combine with Germanic stems when forming a derogatory label. Perhaps this shows that the natural domain of *-ism* is restricted to [+ Latinate] stems.

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