

The verb and adjective *un-* prefixes of English

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INTRODUCTION

English has a prefix *un-* that attaches to verb bases to make reversives, for example the verb *to unwrap* denotes the reverse action of the verb *to wrap*. There is also in English a prefix *un-* that turns an adjective into one with the 'opposite' meaning, for example *untrue* means 'not true'. The meanings of the two prefixes are different: the adjectival *un-* has the meaning 'not', but it would obviously be wrong to claim that the verb *to unwrap* means 'not to wrap' or 'to not wrap'.

Consider the word *unmarried*. This means 'not married'. Could it mean 'go through the reverse of the process of marriage'? No, for two reasons: firstly the verb *to divorce* denotes reversal of marriage and *divorced* does not have the same meaning as *unmarried* (those who are divorced can perhaps claim to be unmarried, but very many unmarried people are not divorcees); secondly *unmarried* denotes a state, not a process; so it cannot be synonymous with an expression like *to divorce* that denotes a process. There is no established verb *to unmarry* in contemporary English. *Unmarried* does the work of an adjective.

By contrast, *unwrapped* is ambiguous. In (1) *unwrapped* is a verb and it labels an action. In (2) *unwrapped* is used adjectivally, to describe the state of the gift when the speaker saw it.

- 1) The gift was unwrapped by the wrong person, who mistakenly thought it was for her.

- 2) The department store did not wrap the gift and it was still unwrapped when I saw it.

In this paper I discuss an apparent paradox whereby two prefixes that share the form *un-* but differ in meaning seem capable of forming words with the same meaning. Before getting to the nub, some preliminaries have to be set out: the nature of past participles, differences between verbs and adjectives, the derivation of adjectives from verbs and some discussion of the two different *un-* prefixes.

Past participles

Married, unmarried, wrapped and unwrapped are past participles. 'The central idea in the traditional concept of participle is that it is a word formed from a verb base which functions as or like an adjective.' (Huddleston and Pullum, 2002: 78). The four past participles just given as examples end in *-ed*, but an alternative is sometimes *-t* (e.g. *dreamt* as a variant of *dreamed*) and the past participle forms of some verbs have the ending *-n* or *-en* (e.g. *given, eaten* and *written*). There are also some past participles that are irregular in form (e.g. *sung* and *cut*, the past participles of the verbs *sing* and *cut*, respectively).

Past participles fulfil two different verb roles. They are the verb forms used in the compound tense called 'perfect' (e.g. *have seen* or *had dreamt*) and they are used in the formation of passives (e.g. *was seen* or *is undreamt of by anyone*). Only the passive use of past participles needs to be discussed here. This is because it is as a complement to the verb *be* that ambiguity generally arises regarding whether a word is a past participle or an adjective. The potential for this ambiguity was illustrated in Examples (1) and (2), above.

For the purposes of this article, it will be useful to note some ways of distinguishing between verbs and adjectives. There is no single comprehensive test that makes the requisite distinction, but a small set of relevant criteria will be illustrated next. The tests in the next section can be referred back to if there is any doubt about my later assertions regarding the status of particular words as verbs or adjectives.

Distinguishing between verbs and adjectives

The sentence in Example (3) is ambiguous, as indicated by the two different elaborations in (4) and (5). In (4) *was polluted* is a passive construction containing *polluted* as a past participle verb, but in (5) the word *was* is a copula verb and *polluted* is an adjective.

- 3) The water was polluted.
- 4) The water was polluted by an unscrupulous company discharging waste into it.
- 5) The water was polluted and poisonous.

In the passive sentence — Example (4) — the past participle verb *polluted* denotes an action. As shown in the example, it is possible to add a *by*-phrase specifying the performer of the action (the unscrupulous company). Note that we could not add a *by*-phrase of this kind to Example (5), where *polluted* is an adjective describing a state: ~~The water was polluted and poisonous by an unscrupulous company.~~ (Strikethrough indicates that this is not a properly formed English sentence, even if we could guess what a foreign learner of English might mean by saying it.) In (5), the possibility of using *and* to coordinate the words *poisonous* and *polluted* shows that *polluted* must be an adjective. This is because *poisonous* is indisputably an adjective and coordination

works only between items of the same category. (If we were to put *and poisonous* into (4), in an attempt to coordinate the adjective *poisonous* with the verb *polluted*, the result would again be the ill-formed sequence struck through a few lines above.)

The auxiliary usually employed to construct English passive clauses is *be* – as was illustrated in (1), (3) and (4) – but passives can also be constructed with the catenative verb *get*, as shown in (6). (On the basis of their study of grammatical patterns in a 40-million-word corpus, Biber, Johansson, Leech, Conrad and Finegan (1999: 481) report that *get*-passives are rare and tend to be used in conversation rather than in written registers.)

6) The water got polluted by an unscrupulous company.

An earlier example, (3) *The water was polluted*, is ambiguous on the matter of whether *polluted* is a past participle or an adjective, but a short version of (6), *The water got polluted*, cannot readily be understood adjectivally. With all but a few adjectives, the *get*-passive is taken as verbal, rather than adjectival. If *get* is substituted for *be*, as in (6), then a following word such as *polluted* is very likely to be a verb. However, if *be* is replaced by another copula – such as *look*, *seem* or *remain*, as in (7) – then *polluted* or a similar word in the same position has to be taken as an adjective.

7) The water remained polluted.

The syntactic difference between verbs and adjectives often coincides with a difference in meaning between actions and states – as suggested earlier in this subsection. However, some verbs, for example *to own* and *to like*, signify states rather than actions. These verbs are out of line with the general pattern and, because they denote states, are called **stative**. A

straightforward diagnostic for stative verbs is that they do not readily enter the *be+Verb-ing* ‘continuous aspect’ construction; neither of the following would normally be acceptable in English: ~~*He was owning that house*~~ or ~~*I am liking vegetable tempura*~~. In consequence, a sentence such as the one in (8) denotes a state rather than an action and a shortened version of it *She was liked* is not ambiguous, unlike (3) *The water was polluted*, which, containing a dynamic verb base, is ambiguous.

8) She was liked by her colleagues.

Making adjectives from verbs

The table in (9) shows the main suffixes that turn English verbs into adjectives. It also illustrates a derivational process that is called **conversion** (Huddleston and Pullum, 2002: 1640–4), which allows words in one syntactic category to be converted into members of another syntactic category without an affix or any other change of form being needed. Conversion between nouns and verbs, in either direction, is strikingly common in English (e.g. *a can* and *to can*, or *to laugh* and *a laugh*), but it also occurs between verbs and adjectives, as shown by the examples in the last four lines of the table in (9), which could appear in sentences such as: *The problem had been worrying us* (verb) → *It was a worrying problem* (adjective); *The vase got broken* (verb) → *It is still broken* (adjective). Huddleston (1988: 112) provides a penetrating discussion of past participles becoming adjectives, the conversion of particular interest in the present paper.

9)

Verb	Adjective	suffix
<i>wash</i>	<i>washable</i>	<i>-able</i>
<i>burn</i>	<i>burnable</i>	<i>-able</i>
<i>defy</i>	<i>defiant</i>	<i>-ant</i>

<i>ignore</i>	<i>ignorant</i>	<i>-ant</i>
<i>forget</i>	<i>forgetful</i>	<i>-ful</i>
<i>wake</i>	<i>wakeful</i>	<i>-ful</i>
<i>suggest</i>	<i>suggestive</i>	<i>-ive</i>
<i>protect</i>	<i>protective</i>	<i>-ive</i>

Verb to adjective conversion, no affix needed

<i>worrying</i>	<i>worrying</i>	—
<i>broken</i>	<i>broken</i>	—
<i>dressed</i>	<i>dressed</i>	—
<i>undressed</i>	<i>undressed</i>	—

TWO PREFIXES SHARING THE FORM *UN-*

Reversible *un+Verb*

At the start of this article, it was pointed out that the verb *to unwrap* is used for talking about the reverse action of the verb *to wrap*. The actions labelled by *wrap* and *unwrap* are transitions in opposite directions between two states: *to wrap* denotes a transition from a state of not being wrapped to a state of being wrapped, while *to unwrap* denotes a change from a wrapped state to non-wrapped state. The two verbs are a reversible pair (Cruse 1986, 2000). There are reversible pairs that do not involve the prefix *un-*, for example *arrive* (change from a state of not being at a contextually specified place to a state of being at that place) and *depart* (transition from being there to not being there). Sentences (10) and (11) illustrate another reversible pair.

- 10) *The rained stopped* (transition from a raining state to a non-raining state).

- 11) *The rain resumed* (transition from a non-raining state to a raining one).

Resume is interestingly different from *stop*. *Resume* is **restitutive**, in the terminology of Cruse (1986). In the case of a restitutive verb, the state into which the transition is made has to be one that whatever is spoken about was in before. If there was a period when it had been raining all the time since the world came into existence, then it would be possible for it to *stop raining*, but if there was drought from the beginning of time it would not be possible for rain to *resume*! In this respect, *resume* contrasts with *start*, which is also a reversive of *stop*, but not a restitutive.

There is a prefix *re-* that systematically makes restitutives, labels for actions that return things to a state which existed before a reversive verb undid them. In (12) this is illustrated for a number of reversives. The verbs are shown in large print. Small print is used for adjectives denoting the states between which the verbs mark transitions. Present tense and large print has been used for the verbs to make it easier to distinguish them. (Note that it is only in the middle column of the table, when it occurs as part of a reversive verb, that *un-* is the reversive prefix. The occurrences of *un-* in two of the state columns represent a different prefix, a negative adjectival one.)

12)	disorganised state	base verb	organised state	reversive verb	disorganised state	restitutive verb	organised state
	untied	tie	tied	untie	untied	retie	tied
	unwrapped	wrap	wrapped	unwrap	unwrapped	rewrap	wrapped
	unloaded	load	loaded	unload	unloaded	reload	loaded
	unfolded	fold	folded	unfold	unfolded	refold	folded
	unrolled	roll	rolled (up)	unroll	unrolled	re-roll	rolled (up)
	unknown	learn	learnt	forget	forgotten	relearn	(re)learnt

unattached	attach	attached	detach	detached/ unattached	re-attach	(re)attached
inactive/still/ idle	start	going	stop	stopped	restart/ resume	going

Looking at the first line in the body of this table, if we *tie* something that is *untied*, its new state is one where it is *tied*. If we then *untie* it, the thing becomes *untied* again; and if we *retie* it, it will return to a state of being *tied*. When something has been tied, wrapped, loaded or folded, it is in a more highly organised state than before the action was performed. It will be noticed that the reversive *un-* prefix marks reversion to a less organised state. This is a general feature of the meaning of reversive *un-*.¹

There are some comments to make regarding adjectives in the last three lines of (12) that do not stand in a regular relationship to the neighbouring verbs.

It might be thought that the disorganised state which learning rectifies should have been labelled *unlearnt* (or *unlearned*). That word, however, has a special meaning: *unlearnt* knowledge is known to people (or animals) innately or intuitively, which is to say that they have the knowledge, but it did not come to them through a learning process. I have therefore used a different word, *unknown*, to characterise the state that precedes and is affected by learning.

The special meaning of *unlearnt* may be the reason why a different word *forget* has to be used as the reversive verb corresponding to *learn*.

There is no verb *to unattach*, but the word *detach* stands in for it as the reversive of *attach*. *De-* is used instead of *un-* to make the reversives of some verbs. Other examples are *decode* and *de-*

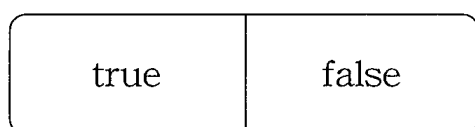
militarise.²

It was hard to find a single word for the state that precedes the *starting* of an event or vehicle or machine etc. For reasons not clear to me, *unstarted* does not sound right. The collection of near synonyms *inactive/still/idle* is an approximate way of indicating the meaning. There is a similar problem for the organised state that is transited into by *starting*. The word *going* is not quite general enough to cover the functioning of everything that can *start*; for instance we say *It's raining*, rather than *The rain is going*. (The latter is likely to mean that the rain is moving away from where the speaker is.)

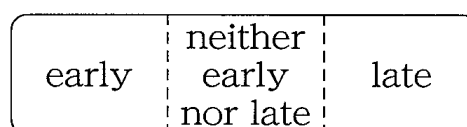
Negative *un*+Adjective

Loosely speaking, the adjectival prefix *un-* makes antonyms. I want to distinguish, however, between antonyms and complementaries (Lyons 1977, Cruse 2000). A pair of adjectives is **complementary** if all of the relevant conceptual field is divided between them. As suggested by the sharp boundary drawn between *true* and *false* in diagram (13a), the language treats what it characterises with these two words as not having indeterminate borderline cases. For an **antonym** pair, such as *early* and *late* in (13b), on the other hand, there is an intermediate region on the scale, where neither of the adjectives applies. ('Being on time' is conceptually between *early* and *late* without being covered by either of these expressions.)

13) a) a complementary pair



b) an antonym pair



There is a correlated distinction: antonyms are straightforwardly **gradable**; complementaries are not readily gradable. This means that it is easy to ask *How early/late were they?* Or to say that a warning came *very early or very late*; or that you'll arrive *earlier/later* if you go by train. An adjective is gradable if it is freely usable in these patterns: *how+Adjective* questions, *very+Adjective* and in comparatives (*Adjective-er* or *more+Adjective*). On the other hand, when *True* and *false* are treated as if they were gradable, they form sentences that have at least a whiff of unnaturalness: *Please tell me, how false is that statement? He claims it is very true, but I think it is falser / more false than anything else I have heard today.*

TWO ROUTES FROM PAST PARTICIPLES TO UN- ADJECTIVES

I now turn to the focus of this article, adjectives with two characteristics: they bear a prefix *un-* and they are derived by the process of conversion from past participle verbs. In principle there are two ways of deriving an *un-* adjective from a past participle. These are outlined in (14), with examples.

14)	Verb→Adj. conversion, then negative <i>un-</i>	reversive <i>un-</i>, then Verb→Adj. conversion
	<i>Verb: That horse was <u>frightened</u> by the noise.</i>	<i>Verb: The truck was <u>loaded</u> by the driver and his assistant.</i>
	<i>Verb→Adjective conversion: Adjective: It was a <u>frightened</u> horse .</i>	<i>prefixation, with reversive <i>un-</i>: reversive Verb: It was <u>unloaded</u> by workers at the factory.</i>
	<i>prefixation, with negative <i>un-</i>: negative Adj.: The other horse seemed <u>unfrightened</u>.</i>	<i>Verb→Adjective conversion: Adjective: It remained <u>unloaded</u> for the rest of the day.</i>

Is it really necessary to posit two different derivations? Could we not somehow get both types of *un-*adjectives from just one half (left or right) of the diagram in (14)? The answer is that both are needed, and here are two arguments for that claim. Firstly, the path shown down the left-hand side of (14) must exist because English does not have a verb ~~*to unfrighten*~~, and there would need to be such a verb for the middle stage in the right-hand half of (14) if we wanted to derive *unfrightened* down that side. Among many other examples that could be given, English also lacks verbs to *undream*, *unbreak*, *untouch*, *unshave*, *unemploy*, which would be needed for an attempt to derive the adjectives *undreamt*, *unbroken*, *untouched*, *unshaven* (or *unshaved*), *unemployed* via the right half of (14). So, the left-hand path (Verb→Adj. conversion, then neg. *un-*) has to exist.

My argument for the existence of the path represented by the right-hand side of (14) depends on the fact that reversive *de-* applies exclusively to verbs (Bauer, 1983: 218). As was mentioned earlier in connection with *detach* in (12), *de-* is an alternative reversive prefix to *un-*³. Its application to verb bases is clear in words such as *decentralise*, *desensitise*, *demobilise*, *de-emphasise*, *de-militarise*, *desegregate*, *dehydrate*, and *declassify*, where *-ise* (also spelt *-ize*), *-ate* and *-ify* are verb-forming suffixes. Given that reversive *de-* goes only on to verbs, it cannot be some kind of variant of the negative *un-* prefix that is attached to adjectives. Therefore the path shown in the right-hand half of (14) must be available for reversive *de-*. If that path is required for one kind of reversive formation, it may as well be employed for *un-* reversives too.

Some interesting pairs of *un-* adjectives deriving from past participles

In the foot of the table in (14) we have two adjectives, *unfrightened* and *unloaded*. They are similar in form in that they are both related to past participles (seen in the *-ed* ending they share) and both begin with *un-*.

Furthermore – and this is unexpected – they have a similarity in meaning: both denote states that can be glossed using the word ‘not’ as in (15).

- 15) a) *unfrightened horse* = ‘horse that is not in a frightened state’
b) *unloaded truck* = ‘truck that is not in a loaded state’

The puzzle is that, while (15a) was derived, down the left-hand side of (14), using a negative prefix – thereby justifying the word ‘not’ in (15a) – the *un-* adjective in (15b) derives, down the right-hand side of (14) via the application of a reversive prefix. Where, then, is the justification for ‘not’ in the gloss of (15b)? There is an answer to this question, but a difference should first be brought into focus. This can be done by examining a pair of adjectives, *unattached* and *detached*, where both members are derived from past participles, but one has an *un-* prefix and the other is prefixed *de-*. See (16a, b).

- 16) a) A *unattached* young man watched the couples dancing.
b) The *detached* pages of that book might get lost.

Notice that – just as with (15) – both (16a) and (16b) can be glossed using ‘not’: the young man was ‘not attached’; the pages of the book are ‘not attached’. And this is despite the fact that (16a) must be derived via, first, conversion of verb to adjective and then negative prefixation (left side of (14)), there being, as pointed out previously, no verb *unattach*, while (16b) must be derived via the different route of reversive prefixation before verb-to-adjective conversion (right half of (14); recall that *de-* reversives were offered as evidence for the existence of that route). An important difference, however, is that we can reasonably contemplate *re-attaching* the pages of the book, but it would be presumptuous to think of *re-attaching* the young man; he might well never have been attached! As was illustrated in (12), verbs with the

restitutive prefix *re-* describe actions that rectify the disorganisation created by the actions denoted by reversive verbs. Applicability of restitutive *re-* to the verb base is diagnostic of reversivity in an adjective's derivation.

This case is bolstered by two *un-* adjectives that are ambiguous with respect to exactly the difference that was seen in (16). These are *undone* and *uncovered*, shown in Examples (17) and (18).

(17) a) Unless new funds are found some grand civil engineering projects will remain undone.

b) He walked into the meeting with some of his buttons undone.

(18) a) They tried growing the peonies uncovered, but the blooms were damaged by bad weather.

b) After the roof blew off in a typhoon the goods in the store remained uncovered for two days.

In (17a) and (18a) the projects are ones that have not yet been done and the peonies were never covered. Here the adjectives *undone* and *uncovered* simply mean 'not done' and 'not covered'. But in (17b) and (18b) the buttons were 'not done up, having previously been done up' and the goods were in a state where they were 'not covered, having previously been covered'. It has to be admitted that a remote possibility for (17b) is that the man in question had not done up his buttons at all that day, but the (b) sentences both raise a real possibility of restitution: that he could be asked to do up his buttons again and that the goods should have been re-covered more quickly.⁴

Resolution

The table in (12) and the discussion of those examples indicates what is

going on. The reversive prefixes *un-* and *de-* are indeed different in meaning from the adjectival negative prefix *un-*. In (19) a list of 20 verbs formed with the reversive prefix *un-* is given, in past participle form. The reversive prefixes make verbs that denote transitions into states – generally states of disorganisation – and it is negative adjectives with *un-*, usually derived from the past participles of reversive verbs, that denote those states. When we switch from talking about the reversive action to talking about the resultant state we change word class – from verb to adjective – and, because the state is one from which some level of organisation is now lacking, the adjective is a negative one, often appropriately expressed by a form with the adjectival negative prefix *un-*. English allows us to make such adjectives by a conversion process, from the past participles of reversive verbs; so that the words in (19), which were presented, a few lines up, as verbs, are also adjectives.

(19) unbolted, unbridled, unbuttoned, uncovered, uncrossed, undone, undressed, unfolded, unglued, unhooked, unlearnt/unlearned, unleashed, unloaded, unrolled, unscrambled, unstuck, untangled, untidied, untied, unwrapped

On the other hand, similar-looking adjectives derived via the left-hand side of (14) – Verb→Adj. conversion before negative prefixation – do not have reversive verbs in their derivations. A list of 193 such adjectives appears in (20). My intuitions suggest that none of the words in (20) has a corresponding reversive verb: ~~*to unabash*~~, ~~*to unabridge*~~, ..., ~~*to unworry*~~, ~~*to unwrite*~~. The adjectives in (20) describe a state as being one to which the adjective formed by conversion from the past participle of a verb base, such as *abashed*, *abridged*, *accepted*, *accomplished* – and all the others implied by (20) – does ‘not’ truly apply, which is why these negative adjectives are used. Thus, in both types of case, (19) and (20), the adjectival state description is a negative one. Presumably knowledge of which reversive verbs exist in English, or of what kinds of real-world

process are amenable to description with reversive verbs, is what allows users of the language to infer that cases of the type listed in (19) contain an implicit 'having previously been ...' in their meaning.

(20) unabashed, unabridged, unaccepted, unaccomplished, unaccustomed, unacknowledged, unacquainted, unaffected, unaffected, unaided, un-airconditioned, unappointed, unarmed, unashamed, unashamed, unassociated, unassured, unattached, unattended, unavowed, unbalanced, unbiased, unbitten, unbleached, unboiled, unbounded, unbroken, unbroken, uncelebrated, uncertified, unchanged, uncharted, unchastened, unchecked, unchosen, uncivilized, unclosed, uncollected, uncolored, uncombined, uncomplicated, uncomplicated, uncomposed, unconceited, unconcentrated, unconcerned, unconfined, unconfirmed, uncontracted, uncultivated, uncultured, undamaged, undamaged, undarkened, undecayed, undeclared, undeeptened, undepraved, undetailed, undetected, undetermined, undetermined, undeterred, undeveloped, undignified, undiseased, undistinguished, undisturbed, undivided, undoubted, undreamed/t, undriven, undrunk, uneducated, uneducated, unemployed, unemployed, unenlightened, unequalled, unestablished, unexalted, unexcited, unexpected, unexposed, unfallen, unfed, unfettered, unfinished, unfixed, unforeseen, unforgotten, unfrightened, unfurnished, ungifted, ungiven, unhardened, unhardened, unharmed, unhaunted, unheeded, unhidden, unhindered, unhurried, unimpeded, unimplied, uninclined, unincorporated, uninformed, uninhabited, unintended, unintended, uninterrupted, uninvolved, unladen, unleavened, unlesened, unlettered, unlimited, unmarked, unmarried, unmasked, unmeasured, unmixed, unmoistened, unmoved, unmoved, unoccupied, unopened, unopposed, unopposed, unparalleled, unperplexed, unpleased, unpointed, unpolluted,

unpopulated, unpractised, unprecedented, unprejudiced, unprivileged, unprotected, unqualified, unrefined, unreserved, unresolved, unriden, unripened, unrisen, unrooted, unruined, unsalaried, unseen, unseemly, unsettled, unsharpened, unshaven, unsighted, unskilled, unsmoked, unspeckled, unspoiled, unspoken, unspotted, unstated, unstolen, unstrengthened, unstriped, unsupported, unsurprised, unsuspected, unswayed, unsweetened, untaken, untalented, unthickened, unthreatened, untitled, untouched, untried, untroubled, unused, unvaried, unwanted, unweakened, unweathered, unwed, unwhitened, unwidened, unwired, unworried, unwritten

When *un-* adjectives were introduced in an earlier section of this paper, the difference between complementaries and antonyms was outlined. Most of the *un-* prefixed words discussed in this paper appear to be members of complementary pairs, though it is often hard to make the decision on the words in (20). It is perhaps interesting that all of the adjectives in (19) unequivocally form complementary pairs when lined up with the corresponding forms lacking *un-*. With the adjectives in (19), the English language does not recognise intermediate states. Consider, for example, *bolted* and *unbolted*, or *crossed* and *uncrossed*. These words are not gradable: ~~*How bolted is the door?*~~ ~~*His legs were very uncrossed*~~ and ~~*His legs are more crossed than they were before*~~ all sound peculiar.

The disparity in length of the lists in (19) and (20) reflects the big disparity in the relative productivity of the two *un-* prefixes considered here. Ignoring a few items that I omitted as somewhat old-fashioned (*unsaddled* and *unversed*, for instance), these are all the forms I could find in the weeks during which this paper was written. (Gunshi (1999) was a particularly useful source.) The route down the left side of (14) involving negative prefixation is much more productive than the route depicted on the right of (14) with reversive prefixation.

NOTES

¹ *Unscramble* appears to be an exception, and computer jargon offers further counterexamples, e.g. *undelete*, meaning ‘to restore something after having (mistakenly) deleted it’, and *unsubscribe*. Support for reversive *un-* being understood by users of English as marking a transition into disorganisation comes from the non-standard form *unloosen*, which means ‘loosen’, ‘untie’ or ‘unfasten’, a reversive of *tie* and *fasten*. It evidently seemed reasonable to relatively uneducated people to add *un-* for what is clearly an undoing of the organisation induced by tying or fastening things.

² There is at least one other prefix that shares the form *de-*. It is related in meaning, but applies to nouns to yield words that mean ‘deprive of Noun’, e.g. *dehorn*, *delouse*.

³ The pair of verbs *unfreeze* and *defrost*, which are very similar in meaning, could be taken as evidence for synonymy of reversive *un-* and reversive *de-*, but the case is far from clear as *frost* is both a noun and a verb.

⁴ There is no problem with the facts here, but exposition is hampered by the existence of different and irrelevant verbs *recover*, meaning ‘get back to health’ and ‘retrieve something that went missing’. Also – unhelpfully for discussing restitution here – the *undo* which forms the basis of *undone* in (17b) is the reversive of *do up* rather than just *do*, and there is no restitutive verb ~~*redo up*~~. (We have to say *do up again* to express this restitution.)

REFERENCES

Bauer, Laurie (1983) *English Word-formation*, Cambridge University Press.

Biber, Douglas, Johansson, Stig, Leech, Geoffrey, Conrad, Susan and Finegan, Edward (1999) *Longman Grammar of Spoken and Written English*, Harlow: Pearson.

Cruse, Alan (1986) *Lexical Semantics*, Cambridge University Press.

_____ (2000) *Meaning in Language: an introduction to semantics and pragmatics*, Oxford University Press.

Gunshi, Toshio (1999/1968) *An Inverted English Dictionary*, Tokyo: Kaibunsha.

Huddleston, Rodney (1988) *English Grammar: an outline*, Cambridge University Press.

_____ and Pullum, Geoffrey K. (2002) *The Cambridge Grammar of the English Language*, Cambridge University Press.

Lyons, John (1977) *Semantics*, Cambridge University Press.