A Note on the Latinate Constraint in English Affixation

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In this paper the author analyses different forms of the Latinate Constraint and compares them with the classical theory of Level ordering in lexical phonology and morphology (Kiparsky 1982). The general form of the Latinate Constraint introduced by Bloomfield (1933) and elaborated by Booij (1987, 1994) is not empirically adequate because it allows numerous exceptions. The new form of Latinate Constraint proposed by Plag (1999) is partly based on synchronic distributional relations. The author argues that Plag's version of the Latinate Constraint involves a 'vicious circle' and does not have the required explanatory power for the problem of morphology - phonology interface. The particular problem is that the application of Latinate Constraint does not have much purpose in the area of prefixation because prefixes in fact rarely stack up on each other. Inspired by Hay (2003) the author suggests a hypothesis which could be an object of further research. The meaning of prefixes are usually abstract, and the addressee may find it difficult, or even impossible, to process two abstract meanings in succession.[1]

Key words: English, suffixation, prefixation, Level ordering, Latinate Constraint, language processing, etymology.

1. Introduction

Level ordering was first introduced by Siegel (1974), but was only later put into full use in the theory of lexical phonology and morphology developed mainly by Kiparsky (1982) and Mohanan (1986). In that theory phonological and morphological rules are assigned to separate levels of the lexicon which are supposed to define their domain and manner of application. Soon many criticisms were raised against this model objecting that it is too strong, i.e. bans combinations of suffixes which were actually attested. For example, Strauss (1982) noted that level 2 prefixes can occur inside level 1 suffixes:

(1)   (un#grammatical)+ity, (extra#metrical)+ity

In these examples level 1 suffix *-ity* occurs outside level 2 prefixes *un-* and *extra-*. Strauss concluded that Level ordering is not applicable to affixes on opposite sides of the stem, but this restriction was considered a weakening of the original thesis. Other examples were also quickly brought in showing that the same problem persisted on the side of suffix combinations:

(2)   (Calvin#ist)+ic, (standard#ize)+ation, (govern#ment)+al

In (2) the suffixes *-ist, -ize* and *-ment* are level 2 suffixes, but occur inside the suffixes *-ic, -ation* and *-al* which are level 1 suffixes. The accommodation of this criticism required association of some suffixes with more than one level which was understood as a further weakening of the thesis of Level ordering. Another serious criticism was that the model is too weak because the great majority of possible combinations of English suffixes cannot be accounted for by the hypothesis of level ordering (Fabb 1988). As a consequence, the Latinate Constraint was proposed by some linguists as an alternative to Level ordering.

This paper is organized as follows. In the second section of this paper two different versions of the Latinate Constraint are presented, the first one proposed by Bloomfield (1933), and elaborated later by Booij (1987, 1994) and some other linguists, and the second one proposed

by Plag (1999). As the flaws of the first version are fairly well-known, the third and fourth sections deal mainly with Plag's version of the Latinate Constraint and explores its consequences for the morphology – phonology interface. In the third section my analysis draws heavily on Fabb's presentation of English suffixation, but I also take account of the corrections supplied by Plag (1999). In the fifth section, I analyse the application of the Latinate Constraint to prefixation, and in the sixth section I sum up the main results. My judgments on combinability of affixes and etymology are based on the COED, OED and Marchand (1969).

2. The two versions of Latinate Constraint

One repair attempt dealing with extrinsic ordering of word formation rules was the proposal of Latinate Constraint – a version of level ordering based on the etymological criterion. The first to propose such a constraint for English was Bloomfield (1933), who noticed that in English normal roots combine with normal affixes, while learned roots with learned affixes. Here 'normal' means native, and 'learned' non-native. A more elaborated form of this constraint was given by Booij (1987, 2002) who formulated this constraint for Dutch, but argued that it can be applied to English as well. This constraint predicts that in complex words non-native affixes may only be attached when they are adjacent to another non- native morpheme (lexical or bound), while native affixes usually attaches both to native and non-native morphemes (Booij 1987). Booij admits that the given restriction is merely a strong tendency rather than 'an absolute principle,' but still believes that this constraint can apply also to English. Booij claims that under this approach the derivation *ungrammaticality* does not represent a problem because the native prefix *un-* is not adjacent to the non-native suffix *-ity*.[2] The Latinate Constraint therefore resolves the problem of the order paradox in the examples (1), but Booij admits that the examples (2), i.e. the complex words *Calvinistic, standardization, governmental* remain a problem because the respective suffixes *ist-ic, ize-ation, ment-al* are adjacent, and don't agree in the feature [+/-native].

Supporting this thesis Booij claims that the native speakers do not need to know word etymology in order to learn a language because there are phonological cues which distinguish native stems and affixes from non-native ones. According to Booij (2002) non-native stems often contain at least two vowels, unlike native stems, and non-native suffixes bear the main stress of the word, always contain a full vowel, and are always vowel-initial. Similar assumptions have also been defended by Anshen and al. (1986) for English. According to this form of Latinate Constraint [-native] affixes can only be added to [-native] stems, while native affixes usually may attach to non-native stems as well. This constraint explains why **yellowity* is badly-formed, and *yellowness* well-formed: the stem *yellow* is [+native] and the suffixes *-ity* and *-ness* are respectively [-native] and [+native]. On the other hand, *absurdity* and *absurdness* are both well-formed because the stem *absurd* is [-native]. It follows automatically that in complex words non-natives suffixes usually precede native suffixes because only the latter can be attached to both kinds of stems.

It is not difficult to find numerous counterexamples to this form of Latinate Constraint. For example, the suffixes *-able,*[3] *-age, -ance/-ence, -ee, -ess, -ism, -ist, -ment* are of Romance (Latin) origin, but can be attached to Germanic stems as well. Similarly, many prefixes of Latin origin as, for example, *co-, dis-, non-* can be used also with Germanic stems. Plag (1999) remarks that only etymology cannot be a reliable guide in this matter, and proposes a constraint based on the distributional properties of affixes and stems. According to his proposal all affixes and stems are divided into three groups: [+Latinate], [–Latinate] and [+/–Latinate] according to their combinatorial properties. Now the new Latinate Constraint prescribes that a [+Latinate] base may only combine with [+Latinate] or [+/–Latinate] affixes, and a [–Latinate] base only with

[–Latinate] or [+/–Latinate] affixes. The new Latinate constraint may be briefly formulated in the following way:

(3)   Bases and affixes may combine only if their etymological features are compatible.
           (Plag 1999: 58)

According to this new proposal both stems and affixes are classified as belonging to one of the three categories, expressed by the features [+Latinate], [–Latinate], [+/-Latinate]. Affixes are [+Latinate] if they combine only with [+Latinate] stems, while [–Latinate] affixes may combine only with [–Latinate] stems. [+/–Latinate] affixes can combine with both kinds of stems. Now the Latinate Constraint only bans the possibility that a [+Latinate] element may combine with a [-Latinate] element, and according to Plag this is all that should be banned.

3. The Assignment of features [+Latinate], [-Latinate] and [+/-Latinate]

How these features can be assigned? It is obvious that such classification must start with some basic etymological classification of stems: some stems will be [+Latinate], some [-Latinate]. An affix will get a feature [+Latinate], [-Latinate] or [+/-Latinate] according to the features of the base to which it may be added. Which stems will get a [+/-Latinate] feature in this system? Plag (1999) does not say anything in this respect, and this indeterminacy may be eliminated in the following way. In order to keep some consistency we may decide that the feature [+/-Latinate] may be given to some stems for which no certain etymology could be established. Therefore, we must start with the etymological classification of stems, and affixes should get their [+Latinate], [-Latinate] or [+/-Latinate] features according to their combinatorial properties. The features of affixes should depend on the features of stems; otherwise, if we allow that the features of stems also depend on the features of affixes, we will get a vertical division of vocabulary bearing [+Latinate], [-Latinate] and [+/-L Latinate] features. In this paper I shall deal first with suffixes, and following the example of Fabb (1988) I shall represent the combinability of most productive English suffixes in Tables 1 and 2. In distinction to Fabb (1988) our Table 2 shows the possible combinations of suffixes of different origin.

Suffix   Example
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1. -able (manage-able)   V > A

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2. -age (steer-age)	V > N
3. -age (orphan-age)	N > N
4. -al (betray-al)	V > N
5. -al (natur-al)	N > A
6. -an (librari-an)	N > N
7. -an (reptil-ian)	N > A
8. -ant (defend-ant)	V > N
9. -ant (defi-ant)	V > A
10. -ance (annoy-ance)	V > N
11. -ary (function-ary)	N > N
12. -ary (legend-ary)	N > A
13. -ate (origin-ate)	N > V
14. -ed (money-ed)	N > A
15. -en (wid-en)	A > V
16. -er (prison-er)	N > N
17. -er (kill-er)	V > N
18. -ful (peace-ful)	N > A
19. -ful (forget-ful)	V > A
20. -hood (nation-hood)	N > N
21. -ic (metal-ic)	N > A
22. -ify (class-ify)	N > V
23. -ify (intens-ify)	A > V
24. -ion (rebel-ion)	V > N
25. -ish (boy-ish)	N > A
26. -ism (modern-ism)	A > N
27. -ism (seapot-ism)	N > N
28. -ist (formal-ist)	A > N
29. -ist (method-ist)	N > N
30. -ity (profan-ity)	A > N
31. -ive (restrict-ive)	V > A
32. -ize (special-ize)	A > V
33. -ize (symbol-ize)	N > V
34. -ly (dead-ly)	A > A
35. -ly (ghost-ly)	N > A
36. -ment (contain-ment)	V > N
37. -ness (happi-ness)	A > N
38. -ory (advis-ory)	V > A
39. -ous (spac-ious)	N > A
40. -y (heart-y)	N > A
41. -y (honest-y)	A > N
42. -y (assembl-y)	V > N
43. -y (robber-y)	N > N

Table 1 *Combinability of most productive English suffixes*

	Level	Lat.origine	Lat. base	Ger. base	Latinate
1. -able	2	+	+	+	+/-

2. -age	2	+	+	+	+/-
3. -age	2	+	+	+	+/-
4. -al	1	+	+	+	+/-
5. -al	1	+	+	-	+
6. -an	1	+	+	-	+
7. -an	1	+	+	-	+
8. -ant	1	+	+	-	+
9. -ant	1	+	+	-	+
10. -ance	1	+	+	+	+/-
11. -ary	1	+	+	-	+
12. -ary	1	+	+	-	+
13. -ate	1	+	+	-	+
14. -ed	2	-	+	+	+/-
15. -en	2	-	-	+	-
16. -er	2	-	+	+	+/-
17. -er	2	_	+	+	+/-
18. -ful	2	-	+	+	+/-
19. -ful	2	-	+	+	+/-
20. -hood	2	-	+	+	+/-
21. -ic	1	+	+	-	+/-
22. -ify	1	+	+	+	+/-
23. -ify	1	+	+	+	+/-
24. -ion	1	+	+	-	+
25. -ish	2	-	+	+	+/-
26. -ism	2	+	+	+	+/-
27. -ism	2	+	+	+	+/-
28. -ist	2	+	+	+	+/-
29. -ist	2	+	+	+	+/-
30. -ity	1	+	+	-	+
31. -ive	1	+	+	-	+
32. -ize	2	+	+	-	+
33. -ize	2	+	+	-	+
34. -ly	2	-	+	+	+/-
35. -ly	2	-	+	+	+/-
36. -ment	2	+	+	+	+/-
37. -ness	2	-	+	+	+/-
38. -ory	1	+	+	-	+
39. -ous	1	+	+	-	+
40. -y	2	-	+	+	+/-
41. -y	1	+	+	+	+/-
42. -y	1	+	+	+	+/-
43. -y	1	+	+	+	+/-

Table 2 *Possible combinations of suffixes of different origin*

Tables 1 and 2 above contain the same suffixes as Fabb's Table A and Table B (Fabb 1988) – a procedure which importantly simplifies our task of comparing the Latinate Constraint with level ordering. In Table 1 the signs V > A, for example, show that *-able* is deverbal adjectival suffix. In

Table 2, suffixes are level 1 if they trigger the application of English Stress Rule, and level 2 if they do not, i.e. if they are neutral in respect to it. If the addition of a suffix does not change the position of stress, it does not mean that the suffix is level 2 (neutral), because the position of the stress may still be consonant with English Stress Rule. This is especially the case if the base has a stress on the final syllable (e.g. *ar'rive – ar'rival*). In some cases both interpretations are possible, a fact which brings an additional complication to our analysis. The signs '+' and '–' show the combinability of suffixes with stems of different origin.

4. On Plag's version of Latinate Constraint

Now we shall analyze the same suffixes as Fabb (1988) so that we can compare the Latinate Constraint proposed by Plag (1999) with the classical level ordering introduced by Kiparsky (1982) and Mohanan (1986). Taking into account the restrictions dictated by the selection of word-classes, Fabb calculates that there are 663 possible combinations of suffix-pairs. As the suffixes *-ful* and *-al* attach only to stems with final stress, Fabb calculated that the number of possible suffix combinations can be reduced to 614. Level ordering rules out 155 further potential suffix pairs. This cuts the number of predicted suffix pairs to 459, although there are only about 50 attested suffix pairs. This means that more than 400 suffix pairs are not accounted for. Fabb concludes that some other constraints must be at work ruling out the other c. 400 suffix pairs, and the level ordering achieves relatively little in explaining which suffix pairs exist and which do not.

Plag (1999) admits that Fabb offers a substantial argument against level ordering, but shows that Fabb's observations are not always empirically correct. Using the larger data bases of Lehnert (1071) and OED on CD, he shows that Fabb has in some cases made gross mistakes. His biggest mistake is that he has underestimated the number of attested suffix pairs. The larger data bases, which were at Plag's disposal, show that there are about 86 possible suffix pairs of 43 selected suffixes, not 50 as Fabb estimated. The suffix *-ance* is also attached only to the stems which bear stress on the final syllable. The correct number of unaccounted suffix pairs is not c. 400 as Fabb estimated, but c. 348. Still, this number is big enough to undermine the trust that Level ordering can account for all suffix combinations.[4]

Let us now look whether the Latinate Constraint proposed by Plag is more effective in predicting possible suffix pairs. The new Latinate Constraint seems to be an improvement in respect to the general constraint proposed by Bloomfield (1933) and Booij (1987) because it accounts for the fact that the suffixes *-able*, *-age*, *-ance/-ence*, *-ee*, *-ess*, *-ism*, *-ist*, and *-ment* are of Latin origin, but can combine with Germanic stems. The same arguments can be extended to many prefixes of Latin origin (e.g. *co-*, *dis-*, *non-*, etc.) This means that the new Latinate Constraint does not prohibit combinations which are actually attested, and in this respect it is more adequate than the old one. On the other hand, one can notice that it prohibits too little because a great number of [+/–Latinate] suffixes may combine without restrictions with [+Latinate] and [–Latinate] suffixes. Plag (1999) however explains that the Latinate Constraint is just one among other constraints restricting possible suffix combinations.

Out of 43 suffixes Table 2 shows that 28 are [+/–Latinate], 14 [+Latinate] and 1 [–Latinate]. The only [–Latinate] suffix is the verbal *-en*.[5] There are only 4 deverbal suffixes in Fabb's list which are [+Latinate] and could possibly apply to verbal bases. These are the nominal suffixes – *ion*, *-ant/-ent*, and the adjectival *-ive* and *-ory*. This means that the new Latinate Constraint eliminates only 4 possible suffix combinations while Level ordering eliminates 155 combinations from Fabb's list. Therefore, the new Latinate Constraint imposes less restrictions to suffix combinations than level ordering. The number of suffix combinations which have to be

accounted for by some other restrictions raises to 546, a number which greatly exceeds the number of combination unaccounted for by level ordering.

On the other hand, Latinate Constraint bans all combinations of 15 [+Latinate] suffixes with roots which are etymologically [–Latinate], and 1 [–Latinate] suffix with roots which are etymologically [+Latinate]. In this respect, Latinate Constraint seems to produce restrictions which are non-existent in the classical level ordering. It is of course difficult to appreciate what would be the numerical effect of such restrictions. It is therefore difficult to decide which theory more satisfactory accounts for the combinability of suffixes as their effects are quite different. Level ordering gives rise to ordering paradoxes, but at the same time with some success interweaves phonological rules with word formation rules. Latinate Constraint does not have as a consequence any paradox, but also does not provide interweaving of phonological and morphological rules. [+/–Latinate] suffixes may be both level 1 and level 2 suffixes, i.e. they differently influence the position of stress in the derivatives. The suffix -ize is [+Latinate], but it is a level 2 suffix, that means neutral in respect to the stress. Therefore, there seems to be pretty much a matter of balance between weak and strong points in comparing the new Latinate Constraint and Level Ordering.

A closer look shows that this is not the case. If we primarily keep in mind the interface between morphology and phonology, Latinate Constraint is absolutely inadequate as far as English is concerned.[6] Plag (1999) rightly insists that particular phonological, semantic and pragmatic restrictions must be established independently for each suffix, but nevertheless in some cases he applies Latinate Constraint and blocking as proper general constraints. It seems that Plag resorts to Latinate Constraint when he is not sure that any other constraints are convincing enough. For example, he invokes Latinate Constraint to exclude the possibility of the suffix pair – en-ive since the deverbal suffix –ive is classified as [+Latinate]. But such a classification of -ive is possible only if we disregard the word talkative and similar coinages which are quite usual in American English (Marchand 1069: 317). This raises a doubt that the application of the new Latinate Constraint involves a vicious circle – the classification of the suffixes is made on the basis of the same data which are claimed to be accounted by it. The deverbal suffixes of Latin origin can be classified as [+Latinate] only if they do not pair with -en. The use of the new Latinate Constraint to exclude the verbs in -en from the domain of some deverbal [+Latinate] suffix is a clear case of a vicious circle. We can corroborate this argument by another fact shown in Table 2. There are 17 suffixes of Latin origin which are [+/–Latinate], and 15 suffixes of the same origin which are [+Latinate]. Why are they different? The Latinate Constraint according to which [+/–Latinate] suffixes may combine with [–Latinate] suffixes, while [+Latinate] cannot, shows that the etymological criterion is not a decisive factor. The new form of Latinate Constraint could have explanatory value only if it is possible to detect what structural difference exist between these two groups of suffixes of Latin origin.

5. The case of prefixes

In this paper I have so far dealt with suffixes, but it may be useful to cast a brief look at prefixes because in English they behave quite differently from suffixes. In various dictionaries different, sometimes very long lists of prefixes are given, in which often no precise distinctions between prefixes and combining forms are made. For this reason, it is convenient to consider the list of Prćić (1993), who elaborated a set of criteria on the differences between prefixes and initial compound forms in English, and proposed a list of prototypical, more productive prefixes. For each prefix of his list I noted the origin and assigned the Latinate features as follows:

1. anti-, Latin origin, [+/–Latinate] (antibody n., antifreeze n., anti-war adj.)
2. co-, Latin origin, [+/–Latinate] (e.g. co-worker n., co-player n, co-branded adj.)
3. de-, Latin origin, [+/–Latinate] (debark v., debone v., delouse v.)
4. dis-, Latin origin, [+/–Latinate] (disarm v., dislike v., disbelief n., distrust n.)
5. en-, Latin origin, [+/–Latinate] (embed, enlist, ensnare v., enliven v.)
6. ex-, Latin origin, [+/–Latinate] (exclave n., ex-wife n., ex-king n.)
7. hyper-, Latin origin, [+/–Latinate] (hyperlink n., hyperdrive n. , hypergame n.)
8. in-, Latin origin, [+/-Latinate] (in-inborn adj., inbreed v., in-depth adj.)
9. in- negative, Latin origin, [+Latinate]
10. inter-, Latin origin, [+/–Latinate] (intercut v., interlock v., interplay n.)
11. mis-, Germanic origin, [+/–Latinate] (miscreate v., mismanage v., misprint n.)
12. multi-, Latin origin, [+/–Latinate] (multilayer adj, n , multiskilling n.)
13. non-, Latin origin, [+/–Latinate] (non-being n, non-dairy adj., non-binding adj.)
14. out- , Germanic origin, [+/–Latinate] (outperform v., outbalance v., outburst n.)
15. post-, Latin origin, [+/–Latinate] (post-war adj., post-Easter adj., post-breakfast adj.)[7]
16. pro-, Latin origin, [+/–Latinate] (pro-word n., pro-skin n, pro-life adj., pro-Irish adj.)
17. re-, Latin origin, [+/–Latinate] (recast v., refreeze v., reset v., renew v.)
18. self-,[8] Germanic origin, [+/–Latinate] (self-conscious adj., self -assurance n.)
19. sub-, Latin origin, [+/–Latinate] (sublet v., n. subplot n., subkingdom n.)
20. super-, Latin origin, [+/–Latinate] (supercar n., superman n., superheat v.)
21. trans-, Latin origin, [+/–Latinate] (trans-ship v., transmake v., trans-world adj.)
22. ultra-, Latin origin, [+/–Latinate] (ultralight adj., n., ultra-short adj., ultra-red adj.)
23. un-, Germanic origin, [+/–Latinate] (unequal adj., unsure adj., unglorify v.)
24. under-, Latin origin, [+/–Latinate] (underbid v., underclothes n., underbelly n.)

Table 3 *Origin and Latinate features of prefixes*

If the prefix of Latin origin has the feature [+/–Latinate], examples with Germanic bases are given, and inversely, if the prefix of Germanic origin has the feature [+/–Latinate] examples with Latin bases are given. As Table 3 shows, almost all prefixes have the feature [+/–Latinate], the only exception being the negative prefix *in-,* which applies exclusively to Latin bases. With few prefixes of Latin origin the number of examples with native bases is rather small,[9] but drawing any limit would be arbitrary.[10] The consequence of this state of affairs is that Latinate Constraint does not ban any combination of prefixes in Table 3. In order to have some banned combinations, we should have included in Table 3 some less productive native prefixes which do not attach to non-native bases, though it is difficult to find one. A single possible choice seems to be the adjectival prefix *a-,*[11] which existed already in OE, yet we would have to ignore few examples with Latin bases like *aflame, aflower, adance, atremble, aquarter.* In such a case we should be able to say that Latinate Constraint does affect the ordering of prefixes, i.e. bans the combinations of the prefixes *in-* with stems beginning with *a-*. But again a vicious circle is involved – we can manage to find a function for Latinate Constraint only if we assign to the prefix *a-* the feature [– Latinate] ignoring the examples *aflame, aflower, adance, atremble, aquarter* with Latin bases. The evidence considered so farpoints to the only possible conclusion - the new version of Latinate Constraint involves a vicious circle without regards whether it applies to derivations with suffixes or prefixes.

The combining of synchronic criteria with a diachronic one which we find in Plag's version of Latinate Constraint is doomed to a failure. But the older, general form of Latinate Constraint does not fare much better, because almost all prefixes of Latin origin can be combined with Germanic bases. The only prefix which is strictly limited to Latin bases is the negative *in-,*

but this limitation is readily explained by blocking – the native *un-*, a level 2 prefix is far more productive and has extended its application even to some Latin bases. Booij has offered a synchronic explanation for the failure of Latinate constraint to predict the distribution of prefixes. Booij suggests that prefixes are not limited in their choices of bases because they are themselves prosodic words and like compounds may combine with elements of different origin. This explanation seems to be *ad hock* because prefixes usually do not bear stress, which is generally considered a main criterion that a segment is a prosodic word. The only way to repair the general form of Latinate Constraint is to take seriously Booij's view that it is not 'an absolute principle,' but just a strong tendency, and to give it a probabilistic interpretation. It is not certain that this rendering of the constraint will be very attractive because each affix may be assigned different percentage indicating the probability of its attaching to Germanic and Latin stems.

The particular problem is that the application of Latinate Constraint does not have much purpose in the area of prefixation because prefixes rarely heap up on each other. A different stand has been taken by Lieber (2003: 170) who argued that "aside from the particular phonological. morphological, syntactic, and semantic restrictions that affect particular affixes, there are no general and purely linguistic limits on derivation." Analyzing successive suffixations, Lieber found that the lack of content of transpositional suffixes limits recursivity: at a certain point further transposition is not any more useful or informative. In order to continue indefinitely, affixation must be useful by providing new information. Lieber finds that this is in principle possible with prefixes *re-*, *over-*, *pre-*, *post-*, *super-* and *mega-*, whose repetition has intensifying effect and is useful in this respect. This kind of prefixes lends themselves to scalar interpretation which makes augmentation and repetition possible. The only example she gives is the item *re-retest* heard at a radio station. A similar view is expressed by Lehrer (1995), who admits that a scan of desk dictionaries does not provide any example, but still insists that some combinations of different prefixes are possible. The most acceptable of her examples are *ex-vice-president* n. and, to a lesser degree, *misreattack* v., but the others are rather improbable.[12] Lehrer assumes that some combinations of prefixes, although perfectly intelligible, may be avoided for pragmatic and stylistic reasons. Inspired by Hay (2003), I would like to suggest another explanation. The meaning of prefixes are usually quite abstract, and the addressee may find it difficult, or even impossible, to process two abstract meanings in succession.[13] In such a situation the reader has a much easier task than the listener because of time pressure.

To sum up: the application of Latinate Constraint either to suffixation or prefixation involves a vicious circle. On the other hand, the possible effects of Latinate Constraint on prefixation is greatly reduced because prefixes rarely stack up on each other. In fact, the application of Latinate Constraint does not have much purpose in the domain of prefixation, and, on the other hand, Level ordering is involved there in paradoxes. The restrictions in prefix stacking are probably connected with the difficulty of processing two abstract segments in succession, but this is an area which must be left to future research.

Notes

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[1] The previous version of this paper was read at the 18th International Symposium on Theoretical and Applied Linguistics in Thessaloniki in May this year. I thank an anonymous review for useful comments on the previous version. The responsibility for what I did with it is of course mine.

[2] An alternative explanation Booij sees in the application of the right hand rule according to which suffixes as heads of complex words determine their category, and therefore, *ungrammaticality* is not a problem, because the head of the base *ungrammatical* is -*al."* The stem *ungrammatical* is [–native], and the prefix *un-* which is [+native] is not restricted to [+native] stems.

[3] The spelling variant -*ible* was used to anglicize possible or actual Latin words in -*ibilis,* or words with this ending have been directly borrowed from French. According to Marchand (1969) English coinage in -*ible* are rare.

[4] Plag (1999) maintains that Fabb's account is not only empirically, but also theoretically flawed. Plag agrees with Fabb that some other restrictions must be at work here, but argues that "the combinability of suffixes is not exclusively or primarily the result of affix-driven selectional restrictions", but are often determined by „base-driven selectional restrictions and general factors like blocking" (p. 63). We will not deal with this aspect of Plag's criticism in this paper.

[5] Another [-Latinate] suffix is deverbal adjectival -*y* (sleepy), but this suffix was not included in Fabb's list, although he has included the deverbal, nominal -*y* (*assembly*), which is probably less frequent – it is a suffix which is not mentioned at all in Marchand (1969).

[6] Booij (1994: 298) claimed that Latinate Constraint does not disturb the interweaving of morphology and phonology because "[-native] suffixes are often stress-shifting, and [+native] suffixes stress-neutral". But the examples of Dutch suffixes that he gave do not corroborate this claim.

[7] We can add examples *postgame* adj. AmE., *post-heating* n., *post-harvest* adj., *post-holiday* adj. (OED).

[8] In some dictionaries *self-* is classed as prefix (OED, LDCE, LPD) and in others as combining form (OALD, COED, EPD). I did not want to make an exception by omitting it from the list which was made by an other author for a quite different purpose.

[9] For *hyper-,* for example, I found just three native bases given above.

[10] In Dutch, the overwhelming majority of non-native prefixes also attach to both native and non-native bases. Booij (2002: 100) explains this 'promiscuous' behaviour by the assumption that prefixes "form prosodic words of their own". He suggests that the prefixed words are similar to compounds, in which native and non-native words can be combined freely. Some non-native prefixes became even independent lexemes as, for example, *super* in the sentence *Deze biefstuk is super* 'This steak is super'.

[11] The other possible choices are the two less productive native prefixes *be- (belittle, befriend)* and *fore (forewarn, foreman*), but these prefixes derive verbs and nouns.

[12] For example, the combination *pro-anti-government* Lehrer interprets as 'in favor of [being] anti-government'. The objection is that *pro-anti-government* means simply *anti-government*; the former expression just unnecessarily complicating the communication. Another example refers to a situation in which a student had to rewrite a paper but the teacher is still not satisfied, and may "tell the student *to re-rewite* the paper". It seems much more probable that the teacher would simply tell the student *to rewrite it again*.

[13] The example *ex-vice-president* is possible because the prefix *vice-* is unproductive, and few examples in which it does occur are more or less lexicalized. The prefixes which mean reversal, order or quantity seem

to be simple enough to make processing possible in some rare cases – the dictionaries provide such examples with the prefixes *dis-* (*disembark, disembody, disempower, disentangle, disentitle* or *disintermediation*), *re-* (*reenlist*), *over- (overreact), pre- (predispose, preengagement, presupose)* and *un- (undiscovered, unrehearsed, unsurpassable).* Whether we can add to this list the prefix *mis-* indicating wrong doing is not so sure. Even in this short list of examples, not all are very convincing. For example, in *disembark,* the noun *bark* 'ship' is obsolete in the contemporary English, in *reenlist* the verb *enlist* has a specilized meaning 'to enroll in the armed service', and in *misreact react* means 'respond to something in a particular way'. The lexicalization of the bases makes processing easier in these examples. Hay (2003) has convincingly shown that processing may have decisive impact on the understanding of complex expressions.

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