On the Productivity of the English suffixes: -ness and -ity

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Kim, Jimin. 2023. On the Productivity of the English suffixes: -ness and -ity. *SNU Working Papers in English Language and Linguistics 19, 33-48.* The sources of the differential distribution of the two nominalizing suffixes, *-ness* and *-ity,* have been examined in this study. The overall productivity status of the two suffixes between the nineteenth and twentieth century was explored. Further, Lee's (2012) proposal to employ the monosuffix constraint and the closing suffix constraint, proposed by Aronoff and Fuhrhop's (2002), to account for the differential selection patterns of the two suffixes and the case of *-ous* deletion have been reviewed with the data drawn from the *Oxford English Dictionary*. We found that over the two centuries, *-ity* has been more productive as compared to *-ness*. Also, we were able to confirm the claim relating to the monosuffix constraint, while finding a minimal number of exceptions, all being the cases of *-able* suffixation. Finally, the claims regarding the -ous deletion were not fully consistent with our data, implying the possibility of further unexplored constraints at play. (Seoul National University)

Keywords: suffix productivity, OED, monosuffix constraint, closing suffix

1. Introduction

The rivalry between the two suffixes, *-ness* and *-ity*, has attracted a lot of attention in the field of word formation (e.g., Aronoff, 1976; Riddle, 1985; Lindsay, 2012; Arndt-lappe, 2014; Lee, 2012). Several researchers have devoted their efforts to investigating the source of the difference in the two suffixes and each came up with a different proposal. For example, Riddle (1985) and Lindsay (2012) suggested that synonymy blocking might be the key driving force for the segmentation of two suffixes. Lee (2012), building upon Aronoff and Fuhrhop's (2002), attempted to account for the differential selectional patterns of *-ity* and *-ness* with the concept of monosuffix constraint.

Furthermore, with the proposal to see *-ness* as a closing suffix, a concept introduced again in Aronoff and Fuhrhop (2002), he also suggested that the case of *-ous* deletion can be accounted for by the closing suffix constraint and other relevant stress constraints. This paper aims to examine whether Lee's account matches the data of the Oxford English Dictionary (hereafter OED) neologisms between 1800 and 1999. In terms of differential selection patterns of *-ity* and *-ness* derivates, we found that the constraint-based account matches well with the empirical data in the OED for the most part. However, there were some notable exceptions to the monosuffix constraint, regarding the suffix, *-able*. This implies that there might be some particular property of *-able* that allows it to evade the monosuffix constraint. Second, regarding the case of *-ous* deletion, the picture was much blurry, which indicates that there might be further constraints at play. Overall, the current study adds moderate support to Lee's (2012) arguments.

2. Previous studies

One major strand of the research on the two suffixes focuses on their diachronic development. Gardener (2014) conducted a corpus study of the Middle English (i.e., ME) on the two suffixes and found that *-ness* was already in the English inventory of suffixes since the Old English (i.e., OE) period and by the ME period, it was one of the most common and productive suffixes. On the other hand, *-ity* was introduced in the inventory of English suffixes in the early ME, through the influx of French loan words (Marchand, 1969). At first *-ity* was predominantly attached to bases of foreign origins, but it slowly grew its productivity in terms of the type of bases it could attach to, towards the end of the ME period. Dalton-Puffer (1996) notes that the suffix *-ness* saw a decline in its productivity at the end of the ME period and into the Early Modern English, as French and Latin began to gain prestige over English. This decline coincided with the increase of derivates ending in *-ity.*

While the course of the diachronic development of the two suffixes are generally agreed upon when it comes to the Middle English and the Early Modern English period, the findings are somewhat divergent when it comes to Late Modern English and the Contemporary English. For example, Aronoff and Anshen (1998), on their research based on the OED data, find that *-ity* is more productive than *-ness* in the twentieth century. On the contrary, Baayen

(1993) finds that, based on the investigation of the Times corpus, *-ness* is more productive in the Contemporary English. Therefore, it would be worthwhile to examine the productivity status of the two suffixes in the Contemporary English and this will be one of the aims of this paper.

Another purpose of this study is to examine how Lee's (2012) attempt to account for the rivalry of the two suffixes based on the affix theories is well attested. Lee, based on a corpus-based analysis, provides support for Aronoff and Fuhrhop's (2002) monosuffix constraint, which accounts for the differential distribution of the two suffixes. According to them, there are several suffixes that do not permit the additional affixation of other suffixes. However, *-ness* is an exception to such constraints so it can be attached to the monosuffixes (Aronoff & Fuhrhop, 2002). Based on a corpus-based analysis, Lee argues for the monosuffix constraint as a mechanism underlying the different suffixation patterns of *-ity* and *-ness*. Furthermore, Lee accounts for why the suffix *-ous* is frequently deleted when *-ity* is attached, based on both the closing suffix constraints and some other constraints on stress preservation. And all these facts were well attested based on his data extracted from the WordNavigator.com. However, there is a limitation on this research, which is that WordNavigator.com does not distinguish words based on the date of their creation. In order to examine the general tendencies of suffixation in the Contemporary English, it would be more valid to look at the neologisms created between 1800 and 2000. Therefore, in this research, the data that will be examined would be the OED headwords whose first attestation falls between 1800 and 2000.

Two major research questions this study aims to examine are as follows:

1. How is the productivity status of *-ity* and *-ness* in the Contemporary English? Which is more productive?
2. Can the constraints proposed in Lee (2012) adequately account for the data shown in OED neologisms of the Contemporary English?

3. Data

The data employed in the current study is comprised of *-ity* and *-ness* derivates extracted from OED whose date of first attestation falls between the nineteenth century and the twentieth century. Using the advanced search mode function

of OED online, all the head words containing 'ity' and 'ness' whose date of entry is between year 1800 and year 1999 were extracted. However, these data included non-negligible number of irrelevant words, which are not *-ity*/*-ness* derivates, such as *city*. Therefore, manual cleaning to remove all the irrelevant headwords was performed. The number of resultant data is 1215 for *-ness* derivates and 1303 for *-ity* derivates.

4. Analysis and discussion

This section will be proceeded as follows. In the section 4.1., a brief examination of the overall tendency of productivity for both suffixes will be conducted. Then, in the section 4.2., claims relating to the monosuffix constraint will be explored. Specifically, a more detailed introduction on the monosuffix constraint proposed by Aronoff and Fuhrhop will be made (subsection 4.2.1.) and a verification of the monosuffix constraint employing our OED data will follow (subsection 4.2.2.). Finally, in the section 4.3., the proposal regarding *-ness* deletion will be explored. Lee's basic argument upon the phenomenon of *-ness* deletion will be briefed in the subsection 4.3.1. and the verification of such claims will be done in the following subsection 4.3.2.

4.1. Productivity status of -ity and -ness between 1800 and 2000

Before moving on to discussing Aronoff & Fuhrhop's (2002) claims on the monosuffix constraint and its exceptions, a brief examination of the productivity status of *-ity* and *-ness* in the Contemporary English (1800-2000) will be done in this section. As mentioned above, there are some divergent findings on the productivity status of the two suffixes in the Late Modern and Contemporary English. Therefore, what pattern the OED neologisms data show would be worthwhile to check. What our findings shown in table 1 suggest is that *-ity* is more productive than *-ness* for the most part of the 19th and 20th century.

While the reverse tendency is evident in the two short periods, 1860-1879 and 1960-1979, the overall picture is that *-ity* has gained grounds over *-ness*. These findings are in line with the findings of Aronoff and Anshen (1998), rather than that of Baayen (1993).

Another interesting point that can be seen is that the productivity of both suffixes seems to progressively decline, as can be observed in the figure 1 below.

Table 1. Number of *-ness*/ *-ity* derivates between 1800 and 2000

Interval	*-ness*	*-ity*
1800-1819	117	92
1820-1839	174	207
1840-1859	168	197
1860-1879	198	154
1880-1899	151	166
1900-1919	77	100
1920-1939	89	122
1940-1959	32	104
1960-1979	198	154
1980-1999	11	7

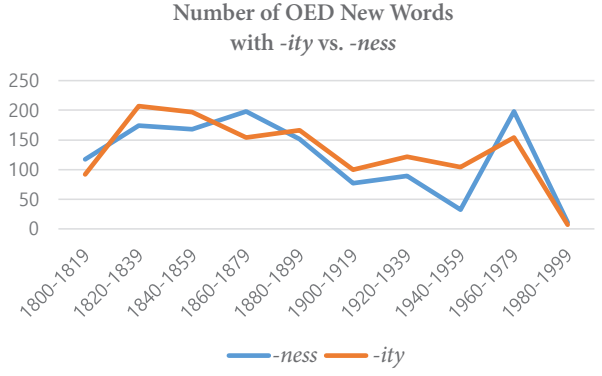

Figure 1. Productivity of *-ness* and *-ity* between 1800 and 2000

However, we cannot confirm the declining productivity of the two suffixes from our data because there is a possibility that the number of headwords might have declined altogether.

4.2. Monosuffix Constraint

4.2.1. Aronoff and Fuhrhop's (2002) monosuffix constraint

Aronoff and Fuhrhop set out to discover the reason why certain suffix combination seems to be blocked in English. Based on the examination of the suffixes attaching to Germanic bases and Latinate bases by using the OED data, they found that suffixes that select Germanic bases select unsuffixed bases. This is termed the Monosuffix Constraint. When a suffix attaches to Germanic stem, only that suffix is allowed in a given word and any other suffix cannot be attached before or after that suffix. The kind of affixes that shows this pattern includes Germanic suffixes, which include *-ed, -en, -er, -ess, -ful, -ish,* and *-less*. It also includes *-able*, which is exceptional in that it is of Latinate origin and but attaches to both Germanic and Latinate stems. Other than *-able*, it is generally assumed that Germanic suffixes only attach to Germanic stems and Latinate suffixes attach only to Latinate stems. Therefore, suffixes of Latinate origin are naturally not under the monosuffix constraint.

The tendency that the etymological distinction of a stem seems to be reflected in the selectional restrictions of a suffix is indeed widely reported in the relevant literature (Aronoff, 1976; Marchand, 1969). However, how such etymological distinction of a stem gets to affect the attachment patterns of a suffix is debated. Anshen et al. (1981) assumes that there are at least some prosodic cues distinguishing the Latinate words from the Germanic ones and that might be the underlying mechanism how such etymological difference gets to have an influence on the selectional restrictions of a suffix.

Anyways, in their research, Aronoff and Fuhrhop (2002) found only two exceptions that are found to contradict the monosuffix constraints. They are *-ess* and *-ness*. In terms of *-ess*, its suffixation to Germanic stems with *-er* or *-or* suffixes are quite well attested, which obviously contradict the monosuffix constraint. The authors concluded that *-ess* is no longer productive, probably because English does not have gender distinction. Yet, the authors imply that the violation of the monosuffix constraint might have somehow been the driving force for the loss of productivity of *-ess.*

The last exception to be explained is the case of *-ness*. It is different from the case of *-ess* in that it is still very productive and can be attached to different suffixed bases of Germanic origin. The answer the authors suggest to this is that *-ness* is the one and only exception to the monosuffix constraint.

Lee (2012) suggests that Aronoff and Fuhrhop's proposal on the monosuffix

constraint explained so far can account for the differential attachment patterns of *-ity* and *-ness*. In order to test the strength of such hypothesis, a close analysis of the OED words will be done. The claims of Aronoff and Fuhrhop (2002) predict the following:

1. Suffixes that attach to Germanic stems will only allow additional suffixation of *-ness*. And if a Germanic suffix, other than *-ness*, is found to be productively attached to an already suffixed word, it must have Latinate stem, not Germanic.
2. There will be no cases of *-ity* derivates where *-ity* is attached to an already suffixed Germanic stem.

We will explore whether the predictions suggested by Aronoff and Fuhrhop (2002) match our empirical data of OED. Of course, the match or mismatch of the data will fall short of proving or disproving their theory. However, by examining how the predictions of monosuffix constraint are borne out in the empirical data, we would be able to provide support or raise doubt about their theory.

4.2.2. Verification of the monosuffix constraint

Table 2 below summarizes the overall attachment patterns of *-ity* and *-ness*. The first column of the table lists the suffixes attached to the base before the whole base is suffixed again by *-ity* or *-ness*. The second column of the table lists whether the suffix already attached is of Latinate origin or Germanic origin.

Table 2. Attachment patterns of *-ity* and *-ness*

Suffix	Origin of the suffix	*-ity*	*-ness*
-al	Latinate	209	16
-able	Latinate	403	28
-fic	Latinate	1	0
-ous	Latinate	50	51
-ous deletion	Latinate	43	1
-ive	Latinate	113	111
-an	Latinate	5	9
-ic	Latinate	132	12

Table 2. Attachment patterns of *-ity* and *-ness* (continued)

Suffix	Origin of the suffix	*-ity*	*-ness*
-ile	Latinate	17	1
-ar	Latinate	24	0
-ine	Latinate	3	0
-esque	Latinate	1	2
-ance	Latinate	1	0
-ary	Latinate	8	8
-rel	Latinate	1	0
-ist	Latinate	1	0
-ent	Latinate	0	1
-ior	Latinate	0	1
-ese	Latinate	0	2
-ad	Latinate	1	0
-ed	Germanic	0	101
-ing	Germanic	0	40
-ly	Germanic	0	26
-ish	Germanic	0	36
-less	Germanic	0	44
-ful	Germanic	0	15
-ling	Germanic	0	1
-en	Germanic	0	9
-ern	Germanic	0	2
-ate	Germanic	0	2
-y	Germanic	2	295
-id	Germanic	10	1
-ant	Germanic	0	1
-er	Germanic	0	1
-ward	Germanic	0	2
no stem	-	209	239
Sum		1235	1058

What stands out the most is that while both *-ity* and *-ness* attach to bases containing Latinate suffixes, only *-ness* seems to be able to attach to bases containing Germanic suffixes. This is predicted from the findings of Aronoff and Fuhrhop (2002) because it was assumed that Germanic suffixes attach to Germanic stems. In other words, Germanic suffixes are restricted by the monosuffix constraint. Therefore, only one suffix is allowed in the word and additional suffixation of *-ity* is disallowed. *-ness,* as stated above, is the only exception to such constraint. This is why the data shows the cases of [[Germanic stem + Germanic suffix] + *-ness*], but not [[Germanic stem + Germanic suffix] + *-ity*].

On the surface, there are some small number of exceptions in terms of *-ity* derivates, where *-ity* is attached to [Germanic stem + Germanic stem] base. These are the ten cases of bases containing the Germanic suffix *-id* and the two cases of bases containing the Germanic suffix *-y*. However, on close look, this does not contradict the monosuffix constraint because the 12 stems suffixed either by *-id* or *-y* are all of Latinate origin (e.g., *rabid, hybrid, torrid, morbid*, and *over-rigid* for *-id* derivates; *homeopathy* and *solitary* for *-y* derivates).

This of course does not match Aronoff and Fuhrhop (2002) which predicted that Germanic suffixes only attach to Germanic stems. However, as we have seen, in the twelve cases being discussed, Germanic suffixes are being attached to Latinate stems. Admittedly, we have to accept some exceptions to the claim that Germanic suffixes only attach to Germanic stems. However, other than having to accept some marginal number of exceptions, the overall picture of monosuffix constraint seems to be highly consistent.

The second prediction we made was that in the case of *-ity* derivates, *-ity* cannot be attached to an already suffixed Germanic stem. There will be no cases of *-ity* derivates where *-ity* is attached to an already suffixed Germanic base. The structure of such words would be as follows:

[[Germanic stem + Latinate/Germanic suffix] + *-ity*]

Such derivation is blocked, assuming the monosuffix constraint, because only *-ness* can be an exception to such constraint. Therefore, *-ity* cannot evade the monosuffix constraint. The suffix that attaches to Germanic stems would be the only suffix allowed in the word and no further suffixation by *-ity* is allowed. Generally, the prediction was borne out in the data, with only 48 exceptions out of the total of 1235 *-ity* derivates. And these exceptional cases are listed in the

table 3 below.

Table 3. *-ity* derivates that include germanic stem and intermediate suffix

Words	Origin of the Stem	Intermediate Suffix
likeability	Germanic	*-able*
cleverality	Germanic	*-al*
lovability	Germanic	*-able*
readability	Germanic	*-able*
unkillability	Germanic	*-able*
unwarrantability	Germanic	*-able*
renewability	Germanic	*-able*
sketchability	Germanic	*-able*
pluckability	Germanic	*-able*
unspeakability	Germanic	*-able*
liveability	Germanic	*-able*
believability	Germanic	*-able*
unbelievability	Germanic	*-able*
unweariability	Germanic	*-able*
bearability	Germanic	*-able*
stickability	Germanic	*-able*
unknowability	Germanic	*-able*
meltability	Germanic	*-able*
unsinkability	Germanic	*-able*
unthinkability	Germanic	*-able*
shareability	Germanic	*-able*
driveability	Germanic	*-able*
unworkability	Germanic	*-able*
nameability	Germanic	*-able*
filterability	Germanic	*-able*
mailability	Germanic	*-able*
unlovability	Germanic	*-able*

Table 3. *-ity* derivates that include germanic stem and intermediate suffix (continued)

Words	Origin of the Stem	Intermediate Suffix
hardenability	Germanic	*-able*
findability	Germanic	*-able*
stoppability	Germanic	*-able*
spreadability	Germanic	*-able*
roadability	Germanic	*-able*
bankability	Germanic	*-able*
startability	Germanic	*-able*
runnability	Germanic	*-able*
reachability	Germanic	*-able*
breathability	Germanic	*-able*
grindability	Germanic	*-able*
standability	Germanic	*-able*
packability	Germanic	*-able*
stretchability	Germanic	*-able*
loadability	Germanic	*-able*
biddability	Germanic	*-able*
browsability	Germanic	*-able*
learnability	Germanic	*-able*
fuckability	Germanic	*-able*
bouncebackability	Germanic	*-able*
hackability	Germanic	*-able*

As is obvious from table 3, all of the 48 exceptions to monosuffix constraints are those that contain *-able* as an intermediate suffix. Aronoff and Fuhrhop (2002) briefly mentions the unusual character of *-able* because it can exceptionally productively attach to both Germanic stems and Latinate stems. However, they did not predict *-able*'s unusual behavior that is shown in the table 3. Table 2 and Table 3 shows the following facts:

1) *-ity* rarely attaches to stems of Germanic origin.
2) If *-ity* attaches to stems of Germanic origin, the stem is already suffixed by additional suffix, *-able*.

Considering also the fact that *-able* is the only suffix that attaches both to Germanic and Latinate stems, it could be possible to hypothesize that when *-able* attaches to Germanic stems, it makes the property of such stems Latinate. If this is the case, it can be easily understood why *-ity* can attach to such bases containing Germanic stems and additional suffixes, albeit the violation of monosuffix constraint. Indeed, it would not be an exception anymore, because [Germanic stem + *-able*] would no longer be Germanic in nature, thereby no longer relevant to the conditions given in the monosuffix constraint. Further study to confirm this hypothesis is called for, of course.

4.3. The Case of *-ous* Deletion

4.3.1. Lee's (2012) proposal to see -ness as a closing suffix

Lee's (2012) another major proposal was to posit *-ous* as one of the closing suffixes in English. According to Aronoff (1976), words such as *gloriosity* does not exist because we already have the word glory which is of the same meaning. He explains that since *-ous* attaches to already existing abstract nouns, adding the additional suffix *-ity* to convert it to an abstract noun would be unnecessary. Aronoff calls it the synonymy blocking. That is, if we already have a word that contains adequate meaning, we do not make additional derivatives that have the same meaning. However, synonymy blocking alone does not capture the whole picture of *-ous* deletion, which is why Lee (2012) came up with the alternate theory of closing suffix.

Based on Aronoff and Fuhrhop (2002), he claims that *-ous* is a closing suffix. Therefore, it can only attach to the base as a final suffix. For this reason, if another suffix is attached after *-ous, -ous* needs to be deleted. This way, he could account for the reason why *-ous* is dropped when *-ity* attaches to the base containing it.

However, there were some cases where *-ous* is preserved, even when *-ity* attaches to the base containing it. And to explain for this, he draws on the Paradigm Uniformity constraint (hereafter PU) suggested by Raffelsiefan (2005). According to him, words of derivational relation should have the same stress. However, *-ity* is assumed to assign stress to the syllable immediately

preceding it. Naturally, in some cases, these two conditions are bound to clash. For example, in the case of *curiosity*, its base *curious* has primary stress (i.e., /ˈkjʊriəs/). According to the Paradigm Uniformity condition, its derivate also needs to have stress on it initial syllable, /ˈkjʊ/. However, according to the constraint on *-ity* derivates, the syllable immediately preceding *-ity* must bear stress. Therefore, these two conditions clash. Lee suggests that in these cases, *-ous* is not dropped, allowing both conditions to be met within the same word.

4.3.2. Verification of Lee's (2012) claim

In order to test this idea, we need to see the cases of *-ity* derivates that contain *-ous*. Table 4 contains the list of *-ity* derivates that do not drop *-ous*. The total number of words is 30. We have omitted 21 cases where OED does not provide the IPA symbol for its base word. (In most of such cases, the IPA was not provided because the word is too rare or obsolete.)

Table 4. IPA for *-ity* derivates that do not drop *-ous*

Words	IPA for the whole word	IPA for the base
Grandiosity*	/ˌgrændiˈɑsədi/	/ˈgrændiˌoʊs/
Vinosity*	/vəˈnɑsədi/	/ˈvinəs/
Ambagiosity*	/æmˌbeɪdʒiˈɑsədi/	/æmˈbeɪdʒəs/
Gaseosity*	/gæsiˈɑsədi/	/ˈgæsiəs/
pluviosity	/ˌpluviˈɑsədi/	/ˈpluviˌoʊs/
Stupendosity*	/ˌst(j)uˌpɛnˈdɑsədi/	/st(j)uˈpɛndəs/
Overscrupulosity*	/ˌoʊvərˌskrupjəˈlɑsədi/	/ˌoʊvərˈskrupjələs/
lachrymosity	/ˌlækrəˈmɑsədi/	/ˈlækrəˌmoʊs/
vociferosity	/vəˌsɪfəˈrɑsədi/	/vəˈsɪfərəs/
varicosity	/ˌvɛrəˈkɑsədi/	/ˈvɛrəˌkoʊs/
Multitudinosity*	/ˌməltəˌt(j)udnˈɑsədi/	/ˌməltəˈt(j)udnəs/
self-luminosity*	/ˌlumənˈɑsədi/	/ˈlumənəs/
rugulosity	/ˌrugjəˈlɑsədi/	/ˈrugjəˌloʊz/
foliosity	/fəʊlɪˈɒsɪti/	/fəʊlɪˈəʊs/
ludicrosity	/l(j)uːdɪˈkrɒsɪti/	/ˈludəkrəs/
Pecuniosity*	/pəˌkjuniˈɑsədi/	/pəˈkjuniəs/

Table 4. IPA for *-ity* derivates that do not drop *-ous* (continued)

Words	IPA for the whole word	IPA for the base
Punctiliosity*	/ˌpəŋ(k)ˌtɪliˈɑsədi/	/ˌpəŋ(k)ˈtɪliəs/
protuberosity	/prəˌt(j)ubəˈrɑsədi/	/prəˈt(j)ubərəs/
melanosity	/ˌmɛləˈnɑsədi/	/ˈmɛlənəs/
Strenuosity*	/strɛnjuːˈɒsɪti/	/ˈstrɛnjuːəs/
Prodigiosity*	/prəˌdɪdʒiˈɑsədi/	/prəˈdɪdʒəs/
Bulbosity*	/bʌlˈbɒsɪti/	/ˈbəlbəs/
Monozygosity*	/ˌmɑnəˌzaɪˈgɑsədi/	/ˌmɑnəˈzaɪgəs/
Nacreosity*	/ˌneɪkriˈɑsədi/	/ˈneɪkriəs/
microporosity	/ˌmaɪkroʊpəˈrɑsədi/	/ˌmaɪkroʊˈpərəs/
numinosity	/ˌn(j)umənˈɑsədi/	/ˈn(j)umənəs/
macroporosity	/ˌmækroʊpəˈrɑsədi/	/ˌmækrəˈpərəs/
ostrobogulosity	/ˌɑstroʊˌbɑgjəˈlɑsədi/	/ˌɑstroʊˈbɑgjələs/
Penecontemporaneity*	/ˌpinəkənˌtɛmpərəˈniɪdi/	/ˌpinəkənˌtɛmpəˈreɪniəs/
radio luminosity	/ˌreɪdioʊ ˌlumənˈɑsədi/	/ˌreɪdioʊˈlumənəs/

On close analysis of the data, it was confirmed that 15 out of 30 cases did not conform to Lee's analysis based on PU and the constraint on *-ity* derivates. These cases were marked with aesterik (*) on the leftmost column of table 4. Based on this, it seems that our findings seem to partly contradict to Lee (2012). However, as Lee himself admitted, constraints on stress are not absolute and may be compromised due to other stronger constraints. Therefore, it might be true that the two constraints are the real reason for the case of *-ous* deletion but sometimes they are compromised due to some other hidden constraints. Therefore, a future study to find further constraints determining the case of *-ous* deletion is called for.

5. Conclusion

In this paper, we examined the explanatory power of Lee's (2012) proposal on *-ity* and *-ness*' selectional distribution, building upon Aronoff and Fuhrhop

(2002). Based on the OED neologisms registered between 1800 and 2000, we examined whether the theory of monosuffix constraint can adequately account for our empirical data. The overall performance was highly satisfactory, with some exceptions of *-able*. While it was predicted that Germanic stems cannot attach to two suffixes, there were some 48 cases where Germanic stems attach to *-able*, and again attach to *-ity* (i.e., [[Germanic stems + *-able*] + *-ity*]). Since the number of the exceptions was non-negligible and the pattern was strikingly consistent, a new constraint pertinent to *-able* was proposed. The hypothesis is that when *-able* attaches to Germanic stem, it can transform the nature of the whole base into one of Latinate. Future study on this topic is needed.

Another related issue this paper examined was the case of *-ous* deletion. Based on Aronoff and Fuhrhop's (2002) proposal that there are closing suffixes that can only attach finally (i.e., closing suffix constraint), Lee (2012) proposed that *-ous* is a closing suffix in English and can only be attached at the very end of the derivate. However, due to a possible clash between PU and some stress constraint on *-ity* derviates, *-ous* is preserved in some cases. In this paper, we examined the explanatory power of such account. We extracted 30 cases of *-ity* derivates where *-ous* is preserved in the middle and compared the stress patterns before and after the attachment of *-ity*. The results showed that 15 out of 30 cases did not match the arguments proposed by Lee. However, since Lee himself already admitted the possibility of further constraints that might come into play when determining *-ous* deletion, it cannot be a conclusive evidence to abandon the idea altogether. Rather, a further study on exploring possible additional constraints on *-ous* deletion is called upon.

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