Adjectives in -ly and their Homomorphic Adverbs:  
Measuring the Productivity of Adjectival -ly¹  
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Abstract

The suffix -ly has usually been associated with the adverb word-class, since the majority of derivational adverbs present this suffix (Quirk et al. 1985: 438). However, the history of the adverbial suffix -ly, also known as -ly², reveals the existence of a homomorphic counterpart, -ly¹, which has been used to form new adjectives, and whose origin has given rise to the appearance of the abovementioned adverbial -ly. Thus, measuring the productivity of the adjectival suffix -ly¹ after Middle English is the main aim of this paper. However, as a consequence of proving the productivity of this adjectival suffix, and checking those pairs of homomorphic words consisting of an adjective and an adverb in -ly, I will also present a hypothesis according to which the origin of some apparently derivational adverbs in -ly is found in -ly¹ rather than in -ly² by means of a process of conversion with an already existing adjective in -ly¹.

1. Introduction

The suffix -ly has usually been associated with the adverb word-class, since the majority of derivational adverbs present this suffix (Quirk et al. 1985: 438). However, the history of the adverbial suffix -ly reveals the existence of a homomorphic counterpart which has been used to form new adjectives, and whose origin has given rise to the appearance of the abovementioned adverbial -ly. The main objective of this paper is to measure the productivity of this adjectival -ly. And as a consequence of the analysis of the productivity of this adjectival suffix, a two-fold interpretation of the origin of adverbs in -ly will be explained.

In order to carry out this task, in what follows, the history of adjectival suffix, -ly¹, and of the adverbial suffix, -ly², will be analyzed, and we will see how they became homomorphic suffixes (section 2); then the productivity of adjectival -ly will be measured (section 3.2.), and a new hypothesis on the origin of the adverbial forms in -ly will be presented (section 3.3.); finally, the conclusions drawn from this paper will be offered (section 4).

2. History of adjectival and adverbial suffixes -ly¹ and -ly²

The Oxford English Dictionary (henceforth OED) refers to adjectival -ly as -ly¹, and to adverbial -ly as -ly². According to this etymological dictionary, in Old English (henceforth OE), one of the most productive adjectival suffixes was -lic, e.g. comely (OE cymlic). Adjectives ending in -lic added the suffix -e to form adverbs, so -lic + -e became a very common combination which occurred in adverbs. -lice was soon reinterpreted as an adverbial suffix and came to be used as such with other adjectives. Moreover, in the course of time, both suffixes, the adjectival -lic and the adverbial -lice, became formally identical due to a chain of phonological changes which included the levelling to /e/ of unstressed vowels, the weakening of this /e/
to schwa and its subsequent loss during Middle English (henceforth ME),\(^2\) thus becoming -ly, e.g. OE ȝecyndelic (adj. ‘kindly’)/ȝecyndelice (adv. ‘kindly’) > ME (onwards) kindly (adj.)/kindly (adv.) (OED s.v.v. kindly, adj., kindly, adv.). Therefore, due to their etymological relation and their formal identification, both suffixes must be studied in detail. The information provided in the OED about these two suffixes is summarized in the following lines:

-ly¹: it corresponds to OE -lic (-lik in Northern dialects and -lich(e) in Southern dialects in ME), which was added to nouns and adjectives to form new adjectives. According to the OED, the form -ly is thought to have developed due to the influence of Scandinavian -lig-. It began to be used in Northern and Midland dialects in the 13th century and by the 15th century it was universal. Its original meaning was ‘having the appearance of’, which derived from the noun lic (‘body’). Then, it acquired a much wider application and, when added to nouns, it meant ‘having the qualities appropriate to’, ‘characteristic of’, ‘befitting’, e.g. kingly, knightly, masterly, princesly, queenly, scholarly, soldierly, manly, womanly, beastly, beggarly, cowardly, etc. It was also used to form adjectives which referred to time, such as daily, hourly, monthly, nightly, weekly, yearly, etc. On the other hand, when it was added to an adjective, the resulting derivative adjective had a meaning related to that expressed by its primary, e.g. OE leof ‘dear’ and leoflic ‘lovely’.

Therefore, this suffix was initially used to form new adjectives from nouns and from other adjectives. However, the OED points out that this adjectival suffix probably ceased to be used in OE in the pattern adjective + -ly = adjective. If this was so, those adjectives apparently derived from this pattern from ME onwards would be the result of conversion from the corresponding adverbs in -ly.

-ly²: it comes from OE -lice, which was used to form adverbs. In OE many adverbs were formed by adding -e to the corresponding adjective (see above). -lic was a very productive suffix used to form adjectives at the time, so it was very common to create adverbs from adjectives ending in -lic. -lic + -e, -lice, early became regarded as an adverbial suffix which could be used besides or instead of -e: heardlice, holdlice (Campbell 1959: 275).

The form-history of -ly² is similar to that of -ly¹. Thus, in ME the form -lich(e) was found in the South and -lik in the North. Moreover, the form -li/-ly was current in East Midland English in the 14th century and it became universal in the 15th century. According to the OED, while -ly¹ is rarely used after OE, from ME onwards the number of adverbs formed with -ly² notably increased. In PDE it is one of the most productive adverbial suffixes (Quirk et al. 1985: 438).

3. Measuring the productivity of adjectival -ly¹

An interesting question which arises here concerns the productivity potential of adjectival -ly in post-OE times,\(^3\) that is, is the OE adjectival -ly suffix still productive from ME onwards, or are the adjectives in -ly the product of conversion from the corresponding adverbs? In order to answer this question, it was thought necessary to look for all those adjectives ending in -ly and analyze them.

3.1. Using the OED

To carry out this task, it was essential to resort to a dictionary which provided us with the dates of first records as well as with the etymology of the relevant items.

\(^2\) From now on, I will refer to this chain of phonological changes as historical evolution.

\(^3\) According to Plag (2003: 44), productivity is understood as the property of an affix to be used to coin new complex words.
The *OED* fulfilled all these requirements. However, the use of the *OED* to carry out this search could also be the object of criticism since it presents a number of important drawbacks (Mair 2004: 123, 124):

1) Pairs of adjacent sentences or syntactic fragments rather than connected passages of text are presented.
2) The same quotation can appear in different entries.
3) The number of quotations per period is not balanced.
4) The types of texts from which the quotations are taken are not always considered to be appropriate.
5) All the investigations can only be done at the clause level due to the fragmented textual input that the *OED* shows.

In spite of all these drawbacks, authors such as Sebastian Hoffmann (2004) or Christian Mair (2004: 123-125) analyze and defend respectively the possibility of using the *OED* as a historical corpus. Therefore, Mair considers that it is possible and coherent to use the *OED* as a historical corpus whenever both the object of study can be analyzed at the clause level, and a specific variety, style, or register of English does not have to be taken into account. Plag also recognizes that the disadvantages that the *OED* shows are not strong enough to disregard the use of the *OED* in productivity studies. Moreover, this author defends its use considering that it offers thorough and complete information on all the words of the language and, hence, on the development of the vocabulary of English (Plag 1999: 97; 2003: 52).

### 3.2. The productivity of adjectival -ly¹

The first step in the analysis was, therefore, to obtain a list of all the -ly adjectives recorded in the *OED*. This was done by means of the convention *ly* written in the list part. However, the resulting list included items in -ly belonging to any word-class, so it was necessary to check this list thoroughly in order to find the relevant items, namely adjectives in -ly and their homomorphic adverbs. The result of this time-consuming activity was a total of 1,288 adjectives, and 468 homomorphic adverbs (1,756 items in all).

After analyzing all these forms, and dismissing both the items which present an obscure formation (156 examples), e.g. *jelly, bebally*, and those words which have their origin in the suffix -y (281 instances), e.g. *smelly, needy*, the remaining items (851 in all) helped me to clarify the productivity of -ly¹ from ME onwards (cf. Table 1).

| 1,756 | 1,288 adj.s. | 156: obscure formation, e.g. *jelly* |
| 281: origin in suffix -y, e.g. *smelly* |
| 851: origin in suffix -ly, e.g. *helply, fondly* |
| 468 homomorphic advs., e.g. *fondly* (adv.) |

The method which I have used to measure productivity is looking for the type frequency of this suffix from 1200 onwards, taking into account only those adjectives which do not present a homomorphic adverb in order to avoid possible cases of conversion which would erroneously alter the results. This quantitative measure may be the object of criticism because it takes into account all the types, even those created during the productive period of the affix (Plag 1999: 22, 23; 2003: 52), which may not correspond to the period under analysis. Therefore, a high type frequency
could also be the result of the productivity of that affix in past stages. In view of this potential handicap, I only took into account neologisms formed from 1200 onwards, as mentioned above.

The results of my measurement of productivity are provided in the following table (Table 2). As can be seen, adjectival -ly¹ is still productive from ME onwards in the pattern noun + -ly¹ = adjective (72.13%), e.g. auntly, citizenly, authorly, whereas the pattern adjective + -ly¹ = adjective, e.g. celestly, cautionately, snaply, is less frequent (16.12%), thus less productive. The remaining 2.73% and 9.01% correspond, respectively, to those -ly items derived from word-classes other than nouns and adjectives, e.g. chokely (choke (v.) + ly), and to those formations in which the category of the base admits several interpretations, e.g. weeply (weep(n.)/weep(v.) + -ly).

<table>
<thead>
<tr>
<th>366 adjs. in -ly¹ without homomorphic adv. after 1200</th>
</tr>
</thead>
<tbody>
<tr>
<td>72.13% from a noun (264 items), e.g. auntly, citizenly.</td>
</tr>
<tr>
<td>16.12% from an adj. (59 items), e.g. celestly, cautionately.</td>
</tr>
<tr>
<td>9.01% from a doubtful word-class (33 items), e.g. mainly¹ (i-mene a. or adv.), weeply (weep n. or v.).</td>
</tr>
<tr>
<td>2.73% from other word-classes (10 items), e.g. chokely (from a verb), forthly (from an adverb).</td>
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Table 2. Productivity of adjectival -ly¹ from ME onwards.

3.3. Conversion between adjectives and adverbs in -ly

The productivity of -ly¹ after ME leaves the door open for a new hypothesis to explain the origin of the suffixed adverbs in -ly, namely conversion with an adjective in -ly¹. Thus, this adjective in -ly¹ would be an intermediate step between the adjective base and the suffixed adverbial form. In order to prove this hypothesis, the OED was, once again, used. Contrary to the measurement of the productivity of the suffix -ly¹ discussed above, in which homomorphic pairs were disregarded, this hypothesis is based on the relation between homomorphic items as regards conversion and directionality. A total of 468 homomorphic pairs which seem to have originated in a process of conversion after ME were found in the OED. After analyzing them, taking into account etymology and the dates of first records, the results are showed in the following table:
Table 3. Conversion between adjectives and adverbs

<table>
<thead>
<tr>
<th>468 -ly adjs. with a corresponding homomorphic -ly adv.</th>
<th>45.63% of the -ly adjectives derive from their homomorphic adverbs, e.g. madly, stilly (214 items).</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>38.65% of these forms have the adjective as the original form, e.g. behovely, brotherly (181 items).</td>
</tr>
<tr>
<td></td>
<td>15.46% represent those doubtful cases in which the same date is found for both the adjective and the adverb, e.g. brothely, whitely (73 items).</td>
</tr>
</tbody>
</table>

The high proportion of forms which have their origin in -ly adjectives (38.65%) demonstrates that the hypothesis according to which some suffixed adverbs in -ly could have their origin in a homomorphic adjective rather than in the adjective base plus -ly² is feasible. According to this, the possible origins of the adverbial forms in -ly are represented in the following diagram:

<table>
<thead>
<tr>
<th>A) DERIVATION: adjective base + -ly² = adverb in -ly</th>
</tr>
</thead>
<tbody>
<tr>
<td>B) DERIVATION: adjective/ noun base + -ly¹ = adjective in -ly</td>
</tr>
<tr>
<td>CONVERSION: adjective in -ly &gt; adverb in -ly</td>
</tr>
</tbody>
</table>

Thus, adverbs in -ly can derive from an adjective plus the adverbial suffix -ly² by means of derivation (A). Alternatively, an intermediate step can be found between the adjective base and the suffixed adverbial form, namely an adjective in -ly (B). This adjectival form would give rise to the suffixed adverbial form by means of conversion.

4. Conclusions

The main objective of this paper has been the measurement of the productivity of the adjectival suffix -ly¹, and its influence in the appearance of adverbs in -ly. In what follows, I will summarize all the aspects which have been discussed in the preceding sections, and I will provide the main conclusions.

a) Both the adjectival suffix -ly¹ and the adverbial suffix -ly² are related etymologically. They became homomorphic forms by means of the process which I have called historical evolution.

b) As regards the productivity of adjectival -ly¹, my analysis has shown that this suffix is still productive from ME onwards in the pattern noun + -ly = adjective.

c) The study of those adjectives in -ly which present a homomorphic adverbal form has demonstrated that the hypothesis according to which some adverbs may have their origin in a process of conversion with their homomorphic adjectives is feasible, since 38.65% of these adverbs present the adjective as the original form.

References


